SAN LEANDRO UNIFIED SCHOOL DISTRICT
BUSINESS AND OPERATIONS

To: Facilities and Technology Committee

From: Kevin Collins, Assistant Superintendent

Date: May 31, 2017

Re: SLHS Broadcast Studio Equipment Request

The original design of the Arts Education Center at San Leandro High School included a recording studio for both sound and video projects. Because of bond budget constraints and contractor issues, the facility was never fully completed and has been in limited operation until this year. With site, district, and SLED funding, the school has worked with a contractor to perform upgrades to the studio. The school is proposing additional equipment upgrades that will enable live broadcasts, including broadcasting from remote locations.

The attached "SLHS Broadcasting" describes the vision of the program, with a long term goal of beginning a full broadcasting course sequence.

The current request is for F&T to approve $86,859 in funding for additional equipment to complete the studio, with funding coming from Measure J1. The district and site will address staffing needs separately. Attached is a complete list of requested equipment including pricing. The project includes a contingency of $5,000 for unforeseen equipment needs.

SLHS Broadcasting

The vision: Broadcasting as part of our digital media pathway that develops next-generation broadcasters by creating, producing, and broadcasting shows, sportscasts, theater, and educational shows to the school network as well as the community.

Our infrastructure is coming of age with our faster network and classroom video monitors. We feel it is now time to move SLHS and our District into the age of live video. Starting with the morning announcements, students will be informed of school news and happenings. We will also begin broadcasting a Game of the Week. As we build more shows and skills we envision broadcasting a whole host of live and recorded shows.

Some ideas we have: broadcast of a classroom speaker, TedTalk-like student presentations, emergency/motivational broadcasts from the Principals on location, lesson/activity of the week, student issue forums, debates, the possibilities are endless. We recognise there are many concerns with privacy, content, and copyright. These are all concerns that our students must learn to operate in the modern world and we intend to teach these concerns. We feel that this could be a great way to improve communication both school and District wide as well as bring our community together.

Timeline:

2015-16 Broadcasting course approved by SLHS and SLUSD School Board.
Link to course. Submitted for activation 12/6/16.
2016-17 Broadcasting Studio upgrade and reconfigure.
2017-18 Video morning announcements, a Game of The Week broadcast. After school broadcasting club and SLAM students collaborate to create a variety of shows.
2018-Ongoing Broadcasting courses and SLAM collaborate on show creation, live sports, and a student-run channel.

Needs

Spreadsheet of equipment needs with links to bid and quotes

Equipment	**Cost**
Studio Lighting	$16,701
Studio Audio	$5,543
Playback Station	$2,354
Rack Equipment	$4,025
Studio Floor Equipment	$1,610
News Set	$3,776
Interview Set Furniture	$1,384
Mobile live broadcasting kit	$38,472
Unforeseen Equipment Needs	$5,000

Subtotal	$79,143
Tax and shipping	$7,716
Total	**$86,859**

Personnel Needs

Instructors

2017-2018

Hourly for after-school event coverage setup, supervision, transportation, and takedown. Estimated 10hrs per week.

Studio Manager (Ron Satter)

2016-17

Outstanding invoices: 3/16 - 3/31 = $1600, 4/1 - 4/15 = $1920, 4/16 - 4/30 = $1600
Total due: $5,120
25 hrs. per week until June 30: 6 x 25 = 150 hrs. $6000

2017-18

Hourly to maintain systems, troubleshoot problems, and implement broadcasting needs.
25 hrs. per week for 50 weeks. 1250 hrs. Estimated $50,000.

Ron Satter has been working hourly this year designing and building the SLAM Broadcasting Studio. We are now close to having a state of the art facility that rivals professional and college studios. However, a television broadcast facility is, by nature, complex and needs constant attention to keep it operational and functioning. This kind of work is above and beyond the capabilities of the teachers in the program.

We envision this facility becoming very busy with many shows and recordings happening throughout the day and into the evening. We need a Studio Manager to maintain and configure the studio, equipment, and lighting depending on the needs of the productions. Given the district emphasis on Pathways and technology, our facility should be flexible in configuration. This can only happen with a dedicated engineer, who understands it inside and out.

We are requesting that Ron Satter continue with this project with the title of Studio Manager on a schedule of 25 hours per week. His services are also needed through the end of this year and into the Summer to finish the project as new equipment arrives. He will also be needed next school year for operations and maintenance.

Images of mobile broadcasting cart and studio:





Item	Amount	Price	Total	Description	Vendor
Studio Lighting					
Dracast LED1000-TX Studio Light	8	$ 1,050	$ 8,400	LED Flat Panels	B&H.
Dracast LED1000 Barn Doors	8	$ 75	$ 600	LED Flat Panel Barn Doors	B&H
Arri 300 Plus Tungsten Fresnel Light	6	$ 459	$ 2,754	Fresnel 300 Tungsten Lights	B&H
Arri 300 Plus Barn Doors	6	$ 64	$ 384	Fresnel 300 Barn Doors	B&H
Arri 300 Full Single Scrim	6	$ 14	$ 84	Fresnel 300 Scrims	B&H
Sylvania Osram FKW 300 Watt Lamps	10	$ 18	$ 180	Fresnel 300 Lamps - FKW	B&H
Arri 150 Watt Tungsten Fresnel Light	6	$ 340	$ 2,040	Fresnel 150 Tungsten Lights	B&H
Arri 150 Watt Barn Doors	6	$ 55	$ 330	Fresnel 150 Barn Doors	B&H
Arri 150 Watt Single Scrim	6	$ 14	$ 84	Fresnel 150 Scrims	B&H
Arri ESP Lamps	10	$ 17	$ 170	Fresnel 150 Lamps - ESP	B&H
Chauvet DJ SlimPAR 64 LED PAR Wash Lights	6	$ 100	$ 600	News Set Background Piece Color Lights	B&H
Rosco Cinegel #3010 - Opal Tough Frost - 20x24" Sheet	8	$ 7	$ 56	Lighting Diffusion	B&H
Rosco Matte Black Cinefoil (12" x 50')	1	$ 25	$ 25	Lighting Black Wrap	B&H
Matthews Telescoping Hanger with Clamp - 4 - 8'	6	$ 120	$ 720	Grid Hangers	B&H
Matthews Baby Pin - 5/8" with 3/8" Threaded Tip	10	$ 10	$ 100	Grid Hangers	B&H
American DJ O-Clamp	6	$ 6	$ 36	Grid Hangers	B&H
American DJ Accu-Cable 3-pin DMX Cable (15')	6	$ 11	$ 66	DMX Cables	B&H
Accu-Cable AC5PM3PFM 5-Pin XLR-M to 3-Pin XLR-F Turnaround Adapter	6	$ 4	$ 24	DMX 5 Pin To 3 Pin Turnaround	Full Compass
Watson 10 ft AC Power Extension Cord 16 AWG (Black)	6	$ 8	$ 48	Power Cables	B&H
				Lighting Total	**$ 16,701.00**
Audio					
Audio-Technica AT8313-25 Balanced Microphone Cable 25'	6	$ 9	$ 54	Mic Cables - 25'	B&H
Audio-Technica AT8314 Premium Microphone Cable - 15'	6	$ 12	$ 72	Mic Cables - 15'	B&H
Audio-Technica AT8420 - Metal Lavalier Tie / Clothing Clip	6	$ 7	$ 42	Mic Clips	B&H
Powerex MH-C204FA NiMH or NiCD Battery Charger	2	$ 23	$ 46	Battery Chargers	B&H
Powerex Pro Rechargeable AA NiMH Batteries - 8 Pack	2	$ 23	$ 46	Rechargeable Batteries	B&H
				Audio Total	**$ 260.00**
Intercom					
Clear-Com RM 702 - Remote Panel	1	$ 1,003	$ 1,003	Intercom Panel - 1RU Rack Mount	FullCompass
Clear-Com CC-010 - IFB EarSet	4	$ 71	$ 284	Intercon IFB Ear Pieces	FullCompass
Clear-ComCC26K-X4 - Headset	8	$ 180	$ 1,440	Intercom Headsets	FullCompass
Clear-Com VBox Enclosure	4	$ 252	$ 1,008	Intercom Panel Enclosures	FullCompass
Clear-Com KB 702 - Speaker Station	4	$ 387	$ 1,548	Intercom Panels - Desktop	FullCompass

Item	Amount	Price	Total	Description	Vendor
				Intercom Total	**$ 5,283.00**
Playback Station					
Blackmagic Design HyperDeck Studio Mini	2	$ 660	$ 1,320	HyperDeck Recorders	B&H
Blackmagic Design SmartView Dual 8" LCD Monitors	1	$ 470	$ 470	HyperDeck Monitors	B&H
SanDisk 128GB Memory Card	4	$ 67	$ 268	HyperDeck Memory Cards	B&H
Mid Atlantic RK6 Series Rack	1	$ 119	$ 119	HyperDeck Rack Mount	B&H
Mid Atlantic U1 Single Space Rack Shelf	1	$ 36	$ 36	HyperDeck Rack Shelf	B&H
Mid Atlantic Rack Screws	1	$ 6	$ 6	HyperDeck Rack Screws	B&H
ART PB 4x4 Power/Surge Protector	1	$ 49	$ 49	HyperDeck Rack Power	B&H
Standard PC Power Cord - 1'	2	$ 3	$ 6	HyperDeck Rack Power Cords	B&H
Pearstone SDI Video Cable - 25'	4	$ 20	$ 80	HyperDeck Rack Video Cables	B&H
				AV Deck Total	**$ 2,354.00**
Rack Equipment					
Blackmagic Design Smart Videohub 20 x 20 6G-SDI	1	$ 1,895	$ 1,895	20 x 20 Video Router	B&H
Blackmagic Design Micro Converter SDI to HDMI	2	$ 85	$ 170	Video Converters	B&H
DSC Labs GrayScale Maxi CamAlign Chip Chart	1	$ 1,300	$ 1,300	Camera Setup Chart	B&H
Blackmagic Design UltraScope PC Card	1	$ 660	$ 660	Waveform Monitor	B&H
Sekonic L-308DC-U DigiCineMate Light Meter	1	$ 279	$ 279	Studio Light Meter	B&H
				Engineering Total	**$ 4,304.00**
Studio Floor					
Matthews Set of Four Apple Boxes	2	$ 115	$ 230	Apple Boxes	B&H
Digital Juice 30 lb Sandbag - Empty (6-Pack Pro Kit)	1	$ 100	$ 100	Sand Bags	B&H
Chief MFQ-US Medium Confidence Monitor Cart	1	$ 450	$ 450	Floor Monitor Stand- Low	B&H
Kanto Living MTM65 Plus Mobile TV Mount	1	$ 130	$ 130	Floor Monitor Stand - High	B&H
Samsung UA-50J5100 50" Full HD Multi-System LED TV	1	$ 700	$ 700	50" TV Monitor	B&H
				Studio Floor Total	**$ 1,610.00**
News Set					
Modular Room Dividers	1	$ 3,776	$ 3,776	Movable background panels	
				News Set Total	**$ 3,776.00**
Interview Set Furniture					
Mapleton Arm Chair	3	$ 240	$ 720	Interview Riser Chairs	All Modern
Mapleton End Table	2	$ 185	$ 370	Interview Riser End Table	All Modern
Jared Console Table	2	$ 147	$ 294	Interview Riser Console Table	All Modern
				Interview Set Furniture Total	**$ 1,384.00**
Mobile Broadcasting					
Streamstar X4 Live Production System	1	$ 4,995	$ 4,995	Live Production Switcher	Core Microsyste
Streamstar SCOREPLUS Module	1	$ 995	$ 995	Sports Graphics Software Module	Core Microsyste
Streamstar 3 year warranty	1	$ 995	$ 995	Switcher Warranty	Core Microsyste
HP Z-Book 15U G4 Multi-Touch Mobile Workstation	1	$ 1,349	$ 1,349	Touch-screen laptop for sports graphics (score	Core Microsyste

Item	Amount	Price	Total	Description	Vendor
HP Business E230t 23" LED LCD Touchscreen Monitor	2	$ 289	$ 578	23" Touchscreen Monitors	Core Microsyste
JVC GY-HM620U ProHD	3	$ 2,625	$ 7,875	Mobile News/Sports Cameras	Core Microsyste
SanDisk 64GB Extreme PRO SDXC UHS-I Memory Card	6	$ 35	$ 210		
Tiffen 72mm Photo Essentials Filter Kit	3	$ 81	$ 243		
camRade wetSuit for JVC GY-HM620/660	3	$ 134	$ 402	Camera Wet Weather Covers	Core Microsyste
Hoodman H-400 Camcorder Viewfinder LCD Hood	3	$ 25	$ 75		
Manfrotto MVR901EPLA RC Pan Bar EX Remote Control	3	$ 265	$ 795	Pan Bar With Zoom/Focus Control	Core Microsyste
Manfrotto 504HD Head w/546B 2-Stage Aluminum Tripod System	3	$ 650	$ 1,950	Camera Tripods	Core Microsyste
Swit S-8i75 60Wh Battery for JVC SSL-JVC75	6	$ 170	$ 1,020	Camera Batteries	Core Microsyste
Swit S-3602I Charger/Adaptor for JVC SSL-JVC50	3	$ 145	$ 435	Camera Charger/Adaptor	Core Microsyste
Thermodyne Slimline Custom Hard Case for JVC-GY-HM600 Camera Series	3	$ 460	$ 1,380	Camera Cases	Core Microsyste
Furman M-8Dx 8 Outlet Power	1	$ 159	$ 159	AC Power/Surge Protector	Core Microsyste
TP-Link TL-SG1016 16-Port Unmanaged Gigabit Switch	1	$ 70	$ 70	16 Port Gigabit Switch	Core Microsyste
Rolls RM82 - 8 Channel Microphone and Line Mixer	1	$ 225	$ 225		
Bigfoot Classic II 10RU/24' Deep Side-Operator Cart (see image below)	1	$ 4,499	$ 4,499	Mobile Single width cart	Core Microsyste
Custom 125' LOADED CABLE REEL 3G-SDI & 3PIN XLR	2	$ 328	$ 656	SDI Camera Cable Reels	Core Microsyste
Custom 200' LOADED CABLE REEL 3G-SDI & 3PIN XLR	1	$ 494	$ 494		
Canare L-3CFW RG59 HD-SDI SMPTE BNC Video Cable - 10'	3	$ 25	$ 75	BNC Video Cable	Core Microsyste
Clear-Com MS-702 Intercom 2-Channel Rackmount Main Station	1	$ 1,179	$ 1,179		
ClearCom SP-3 3 way Intercom Line Splitter	3	$ 69	$ 208		
Clear-Com GM-9 9 Inch Plug-In Gooseneck Microphone	1	$ 170	$ 170		
Clear-Com RS-701 Single-Channel Standard Beltpack	6	$ 283	$ 1,698		
Clear-Com CC-400-X4 Double-Ear Headset with 4-pin Female XLR	3	$ 323	$ 969		
Clear-Com CC-300-X4 Single-Ear Headset with 4-pin Female XLR	4	$ 279	$ 1,116		
ClearCom TR-50 Monaural Program Interrupt/IFB Talent Receiver	3	$ 174	$ 521		
Audio-Technica BPHS1 Broadcast Stereo Headset	3	$ 199	$ 597		

Item	Amount	Price	Total	Description	Vendor
Sennheiser 1/4" Female to 1/8" Mini Male Stereo Adapter Cable (5.9")	3	$ 8	$ 25		
Clear-Com PIC-4744 IFB Router	1	$ 1,211	$ 1,211		
Clear-Com MA-704 Encore IFB Control Panel with Mic Jack	1	$ 846	$ 846		
Clear-Com CEP-RK Clear-Com MA-704 And AX-704 1RU Rack Mount Kit	1	$ 219	$ 219		
Clear-Com IC-25-6 25' Intercom Cable (4 Pair Wiring)	1	$ 186	$ 186		
Canare L-4ES- Star Quad XLR Male to XLR Female Cable (3', Orange)	1	$ 13	$ 13		
Hosa Technology HSS-005 Balanced 1/4" TRS Male to 1/4" TRS Male Audio Cable (5')	1	$ 9	$ 9		
SKB 1SKB-R6S Roto-Molded 6U Shallow Rack	1	$ 180	$ 180		
Furman M-8Dx 8 Outlet Power Conditioner & Surge Protector - with LED Voltmeter & Dual Lights	1	$ 159	$ 159		
Delivery Charge	1	$ 175	$ 175		
Customer Discount	1	$ (500)	$ (500)		
CA State Electronic Waste Recycling Fees	1	$ 17	$ 17		
INSTALLATION LABOR /CONNECTIONS & ALL CABLING. DECK AREA /SIDE PANEL W/FEEDTHRU CONNECTORS, 5 EA SDI, 3 EA HDMI, 6 EA XLR CONNECTIONS & PANEL, 2 USB - $2700	1	$ 2,700	$ 2,700		
LINK TO MOBILE SYSTEM Quote					
				Mobile Total	**$ 38,471.75**
				Installation	**$ 2,700.00**
Unforseen Equipment Needs (cables, tape,adapters, connections)	1	$ 5,000	$ 5,000		
		Sub Total	$ 79,144		
		Tax	$ 7,717		
		Grand Total	**$ 86,860**		