

# TECHNOLOGY NEEDS ASSESSMENT

2021

## PORTERVILLE PUBLIC LIBRARY



# **Porterville Public Library Preliminary Technology Program for Construction**

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Carson Block  
Library Technology Consultant



# Porterville Public Library Preliminary Library Technology Program For Construction

August 2021



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# Porterville Public Library Preliminary Library Technology Program For Construction

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## 1 Introduction

### 1.1 Purpose

The purpose of this document is to describe the technology envisioned to support a new Porterville Public Library. This document was created as part of the 2021 Library Needs Assessment (conducted in partnership with library consultant Penny Hummel) which contains recommendations for spaces in a new community library.

This document is a Preliminary Library Technology Program, going beyond the requirements of the needs assessment, but short of a final technology program, which should be created as part of any next steps to build a new library. This document is designed to give the library and City additional momentum on the technology needs for any new library facility.

To complete this program, Carson Block met with library staff, community groups, and city administration to inform how Porterville views and uses technology to inform how the library will best equip itself to provide technology services to best suit the community.

This technology program contains Carson Block Consulting's current understanding of the various pieces of any new building project. This document should be considered advisory to any next steps in the design process – and is intended to serve the overall objectives of the Porterville Public Library, the community of Porterville, and the needs of the library's future patrons and library staff as understood by Carson Block Consulting.

It is anticipated that any future revisions of this program plan will be informed by other pieces of the design and project process and modified as needed.

The purpose of the select technology program plan is to provide direction for specific technical specifications as well as identify areas of staff competencies and support for new technology.



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## 1.2 Process

Carson Block Consulting partnered with Penny Hummel to perform a needs assessment for a new Porterville Public Library. A new library would replace the old building which was lost in a tragic fire in early 2020. It is important to the community that the firefighters who fought the fire and especially the two who lost their lives doing so are memorialized in the new building.

To start the information gathering process, Carson Block Consulting sent a survey to the Porterville Library team to learn the current status of technology in the previous library and discover some technology goals might be for the new building.

Beginning in May of 2021, Carson and Penny met with library staff to determine what resources the staff would need in a new library building.

In ordinary years, Carson would tour the library facilities in person, but due to the COVID-19 pandemic and the fire that destroyed the original building, he did not have that opportunity. Via remote engagement activities (including videoconferencing) stakeholders shared their views on the benefits and downfalls of the previous building to help shape the future of the new.

This process resulted in this report (one of several detailed reports from the consultant team), a presentation to library leadership, and a presentation to the city at a public meeting. The set of documents are designed to help guide any future building project to greatest success possible.

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## 2 Technology Vision for Porterville Public Library

### 2.1 Elements of Vision

Modern libraries are places where technology facilitates the growth of knowledge and the renewal of the human spirit.

Far from our notions of the past (including beige monitors that have faded to yellow, along with the fuzzy colors on their square, CRT screens), modern libraries contain technologies that are vibrant, ubiquitous and in sharp focus, ready to engage users of all levels and change the lives of novices and experts alike.

The new Porterville library is envisioned as a tech-forward facility, with a focus not on “flash” but on technology as one tool to accomplish community dreams.

- The library acquires and maintains technology that appropriately serves library users of all technical levels - from novice to advanced users.
- Library technology is designed with equity of access as a prime consideration. All are welcome, and all will be served.
- The library views technology as a means to an end. Technology is one tool the library uses to serve its vision, mission, and roles in the community.
- The technology experience for patrons should engender a high sense of trust from the community by being functional, available, intuitive and “frictionless.”

Additional, detailed elements of vision for technology for the library include:

The Porterville Public Library has clear vision for the application of technology to serve patrons and to be a powerful tool for staff:

#### **Aspirations for Patrons:**

“...count on the library as a valuable resource for their technology needs” and “be comfortable with their own technology, the technology they encounter in everyday life, and the tech provided by the library



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## **Aspirations for Staff:**

“...be knowledgeable and comfortable enough with technology to learn, grow, and adapt to new and emerging technology... and getting comfortable/ knowledgeable enough with it to be able to help themselves and patrons.”

The library’s vision for technology also includes **sustainability**. While it’s difficult to predict what might come next in the world of technology, we do know several things for certain:

- We will have an increasing demand on library data networks (wired and wireless), including access to the Internet and internal connections. The technology design for the Porterville library includes IT spaces and data networks that are scalable by design, to grow and adapt to serve the needs of Porterville citizens and visitors well into the future.
- It’s likely that new needs will emerge over time. The spaces designed for technology access (including public computing areas, self-service, the makerspaces, and others) are flexible by design to grow and change as needed.

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## 2.2 Guiding Principles in this Technology Program

### 2.2.1 Technology Design

To fulfill the library’s vision, the Technology Design for the library from Carson Block Consulting incorporates the following elements as a framework for the tangible tech decisions for the library.

The Porterville Public Library seeks to reflect community needs, have a strong and effective technology presence, and be user-friendly.

The Porterville Public Library will be designed to be a dynamic facility throughout its useable lifetime, with the opportunity to adapt to community needs as they emerge naturally over time. Since technology is in a state of constant change, library technology will be designed or chosen that has the highest potential for flexibility, adaptability, and scalability over time – intended to meet the current, emerging, and future needs of both library patrons and library staff.

#### 2.2.1.1 Scalable Technology: Infrastructure Designed to Adapt

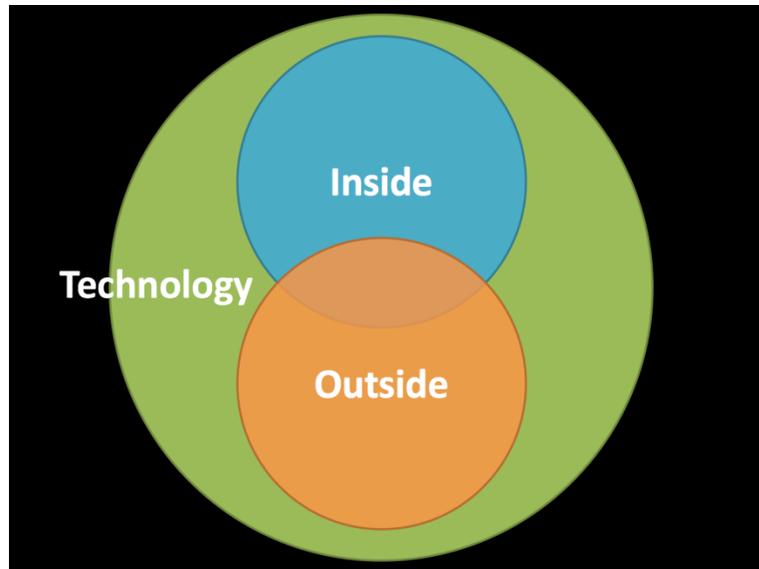
At the heart of the technology approach is making fundamental design choices that allow the library’s tech infrastructure to and adapt over time. Although it’s difficult to accurately predict specific technology futures, there are some things that are certain -- as the need for scalable and flexible infrastructure.

Modern libraries think of their services in three different delivery channels.

The **Inside** Service Channel

encompasses all of the things that happen within the library walls, including collections, spaces for people, programs, and more.

The **Outside** Service Channel encompasses things that happen outside of the library walls.



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The **Technology** Service Channel is unique in that it serves the other two service channels and is also an entity unto itself.

At the Porterville Public Library, these service channels bridge in several significant ways:

#### ***2.2.1.2 Inside Technology Experiences Designed to Delight and Support Users***

- Self-Service, including self-checkout options for patrons
- Powerful WiFi coverage for patrons and staff throughout the library (as well as coverage outdoors)
- Wireless printing
- Mobile Devices for patrons to use throughout the library
- Public computer workstations
- Skill-building opportunities reflecting the needs of the community through makerspaces
- Special computers for Children
- Enhanced Audio-Visual Systems for meeting rooms
- Hearing Loop in key areas to allow for greater intelligibility of audio for users of hearing assistive devices
- Meeting rooms designed for library programming and public meeting space for community organizations
- Fax services handled via library staff for patrons

#### ***2.2.1.3 Outside Technology Experiences Designed to Delight and Support Users***

- Robust WiFi Coverage and device charging locations in public areas outside of the library
- Book locker for holds pickup near the library entryway



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## **2.2.1.4 Systems to Create Operational Efficiencies**

- Modern VOIP (Voice Over IP) telephone system
- Automated gate counters for tracking people coming into or out of the building (the library is considering a possible new system)
- Access control system for secure keyless access to non-public areas
- Security Cameras

## **2.2.2 Efficient Use of Resources**

As a member of the San Joaquin Valley Library System (SJVLS), Porterville has access to a wealth of resources. This includes the provision of and support for the library's Integrated Library System (ILS), technology assistance, assistance with funding, and shared electronic resources.

The library will leverage its investment in technology via the Federal Universal Service Fund - better known to libraries and schools as "E-rate" - to secure discounts on eligible technology services related to Internet access and some network components. Assistance with E-rate finding is a service provided by SJVLS.

Upon final approval, the library may receive a discount of at least 80-percent<sup>1</sup> on eligible services and equipment, which helps ensure ongoing sustainability of core technology infrastructure. With that core technology infrastructure designed with scalability and flexibility in mind, the combination of the design and ongoing funding elements create an ideal environment for the long term.

As of summer of 2021, the library may also be able to leverage funds becoming available from the California State Library as part of American Recovery Act (ARPA) funding. If helpful and allowable, the library may choose to implement one or some of the recommendations in this report (as appropriate) in the library's temporary spaces.

Assistance facilitated by partners and available from federal, state, and local sources from will be invaluable in rebuilding and refitting a library that will suit Porterville's needs.

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<sup>1</sup> As of the writing of this report, SJVLS was in the process of retaining a new E-rate coordinator, thus could not confirm the library's exact discount rate.



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## 3 Technology Recommendations

The next sections of this document address overall technology recommendations for the Porterville Public Library. These items are priority considerations and are presented here in no particular order. Through the design process it is possible that other needs not yet listed here will emerge.

The sections include:

- 4: General Technology
- 5: Enterprise Technology
- 6: Staff Technology
- 7: Patron Technology
- 8: Audio/Visual Systems
- 9: Innovation Opportunities

These items are offered for review by appropriate members of any future project team, including the Library, the City of Porterville, and any architect team. Recommendations are based on assessment activities performed by the consultant.

Visual descriptions of the recommended technology are included in Appendix C of this document.

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## 4 General Technology

### 4.1 Specialized Technology

#### 4.1.1 Makerspaces

The consultants recommend that the library include several makerspaces reflective of community needs. Responses from the community survey indicate a strong interest in the following potential activities for a makerspace:

- A media makerspace that supports recording and editing video, audio (such as podcasts) and recording music (56.81% of respondents)
- A high-tech maker space that has 3D printing and design capabilities and other high-tech items (55.86% of respondents)–
- A makerspace that offers papercrafts, scrapbooking materials, and similar activities (53.58% of respondents)

With those top responses, the consultants recommend two separate spaces: a *Creation Space* that can incorporate both the high-tech items and provide flexible workspace for the lower-tech maker desires; and a *Media Lab* to fulfill the desires of the community for audio visual creation. Additionally, to build upon Porterville's rich history and current involvement in food and agricultural sciences, the consultants also recommend a *Teaching Kitchen* space in the library for both library and public use.

Final design of makerspaces will require further development by the library, starting with the vision for the makerspaces and how library programming and staff will support that vision through activities and equipment.

##### 4.1.1.1 Creation Space

The Creation Space will need to support a variety of programming for the library, so having a large space will be very important to offer the most options. Some high-tech items require stability, and those should be placed on secure, fixed cabinets or tables around the perimeter of the room, allowing the majority of the space to be flexible. Tables and chairs on lockable wheels can be used in a variety of configurations and for both high- and low-tech programming.

A large screen mounted on the wall and with a variety of connection options can give programming several means of demonstration or examples: as a live feed to demonstrate to an in-person or remote audience; as a display to show pre-recorded videos or online sources to demonstrate crafts or teach a



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skill; as a digital gallery of items designed or made in the Creation Space; or as digital signage when not in use to advertise other library services and programs.

These needs may change prior to construction, so the consultants recommend the library conduct further research to determine the most desirable components for the Creation Space.

#### **4.1.1.2 Media Lab**

The Media Lab will address the community's interest in audio/visual creation. For visual creation, the library may offer a rig with a camera, microphone, and tripod. The library may consider a green screen for video recording options, as well as lighting that may move on wheels or tracks to offer dynamic studio options.

An audio-creation area should feature space enough for multiple players with instruments, as well as more intimate recording opportunities for podcasts or local history interviews. This audio space should offer sound dampening from outside noise.

To complete the media lab there should be multiple computer stations that have the processing power and necessary software to offer full audio and visual editing capabilities. The computers should have robust storage that can save multiple projects at one time, as well as secure on-site storage options for ongoing projects of both patrons and staff.

#### **4.1.1.3 Teaching Kitchen**

Though it did not come up in the survey, the consultants observed that Porterville has a rich food culture and wanted to be able to feed off that for library services as well. The teaching kitchen would feature enough space for classes on different food preparation methods, as well as job training for culinary arts hopefuls.

### **4.1.2 Special Requirements for the Makerspaces**

The library's makerspace program and equipment list is in development as of the publication of this program (August 2021). The focus for the space is to help community members build skills.

Generally, as a dynamic, multi-use area, the maker space should be designed with the utmost flexibility in mind:

- The overall design should follow general principles seen in workshops of all varieties – with adequate space for people and equipment.



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- Power access should be generously placed throughout the space, including perimeter wall areas, on building support pillars, and from the ceiling when possible. Floor power is possible unless a drain for liquids is included in the design.
- The space should support both wired and WiFi data access.
- All furnishings should be extremely durable and easy to move/reconfigure (mounted on wheels that are lockable to fix tables in place. Chairs should be durable, sturdy, and as lightweight as possible.
- Wherever possible, space should be allocated for counters with durable tops and cabinet storage underneath. Most maker equipment in libraries is placed on countertops.

Although the program and equipment list has not yet been defined, proper ventilation is a must, and special air handling methods (such as ceiling grid systems that allow for localized and changeable venting of fumes from “make” devices in different areas of the room) is highly recommended.

## 4.1.3 Staff Readiness

The new library is an exciting opportunity for both patrons and staff. With a brand-new building comes the ability to build with future use in mind to make the space full of opportunities for community growth.

The library’s leadership and staff are exceptionally tuned in to the opportunities and potential for change. These building design activities have been well-informed by library leadership and staff giving quality thought to changes in operations that will be needed in the new building.

Even so, in the significant activity required to build and prepare a new building, cohesively anticipating all of the immediate and longer-term library operational needs in a new facility can sometimes be pushed into a lower-priority position. This situation is common for many libraries, and those who are not able to carve out the time to anticipate and provide for operational changes often find themselves in a difficult and reactive mode in the early stages of new library operations. Those who have been able to devote analysis, planning and documentation time find that the new ideas discovered throughout the design process can be organized to create a plan that anticipates the majority of new needs. While it’s impossible to anticipate and plan for every possible scenario, this process allows the library to prepare for known needs and opens up time and energy to meet unanticipated needs during the transition and in the early weeks of opening the new library.

The consultant encourages the library create a carve out time following any formal architectural design process to plan for its transition to the new building by:



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- 1) Briefly documenting how staff cover operations and services in the current temporary library space (creating a description of “current state”)
- 2) Detailing coverage and service needs in the new building (a description of “future state”)
- 3) Identifying any possible gaps (and documenting those gaps)
- 4) Design solutions (including operational efficiencies, automation, new staff and other options) and identify resources to cover any possible gaps

In particular, the consultant recommends the library focus on:

- The differences between covering a small space and the expanded spaces envisioned for the library in terms of creating a cohesive customer experience
- Differences in overall management of technology (*In the process of technology design, the consultant has urged solutions that automate library staff operations as much as possible; still, even automation systems need some attention in the new building*)
- Departmental responsibilities, and interactions between departments
- Flow of staff communications, including any emergency response needs
- Other areas as identified by the library



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## 5 Enterprise Technology

This section addresses enterprise technology recommendations for the Porterville Public Library. These items are priority considerations and are presented here in no particular order. Through the design process it is possible that other needs not yet listed here will emerge.

### 5.1 General Note for Installers

Installers should field locate devices and drops before installation as a double-check on and verification of the locations specified in floor plan diagrams. Installers should coordinate with general and electrical contractors.

### 5.2 Power Access for Patrons

Patrons should have easy, safe, and ergonomic access to power (standard and USB, including USB-A and, if possible, USB-C) in any seating areas. These areas include traditional tables; study carrels; furnishings that hold library computers; comfortable seating; and other areas.

### 5.3 Backup Power

All IT spaces (including the Master Distribution Facility - MDF and any needed Independent Distribution Facilities - IDF) should have suitable battery-backup Uninterruptible Power Supply units to ensure continuity of power during brief power outages. The units selected should also regulate voltage within acceptable parameters (+ or – 5%) for attached equipment.

### 5.4 Structured Cabling and IT Spaces

Given the size of the proposed building (possibly exceeding the 100-meter limit of data cable), the library may require both an MDF (Main Distribution Facility) and an IDF (Independent Distribution Facility). The IDF and MDF should be connected via fiber.

The MDF will need to be of adequate size to house the following items and functions:

- Ethernet terminations
- Switches
- Telecommunications/VOIP equipment
- Servers
- UPS



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- Room for future growth/scalability
- Other items as designated by the Library, City IT, SJVLS, and any other partners in the IT space

If an IDF is required, it is currently envisioned as a small satellite room or space (such as a wall-mounted equipment rack). It would will need to be of adequate size to house the following items and functions:

- Ethernet terminations
- Switches
- UPS
- Other items as designated by Library, City IT, SJVLS, or other IT partner.

The design of all telecom rooms should include appropriate control of the room environment (including temperature and humidity) and enterprise approaches to security, fire suppression, equipment racks & wiring support, room-to-room conduits, uninterruptible power supplies, and review of any non-compatible uses of the telecom rooms, including any utilities. All equipment in the room should observe proper clearances for access. Each room should be designed to have capacity to grow to support new needs over time, and/or to allow for equipment reconfiguration, concentration or moves over time. IT areas should have access flooring when possible.

Additional design references (not included in this report) include:

- [ANSI/TIA-569-E TELECOMMUNICATIONS PATHWAYS AND SPACES](#)  
This is the Telecommunications Industry Association's standard for the design of buildings that host telecommunications systems of all kinds.  
[<https://blog.siemon.com/standards/ansi-tia-569-e-telecommunications-pathways-and-spaces>]
- BICSI Telecommunications Distribution Methods Manual  
This manual is "the definitive reference manual for telecommunications and information communications technology infrastructure design." (bicsi.org)  
[<https://www.bicsi.org/education-certification/education-@-bicsi-learning-academy/technical-publications/telecommunications-distribution-methods-manual> ]



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## Data network endpoints

Network designer should:

- Assume 3 drops per office workstation (PC, Telephone, and printer); some offices may require more or less
- Endeavor to incorporate a 25% overage of data drops in areas of computer density (such as desks and labs) for instance: if 4 pcs are planned for a single location, one extra drop should be added for possible future use. The need may vary depending on location and use.

## 5.5 Cell system repeaters/signal boosters

If cell signals are weak from inside the library building, the consultant recommends that devices to repeat/boost commercial cell carrier signals be placed in the library. If pursued, specifications and pricing for this item may fall to Library, City IT, or project MEP.

## 5.6 IT Spaces

### 5.6.1 IT space – MDF and IDF

The consultant recommends an MDF (Main Distribution Facility) and, depending on building size, an IDF (Independent Distribution Facility) for the new library. Please see 5.4 above and appendix addressing structured cabling needs.

### 5.6.2 Main Distribution Facility

The consultant recommends that room sizing be based on (minimally) a single four-post rack to serve current and future needs. Four-post racks are approximately 2' wide X 4' deep (each) and require adequate space on front, back and sides for normal activities (including adding and removing network equipment).

The room shall have normal and standard design features, including secure access; a non-static environment; proper cable relief and management; temperature and humidity control; acceptable fire suppression technique or system; and other areas as defined by the Library, City of Porterville IT, SJVLS or other technology partner (such as project MEP). For other room specifications, please see Appendix: Sample Technology Specifications for Construction and see the documents referenced.

This space allocation request is dependent on the creation of adequate space for Library IT Staff (please see 5.6.3 below).



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## 5.6.3 IT Staff Space

The new building offers the opportunity to design adequate spaces for desk tasks and work on equipment that go beyond the proposed 2021 library program. In addition to individual desks, possible items include:

- Workbenches: (1) benches (1 per IT staff)
- Dedicated library technology storage (10' X 20' suggested; needs easy in/out access and cart)
- KVM switching capabilities and multiple monitors

## 5.7 Data Networks

The new Porterville Public Library requires a deliberate and strategic approach to design and implement the data network, to serve the current needs of the community and accommodate future connectivity needs.

The network will support internal services, including public access to the Internet, staff access to internal and external resources, the needs of A/V, and others

The library network will be designed to handle several primary functions, including:

- General data access (Including Internet access) for staff and public
- 802.11x wireless inside the building and selected areas outside of the building
- Telephones (including analog lines as needed for alarm systems, fax machines and other possibilities)
- Audio/visual systems
- Video security systems
- HVAC controls
- Access controls
- Network management
- Vendor access (to the Internet)
- Secure transactions for endpoints requiring PCI Compliance
- ...and perhaps other uses.

The network will require network configuration that provides for the functions described above, and perhaps others as the project continue. VLANS, separate network systems, or other methods are sometimes required to meet the needs of the library.

### Data network endpoints:

Network designer should:



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- Assume 3 drops per office workstation (PC, Telephone, and printer); some offices may require more or less

Endeavor to incorporate a 25% overage of data drops in areas of computer density (such as desks and labs) for instance: if 4 pcs are planned for a single location, one extra drop should be added for possible future use. The need may vary depending on location and use.

## 5.8 802.11x (WiFi)

Data networks for the library should be designed to scale by design in both the core wired network and the 802.11x wireless network. Ease of scalability in the 802.11x network is especially important -- it is anticipated that trends of increased demand for public 802.11x wireless will continue. Carson Block Consulting recommends systems from companies such as Meraki, Ubiquity and many others that allow for instant, controller-less routes to scalability.

802.11x wireless design should assume coverage density in any areas of congregation including public seating, computer labs and other spaces.

802.11x wireless design should include a secure staff network that would support models of service requiring staff mobility. Design of the wireless network should consider availability of robust 802.11x "Wi-Fi" access in designated areas outside of the building.

Carson Block Consulting recommends that the library record use statistics, and in particular explore ways to use the wireless system to enable recording patron use of wireless. The resulting system should have the capability to measure and report appropriate and relevant network metrics including bandwidth use. Network equipment should have secure means for remote management. Staff and public networks should be separated from each other via VLANS or other means. It's essential that 802.11x equipment have the capability to measure and report patron usage of the network.

Please see the appendix section of this document for other relevant information concerning data networks.

## 5.9 Telephones

The library will most likely use the same phone system as the city; if so, City IT should lead the needs analysis and procurement of telephones for staff, including wired and wireless handsets.

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## 5.10 Security Cameras

The architect's MEP contractor or other project partner in any new building project may lead the selection and design of a security camera system. Suggested design specifications are below.

### 5.10.1 Exterior

A security camera system should be set up outside the building so that all areas outside the library proper can be viewed twenty-four hours a day. This would include parking lot, grounds, etc. This system should feed to all staff computers as well as be accessible to home viewing by designated secured staff. The library wants patrons and staff to feel secure at all times.

### 5.10.2 Interior

Internal security camera system should be installed throughout the building so that all areas can be viewed by staff. Feed should go to designated staff computer workstations, as well as be accessible to view by designated staff outside the building via computer or other device.

### 5.10.3 Consultant Recommendations

Carson Block Consulting recommends that the library create a library-specific policy for security cameras based on American Library Association principles and local laws & practices. An example of a policy (from the Poplar Creek Public Library District) is here:

<http://pclub.org/sitemedia/documents/policies/security-camera.pdf>.

## 5.11 Access Control

The library will likely use an Access Control System as administered by the Library or City IT. The core system may be designed by the city (or perhaps project MEP) and administered by the city or library, including responsibility for managing the system, including configuring fob/card access for staff. It is possible that a library staff member will bear some responsibility to assist in programming the access devices (using the vendor's layperson-friendly software), including authorizing specific access authority, adding, and terminating all access.

The library, City IT and architect will work together to define areas requiring card access.

## 5.12 Radio Frequency Identification (RFID)

The library uses RFID for circulation and security for physical materials. The library has been provided with design specifications to prepare for RFID implementation in any new building. Supplementary documents will include some sample documents from 3M regarding a smart return and security gates



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utilizing RFID technology. Although 3M sold its RFID division to another vendor, the general specifications that they published remain useful in RFID design.

## 5.13 Gate Counters

The library should consider an automated “people counting” system that would collect data at the most common point (entry and exit) but also could be installed in other areas of the library that would merit measures of patron traffic, using automated collection and display methods that would provide a “dashboard” showing traffic in multiple areas of the library.

In many libraries, the sometimes-problematic break-beam systems of the past few decades (that count the number of times an object passes through a laser beam shot across an entry way) have been replaced with more accurate technologies.

New systems employ infrared sensors, video cameras or both, are mounted over the door on top of the frame and produce much more accurate counts than laser beams. Video feeds are kept anonymous because they are parsed by a computer algorithm to identify and count the number of bodies passing through the door frame using differences of light and color. In some cases the algorithm triangulates this data with an infrared scan to increase accuracy.

Data from break-beam systems often had to be read from a physical counter on the gate itself and entered by hand into a spread sheet. Newer devices are networked and can communicate their counts over a wireless or wired connection.

Break-beam systems often had expensive custom batteries. Staff only found out batteries needed to be replaced when they devices stopped counting. New devices connected to a wired network are powered by POE technology (Power Over Ethernet) and don’t require an external electricity drop. Wireless devices will require external power located near the device.

Vendors such as Axis, SenSource, Density, Traf-Sys and We Count People will quote the library devices with or without installation. They will also charge the library an annual fee for access to your data via an analytics platform that can generate reports by location and time span.

The library can create custom applications for harvesting and analyzing this data. These systems could not only be used as simple counting devices, but also could tell users how busy the library is in real-time. The sensors could also be placed in any particular room. Current people traffic information could be communicated to patrons via a website, mobile app, or even automated Facebook posts.

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## 5.14 Building-wide Public-Address System

The library wishes to have a building-wide Public Address System. This would be used for closing announcements as well as any emergency broadcasts. This would be operable using the telephone system.

## 5.15 Digital Signage

The consultants recommend a simple, inexpensive digital signage system that is comprised of:

- Device such as an Apple TV or Google Chromecast running their native screen saver
- Large format commercial monitors, 1 for each device
- An account with the device's service that serves up digital slide files
- Digital slide files (png or jpg) that can be created by library staff in Adobe Photoshop, Illustrator or similar image editing software and pushed to the device using its screen saver software

More complex and powerful solutions for managing digital sign content do exist and can be discussed if the need arises in the future. This solution using a streaming-type device and its software is relatively simple to set up and maintain. This solution does require the library to keep a steady stream of visual production and upkeep to ensure the displays stay up to date, but this will result in dynamic content for the library's digital displays.

Here is a 5-minute video that describes how it works using Apple TV:  
Utilizing Apple TVs as Basic Digital Signage [<https://vimeo.com/92770458>]

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## 6 Patron Technology

This section addresses technology to support patrons in using the library's spaces and services.

### 6.1 Patron Computing Spaces – BYOD

For BYOD (*Bring Your Own Device*) patrons, having a variety of seating/workspace options is preferable:

- Task – traditional seating
- Task – “bar” (supporting both seating and standing option)
- Comfort Seating

All seating areas should offer ergonomic power access for patrons, including the option to plug directly into USB power.

The library will also extend WiFi service into the parking lot and other areas surrounding the library.

### 6.2 Computers

#### 6.2.1 Public Computers

The library will have public computing resources that are robust, easy, and safe to use.

Availability of computers for public use is an essential library service. Library patrons use computers for education, enrichment, study, work and so many other uses. Computer access is essential for citizens to function in society. Increasingly, vital information for citizens is available solely in electronic formats. In some cases, the only avenue for citizens to interact with government or businesses (including filling out applications and tax forms, and even seeking employment) is via a computer connected to the Internet.

Design of patron computing spaces should avoid tight cubicles as much as possible and allow for patron “space.”

Collaborative computing spaces should be considered where appropriate to support the programming for the desired space.

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- Children’s computing areas should be designed to invite collaborative seating between children and caregivers – comfortable seating, monitors, keyboards, and mice mounted on sturdy arms, and other design elements promoting comfort and interactivity.
  - There should be one station separate from the others in the area for a parent or caregiver to on a library-provided computer while supervising child at play.
- Teen and adult collaborative areas can include one or more workstations and adequate space for other materials (including BYOD).



work  
a  
more

### **6.2.1.1 Adult Computer Stations**

Adult and teen computer stations will likely be either traditional (separate computer and monitor) or all-in-one desktops. The library should seek a minimum of a 3-year support options for new computer purchases and coordinate new purchases with their typical refresh schedule.

### **6.2.1.2 Children’s Computer Stations**

Children’s computer stations will likely be either traditional (separate computer and monitor) or all-in-one desktops. The library should seek a minimum of a 3-year support options for new computer purchases and coordinate new purchases with their typical refresh schedule.

### **6.2.1.3 Listening Stations**

The library may consider one or more Listening Stations throughout the library to allow patrons to sample new music. The station could consist of a small-form computer, monitor, and small keyboard and mouse, and locked into a selected music streaming vendor to allow patrons to listen to music through the library’s account. The workstation may also have the ability to play CDs and DVDs (if the library wishes to offer that service).

### **6.2.1.4 Catalog Computers (PACs)**

To provide maximum flexibility for design and ergonomics, the library may consider using a small-footprint design using a monitor and a small-form computer for PACs. Units installed on/near end panels will require both data and power connectivity.

There will be two configurations for PACs – standing stations with a small footprint and at ADA-required heights, and seated stations.

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## 6.2.2 Americans with Disabilities Act (ADA) Considerations

The current federal accessible design standards can be found in the [2010 Standards for Accessible Design](#).

[\[https://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards.pdf\]](https://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards.pdf)

- At least 5% of the total workstations must be ADA compliant (a minimum of one station in the case of libraries with 20 or fewer workstations)
- Knee-space at tables and desks must be at least 27 inches high, 30 inches wide, and 19 inches deep. The tops of the tables must range from 28 inches to 34 inches in height.
- One popular solution is to provide adjustable-height work surfaces (desks that adjust between 32-, 29-, or 26.5-inches are common)
- Other common compliant workstation equipment includes:
  - Braille keyboards
  - Wireless keyboards, mice, and trackballs for maximum flexibility
  - Large-screen monitors
  - Software for text-reading, screen magnification, voice recognition software, Braille writers, and speech synthesizing
- In addition to ADA requirements, at least one computer will be equipped to serve the visually impaired.

Carson Block Consulting recommends that library staff be aware of any special needs not being met by the library computers and work with outside partners, if necessary, to provide reasonable accommodations based on need.

## 6.3 Session Management (Patron PCs)

In the former building, the library used Envisionware's PC Reservation for managing patron computer sessions. It is anticipated that the library will continue to use this product in the new building.

### 6.3.1 Session Management



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Session management software saves staff time and headaches, freeing them up to perform tasks that better utilize their expertise.

## 6.4 Self-Check Machines

Self-Service opportunities will be featured at the new library. The consultant suggests using self-check stations that enable patrons to not only check out their own materials, but also interact with their account, renew books, or even pay fees. These machines are increasingly popular with patrons and allow library staff to spend less time on mundane tasks and more time serving patrons get the most from all library services.

## 6.5 Printing and Scanning

### 6.5.1 Public Printing Services

Porterville Public Library used wireless printing services

### 6.5.2 Printers/Photocopiers

Printers for public use will provide both black-and-white and color printing. Printing and copying and will be compatible with the library's print management software system. Prints can be paid for by contacting staff members or paying by coin machine.

### 6.5.3 Fax

Faxing services are offered in the library using a printer with fax capabilities and is facilitated by in-person staff services.



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## 7 Staff Technology

This section addresses technology needed to support staff in providing excellent service to patrons.

### 7.1 Staff Computers

The library will have computing resources for staff that support their role as information providers for the community. Robust and flexible desktop computing is essential for library staff to do their jobs.

The library may wish to begin piloting the use of mobile staff technologies (including tablets or even wearable technologies) to support any new service model opportunities that arise as a result from design discussions.

If the library contemplates a “roaming” –type approach to customer service, the technology should be designed to support it in a flexible manner. Specific tech approaches would follow service recommendations from the design process, but it’s conceivable that large, barrier- like staff desks could be replaced by patron-friendlier approaches such as “jump stations.”

### 7.2 Circulation Computers

Computers used by staff for circulation functions will require barcode scanners and receipt printers. RFID was used in the previous library and are likely to be used in new materials and building considerations.

### 7.3 Public Service Desk Computers

The library should use monitor mounting hardware at public service desks that can swivel so that the screen can be shown to patrons during service interactions.

### 7.4 Office Computers

Office computers will be configured in the library’s traditional manner for each area as reflected in the devices by location spreadsheet.



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## 7.5 Printing and Scanning

### 7.5.1 Printers

Staff printing will be configured in the library's traditional manner by each staff area. Please see devices by location spreadsheet for more detail.

### 7.5.2 Photocopiers

A photocopier will be available for staff use in the form of a Multi-Function Printer, which will have scanning, fax, and printing capability.

## 7.6 Automated Materials Handling (AMH)

The library decided to not pursue Automated Materials Handling (AMH) unit in the new building. However, it is recommended that the new building be designed to accommodate an AMH, including staff workspace, electrical, and data considerations, and that the library revisit this decision as part of the design process.

### 7.6.1 Room Reservation

The consultant recommends an easy-to-use method of reserving study and event rooms in the new Porterville Library with online integration to help users sign up for their own room reservations.

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## 8 Audio/Visual Systems

### 8.1 General: Building-Wide PA System

The library has requested a building-wide PA system. The system should interface with the telephone system for ease of paging from telephone handsets.

### 8.2 General: Large Public Meeting Rooms

A large Public Meeting Room will provide patrons with a multi-purpose venue that could host lectures, readings, films, musical and theater performances. Large meeting rooms should contain adequate video and sound reinforcement, including multiple options for microphones, sound sources and video sources. WiFi access should be robust and scalable.

In the interest of making these experiences more accessible to people with hearing impairment, the Meeting Room should include a hearing loop. These systems create magnetic fields that interact with the telecoils (or T-coils) in people's hearing aids, the same type of technology that creates the signal in electric guitar pickup.

From hearingloss.org:

*A telecoil is a small copper **coil** that is an option on most **hearing aids** and is built into cochlear implant processors. They are also known as telecoils and were originally used to boost the magnetic signals from the telephone handset. The telecoil is activated by a **t-switch** on the **hearing aid** or cochlear implant.*

These systems are comprised of a loop amplifier that is connected to the PA system and an induction loop made of copper wire that, in its simplest form, is installed in a loop (rectangle) around the audience under the carpeting. The loop begins and ends at the loop amplifier.

#### 8.2.1 General: Small Meeting Rooms

Small meeting rooms should be equipped with display devices and ergonomic access to power and display connections. As well, WiFi access should be robust.

#### 8.2.2 Assistive Listening Systems

Assistive Listening Systems (to aid users of hearing aids) should be considered in large meeting rooms as well in areas of crucial interactions (such as some public desks).

One type of system, called a hearing loop, create magnetic fields that interact with the telecoils (or T-coils) in people's hearing aids, the same type of technology that creates the signal in electric guitar pickup.

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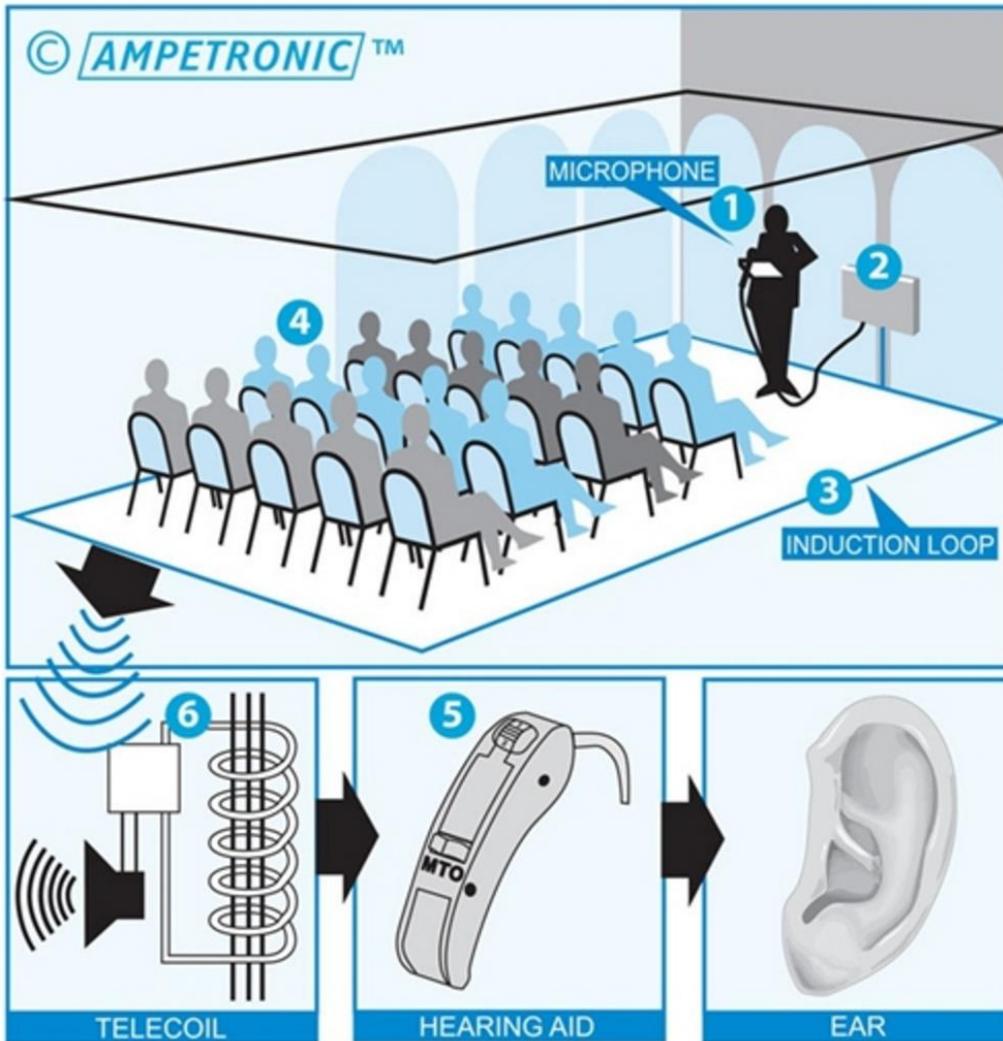
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These systems are comprised of a loop amplifier that is connected to the PA system and an induction loop made of copper wire that, in its simplest form, is installed in a loop (rectangle) around the audience under the carpeting. The loop begins and ends at the loop amplifier.

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Audio Inputs 1, either from an existing audio source such as a P.A. system or from dedicated microphone inputs feed an audio signal into an Induction Loop Amplifier 2. The amplifier drives a current into a Loop 3 or series of loops. As the current flows through the cable it creates a Magnetic Field 4 in the required area – careful loop and amplifier design ensures that the vertical component of the field is even and free of dropouts and dead zones wherever the user might be. Inside most Hearing Aids 5, a small coil known as a Telecoil 6 picks up the magnetic field signal, which is amplified into a high quality audio signal delivered directly to the ear of the hearing aid user.

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## 9 Innovation Opportunities

### 9.1 Connect to Ag Tech and Food Security

Porterville has the entire life cycle of food within the community, and it is something that can be celebrated on so many levels – including the technology around agriculture as it emerges and connecting to that.

Also the idea of food security and being able to eat right, having a place to come and learn about good food and good nutrition. There are so many rich opportunities for programming and learning around these topics while remaining relevant to the Porterville community.

### 9.2 Technology to connect inside and outside experiences

So many in the focus group discussed how they want to be connected to both the outdoors and the indoors – they want to have that free-flowing experience, and how the technology can support that. Top of that list of ways to support it is robust outdoor WiFi. There are other opportunities, especially as the library gets closer to a concrete building design process, to support the indoor/outdoor needs of the community.

### 9.3 Further leverage community embracement of social media for library services/web services

Porterville Library's social media is very strong, and the community members have embraced, cultivate, and grown it. This is a ripe area for Porterville to use that does not exist for a lot of library communities and can turn that social media to the advantage of the library for fund raising, visioning, planning, and attendance to library programs.

### 9.4 Balance of technology and technology-free zones

In today's world technology feels like it is everywhere. Many comments about technology in the library also included a way to escape technology and to have "technology free zones" where people can connect "IRL" or simply have a quiet reading space without the various beeps and clicks of technology.

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## **9.5 Celebrate and cultivate Porterville’s Spanish-speaking culture though programming, art, services, and collections (physical and digital)**

The importance of inclusion came through loud and clear throughout the community engagement process. During the Spanish focus group, there were community members who stayed to thank the consultants for even asking them questions. In other English-based focus groups the celebration of Spanish-speaking cultures featured very strongly. Using technology, for instance the digital signage, to integrate Spanish language into the library is a great opportunity.

## **9.6 Technology and programming (possibly via ESL classes) to serve all local cultures, including Spanish Speakers, Native Americans, Asian (Hmong, Korean, Filipino, and others) Arabic, Syrian and others.**

In the same vein as the Spanish-speaking culture inclusion, the inclusion of all local cultures was a topic of conversation. And since the ebb and flow of both immigrant and emigrant populations, the specifics will change with time. Thinking about how to serve these different populations is very important. Technology can be very helpful, especially with translations and helping staff when needing to bridge a communication gap.

## **9.7 For staff: back-channel communications capabilities to stay connected during times of need**

If there is a future emergency or something staff need to be made aware of, finding ways to keep staff aware and up to date during times of need is something that the consultant team is very aware of.

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## 10 Appendix A: Sample Technology Specifications for Construction

### Sample IT Specifications for Building

The text in this appendix is included to show an example of IT specifications the library may wish to consider in any construction project.

These specifications are included here only as a sample approach. A revised and single specification should be written for any actual construction documents.

In the case of a conflict between these sample specs and specs from an authority (such as a City or County IT Department and/or architect), the specifications from the authority shall be observed.

#### IT Room:

##### **Description:**

The IT room for the library shall be the central location for all data and telecom wiring in the facility. The room(s) will house all of the equipment necessary to serve the internal network needs of the library and provide the central data and telecom connection to the outside world.

Larger installations may require several spaces, including a Main Distribution Frame (MDF), Independent Distribution Frame (IDF) or others (such as rack space for network components).

##### **Building Service Entrance**

The IT room(s) may also serve as the **Building Service Entrance**. This is the room in which voice, data and video distribution media systems enter the building. These include internal sources such as data and video cabling, as well as external sources such as cable, POTS (Plain Old Telephone Service) or other forms of connectivity to the external world.

The room is dedicated solely for network infrastructure and associated equipment, serving as both a Building Service Entrance Room and a Telecommunications Closet. It provides facilities for large splice containers, cable termination mounting, and possibly electrical protectors. This space is in addition to any space required for network switching equipment or active system components.



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Design and location of the room should also take into consideration the route and placement of data connections from providers of connectivity such as coax cable, the telephone company, or others. Ideally, the room should be within 50' of an exterior wall.

The minimum floor space requirements for a broad range of projects are typically 10 feet x 10 feet. In many cases, a larger room is required. Additional space may need to be provided if this room is expected to double as a Building Service Entrance and a Telecommunications Closet. The door to the Building Service Entrance room needs to open outwards.

## IT Room

The IT Room is used to house telecommunications equipment intended to service users throughout the building. This type of equipment commonly includes phone systems, network equipment, video distribution systems, racks, patch panels and cabinets. The Telecommunications Closet is the space that also supports the cable, fiber, and the equipment necessary for transmission between the building's backbone system and the network jacks spread throughout the building.

In some cases, the IT room also serve as the building service entrance.

The optimum effective cooling air temperature of this space is 80 degrees F with a relative humidity range of 10% to 85% non-condensing when only housing network equipment. It is important to note that some of the telecommunications equipment (e.g. servers), which may be placed in this space can only function in an environment that is between 68 degrees F and 72 degrees effective cooling air temperature with a relative humidity range of 10% to 40%, non-condensing. Anything outside of these ranges will cause damage to those units.

The air handling system must be designed to provide positive air flow and cooling 24/7 including times when the building air system is shut down or turned down during non-business hours. This may require separate air and/or cooling systems.

The size of this room can vary depending on the communication requirements of the building but are typically 10' x 10'.

The Telecommunications Closet should be located near the center of the building, but no farther than the BICSI/TIA standard of 295 feet (horizontal cable pathway distance) from the furthest station outlet. The average distance should be in the 100-to-150-foot range.

The room should be equipped with ceiling space that does not contain water pipes, air conditioning ducts, drainage pipes or other utilities crossing through. The exception to the water pipes are those pipes installed in conjunction with a fire suppression system. If an AC Unit is required inside of the IT



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Room and is mounted in the ceiling, a drain pan with leak detection must be located underneath the unit.

The possibility of flooding can be limited by configuring the surrounding floor area to drain accidental leaks before the telecommunications closet becomes saturated.

The IT room should be located away from potential sources of interference, such as electrical power supply transformers, motors, generators, elevator equipment or other such devices that has the potential for creating electromagnetic fields.

Equipment rooms must be dedicated rooms and are not to be shared with other functions such as a janitorial closet, electrical closet, or storage room. Fire and other alarm equipment should be located in a separate room if possible. Placement of any non-telecommunications or network equipment in room should be avoided.

One wall, to the extent necessary, must be covered with 3/4" A-C fire-rated/treated plywood, with the A side facing out. It shall be painted and mounted vertically starting 2" above the finished floor and secured to the walls. Multiple plywood panels must be mounted in contact with one another leaving no gaps between the sheets. The technology consultant will designate the location of these panels.

The lighting design shall provide sufficient overhead lights installed to provide a minimum of 540 lux (50-foot candles) illumination measured 3' above the finished floor. These lights must be separately switched within the room and must be mounted a minimum of 8.5' above the finished floor. Mounting of lights needs to accommodate 8' tall cabinets.

The door to the room must be a minimum of 36" wide by 6'8" high and must use a key lock that is keyed to a Primus Grand Master or applicable organizational standard. Electronic locks are to be used when the facility is wired and equipped to support electronic door locks. The door should open outward.

An electrical ground for telecommunications as defined by building codes must be provided on a 6" bar mounted 6" above the finished floor. This Telecommunications ground bus bar (TGBB) shall be provided in the main IT room. All TR's shall be tied into this Main TGBB. All equipment in the IT room (racks and overhead cable tray) shall be grounded to this bar. The TGBB should be connected to building steel (main building ground electrode), a separate concrete-encased electrode, or a buried ring ground with 00 copper wire using a short feed to the actual ground. It should be noted that NEC stipulates that communications cable shields be grounded as close as possible to the entrance into the building (NEC Article 800-4).



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At minimum, one dedicated 20 Amp, 110-volt AC quad electrical outlet shall be installed in the IT Room to serve the needs of each telecommunications rack. This dedicated circuit will feed power that is located on the Telecommunications rack. Circuits providing power to the rack will need to be suspended from the ceiling above the racks or installed into the rack or cabinet as designated by the technology consultant. Additional circuits may be desirable.

All conduits entering the building from outside shall be plugged with reusable stoppers to eliminate the entrance of water or gases into the entrance room. All conduits leaving the entrance room for other portions of the building will be fire-stopped after the installation of cable.

The IT room shall be equipped with a constant positive air flow sufficient to provide a minimum of two air changes per hour. If a room serves as both the building Service Entrance and a Telecommunications Closet, it may need to be equipped with a separately controlled HVAC.

The IT Room will need to have anti-static vinyl compositional tile. The tile should be light in color. A sealed concrete floor is also acceptable. At no time is carpeting to be installed.

Acceptable floors include:

- 1.) Anti-static VCT
- 2.) Sealed concrete floor

Do not install a suspended acoustical tile or other false ceiling.

The permanent walls of the room need to extend to the rafters of the hard ceiling in order to prohibit access to the room by climbing over walls from an adjoining room.

## Conduits

All telecommunications conduits entering the building will terminate outside the building in one or more telecommunications vaults. The number, placement, and type of telecommunications vaults will be determined by the appropriate local authority and will depend upon which utilities are involved, the total number of conduits entering the building, the landscaping or hardscaping around the building, and other factors specific to the site. Ideally, the vault will be located in a grass or landscaped area. By example, a typical fiber optics vault would be 30"x48"x18" deep constructed of polymer concrete and mounted flush with the ground. The bottom area of the vault would be bare ground covered with pea gravel or a similar covering. All conduits would enter from under the bottom of the vault and extend approximately 4"-6" above the gravel ground cover. All conduits will contain mule tape and will be capped to prevent debris or animals from entering the conduits. The vault cover will be made of polymer concrete, traffic If additional conduits are required to enter the building, they shall conform will the Authority Having Jurisdiction (AHJ). Depending on the location, the routing into the building will be either underground or overhead.



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The vault cover will be rated to 20,000 pounds, non-skid surface, with corner bolts or some other type of locking mechanism. Other vault types or configurations may be substituted at the discretion of the project engineer. The area around any vault will be filled and tamped to prevent erosion, sinking, or washout, and will then be landscaped to blend in with the surrounding area. If the vault is located in a vehicle traffic area, a 6"-12" space surrounding the vault will be filled with concrete to a depth of 18" to further stabilize the vault. If the vault is located in a pedestrian area, care must be taken to avoid any trip hazards (raised edges). Specific utilities such as telephone or cable TV may have their own vault requirements.

The entrance conduits must be designed to allow the placement of various types of cables including large copper cables, fiber optic cable (within inner duct), and coaxial cables. Typical incoming service conduit requirements: A minimum of (1) one 5" conduit shall be provided for each service provider. Each conduit shall have (3) 1" or 1.25" innerducts with pull-strings.

Conduits can have no more than two 90-degree bends with a minimum bend radius of 2 feet. Fiber optic cabling may require a larger radius, typically ten times the outside diameter of the fiber cable.

The entrance conduits should enter the service entrance spaces either directly from outside, perpendicular to the outer wall at a level above 8' or through the floor parallel with the outer wall keeping the conduit bend radius greater than 48". Variances from the 8' requirement will need to be approved by the proper local authority.

The entrance conduits must be protected from potential water damage and from vehicles running into them. Below grade building entrances with sufficient conduits are much preferred as that avoids the poly-to-steel conduit transition at the side of the building, a box on the building and conduit exposed to view and possible vandalism.

## **Building Backbone Raceway (Riser and Tie)**

The risers are pathways which connect all telecommunications rooms and pace throughout an individual building. They may consist of conduit, cable trays, or sleeves to allow for cabling to enter and exit the telecommunications rooms.

The term "backbone raceway" replaces both the term "riser" and "tie" conduit to reflect the need for both horizontal and vertical pathways in a building distribution system. In general, this is the path used for placement of telecommunications media between the Service Building Entrance room, the Telecommunications Closets, and the station outlets.



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These pathways must typically support copper, fiber optic, and coaxial cables serving equipment and should be cross connected to station outlets located on each floor of the building. At no time are “j-hooks” or bridle rings to be used.

All backbone conduits and sleeves must be 4” in diameter or as agreed to by the proper local authority. Conduits must be designed with no more than two 90-degree bends. If more than two 90-degree bends are required, a pull-box shall be required. The sizing of the pull-box shall be per BICSI/TIA and the Authority Having Jurisdiction (AHJ).

The minimum number of vertical backbone (riser) conduits is 5. However, that number can change as the building customer requirements become known. Again, this should be based upon actual needs.

Pathways shall be designed and installed to meet applicable building and electrical codes or regulations including the applicable TIA/EIA Telecommunications standards.

Grounding and bonding of pathways shall comply with applicable codes and regulations.

Pathways shall not have exposed sharp edges that may come into contact with telecommunications cables.

The number of cables placed in a pathway shall not exceed manufacturer specifications nor will the geometric shape of a cable be affected.

Pathways shall not be located in elevator shafts.

Sleeves are to be used in backbone vertical pathways. Sleeves should extend a minimum of 2” above the floor space. The sleeves are also to be 4” below the true ceiling deck in rooms where conduit is running from a room on the floor above. All sleeves are placed to provide short and straight pathways between floors.

Conduits used to interconnect the Building Service Entrance and/or Telecommunications Closets should be placed above the ceiling with no more than a total of two 90-degree bends. If more than two 90-degree bends are required, a pull-box shall be required. The sizing of the pull box shall be per BICSI/TIA and the Authority Having Jurisdiction (AHJ). Do not angle these conduits down into the termination space. Fix the conduit 4” to 6” inside the room at a right angle to the wall. All metal conduits must be fitted with a collar or end bushing to eliminate damage to the cables during pulling.

Pull boxes shall be placed in conduit runs which exceed 100’ or in situations which require more than two 90-degree bends. Such pull boxes must be located so as to provide free and easy access in straight



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sections of conduit only and must be installed to allow cable to pass through from one conduit to another.

If a room-mounted antenna is required, two 2" conduits must be dedicated from a sealed junction box on the roof of the building in a direct line to a specified Telecommunications Closet for use as an antenna access point, as required. In addition, a separate earth ground must be provided at the roof junction box point and the antenna conduit must be grounded separately from the isolated ground in the equipment room. A 1" conduit terminating in a weatherproof duplex box must be provided from the roof to the closest electrical panel for electrical power, as required.

All riser sleeves must be fire stopped and sealed following code and manufacturer's instructions, as required.

## Horizontal Cabling

The horizontal pathways between the Telecommunication Closet and the data jacks throughout the building receive the heaviest usage and the most complaints of any component of a telecommunications distribution system. It is an area with a significant number of alternatives and one which frequently fall victim to budget cuts. When working on this issue, the building designer should identify methods for placing and supporting both the initial station cable and future cable additions.

The designer should assume the library will install plenum rated station cables because of the minimal cost difference over non-plenum rated cable, improved electrical characteristics and the increase flexibility of not installing fixed "home run" conduits to each station outlet.

Every Telecommunications Closet must provide a minimum of twice the amount of horizontal pathway access as is required to support the initial installation, as required.

Any outlet separated from the main horizontal support system, such as a tray, by a fire or smoke partition, must be provided a rated pathway. If any cabling passes through a fire-rated wall, the penetration must be first stopped with at least the fire-rating of that wall or per the Authority Having Jurisdiction (AHJ).

## Telecommunication System Design

This section provides an overview of the minimum telecommunications infrastructure requirements in the specific area of new construction. It is intended to be used during program planning.

Office spaces range from the standard one-person space to multi-room office suites and all need to be suitably equipped to access various telecommunication resources. All offices must be designed to support multiple voice and data outlets situated to allow changes in furniture layouts, depending on the use of the facility.

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Data lines will likely be used for voice connectivity, and this will alter the combination of outlets in office spaces. The consultant and architects will work with the customer and Facilities project manager to determine the number of station outlets required during the design of the facility.

All offices must be equipped with a minimum of 2 duplex communication outlets, preferably on opposite walls and near electrical outlets. Larger offices and open suite areas should have multiple communication outlets with an average of 2 per 75 square feet of floor space, or more when needed for density of public service computing. There should be no less than one at every other electrical outlet. There may also be staff and office locations that will need to be provided with an additional video or coaxial outlet. Smaller offices or rooms may need fewer outlets. The technology consultant will work with the architects to determine locations and the number of station outlets.

The furniture plan should consider its location in reference to station outlet locations. Furniture should not be placed in such a way as to prevent access to data wall jacks and other data connections and nearby electrical outlets.

## Station Outlets

Telecommunications station outlets (areas of data connectivity throughout the building) should be installed similar to electrical outlets with an outlet box mounted in the wall and vertical conduit going up the wall ending above the false ceiling space. In areas with a hard ceiling, the conduit should be extended to an appropriate pull box or false ceiling location. The telecommunications cabling will then be installed through the conduit to the station outlet. An access panel for future additional outlets should be a primary consideration.

Wall outlets should be installed at the same height as electrical outlets. Exceptions could include lab areas that may require outlets above work surfaces. Wall phone units may also need to be installed according to ADA regulations.

Installation of vertical drops and exterior cable raceways visibly placed on interior walls should be avoided if at all possible.

Locations where the station outlets are to be installed in office furniture or cubicles need to be identified. The technology consultant and/or architects and/or a local installer should ensure that proper outlets, furniture interfaces, and cable length are provided for proper termination in the furniture.

Sometimes it is not possible to reach station outlet locations via the wall or ceiling and may need to be installed via the floor. This is especially common in cubicle areas. In these cases, appropriate size and



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quantity of conduit will need to be installed in the floor and in the case of the ground floor, installed before the slab is poured.

## Conference and Meeting Rooms

Conference rooms should be equipped with a minimum of 1 duplex data outlet per wall, with two video outlets on opposite walls, as appropriate per project requirements.

The consultant and architects will work with the customer to determine the optimal number of station outlets and where they will be located. These locations may include the wall, floor or terminated in furniture such as conference room tables.

## General

- Category 6 or 6a Cable and interconnections shall be used at the library.
- The wiring vendor shall quote all anticipated costs of installation, including the wiring and network equipment rack, termination points on both ends of the cables, wall plates, jacks, and other associated equipment.
- For best performance, copper wires should be kept away from power runs. Running network cable parallel with power cable should be avoided. When lines have to intersect, a 90-degree cross angle is preferred. Also avoid proximity to electric motors, florescent lights, and other sources of electromagnetic interference.
- The wiring contractor should also quote the cost of providing an “as-built” drawing depicting wiring cable paths and routes in addition to termination points.

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## 11 Appendix B: Suggested Technology

### 11.1 Porterville Public Library Program (V.3)

The technology listed in this section is designed to support the 2021 Needs Assessment document from Penny Hummel and Carson Block. This should just be considered a “starter list” to begin actual design. It’s expected that this list will be further refined as part of the design process.

Code	General Area	Specific Area	Suggested Technology
<b>Public Areas</b>			
1.02	Public Areas	Lobby	<ul style="list-style-type: none"> <li>Digital Signage</li> </ul>
1.04	Public Areas	Café	<ul style="list-style-type: none"> <li>Data connection to support credit card readers</li> </ul>
1.06	Public Areas	Restrooms	
1.08	Public Areas	Service Desk	<ul style="list-style-type: none"> <li>Staff computers equipped with RFID pads, barcode scanners, receipt printers</li> <li>Cash register and/or credit card machine</li> <li>Staff Phones</li> </ul>
1.10	Public Areas	Express Checkout	<ul style="list-style-type: none"> <li>Self-check machines with ample desk space</li> </ul>
1.12	Public Areas	Business Center	<ul style="list-style-type: none"> <li>Multi-Function printer (MFP) with multiple printing/scanning options</li> <li>Coin machine/card reader to accept payment for printing services</li> <li>Fax machine</li> <li>Public computers with business software</li> <li>Staff Phones</li> </ul>
1.16	Public Areas	Public Access Computers	<ul style="list-style-type: none"> <li>Public computers with word processing, internet access, and other general use programs</li> <li>MFP with multiple printing/scanning options</li> </ul>
1.18	Public Areas	New Materials	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> </ul>

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Code	General Area	Specific Area	Suggested Technology
1.20	Public Areas	Media	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> </ul>
<b>Adult Services</b>			
2.02	Adult Services	Adult Fiction	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> </ul>
2.04	Adult Services	Adult Nonfiction	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> <li>Staff computers with access to ILS and online database resources for reference services</li> <li>Staff Phones</li> </ul>
2.06	Adult Services	Large Print	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> </ul>
2.08	Adult Services	Quiet Reading Area	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> </ul>
2.10	Adult Services	Adult Learning Center	<ul style="list-style-type: none"> <li>Public computers with learning-oriented software</li> <li>Public computers that are accessible to those with disabilities</li> <li>Public computers in private areas for online testing</li> <li>MFP with multiple printing/scanning options</li> <li>Staff Phones</li> </ul>
<b>Youth Services</b>			
3.02	Youth Services	Family Space	<ul style="list-style-type: none"> <li>Collaborative computing space</li> </ul>
3.04	Youth Services	Family Restroom	
3.06	Youth Services	Children's Library	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> <li>Networked MFP with multiple printing/scanning options</li> <li>Staff Phones</li> </ul>
3.08	Youth Services	Teenspace	<ul style="list-style-type: none"> <li>Catalog computers for accessing the ILS</li> <li>Public computers with word processing, internet access, and other general use programs</li> <li>MFP with multiple printing/scanning options</li> <li>Staff Phones</li> </ul>

# Porterville Public Library Preliminary Library Technology Program For Construction

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Code	General Area	Specific Area	Suggested Technology
<b>Meeting Areas</b>			
4.02	Meeting Areas	Small Study Room A (2 seat)	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.04	Meeting Areas	Small Study Room B (2 seat)	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.06	Meeting Areas	Small Study Room C (2 seat)	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.08	Meeting Areas	Small Study Room D (2 seat)	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.10	Meeting Areas	Small Study Room E (4 seat)	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.12	Meeting Areas	Small Study Room F (4 seat)	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.14	Meeting Areas	10 - 12 Person Meeting Room	<ul style="list-style-type: none"> <li>• Collaborative screen capable of connecting to multiple devices</li> </ul>
4.16	Meeting Areas	Dividable 150 Person Meeting Room	<ul style="list-style-type: none"> <li>• Large Display screen with multiple inputs to support library and public programming</li> </ul>
4.18	Meeting Areas	Meeting Room Storage	
4.20	Meeting Areas	Creation Space	<ul style="list-style-type: none"> <li>• Variety of technology, could include items like a 3D printer, CNC machine, sewing machines, small tools, etc.</li> <li>• Staff Phones</li> </ul>
4.22	Meeting Areas	Media Lab	<ul style="list-style-type: none"> <li>• Audio and video recording equipment</li> <li>• Lights, microphones, green screens, and other equipment to support recording</li> <li>• Computers with software to support the editing and creation of audio and video media</li> <li>• Staff Phones</li> </ul>
4.24	Meeting Areas	Learning Kitchen	<ul style="list-style-type: none"> <li>• Overhead camera set up</li> <li>• Display screen to show the overhead camera feed for larger programs</li> </ul>

# Porterville Public Library Preliminary Library Technology Program For Construction

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Code	General Area	Specific Area	Suggested Technology
<b>Staff Areas</b>			
5.02	Staff Areas	Library Director's Office	<ul style="list-style-type: none"> <li>• Staff computer with access to necessary software</li> <li>• Printer</li> <li>• Staff Phones</li> </ul>
5.04	Staff Areas	Library Supervisor 2 Office	<ul style="list-style-type: none"> <li>• Staff computer with access to necessary software</li> <li>• Staff Phones</li> </ul>
5.06	Staff Areas	Library Supervisor 1 Office	<ul style="list-style-type: none"> <li>• Staff computer with access to necessary software</li> <li>• Printer</li> <li>• Staff Phones</li> </ul>
5.10	Staff Areas	Staff Workstations	<ul style="list-style-type: none"> <li>• Staff computers with access to necessary software – some with RFID as needed</li> <li>• Staff Phones</li> <li>• Networked MFP with multiple printing/scanning options</li> </ul>
5.14	Staff Areas	Technical Services	<ul style="list-style-type: none"> <li>• Staff computers with access to necessary software</li> <li>• RFID equipped for processing new and incoming materials</li> <li>• Networked MFP with multiple printing/scanning options</li> <li>• Staff Phones</li> </ul>
5.16	Staff Areas	Youth Services	<ul style="list-style-type: none"> <li>• Staff computers with access to necessary software</li> <li>• Networked MFP with multiple printing/scanning options</li> <li>• Staff Phones</li> </ul>
5.20	Staff Areas	Circulation	<ul style="list-style-type: none"> <li>• Staff computers with access to necessary software</li> <li>• RFID equipped for checking in and processing materials</li> <li>• Networked MFP with multiple printing/scanning options</li> <li>• Staff Phones</li> </ul>
5.22	Staff Areas	Staff Lounge	<ul style="list-style-type: none"> <li>• Phone with an outside line</li> <li>• Possible computer for staff use while on break</li> </ul>
5.24	Staff Areas	Wellness Room	
5.26	Staff Areas	Staff Restrooms	

# Porterville Public Library Preliminary Library Technology Program For Construction

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Code	General Area	Specific Area	Suggested Technology
<b>Support Areas</b>			
6.02	Support Areas	Storage and Supply Room	
6.04	Support Areas	Janitorial Closet	
6.06	Support Areas	Telecommunications Room	<ul style="list-style-type: none"> <li>• Racks and organizational equipment to keep the telecommunications room neat</li> <li>• Staff computer with network access and appropriate software and security</li> </ul>
<b>Outside Areas</b>			
7.02	Outside Areas	Outside seating	
7.04	Outside Areas	Outside programming area	<ul style="list-style-type: none"> <li>• Boosters/extenders for outdoor WiFi access</li> <li>• Portable PA system for outdoors programming</li> <li>• Portable screen for outdoors programming</li> </ul>
7.06	Outside Areas	Garden	
7.08	Outside Areas	Vendor Area	

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## 12 Appendix C: Technology Recommendations: Visuals

The consultant presented preliminary technology recommendations in July of 2021. The slides below were used and may be helpful to the library in planning the technology for the new library.

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## More Technology Recommendations

*(These items are common to the community survey, community focus group results, and staff survey & focus groups)*

### The Essentials: Scalable Infrastructure

- Internet Connection
- Data Cabling
- Power
- WiFi

(not like this example :D)

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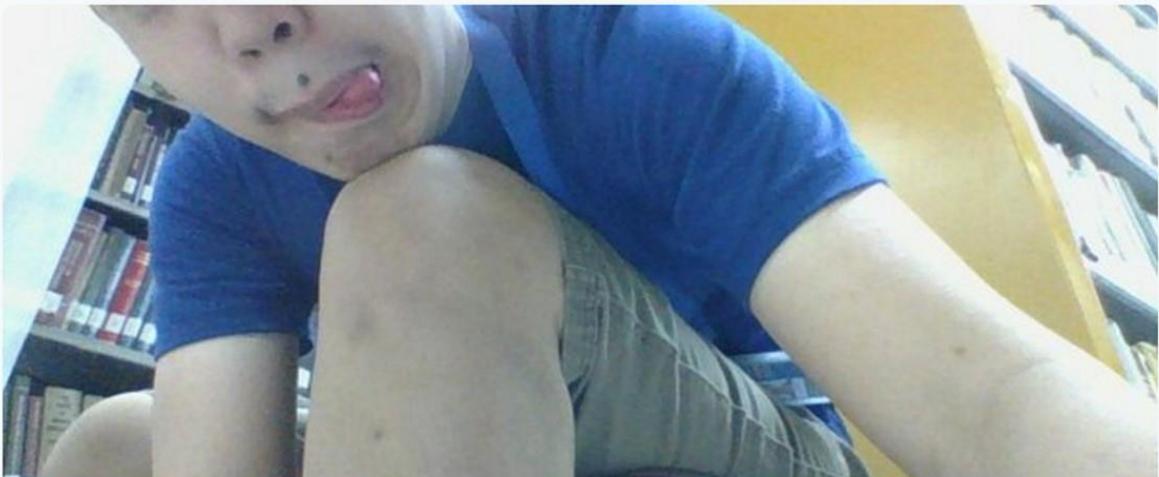
Photo credit: <https://www.flickr.com/photos/ishane/1082814771/sizes/m/in/photostream/>

 Outlets in Libraries Retweeted



**Rance.** @wellxster · Feb 9

OMG! THIS IS GENIUS. A comfortable seat near a post with an outlet! THANK YOU @Rizal\_Library



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# Porterville Public Library Preliminary Library Technology Program For Construction

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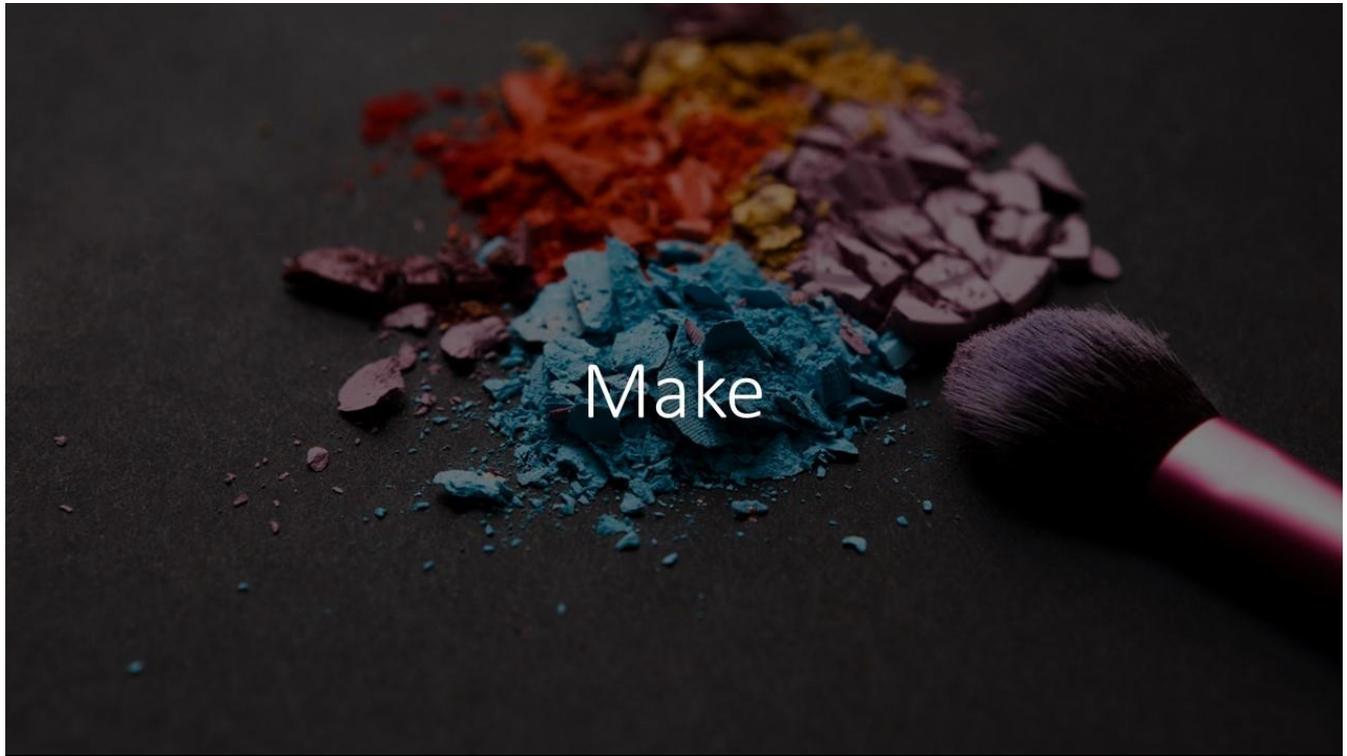
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Meeting Rooms

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Make

The Library as a place  
of creation and not  
just a place of  
consumption

(aka: makerspaces)\*

*\*makerspaces are  
low-tech too*



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## All “Makerspaces” usually include:

- A strong program
  - Intent, scope & scale
  - Resources & Staffing Needs
- Flexible, sturdy and easy-to-move furnishing
- Flexible, reconfigurable spaces
- Storage (cabinets)
- Fixed work areas (countertops)
- Infrastructure appropriate to the space:
  - Power
  - Data
  - Venting/HVAC
  - Cleanable/easy clean surfaces (walls and floors)

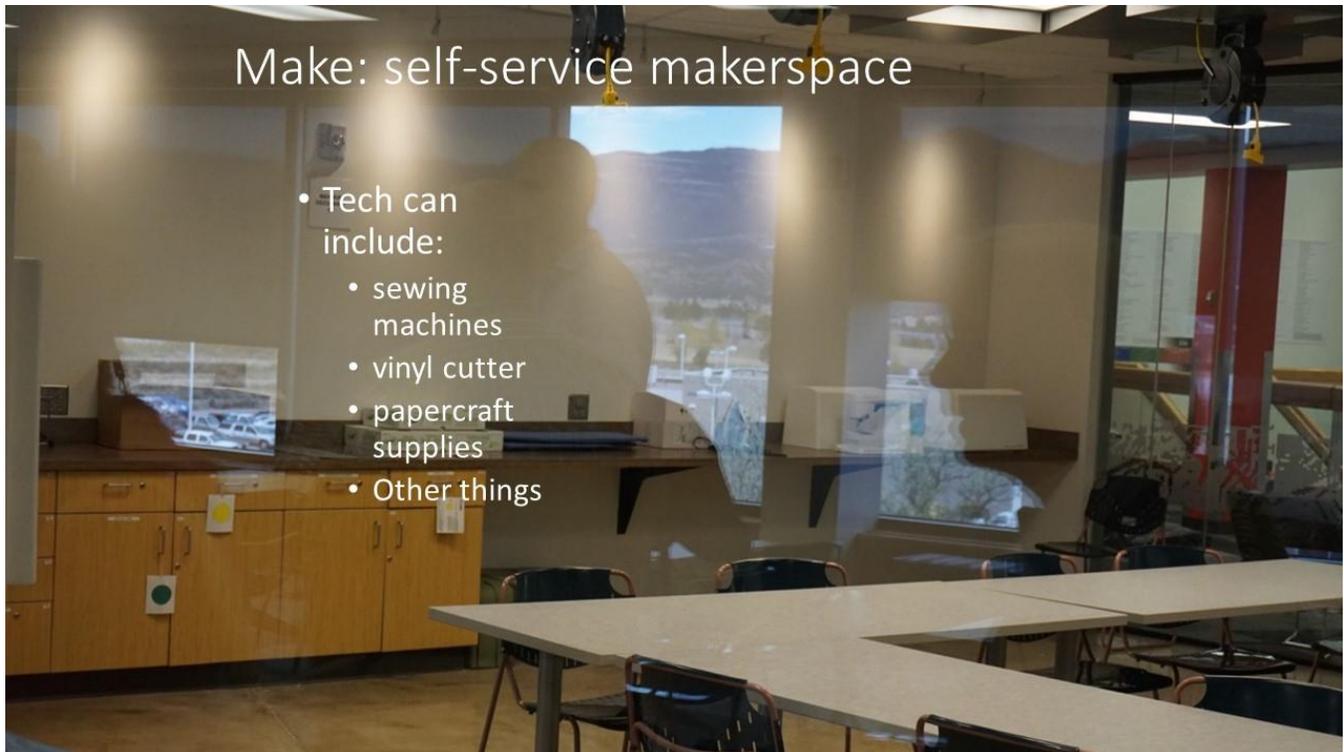


Library 21- Pikes Peak Library District <https://ppld.org/library-21c>



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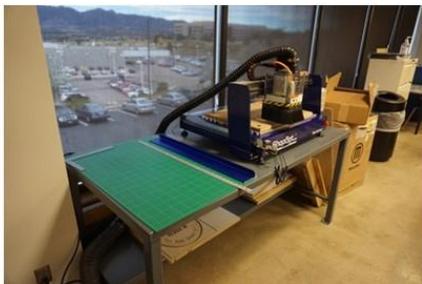


## Make: self-service makerspace

- Tech can include:
  - sewing machines
  - vinyl cutter
  - papercraft supplies
  - Other things

## Make: staffed makerspace/workshop

- hand tools
- power tools
- 3D printing and scanning
- Laser engraving
- CNC milling
- ...and all the other future things



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## Arlington Heights, IL

Explore the Makerplace



Fabrication



Flex Space 1



Kitchen



Flex Space 2



Sewing and Quilting



Creative Arts



Audio – Visual Creation

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Make: Media Creation at Miami-Dade



Audio/Visual Creation at  
Tacoma PL

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The Studio at Indian Creek  
Library (Olathe, KS)



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Computers (collaborative spaces)



Computers (individual spaces)

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## Children's Technology – Supporting Learning



Tech not the center of attention but present and on the periphery.

## Teens – Technology and Study

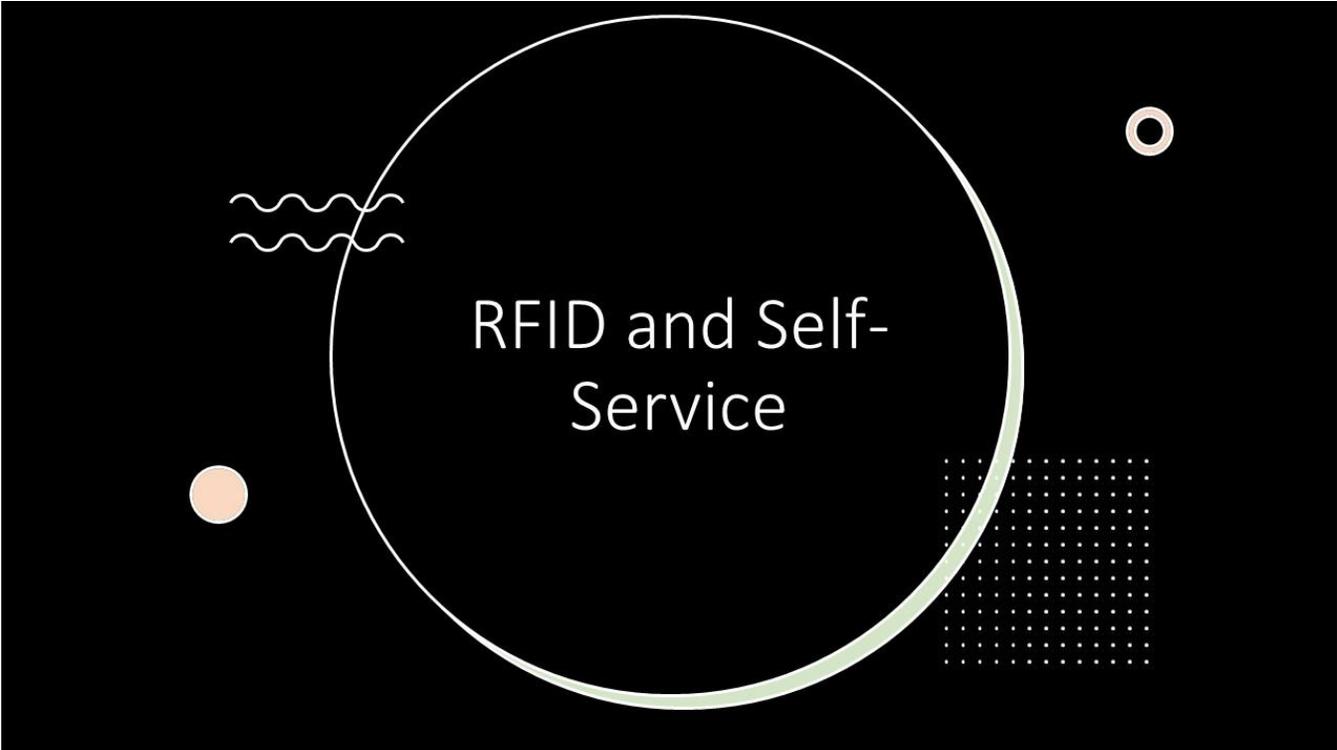


A place to work and connect outside of school and sports.



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Radio Frequency Identification (RFID) – Previously in Use At Porterville

## LibBest Library RFID Management System



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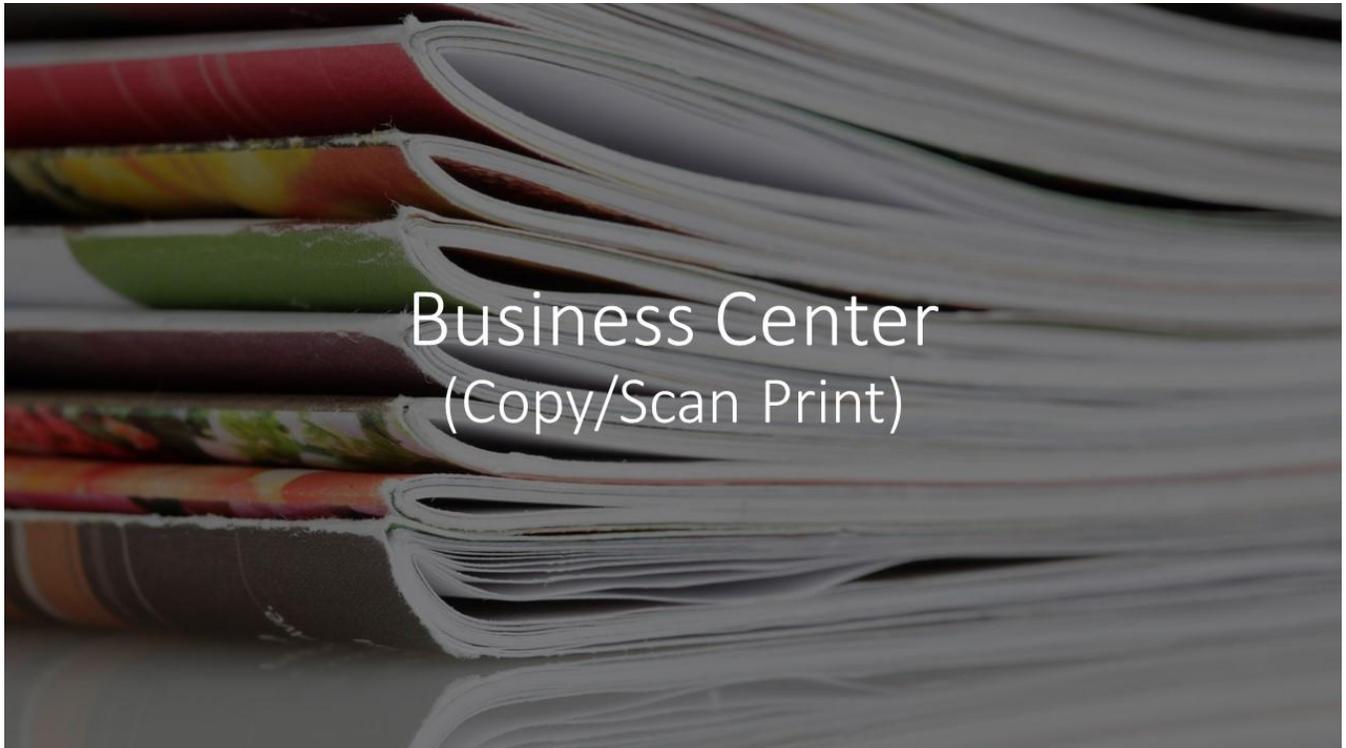


Consider  
form and  
function



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## Business Center (Copy/Scan Print)



## Wayfinding – Digital Signage

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Mobile  
Devices



Tech-Driven Services

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## Economic Development

Provide spaces and programming for:

- Job skills-specific computer training
- Assistance in finding and applying for jobs
- Support for Small and home-based businesses



The education continuum  
– schools and libraries

- Smartboard & other tech that matches school district.
- Partnering with K-12, Porterville College and College of Sequoias

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## New & Self-Directed Education

## Special Populations

- Assistive Technology
- Reflective of Porterville's cultures.
- Others?

**Library Services for Immigrants**  
*A Report on Current Practices*



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New Experiences & “Showrooming”/Petting Zoo



## New Service Models: Roving

Designed to improve customer service by removing physical barriers between library staff and patrons.

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## Innovation Opportunities

- Connect to Ag Tech and Food Security
- Technology to connect inside and outside experiences
- Further leverage community embracement of social media for library services/web services
- Balance of technology and technology-free zones
- Celebrate and cultivate Porterville's Spanish-speaking culture through programming, art, services, and collections (physical and digital)
- Technology and programming (possibly via ESL classes) to serve all local cultures, including Spanish Speakers, Native Americans, Asian (Hmong, Korean, Filipino and others) Arabic, Syrian and others.
- For staff: back-channel communications capabilities to stay connected during times of need

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Preliminary Library Technology Program  
For Construction**

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## **13 Appendix D: Survey Data Findings: Visuals**

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## Other open-ended survey questions: Question 6

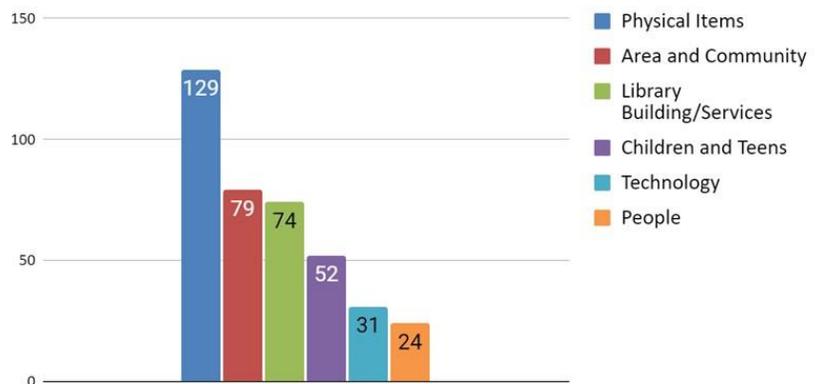
### QUESTION 6 "What else would you like to tell us about the library's collection that we haven't asked?"

Number of Responses: 529

#### Keyword Trends (somewhat interesting)

1. "Physical Items"
  - Books
  - Collection
  - Anime
  - Art
2. "Area and Community"
  - Community
  - History
  - Spanish
  - History of Porterville
3. "Library Building/Services"
  - Library
  - Place
  - Activities
  - Fire
4. "Children and Teens"
  - Children
  - Kids
  - School
  - Parents
5. "Technology"
  - Computer
  - Access
  - Console
  - Games
6. "People"
  - People
  - English
  - Language

6. What else would you like to tell us about the library's collection that we haven't asked?



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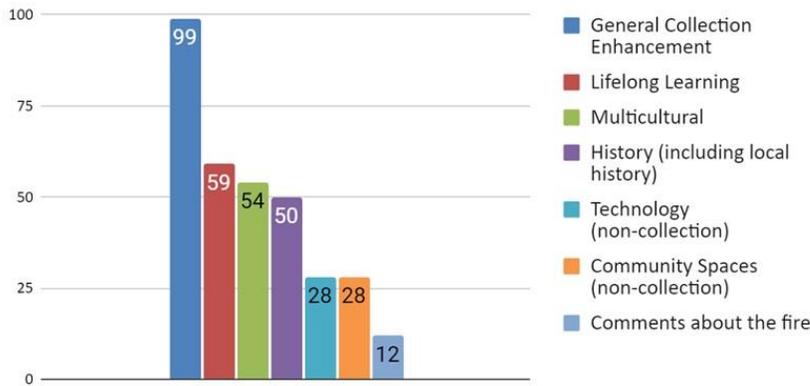


## QUESTION 6 "What else would you like to tell us about the library's collection that we haven't asked?"

Number of Responses: 529

### Top Topics (more revealing)

Q6. What else would you like to tell us about the library's collection that we haven't asked?



### Top Topics (list)

1. "General Collection Enhancement"
2. "Lifelong Learning"
3. "Multicultural"
4. "History (including local history)"
5. "Technology (non-collection)"
6. "Community Spaces (non-collections)"
7. "Comments about the fire"



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## QUESTION 6 "What else would you like to tell us about the library's collection that we haven't asked?"

Example Comments: **General Collection Enhancement**

I think there should be multiple copies of more popular books so multiple people can check those books out.

A good amount of people I know would like to read superhero comics from Marvel or DC

Reference books should be high priority

Would like some Christian books

Access to music sheets and scripts for plays/musicals. More books of the arts

Complete sets would be nice to be able to read a series in order.

I would like to have some books from the fantasy genre and newer ones as well.

Would you be able to get more music CDs from more different artists and genres?

Craft books would be nice!

To have different themed areas, make the reading environment like home.



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## QUESTION 6 “What else would you like to tell us about the library’s collection that we haven’t asked?”

Example Comments: **Lifelong Learning**

Please include a greater variety of books for all age groups as well as books in languages other than English

Would love to see a finance and budgeting type books to help the community become better with their finances to help us all prosper.

Maybe consider getting textbooks to help kids with school and their subjects

My family had loved the Porterville Library for almost 20 years. Our favorite books were always all the different art's and crafts books. We love making and trying new things.

Would be nice to have encyclopedia's and books on specific trades or hobbies

Helping people navigate technology and becoming citizens

Language learning and travel

I would like to see more career help books for steps after college and true crime books for an outlook on criminal psychology



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## QUESTION 6 “What else would you like to tell us about the library’s collection that we haven’t asked?”

Example Comments: **Multicultural; History**

Books in braille.

We need K - 8th grade Spanish books for dual immersion students

We lost a lot of historical documentation. I would like to see us try to replace what we can.

A good culturally relevant selection of materials that suits our diverse community.

Hope that the genealogy collection can be rebuilt

It is important to have an area about Chicano, Asian, Black, Native history books and not a few books. This community is multicultural and not just white immigrants.

Library should have a good array of essay and history books among those of non-fiction.

I would like to read Japanese Manga, such as Naruto.

Make an area for guest speakers and displays that can be used for teaching Porterville .

I would like books on art and history



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## QUESTION 6 "What else would you like to tell us about the library's collection that we haven't asked?"

Example Comments: **Technology (non-collection);**  
**Community Spaces (non-collection);**  
Comments about the fire

I want to be able to rent games from consoles such as the Nintendo Switch and PlayStation 4 similar to the Tulare library.

New popular video game show host tournaments and computer setups

Streaming WiFi and providing computer usage with printing scanning and faxing services

Make a place to use computers to study, game, or other stuff.

A memorial for the firemen lost in the fire.

Add a personalized lounge area in the names of our fallen firefighters.

The children's play area with stuffed toys and puppets was where I was able to interact with my children.

It would be beneficial to have an area (outside) to have a sitting area and a small cafe house. An area with Trees, plants, grass area, sitting benches.

Comfortable lounging chairs to read in - to pass the time.

it should have quiet rooms



What was taken from the community goes to the very core of every child born and raised in this town for the duration of its existence.

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Consulting



# Other open-ended survey questions: Question 22

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## QUESTION 22

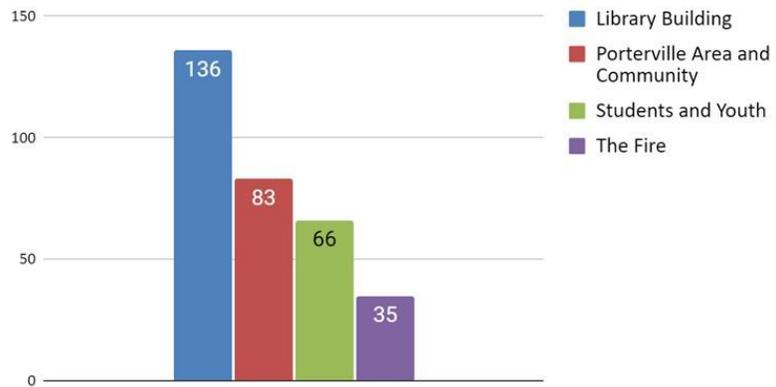
“Anything else you’d like to tell us about the library that we haven’t asked?”

Number of Responses: 492

**Keyword Trends**  
(somewhat interesting)

1. “Library Building”
  - Library
  - New library
  - Staff
  - Books
2. “Porterville Area and Community”
  - Community
  - People
  - Place
  - Town
3. “Students and Youth”
  - Children
  - Kids
  - Story Time
  - School
4. “The Fire”
  - Firefighters
  - Fire
  - Fallen hero
  - Statue

22. Anything else you’d like to tell us about the library that we haven’t asked?



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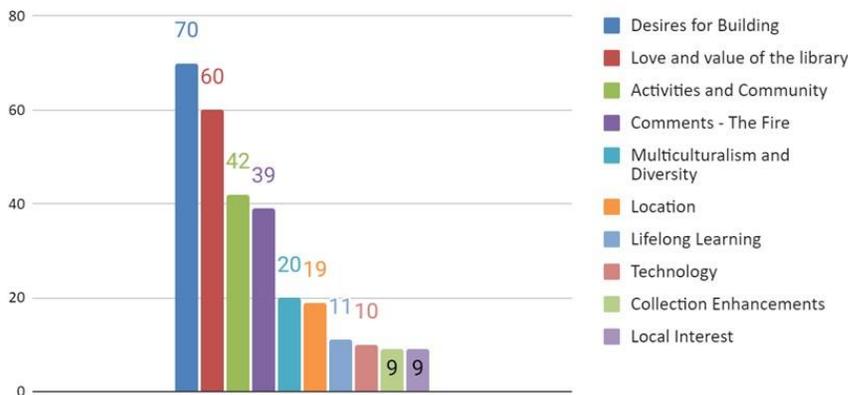
## QUESTION 22

“Anything else you’d like to tell us about the library that we haven’t asked?”

Number of Responses: 492

**Top Topics** (more revealing)

22. Anything else you’d like to tell us about the library that we haven’t asked?



**Top Topics** (list)

1. “Desires for Building”
2. “Love and value of the library”
3. “Activities and Community”
4. “Comments – The Fire”
5. “Multiculturalism and Diversity”
6. “Location”
7. “Lifelong Learning”
8. “Technology”
9. “Collection Enhancements”
10. “Local Interest”



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## QUESTION 22

**“Anything else you’d like to tell us about the library that we haven’t asked?”**

Example Comments: **Desires for Building**

Offer a child care center to care for the children while their parents look for library material?

Outside playground would be amazing!

A coffee shop outside would be loved.

Please go big. The new library needs to be a source of community pride and serve our community for 30-50 years.

I'd like the library to demonstrate energy efficiency and a green roof.

Include a quiet area ONLY for people that have intellectual disabilities. A place for workers from Day Programs like Social Vocational Services and Care homes to take clients to the library without having to worry about them being too loud.

Make sure quiet areas are enforced please.

Have some art to look at.

Maybe keeping the children’s area separate from the study rooms or quiet reading areas.

A book drop-off and pick-up area on the west side would be helpful.



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## QUESTION 22

**“Anything else you’d like to tell us about the library that we haven’t asked?”**

Example Comments: **Love and value of the library**

I hope to see a dynamic and competitive library fit for a growing community.

I LOVE THE LIBRARY

I miss the library terribly and cannot wait to walk through it’s doors again. A town without a library is simply not complete.

The community’s support of the library following the fire only shows just how much the library means to Porterville residents.

I really miss the library

I enjoyed the entertainments aspect of the library, i.e. Night of a Thousand Stars performances and Readers Theater.

Nothing, just that I miss the library! So excited to have a new library coming soon!!

When will it open?

We loved everything about our old library but look forward to a new chapter in getting our new one up and running.



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## QUESTION 22

**“Anything else you’d like to tell us about the library that we haven’t asked?”**

Example Comments: **Activities and Community;**  
**Comments– the Fire**

Available hours after 4/5pm that includes interactive activities with the kids.

Include the READ sign that survived the fire in the new design.

Movie nights maybe and partnership with the tile river reservation, mainly the future generations, to help the youth for the future.

The tragic story of our library went across the country, I think people would want to see a high tech, amazingly wonderful library rise from the ashes and would put their money behind it.

Make it fun and a place that kids and teens will want to go learn and be comfortable

I would love to attend art classes like they have at Exeter Library.

I really appreciate the response of the staff on the day we had to evacuate because of the fire. Please make sure there is an up to date alarm and fire suppressing system in place.

It is important to have an area about Chicano, Asian, Black, Native history books and not a few books. This community is multicultural and not just white immigrants.

I would like to see a dedicated spot in the library for our fallen fire fighters.



Bring back fitness classes to students during the summers! Just as it was done a few years back.

Nothing. I was heartbroken when it burned down.

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## QUESTION 22

**“Anything else you’d like to tell us about the library that we haven’t asked?”**

Example Comments: **Multiculturalism and Diversity;**  
**Location**

I would like to see more bilingual resources.

I would also like to suggest that you consider other languages that people speak here such as; Tagalog, Russian, Urdu, Arabic, and Lao.

I hope the city purchases a larger lot to build on and uses the old library site for other purposes. Our town has grown and we need a larger state of the art library to meet current and future needs.

Judgement free environment that can make everyone feel welcome

I live in Woodville, difficult for our kids to get transportation to and from Library, is there room for a mobile library?

The library should focus on the needs of people who can’t afford to buy books, WiFi, devices.

I want the library to stay in town.

The library needs to be inclusive. It needs to be accessible, safe, and the people who work there able to communicate with our community members. Having this be a place where everyone feels valued is key.

Having the library accessible to people of all socioeconomic backgrounds will be very vital if these resources mentioned [in the survey] will be of use.



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## QUESTION 22

**“Anything else you’d like to tell us about the library that we haven’t asked?”**

Example Comments: **Lifelong Learning**; **Technology**

I would like to see special interest classes for adults, senior citizens, community in general. In finances, real estate, medi-care, medical, refinance, banking, etc....???

I'd like the library to continue providing internet access through computers/iPads for the community.

Would be great to offer career support services like resume and cover letter workshops, best tips for job interviews, and career coaching.

Build it! We need a state of the art Library

Make sure the library offers English classes, tutoring, and adult classes for reading. Author visits would also be a great idea!

I want them to have modern pc because I want to play for esports next year in school.

Book clubs for Grandparents and grandchildren

Evening computer classes would be good in the summer months, not in cold weather.



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## QUESTION 22

**“Anything else you’d like to tell us about the library that we haven’t asked?”**

Example Comments: **Collection Enhancements**; **Local Interest**

I think if there are E-Books, there should also be a physical copy of that book for people who prefer physical books.

I hope we can reconstruct all the historical data, pictures, etc. about Porterville. There is so much very cool history about Porterville, and that loss was the most upsetting to me when our beloved library was destroyed by fire. 😞

I would love to have a library in the community where I can take my kids to show them how important reading is and it can be cool because other kids do it as well.

It would be great to see something Celebrating agriculture and education being the bridge to the American dream, as well as celebrating all cultures. Our community is very diverse and strong everyone deserves to see a piece of their heritage.

We need to better our community and bring in new resources that interest our children that way we set a learning foundation for the real world.

I loved the different glass display cases that held different and interesting collections like the display that had different stones. They were very informative.

I'd suggest to provide poetry books as well.

We would love to see the library incorporated into community events. Food vendors at the library would attract many people getting off work and just wanting a nice-safe place to relax at before heading home.



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# Porterville Public Library Preliminary Library Technology Program For Construction

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## Top Overall Themes Informing the Technology Recommendations



- Tremendous community support for a new library
- Tight-knit staff with close connections to patrons and staff with each other
- WiFi/Internet access, power for recharging and learning opportunities are key technology needs
- Desires for greater technology access and learning with an emphasis on Digital Inclusion
- Library will need additional technology resources in the future to support plans – basic tech leadership & support (staff) and assistance with management and maintenance

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## Key Technology Findings – Technology Environment



- The library previously used Radio Frequency Identification (RFID); will continue and expand in new library
- SJVLS connection is a primary asset
  - Integrated Library System
  - Robust connectivity = 1 Gigabit connection
  - Excellent Support
- Leverage E-Rate for all applicable expenses (assistance with E-Rate filing is another benefit of SJVLS membership)
- California State Library ARPA Grants (pending timeline)
- Partnership with City of Porterville IT for some essential device support

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## Key Technology Findings – Staff

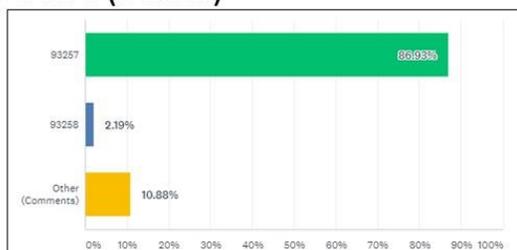
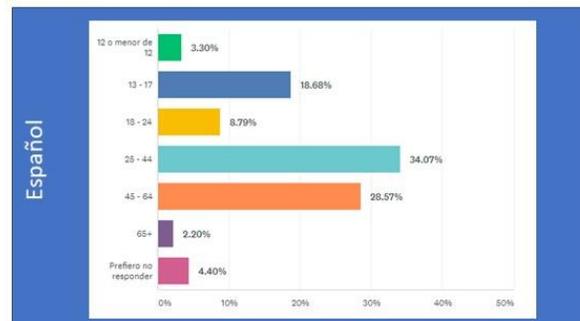
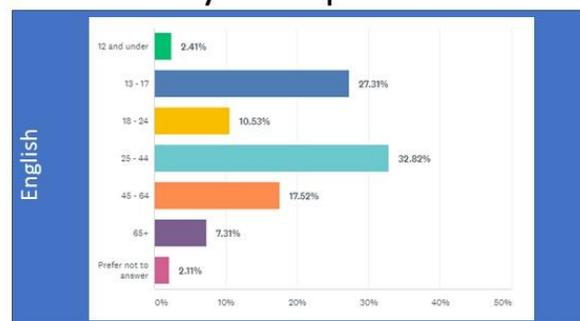
- Excellent Leadership (Vikki, Tony) and Vision for Community Service
- Support from City Administration (Donnie)
- Resilient, positive, “can-do” staff
- Aspirations for Patrons:
  - “...count on the library as a valuable resource for their technology needs” and “be comfortable with their own technology, the technology they encounter in everyday life, and the tech provided by the library
- Aspirations for Staff:
  - “...be knowledgeable and comfortable enough with technology to learn, grow, and adapt to new and emerging technology... and getting comfortable/ knowledgeable enough with it to be able to help themselves and patrons.”



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## Key Technology Findings – Survey Respondents

- Strong Response: 1628 respondents = 3% of the population
- 100% Completion rate and 7 min typical time spent (9 min for the Spanish version)
- Age of respondents (right)
- Zip Code (below)



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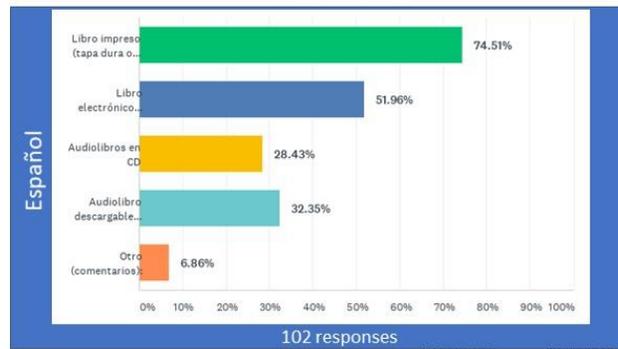
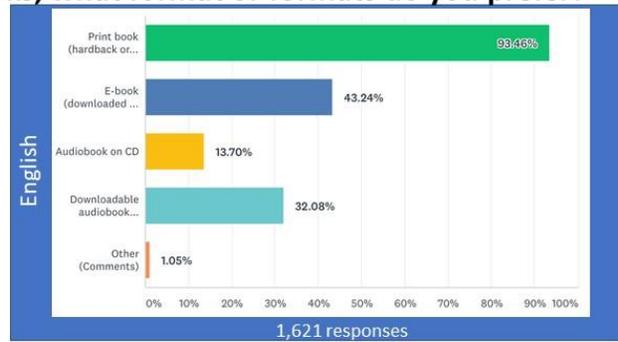
## QUESTION 2 “Thinking about books, what format or formats do you prefer?”

### Technology Finding:

Print remains the most important, but eBooks and downloadable audiobooks are strongly desired.

### Technology Recommendation:

The Porterville Public Library can expect a “mixed mode” future for library materials (both physical and digital) with lots of space devoted to physical books.



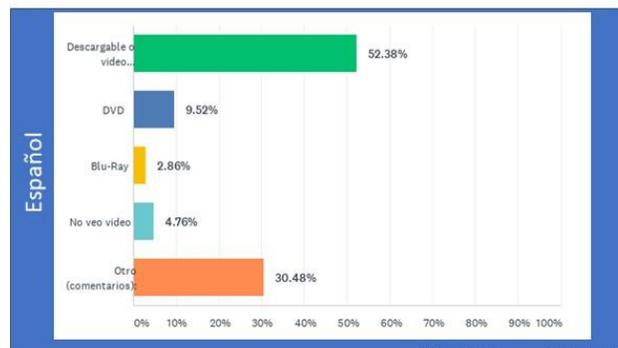
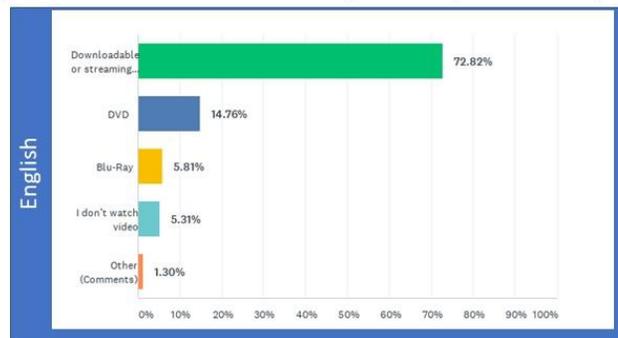
## QUESTION 4 “What is your favorite way to watch video content (movies, TV series, documentaries, etc.)?”

### Technology Finding:

Downloadable video is favored over hard media (e.g. DVD and Blue Ray discs)

### Technology Recommendation:

Library should assess space needed for physical video collection and explore new library-friendly streaming options.



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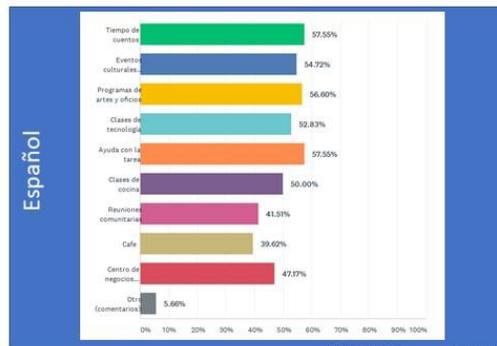
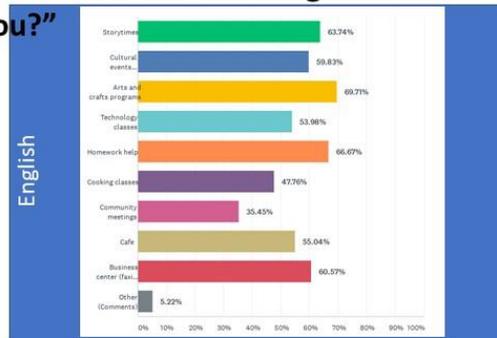
## QUESTION 9 “Thinking about the new library, which of the following activities or amenities are of interest to you?”

### Technology Finding:

More than half of the respondents desired technology learning opportunities and access to “business center” technology

### Technology Recommendation:

Business Center-type technology can include scanning, copying and printing, as well as education and mentoring.



## QUESTION 10 “The new library will include meeting rooms of varying sizes. How important are each of the following options to you?”

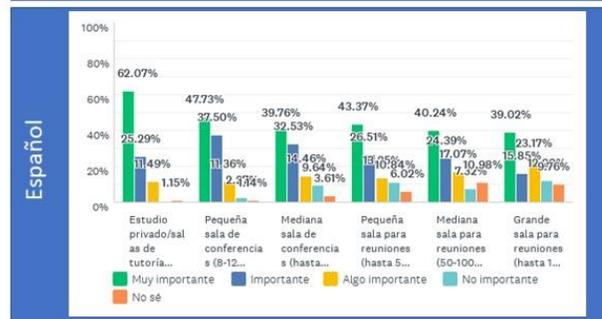
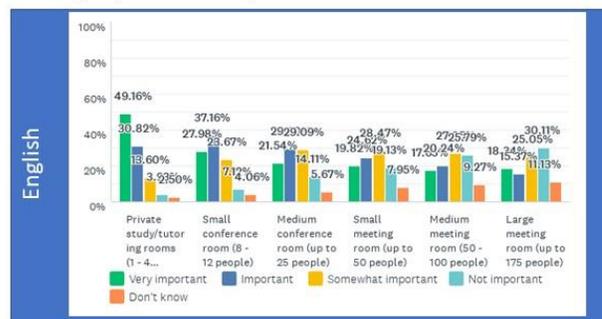
### Technology Finding:

Meeting spaces are desired by a large portion of respondents.

*There are some differences in room size desires between English and Spanish Speakers.*

### Technology Recommendation:

Most meeting spaces require some form of technology support (WiFi, display devices, audio support, and other Audio/Visual equipment).



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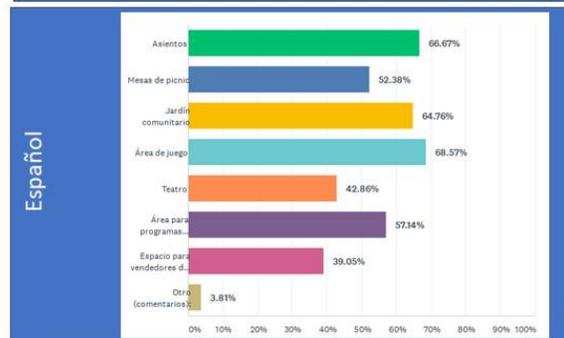
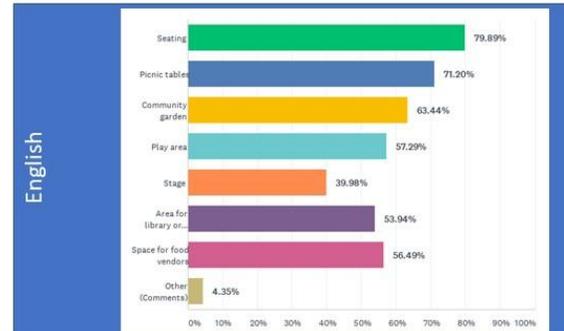
## QUESTION 11 “Thinking about the outdoor space at the new library, what amenities would be of interest to you?”

### Technology Finding:

Highly-ranked amenities include seating and eating areas, spaces for community programming, accommodations for food vendors and others.

### Technology Recommendation:

All outdoor spaces would benefit from technology support including strong WiFi, power access, and perhaps A/V support.



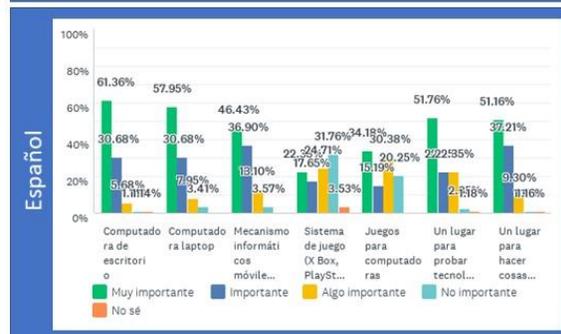
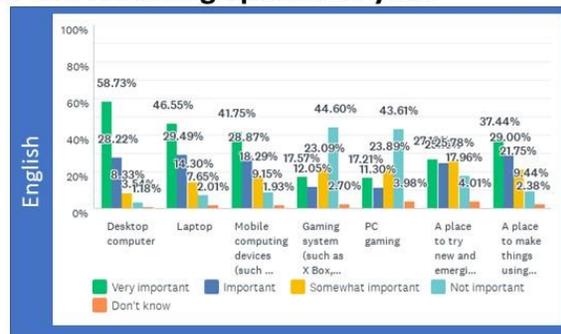
## QUESTION 12 “How important are each of the following options to you?”

### Technology Finding:

Access to technology devices (all types) is important. Desktop computers, laptop computers and mobile devices ranked high. Strong interest in the library as a place to try new technologies and a place to make things aka Makerspaces.

### Technology Recommendation:

Access to devices of all types should be supported in the new library.



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## QUESTION 13 “Thinking about a potential makerspace at the library, what would be of interest to you?”

Technology Finding:

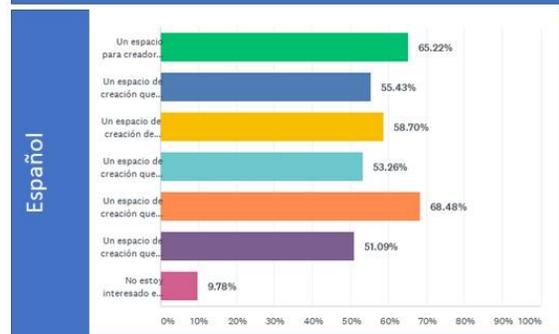
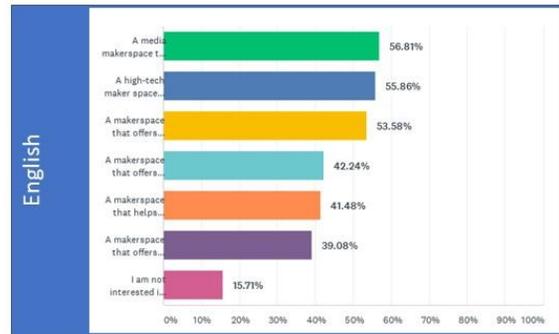
Makerspaces; strong desire for multiple modes of make

Technology Recommendation:

- High tech makerspace
- Media lab
- Papercrafts

Guiding Principles:

Flexible Space; Supporting Community’s Diverse interest



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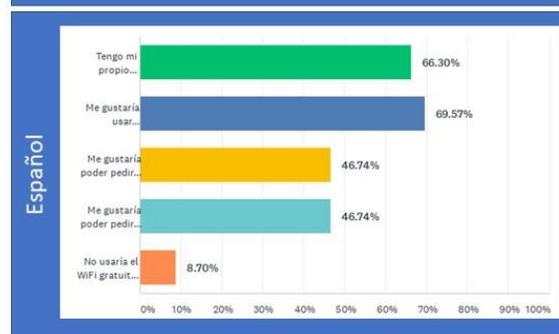
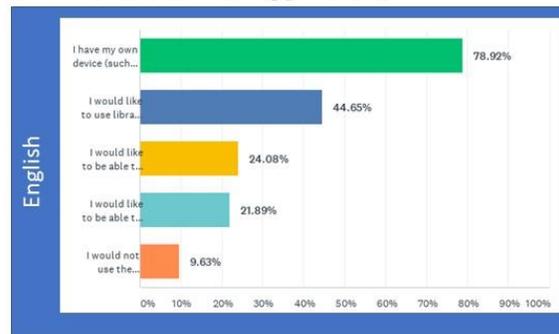
## QUESTION 14 “Please tell us about your WiFi and technology needs.”

Technology Finding:

BYOD (Bring Your Own Device) and in-library technology important. Circulating devices outside of the library (home use) was not ranked as important by English speakers, but more important by Spanish Speakers.

Technology Recommendation:

Focus on BYOD and in-house library tech; but re-examine library needs for circulating mobile devices, especially for Spanish speakers, based on survey results and comments



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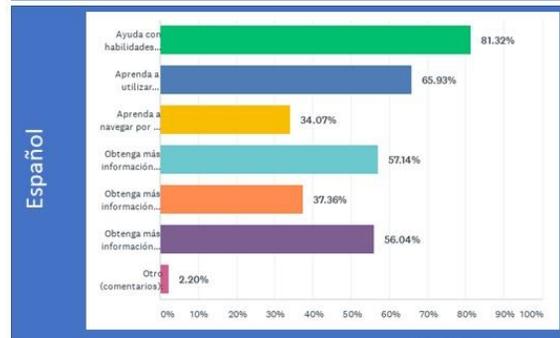
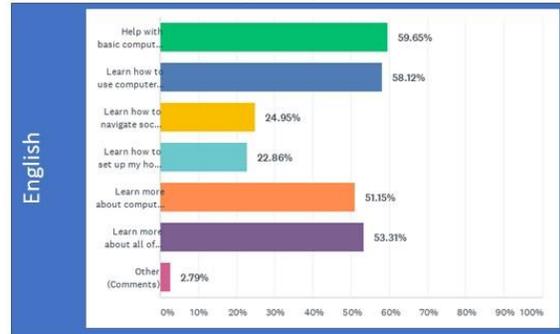
## QUESTION 15 “What sort of help would you like the library to provide?”

### Technology Finding:

Top learning opportunities:  
basics; security/safety; using the  
library’s online resources

### Technology Recommendation:

- Training Spaces
- Curriculum
- Support from Library Staff



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# Open-Ended Technology Question

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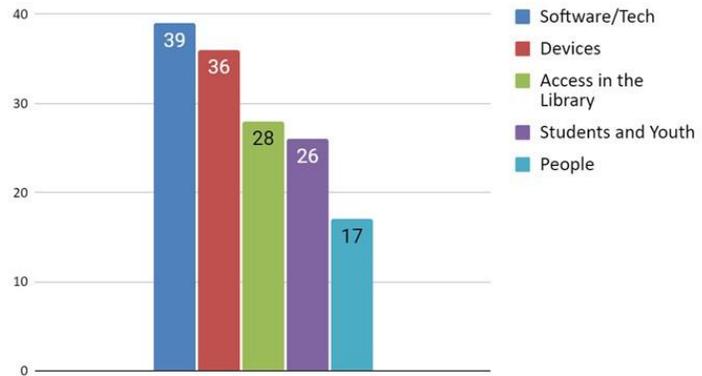
## QUESTION 16 “What else would you like to share about your technology needs?”

Number of Responses: 324

### Keyword Trends (somewhat interesting)

1. “Software/Tech”
  - Technology
  - Technology need
  - Social media
  - Program
2. “Devices”
  - Computer
  - Device
  - Laptop
  - Printer
3. “Access in the Library”
  - Library
  - WiFi
  - Access
  - Fast WiFi
4. “Students and Youth”
  - Students
  - Kids
  - Teen
  - Homework
5. “People”
  - People
  - Help
  - Community

16. What else would you like to share about your technology needs?



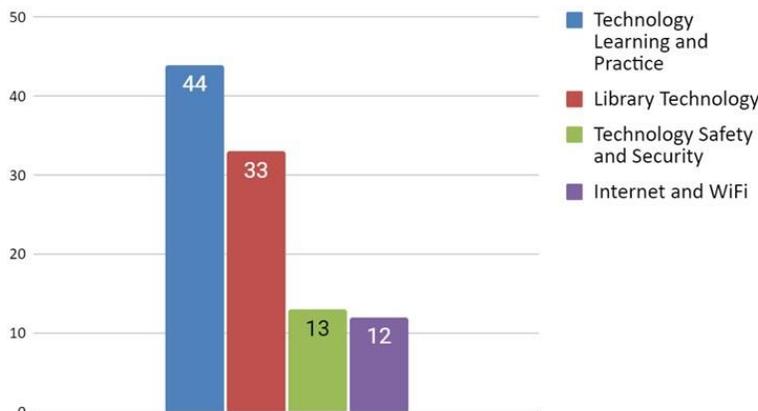
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## QUESTION 16 “What else would you like to share about your technology needs?”

Number of Responses: 324

### Top Topics (more revealing)

16. What else would you like to share about your technology needs?



### Top Topics (list)

1. “Technology Learning and Practice”
2. “Library Technology”
3. “Technology Safety and Security”
4. “Internet and WiFi”



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## QUESTION 16 “What else would you like to share about your technology needs?”

Example Comments: **Technology Learning and Practice**

How to use our technology for school

I would like to learn how to set up a computer and learn how to set up from control panels to desk top screen.

Programs beyond basic computer skills such as intermediate or advanced.

Space to create audio & video.

Lessons and or help for elders to navigate technology.

Might be nice to have training and use of basic and advance photoshop and photo editing programs.



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## QUESTION 16 “What else would you like to share about your technology needs?”

Example Comments: **Library Technology**

I would like to be able to use library desktop computers or my own laptop or iPad or phone to print from my email to a library printer. I would also like to be able to use library copiers.

Having computers to take home to use it for homework.

My concern is the people who don't have access. We need the library to be a resource that can lift people out of poverty and join The American Dream

The library should be future focused with robotics and programming options.

Make an area so we can charge our phones, tablets, laptops, and other stuff.



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# Porterville Public Library Preliminary Library Technology Program For Construction

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QUESTION 16

**“What else would you like to share about your technology needs?”**

Example Comments: **Technology Safety and Security;**  
Internet and WiFi

Learn how to make my technology child safe.

I think we should also learn about any safety hazards we can use on any devices

Child/teen awareness of dangers Parental supervision and guidance to help them speak to their children of bad habits and addiction to electronics or social media

I would like for there to be online safety courses for parents/teens especially for Spanish speaking community.

It is important for students to be able to bring their school device and use the library's Wi-Fi.

We need a lot of ethernet cables so each technology will have fast internet.

I need free and fast WiFi.

Learn how to set up or fix wifi or anything like that



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