



El Camino Charter High School

Regular Board Meeting

Date and Time

Thursday September 26, 2019 at 4:30 PM PDT

Location

El Camino Real Charter High School, Library, 5440 Valley Circle Boulevard, Woodland Hills, CA 91367

REGULAR BOARD MEETING

For board meeting materials, please go to the school's main office, or call (818) 595-7500. Some board meeting materials are also posted in the school's website (<https://ecrchs.net> - click the ECR Board tab).

INSTRUCTIONS FOR PRESENTATIONS TO THE BOARD BY PARENTS AND CITIZENS

El Camino Real Alliance ("ECRA") welcomes your participation at ECRA's Board meetings. The purpose of a public meeting of the Board of Directors ("Board") is to conduct the affairs of ECRA in public. Your participation assures us of continuing community interest in our charter school. To assist you in the ease of speaking/ participating in our meetings, the following guidelines are provided:

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who requires the use of a translator, in order to receive the same opportunity as others to directly address the Board, shall have twice the allotted time to speak, and the total allocated time shall be appropriately increased as well.

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5. Any public records relating to an agenda item for an open session of the Board which are distributed to all, or a majority of all, of the Board members shall be available for public inspection at 5440 Valley Circle Blvd., Woodland Hills, California, 91367.

Consent Agenda: All matters listed under the consent agenda are considered by the Board to be routine and will be approved/enacted by the Board in one motion in the form listed below. Unless specifically requested by a Board member for further discussion or removed from the agenda, there will be no discussion of these items prior to the Board votes on them. The Executive Director recommends approval of all consent agenda items.

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Agenda

	Purpose	Presenter	Time
I. Opening Items			4:30 PM
Opening Items			
A. Call the Meeting to Order		Scott Silverstein	1 m
B. Record Attendance and Guests		Daniel Chang	1 m
C. A Moment of Silence		Scott Silverstein	1 m
D. Pledge of Allegiance		Beatriz Chen	3 m
E. Public Comments		Public	30 m
F. Executive Director Update		David Hussey	15 m
G. Chief Business Officer Update		Alan Darby	15 m
II. Governance			5:36 PM
A. Vote to Install Parent Representative Election	Vote	Scott Silverstein	5 m

Discuss results of election for Parent Representative, term ending June 30, 2020. Vote to install the winning candidate.

	Purpose	Presenter	Time
B. Committee Updates	Discuss	Scott Silverstein	10 m

The Committees will provide any updates as necessary. Also, discuss openings for the Tech Committee.

III. Consent 5:51 PM

A. Approve Minutes of August 22, 2019 Regular Board Meeting	Approve Minutes	Scott Silverstein	1 m
B. Approve Minutes of August 22, 2019 Special Meeting	Approve Minutes	Scott Silverstein	1 m

IV. Financial 5:53 PM

A. Review and Vote on August 2019 Check Registers	Vote	Alan Darby	10 m
ACTION ITEM: motion to approve the August 2019 check registers.			
B. August 2019 Financial Update	Discuss	Alan Darby	10 m

V. School Business 6:13 PM

A. Tech Update and IT Audit Update	Discuss	Beatriz Chen	20 m
B. Discuss and Possible Approval of Payment of \$250,000 to LAUSD	Vote	David Hussey	10 m

Discuss and possible vote authorizing payment of \$250,000 to LAUSD for maintenance services. This would be a partial payment for services rendered through the last two years, while reconciliation and accounting continues.
ACTION ITEM: motion to approve a payment of \$250,000 to LAUSD for maintenance services.

VI. Closed Session 6:43 PM

A. Conference with Legal Counsel: Anticipated Litigation	Discuss	Scott Silverstein	15 m
Significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of Government Code § 54956.9: three (3) matters.			

VII. Reconvene to Open Session 6:58 PM

A. Report on Actions Taken in Closed Session, If Any	Discuss	Scott Silverstein	3 m
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VIII. Closing Items 7:01 PM

A. Adjourn Meeting	Vote	Scott Silverstein	1 m
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Coversheet

Approve Minutes of August 22, 2019 Regular Board Meeting

Section: III. Consent
Item: A. Approve Minutes of August 22, 2019 Regular Board Meeting
Purpose: Approve Minutes
Submitted by:
Related Material:
Minutes for Annual Meeting and Regular Board Meeting on August 22, 2019

APPROVED



El Camino Real Charter High School

Minutes

Annual Meeting and Regular Board Meeting

Date and Time

Thursday August 22, 2019 at 4:30 PM

Location

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ANNUAL MEETING REGULAR BOARD MEETING

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TELECONFERENCE LOCATIONS

Teleconferencing will be available at the following locations:

ECR College & Career Independent Study Program
7401 Shoup Avenue
West Hills, California 91307

REPS & Co.
4141 Jutland Drive #300
San Diego, California 92117

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hours prior to the meeting to Daniel Chang, in person, by email at d.chang@ecrchs.net, or by calling (818) 595-7537.

Directors Present

Beatriz Chen, Brian Archibald, Darin Ryburn, Kenneth Lee, Scott Silverstein, Steven Kofahl

Directors Absent

Gregory Basile

Guests Present

Alan Darby, Daniel Chang, David Hussey

I. Opening Items

A. Call the Meeting to Order

Scott Silverstein called a meeting of the board of directors of El Camino Real Charter High School to order on Thursday Aug 22, 2019 at 4:38 PM.

B. Record Attendance and Guests

C. Pledge of Allegiance

D. Public Comments

Letty Zane, Friends of ECR, spoke regarding the upcoming Parent Representative position on the Board, and spoke in favor of the bus pass program.

David Valenzuela, teacher and Latino Coordinator, spoke in favor of the bus pass program.

Kathy Her, teacher, spoke in favor of the bus pass program.

Jonathan Wasser, teacher, spoke in favor of the bus pass program, and in favor of the AP of Student Services being given authority to sign settlement agreements at due process mediations.

E. Executive Director Update

Mr. Hussey noted that the first two weeks of school started very positively.

Mr. Hussey recognized the Psychiatric Social Worker, who is on campus three days a week, though we may need to increase this to five days a week.

Ms. Hussey stated that he is working with the Friends of ECR and a private donor to try to get the bleachers replaced. He is also working with a private company about bringing in portable crates to serve as new modulars.

Regarding the Unique Selling Proposition, he proposed the following: The home of academic, artistic and athletic excellence, and a place where all can succeed (all to encompass students, staff, and the community).

At the last Board meeting, Mr. Ryburn asked about the video regarding social media. Mr. Hussey noted that, when a student gets a laptop, he/she has to watch videos regarding privacy, safety, and social media awareness. He is looking into whether this should be done on a yearly basis.

Last Thursday, the Friends of ECR had more than 40 parents attend their annual meeting. And Coffee with the Principal took place this past week. ECR will send an administrator to FoECR's monthly meetings, and Coffee with the Principal will take place every other month, so that concerns can be heard and addressed.

He and Mr. Darby will work with the Finance Committee regarding the marketing position, to possibly go beyond the budgeted amount for that position. This would allow for better communication and outreach.

Of the incoming 9th graders, 57% live outside the attendance boundary.

Mr. Silverstein spoke regarding reports on social media of two traffic accidents around the school; would suggest a committee to work on the issue of parking and an overall safety program.

F. Chief Business Officer Update

Mr. Darby stated that Paycom was implemented for the entire staff, and to date it seems to be going well.

Mr. Darby met with LAUSD Board member Mr. Schmerelson yesterday, and Mr. Schmerelson wanted to convey that he is very pleased with ECR's progress over the last year.

II. Governance

A. Elect 2019-2020 Board Chair

Mr. Silverstein nominated himself for Board Chair. There were no other nominations.

Mr. Ryburn moved to close nominations; Steven Kofahl seconded the motion.

Steven Kofahl made a motion to elect Scott Silverstein as Board Chair for 2019-2020.

Beatriz Chen seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Kenneth Lee	Aye
Scott Silverstein	Abstain
Brian Archibald	Aye
Beatriz Chen	Aye
Gregory Basile	Absent
Steven Kofahl	Aye
Darin Ryburn	Aye

B.

Elect 2019-2020 Board Vice-Chair

Kenneth Lee nominated Darin Ryburn; Mr. Ryburn accepted the nomination. There were no other nominations.

Steven Kofahl made a motion to elect Darin Ryburn as Vice Chair for 2019-2020.

Scott Silverstein seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Steven Kofahl Aye
Darin Ryburn Abstain
Scott Silverstein Aye
Beatriz Chen Aye
Kenneth Lee Aye
Brian Archibald Aye
Gregory Basile Absent

C. Appoint 2019-2020 President

Scott Silverstein moved to appoint David Hussey as President; Mr. Hussey accepted the appointment. There were no other nominations.

Steven Kofahl made a motion to appoint David Hussey as President of El Camino Real Alliance for 2019-2020.

Scott Silverstein seconded the motion.

The board **VOTED** unanimously to approve the motion.

Roll Call

Kenneth Lee Aye
Brian Archibald Aye
Gregory Basile Absent
Beatriz Chen Aye
Steven Kofahl Aye
Darin Ryburn Aye
Scott Silverstein Aye

D. Appoint 2019-2020 Chief Financial Officer

Scott Silverstein moved to appoint Alan Darby as Chief Financial Officer; Mr. Darby accepted the appointment. There were no other nominations.

Beatriz Chen made a motion to appoint Alan Darby as Chief Financial Officer of El Camino Real Alliance for 2019-20.

Steven Kofahl seconded the motion.

The board **VOTED** unanimously to approve the motion.

Roll Call

Beatriz Chen Aye
Darin Ryburn Aye
Scott Silverstein Aye
Brian Archibald Aye

Roll Call

Kenneth Lee Aye
Gregory Basile Absent
Steven Kofahl Aye

E. Appoint 2019-2020 Secretary

Scott Silverstein moved to appoint Beatriz Chen as Secretary; Ms. Chen accepted the appointment. There were no other nominations.

Steven Kofahl made a motion to appoint Beatriz Chen as Secretary of El Camino Real Alliance for 2019-2020.

Scott Silverstein seconded the motion.

The board **VOTED** unanimously to approve the motion.

Roll Call

Brian Archibald Aye
Beatriz Chen Abstain
Kenneth Lee Aye
Scott Silverstein Aye
Steven Kofahl Aye
Gregory Basile Absent
Darin Ryburn Aye

F. Creation of Committees

Travel Committee; Finance and Investment Committee; and Technology Committees were discussed.

The Travel Committee was formed as a standing committee, with Darin Ryburn as chair, Beatriz Chen and Kenneth Lee.

The Finance Committee was formed as a standing committee, with Brian Archibald as chair, Scott Silverstein and Gregory Basile.

The Technology Committee was formed as a standing committee, with Beatriz Chen as chair. Additional members of the Committee will be selected at a later date.

Mr. Ryburn requested that the Board consider forming an Instructional Committee to assist with raising test scores. Mr. Silverstein requested that Mr. Ryburn put something together identifying the goals and objectives.

Steven Kofahl made a motion to form the Travel Committee, Finance Committee, and Technology Committee.

Darin Ryburn seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Beatriz Chen Aye
Steven Kofahl Aye
Gregory Basile Absent
Scott Silverstein Aye
Brian Archibald Aye

Roll Call

Kenneth Lee Aye
Darin Ryburn Aye

G. Discuss Process for Filling Open Board Position

The open Parent Representative position will need to be filled, position is filled by election of parents. The seat was vacated, so the position would complete the current term which ends June 30, 2020. The Board discussed and agreed on the following timeline: post on newsletter and by email blast and social media, as well as announcing at the Back to School Night, applications open Friday, August 23; take applications through September 20; online voting Sunday, September 22 through Wednesday, September 25 - an email blast will be sent with a unique voting code for each household; the winning candidate will be announced at the September 26 Board Meeting.

III. Consent

A. Approve Minutes of July 24, 2019 Regular Board Meeting

Darin Ryburn made a motion to approve minutes from the Regular Board Meeting and Brown Act / Comprehensive Training on 07-24-19 Regular Board Meeting and Brown Act / Comprehensive Training on 07-24-19.

Beatriz Chen seconded the motion.

The board **VOTED** unanimously to approve the motion.

Roll Call

Gregory Basile Absent
Kenneth Lee Aye
Scott Silverstein Aye
Darin Ryburn Aye
Beatriz Chen Aye
Steven Kofahl Abstain
Brian Archibald Aye

IV. Financial

A. Review and Vote on June and July 2019 Check Registers

Beatriz Chen made a motion to approve the June 2019 check registers.

Steven Kofahl seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Darin Ryburn Aye
Beatriz Chen Aye
Scott Silverstein Aye
Kenneth Lee Aye
Brian Archibald Aye

Roll Call

Steven Kofahl Aye
Gregory Basile Absent

Darin Ryburn made a motion to approve the July 2019 check registers.

Steven Kofahl seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Darin Ryburn Aye
Gregory Basile Absent
Steven Kofahl Aye
Brian Archibald Aye
Kenneth Lee Aye
Beatriz Chen Aye
Scott Silverstein Aye

B. July 2019 Financial Update

The summary reflects a positive ending operating balance of \$307,511. However, the financials had the laptop purchase included in the year end balance, but it was purchased in June for use in July, so it should be reflected in the 2019-20 financials.

The budget will be reviewed and revised in September. There were some expenditures in 2018-19 that were higher than budgeted, such as dues and legal fees.

The Fiscal Policies and Procedures will also be revised and submitted (with a redlined copy) for the Board's consideration at a future Board meeting.

C. Discuss and Vote on 2018-19 Year-End Unaudited Actual Financial Report

Darin Ryburn made a motion to approve the 2018-19 Year-End Unaudited Actual Financial Report.

Steven Kofahl seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Brian Archibald Aye
Darin Ryburn Aye
Gregory Basile Absent
Steven Kofahl Aye
Beatriz Chen Aye
Scott Silverstein Aye
Kenneth Lee Aye

V. School Business

A. Tech Update and IT Audit Update

Ms. Chen stated that she spoke with the audit company, and the audit company had promised the report by the third week of August, so she is hopeful that it will be received soon.

As to the 5G upgrade, that should be done by September. The Spectrum 1GB backup line is live.

The 50 Promethean Smart Panels were delivered, and there are additional teachers who have requested a panel.

Ms. Chen also noted that she would like to see greater involvement by parent groups, so they can understand the use of technology better.

B. Discuss and Possible Approval of Authorization for Student Services Mediation

Mr. Hussey stated that, when there are due process mediations, either he or Mr. Darby would have to go to the mediations to sign the settlement agreements. Mr. Hussey recommended that the AP of Student Services be given authority to sign settlement agreements, with the understanding that she will sit with Mr. Hussey and Mr. Darby before hand and have agreed upon parameters for such settlements.

Darin Ryburn made a motion to approve giving AP of Student Services Emilie Larew the authority to sign settlement agreements at due process mediations, with the prior input and authority from the Executive Director and Chief Business Officer before any such mediations take place.

Beatriz Chen seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Brian Archibald	Aye
Darin Ryburn	Aye
Gregory Basile	Absent
Steven Kofahl	Aye
Scott Silverstein	Aye
Beatriz Chen	Aye
Kenneth Lee	Aye

C. Discuss and Possible Approval of Bus Passes

Mr. Archibald noted that, while he agrees that this is a good concept and supports providing the passes for the benefit of the students, the Board has a fiduciary responsibility to ensure that we are aware of the total financial impact, and that any such expenditures have to be budgeted.

As to the financial impact, Mr. Hussey noted that, if we have 1,200 Free or Reduced Price Meal (FRPM) students, and we pay \$24 a month full price (FRPM students may be eligible for a reduced cost of \$14 per month for the passes) for every FRPM student, the total cost would be \$288,000 a year (at \$14 a month, it would be \$168,000 a year).

Mr. Darby stated that the cost is not included in the budget; he suggested that perhaps the program could be approved for four (4) months, and then it can be reassessed.

Mr. Kofahl asked if there was any data as to the possible return on this investment. Mr. Hussey stated that, for Spring 2019, FRPM students were absent 11 days a semester and tardy 5 1/2 days a semester. For tardy students, we do not gain on ADA; but we would gain if we have them at school on time without the stressors of trying to arrange for a ride. Mr. Hussey stated that punctuality would be improved because, as shared by the Intervention Coordinators previously, students would not have to scramble to try to arrange a ride or wait for a bus driver that will allow them to ride for free. The application for the bus pass has requirements for attendance and GPA, a tardy policy can also possibly be included.

Mr. Ryburn stated that he supports the bus pass program, and that he and the entire Board are very much invested in the students and their education.

It was also noted that the amount for the Reduced Price Meal students was based on the full \$24 price; if it students would qualify for the \$14 monthly pass, the total cost would be reduced appropriately.

Scott Silverstein made a motion to approve the purchase of bus passes for students up to \$24 who qualify for Free or Reduced Price Meals, free for free meal students and \$2.50 per month for reduced price meal students, for a period of four (4) months.

Darin Ryburn seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Beatriz Chen	Aye
Steven Kofahl	Aye
Brian Archibald	Aye
Darin Ryburn	Aye
Scott Silverstein	Aye
Gregory Basile	Absent
Kenneth Lee	Aye

VI. Closed Session

A. Conference with Labor Negotiators

Closed session took place.

B. Conference with Legal Counsel: Anticipated Litigation

Closed session took place.

C. Public Employee Performance Evaluation

Closed session took place.

VII. Reconvene to Open Session

A. Report on Actions Taken in Closed Session, If Any

There were no actions taken during closed session.

B. Possible Board Approval of AFSCME Agreement

Darin Ryburn made a motion to ratify the AFSCME Collective Bargaining Agreement.

Steven Kofahl seconded the motion.

The board **VOTED** to approve the motion.

Roll Call

Kenneth Lee	Aye
Steven Kofahl	Aye
Darin Ryburn	Aye
Beatriz Chen	Aye
Brian Archibald	Aye
Gregory Basile	Absent
Scott Silverstein	Aye

VIII. Closing Items

A. Adjourn Meeting

Brian Archibald made a motion to adjourn the meeting.

Steven Kofahl seconded the motion.

The board **VOTED** unanimously to approve the motion.

There being no further business to be transacted, and upon motion duly made, seconded and approved, the meeting was adjourned at 6:50 PM.

Respectfully Submitted,
Daniel Chang

Coversheet

Approve Minutes of August 22, 2019 Special Meeting

Section: III. Consent
Item: B. Approve Minutes of August 22, 2019 Special Meeting
Purpose: Approve Minutes
Submitted by:
Related Material: Minutes for Special Board Meeting on August 22, 2019

APPROVED



El Camino Real Charter High School

Minutes

Special Board Meeting

Date and Time

Thursday August 22, 2019 at 7:00 PM

Location

El Camino Real Charter High School, Library, 5440 Valley Circle Boulevard, Woodland Hills, CA 91367

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Directors Present

Beatriz Chen, Brian Archibald, Darin Ryburn, Kenneth Lee, Scott Silverstein, Steven Kofahl

Directors Absent

Gregory Basile

Guests Present

Alan Darby, Daniel Chang, David Hussey

I. Opening Items

A. Call the Meeting to Order

Scott Silverstein called a meeting of the board of directors of El Camino Real Charter High School to order on Thursday Aug 22, 2019 at 7:40 PM.

B. Record Attendance and Guests

C. Public Comments

There were no public comments.

II. Closed Session

A. Public Employee Discipline/Dismissal/Release

Closed session took place.

III. Reconvene to Open Session

A. Report on Actions Taken in Closed Session, If Any

There were no actions taken to report.

IV. Closing Items

A. Adjourn Meeting

Steven Kofahl made a motion to adjourn the meeting.

Beatriz Chen seconded the motion.

The board **VOTED** unanimously to approve the motion.

There being no further business to be transacted, and upon motion duly made, seconded and approved, the meeting was adjourned at 7:50 PM.

Respectfully Submitted,
Daniel Chang

Coversheet

Review and Vote on August 2019 Check Registers

Section: IV. Financial
Item: A. Review and Vote on August 2019 Check Registers
Purpose: Vote
Submitted by:
Related Material: Check Register August 2019 - Trust.pdf
Check Register August 2019 - Main.pdf

Check Register
El Camino Real HS
August 2019

Grand Total: 4,934.60

Vendor	Check #	VOID	Date	Memo	Check Amount
2001 Chaminade College Prep High School	1250		8/13/2019	Chaminade 2019 Summer Tournament - Boys Basketball Trust	240.00
2249 John Burroughs High School	1251		8/13/2019	2019 JV and Frosh/Soph Summer Tournaments 2 Teams - Boys Basketball Trust	500.00
2249 John Burroughs High School	1252		8/13/2019	2019 Varsity Shootout June 1-2, 2019 - Boys Basketball Trust	250.00
2859 Marantha High School	1253		8/13/2019	Summer Block Party June 17-22, 2019 - Boys Basketball Trust	250.00
1933 Bowlero Woodland Hills	1254		8/15/2019	DEPOSIT FOR Bowling Night (10/13/19) - Baseball Trust	1,849.85
VOID	1255	VOID	8/21/2019	VOID	-
2087 Eastbay Team Sales	1256		8/23/2019	Practice Tanks, Shorts - Girls Basketball Trust	568.81
3364 Jacques Hay	1257		8/27/2019	plaques for dance guard - Dance Trust	275.94
3383 Andee Freeman	1258		8/27/2019	Instruction for Summer 2019 Drumline - Band Trust	1,000.00

Check Register
El Camino Real HS
August 2019

Grand Total: #####

Vendor	Check #	VOID	Date	Memo	Check Amount
2703 World Unispec	12409		8/1/2019	PE Shirts and Shorts for 2019-2020 School Year	1,165.90
2881 Woong G Yoo	12410		8/1/2019	July 2019 Invoice	2,400.00
	12411	VOID	8/1/2019	VOID	-
2222 Inspire Communication, Inc	12412		8/1/2019	06/19 Screening and Therapy/Staff Consultation and Documentation	5,695.00
2293 LAUSD - Maintenance & Operations	12413		8/2/2019	Gardening Assistance	3,411.36
2992 Paychex of New York LLC	12414		8/2/2019	W-2 Forms	40.00
2033 Corner Bakery	12415		8/2/2019	Breakfast 8/6/19-8/9/19	1,215.10
3373 Growing Educators Inc	12416		8/5/2019	Year-long Teacher Professional Development 19-20	13,700.00
				Balance 2016-17 CAASPP Testing Materials - Parent/Guardian Labels, Pre-ID	
2094 Educational Testing Service	12417		8/6/2019	Labels	399.30
2422 STS education	12418		8/6/2019	50 Promethean Smart Panel for 2nd Phase of 3 year Rollout	#####
3375 California Chicken Cafe	12419		8/6/2019	One-time Professional development lunch for teachers and school support staff	2,177.00
3377 Guadalupe Esparza	12420		8/6/2019	Payroll Check Given by Payroll Manager	100.00
3357 El Camino Real Charter 457(B) Plan	12421		8/7/2019	8/6/19 457(B) Catchup Schwab	2,000.00
3358 El Camino Real Charter High School 403(B) Plan	12422		8/7/2019	8/6/19 403(B) Catchup Schwab	3,350.00
2118 Exchange Service International	12423		8/7/2019	7/29/19 Tuition Refund for FX Student	12,250.00
2033 Corner Bakery	12424		8/7/2019	One-time Professional development for teachers and staff Breakfast PD	627.90
2033 Corner Bakery	12425		8/7/2019	One-time Professional development for teachers breakfast	318.00
2033 Corner Bakery	12426		8/7/2019	PD Breakfast for Teachers August 7th	393.00
				Varsity Girls Volleyball Officials Workshop August 10, 2019 - Girls Volleyball	
2008 Chatsworth High School	12427		8/8/2019	Budget	100.00
2587 Sylmar High School	12428		8/8/2019	30th Annual Sylmar Charter HS Girls' Invitational Volleyball Tournament	900.00
2296 Lee, Alyssa	12429		8/8/2019	Fall Sports 2019 Calendar - Athletics Budget	300.00
2907 Venice High School	12430		8/8/2019	32th Annual Venice HS Girls' Invitational Volleyball Tournament - "The Classic"	1,125.00
2768 Walter R Wallace	12431		8/8/2019	7/24/19 Fiscal Policies and Procedures Board Training	100.00
2008 Chatsworth High School	12432		8/9/2019	Chatsworth Tournament Fees - Girls Volleyball Budget	1,000.00
2915 Wayne Adelstein	12433		8/9/2019	08/19 Decision Publications Marketing & Community relations	5,000.00
807671 Sukhbir Dhillon	12434		8/9/2019	Emergency Management Systems	32.48
				4th Qrt 2018-19 Charter School CALSTRS/CALPERS Retirement Reporting	
2209 Hess & Associates	12435		8/9/2019	Tranactions Fee	1,202.50
1923 Binh H. Nguyen	12436		8/9/2019	2-Story 8 Classroom Modular Building ADS	1,800.00
3379 Jesus E Magana	12437		8/9/2019	2-Story 8 Classroom Modular Building ADS	1,000.00
3181 Plaridel Mendoza	12438		8/9/2019	2-Story 8 Classroom Modular Building ADS	1,900.00
2426 PARS	12439		8/9/2019	July 2019 PARS Contribution	487.94
2766 CompStar Insurance Services	12440		8/9/2019	08/19 Workers' Compensation	19,880.18
3374 Beatriz Hernandez	12441		8/9/2019	2019 Union Dues	12,879.52
2164 Golden Star Technology, Inc	12442		8/9/2019	Technology equipment for Shoup	17,014.95
2469 REACH	12443		8/9/2019	02/18 Special Ed Services - Balance	2,300.00
931074 Alan Darby	12444		8/13/2019	Light Bulbs and 2 lamps	181.68
224821 Corinne Brennan	12445		8/13/2019	Pacific AP Institute in Monterey Bay	2,199.55
2295 Law Offices of Young, Minney & Corr, LLP	12446		8/13/2019	07/19 Legal Services	4,897.54
2260 Juan A Martinez	12447		8/13/2019	7/20/19-8/2/19 Work on Shoup	2,464.00
2933 StaffRehab	12448		8/13/2019	6/4/19-6/7/19 Staff Rehab Services	1,820.00
2933 StaffRehab	12449		8/13/2019	6/3/19-6/7/19 Staff Rehab Services	1,922.70
3007 The Howard Group	12450		8/13/2019	Cultural Proficiency Training	10,500.00
2703 World Unispec	12451		8/14/2019	Hoodies, Crewnecks, Sweatpants, Zip-ups	12,183.00
2703 World Unispec	12452		8/15/2019	PE Shirts and Shorts for 2019-2020 School Year	4,017.60
931054 Minita Clark	12453		8/15/2019	Corner Bakery	140.00
211621 Wendy Treuhaft	12454		8/15/2019	CA ASCD English Language Learner Summer Institute	544.98
	12455	VOID	8/15/2019	VOID	-
3309 Koala Tee Screenprinting, Inc. (Image Market)	12456		8/15/2019	senior cabinet gear- prepaid by Student- taken from Non-Trust ASB	197.40
925771 Melissa Gregorio	12457		8/15/2019	Educational Game	16.99
827661 Dean Bennett	12458		8/15/2019	Snap Chat Geo-Filter for Welcome Week 2019	299.99
811881 Allison Yedor	12459		8/15/2019	Supplies for Spanish Class	128.52
3380 Crescenta Valley High School	12460		8/19/2019	Girls Volleyball Budget - Crescenta Valley HS Tournament Fees	825.00
2000 Centobene, Maryann	12461		8/19/2019	Varsity Girls Volleyball vs Van Nuys HS 8/29/19 Officials	144.00
2339 McGee, Ken	12462		8/19/2019	Varsity Girls Volleyball vs Van Nuys HS 8/29/19 Officials	134.00
2119 Fakehany, Thomas	12463		8/19/2019	Varsity Girls Volleyball vs University HS 9/10/19 - Referee	144.00
2505 Jim Russell	12464		8/19/2019	Girls Volleyball vs University HS 9/10/19 Official	134.00
1932 Bornstein, Jeff	12465		8/19/2019	Girls Volleyball vs Birmingham CCHS 9/19/19 - REF	144.00
2674 Wagner, Mike	12466		8/19/2019	Volleyball vs Birmingham CCHS 9/19/19 Official	134.00
2533 Scott A Sterling (Sterling Construction)	12467		8/20/2019	Doors Needed for Shoup	1,350.00
3358 El Camino Real Charter High School 403(B) Plan	12468		8/19/2019	8/15/19 403(B) Catchup Schwab	150.00
126851 Kyna M Collins	12469		8/20/2019	AVID Institute 2019	1,253.77
124841 Samantha Spencer	12470		8/20/2019	AVID Summer Institute	1,203.94
931018 Ana De Los Santos	12471		8/20/2019	Overnight Courier USPS	25.50
2881 Woong G Yoo	12472		8/21/2019	VoIP Network Consulting Services	2,880.00
2033 Corner Bakery	12473		8/21/2019	8/21/19 Special Services	153.35
2623 Thomas W. O'Mara Plumbing Inc	12474		8/21/2019	8/6/19 Plumbing Services on Shoup	2,336.38
2165 Golden West Sash Door, LLC	12475		8/21/2019	Door Supplies for Shoup	300.03
3298 Kimberly Jimenez	12476		8/21/2019	Stage crew student working after school hours for school sponsored events	78.00
931189 Kyle Lee	12477		8/22/2019	Student store receipt rolls	31.74
2551 Smart & Final	12478		8/26/2019	08/19 Statement for Foods Class	950.60
	12479	VOID	8/26/2019	VOID	-
3376 Culver City High School Girls Basketball	12480		8/26/2019	Tip Off Basketball Classic November 20-23, 2019 - Girls Basketball Budget	475.00
2913 CIF Southern Section	12481		8/26/2019	2019 CIF-SS Administrators Summit - Athletic Budget	130.00
2764 Bolton & Company	12482		8/28/2019	Workplace Violence/Active Assailant Premium	2,544.91
1893 AT&T	12483		8/28/2019	8/7/19-9/6/19 818 598-7602 PBX System	1,620.78
2781 American Express	12484		8/26/2019	7/26/2019 AMEX July Hussey X3-31013	25.00
2781 American Express	12485		8/28/2019	6/14/2019 AMEX May Hussey X3-31013-Transposition Error	25.00
2781 American Express	12486		8/28/2019	7/28/2019 AMEX JULY Darby X3-31039	30,817.01
3276 Hardwoods Specialty Products US LP	12487		8/29/2019	Woodshop project supplies	742.40
2260 Juan A Martinez	12488		8/29/2019	8/3/19-8/9/19 Work on Shoup	1,120.00
2260 Juan A Martinez	12489		8/29/2019	8/10/19-8/16/19 Work on Shoup	1,568.00
2334 Marta Franco	12490		8/29/2019	7/24/19 Notary Service	30.00
215881 Stephanie Jaquez	12491		8/29/2019	ECR Mascot Dry Cleaning	35.00

2455 Pro-Ed, Inc.	30979	8/15/2019	Psych Protocols	1,078.00
1964 California Department of Tax & Fee Administration	30980	8/15/2019	4/1/19-6/30/19 Sales and Use Tax Acct 102-7273444	1,173.00
3005 LexisNexis, a division of RELX Inc.	30981	8/15/2019	07/19 Online legal research software	400.00
2791 City-Wide Fire Protection, Inc	30982	8/15/2019	2018-2019 Fire Extinguishers, Parts and Maintenance for Shoup	100.50
2616 The Print Spot	30983	8/15/2019	Banner, Table Throw for North Campus	472.35
3172 E.G. Brennan & Co Corp	30984	8/15/2019	Repair of Time Stamp	269.00
3256 Canon Solutions America Inc	30985	8/15/2019	Copy Paper	2,623.62
2616 The Print Spot	30986	8/15/2019	Informational postcards for North Campus	341.68
3365 HALO Branded Solutions, Inc.	30987	8/15/2019	Pens for Marketing Pens	417.49
3350 Rogue Fitness	30988	8/15/2019	Athletic Supplies - Athletics Budget	4,271.05
	VOID	8/20/2019	VOID	-
3283 Allan L Kurtz D.O	30990	8/20/2019	TB Test for Staff member	35.00
2673 Vista Paint Corporation	30991	8/20/2019	Custodial Supplies	257.92
3042 Project Lead The Way, Inc.	30992	8/20/2019	PLTW Biomedical science (9-12) student supplies	3,987.44
2478 Rent-It	30993	8/20/2019	Truck Rental 3/17 Dance Guard Comp. Fountain Valley HS	206.94
1947 BSN Sports	30994	8/22/2019	Varsity Kicking Cage - Football Budget	101.84
2338 McCalla Company	30995	8/22/2019	Custodial Supplies	196.85
2606 The College Board	30996	8/22/2019	2019 AP Exams final balance	222.00
		8/17/19-9/16/19	BW and Color Copies for Managed Print Service for Desktop	
2380 MRC Smart Technology Solutions(SoCal Office)	30997	8/22/2019	Printers (Contract CN8006-01)	931.30
2343 Judy McLean	30998	8/22/2019	07/19 Payroll Services	2,450.00
2884 Scholastic, Inc	30999	8/22/2019	Non-fiction magazines for EL classes	555.06
2763 Nick Rail Music, Inc.	31000	8/22/2019	New Drum Sticks for Fall 2019	670.81
1893 AT&T	31001	8/22/2019	4/7/19-5/6/19 818 818 598-7602 PBX System	3,536.42
2028 CompuClaim	31002	8/22/2019	07/19 MeduClaim Procedure Code Billing(LEA)	78.09
2134 Follett School Solutions, Inc	31003	8/22/2019	Library Books for students and staff Final Shipment	52.97
3388 Shervin Yazdani	31004	8/27/2019	Refund for Spanish Textbook	120.00
1925 Dick Blick Holdings Inc, (Blick Art Materials)	31005	8/27/2019	Art Supplies for Room S3	726.84
2491 Robotics Education and Competition Foundation, Inc	31006	8/27/2019	Registration Fee for Future Competitions	350.00
2436 Pearson Education NCS Pearson, Inc.	31007	8/27/2019	Lewis: Java Software Solutions for AP Computer Science	7,861.80
1925 Dick Blick Holdings Inc, (Blick Art Materials)	31008	8/27/2019	Matt Harbourt Art Supplies	1,135.39
3386 Ellis Phillips	31009	8/27/2019	Refund for Biology Textbook	200.00
3387 Benjamin Lumakin	31010	8/27/2019	Refund for Biology Textbook	150.00
2808 Macmillan Holdings, LLC (MPS, c/o Bedford Freeman & Worth Publishi	31011	8/26/2019	The Language of Composition Textbooks	4,507.89
2616 The Print Spot	31012	8/28/2019	Folders needed for Orientation	2,543.75
3393 Usman Chaudhry	31013	8/28/2019	Refund for Spanish Textbook	100.00
3395 Jorge Cordero Hernandez	31014	8/28/2019	Refund for Government Book	20.00
2523 SawStop	31015	8/28/2019	Wood shop repair parts for Sawtop table saw	334.73
3394 Payton Love	31016	8/28/2019	Refund for Biology Book	30.00
3392 Landon Congelosi	31017	8/28/2019	Refund for Algebra Book	85.00
3396 Shirley Hargrove	31018	8/28/2019	Refund for Lost Book	132.00
2265 Jules Seltzer Associates	31019	8/29/2019	Furniture	1,979.43
1945 Brooks Transportation Inc.	31020	8/29/2019	ROTC trip to Long Beach Sea Base Aquatics Camp, 8/24/19	585.00
	VOID	8/29/2019	VOID	-
		4/22/19-5/21/19	Maintenance Agreement for Sharp Multi Function Printers	
2380 MRC Smart Technology Solutions(SoCal Office)	31022	8/29/2019	(Contract CN8030-01)	535.77
2265 Jules Seltzer Associates	31023	8/29/2019	134030	33.25
2659 Varsity Spirit Fashion	31024	8/29/2019	cheer uniforms for JV/Varsity	3,055.21
	VOID	8/29/2019	VOID	-
2265 Jules Seltzer Associates	31026	8/29/2019	Furniture	2,321.10
3397 Youlia Sempertegui	31027	8/29/2019	Sebastian Sempertegui Mealtime Reimbursement	46.50
3372 Edgenuty Inc.	31028	8/29/2019	Curriculum for support classes	8,995.00
2279 Kern County Superintendent of Schools	31029	8/30/2019	2019 FCMAT Oversight AB1200	8,023.83
2194 Hart High Music Boosters	31030	8/30/2019	Registration fee for 11/02/19 Marching band competition	325.00
1977 Canon Financial Services, Inc.	31031	8/30/2019	7/20/19-8/19/19 Equipment Leases	2,734.77
2584 SVHS Music Boosters	31032	8/30/2019	Registration fee for 10/26/19 Marching band competition	300.00
3139 SoCalGas	31033	8/30/2019	6/24/19-7/24/19 Gas Charges for Shoup Acct 163 513 3769 2	16.39
3356 Rachel M Markenson	31034	8/30/2019	Music test and answer keys for ACADECA	500.00
2572 Staples Business Advantage	31035	8/30/2019	Copy Paper (2017 order)	292.56
3355 Peter Knauss	31036	8/30/2019	Micro Econ quizzes-ACADECA	250.00
2068 Department of Justice (State of CA)	31037	8/30/2019	07/19 Fingerprint Apps 152023	288.00
2782 Spectrum (Time Warner Cable)	31038	8/30/2019	07/19 Fiber Internet Account 086084201	669.53
3398 Evelyn Caraballo	31039	8/30/2019	Parent Mealtime Reimbursement MC-117604 & SC-119843	49.25
2288 LADWP	31040	8/30/2019	07/19 Billing Shoup Property	7,813.68
2017 City of Los Angeles Fire Dept. - CUPA	31041	8/30/2019	Fiscal Year: 2019/2020 Permits	1,547.00
2501 Royal High Band Boosters	31042	8/30/2019	Registration fee for 10/12/19 Royal High School marching band competition	300.00
3382 Rila Regev	31043	8/30/2019	Refund for Loaner Laptop	228.00
2782 Spectrum (Time Warner Cable)	31044	8/30/2019	08/19 Fiber Internet Account 086084201	899.00
2009 Child and Family Guidance Center	31045	8/30/2019	03/19 Special Ed Services Northpoint	1,915.28
2869 Xerox Financial Services LLC (Xerox Corporation)	31046	8/30/2019	7/31/19-8/30/19 Equipment Lease-Contract 010-0077477-001	1,058.12
1893 AT&T	31047	8/31/2019	7/22/19-8/21/19 818 888-3532 Alarm	194.42
2455 Pro-Ed, Inc.	31048	8/31/2019	Psych - CAS2: Student Response Booklet (8-18) rushed -received	1,127.00
2426 PARS	31049	8/31/2019	06/19 PARS ARS Fees	330.32
3062 Pitsco, Inc.	31050	8/31/2019	Ray Catcher Sprint Kit	679.18
1893 AT&T	31051	8/31/2019	4/7/19-5/6/19 818 348-4152 Fire Alarm 2	134.37
2445 Piece of Mind Care Services	SPACH24	8/15/2019	07/19 SpEd Services(Teacher, Aide, Aide-ElCo Continuation) 0000048	3,462.25
1919 Bieber Lighting LLC	SPACH25	8/20/2019	Lights, 50% payment	4,598.85
2276 Kelly Services, Inc.	SPACH26	8/20/2019	Substitute Teachers through 7/14/19	204.82
2445 Piece of Mind Care Services	SPACH27	8/20/2019	07/19 SpEd Services(Teacher, Aide, Aide-ElCo Continuation)	2,244.00
3389 City of Palmdale	30590900	8/23/2019	Senior Picnic deposit taken from asb nontrust--Paid via cashier's check 8/23/19	1,000.00

Coversheet

August 2019 Financial Update

Section: IV. Financial
Item: B. August 2019 Financial Update
Purpose: Discuss
Submitted by:
Related Material: ECR Financial Presentation August 2019.pdf

El Camino Real Charter High School



Financial Report for August 31, 2019
Provided By: ICON School Management



Changes to Financial System 2019-2020

- All revenues have been recorded in Netsuite for the 19-20 year
- Payroll information in Netsuite is much more detailed than prior years. Extracts payroll data from Paycom and imports to Netsuite.
- Working on utilizing all SACS codes, such as Object, Resources, Location, and Goal. LCAP expenses will be able to track under Goal section in NetSuite. Meanwhile, the school is working on utilizing all resource codes.
- Financial Statements will be presented on a full accrual basis.



YTD Comparison

- Variance for LCFF Entitlement as of 8/31 is now on Accrual Basis

- Will review Local Revenue to determine if any local grants were given just for 18-19 FY

		As of Aug 2019	As of Aug 2018	\$ Difference	% Difference
Revenue	LCFF Entitlement	\$ 3,366,546	\$ 2,372,349	\$ 994,197	29.53%
	Federal Revenue	145,164	141,714	3,450	2.38%
	Other State Revenues	365,451	435,560	(70,109)	-19.18%
	Local Revenues	253,126	1,117,235	(864,109)	-341.38%
	Fundraising and Grants	65,650	-	65,650	100.00%
	Total Revenue	4,195,937	4,066,858	129,079	3.08%
Expenses	Salaries and Benefits	4,462,715	4,937,047	(474,332)	-10.63%
	Books and Supplies	356,231	534,626	(178,395)	-50.08%
	Services and Other Operations	764,448	718,795	45,653	5.97%
	Other Outflows	7,900	23,282	(15,382)	-194.71%
	Total Expenses	5,591,294	6,213,750	(622,456)	-11.13%
Fund Balance	Net Income (Loss)	\$ (1,395,357)	\$ (2,146,892)	\$ 751,535	-53.86%
	Beginning Balance (Unaudited)	8,140,021	11,966,952	(3,826,931)	
	Ending Balance (Estimated)	\$ 6,744,664	\$ 9,820,060	\$ (3,075,396)	



YTD to Budget Summary

- 5% of Total LCFF Revenue coming in for Jul & Aug. 9% starts coming in September.

- Federal Revenue, other than Child Nutrition and SPED, is not apportioned until after October.

- Adopted Budget is built on ADA of 3284.00

- Budget being revised periodically starting September 2019.

		As of Aug 2019	Adopted Budget	% Used
Revenue	LCFF Entitlement	\$ 3,366,546	\$ 33,542,181	10.04%
	Federal Revenue	145,164	1,510,733	9.61%
	Other State Revenues	365,451	3,231,196	11.31%
	Local Revenues	253,126	1,956,880	12.94%
	Fundraising and Grants	65,650	-	N/A
	Total Revenue	4,195,937	40,240,990	10.43%
Expenses	Salaries and Benefits	4,462,715	29,897,456	14.93%
	Books and Supplies	356,231	2,021,500	17.62%
	Services and Other Operations	764,448	7,447,505	10.26%
	Depreciation	-	712,052	0.00%
	Total Expenses	5,583,394	40,078,513	13.93%
Fund Balance	Net Income (Loss)	\$ (1,395,357)	\$ 162,477	-858.80%
	Beginning Balance (Unaudited)	8,140,021	8,140,021	
	Ending Balance (Estimated)	\$ 6,744,664	\$ 8,302,498	



Balance Sheet

- Receivables from Prior Year cause Cash Balance to be higher in Jul/Aug of Current FY.

- Recording LCFF revenue as A/R as of Aug 2019.

- A/P is being taken care of immediately through on-site Staff.

		As of Aug 2019	As of Jun 2019	YTD Change
ASSETS	Cash Balance	\$ 7,261,994	\$ 5,071,239	2,190,755
	Accounts Receivable	1,274,528	3,627,527	(2,352,999)
	Prepays	902,845	339,378	563,467
	Fixed Assets, Net	7,171,063	7,174,263	(3,200)
	Investments	6,784,047	6,784,047	-
	Total Assets	\$ 23,394,477	\$ 22,996,454	398,023
LIABILITIES AND FUND BALANCE	Accounts Payable	\$ 1,364,320	\$ 1,592,376	(228,056)
	Due to Others	237,807	237,807	-
	OPEB Liability	12,696,714	12,696,714	-
	Deferred Revenue	519,704	404,954	114,750
	Current Loans and Other Payable	1,831,268	791,383	1,039,885
	Total Liabilities	16,649,813	15,723,234	105.89%
	Beginning Balance (Unaudited)	8,140,021	6,783,190	1,356,831
	Net Income (Loss)	(1,395,357)	490,030	(1,885,387)
	Ending Balance (Estimated)	6,744,664	7,273,220	(528,556)
	Total Liabilities and Fund Balance	\$ 23,394,477	\$ 22,996,454	398,023



CASH FLOW PROJECTION

- Cash flow projection will be presented during the October board meeting. We are currently working on newly updated budgets and cash flow projections will be built based on new budgeted numbers.



Questions?

Dan Lee, CEO

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Roy Kim, COO

rkim@iconsm.com

ICON School Management



**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
SUMMARY						
Revenue						
LCFF Entitlement	1,430,827	1,935,719	3,366,546	33,542,180	-	(33,542,180)
Federal Revenue	39,956	105,208	145,164	1,510,733	-	(1,510,733)
Other State Revenues	117,976	247,475	365,451	3,231,197	-	(3,231,197)
Local Revenues	111,600	141,526	253,126	1,956,880	-	(1,956,880)
Fundraising and Grants	7,764	57,886	65,650	-	-	-
Total Revenue	1,708,123	2,487,814	4,195,936	40,240,990	-	(40,240,990)
Expenses						
Compensation and Benefits	2,258,429	2,204,286	4,462,715	29,897,455	-	(29,897,455)
Books and Supplies	248,741	107,490	356,230	2,021,500	-	(2,021,500)
Services and Other Operating Expenditures	395,969	368,479	764,448	7,422,505	-	(7,422,505)
Depreciation	-	-	-	712,052	-	(712,052)
Other Outflows	7,900	-	7,900	-	-	-
Total Expenses	2,911,039	2,680,254	5,591,293	40,053,512	-	(40,053,512)
Operating Income	(1,202,916)	(192,440)	(1,395,356)	187,478	-	(187,478)
Fund Balance						
Beginning Balance (Audited)				(3,201,018)		
Operating Income				187,478	-	
Ending Fund Balance				(3,013,540)	-	

**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
REVENUE						
LCFF Entitlement						
8011 Charter Schools General Purpose Entitlement - State Aid	933,017	933,017	1,866,034	20,172,916		(20,172,916)
8012 Education Protection Account Entitlement	-	-	-	5,801,039		(5,801,039)
8019 State Aid - Prior Years	(3,541)	-	(3,541)	-		-
8096 Charter Schools in Lieu of Property Taxes	501,351	1,002,702	1,504,053	7,568,225		(7,568,225)
SUBTOTAL - LCFF Entitlement	1,430,827	1,935,719	3,366,546	33,542,180	-	(33,542,180)
Federal Revenue						
8181 Special Education - Entitlement	39,956	80,840	120,796	653,786		(653,786)
8220 Child Nutrition Programs	-	24,368	24,368	325,832		(325,832)
8290 No Child Left Behind	-	-	-	-		-
8291 Title I	-	-	-	340,014		(340,014)
8292 Title II	-	-	-	71,647		(71,647)
8294 Title IV	-	-	-	19,454		(19,454)
8299 All Other Federal Revenue	-	-	-	100,000		(100,000)
SUBTOTAL - Federal Revenue	39,956	105,208	145,164	1,510,733	-	(1,510,733)
Other State Revenue						
8319 Other State Apportionments - Prior Years	-	-	-	-		-
8381 Special Education - Entitlement (State)	117,134	234,014	351,149	1,939,946		(1,939,946)
8520 Child Nutrition - State	-	1,920	1,920	25,688		(25,688)
8550 Mandated Cost Reimbursements	-	-	-	148,547		(148,547)
8560 State Lottery Revenue	-	-	-	669,943		(669,943)
8590 All Other State Revenue	842	11,541	12,383	447,073		(447,073)
8593 Prop 39 Energy	-	-	-	-		-
SUBTOTAL - Other State Revenue	117,976	247,475	365,451	3,231,197	-	(3,231,197)
Local Revenue						
8634 Food Service Sales	2,788	17,897	20,685	256,880		(256,880)
8660 Interest	-	-	-	-		-
8662 Net Increase (Decrease) in the Fair Value of Investments	-	-	-	50,000		(50,000)
8690 Other Local Revenue	108,728	123,629	232,357	1,500,000		(1,500,000)

**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
8715 Option 3 SPED	-	-	-	150,000		(150,000)
8999 Uncategorized Revenue	85	-	85	-		-
SUBTOTAL - Local Revenue	111,600	141,526	253,126	1,956,880	-	(1,956,880)
Fundraising and Grants						
8803 Fundraising	-	-	-	-		-
8804 ASB Revenues	7,764	57,886	65,650	-		-
SUBTOTAL - Fundraising and Grants	7,764	57,886	65,650	-	-	-
TOTAL REVENUE	1,708,123	2,487,814	4,195,936	40,240,990	-	(40,240,990)

**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
EXPENSES						
Compensation & Benefits						
Certificated Salaries						
1100	Teachers Salaries	893,099	1,115,240	2,008,339	12,069,927	(12,069,927)
1101	Teacher - Stipends	(2,968)	-	(2,968)	-	-
1150	NBC Stipend	-	-	-	115,943	(115,943)
1160	Auxiliary & Summer School	-	-	-	455,000	(455,000)
1170	Coverage	-	-	-	100,000	(100,000)
1180	Extra Hours & Tutoring	-	-	-	55,000	(55,000)
1190	PD & LCAP	-	-	-	190,000	(190,000)
1200	Certificated Pupil Support Salaries	126,468	148,104	274,572	1,306,748	(1,306,748)
1300	Certificated Supervisor & Administrator Salaries	91,564	86,398	177,962	1,126,293	(1,126,293)
1900	Certificated Other Salaries	-	-	-	141,368	(141,368)
	SUBTOTAL - Certificated Salaries	1,108,163	1,349,741	2,457,904	15,560,278	- (15,560,278)
Classified Salaries						
2100	Classified Instructional Aide Salaries	27,382	40,612	67,994	937,755	(937,755)
2200	Classified Support Salaries	85,434	111,202	196,636	861,652	(861,652)
2300	Classified Supervisor & Administrator Salaries	58,381	72,628	131,009	437,199	(437,199)
2400	Classified Clerical & Office Salaries	49,572	79,971	129,543	1,363,468	(1,363,468)
2900	Classified Other Salaries	1,191	1,196	2,387	152,786	(152,786)
	SUBTOTAL - Classified Salaries	221,960	305,608	527,568	3,752,859	- (3,752,859)
Employee Benefits						
3100	STRS	187,337	228,474	415,811	2,568,458	(2,568,458)
3200	PERS	36,962	56,384	93,345	699,627	(699,627)
3300	OASDI-Medicare-Alternative	32,799	46,378	79,177	513,406	(513,406)
3400	Health & Welfare Benefits	635,525	191,515	827,040	3,434,125	(3,434,125)
3500	Unemployment Insurance	-	-	-	11,045	(11,045)
3600	Workers Comp Insurance	35,548	20,368	55,916	331,220	(331,220)
3700	Retiree Benefits	136	317	453	3,026,437	(3,026,437)
3900	Other Employee Benefits	-	5,500	5,500	-	-

**El Camino Real Charter High School
Income Statement
August 31, 2019**

SUBTOTAL - Employee Benefits

Actual		YTD	Budget		
Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
928,306	548,936	1,477,243	10,584,318	-	(10,584,318)

**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
Books & Supplies						
4100	Approved Textbooks & Core Curricula Materials	28,153	164	28,317	250,000	(250,000)
4200	Books & Other Reference Materials	53	17,280	17,333	15,000	(15,000)
4300	Materials & Supplies	-	-	-	-	-
4325	Instructional Materials & Supplies	28,145	17,066	45,211	260,000	(260,000)
4330	Office Supplies	11,354	5,863	17,218	100,000	(100,000)
4345	Non Instructional Student Materials & Supplies	67,190	37,710	104,899	315,000	(315,000)
4400	Noncapitalized Equipment	113,814	29,311	143,124	403,000	(403,000)
4710	Student Food Services	33	96	128	676,000	(676,000)
4720	Other Food	-	-	-	2,500	(2,500)
	SUBTOTAL - Books and Supplies	248,741	107,490	356,230	2,021,500	(2,021,500)
Services & Other Operating Expenses						
5000	Services & Other Operating Expenses	19,816	-	19,816	-	-
5200	Travel & Conferences	2,145	2,591	4,736	115,000	(115,000)
5300	Dues & Memberships	32,330	5,868	38,198	538,403	(538,403)
5400	Insurance	83,548	36,549	120,097	215,000	(215,000)
5500	Operations & Housekeeping	22,938	7,601	30,540	874,000	(874,000)
5520	Security	25,421	32,784	58,205	547,600	(547,600)
5605	Equipment Leases	11,157	5,874	17,031	630,600	(630,600)
5610	Rent	-	-	-	520,198	(520,198)
5616	Repairs and Maintenance - Computers	-	-	-	-	-
5631	Other Rentals, Leases and Repairs 1	269	-	269	140,000	(140,000)
5800	Other Services & Operating Expenses	7,330	-	7,330	-	-
5809	Banking Fees	11,195	658	11,853	56,160	(56,160)
5812	Business Services	-	-	-	174,000	(174,000)
5815	Consultants - Instructional	45,021	16,423	61,444	1,209,980	(1,209,980)
5820	Consultants - Non Instructional - Custom 1	47,746	40,822	88,568	393,891	(393,891)
5824	District Oversight Fees	19,403	62,429	81,832	335,422	(335,422)
5830	Field Trips Expenses	1,565	17,559	19,124	260,000	(260,000)
5833	Fines and Penalties	74	117	190	5,200	(5,200)
5845	Legal Fees	22,219	4,898	27,117	200,000	(200,000)
5848	Licenses and Other Fees	-	-	-	46,500	(46,500)
5851	Marketing and Student Recruiting	6,500	5,000	11,500	60,000	(60,000)

**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
5857 Payroll Fees	-	-	-	35,055		(35,055)
5861 Prior Yr Exp (not accrued)	-	-	-	10,000		(10,000)
5872 Special Education Encroachment	31,418	114,088	145,506	539,496		(539,496)
5884 Substitutes	-	205	205	360,000		(360,000)
5898 Bad Debt Expense	-	-	-	-		-
5899 Miscellaneous Operating Expenses	-	-	-	-		-
5900 Communications	5,873	15,013	20,886	156,000		(156,000)
SUBTOTAL - Services & Other Operating Exp.	395,969	368,479	764,448	7,422,505	-	(7,422,505)

**El Camino Real Charter High School
Income Statement
August 31, 2019**

	Actual		YTD	Budget		
	Jul	Aug	Actual YTD	Approved Budget	Updated Budget	Approved Budget vs Updated Budget
Capital Outlay & Depreciation						
6900 Depreciation			-	712,052		(712,052)
SUBTOTAL - Capital Outlay & Depreciation	-	-	-	712,052	-	(712,052)
Other Outflows						
7999 Uncategorized Expense	7,900	-	7,900	-		-
SUBTOTAL - Other Outflows	7,900	-	7,900	-	-	-
TOTAL EXPENSES	2,911,039	2,680,254	5,591,293	40,053,512	-	(40,053,512)

El Camino Real Charter High School
Balance Sheet
August 31, 2019

	6/30/2019	8/31/2019	YTD Change
ASSETS			
Cash Balance	5,071,239	7,261,994	2,190,755
Accounts Receivable	3,627,527	1,274,528	(2,352,999)
Prepays	339,378	902,845	563,467
Fixed Assets, Net	7,174,263	7,171,063	(3,200)
Investments	6,784,047	6,784,047	
TOTAL ASSETS	22,996,454	23,394,476	398,022
LIABILITIES & EQUITY			
Accounts Payable	1,592,376	1,364,320	(228,056)
Due to Others	237,807	237,807	
OPEB Liability	12,696,714	12,696,714	
Deferred Revenue	404,954	519,704	114,750
Current Loans and Other Payables	791,383	1,831,266	1,039,883
Beginning Net Assets	6,783,190	8,140,021	1,356,831
Net Income (Loss) to Date	490,030	(1,395,357)	(1,885,387)
TOTAL LIABILITIES & EQUITY	22,996,454	23,394,476	398,022

**El Camino Real Charter High School
Parent Company
Custom Balance Sheet
End of Jul 2019**

Financial Row	Amount
ASSETS	
Current Assets	
Bank	
Total Cash in Bank	\$5,686,972.31
Accounts Receivable	
9200 - Accounts Receivable	
9200 - Accounts Receivable	\$95,430.00
9212 - AR - Title II	(\$1,509.00)
9214 - AR - Title IV	\$1,903.00
9219 - AR - Special Ed (Fed)	\$14,802.16
9226 - AR- Child Nutrition (Federal)	\$47,158.29
9230 - AR - State Aid	\$933,017.00
9232 - AR - Property Taxes	\$584,034.00
9233 - AR - Lottery	\$163,116.92
9239 - AR - Special Education	\$63,052.03
9246 - AR - Child Nutrition (State)	\$6,091.87
9249 - AR - Other State Grants	\$135,011.30
9251 - AR - Gen Purpose prior yr adjustment (Due from District)	\$44,315.00
Total - 9200 - Accounts Receivable	\$2,086,422.57
Total Accounts Receivable	\$2,086,422.57
Other Current Asset	
9150 - Investments	\$6,784,046.50
9330 - PrePaid Expenses	\$902,844.62
Undeposited Funds	\$431,752.68
Total Other Current Asset	\$8,118,643.80
Total Current Assets	\$15,892,038.68
Fixed Assets	
9410 - Land	\$2,019,963.89
9420 - Land Improvements	\$168,345.25
9425 - Accumulated Depreciation - Land Improvements	(\$161,684.73)
9430 - Buildings	\$3,559,839.36
9431 - Fixed Asset - Building Improvements	\$139,467.91
9435 - Accumulated Depreciation-Buildings	(\$284,897.92)
9436 - Accumulated Depreciation - Building Improvements	(\$97,627.98)
9440 - Equipment	\$1,691,746.68
9445 - Accumulated Depreciation-Equipment	(\$1,173,690.98)
9460 - Fixed Asset - Leasehold Improvements	\$1,478,554.00
9465 - Accumulated Depreciation - Leaseholds	(\$168,952.66)
Total Fixed Assets	\$7,171,062.82
Total ASSETS	\$23,063,101.50
LIABILITIES & EQUITY	
Current Liabilities	
Accounts Payable	
9500 - Accounts Payable	
9500 - Accounts Payable	\$1,576,697.67
9502 - AP - District Oversight Fee	(\$6,512.38)
9503 - AP - Special Education	\$10,004.34
9516 - AP - Payable to County (prior yr adj)	\$9,910.00
Total - 9500 - Accounts Payable	\$1,590,099.63
Total Accounts Payable	\$1,590,099.63
Credit Card	
9515-1013 - American Express-Hussey (1013)	(\$25.00)
9515-1039 - American Express - Darby	\$11,136.74

9515-1047 - American Express - Hussey	(\$2,500.00)
Total Credit Card	\$8,611.74
Other Current Liability	
9530 - Garnishment/Lien Payable	\$487.45
9540 - Payroll Liability - Federal	\$15,097.31
9545 - Payroll Liability - State	(\$99.85)
9550 - Retirement Liability - PERS	\$120,901.38
9555 - Retirement Liability - STRS	\$640,252.57
9558 - Retirement Liability - PARS	\$271.68
9570 - Wages Payable	(\$94,615.92)
9573 - Accrued Salaries	\$322,891.26
9580 - 403B Payable	\$87,726.93
9585 - Other Payroll Liabilities	\$28,648.97
9620 - Due to Student Groups/Other Agencies	
9621 - Due to (From) School 1	\$237,807.35
Total - 9620 - Due to Student Groups/Other Agencies	\$237,807.35
9650 - Deferred Revenue	\$471,204.00
Total Other Current Liability	\$1,830,573.13
Total Current Liabilities	\$3,429,284.50
Long Term Liabilities	
9664 - OPEB Liability	\$12,696,714.00
Total Long Term Liabilities	\$12,696,714.00
Equity	
9760 - Fund Balance	\$16,921,591.42
Retained Earnings	(\$8,781,571.03)
Net Income	(\$1,202,917.39)
Total Equity	\$6,937,103.00
Total LIABILITIES & EQUITY	\$23,063,101.50

El Camino Real Charter High School Parent Company Custom Balance Sheet End of Aug 2019

Financial Row	Amount
ASSETS	
Current Assets	
Bank	
Total Cash in Bank	\$6,713,609.96
Accounts Receivable	
9200 - Accounts Receivable	
9200 - Accounts Receivable	\$178,800.75
9212 - AR - Title II	(\$1,509.00)
9214 - AR - Title IV	\$1,903.00
9226 - AR- Child Nutrition (Federal)	\$71,525.83
9230 - AR - State Aid	\$933,017.00
9231 - AR - Categorical	(\$75,087.33)
9232 - AR - Property Taxes	(\$49,566.00)
9233 - AR - Lottery	\$163,116.92
9239 - AR - Special Education	\$0.02
9246 - AR - Child Nutrition (State)	\$8,011.93
9249 - AR - Other State Grants	(\$0.03)
9251 - AR - Gen Purpose prior yr adjustment (Due from District)	\$44,315.00
Total - 9200 - Accounts Receivable	\$1,274,528.09
Total Accounts Receivable	\$1,274,528.09
Other Current Asset	
9150 - Investments	\$6,784,046.50
9330 - PrePaid Expenses	\$902,844.62
Undeposited Funds	\$548,384.40
Total Other Current Asset	\$8,235,275.52
Total Current Assets	\$16,223,413.57
Fixed Assets	
9410 - Land	\$2,019,963.89
9420 - Land Improvements	\$168,345.25
9425 - Accumulated Depreciation - Land Improvements	(\$161,684.73)
9430 - Buildings	\$3,559,839.36
9431 - Fixed Asset - Building Improvements	\$139,467.91
9435 - Accumulated Depreciation-Buildings	(\$284,897.92)
9436 - Accumulated Depreciation - Building Improvements	(\$97,627.98)
9440 - Equipment	\$1,691,746.68
9445 - Accumulated Depreciation-Equipment	(\$1,173,690.98)
9460 - Fixed Asset - Leasehold Improvements	\$1,478,554.00
9465 - Accumulated Depreciation - Leaseholds	(\$168,952.66)
Total Fixed Assets	\$7,171,062.82
Total ASSETS	\$23,394,476.39
LIABILITIES & EQUITY	
Current Liabilities	
Accounts Payable	
9500 - Accounts Payable	
9500 - Accounts Payable	\$1,354,410.24
9502 - AP - District Oversight Fee	\$0.01
9503 - AP - Special Education	\$0.02
9516 - AP - Payable to County (prior yr adj)	\$9,910.00
Total - 9500 - Accounts Payable	\$1,364,320.27
Total Accounts Payable	\$1,364,320.27
Credit Card	
9515-1013 - American Express-Hussey (1013)	(\$50.00)
9515-1039 - American Express - Darby	\$11,136.74

9515-1047 - American Express - Hussey	(\$2,500.00)
Total Credit Card	\$8,586.74
Other Current Liability	
9530 - Garnishment/Lien Payable	\$487.45
9540 - Payroll Liability - Federal	\$15,097.31
9545 - Payroll Liability - State	(\$99.85)
9550 - Retirement Liability - PERS	\$197,350.83
9555 - Retirement Liability - STRS	\$1,005,584.86
9558 - Retirement Liability - PARS	\$905.96
9570 - Wages Payable	(\$94,715.92)
9573 - Accrued Salaries	\$322,891.26
9580 - 403B Payable	\$128,823.93
9585 - Other Payroll Liabilities	\$246,355.23
9620 - Due to Student Groups/Other Agencies	
9621 - Due to (From) School 1	\$237,807.35
Total - 9620 - Due to Student Groups/Other Agencies	\$237,807.35
9650 - Deferred Revenue	\$519,704.00
Total Other Current Liability	\$2,580,192.41
Total Current Liabilities	\$3,953,099.42
Long Term Liabilities	
9664 - OPEB Liability	\$12,696,714.00
Total Long Term Liabilities	\$12,696,714.00
Equity	
9760 - Fund Balance	\$16,921,591.42
Retained Earnings	(\$8,781,571.03)
Net Income	(\$1,395,357.42)
Total Equity	\$6,744,662.97
Total LIABILITIES & EQUITY	\$23,394,476.39

El Camino Real Charter High School Parent Company Custom Income Statement Jul 2019

Financial Row	Amount
Ordinary Income/Expense	
Income	
8000 - Revenue	
8010 - Principal Apportionment	
8011 - Charter Schools General Purpose Entitlement - State Aid	\$933,017.00
8019 - State Aid - Prior Years	(\$3,541.00)
8096 - Charter Schools in Lieu of Property Taxes	\$501,351.00
Total - 8010 - Principal Apportionment	\$1,430,827.00
8100 - Federal Revenue	
8181 - Special Education - Entitlement	\$39,955.92
Total - 8100 - Federal Revenue	\$39,955.92
8300 - Other State Revenues	
8380 - Special Ed	
8381 - Special Education - Entitlement (State)	\$117,134.26
Total - 8380 - Special Ed	\$117,134.26
8590 - All Other State Revenue	\$841.60
Total - 8300 - Other State Revenues	\$117,975.86
8600 - Other Local Revenue	
8631 - Sales	
8634 - Food Service Sales	\$2,787.50
Total - 8631 - Sales	\$2,787.50
8690 - Other Local Revenue	\$108,727.62
Total - 8600 - Other Local Revenue	\$111,515.12
8999 - Uncategorized Revenue	\$85.00
Total - 8000 - Revenue	\$1,700,358.90
8804 - ASB Revenues	\$7,763.64
Total - Income	\$1,708,122.54
Gross Profit	\$1,708,122.54
Expense	
1000 - Certificated Salaries	
1100 - Teachers Salaries	
1100 - Teachers Salaries	\$893,099.04
1101 - Teacher - Stipends	(\$2,967.08)
Total - 1100 - Teachers Salaries	\$890,131.96
1200 - Certificated Pupil Support Salaries	\$126,467.83
1300 - Certificated Supervisor & Administrator Salaries	\$91,563.79
Total - 1000 - Certificated Salaries	\$1,108,163.58
2000 - Classified Salaries	
2100 - Classified Instructional Aide Salaries	\$27,382.15
2200 - Classified Support Salaries	\$85,433.78
2300 - Classified Supervisor & Administrator Salaries	\$58,381.08
2400 - Classified Clerical & Office Salaries	\$49,572.13
2900 - Classified Other Salaries	\$1,191.02
Total - 2000 - Classified Salaries	\$221,960.16
3000 - Employee Benefits	
3100 - STRS	
3100 - STRS	\$2,014.49
3101 - State Teachers Retirement System, certificated positions	\$185,322.77
Total - 3100 - STRS	\$187,337.26
3200 - PERS	
3200 - PERS	\$34,237.58
3202 - Public Employees Retirement System, classified positions	\$2,724.08
Total - 3200 - PERS	\$36,961.66

3300 - OASDI-Medicare-Alternative	
3300 - OASDI-Medicare-Alternative	\$12,422.55
3301 - OASDI/Alternative, certificated positions	\$1,207.93
3303 - Medicare, certificated positions	\$15,969.44
3304 - Medicare, classified positions	\$3,199.03
Total - 3300 - OASDI-Medicare-Alternative	\$32,798.95
3400 - Health & Welfare Benefits	
3401 - Health & Welfare Benefits - Certificated Positions	\$635,524.68
Total - 3400 - Health & Welfare Benefits	\$635,524.68
3600 - Workers Comp Insurance	
3601 - Worker's Comp Insurance - Certificated Positions	\$35,548.00
Total - 3600 - Workers Comp Insurance	\$35,548.00
Total - 3000 - Employee Benefits	\$928,170.55
3342 - PARS	\$135.84
4000 - Books & Supplies	
4100 - Approved Textbooks & Core Curricula Materials	\$28,152.96
4200 - Books & Other Reference Materials	\$52.97
4300 - Materials & Supplies	
4325 - Instructional Materials & Supplies	\$28,144.57
4330 - Office Supplies	\$11,354.39
4345 - Non Instructional Student Materials & Supplies	\$67,189.77
Total - 4300 - Materials & Supplies	\$106,688.73
4400 - Noncapitalized Equipment	\$113,813.57
4700 - Food	
4710 - Student Food Services	\$32.50
Total - 4700 - Food	\$32.50
Total - 4000 - Books & Supplies	\$248,740.73
5000 - Services & Other Operating Expenses	
5000 - Services & Other Operating Expenses	\$19,815.55
5200 - Travel & Conferences	\$2,145.00
5300 - Dues & Memberships	\$32,330.27
5400 - Insurance	\$83,548.10
5500 - Operations & Housekeeping	
5500 - Operations & Housekeeping	\$22,938.16
5520 - Security	\$25,421.00
Total - 5500 - Operations & Housekeeping	\$48,359.16
5600 - Rentals, Leases, & Repairs	
5605 - Equipment Leases	\$11,157.49
5631 - Other Rentals, Leases and Repairs 1	\$269.00
Total - 5600 - Rentals, Leases, & Repairs	\$11,426.49
5800 - Other Services & Operating Expenses	
5800 - Other Services & Operating Expenses	\$7,330.00
5809 - Banking Fees	\$11,194.62
5815 - Consultants - Instructional	\$45,020.98
5820 - Consultants - Non Instructional - Custom 1	\$47,746.24
5824 - District Oversight Fees	\$19,403.17
5830 - Field Trips Expenses	\$1,565.00
5833 - Fines and Penalties	\$73.66
5845 - Legal Fees	\$22,219.38
5851 - Marketing and Student Recruiting	\$6,500.00
5872 - Special Education Encroachment	\$31,418.04
Total - 5800 - Other Services & Operating Expenses	\$192,471.09
5900 - Communications	\$5,873.41
Total - 5000 - Services & Other Operating Expenses	\$395,969.07
9455 - Alternative Education Construction Project	\$7,900.00
Total - Expense	\$2,911,039.93
Net Ordinary Income	(\$1,202,917.39)
Net Income	(\$1,202,917.39)

**El Camino Real Charter High School
Parent Company
Custom Income Statement
Aug 2019**

Financial Row	Amount
Ordinary Income/Expense	
Income	
8000 - Revenue	
8010 - Principal Apportionment	
8011 - Charter Schools General Purpose Entitlement - State Aid	\$933,017.00
8096 - Charter Schools in Lieu of Property Taxes	\$1,002,702.00
Total - 8010 - Principal Apportionment	\$1,935,719.00
8100 - Federal Revenue	
8181 - Special Education - Entitlement	\$80,840.08
8220 - Child Nutrition Programs	\$24,367.54
Total - 8100 - Federal Revenue	\$105,207.62
8300 - Other State Revenues	
8380 - Special Ed	
8381 - Special Education - Entitlement (State)	\$234,014.29
Total - 8380 - Special Ed	\$234,014.29
8520 - Child Nutrition - State	\$1,920.06
8590 - All Other State Revenue	\$11,540.98
Total - 8300 - Other State Revenues	\$247,475.33
8600 - Other Local Revenue	
8631 - Sales	
8634 - Food Service Sales	\$17,897.00
Total - 8631 - Sales	\$17,897.00
8690 - Other Local Revenue	\$123,629.06
Total - 8600 - Other Local Revenue	\$141,526.06
Total - 8000 - Revenue	\$2,429,928.01
8804 - ASB Revenues	\$57,885.56
Total - Income	\$2,487,813.57
Gross Profit	\$2,487,813.57
Expense	
1000 - Certificated Salaries	
1100 - Teachers Salaries	\$1,115,239.52
1200 - Certificated Pupil Support Salaries	\$148,104.10
1300 - Certificated Supervisor & Administrator Salaries	\$86,397.75
Total - 1000 - Certificated Salaries	\$1,349,741.37
2000 - Classified Salaries	
2100 - Classified Instructional Aide Salaries	\$40,611.63
2200 - Classified Support Salaries	\$111,202.45
2300 - Classified Supervisor & Administrator Salaries	\$72,627.78
2400 - Classified Clerical & Office Salaries	\$79,970.52
2900 - Classified Other Salaries	\$1,195.58
Total - 2000 - Classified Salaries	\$305,607.96
3000 - Employee Benefits	
3100 - STRS	
3100 - STRS	\$2,014.49
3101 - State Teachers Retirement System, certificated positions	\$226,459.35
Total - 3100 - STRS	\$228,473.84
3200 - PERS	
3200 - PERS	\$52,711.06
3202 - Public Employees Retirement System, classified positions	\$3,672.65
Total - 3200 - PERS	\$56,383.71
3300 - OASDI-Medicare-Alternative	
3300 - OASDI-Medicare-Alternative	\$17,895.43
3301 - OASDI/Alternative, certificated positions	\$4,614.70

3303 - Medicare, certificated positions	\$19,449.70
3304 - Medicare, classified positions	\$4,418.06
Total - 3300 - OASDI-Medicare-Alternative	\$46,377.89
3400 - Health & Welfare Benefits	
3401 - Health & Welfare Benefits - Certificated Positions	\$160,796.81
3402 - Health and Welfare Benefits - Classified Positions	\$30,718.67
Total - 3400 - Health & Welfare Benefits	\$191,515.48
3600 - Workers Comp Insurance	
3601 - Worker's Comp Insurance - Certificated Positions	\$20,368.12
Total - 3600 - Workers Comp Insurance	\$20,368.12
3900 - Other Employee Benefits	
3901 - Other Benefits - Certificated Positions	\$5,500.00
Total - 3900 - Other Employee Benefits	\$5,500.00
Total - 3000 - Employee Benefits	\$548,619.04
3342 - PARS	\$317.14
4000 - Books & Supplies	
4100 - Approved Textbooks & Core Curricula Materials	\$163.92
4200 - Books & Other Reference Materials	\$17,280.21
4300 - Materials & Supplies	
4325 - Instructional Materials & Supplies	\$17,066.33
4330 - Office Supplies	\$5,863.14
4345 - Non Instructional Student Materials & Supplies	\$37,709.58
Total - 4300 - Materials & Supplies	\$60,639.05
4400 - Noncapitalized Equipment	\$29,310.59
4700 - Food	
4710 - Student Food Services	\$95.75
Total - 4700 - Food	\$95.75
Total - 4000 - Books & Supplies	\$107,489.52
5000 - Services & Other Operating Expenses	
5200 - Travel & Conferences	\$2,591.31
5300 - Dues & Memberships	\$5,868.18
5400 - Insurance	\$36,549.10
5500 - Operations & Housekeeping	
5500 - Operations & Housekeeping	\$7,601.35
5520 - Security	\$32,783.88
Total - 5500 - Operations & Housekeeping	\$40,385.23
5600 - Rentals, Leases, & Repairs	
5605 - Equipment Leases	\$5,873.96
Total - 5600 - Rentals, Leases, & Repairs	\$5,873.96
5800 - Other Services & Operating Expenses	
5809 - Banking Fees	\$658.32
5815 - Consultants - Instructional	\$16,422.78
5820 - Consultants - Non Instructional - Custom 1	\$40,822.00
5824 - District Oversight Fees	\$62,428.92
5830 - Field Trips Expenses	\$17,558.79
5833 - Fines and Penalties	\$116.65
5845 - Legal Fees	\$4,897.54
5851 - Marketing and Student Recruiting	\$5,000.00
5872 - Special Education Encroachment	\$114,088.23
5884 - Substitutes	\$204.82
Total - 5800 - Other Services & Operating Expenses	\$262,198.05
5900 - Communications	\$15,012.74
Total - 5000 - Services & Other Operating Expenses	\$368,478.57
Total - Expense	\$2,680,253.60
Net Ordinary Income	(\$192,440.03)
Net Income	(\$192,440.03)



Corporate Card Statement of Account

Sign-up For Online Statements
www.americanexpress.com/gopaperless

Prepared For
DAVID HUSSEY
 EL CAMINO REAL CHS

Account Number
 XXXX-XXXXX3-31005

Closing Date
 08/28/19

Page 1 of 7

Previous Balance \$	New Charges \$	Other Debits \$	Payments \$	Other Credits \$	Balance Due \$ 09/12/19
42,042.78	27,965.09	39.00	13,040.88	495.66	56,510.33

For important information regarding your account refer to page 2.

Your account is one month overdue. If payment in mail - thank you.

To manage your Account online or to pay your bill, please visit us at corp.americanexpress.com. For additional contact information, please see the reverse side of this page.

Corporate Card Snapshot

Card Number	Card	New Charges + Other Debits	Payments + Other Credits
XXXX-XXXXX3-31005	DAVID HUSSEY	39.00	-13,040.88
XXXX-XXXXX3-31013	DAVID HUSSEY	261.50	0.00
XXXX-XXXXX3-31039	ALAN DARBY	27,703.59	-495.66
	Total	28,004.09	-13,536.54

Activity

Date reflects either transaction or posting date

Card Number XXXX-XXXXX3-31005	Reference Code	Amount \$
07/31/19 PAYMENT RECEIVED - THANK YOU 07/31	04606000000	-10,515.88
07/31/19 PAYMENT RECEIVED - THANK YOU 07/31	04606000000	-2,500.00
07/31/19 PAYMENT RECEIVED - THANK YOU 07/31	04606000000	-25.00
08/28/19 LATE FEE FOR 30-DAY PAST DUE BALANCE		39.00
Total for DAVID HUSSEY	New Charges/Other Debits Payments/Other Credits	39.00 -13,040.88

↓ Please fold on the perforation below, detach and return with your payment ↓

Do not staple or use paper clips

Payment Coupon

DAVID HUSSEY
 EL CAMINO REAL CHS
 5440 VALLEY CIR BLVD
 WOODLAND HILLS CA 91367

Account Number 3787-507763-31005 Payable upon receipt in U.S. Dollars.

Please Pay By 09/12/19 Enter 15 digit account number on all payments.

Amount Due \$56,510.33

Checks or drafts must be drawn against banks located in the U.S.

Check here if address, telephone number, or e-mail address has changed. Note changes on reverse side.

Mail Payment to:



AMERICAN EXPRESS
 PO BOX 0001
 LOS ANGELES CA 90096-8000



0000378750776331005 005651033002796509 28HH

Prepared For
DAVID HUSSEY
 EL CAMINO REAL CHS

Account Number
 XXXX-XXXXX3-31005

Payments: Your American Express® Corporate Card statement is payable in full upon receipt. Payments received after 5:00 pm may not be credited until the next day. Payments must be sent to the payment address shown on your statement and must include the remittance coupon from your statement. Payments must be made in US currency, with a single draft or check drawn on a US bank and payable in US dollars or with a single negotiable instrument payable in US dollars and clearable through the US banking system, or through an electronic payment method clearable through the US banking system. Your Account number must be included on or with all payments. If payment does not conform to these requirements, crediting may be delayed and additional Charges may be imposed. If we accept payment made in a foreign currency, we will choose a conversion rate that is acceptable to us to convert your remittance into US currency, unless a particular rate is required by law. Please do not send post-dated checks. They will be deposited upon receipt. Our acceptance of any payment marked with a restrictive legend will not operate as an accord and satisfaction without our express prior written approval.

Authorization for Electronic Debit: We will process checks electronically, at first presentment and any re-presentments, by transmitting the amount of the check, routing number, account number, and check serial number to your financial institution, unless the check is not processable electronically or a less costly process is available. By submitting a check for payment, you authorize us to initiate an electronic debit from your bank or asset account. When we process your check electronically, your payment may be debited to the bank or asset account as soon as the same day we receive your check, and you will not receive that cancelled check with your bank or asset account statement. If we cannot collect the funds electronically we may issue a draft against the bank or asset account for the amount of the check. If you currently send in an individual payment for expenses on the Corporate Card, please note that you are eligible to pay your bill online.

Authorizations for Electronic Payments: By using Pay by Computer, Pay by Phone or any other electronic payment service of ours, you will be authorizing us to initiate an electronic debit to the financial account you specify in the amount you request. Payments received after 5:00 pm may not be credited until the next day.

Transactions Made in Foreign Currencies: If you incur a Charge in a foreign currency, it will be converted into US dollars on the date it is processed by us or our agents. Unless a particular rate is required by applicable law, we will choose a conversion rate that is acceptable to us for that date. Currently the conversion rate that we use for a Charge in a foreign currency is no greater than (a) the highest official conversion rate published by a government agency, or (b) the highest interbank conversion rate identified by us from customary banking sources, on the conversion date or the prior business day, **in each instance increased by 2.5%**. This conversion rate may differ from rates in effect on the date of your Charge. Charges converted by establishments (such as airlines) will be billed at the rates such establishments use.

In Case of Errors or Questions About Your Bill: If you think your bill is incorrect, or if you need more information about a transaction on your bill, please call 1-800-528-2122 or the number on the back of your Card. You can also write us on a separate sheet of paper at the Customer Service address noted to the right. Requests for refunds of credit balances (designated "CR") should be made by calling us at 1-800-528-2122 or the number on the back of your Card. Billing disputes can also be initiated online. This applies to Corporate Cards only, not Cards issued under the Corporate Defined Express Program.

In Case of Errors or Questions About Electronic Transfers: Please contact us by calling 1-800-IPAY-AXP for Pay By Phone, Pay By Computer issues and automatic payment issues.

When Contacting Us Regarding Errors or Questions: We must hear from you no later than 60 days after we send you the first bill on which the error or problem appeared. When contacting us, please give us the following information: 1. Your name and account number; 2. The dollar amount of the suspected error; 3. Describe why you believe there is an error. If you need more information, describe the item you are unsure about. You do not have to pay any amount in question while we are investigating, but you are still obligated to pay the parts of your bill that are not in question. While we investigate your question, we cannot report you as delinquent or take any action to collect the amount you question.



Manage your Card account online at:
www.americanexpress.com/checkyourbill



For all further inquiries or to pay by phone, please call the number on the back of your Card.

If your Card has been lost or stolen, please call 1-800-528-2122

International Collect:
 1-336-393-1111

Hearing Impaired Services:
 TTY: 1-800-221-9950
 FAX: 1-800-695-9090

Large Print and Braille Statements:
 1-800-528-2122



Customer Service
 P.O. Box 981531
 El Paso, TX
 79998-1531

Payments
 PO BOX 0001
 LOS ANGELES
 CA
 90096-8000

Change of Address
 If correct on front
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Name																								
Company Name																								
Street Address																								
City, State																								
Zip Code																								
Area Code and Home Phone																								
Area Code and Work Phone																								
Email																								

Providing your email address to American Express will enable you to receive special offers, suited to your needs.



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08/28/19

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Activity Continued

Card Number XXXX-XXXXX3-31013					Reference Code	Amount \$
08/14/19	GITHUB		SAN FRANCISCO	CA		25.00
	REF# 3HPBTGE2	4152910224		08/14/19		
08/20/19	PITNEY BOWES PI		SHELTON	CT	86025907300	236.50
	REF# 860259073	8442566444		08/20/19		
Total for DAVID HUSSEY					New Charges/Other Debits	261.50
					Payments/Other Credits	0.00

Prepared For
DAVID HUSSEY
EL CAMINO REAL CHS

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Prepared For
DAVID HUSSEY
 EL CAMINO REAL CHS

Account Number
XXXX-XXXXX3-31005

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08/28/19

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Activity Continued

Card Number XXXX-XXXXX3-31039				Reference Code	Amount \$
07/30/19	VERNIER SOFTWARE & T BEAVERTON	OR		41486413826	906.75
	REF# 41486413826 HARDWARE AND	07/26/19			
07/30/19	AMZN MKTP US*MA9XJ6X AMZN.COM/BILL	WA			90.67
	REF# 17HYKBY8A8P BOOK STORES	07/30/19			
07/31/19	TIME WARNER CABLE 888-TWCABLE	CA		84482000174	139.96
	REF# 84482000174 CABLE SVCS	07/31/19			
08/01/19	AMZN MKTP US*MA2W26G AMZN.COM/BILL	WA			372.61
	REF# 4BUG94CZQGK BOOK STORES	07/31/19			
08/01/19	AMZN MKTP US*MA9SQ6N AMZN.COM/BILL	WA			43.79
	REF# 2FOQ46V6JNH BOOK STORES	08/01/19			
08/02/19	CHEERLEADING COMPANY DALLAS	TX		73011009213	2,097.26
	REF# 73011009213 EKNUTH@CHEERLEAD08/01/19				
08/03/19	TARGET.COM * 3991 800-591-3869	MN		10531218240	182.30
	REF# 10531218240 800-591-3869	08/03/19			
	APPAREL, HOUSEWARES				
	ROC NUMBER 105312182409				
08/03/19	AMAZON WEB SERVICES AWS.AMAZON.CO	WA			3,618.61
	REF# 6CA6U7O6I7K WEB SERVICES	08/03/19			
08/07/19	AMZN MKTP US*MA3W54Q AMZN.COM/BILL	WA			13.98
	REF# Y4LMTHMMLTG BOOK STORES	08/03/19			
08/07/19	TARGET.COM * 3991 800-591-3869	MN		10535853120	60.57
	REF# 10535853120 800-591-3869	08/07/19			
	APPAREL, HOUSEWARES				
	ROC NUMBER 105358531208				
08/08/19	TARGET.COM * 3991 800-591-3869	MN		10536712629	265.72
	REF# 10536712629 800-591-3869	08/08/19			
	APPAREL, HOUSEWARES				
	ROC NUMBER 105367126295				
08/10/19	AMZN MKTP US*MA2FJ42 AMZN.COM/BILL	WA			20.43
	REF# 6Y5CEYFKA8A BOOK STORES	08/09/19			
08/11/19	AMZN MKTP US*MA3QV4H AMZN.COM/BILL	WA			66.32
	REF# 5EGU9W3GEBF BOOK STORES	08/09/19			
08/11/19	AMZN MKTP US*MA09O37 AMZN.COM/BILL	WA			37.52
	REF# 13R3JDRXRPF BOOK STORES	08/09/19			
08/11/19	AMZN MKTP US*MA5MC29 AMZN.COM/BILL	WA			160.50
	REF# 7GO9E6I35KH BOOK STORES	08/09/19			
08/11/19	AMZN MKTP US*MA9UG09 AMZN.COM/BILL	WA			550.57
	REF# 82ONF75FIS5 BOOK STORES	08/09/19			
08/11/19	AMZN MKTP US*MA3FT19 AMZN.COM/BILL	WA			725.73
	REF# 3JNMJ59FKTE BOOK STORES	08/09/19			
08/11/19	AMZN MKTP US*MA0ZB2W AMZN.COM/BILL	WA			379.95
	REF# 5DOMYDOOE10 BOOK STORES	08/10/19			
08/12/19	AMZN MKTP US*MA2ZL9B AMZN.COM/BILL	WA			28.90
	REF# 46K7XMDKWIK BOOK STORES	08/09/19			
08/12/19	MAILCHIMP *MONTHLY MAILCHIMP.COM	GA			250.00
	REF# 5831486-127 EMAIL MKTG	08/12/19			
08/14/19	AMZN MKTP US*MA8LB16 AMZN.COM/BILL	WA			63.02
	REF# 4XVIAYWTJOI BOOK STORES	08/13/19			
08/14/19	AMZN MKTP US*MA5QV8I AMZN.COM/BILL	WA			75.77
	REF# 21R5PZFNXM2 BOOK STORES	08/13/19			
08/14/19	AMZN MKTP US*MA9RV9D AMZN.COM/BILL	WA			554.15
	REF# 49Y9XJOQPUI BOOK STORES	08/13/19			
08/14/19	AMZN MKTP US*MO07A7F AMZN.COM/BILL	WA			129.11
	REF# 5V6TSA0BCA8 BOOK STORES	08/14/19			
08/14/19	AMZN MKTP US*MA3O93R AMZN.COM/BILL	WA			65.65
	REF# 3MRTF8ZX059 BOOK STORES	08/14/19			
08/14/19	AMZN MKTP US*MA9MW1D AMZN.COM/BILL	WA			210.30
	REF# 4UTRFZ1GITE BOOK STORES	08/14/19			
08/15/19	AMZN MKTP US*MO0H364 AMZN.COM/BILL	WA			228.99
	REF# 59O7LWC3UFW BOOK STORES	08/14/19			

Continued on reverse

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DAVID HUSSEY
EL CAMINO REAL CHS

Account Number
XXXX-XXXXX3-31005

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Activity Continued				Reference Code	Amount \$
08/15/19	AMZN MKTP US*MA9I90Y	AMZN.COM/BILL	WA		50.89
	REF# 504QXF7NW40	BOOK STORES	08/15/19		
08/15/19	AMZN MKTP US*MA0EB3Y	AMZN.COM/BILL	WA		44.40
	REF# 4R6FRNPP7Q2	BOOK STORES	08/15/19		
08/16/19	AMAZON.COM*MO98F7OL1	AMZN.COM/BILL	WA		91.80
	REF# 3O9P3VVGME2	MERCHANDISE	08/15/19		
08/17/19	CHEERLEADING COMPANY DALLAS		TX	73011009228	-100.00
	REF# 73011009228	EKNUTH@CHEERLEAD	08/16/19		Credit
08/17/19	CHEERLEADING COMPANY DALLAS		TX	73011009228	-58.40
	REF# 73011009228	EKNUTH@CHEERLEAD	08/16/19		Credit
08/18/19	AMAZON.COM*MO7GM63D2	AMZN.COM/BILL	WA		589.54
	REF# 4NQ29FQ5494	MERCHANDISE	08/14/19		
08/18/19	AMAZON.COM*MO50C2FG1	AMZN.COM/BILL	WA		3,722.20
	REF# 714RT7O1IYU	MERCHANDISE	08/15/19		
08/19/19	AMZN MKTP US*MO0WD4L	AMZN.COM/BILL	WA		684.46
	REF# 7E7JZNA4MZ	BOOK STORES	08/14/19		
08/19/19	AMZN MKTP US*MA0JV09	AMZN.COM/BILL	WA		49.53
	REF# 5D72T24FRNX	BOOK STORES	08/19/19		
08/19/19	AMAZON.COM*MO4MA8N21	AMZN.COM/BILL	WA		140.99
	REF# SBNXSUH3YB7	MERCHANDISE	08/19/19		
08/20/19	AMAZON.COM*MO60E9ZH1	AMZN.COM/BILL	WA		125.31
	REF# 6M34G8CJ25G	MERCHANDISE	08/19/19		
08/20/19	AMZN MKTP US*MO4TK9T	AMZN.COM/BILL	WA		33.50
	REF# 5SWVMMNC3ZG	BOOK STORES	08/19/19		
08/20/19	AMZN MKTP US*MO1FJ0Z	AMZN.COM/BILL	WA		32.10
	REF# 3CJJYUDIIG3	BOOK STORES	08/19/19		
08/20/19	AMZN MKTP US*MA3256I	AMZN.COM/BILL	WA		9.98
	REF# FEXVZKODZVG	BOOK STORES	08/19/19		
08/20/19	AMZN MKTP US*MA8DC8I	AMZN.COM/BILL	WA		98.88
	REF# 2IZ1AMU1QFQ	BOOK STORES	08/19/19		
08/20/19	AMZN MKTP US*MO6097N	AMZN.COM/BILL	WA		47.42
	REF# 5GKNQ4O87VG	BOOK STORES	08/19/19		
08/20/19	AMAZON.COM*MO0DD7AH2	AMZN.COM/BILL	WA		330.91
	REF# 3BHP6F21HUM	MERCHANDISE	08/19/19		
08/20/19	AMAZON.COM*MA7DL7IH0	AMZN.COM/BILL	WA		862.80
	REF# OGTB1W9XV0S	MERCHANDISE	08/19/19		
08/20/19	AMZN MKTP US*MA4620J	AMZN.COM/BILL	WA		57.00
	REF# 5A9L8FBJATG	BOOK STORES	08/19/19		
08/20/19	AMAZON.COM*MA5T78IA0	AMZN.COM/BILL	WA		196.80
	REF# 7551T3I8AOF	MERCHANDISE	08/19/19		
08/20/19	AMZN MKTP US*MA2L66I	AMZN.COM/BILL	WA		1,477.57
	REF# 3JTA8ZDIK6H	BOOK STORES	08/19/19		
08/20/19	AMZN MKTP US*MO85A43	AMZN.COM/BILL	WA		391.22
	REF# 303SREQQ3YU	BOOK STORES	08/19/19		
08/20/19	AMZN MKTP US*MO6222N	AMZN.COM/BILL	WA		218.99
	REF# 3GHYPYSVW1W	BOOK STORES	08/20/19		
08/20/19	AMZN MKTP US*MO69313	AMZN.COM/BILL	WA		237.07
	REF# 1INUKK0ZCA3	BOOK STORES	08/20/19		
08/21/19	AMZN MKTP US*MO3JM1A	AMZN.COM/BILL	WA		119.95
	REF# IL7AYAGAIYD	BOOK STORES	08/19/19		
08/21/19	AMZN MKTP US*MO0YF0E	AMZN.COM/BILL	WA		68.31
	REF# 4TL5EW5HXUG	BOOK STORES	08/19/19		
08/21/19	AMZN MKTP US*MA6BA0R	AMZN.COM/BILL	WA		65.66
	REF# 765YBNUJPRO	BOOK STORES	08/19/19		
08/21/19	AMZN MKTP US*MO9Y523	AMZN.COM/BILL	WA		239.45
	REF# 2GFWWWQQZNV	BOOK STORES	08/19/19		
08/21/19	AMZN MKTP US*MO7AN0E	AMZN.COM/BILL	WA		68.70
	REF# 6S36E214ZGN	BOOK STORES	08/19/19		
08/21/19	AMZN MKTP US*MA0PX4W	AMZN.COM/BILL	WA		1,177.90
	REF# 4HOELMAQ1VJ	BOOK STORES	08/19/19		
08/21/19	AMAZON MKTPL*MO7QR30	AMZN.COM/BILL	WA		30.56
	REF# 6I5VLZZBL8S	BOOK STORES	08/19/19		
08/21/19	GPS*LOS ANGELES COUN DOWNEY		CA		425.75
	REF# 26560491-21	888-604-7888	08/20/19		

Continued on next page



Prepared For
DAVID HUSSEY
 EL CAMINO REAL CHS

Account Number
XXXX-XXXXX3-31005

Closing Date
08/28/19

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Activity Continued					Reference Code	Amount \$
08/21/19	GPS*LOS ANGELES COUN DOWNEY	CA				425.75
	REF# 26560524-21 888-604-7888	08/20/19				
08/21/19	GPS*LOS ANGELES COUN DOWNEY	CA				425.75
	REF# 26560561-21 888-604-7888	08/20/19				
08/21/19	AMAZON.COM*MO4EH2A42 AMZN.COM/BILL	WA				9.15
	REF# 3PCWUAMXLU MERCHANDISE	08/20/19				
08/21/19	AMZN MKTP US*MO0O413 AMZN.COM/BILL	WA				660.11
	REF# 481ZEVVBNV BOOK STORES	08/20/19				
08/21/19	AMAZON.COM*MA4731W40 AMZN.COM/BILL	WA				6.50
	REF# 3PYMET63YNP MERCHANDISE	08/20/19				
08/21/19	AGUAVIDA PREMIUM WAT 747-444-9637	CA		21105179233		210.99
	REF# 21105179233 BOTTLE WATER	08/20/19				
08/21/19	AMZN MKTP US*MO7P153 AMZN.COM/BILL	WA				192.68
	REF# JGNJDT29JUC BOOK STORES	08/20/19				
08/21/19	AMAZON MKTPL*MO0JN53 AMZN.COM/BILL	WA				133.23
	REF# IEVNU03L6PA BOOK STORES	08/21/19				
08/22/19	AMZN MKTP US*MA5GJ3W AMZN.COM/BILL	WA				898.11
	REF# 5R75YD1LTAK BOOK STORES	08/19/19				
08/22/19	AMZN MKTP US*MO5JS0T AMZN.COM/BILL	WA				178.89
	REF# 6TA1B395WY8 BOOK STORES	08/19/19				
08/22/19	AMZN MKTP US*MO0NL6C AMZN.COM/BILL	WA				40.86
	REF# 4DB7JBA9SHU BOOK STORES	08/19/19				
08/22/19	AMZN MKTP US*MO2652T AMZN.COM/BILL	WA				33.93
	REF# 56YYPHW210M BOOK STORES	08/20/19				
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08/23/19	AMZN MKTP US	WA				-168.63
	REF# 58GX8P25CZR BOOK STORE	08/23/19				Credit
08/24/19	AMZN MKTP US*MO90N01 AMZN.COM/BILL	WA				19.70
	REF# 461IV75MTQI BOOK STORES	08/24/19				
08/27/19	AMZN MKTP US*MO7MF0H AMZN.COM/BILL	WA				9.99
	REF# 47RKRTPBAC BOOK STORES	08/21/19				
08/28/19	YOUCANBOOK.ME BEDFORD					14.00
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08/28/19	GITHUB SAN FRANCISCO	CA				7.00
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08/28/19	AMZN MKTP US*MO0ZX3T AMZN.COM/BILL	WA				72.57
	REF# 1L30NDAEM27 BOOK STORES	08/28/19				
Total for ALAN DARBY					New Charges/Other Debits	27,703.59
					Payments/Other Credits	-495.66

Coversheet

Tech Update and IT Audit Update

Section: V. School Business
Item: A. Tech Update and IT Audit Update
Purpose: Discuss
Submitted by:
Related Material: 20190913-SW-ECRCHS Network Assessment Report R6 2019-09-13.pdf



Baseline Assessment Report

Performed for:



EL CAMINO REAL CHARTER HIGH SCHOOL

Date of Report 09/04/2019

Revision 6

Assessed By James Joyner



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Executive Summary

El Camino Real Charter High School (ECRCHS) engaged NIC Partners to perform an IT infrastructure audit in order to ensure that they have all the equipment in place to support their planned technology requirements. The infrastructure to be included in the assessment included the following: routing, switching, cabling, wireless access points, a wireless heat map performed during regular school hours datacenter, network security, and printer connectivity.

The sections below detail the scope of the assessment and the high-level findings. NIC Partners invites ECRCHS to further discussion regarding any element of this report. Supplemental data including reports from Ekahau wireless survey software, the printer discovery information, and the cabling discovery information, shall be provided as separate deliverables.

The overall state of the network could be described as 'very good'. The routing/switching design is solid, wireless coverage and performance are satisfactory in classroom areas, and IT is making use of important security features at both the network perimeter and the endpoints. With a planned Internet capacity of 5 Gbps (and a 1 Gbps backup circuit), ECRCHS meets the bandwidth recommendations set forth by SEDTA and the FCC.

High-level recommendations for future projects include:

- Implement redundancy in the network core and perimeter to ensure continued network update in the event of a hardware failure
- Some network equipment has passed the 'end of sale' date, but the 'end of support' dates have not yet been published by the manufacturer. HPE will typically support equipment up to five years beyond the 'end of sale' date. It is recommended to check with the manufacturer for the true "end of support" date and allocate budget to replace the equipment prior to the 'end of support' date.
- The current wireless access points support the 802.11AC Wave 1 protocol. This is sufficient for today's wireless clients, but newer clients will have support for the 802.11AX protocol. The newer protocol adds features that lead to increased speed in the dense wireless environments prevalent in schools. It may not be economically feasible to replace wireless access points as soon as new technology is released; it may be more prudent to establish a budget for a cyclical refresh of wireless equipment every ~3-5 years.



Scope of Discovery

Network Devices

Data was collected on the following types of network devices:

- Routers/Switches
- Wireless Infrastructure
- Network Security (firewalls, VPN, content filters)
- Datacenter Equipment
- Printers

Supplemental Collection and Discovery

Additional areas of data collection and assessment (included as a Data Addendum):

- Assessment of Cabling
 - Identifies MDF/IDF locations and indicates on map
 - Identifies and documents fiber type and quantities
 - Identifies on map where the fiber traverses
 - Identifies and documents copper patch cable type and quantities
- Wireless Heat Map Assessment
- Printer Inventory Assessment

Tools Used

NIC Partners used the following tools to gather data from the network and interpret the results:

- NetformX DesignExpert
- NetBrain Workstation CE
- Interviews with ECRCHS
- Site walks



Business Requirements

Technology-related Goals and Objectives

At the time of this writing, all established technology-related goals or objectives have been implemented. ECRCHS is finalizing a UPS project that will provide more stability of electrical infrastructure and reduce downtime caused by power fluctuation or outage.

Future Plans Affecting Network Infrastructure

Campus Additions, Closures, or Changes

None expected at this time

Plans for Campus Modernization

ECRCHS will want to consider the replacement aging hardware and physical infrastructure. Hardware refresh discussions have been considered internally by ECRCHS, but timelines have not yet been established.

Business-critical Services

Critical Applications on Network Infrastructure

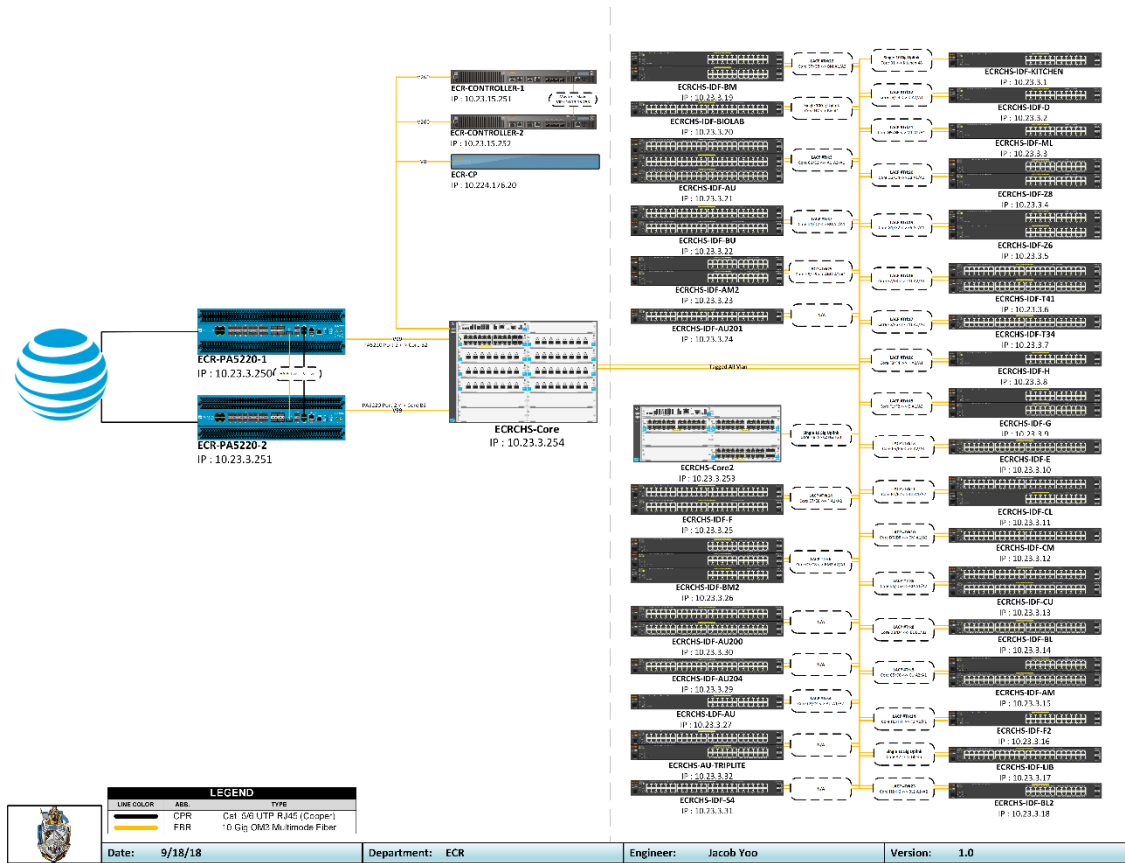
The services critical to ECRCHS are wireless services (1-to-1 network), the next-gen firewall features within the Palo Alto firewalls, VoIP/Jive, and Aeries.



Findings

Routers/Switches

Routers/Switches: Inventory

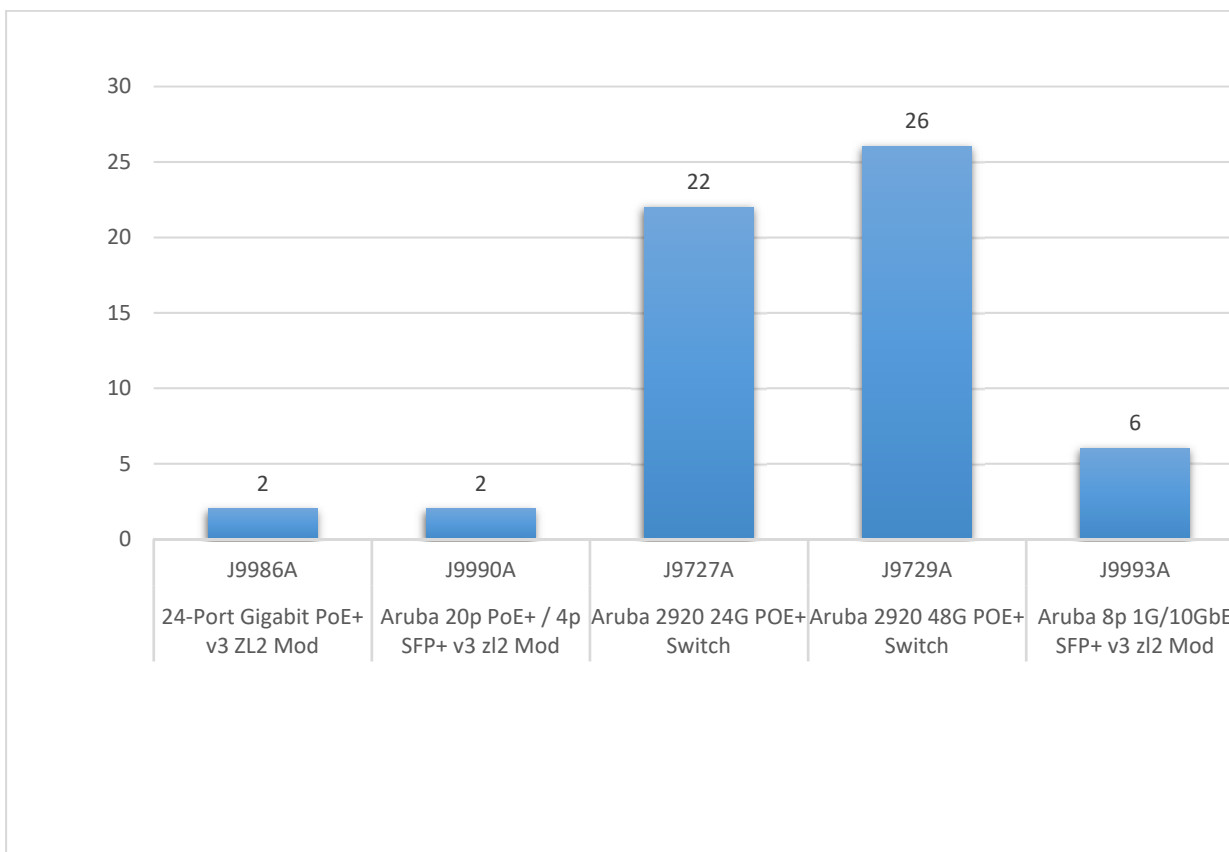
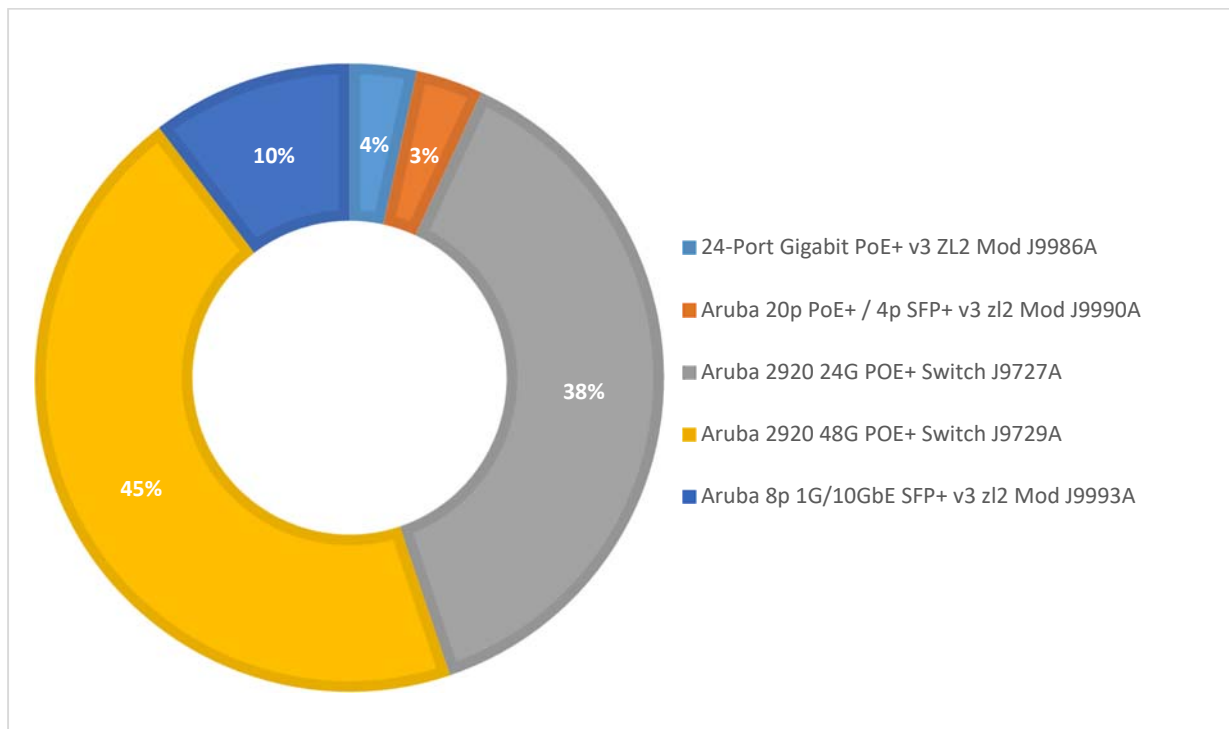


The table below shows the quantities of individual switches, by model. Note that many of these switches are stacked or modules within a chassis of a modular switch. Stacked switches and modules within the chassis will often appear as a single logical entity with modules or blades instead of individual units. The data below, however, was based on individual switch units rather than stacks.

Model	Description	TOTAL
J9727A	Aruba 2920 24G POE+ Switch	22
J9729A	Aruba 2920 48G POE+ Switch	26
J9986A	24-Port Gigabit PoE+ v3 ZL2 Mod	2
J9990A	Aruba 20p PoE+ / 4p SFP+ v3 z12 Mod	2
J9993A	Aruba 8p 1G/10GbE SFP+ v3 z12 Mod	6
Grand Total		58



The two charts below show the relative quantity of each switch model.





Most switches on the ECRCHS network are Aruba 2920 48-Port PoE+ (J9729A) and Aruba 2920 24-Port PoE+ (J9727A). The core switches are Aruba ZL2 modular switches, each containing multiple line cards.

ECRCHS utilize two (2) Aruba 5400R L22 modular switches at the core of their network. The largest of these switches is an Aruba 5412R L22, populated with one (1) Aruba 5400R zL2 Management Module J9827A, one (1) Aruba 20p PoE+ / 4p SFP+ v3 zL2 Mod J9990A, and six (6) Aruba 8p 1G/10GbE SFP+ v3 zL2 Mod J9993A. Expansion of this switch is currently possible, as the switch has five (5) open/available line card slots and one (1) open/available management slot.

The second core switch is an Aruba 5406R L22, populated with one (1) Aruba 5400R zL2 Management Module J9827A, two (2) Aruba 24-Port Gigabit PoE+ v3 ZL2 Mod J9986A, and one (1) Aruba 20p PoE+ / 4p SFP+ v3 zL2 Mod J9990A. Expansion of this switch is currently possible, as the switch has three (3) open/available line card slots and one (1) open/available management slot.

Both Aruba 5400R L22 switches feature hot-swappable redundant power supplies and cooling fan trays.

The 5400R L22 modular switches can utilize multiple management modules within the same chassis, in an active/standby configuration, to eliminate the downtime caused by a management module hardware failure. Implementing a second management module within the 5400R L22 switches would allow ECRCHS to utilize non-stop routing and switching to continue traffic during a failover from the active management controller to the standby.

It is recommended by NIC Partners to provide core switching and routing redundancy to maximize uptime and reduce the impact of a failure within the network.



HPE/Aruba J9729A | 2920-48G-PoE+



HPE/Aruba J9990A



HPE/Aruba J9727A | 2920-24G-PoE+



HPE/Aruba J9993A



HPE/Aruba J9986A



Routers/Switches: EoX Milestones

The data below indicates devices which have reached certain end-of-life milestones, as described in the visual alerts legend.

At this time, it appears that ECRCHS’s Aruba 2920 POE+ switches have reached the ‘end of sale’ milestone. This means that HPE/Aruba is no longer manufacturing these devices and will generally discontinue support and engineering for the product after five years. NIC Partners recommends replacing these items as soon as budget permits.

The good news is that none of the Brocade ICX switches discovered in the network are listed on Brocade’s [product end-of-life portal](#).

EoX Milestones visual alerts legend color schema:

EoX Milestone	Visual	Description
EoS		End of Sale (No more orders for the item)
EoE		End of Engineering (No more updates for the item)
LDoS		Last Day of Support

Total Qty	Description	Model	EoS	EoE	LDoS
23	Aruba 2920 24G POE+ Switch	J9727A	3/31/18	3/31/23	3/31/23
27	Aruba 2920 48G POE+ Switch	J9729A	3/31/18	3/31/23	3/31/23
1	Aruba 5406R z12 Switch Chassis	J9821A	current	current	current
1	Aruba 5412R z12 Switch Chassis	J9822A	current	current	current
2	Aruba 5400R z12 Management Module	J9827A	current	current	current
2	Aruba 5400R 2750W PoE+ z12 PSU	J9830B	current	current	current
2	24-Port Gigabit PoE+ v3 ZL2 Mod	J9986A	current	current	current
2	Aruba 20p PoE+ / 4p SFP+ v3 z12 Mod	J9990A	current	current	current
6	Aruba 8p 1G/10GbE SFP+ v3 z12 Mod	J9993A	current	current	current

Routers/Switches: Software Versions and Recommendations

The table below shows the version of operating system software that is present on the discovered switches, along with the version of operating system that is current by the manufacturer. For stability and security, the manufacture recommends using the current release of the operating system software recommended for the device. Using a release older than the current release is not recommended and may contribute to technical issues or expose vulnerabilities within the network.

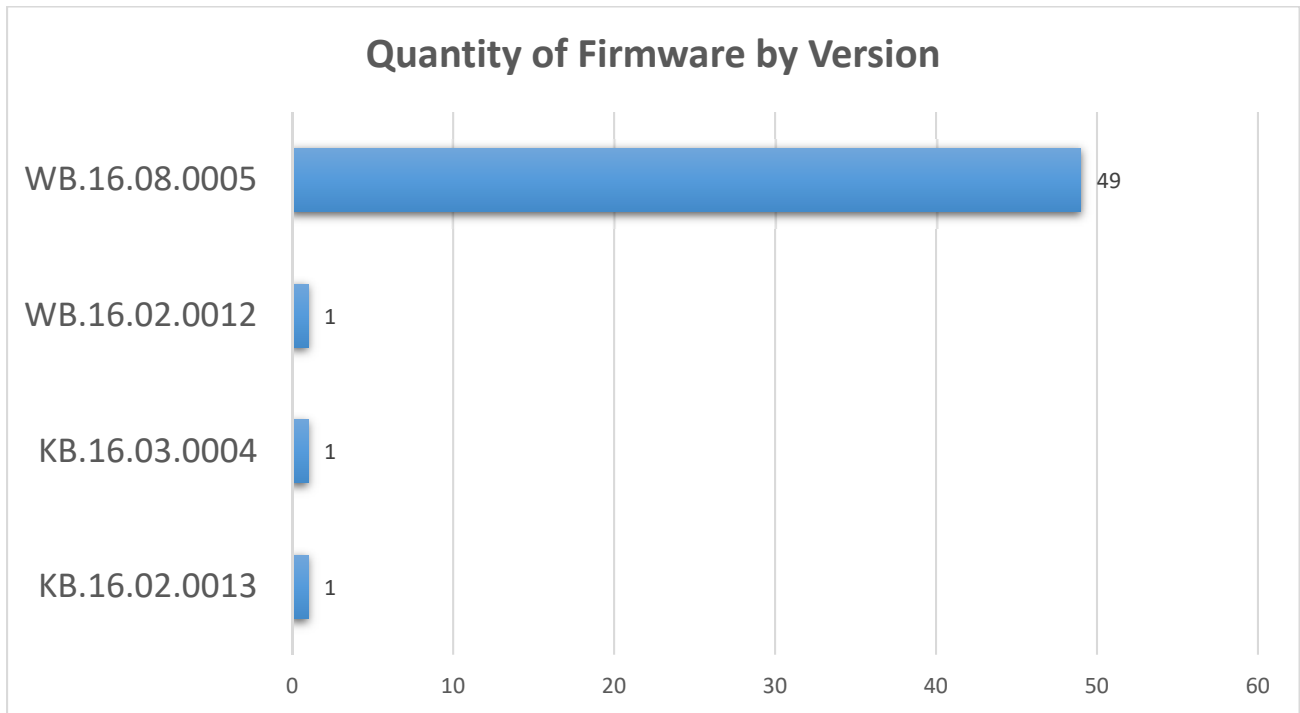
NIC Partners recommends upgrading all older release versions to a current release version within the same software branch. For example, the Aruba J9727A (ECR_DMZ) is currently on the software branch WB.16.02, using revision x.0005 but the current release of that branch is x.0027. NIC Partners recommends upgrading this switch to either WB.16.02.0027 or upgrading the branch to WB.16.08.0005.



Both versions would be acceptable, as they are both listed under the current release section of the software download page.

#	Manufacturer	Model	Installed Version	Current Version(s)	Recommendation
27	HPE/Aruba	J9729A	WB.16.08.0005	WB.16.08.0005	No Change
22	HPE/Aruba	J9727A	WB.16.08.0005	WB.16.08.0005	No Change
1	HPE/Aruba	J9727A	WB.16.02.0012	WB.16.02.0027 WB.16.08.0005	Upgrade
1	HPE/Aruba	J9821A	KB.16.02.0013	KB.16.02.0027 KB.16.03.0007	Upgrade
1	HPE/Aruba	J9822A	KB.16.03.0004	KB.16.03.0007	Upgrade

The graph below shows a quick overview of how many devices on the network are running each discovered version of software. The vast majority of Aruba 2920s are running version WB.16.08.0005, which is listed as a current release within the HPE software download portal.





Routers/Switches: Scoring and Analysis

Components Assessed

- **Backbone port speed/capacity**

- The campus network is typically divided into edge ports and backbone ports. The edge ports, which connect to PCs, wireless access points, and other networked devices, are aggregated into a small number of backbone ports for transport between IDFs and/or the WAN/Internet. Therefore, it is important that the backbone has enough capacity to quickly transport traffic from several edge ports simultaneously.

- **Edge port speed**

- The main purpose of a network switch is to take data from one or more edge ports and aggregate it into a higher-speed backbone port for connectivity throughout the campus.
- Edge ports in the campus network will be connected to devices like PCs, laptops, wireless access points, IP phones, and Internet-of-Things (IoT) devices. The vast majority of these devices will have Gigabit network cards installed. Older units, or devices that don't require much throughput, might have 10 or 100 Mbps network cards. Servers and storage devices that connect at higher speeds will typically plug into dedicated datacenter switches, so they are not accounted for when planning for campus networks.
- Some switches support 'multi-gigabit' ports for connecting to high-speed wireless access points. These ports are capable of running 2.5 Gbps, 5 Gbps, or even 10 Gbps over copper cables along with providing power-over-Ethernet on the same cable.

- **Edge port power-over-Ethernet (PoE) capabilities**

- Network switches are often used as a convenient way to power the devices plugged into them. Not only can this cut down on expensive electrical wiring, but some switches can support time-based scheduling for PoE, which means that unused devices can be shut down at night or on weekends to save power.
- Classrooms will typically have one or more devices that receive power from switches.
 - Modern wireless access points typically require 802.3at power standards, which means they can draw up to 30W of power each.
 - IP phones might require 802.3af power standards, which means they will draw between 7W and 15.4W of power each.
 - Video surveillance cameras may draw PoE. Energy efficient models may draw as little as 15.4W while PTZ models might draw 30W-60W each.



- **Switch redundancy**

- A well-designed network would eliminate as many single points of failure as possible. Providing redundancy for edge switches might not be the most efficient use of the network budget, but it could be argued that providing redundancy for core switches at each campus is an expedient use of monetary resources. The core is what all of the edge switches plug into; an outage in the core would affect the ENTIRE network while an outage at the edge would only affect a portion of the network.
- Some network switches have features that enable quick recovery from outages. Some platforms have self-healing features that diagnose issues and automatically reboot services that are malfunctioning. Other platforms might take advantage of stacking technologies such that an outage of a single switch in an IDF would result in the other switches staying online and connected.



Scoring

Backbone Port Speed/capacity

Score: 4/5



- 1 = Single 1 Gbps uplink from IDF to core
- 2 = Multiple (aggregated) 1 Gbps uplinks from IDF to core
- 3 = Single 10 Gbps uplink from IDF to core
- 4 = Multiple (aggregated) 10 Gbps uplinks from IDF to core
- 5 = 40+ Gbps uplink from IDF to core

Notes

- Most IDFs across the ECRCHS campus have multiple 10 Gbps uplink to the campus core. From there, the 10 Gbps WAN connects switches to the datacenter and Internet.

Analysis

With the transition towards single-mode fiber in the campus backbone comes the ability to run very high speeds on the backbone network. Some high-end campus LAN switches position 40 Gbps or 100 Gbps as the target speed for backbone ports. Unfortunately, the cost for 40G or 100G transceivers can be very expensive. The current sweet spot for education is probably the aggregation of two or more 10 Gbps ports from each IDF to the MDF. If redundant core switches are utilized in the MDF, it makes sense to provide dual 10G ports from the IDF and aggregate them together for an increase in usable capacity.

To prevent unnecessary outages caused by failing infrastructure or connectivity faults, NIC Partners recommends the use of redundant switching, that utilizing multiple 10Gbps uplinks back to the core, for all network segments that are critical to ECRCHS day-to-day operations.



Edge Port Speed/capacity

Score: 4/5



1 = Less than 100 Mbps

2 = 100 Mbps

3 = n/a

4 = 1,000 Mbps

5 = Multigigabit capability (2.5G/5G/10G)

Notes

- Aruba 2920 switches provide 1 Gbps to the edge.

Analysis

The speed for wired endpoints in the classroom tends to be targeted towards the 1 Gigabit (1,000 Mbps) mark. Any speed above that would likely overwhelm the backbone ports, which typically run at 10 Gbps. The only situation where it currently makes sense to go above 1 Gbps (outside of the datacenter) is for connectivity to wireless access points. To provide for faster uplink speed to wireless access points - while still providing PoE over copper - some switches will provide a small quantity of 'multigigabit' ports. These ports are capable of pushing 2.5 Gbps – 10 Gbps over copper cabling. The maximum speed of these ports is determined by the type and quality of the copper cable used between the switch and the wireless access point.

In ECRCHS's environment, 1 Gbps to the edge is currently sufficient. If the high school WAN links are ever increased beyond 10 Gbps, it might make sense to look at multigigabit switch ports for the 802.11AC Wave 2 and future 802.11ax wireless access points.



Edge Port PoE Capabilities

Score: 3/5



- 1 = No PoE or pre-standard PoE
- 2 = 802.3af (type 1), 15.4W per port
- 3 = 802.3at (type 2), 30W per port – up to 12 ports @ 30W
- 4 = 802.3at (type 2), 30W per port – up to 24 ports @ 30W
- 5 = 802.3bt (type 3/4), 60W per port

Notes

- 802.3bt is expected to be standardized in September of 2018, but is not yet a standard. Some manufacturers have developed pre-standard technologies (such as Universal PoE) that are capable of delivering 60W per port and beyond.
- Aruba 2920-48G-PoE+ can power up to 12 ports at 30W per port with the internal power supply. Adding an external power supply will allow all 48 ports to provide 30W of PoE.

Analysis

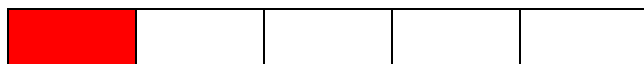
Higher PoE capabilities are better, as a switch with higher PoE budgets can power more devices and devices that have high power requirements. A proper PoE design would take into consideration the capacity of the electrical circuits feeding the switches; care must be taken to not overload the typical 15A circuits found in most environments. Consider that a dedicated 15A circuit at 120V will provide ~1,800W of power. Three switches providing 30W of power per port, at 24 ports per switch, will result in ~2,160W of power (and an overloaded circuit). Note, however, that most networked devices will not pull their maximum PoE budget at all times, so it is unlikely that all ports would be providing 30W of power at the same time.

NIC Partners recommends working with the Facilities team to provide extra electrical circuit capacity to the IDFs prior to an equipment refresh. At the very least, the IT Department needs to be aware of the inline power requirements vs the electrical capacity in each IDF.



Switch Redundancy

Score: 1/5



1 = No redundancy.

2 = Portion of core switches have a redundant partner. IDFs connected to only one core switch.

3 = Portion of core switches have a redundant partner. Critical IDFs connected to both.

4 = Each core switch has a redundant partner. Each IDF is connected to both core switches.

5 = Each core switch has a redundant partner. IDFs are connected to both. Dual power supplies/grids.

Notes

- ECRCHS has two core switches, in different form factors, but the switches are not configured for redundancy and would not prevent an outage caused by a core switch failure.
- With few exceptions, IDF switches are home-run to MDF.
- Stacked switches utilize multiple uplink to MDF.

Analysis

Adding redundancy for the District’s core equipment could significantly assist with overall network uptime. Having two core switches, configured for redundancy, eliminates the threat of downtime from:

- Software glitch affecting an individual device
- Software update procedure which requires reboots
- Issues affecting a single strand or pair of fiber between IDF and MDF
- Failure of core switch’s power supply

For these reasons, best practices for enterprise-grade networks include the use of redundant hardware in places where uptime is critical (i.e. core switches).



Wireless

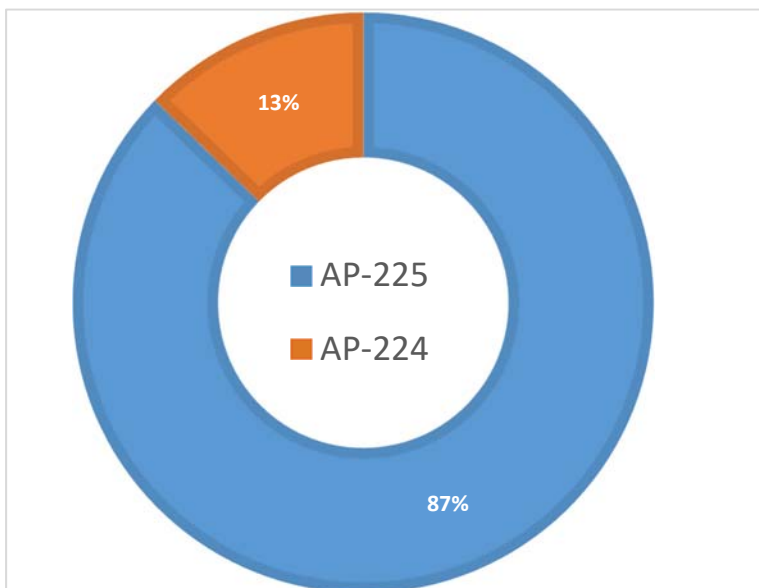
Wireless: Inventory

The table below shows the quantity of wireless devices installed throughout ECRCHS's campus.

Manufacturer	Model	Qty
HPE/Aruba	7210 Controller	2
HPE/Aruba	AP-224	42
HPE/Aruba	AP-225	288



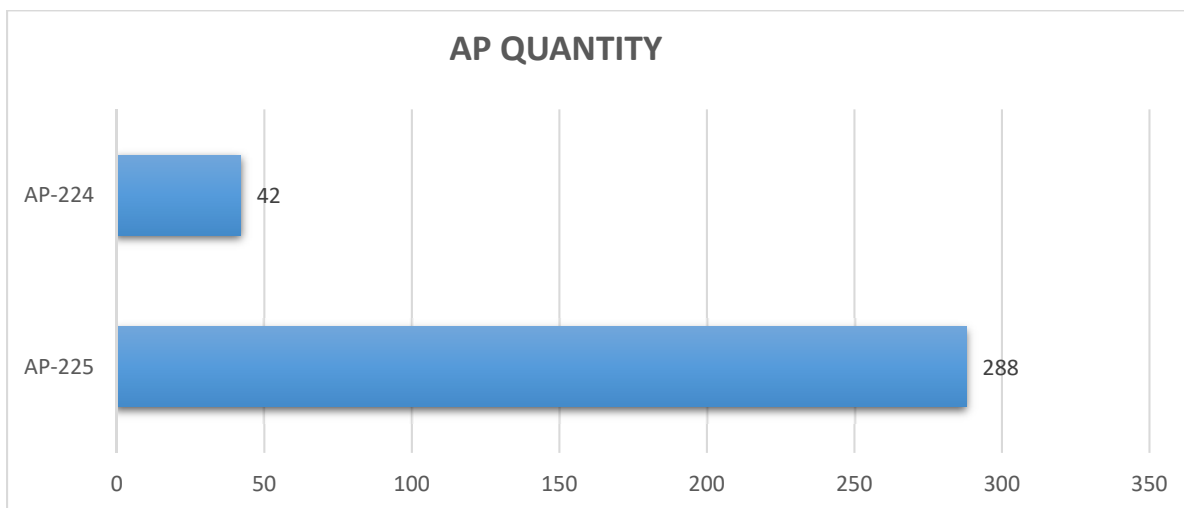
Aruba 7210 Mobility Controller



Aruba AP-225



Aruba AP-224





Wireless: EoX Milestones

The data below indicates devices which have reached certain end-of-life milestones, as described in the visual alerts legend.

According to the [End-of-Life Product Listing](#) published by Aruba, none of the documented wireless devices have end-of-life data published, which means they are current models that will be supported by Aruba for at least five years.

EoX Milestones visual alerts legend color schema:

EoX Milestone	Visual	Description
EoS		End of Sale (No more orders for the item)
EoE		End of Engineering (No more updates for the item)
LDoS		Last Day of Support

Qty	Manufacturer	Model	EOS	EOE	LDoS
2	HPE/Aruba	7210 Mobility Controller	current	current	current
42	HPE/Aruba	AP-224	current	current	current
288	HPE/Aruba	AP-225	current	current	current

Wireless: Software Versions and Recommendations

The table below shows the version of Aruba operating system software that is present on the wireless access points, along with the version of operating system that is current by the manufacturer.

NIC Partners recommends using the current software revision released by the manufacturer, unless there are specific limitations which restrict the ability to upgrade the versions of the software.

Model	Installed Version	Current Version	Recommendation
Aruba7210	6.5.4.10_67757	6.5.4.13_71051	Upgrade

Aruba advises upgrading ArubaOS to a minimum version of 6.5.4.13 to address serious vulnerabilities present in older versions running on the Aruba Mobility Controller. An attacker could use these vulnerabilities to execute arbitrary code on the underlying operating system with full system privileges.

NIC Partners recommends upgrading both Aruba 7210 Mobility Controllers to ArubaOS 6.5.4.13 or later.

Additional information from the manufacturer:

<https://www.arubanetworks.com/assets/alert/ARUBA-PSA-2019-004.txt>



Wireless: Scoring and Analysis

Components Assessed

- **Speed**
 - The overall 'speed' of a wireless access point is typically determined by the wireless protocol standard it supports as well as the number of transmit & receive antennas available. This results in a maximum 'physical' interface speed, although the actual speed provided to the clients depends heavily on the capabilities of the clients. Additional factors to take into consideration include wired uplink port speed and beamforming capabilities.

- **Radio capacity**
 - The capacity of a wireless access point is largely determined by the number of radios per unit with the caveat that most clients are using 5 GHz service and few are using 2.4 GHz service. Beyond that, the manufacturer's design and software will make a difference in how well the wireless clients can be serviced in dense environments. Here is where you will find a manufacturer brag about large amounts of DRAM, air-time fairness rules, or code which is optimized to handling dense environments.

- **Spectrum Analysis**
 - In today's dense wireless environments, it is common to find devices that can interfere with the wireless signal. Therefore, it is important for the wireless access point to be able to rapidly detect these interfering signals and adjust themselves accordingly. The best designs will include a radio that is dedicated to performing real-time spectrum analysis and can act upon real-time events with containment protocols or channel adjustments.

- **Manageability**
 - The ability to manage a solution is a very important factor to the success of a wireless network. The management software should ideally be accessible from anywhere (including a mobile device), and should provide real-time reports with clear indications about what the potential issues are and how they can be remedied. If the wireless access points are dependent upon the management software for its resources, then the reliability of this component could easily affect the reliability of the entire solution.

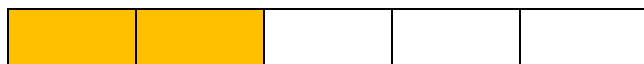


- **Guest/BYOD Accessibility**

- A modern wireless platform should have an easy way to create guest and BYOD portals which are used to on-board clients and enforce security rules (i.e. prevent access to internal resources). There should be disparate ways to enforce access permissions, such as displaying acceptable use agreements, allowing for sponsored access with time limits, and using two-factor authentication to tie a user's identity to an email address or phone number.



Speed Score: 2/5



- 1 = 802.11N or earlier
- 2 = 802.11AC Wave 1, 2x2:2 or better
- 3 = 802.11AC Wave 2, 2x2:2
- 4 = 802.11AC Wave 2, 3x3:3
- 5 = 802.11AX 4x4:4 or better

Notes

- ECRCHS has the following types of APs installed:
 - (42) Aruba AP-224 13% 802.11AC Wave 1, 3x3:3
 - (228) Aruba AP-225 87% 802.11AC Wave 1, 3x3:3

Analysis

All ECRCHS’s wireless access points are 802.11AC Wave 1 (3x3:3).

In general, it is rare to find low-cost wireless clients that have more than 2 transmit/receive spatial streams. At first appearance it may seem like wireless access points with 3 or 4 antennas are overkill. Modern wireless access points, however, can use extra antennas to improve the signal for its clients through the use of beamforming technologies.

The 802.11AC Wave 2 and 802.11AX protocols provide new features such as multi-user MIMO (MU-MIMO), which increases total network performance and improves the end user experience in dense environments. Therefore, NIC Partners highly recommends the use of enterprise-grade 802.11AC Wave 2 or 802.11AX wireless access points in all classrooms and areas where multiple wireless devices will be used (gyms, libraries, MP rooms, etc).



Radio Capacity

Score: 5/5



1 = Single 2.4 GHz radio, entry-level hardware design

2 = Single 2.4 GHz radio + single 5 GHz radio, entry-level hardware design

3 = Single 2.4 GHz radio + single 5 GHz radio, mid-level hardware design

4 = Single 2.4 GHz radio + single 5 GHz radio, hardware optimized for capacity

5 = Dual software-assigned radios (2.4 or 5 GHz), hardware optimized for capacity

Notes

- ECRCHS has the following types of APs installed:
 - (42) Aruba AP-224 13% Category 5 (dual software-defined radios)
 - (228) Aruba AP-225 87% Category 5 (dual software-defined radios)

Analysis

All ECRCHS's wireless access points fall in the high-capacity category. This means that they have software-defined radios which can adjust themselves to handle large quantities of 802.11n or 802.11AC clients in a small geographical region (i.e. classroom).



Spectrum Analysis

Score: 4/5



1 = No capability for spectrum analysis

2 = Shares existing radio(s) for spectrum analysis, can only detect wifi interferers

3 = Shares existing radio(s) for spectrum analysis, can detect non-wifi interferers

4 = Shares existing radio(s) for spectrum analysis and wireless security, can detect non-wifi interferers

5 = Dedicated radio for spectrum analysis and wireless security, can detect non-wifi interferers

Notes

- ECRCHS has the following types of APs installed:
 - (42) Aruba AP-224 13% Category 4
 - (228) Aruba AP-225 87% Category 4

Analysis

The Aruba APs can use any or all the radios on each wireless access point to examine the spectrum for interference (including non-wifi interferers). They perform this function by periodically going 'off channel' to scan through the usable channels in both the 2.4 GHz and 5 GHz spectrums. This functionality can be configured to happen as often as once per second. Any time the radio has to go 'off channel' to look for interferers, that is time spent not servicing clients attached to the radio. Therefore, doing so too frequently will lead to a degradation in performance. If the scan is performed too infrequently, some interferers may not be detected or there may be a delay in detection. Some manufacturers solve this problem by providing a dedicated radio for spectrum management and wireless security detection/prevention functions.



Manageability Score: 4/5



- 1 = No centralized management – all wireless APs are autonomous
- 2 = On-premises wireless controller, no redundancy
- 3 = On-premises wireless controllers – with redundancy, or located at each site
- 4 = All infrastructure controlled through single management platform with independent control plane
- 5 = All infrastructure controlled through single cloud interface and/or mobile management app

Notes

- Aruba AirWave deployed as an on-premises virtual machine running on Microsoft Hyper-V virtual infrastructure.
- Aruba Central, a cloud-hosted (public) network management portal, is available from Aruba – not currently used at ECRCHS. The hosted instance of Aruba is likely to require an annual fee.

Analysis

The Aruba Wireless platform offers central management and reporting in the form of the Aruba Airwave software. The software may be installed locally on a virtual machine or dedicated appliance, or a cloud-based network management service, Aruba Central, is available for an annual charge.

ECRCHS may want to consider cloud-hosting the network management, through Aruba Central, as it would place the onus of providing adequate hardware resources and disaster-recovery on the manufacturer rather than the ECRCHS IT Department.



Guest/BYOD Accessibility

Score: 4/5



1 = No security / open access

2 = Pre-shared key authentication

3 = Pre-shared key authentication or open authentication with restricted access rights to resources

4 = Authentication tied to identity (AD account or email) with variable access rights based on role

5 = Self-provisioning portal with MDM software for BYOD users. Sponsorship portal for guests/visitors.

Notes

- ECRCHS students are not allowed BYOD devices.
- Teachers/Staff are allowed BYOD phones and are placed on a fully isolated zone within the DMZ
- Dot1x authentication is utilized and managed through Aruba ClearPass. Blacklists are also in use to prevent recognized malicious sources from attempting to access the system.
- Data loss prevention (DLP) technical controls have been removed due to ECRCHS internal privacy policies.

Analysis

ECRCHS is utilizing Aruba Clearpass to manage BYOD devices within the isolated DMZ zone provided for Teachers/Staff to use. The ECRCHS Bring-Your-Own-Device policy enables staff to connect their mobile phone device to a wireless access point. ECRCHS utilizes network policies to isolate the device from the internal network, by utilizing a physically isolated zone within the DMZ. Devices are monitored for malicious activity or unusual behaviors, but Data Loss Prevention (DLP) technical controls have been turned off in response to ECRCHS privacy policies. This solution provides resiliency against rogue devices and malicious intent, while providing the phone internet connectivity via the wireless access points. Without utilizing DLP technical controls, this solution will not identify or prevent a transmission of personally identifiable information (PII) or restrict the transmission of sensitive data over the BYOD network.



Network Security

Network Security: Features in Use

Security Features in Use	Yes	No
Perimeter Firewall	Y	N
IPS	X	
Antimalware	X	
URL filtering	X	
Redundancy	X	
Virtual FW instances		X
Endpoint Protection	X	
DNS Filtering	X	
Email filtering	n/a	n/a

Standalone Content Filter	Y	N
Granular policies for web-based applications	X	
File sandboxing	X	
Reputation scoring	X	
Antivirus & Antimalware	X	
HTTPS decryption ability	X	
Layer 4 traffic monitor	X	
External Data Loss Prevention policies		X

Standalone Mail Filter	Y	N
Anti-Spam	n/a	n/a
Anti-Virus	n/a	n/a
Data Loss Prevention	n/a	n/a
Email Encryption	n/a	n/a
Image Analysis	n/a	n/a
Outbreak Filters	n/a	n/a
Quarantines	n/a	n/a
SMTP Authentication	n/a	n/a
SPF/DKIM in use	n/a	n/a

- Note: Standalone mail filter is not needed because ECRCHS is using hosted email service (Google) with its own set of filters



Security Features in Use	Yes	No
Protection for Endpoints	Y	N
Anti-malware	X	
Anti-virus	X	
IDS	X	

SIEM	Y	N
Asset Discovery	X	
Vulnerability Assessment	X	
Intrusion Detection	X	
Behavior Monitoring	X	
Event Correlation	X	

DNS filtering	Y	N
Region-based blocking rules		X
Ability to identify internal IP addresses		X
Ability to identify users		X
Tie-in to Active Directory		X
Protection of roaming users		X

Cloud application visibility & control	Y	N
Application Discovery	X	
Threat Protection	X	
Data Security and Compliance	X	
Integration and Orchestration	X	

Flow Analyzer	Y	N
Rule-based detection	X	
Machine learning feature		X
User identity / Active Directory integration	X	
Enabled for network core segment	X	
Enabled for network edge segment	X	
Enabled for Datacenter segment	X	
Enabled for Wireless segment	X	



Network Security: Inventory

Manufacturer	Model	Qty
Palo Alto	PA5220	2

Network Security: EoX Milestones

Total Qty	Description	Model	EoS	EoE	LDoS
2	Palo Alto 5200 Next-Gen Firewall	PA5220	Current	Current	Current

Network Security: Software Versions and Recommendations

#	Manufacturer	Model	Installed Version	Current Version(s)	Recommendation
2	Palo Alto	PA5220	Unknown	Unknown	n/a

Network Security: Scoring and Analysis

Components assessed

- **Security Policies**
 - The creation of effective security policies is an important aspect of network security that is often overlooked. Effective policies – communicated with and acknowledged by end users – sets the basis for the activities allowed or disallowed on the network. This, in turn, dictates the need for security products and services and generates the requirement for funding to be in place for their procurement and operation.

- **Auditing Process**
 - Having someone on staff who is highly skilled in network security is a luxury that not all organizations can afford, yet it is important to hold regularly-scheduled audits of both internal and perimeter security in order to identify where weaknesses lie. Whether the audits are performed via internal resources or by external specialists, the key factor is establishing regularity of audits.

- **IoT Security**
 - Whether or not they realize it, all organizations are participating in the ‘Internet of Things’, where low-cost or embedded devices are connected to the network. It is important for every organization to maintain a strategy indicating how these devices should be connected to the network, who is allowed to deploy them, and how they should be managed and secured. In the (likely) event that one of these devices is compromised, the organization should have a clear understanding of how to identify



and respond to the incident.

- **Perimeter Firewall**
 - The perimeter firewall, which protects the organization from 'external' threats on the Internet, is often the most well-known and easily-recognized component of network security. It is extremely important for keeping threats out of the internal network. The perimeter firewall should be capable of performing analysis of network traffic at speeds matching or exceeding that of the connection to the Internet, and it should support 'next-gen' firewall features which include the ability to filter based on applications and content rather than simple IP address and port settings.

- **Datacenter Firewall**
 - Many organizations neglect to filter the traffic between their internal users and their datacenter. This layer of security should be considered as important as the perimeter firewall. Many organizations choose to dedicate a separate appliance (or pair of highly-available appliances) for their datacenter, but this is not always necessary. If the perimeter firewall is co-located in the datacenter and has enough power to handle the additional connectivity, it may be possible to use the same appliance (or HA pair) for both purposes simultaneously. On the other hand, dedicating separate appliances for the datacenter might be required to meet performance thresholds or for other capacity-related reasons. In any case, the datacenter firewall should also make use of 'next-gen' features which include application visibility and control. One of the more prevalent datacenter design philosophies centers on the 'zero trust' model, which assumes that all traffic is threat traffic unless proven otherwise. This implies that east-west traffic (between servers or VMs in the datacenter) should be filtered just as well as north-south traffic.

- **Web Content Filtering**
 - Web content filtering requirements vary depending on the organization; K-12 school districts require heavy filtering while Higher Education ECRCHSs might not filter their traffic at all. Most commercial or other enterprise accounts have requirements that fit somewhere in between. Many 'next-gen' firewalls can perform web content filtering in addition to their traditional duties, yet such functionality may not be sufficient for all organizations. It is, therefore, important for the organization to identify clear requirements regarding what it needs to filter, what legal requirements they must meet, and what performance threshold it must achieve.

- **Mail Filtering**
 - Email – whether hosted on-prem or in the cloud – is a common transmission vector for computer viruses and malware. Recent statistics indicate that close to 90% of malware is delivered through email. It is, therefore, critical that a strong mail filtering solution be in place. To be effective, the mail filter must support frequent automatic updates of its signature database, and support features like sandboxing and automatic quarantining of



potential threats.

- **DNS Filtering**
 - Nearly every device on the network uses DNS to identify the IP addresses of servers and endpoints with which they communicate. DNS filtering is a simple and effective way to stop endpoints from communicating with malware distribution points on the Internet, and it can help prevent existing malware within the network from reaching command & control points, effectively neutering their ability to exfiltrate data from your network.

- **Endpoint Protection**
 - Endpoint protection is more than just 'antivirus software'. The endpoint is where the majority of malware infections occur, and an infected endpoint can be used by cybercriminals as a hopping-off point to more critical resources within the network.

- **SIEM**
 - The Security Information and Event Management system (SIEM) is a critical component of security operations. The purpose of the SIEM is to receive logs and SNMP traps from network infrastructure and critical applications, and to sort out the important information from the routine and mundane notifications.

- **Cloud Application Visibility & Control / CASB**
 - With the majority of applications now running in the 'cloud' rather than on-prem, the IT Department potentially loses a measure of control over the way end users access content and how they are permitted to use their systems. A Cloud Access Security Broker (CASB) can remedy this by providing three vital functions:
 - Identity Security – Provides defense against compromised accounts and malicious insiders
 - Data Security – Protects against data breaches and exposures via data-loss prevention policies
 - Application Security - Discovers and controls malicious cloud apps connected to your environment

- **Internal Network Visibility & Anomaly Detection**
 - Most organizations commit the bulk of their resources securing the perimeter of their network, yet they lack visibility into threats which originate inside their network. Such threats may include targeted attacks on servers and network infrastructure, exfiltration of valuable data, or even denial of service attacks. If the threats originate from the internal network (i.e. from an employee) then the perimeter defense systems are not liable to see and prevent them from occurring. This is where products that focus on packet accounting (Netflow, sFlow, etc) and analysis can help.



Security Policies

Score: 4/5



1 = No security policies developed

2 = Policies have been developed, but not adopted by end users (or policies are obsolete and forgotten).

3 = Policies have been developed and adopted for some aspects of information security, but not all aspects are fully developed or enforced.

4 = Policies have been developed and adopted for the use of internal infrastructure and applications by employees, contractors, guests, and students. Data loss prevention policies are either not developed or not enforced.

5 = Policies have been developed and adopted for the use of internal infrastructure and applications by employees, contractors, guests, and students. Data loss prevention policies are in place and are enforced. There is regular participation from (and feedback to) the organization’s executive team.

Notes:

- ECRCHS employs a compliance officer to develop and enforce internal security policy
- Data loss prevention (DLP) technical controls have been removed due to ECRCHS internal privacy policies.
- Security audits are performed annually

Analysis:

ECRCHS’s Security and compliance is managed by a full-time compliance officer. Security audits are conducted on an annual basis.

NIC Partners recommends regularly reviewing existing security policies and analyzing their effectiveness within the organization. Additionally, ECRCHS will want to consider implementing a security awareness program for all staff. Each employee must individually understand the need for security, the part that they play, and how to protect themselves from various types of attacks.



Auditing Process

Score: 4/5



1 = No security audits have been performed

2 = One or more security audits have been performed in the past, but there was little done to rectify the problems found and reported in the audit.

3 = One or more security audits occur each year – perhaps with a ‘canned’ penetration testing tool – but problems are not formally logged or tracked.

4 = Regular security audits of both internal and external resources are scheduled with external contractors, or with an internal ‘red team’. Problems are addressed in an ad-hoc manner with little formal structure in place.

5 = Regular security audits of both internal and external resources are scheduled with external contractors, or with an internal ‘red team’. An internal or external ticket system is used to track problems that need to be fixed, and security updates are regularly performed.

Notes:

- Regular security audits are performed once a year
- The internal help desk is responsible for tracking security issues

Analysis:

A regular routine of internal and external penetration testing, with follow-up for corrective actions, is a good practice to provide critical insight into unknown vulnerabilities that could potentially be exploited within the ECRCHS environment.

The security audit will often utilize external consulting services to perform the penetration testing. The security consultants would conduct internal and external tests that utilize real-world attack methods and tools to provide an impartial report of all actively exploitable attack-surfaces discovered.

After corrective action has been taken by internal IT staff, a follow-up test is recommended and should be conducted to confirm the proper remediation of all vulnerabilities expressed in the audit.



IoT Security Score: 3/5



1 = No IoT device strategy has been developed or is in place.

2 = A strategy for deploying and securing IoT devices has been developed but has not formally been rolled out across the organization.

3 = A strategy for deploying and securing IoT devices has been developed and rolled out across the organization, but the strategy does not meet the security objectives of full segmentation and vulnerability mitigation.

4 = IoT devices are segmented from other devices within the organization, and processes are in place to regularly identify and address vulnerabilities in IoT devices.

5 = IoT devices are segmented from other devices within the organization, and processes are in place to regularly identify and address vulnerabilities in IoT devices. Information Technology (IT) and Operations Technology (OT) teams work together to define common business and security policies.

Notes:

- Utilizing Aruba Clearpass and Aruba Airwave to manage devices

Analysis:

According to Jacob Yoo, El Camino Real Charter High School has a strategy for handling IoT devices. There is a BYOD security zone that funnels traffic directly outside of the network, without the ability to speak to other devices on the 'internal' security zone. IoT devices are connected to the BYOD security zone so they cannot impact the security of internal devices.

ECRCHS could benefit from developing process and procedure to proactively identify the make and model of all IoT devices on their network, and routinely scan them for vulnerabilities. It is important to stay current on software/firmware release notes and be aware of when upgrades are required to prevent the potential exploitation of security vulnerabilities.



Perimeter Firewall

Score: 5/5



1 = Throughput does not match ISP speed, IPS and anti-malware features are not enabled or supported, and firewall supports a low capacity for connections-per-second.

2 = Throughput does not match ISP speed, IPS and anti-malware features are enabled, and firewall supports a low capacity for connections-per-second.

3 = Throughput matches ISP speed, IPS and anti-malware features are enabled, and firewall supports a low capacity for connections-per-second.

4 = Throughput matches ISP speed, IPS and anti-malware features are enabled, and firewall supports a medium capacity for connections-per-second.

5 = Throughput matches or exceeds ISP speed, IPS and anti-malware features are enabled, and firewall supports a high capacity for connections-per-second.

Notes:

- The PA-5220 supports ~8 Gbps of throughput with features turned on
- The PA-5220 is sufficiently sized an ISP connection up to 10 Gbps (currently at 5 Gbps)

Performance and Capacities	PA-5220
Firewall throughput (HTTP/appmix) ¹	17/20 Gbps
Threat Prevention throughput (HTTP/appmix) ²	8/9 Gbps
IPsec VPN throughput ³	8 Gbps
Max sessions	4,000,000
New sessions per second ⁴	150,000
Virtual systems (base/max) ⁵	10/20

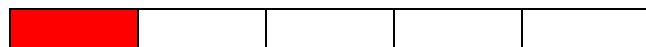
Analysis:

The Palo Alto 5220 utilized at ECRCHS is sufficiently sized for the campus. There are no concerns with its feature set or specifications.



Datacenter Firewall

Score: 1/5



1 = No firewall is in place to protect datacenter network from internal user segment(s)

2 = Firewall is filtering north-south traffic to/from the datacenter, but advanced inspection features are disabled. The firewall throughput or connections-per-second characteristics may not be properly sized.

3 = Firewall is filtering north-south traffic to/from the datacenter, but advanced inspection features are disabled. The firewall throughput and connections-per-second characteristics are properly sized.

4 = Firewall is filtering north-south traffic to/from the datacenter, and advanced inspection features are enabled. The firewall throughput and connections-per-second characteristics are properly sized.

5 = Datacenter is segmented with virtual or physical firewall(s) filtering east-west traffic as well as north-south traffic. Advanced inspection features are enabled.

Notes:

- Datacenter equipment and software are on the same firewall security zone as the internal endpoints.
- Network segmentation is used to separate the datacenter components from other systems on the internal network, but such traffic does not flow through the firewall.

Analysis:

For the optimal protection of datacenter resources (including sensitive data stored on local servers), NIC Partners recommends connecting on-premises datacenter equipment through a separate security zone in order to have the firewall filter traffic between internal users and the servers.

In this case, there is a caveat: ECRCHS is hosting most of its critical systems in the cloud, including the student information system (SIS), email, and learning management system (LMS). Since there is not much sensitive data stored locally, this requirement might not be high on the list of priorities to address.



Web Content Filtering

Score: 5/5



1 = Web content filtering is not used or has not been deployed.

2 = Web content filter does not meet functionality requirements, and is not properly sized.

3 = Web content filter meets functionality requirements, but is not properly sized.

4 = Web content filter meets functionality requirements and is properly sized for throughput and connections per second.

5 = Web content filter meets functionality requirements and is properly sized for throughput and connections per second. Includes advanced traffic inspection functionality, including malware protection.

Notes:

- The Palo Alto 5220 firewall is performing web content filtering for internal endpoints.
- 'External Data Loss Prevention' policies are disabled due to privacy concerns.

Analysis:

The Palo Alto firewall is performing web content filtering services, and it appears to be sized properly to handle the amount of traffic generated by a typical high school.

Since the current filtering capabilities employed by the Palo Alto are meeting the needs of the administration, NIC Partners does not have any further recommendations regarding web filtering.



Mail Filtering Score: 4/5



- 1 = Mail filtering is not used or solution has not been deployed.
- 2 = Basic mail filtering functionality is employed, including blacklist/greylist/whitelist
- 3 = Mail filter employs reputation scoring
- 4 = Mail filter employs reputation scoring and advanced malware protection for the inbound direction only.
- 5 = Mail filter leverages advanced malware protection and scans both incoming and outgoing mail. Data Loss Prevention policies are used to prevent exfiltration of sensitive information.

Notes:

- ECRCHS leverages the advanced mail filtering features, provided by Google within the G-Suite
- Email is cloud hosted and managed by Google
- Gmail DLP is a feature available within Gmail but it is not enabled due to privacy concerns.

Analysis:

- Google G Suite for Education is an enterprise-level solution with the security features required by a K-12 school district. G Suite claims to have built-in security features (such as advanced anti-phishing, security center, mobile management, etc.) that give admins ways to manage users, control devices, ensure compliance, and keep data secure.

**DNS Filtering**Score: 4/5

1 = No filtering of DNS traffic is in use

2 = Custom DNS blacklists or sinkholes are used (i.e. geo-blocking)

3 = Free, consumer-focused DNS filtering service (OpenDNS Home, Cloudflare 1.1.1.1) is being used

4 = Professional DNS filtering service with analytics is being used

5 = Professional DNS filtering service with analytics is being used. Agents are used on mobile devices to keep them protected while roaming.

Notes:

- DNS filtering is managed by the Palo Alto 5220s. The datasheet indicates that the PA-5220 will perform the following functions:
 - Identifies, controls, and inspects DNS traffic.
 - Blocks DNS queries to malicious domains as a means of breaking the C2 channel.
 - Identifies compromised hosts on the network through DNS sinkholing.

Analysis:

DNS filtering is a simple method of stopping many forms of malware without needing any special software to be installed on the endpoints.

ECRCHS is has deployed sufficient measures for the filtering of DNS queries.



Endpoint Protection

Score: 5/5



1 = No endpoint protection is used on Microsoft Windows and/or Apple MacOS devices

2 = Endpoints are protected with traditional signature-based platform.

3 = Endpoints are protected with software leveraging both traditional signature-based platform and exploit prevention to stop file-less attacks.

4 = Endpoints are protected with software leveraging both traditional signature-based platform and exploit prevention to stop file-less attacks. Endpoint protection indicates network trajectory of malware, showing when and where the malware has spread to.

5 = Endpoints are protected with software leveraging both traditional signature-based platform and exploit prevention to stop file-less attacks. Endpoint protection includes cloud-based analysis of unknown files, and is capable of retrospectively quarantining files that were previously marked as 'safe' or 'unknown'. Endpoint protection indicates network trajectory of malware, showing when and where the malware has spread to.

Notes:

- ECRCHS is utilizing the cloud-based MDM features of Microsoft Intune, along with Defender ATP and Palo Alto Traps, for its endpoint devices.

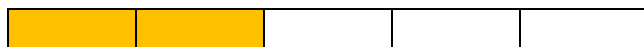
Analysis:

Threat & Vulnerability Management (TVM) is a built-in capability in Microsoft Defender Advanced Threat Protection (Microsoft Defender ATP) that uses a risk-based approach to discover, prioritize, and remediate endpoint vulnerabilities and misconfigurations. With Microsoft Defender ATP's Threat & Vulnerability Management, customers benefit from:

- Continuous discovery of vulnerabilities and misconfigurations
- Prioritization based on business context and dynamic threat landscape
- Correlation of vulnerabilities with endpoint detection and response (EDR) alerts to expose breach insights
- Machine-level vulnerability context during incident investigations
- Built-in remediation processes through unique integration with Microsoft Intune and Microsoft System Center Configuration Manager



SIEM Score: 2/5



1 = No central collection of logs is in use

2 = One or more log collection systems are in use, but are independent of each other (no correlation).

3 = SIEM collecting log data is in use and log entries are regularly reviewed

4 = SIEM collecting log data is in use and log entries are regularly reviewed. SIEM platform contains analytical capabilities and can proactively notify administrators of anomalies.

5 = SIEM collecting log data is in use and log entries are regularly reviewed. SIEM platform contains analytical capabilities and can proactively notify administrators of anomalies. SIEM platform contains advanced features including data visualization and search capabilities.

Notes:

- Using Kiwi Syslog Server for aggregation of syslog data
- Keywords are defined for proactive alerting of specific events
- Microsoft Intune is used to manage assets

Analysis:

The purpose of a Security Information and Event Manager is to collect and correlate data from multiple sources, and present data in a way that is easily digestible to the administrator.

ECRCHS is capturing data from multiple sources, but it is potentially disaggregated across several platforms (Kiwi Syslog, Palo Alto, Microsoft Intune). This sort of environment may suffice as long as all of the systems are regularly monitored. However, overall security and awareness of network events could be improved by pointing all of this data to a central SIEM which employs normalization of data and correlation of events between disparate systems to identify problems on the network in real-time.

Examples of software that provide SIEM functionality include (in no order or preference) Splunk, Motadata, Alienvault, Datadog, and Sumo Logic.



Cloud Application Visibility & Control (CASB)

Score: 4/5



1 = No CASB platform is in use

2 = CASB platform options are being explored or demonstrated, but there is little to no adoption within the organization.

3 = CASB platform is in use and is used in the production environment across the organization, but features are limited or platform is not widely adopted.

4 = CASB platform is in use and is widely adopted across the organization.

5 = CASB platform is in use and is widely adopted across the organization. Advanced features, such as DLP enforcement and two-factor authentication, are leveraged to enhance data security.

Notes:

- Using Microsoft Cloud App Security as part of Office 365 Academic subscription

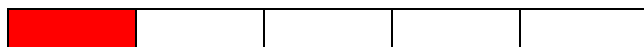
Analysis:

ECRCHS is leveraging their subscription with Microsoft 365 to use Microsoft Cloud App Security. This software fulfills the role of a cloud application security broker.



Internal Network Visibility & Anomaly Detection

Score: 5/5



1 = No network visibility & anomaly detection platform is in use.

2 = Specific network segments are monitored for anomalies with one or more server NICs in promiscuous mode. Monitoring/Visibility platform is limited in scope and feature set.

3 = Specific network segments are monitored for anomalies with one or more server NICs in promiscuous mode. Monitoring/Visibility platform has extensive features that are geared to security analysis and intrusion detection.

4 = Specific network segments are monitored for anomalies using network TRAPs that forward traffic to a centralized collector. Monitoring/Visibility platform has extensive features that are geared to security analysis and intrusion detection.

5 = Netflow/sFlow traffic is forwarded from network equipment to centralized collector, where network visibility & anomaly detection platform analyzes traffic and sends reports and proactive notification of anomalies and potential intrusions.

Notes:

- Sending sFlow to Aruba Airwave software, but Airwave does not provide User and Entity Behavior Analytics (UEBA) or Network Traffic Analysis (NTA).
- Using PRTG to monitor switch port statistics, but PRTG does not provide UEBA or NTA.

Analysis:

Aruba switches have been configured to send sFlow traffic to Aruba Airwave software. Airwave offers the following key features:

- Unified Wired and Wireless Network Management
- Broad Visibility and Control
- Proactive Troubleshooting
- Physical and Virtual Appliances
- Enhanced Security and App Visibility

Airwave is an excellent solution for managing and monitoring network equipment. Forwarding sFlow to Airwave allows it to present a view of network traffic, including web categories, client destinations, VoIP analytics, etc. It does not, however, provide User and Entity Behavior Analytics or Network Traffic Analytics (from a security standpoint).

Aruba's UEBA/NTA platform is 'IntroSpect'. A partial list of competing products might include Forcepoint Insider Threat, Fortinet FortiInsight, Palo Alto Cortex XDR, Securonix NTA, and Cisco StealthWatch.



Datacenter

Datacenter: Inventory

Device	Description
Huawei RH1288 v3	Hypervisor Server
Huawei RH1288 v3	Hypervisor Server
HP DL360 Gen9	Hypervisor Server
Huawei Oceanstore 5300	Primary Storage
HP Storeonce	Backup Storage
Huawei 24p SFP+	Backend Switch for SAN
HP DL380 Gen8	Server for Active Directory

Datacenter: EoX Milestones

EoX Milestones visual alerts legend color schema:

EoX Milestone	Visual	Description
EoS		End of Sale (No more orders for the item)
EoE		End of Engineering (No more updates for the item)
LDoS		Last Day of Support

Device	EoS	EoE	LDoS
Huawei RH1288 v3	12-31-2018	12-31-2023	12-31-2023
HP DL360 Gen9	10-31-2018	10-31-2023	10-31-2023
Huawei Oceanstor 5300 V3	12-31-2018	12-31-2023	12-31-2023
HP Storeonce	unknown	unknown	unknown
Huawei 24p SFP+	unknown	unknown	unknown
HP DL380 Gen8	6-13-2016	6-13-2021	6-13-2021



Datacenter: Scoring and Analysis

Components assessed

- **Compute**
 - 'Compute' describes the processor 'horsepower' available to run applications and virtual machines. In general, the amount of compute capability should be balanced against the needs of the applications and services being run in the datacenter to prevent 'server sprawl'.

- **Storage**
 - Storage refers to the capacity to store virtual machines and files within the datacenter. Virtual machines require very fast storage to work optimally while files can be stored on slower disks or in the cloud if they are not often accessed.

- **Datacenter Network**
 - The datacenter network should provide high-speed and redundant connections to each server host, and should uplink to the network core at high speed. The ideal switches for this environment would have an operating system tailored for reliability and high-speed interconnects, with feature support for protocols like VXLAN and virtual port-channels.

- **Cloud**
 - The use of 'cloud' technologies, such as software-as-a-service or infrastructure-as-a-service, enables an organization to outsource server equipment and maintenance to an external provider. The optimal use of cloud technologies may be different for each organization, but they should at least be familiar with the various offerings.

- **Disaster Recovery Systems (DRS)**
 - Each organization should have a system prepared to allow for the preservation and restoration of critical data and applications. This system needs to cover both minor incidents (such as accidental file deletion) and major incidents (such as damage from natural disasters). An optimal disaster recovery system would include the ability to host datacenter operations from two or more geographically disparate locations, and would leverage cloud technologies for additional storage and/or operating capacity.



Compute

Score: 4/5



- 1 = Severely underpowered servers / full utilization
- 2 = Mildly underpower servers / ½ to ¾ utilization
- 3 = Sufficient processing power but no spare capacity for handling host outages
- 4 = Sufficient processing power with spare capacity for one or more host outages
- 5 = Full optimization of compute power with blade-based hosts and stateless computing

Notes:

- Most services have been migrated to the cloud.
- There are (3) servers with identical specifications (32 cores, 128 GB of RAM) running Microsoft Hyper-V in a clustered environment. These are hosting the on-prem virtual machines, and are sufficient for the current requirements.

Analysis

ECRCHS has migrated most of its applications to the cloud (Microsoft, Google, etc.) so the need for on-prem compute capacity is minimal. The majority of virtual machines in use today are needed for the functionality of the local network: Aruba Clearpass, Aruba Airwave, Help Desk, Domain Controller, and various monitoring tools.

The current servers in use today appear to provide sufficient capacity to handle the assigned load. Since the hypervisors are configured as a high-availability cluster, the failure of one of the servers should not impact the operating environment.



Storage

Score: 3/5



- 1 = SAN or NAS with spinning drives only
- 2 = SAN with tiered storage (flash + spinning drives)
- 3 = SAN with tiered storage (flash + spinning drives) and inline compression or de-duplication
- 4 = All-flash SAN with multi-protocol capabilities, inline compression and de-duplication
- 5 = Redundant all-flash SAN with multi-protocol capabilities, inline compression and de-duplication

Notes

- Using a mix of traditional spinning-disk storage and flash storage, the Huawei Oceanstor 5300 delivers high performance tiering of data, which supports online de-duplication and online compression. This platform is a SAN, which is meant for virtual server storage by a hypervisor.
- Using iSCSI storage protocol from hosts to Huawei Oceanstor 5300 over multiple 10G SFP+ links.
- Huawei Oceanstor storage appliance (in use with Hyper-V environment) has tiered storage with flash and spinning drives.
- ECRCHS is utilizing an isolated backend-network switch for all iSCSI traffic between the hypervisor hosts and the storage controller. This is considered an industry best practice configuration and is an ideal network design for ECRCHS’s Storage Area Network.

Analysis

ECRCHS utilizes a Storage-Area-Network (SAN), with 10G links and an isolated back-end switch, over iSCSI protocol to provide storage to their hypervisor hosts. The features supported with the Huawei Oceanstor 5300 are sufficient for providing low-latency storage for a small number of virtual machines.

Most enterprise grade networks are in one of two camps:

- 1) Traditional converged storage system with high-speed drives (i.e. flash) and redundancy connected to stateless hosts running hypervisors for virtualization (i.e. VMWare or Hyper-V)
- 2) Hyper-converged systems, where nodes with compute and storage are scaled out as needed

ECRCHS is in the first camp. Storage and compute can be grown and sized independently to meet resource requirements of internally hosted applications. Though the storage is not flash-based, it utilizes flash-tiering to provide near-flash speeds while utilizing hybrid disks for cold storage.

In most situations, NIC Partners would recommend implementing a replication partner for the current production SAN, though ECRCHS utilizes cloud for business-critical servers and does not consider

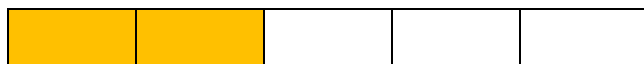


internally hosted applications as business critical. Should business critical services be utilized within ECRCHS local datacenter, NIC Partners does recommended implementing a replication partner to provide redundancy and resiliency against SAN hardware failure.



Datacenter Network

Score: 2/5



- 1 = Standard campus switches running at 1 Gbps to hosts / 1 Gbps uplink. No redundancy.
- 2 = Standard campus switches running at 1 Gbps to hosts / 10 Gbps uplink. No redundancy.
- 3 = Redundant campus switches running at 1 Gbps to hosts / 10 Gbps uplink.
- 4 = Redundant switches with 10G or 25G uplinks to network core. Switch OS designed for datacenters.
- 5 = Redundant switches with 40G or 100G uplinks to network core. Switch OS designed for datacenters.

Notes

- Servers are connected to campus switches utilizing 10G links (both frontend and backend)
- Most campus switches are not configured for redundancy
- ECRCHS is not utilizing redundancy at the core and would not withstand a backplane or management module failure

Analysis

The server hosts are currently being plugged into entry-level campus switches, which may not deliver the kind of performance required of an enterprise-grade virtualized datacenter. As ECRCHS is utilizing cloud for all business-critical servers, the use of campus switching is not as concerning.

It is important to note that NIC Partners would not recommend hosting of systems, that are critical to ECRCHS business, in the current on-premise infrastructure without re-architecting for resiliency against common hardware failures.

**Cloud**Score: 4/5

1 = No use of cloud hosted technologies today

2 = Use of SaaS (software as a service) platforms, such as Microsoft Office 365

3 = Use of SaaS platforms plus cloud storage for long-term archives or backups

4 = Use of SaaS platforms plus Amazon S3 or Microsoft Azure for compute/storage

5 = Use of SaaS platforms plus Amazon S3 or Microsoft Azure set up with public-facing services

Notes

- ECRCHS makes use of Microsoft SaaS Services and Google G-Suite.
 - Application platforms are hosted in Microsoft Azure
 - Microsoft Azure Active Directory is being used for endpoints
 - Microsoft Intune is being used for device management, auditing, and reporting
- ECRCHS utilizes multiple service offerings included with the Google G-Suite.
- SaaS applications in use, include Google Apps. Online file shares are provided by Google Drive.

Analysis

ECRCHS has made great progress in its use of cloud technologies to extend the capabilities of the IT department and reduce its datacenter footprint. It is recommended that ECRCHS performs a financial analysis of the cost benefits/reductions provided by the cloud platforms vs. the cost of hosting services locally. NIC Partners recommends determining the cost of retrieving data that might be lost from a natural disaster, as services like Microsoft Azure often charge much higher fees for data retrieval than they would for the storage of said data.



Disaster Recovery Systems

Score: 3/5



- 1 = No disaster recovery plan or backups in use
- 2 = Regularly scheduled backups of critical data, but no planning for organization-wide disasters
- 3 = Regularly scheduled backups of critical data, some planning for disasters, no scheduled testing
- 4 = Regularly scheduled backups WITH scheduled testing, some planning for disasters
- 5 = Regularly scheduled backups WITH scheduled testing, multiple modes of recovery for disasters

Notes

- Veeam is used for local backups
- Data in cloud (Google, Azure) relies upon cloud service provider to ensure data integrity and backup/restoration services

Analysis

ECRCHS makes use of cloud services to eliminate the local presence of critical systems. For these systems residing within the cloud, ECRCHS utilizes the services provided to ensure data integrity and availability of cloud servers.

For local servers, residing within the ECRCHS datacenter, Veeam is used to backup servers and store recovery points on an external storage device (HP Storeonce).

The general rule for backups is '3-2-1': Have three copies of your data in at least two different physical locations, and one of them should be cloud. ECRCHS is currently storing single copy of the backup data and would benefit from second copy, stored in a different physical location.

NIC Partners recommends that ECRCHS utilize a distributed cloud-based storage service, such as amazon S3 or Amazon simple storage service, as a second copy for the backups of servers hosted in Amazon cloud and on-prem.

Additionally, NIC Partners recommends having a written disaster recovery plan in place with regularly scheduled testing of backup/recovery scenarios to ensure that everything works when it is most needed. The plan should include everything from physical facilities to connectivity between schools and the Internet, to where data should reside within the network and how it can be accessed in the event of a datacenter outage.

Coversheet

Discuss and Possible Approval of Payment of \$250,000 to LAUSD

Section: V. School Business
Item: B. Discuss and Possible Approval of Payment of \$250,000 to LAUSD
Purpose: Vote
Submitted by:
Related Material: ED Recommendation - Payment to LAUSD.pdf

EL CAMINO REAL ALLIANCE

EXECUTIVE DIRECTOR RECOMMENDATION

BOARD MEETING DATE: September 26, 2019

AGENDA ITEM:

Payment of \$250,000 to LAUSD

BRIEF SUMMARY OF THE ISSUE:

ECR contracts many services with LAUSD's Maintenance & Operations (M & O) Branch. Previously ECR made pre-payments to M & O, but LAUSD and ECR agreed that it would be better to pay as services were rendered. This past summer, M & O notified ECR that it was cutting all services to ECR because ECR had not paid for services rendered to date, including previous year's services. This balance had not been paid because ECR received four years of M & O statements all at once, much of which did not have any backup or description of services rendered. As a result, the Business Office had difficulty reconciling the statements. ECR contacted M & O to see how to continue with the services while trying to pay down the balance.

PERSONNEL INVOLVED:

Facilities, CBO, and Executive Director.

FISCAL IMPLICATIONS (IF ANY):

\$250,000 payment for the maintenance services. This would be a partial payment for services rendered through the past five years, while reconciliation and accounting continue.

IMPACT ON SCHOOL MISSION, VISION OR GOALS (IF ANY):

ECR continues to rely on LAUSD to provide maintenance and support for the LAUSD-owned facilities, and properly maintained facilities are necessary in order for instruction to effectively continue.

OPTIONS OR SOLUTIONS:

Once reconciliation is accomplished, the remaining balance due should be paid off. Currently, LAUSD claims a total due and owing of \$1,287,613.69, but much of that is based on prior years' services for which no backup documentation has been provided. In the meantime, ECR will pay for current services rendered on a quarterly basis.

EXECUTIVE DIRECTOR'S RECOMMENDATION:

Approve the motion to pay LAUSD \$250,000 to begin paying down M & O invoices/statements. ECR Facilities will work with the CBO, to ensure that the amount is appropriate according to the services rendered moving forward (beginning in 2019-20, ECR will reconcile statements on a quarterly basis and pay those to LAUSD).

PROPOSED MOTION:

Motion to approve a payment of \$250,000 to LAUSD for a partial payment on maintenance services rendered.