



Hillsboro School District 1J

January 23, 2018
Board Meeting

Board of Directors

Lisa Allen • Martin Granum • Erika Lopez • Jaci Spross • Kim Strelchun • Mark Watson

HILLSBORO SCHOOL DISTRICT 1J BOARD OF DIRECTORS

Administration Center, 3083 NE 49th Place, Hillsboro, OR

Board Meeting Agenda

January 23, 2018

5:15 PM

1. 5:15 p.m. Executive Session
ORS 192.660(2)(d)--Labor Negotiator Consultation
2. 5:45 PM - Work Session
 - A. Budget Workshop 6
Presenter: Mike Scott / Michelle Morrison
 - B. Local Service Plan Discussion 7
Presenter: Mike Scott
 - C. Board Member Selection Process: Review Final Interview Questions /
Select Candidates to Interview 15
Presenter: Lisa Allen
 - D. Board Discussion Time
 - E. Recess Board Meeting
3. 7:00 PM - Regular Session
Call to Order and Flag Salute
4. Recognition / Student Presentation
 - A. Recognition: School Board Recognition Month – Proclamation 16
Presenter: Mike Scott
 - B. Recognition: Energy Trust of Oregon 18
5. Approval of Agenda
6. Recess Board Meeting; Convene Meeting of the Local Contract Review Board
Presenter: Lisa Allen
 - A. Public Hearing Regarding the Hillsboro School District Draft Findings of Fact
Supporting Specific Exemptions from Competitive Bidding Requirements
Presenter: Adam Stewart
 1. Presentation of Information
 - a. Summary of Options to Purchase Construction Management / Public
Improvements – Findings of Fact for Use of Construction Management /
General Contractor Process for the Brookwood Elementary School
Replacement Project 19
 - b. Review Findings of Fact for Use of a Request for Proposals with 28
Competitive Bid Process for Synthetic Turf Fields in 2018-2022
 - c. Review Findings of Fact for Special Procurements and Exemption from
Competitive Bidding Authorizing Specific Product Specifications
 1. HVAC Control Systems 32

2. Wireless Clock Systems	34
3. Fire Alarm Systems	36
4. Roofing Products and Systems	38
5. Lock and Door Hardware Systems	40
6. Mobile Security Camera System and Digital Recording System	42
2. Public Testimony Presenter: Lisa Allen	
B. Approve Findings of Fact and Recommendations, and Grant Specific Exemptions from Competitive Bidding Requirements for the Following: Presenter: Adam Stewart	44
1. Use of a Construction Management / General Contractor (CM/GC) Process for the Project at Brookwood Elementary School	
2. Use of Alternate Procurement Method for Request for Proposal with Competitive Bid for Process for Synthetic Turf Fields in 2018-2022	
3. Exemption from Competitive Bidding Authorizing Specific Product Specifications for the Following:	
a. HVAC Control Systems to Allerton HVAC Controls	
b. Wireless Clock Systems to Primex Wireless Clock Systems	
c. Fire Alarm Systems to Silent Knight Fire Alarm Systems	
d. Roofing Products and Systems to Tremco Roofing Products	
e. Lock and Door Hardware Systems to Schlage Locks and Door Hardware	
f. Mobile Security Camera System and Digital Recording System to 24/7 Security, Inc.	
7. Adjourn Meeting of the Local Contract Review Board; Reconvene Board Meeting Presenter: Lisa Allen	
8. Audience Time	
9. Reports and Discussion	
A. Hillsboro School District Parent Advisory Committee Report Presenter: Olga Acuña	45
B. NWRESD Update Presenter: Lisa Poehlitz	46
C. Dual Credit and Career Technical Education Report Presenter: Travis Reiman / Brooke Nova	47
D. Inter-District Transfers Overview and Input - Open Enrollment Update Presenter: Beth Graser	48
E. Local Wellness Program – Annual Assessment (<i>see written report</i>) Presenter: Michelle Morrison / Leah McCarthy	50
F. Financial Report (<i>see written report</i>) Presenter: Michelle Morrison	52
G. Policies - First Reading	

If no public comments or questions are received regarding these policies during the review period, they will be placed on the consent agenda for approval during the next regular meeting.

1. Policy JHC: Student Health Services and Requirements	57
Presenter: Mike Scott	
2. Policy FF: Naming Facilities	61
Presenter: Adam Stewart / Casey Waletich	
3. Policy DDB: Native American Impact Aid Funds; and Policy DDC: Native American Education Program Grants: Title VI Indian Education	64
Presenter: Olga Acuña	
4. Policy GBI: Gifts and Solicitations	68
Presenter: Beth Graser	
10. Consent Agenda	
<i>Consent agenda items are distributed to Board members in advance for study, and enacted with a single motion.</i>	
A. Approve Minutes of December 12, 2017, Board Meeting	71
B. Approve Routine Personnel Matters	79
C. Accept Donations	80
D. Adopt 2017-18 Drug, Alcohol, and Tobacco Prevention Plan (<i>presented for first reading on December 12, 2017</i>)	81
E. Approve New High School Course Proposals	
1. Bioscience Technologies	86
2. Veterinary Science Pathway	94
3. Sustainable Agriculture 1 and 2	156
4. Sustainable Design 1 and 2	166
5. Basic Construction and Advanced Construction	175
6. Computer Game Programming 1, 2, and 3	183
7. Computer Science Principles	190
F. Approve Policy Revisions	
<i>The following policies were presented for first reading on December 12, 2017</i>	
1. Policy JEA: Compulsory Attendance	196
2. Policy IKF: Graduation Requirements	200
3. Policy CBA: Qualifications and Duties of the Superintendent; Policy CBG: Evaluation of the Superintendent; and CBG-AR: Superintendent Evaluation Form (<i>Delete</i>)	210
11. Action Items	
A. Award Contract for Construction Management / General Contractor (CM/GC) Services for Reedville Elementary School Renovations to Inline Construction	227
Presenter: Adam Stewart	
B. Approve the Dedication Deed and Right-of-Way Dedication Between the City of	228

Hillsboro and the Hillsboro School District for the Brookwood Elementary
School / Cedar Street Improvement Project
Presenter: Adam Stewart

12. HCU / HEA Reports
13. Superintendent's Time
14. Board of Directors' Time
15. Executive Session
If needed, the Board may wish to go into executive session to discuss matters according to ORS 192.660. (Only used if the Board needs to come back to the regular session to take action.)
16. Adjourn Regular Session
17. Next Meetings of the Board of Directors
 - February 13, 2018, Work Session
 - February 27, 2018, Regular Session

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
BUDGET WORKSHOP

SITUATION

Each year, the District conducts a preliminary discussion with Budget Committee members about the current and future financial position of the District. This workshop begins the preparation for building the 2018-19 District budget. The Budget Committee will review the latest information available regarding the 2017-18 budget, and discuss the process to be used in developing the 2018-19 budget.

RECOMMENDATION

The Superintendent recommends that the Budget Committee listen to this report and ask any questions they may have.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
NORTHWEST REGIONAL EDUCATION SERVICE DISTRICT (NWRES D)
LOCAL SERVICE PLAN DISCUSSION

SITUATION

In accordance with ORS 334.175, local school districts must approve their education service district's Local Service Plan for the following school year prior to March 1 of the current year. In order for the local service plan to take effect for the 2018-19 school year, it must be approved by at least two-thirds of the component school districts representing over 50 percent of all regional students.

Northwest Regional Education Service District (NWRES D), in concert with regional superintendents, developed the attached Local Service Plan to bring to the region's 20 school districts; and local school districts' boards of directors are now reviewing the plan. The Hillsboro School District Board of Directors is scheduled to adopt a resolution approving the NWRES D Local Service Plan for the 2018-19 school year during their February 27, 2018, Board meeting.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review the NWRES D Local Service Plan and ask any questions they may have.

Northwest Regional ESD

2018-19 Local Service Plan



5825 NE Ray Circle | Hillsboro, OR 97124-6436

T: 503-614-1428 F: 503-614-1440 Toll-Free: 1-800-990-7500

www.nwresd.org

Northwest Regional Education Service District

[Rob Saxton](#), Superintendent

Washington Service Center

5825 NE Ray Circle Hillsboro, OR
97124
Phone: 503-614-1428
Toll-Free in Oregon: 1-888-990-7500

Clatsop Service Center

[Elizabeth Friedman](#), Administrator
3194 Marine Drive Astoria, OR 97103
Phone: 503-325-2862

Columbia Service Center

[Cynthia Jaeger](#), Administrator
800 Port Avenue St. Helens, OR 97051
Phone: 503-366-4100

Tillamook Service Center

[Kim Lyon](#), Administrator
2515 3rd Street Tillamook, OR 97051
Phone: 503-842-8423

NWRESD Board of Directors

CHAIR

Hollandsworth, Dave | Zone 2
Tillamook, OR

Cunningham, Karen | Zone 5
Portland, OR

Poehlitz, Lisa | Zone 3.
Sherwood OR
503-628-5609

VICE CHAIR

Bruce, Renee | Social
Services Beaverton, OR

Erickson, Tony | Zone
4 Scappoose, OR

Riley, Christine | Zone 1
Gaston, OR

McGlasson, Marilyn | At-Large
Hillsboro, OR

Tomlin, Ross | Higher Ed TBCC
Tillamook, OR

VACANT | Business

Board Zones

- 1: School Districts: Gaston, Sherwood and Tigard-Tualatin
 - 2: School Districts: Astoria, Jewell, Knappa, Seaside, Warrenton-Hammond, Neah-Kah-Nie, Nestucca Valley, Tillamook, Banks and Forest Grove
 - 3: School District: Hillsboro
 - 4: School District: Beaverton (Attendance areas: Beaverton (Partial), Clatskanie, Rainier, Scappoose, St. Helens, and Vernonia)
 - 5: School District: Beaverton
-

Northwest Regional Education Service District

Local Service Plan

Each ESD's component school districts are to pass the Local Service Plan following these guidelines: It must be passed by 2/3 of the districts representing more than 50% of the student population. The Local Service Plan must contain, and every ESD must provide, the following services:

- Programs for children with special needs, including but not limited to special education services, services for at-risk students and professional development for employees who provide those services.
- Technology support for component school districts and the individual technology plans of those districts, including but not limited to technology infrastructure services, data services, instructional technology services, distance learning and professional development for employees who provide those services.
- School improvement services for component school districts, including but not limited to services designed to support component school districts in meeting the requirements of state and federal law, services designed to allow the education service district to participate in and facilitate a review of the state and federal standards related to the provision of a quality education by component school districts, services designed to support and facilitate continuous school improvement planning, services designed to address school wide behavior and climate issues and professional technical education and professional development for employees who provide those services.
- Administrative and support services for component school districts, including but not limited to services designed to consolidate component school district business functions, liaison services between the Department of Education and component school districts and registration of children being taught by private teachers, parents or legal guardians pursuant to ORS 339.035.
- Other services that an education service district is required to provide by state or federal law, including but not limited to services required under ORS 339.005 to 339.090.

Proposed NWRESD 2018-19 Local Service Plan: Core Services Budget

Program	2017-18 Adopted Budget	2018-19 Projected Budget
<i>Professional Learning Services</i>		
Professional Development Strands	\$ 878,375	\$ 878,375
Professional Learning Services	\$ 878,375	\$ 878,375
<i>Regional Innovations Fund</i>	550,000	550,000
<i>Technology</i>		
Network Services	299,228	314,189
Help Desk	101,933	107,030
Application Support/Development	465,126	488,382
Technical Engineering Coop	387,827	407,218
Student Information System	787,734	827,121
Library Services	148,791	156,231
Total Technology Services	2,190,639	2,300,171
<i>Miscellaneous Services</i>		
Home School	13,600	14,280
Emergency Closure Network	10,000	10,500
County Allocations	1,489,589	1,489,589
Total Miscellaneous Services	1,513,189	1,514,369
Total Core Services	\$ 5,132,203	\$ 5,242,915

Proposed NWRESD 2018-19 Local Service Plan: Service Credits

	2018-19 (Projected)	2017-18 (6/29/17 SSF)
Estimated SSF Allocation (based on JE Oct/2017 estimate)	\$ 45,467,482	\$ 45,053,315
ESD Operations @ 10%	4,546,748	4,505,332
Resolution Plan @ 90%	40,920,733	40,547,984
Less: Beaverton (39.5%)	15,968,135	16,013,652
Less: Hillsboro (20.35%)	8,341,097	8,249,613
Amount Available for 18 Districts	16,611,501	16,284,719
CORE Services - 25% of Plan	4,152,875	4,071,180
Service Credits - 75% of Plan	\$ 12,458,626	\$ 12,213,539

County	District	ODE Report 5/10/2017 2015-16 Ex. ADMw	ODE Report 5/10/2017 2016-17 Ex. ADMw	Growth	Local Service Plan ADMw w/ Growth	% of Total	Projected 2018-19 Service Credit Allocation	Amount per ADMw	Projected 2017-18 Service Credit Allocation	Difference
12 Clatsop	Astoria	2,198.3	2,198.3	-	2,198.3	4.33%	\$ 539,267	\$ 245.31	\$ 517,615	\$ 21,652
	Jewell	267.6	284.3	16.7	300.9	0.59%	73,821	245.31	58,578	15,243
	Knappa	631.2	634.8	3.6	638.4	1.26%	156,603	245.31	147,165	9,438
	Seaside	1,886.8	1,921.1	34.3	1,955.5	3.85%	479,694	245.31	470,310	9,384
	Warrenton-Hammond	1,254.8	1,263.1	8.4	1,271.5	2.50%	311,908	245.31	325,500	(13,592)
Columbia	Clatskanie	906.1	935.8	29.7	965.5	1.90%	236,833	245.31	214,695	22,138
	Rainier	1,093.8	1,093.8	-	1,093.8	2.15%	268,321	245.31	255,029	13,292
	Scappoose	2,809.4	2,818.8	9.3	2,828.1	5.57%	693,753	245.31	704,190	(10,437)
	St. Helens	3,530.3	3,528.7	(1.6)	3,528.7	6.95%	865,631	245.31	825,746	39,885
	Vernonia	773.5	770.3	(3.2)	770.3	1.52%	188,964	245.31	179,483	9,481
Tillamook	Neah-Kah-Nie	1,008.8	1,012.2	3.4	1,015.6	2.00%	249,145	245.31	250,440	(1,295)
	Nestucca Valley	686.1	686.1	-	686.1	1.35%	168,294	245.31	165,437	2,857
	Tillamook	2,505.8	2,524.7	18.9	2,543.6	5.01%	623,977	245.31	604,877	19,100
Washington	Banks	1,271.8	1,365.1	93.4	1,458.5	2.87%	357,776	245.31	293,275	64,501
	Forest Grove	7,727.6	7,727.6	-	7,727.6	15.22%	1,895,641	245.31	1,884,364	11,277
	Gaston	807.9	747.7	(60.2)	747.7	1.47%	183,417	245.31	197,452	(14,035)
	Sherwood	6,010.3	6,010.3	-	6,010.3	11.83%	1,474,370	245.31	1,472,115	2,255
	Tigard-Tualatin	15,047.2	15,047.2	-	15,047.2	29.63%	3,691,210	245.31	3,647,270	43,940
TOTAL		50,417.2	50,569.9	152.7	50,787.5	100.00%	\$ 12,458,625		\$ 12,213,541	\$ 245,084

Proposed NWRESD 2018-19 Local Service Plan: County Allocations

Total Available for Allocation	\$	1,489,589
Base per County =	\$	125,000 x 4
Available by ADMw		500,000
		989,589

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County	District	Resolution Plan ADMw w/ Growth	County Base	Allocation Outside of Base	Total 2018-19 Allocation Per County	Total 2017-18 Allocation Per County	Difference
Clatsop	Astoria	2,198.3					
	Jewell	267.6					
	Knappa	631.2					
	Seaside	1,886.8					
	Warrenton-Hammond	1,254.8					
	Total Clatsop County	6,238.7	\$ 125,000	\$ 122,453	\$ 247,453	\$ 248,089	\$ (636)
Columbia	Clatskanie	906.1					
	Rainier	1,093.8					
	Scappoose	2,809.4					
	St. Helens	3,530.3					
	Vernonia	773.5					
	Total Columbia County	9,113.2	125,000	178,873	303,873	301,563	2,310
Tillamook	Neah-Kah-Nie	1,008.8					
	Nestucca Valley	686.1					
	Tillamook	2,505.8					
	Total Tillamook County	4,200.7	125,000	82,452	207,452	207,705	(253)
Washington	Banks	1,271.8					
	Forest Grove	7,727.6					
	Gaston	807.9					
	Sherwood	6,010.3					
	Tigard-Tualatin	15,047.2					
	Total Washington County	30,864.6	125,000	605,811	730,811	732,232	(1,421)
TOTAL		50,417.2	\$ 500,000	\$ 989,589	\$ 1,489,589	\$ 1,489,589	\$ 0

RESOLUTION AUTHORIZING NWRESD LOCAL SERVICE PLAN FOR 2018-19

BE IT RESOLVED by the Board of Directors of _____ School District in _____ County, Oregon, that for the nature and extent of Core Services, Service Credits, and the County Allocation Fund described in the proposed local service plan and in compliance with the provisions of ORS 334.175, the school board of said school district hereby approves the Northwest Regional Education Service District Local Service Plan for the 2018-19 school year.

ADOPTED this _____ day of _____ 2018.

ATTEST:

Board Chair

Superintendent

Please email or mail the signed document by March 1, 2018 to:

Lauren Slyh O'Driscoll
lslyh@nwresd.k12.or.us
Northwest Regional Education Service District
5825 NE Ray Circle
Hillsboro, Oregon 97124

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
BOARD MEMBER SELECTION PROCESS:
REVIEW APPLICATIONS / SELECT CANDIDATES TO INTERVIEW

SITUATION

During the December 12, 2017, Board meeting, the Board approved a process for filling the position 7 vacancy through the end of the term (June 30, 2019). Following the meeting, a news release was sent to the newspapers, and application information was posted on the District's website. Applications were accepted through January 16.

On January 9, Board members discussed interview questions. This evening, they will review applications and select candidates to be interviewed for the position.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review the applications that have been received for position 7, and select candidates to interview.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
BOARD RECOGNITION AND APPRECIATION

SITUATION

Each January, thousands of communities across the country formally recognize the members of locally elected volunteer public school boards for their leadership, advocacy, and dedication to improving student achievement and enhancing the quality of education in their communities. Hillsboro is especially proud to join this effort by formally acknowledging and honoring the members of our Board of Directors for their outstanding, thoughtful, and dedicated volunteer service, which benefits our students and the entire community.

RECOMMENDATION

The Superintendent recommends that students, staff, parents, and the community recognize and honor the esteemed members of the Board of Directors during School Board Recognition Month for their commitment to public education through their service as volunteer school board members.

PROCLAMATION

- WHEREAS** *school boards create a vision for what students should know and be able to do; and*
- WHEREAS** *school boards establish clear standards for student performance; and*
- WHEREAS** *school boards ensure that student assessments are tied to established standards; and*
- WHEREAS** *school boards are accountable to the community for operating schools that support student achievement; and*
- WHEREAS** *school boards align school district resources to ensure that students meet standards; and*
- WHEREAS** *school boards create a climate that supports the philosophy that all children can learn at high levels; and*
- WHEREAS** *school boards build collaborative relationships based on trust, teamwork, and shared accountability; and*
- WHEREAS** *school boards are committed to continuous education and training on issues related to student achievement;*
- NOW,
THEREFORE,** *I, Mike Scott, hereby declare my appreciation to the members of Hillsboro School District's Board of Directors and proclaim the month of January 2018 to be:*

SCHOOL BOARD RECOGNITION MONTH



I urge all citizens to join me in recognizing the dedication and hard work of local school board members in preparing today's students for tomorrow's world.

Mike Scott, Superintendent

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
RECOGNITION: ENERGY TRUST OF OREGON

SITUATION

The District has made resource conservation and energy reduction a priority during the past several years, implementing renewable programs and energy-reducing strategies that have resulted in significant cost-avoided savings. Energy Trust of Oregon (ETO), a non-profit agency with programs that benefit utility customers throughout the state of Oregon and southwest Washington, would like to recognize the District's efforts and celebrate its accomplishments.

RECOMMENDATION

The Superintendent recommends that the Board of Directors accept this recognition from Energy Trust of Oregon.

**HILLSBORO SCHOOL DISTRICT 1J
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2018
SUMMARY OF OPTIONS TO PURCHASE CONSTRUCTION /
PUBLIC IMPROVEMENTS – FINDINGS OF FACT FOR USE OF
CONSTRUCTION MANAGEMENT / GENERAL CONTRACTOR PROCESS FOR THE
BROOKWOOD ELEMENTARY SCHOOL REPLACEMENT PROJECT**

SITUATION

Background

During the January 23 Board meeting, the Board of Directors will be asked to convene as the District's Local Contract Review Board to approve the Findings of Fact to allow the District to use the construction management / general contractor (CM/GC) construction process for the Brookwood Elementary School replacement project. The different construction methods available to the District are described below, with the reasons for recommending the construction management / general contractor process.

The statutes and policies that define how school districts can purchase construction / public improvements in the State of Oregon identify three different construction methods.

1. The first method is Design/Bid/Build (DBB), which is the traditional method for building schools. The District hires an architect to design the building; from this design, bid specifications are generated; and the District then solicits bids to construct the building.
2. A second construction method is the Construction Manager/General Contractor (CM/GC) method. The difference between this method and the DBB method is that the contractor is brought on immediately after the bid specifications are developed, and works with the architect in the final design process. The contractor is then required to provide detailed cost estimates. The advantage of this method is that the contractor is part of the pre-construction process and is able to line up sub-contractors and provide more accurate cost information. This method is appropriate when a project faces significant budget and/or scheduling challenges. The CM/GC method is considered an alternate construction method by the State of Oregon and requires action by the Local Contract Review Board (LCRB).
3. The final method is Design/Build (DB), in which case the contractor generally designs and constructs the project. This method is appropriate when the project does not require a great deal of design work. This method is also considered an alternative construction method and requires action by the LCRB.

Below are the milestones associated with each of these contracting methods.

1.0 Design/Bid/Build method

- 1.1 HSD hires an architect to prepare documents for permits and bidding
- 1.2 HSD team reviews the documents
- 1.3 Architect completes the documents
- 1.4 HSD team prepares bid advertisement
- 1.5 Contractor selects the subcontractors
- 1.6 Contractors submit bids
- 1.7 HSD team evaluates the bids received
- 1.8 HSD team selects the lowest responsible bid
- 1.9 HSD team issues the intent to award
- 1.10 HSD team prepares agreement between HSD and the responsible low bidder
- 1.11 Agreement is executed by the contractor and HSD
- 1.12 HSD issues a notice to proceed to the contractor
- 1.13 Contractor starts the construction project
- 1.14 Contractor submits an invoice each month for the completed work
- 1.15 Contractor coordinates the inspections
- 1.16 Contractor completes the work
- 1.17 Architect prepares a detailed punch list
- 1.18 Contractor completes the work described on the punch list
- 1.19 Architect confirms the work is complete
- 1.20 Contractor receives final payment

This process has been used successfully on previous projects in HSD and will be used on future projects.

2.0 Construction Manager/General Contractor method

- 2.1 HSD hires an architect to prepare documents for permits and bidding
- 2.2 HSD prepares finding of facts (requires Board approval) and request for proposals
- 2.3 HSD evaluates the proposals submitted and selects the most qualified CM/GC firm
- 2.4 HSD hires a CM/GC firm to review permit and bidding
- 2.5 CM/GC firm prepares a detailed cost estimate for the construction work
- 2.6 HSD team balances the scope of work and the construction budget
- 2.7 Architect and CM/GC firm prepare the bid documents
- 2.8 CM/GC firm prepares the bid advertisement
- 2.9 CM/GC evaluates the bids with the HSD team monitoring the process
- 2.10 CM/GC firm recommends awards to the most qualified bidders
- 2.11 HSD team approves the awards recommended by the CM/GC firm
- 2.12 CM/GC firm manages the work done by all of the contractors
- 2.13 CM/GC coordinates the inspections
- 2.14 CM/GC firm completes the project
- 2.15 Architect prepares a detailed punch list

- 2.16 CM/GC firm manages the completion of the work described on the punch list
- 2.17 Architect confirms the work is complete
- 2.18 CM/GC firm receives final payment

- 2.19 Advantages to HSD
 - 2.19.1 Permit and bid documents are improved
 - 2.19.2 Qualified subcontractors are selected
 - 2.19.3 Quality of the work should be better
 - 2.19.4 Schedule management is better
 - 2.19.5 HSD, architect and CM/GC resolve issues as partners

This method has been used successfully on more than 11 previous projects in HSD.

This method is recommended for the project at Brookwood Elementary School.

3.0 Design Bid method

- 3.1 HSD prepares the findings of facts (requires Board approval) and request for proposals
- 3.2 HSD team evaluates the proposals submitted and selects the most qualified DB firm
- 3.3 HSD hires one firm, typically a contractor, to complete the construction and the prepare the permit and bid documents
- 3.4 DB firm completes the permit and bid documents
- 3.5 DB firm receives the bids
- 3.6 DB firm recommends awards to subcontractors
- 3.7 HSD team approves contract awards recommended by the DB firm
- 3.8 DB firm manages the construction
- 3.9 DB coordinates the inspections
- 3.10 DB submits invoices for completed work
- 3.11 DB firm confirms the project is complete
- 3.12 DB firm receives final payment

This method has been used successfully in HSD and may be used on future projects.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Findings of Fact supporting a specific exemption from competitive bidding requirements for use of the Construction Management / General Contractor process at Brookwood Elementary School.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2017
REVIEW FINDINGS OF FACT FOR USE OF A
CONSTRUCTION MANAGEMENT / GENERAL CONTRACTOR (CM/GC)
FOR CONSTRUCTION OF THE
BROOKWOOD ELEMENTARY SCHOOL REPLACEMENT**

SITUATION

The pre-design work on the project is proceeding. At this time, the management team working on the projects has evaluated a method to construct the Projects utilizing a Construction Management/General Contractor (CM/GC) process.

Historically, public construction projects are competitively bid and awarded to the responsible low bidder. During recent project coordination meetings, the CM/GC contracting method has been discussed. This process involves the selection of a CM/GC firm during the design phase to acquire a contractor's expertise with the project. The CM/GC method has been successfully implemented by the following public agencies:

- Hillsboro School District
- Salem-Keizer School District
- Philomath School District
- Scappoose School District
- Gresham-Barlow School District
- Forest Grove School District
- Multnomah County
- Oregon Health Sciences University
- Parkrose School District
- Pendleton School District
- Port of Portland
- Portland Development Commission
- The State Department of Administrative Services
- The State Department of Corrections
- Washington County

ORS 279C.335 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to exempt specific projects from the requirements of ORS 279C. In doing so, the statute specifically says that the Local Contract Review Board shall: "where appropriate, direct the use of alternative contracting and purchasing practices that take account of market realities and modern or innovative contracting and purchasing methods, which are also consistent with the public policy of encouraging competition."

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that lead to the exemption of certain contracts from traditional competitive public bidding. Selection of the CM/GC firm for this project will utilize a Request for Proposal. The Request for Proposal will identify specific criteria to be utilized for the selection. Proposals from the CM/GC firms will include a competitive bid for their fee, the known general conditions, general requirements, bond and insurance costs for the project. The CM/GC will provide the Hillsboro School District with a preliminary Guaranteed Maximum Price (GMP) and a full performance/payment bond for the work following detailed review of the Construction Documents.

ORS 279C.335(4) requires the Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments on the Hillsboro School District draft findings. Notice of this public hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

1. Project Description

Construction of a replacement Brookwood Elementary School with new 600-student elementary on existing school site.

2. Responsibilities of the CM/GC Firm or Firms

a) Design Phase

The CM/GC firm will provide assistance for construction scheduling, competitive bid packaging, cost estimating, and the review of design documents from the standpoint of value, long lead procurements, design feasibility, constructability and establishing a negotiated preliminary Guaranteed Maximum Price for the work prior to completion of the construction documents.

b) Bid Process

The CM/GC firm will coordinate the competitive bid process and material procurement process for all work with full oversight and participation by Hillsboro School District. The CM/GC firm or firms will provide a written recommendation to Hillsboro School District for each subcontract. Upon approval from Hillsboro School District, the CM/GC firm will execute a contract with each approved subcontractor and/or supplier.

c) Construction Phase

The CM/GC firm will be responsible for the construction of the Project, including scheduling of materials procurement, delivery and all work completed by subcontractors. The CM/GC firm is responsible to complete the project on schedule, within budget and at, or above, the quality defined in the specifications prepared by the architect.

3. Rationale to Utilize CM/GC Method

a) Competition

It is unlikely that such exemption will encourage favoritism in the awarding of public contracts or substantially diminish competition for public contracts, as the CM/GC firm will be selected through an open, competitive process among qualified contractors. Hillsboro School District will receive written proposals from contractors with the experience and staff required to complete the project. The process will utilize a Request for Proposal that will be publicly advertised and Hillsboro School District may interview the firms before recommending a firm to the Board.

b) Multiple Construction Packages

The construction will be completed in phases and may require early bid or procurement packages. Completing the project in phases should result in cost savings.

c) Procurement of Long Lead Items

The CM/GC method will allow the early procurement of long lead material / equipment. Examples include portable structures, mechanical equipment, electrical equipment, windows, and doors. Early procurement should result in cost savings.

d) Schedule Complexity

The Project will face tight construction schedules to achieve timely occupancy. By phasing the completion of construction documents, bidding, award and construction, the schedule efficiency required can be achieved. The CM/GC process allows the phasing that will be required.

e) Change Order Cost Control

Change orders cost should be controlled in two ways:

1. By utilizing a contractor to provide cost analysis, construction feasibility reviews and long lead procurement, the final number of change orders should be reduced. Reduction of change orders should result in cost savings.
2. By proposing a fixed fee for overhead and profit, the CM/GC firm's fixed fee is added to the actual cost of the change. It is expected this will be less than the standard fee added to change orders on projects awarded to a bondable, low bidder. Reduction of overhead and profit on changes should result in cost savings.

f) Acceleration

Utilizing the CM/GC approach will reduce the risk of acceleration expense to complete the Project on time. Reduction or elimination of the cost to accelerate construction to complete the Project on time should result in cost savings.

g) Improved Cost Management

The financial track record of CM/GC projects with a “Guaranteed Maximum Price” is impressive. The Hillsboro School District, Salem-Keizer School District, McMinnville School District, and Forest Grove School District have used the CM/GC method to complete many construction projects with significant success, considering timeliness of project completion, cost savings and adherence to budget limitations. Recent examples are Lincoln Elementary School, Witch Hazel Elementary School, Free Orchards Elementary School, Evergreen Middle School, Joseph Gale Elementary School, Scappoose High School, Forest Grove High School, McMinnville High School, Walker Middle School, Richmond Elementary School, and Whiteaker Middle School. These projects were all completed on time and under budget. The project team working on the projects successfully balanced the construction budget during the design and construction phases utilizing the same CM/GC process proposed for these projects.

h) Subcontractor Bidding and Selection

The CM/GC firm will have adequate time to prepare bid packages as well as review and analyze bids received from subcontractors. The work subcontracted will be awarded to the lowest responsive bidder. This bid process will not result in favoritism. Utilizing qualified subcontractors should result in better quality and cost savings.

i) Market Conditions

Many general contractors and subcontractors are being impacted the quantity of work to be bid in the next three years. Currently the cost of materials and labor is adjusting to the market. Ordering materials and equipment may take longer now, as manufacturers and distributors are not keeping large amounts of inventory in stock. The CM/GC firm will order materials and equipment in a timely manner from manufactures and distributors that can deliver the material and equipment on-time to avoid delays caused by late shipments.

j) Awareness and involvement by local contractors and suppliers

The CM/GC firm selected will be required to identify local contractors and suppliers prior to starting the Bid Process. The project management team and CM/GC firms will schedule meetings with local contractors and suppliers to review the scope of work and bid dates. This process allows for local contractor and supplier participation in the projects.

k) Qualified Management

The project management team working on these projects is well equipped to manage the complexities of a CM/GC construction process, with experienced and qualified district staff and external project managers with successful CM/GC experience.

4. Operational, Budget and Financial Data:

The projects will result in efficient mechanical and electrical systems, thus minimizing operational costs. Generally, the method of construction will have little effect on the operational budget. However, the CM/GC process may further reduce

life cycle costs through the use of life cycle analysis to assist in the selection of systems, finishes and equipment.

5. Public Benefits:

The primary public benefit is more expeditious completion of the project. The CM/GC process provides for better collaboration to ensure that the Projects will be completed on time, on budget and at, or above, the quality described in the construction documents. It provides better opportunities for reducing construction time by fast-tracking construction where beneficial.

6. Value Engineering:

Because the contractor is working with the design team during the design phase, the contractor will assist the project team to identify and implement possible cost savings. The value engineering process allows the project team to evaluate quality materials and life cycle costs, thereby helping to reduce operating costs.

7. Specialized Expertise Required:

Completing a complicated project on time, on budget and at, or above, the quality expected requires the CM/GC firms to dedicate a qualified team with the experience and expertise to work with Hillsboro School District, the architect and the project manager. With such experience, mistakes are likely fewer and disruptions are likely to be minimized. The request for proposals process used to select the CM/GC will enable Hillsboro School District to select the best contractors for the Projects.

8. Public Safety:

The CM/GC firm will prepare a construction safety plan that specifically addresses the construction on an occupied school site for the project. The construction safety plan will help ensure that the projects are built safely and will help minimize risk to students, staff, neighborhoods and the projects.

9. Technical Complexity:

Completing a fast track construction project on an occupied site is complex. The CM/GC process will address technical complexity and should save time and reduce the final cost.

10. Funding Sources:

The projects will be paid for as part of 2017 Capital Improvement Bond and other funds. The bond measure will also fund other construction projects. Establishment of a preliminary and final Guaranteed Maximum Price will better enable Hillsboro School District manage resources available to complete all the projects.

The CM/GC process will provide Hillsboro School District with the following advantages:

- Cost savings, as described above.
- Reduction of schedule risk typically associated with complex construction projects.
- Opportunity to select a qualified CM/GC firm or firms versus award project to any bondable low bidder.
- Accurate cost data for project decisions.

- Greatest assurance of project timely completion.
- Higher confidence in obtaining quality construction.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting a specific exemption from competitive bidding requirements for use of the Construction Management/General Contractor process for the project to replace Brookwood Elementary School on the existing school site.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2018
REVIEW FINDINGS OF FACT FOR USE OF A
REQUEST FOR PROPOSALS WITH COMPETITIVE BID PROCESS FOR THE
SYNTHETIC TURF FIELDS IN 2018 - 2022**

SITUATION

The pre-design work on the synthetic turf field projects is proceeding. At this time, the management team working on the projects has evaluated a method to construct the synthetic fields utilizing a Request for Proposal with Competitive Bid (RFP/CB) process.

Historically, public construction projects are competitively bid and awarded to the responsible low bidder. During recent project coordination meetings, the RFP/CB contracting method has been discussed. This process involves the selection of a Contractor and a Turf Manufacturer utilizing criteria established by the District, with competitive bids. The RFP/CB method has been successfully implemented by the following public agencies:

- Gresham-Barlow School District
- Salem-Keizer School District
- Hillsboro School District
- Forest Grove School District
- Multnomah County
- Port of Portland

ORS 279C.335 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to exempt specific projects from the requirements of ORS 279C. In doing so, the statute specifically says that the Local Contract Review Board shall, “where appropriate, direct the use of alternative contracting and purchasing practices that take account of market realities and modern or innovative contracting and purchasing methods, which are also consistent with the public policy of encouraging competition.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that lead to the exemption of certain projects and contracts from traditional competitive public bidding. Selection of the Contractor and Turf Manufacturer for these projects will utilize a Request for Proposals that will require pricing and / or bids. The Request for Proposals will include specific criteria to be utilized for the selection. Proposals from the firms will include competitive bids from contractors for the construction and manufacturers for the turf.

ORS 279C.335(4) requires the Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments on the Hillsboro School District draft findings. Notice of this public hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

1. Project Description

- a. Prepare the sites at CHS, HHS and GHS for synthetic turf and or tracks, and or field lights.
- b. Provide and install synthetic turf at CHS, HHS, GHS, Brookwood ES, New ES at North Plains, and New ES at S. Hillsboro.
- c. And other synthetic turf projects and sites selected by the District.

2. Rationale to Utilize CM/GC Method

a) Competition

It is unlikely that such exemption will encourage favoritism in the awarding of public contracts or substantially diminish competition for public contracts. Hillsboro School District will receive written proposals from contractors and manufacturers with the experience required to complete the project. The process will utilize a Request for Proposals that will be publicly advertised and Hillsboro School District may interview the firms before recommending a firm to the Board.

b) Procurement of Long Lead Items

The RFP/CB method will allow the early procurement of long lead material and equipment. Examples include turf and field lighting. Early procurement should result in cost savings.

c) Schedule Complexity

The Project will face tight construction schedules to achieve timely use by students and the community. By phasing the completion of the construction, the schedule efficiency required can be achieved. The RFB/CB process allows the phasing that will be required.

d) Change Order Cost Control

1. By proposing a fixed cost for overhead and profit for additional scope, the contractors fixed fee is added to the actual cost of the change. It is expected this will be less than the standard costs added to change orders on projects awarded to a bondable, low bidder. Reduction of overhead and profit on changes should result in cost savings.

e) Market Conditions

Many contractors, subcontractors and manufacturers are being impacted by the quantity of work to be bid in the next three years. Currently the cost of materials and labor is adjusting to the market. Ordering materials and equipment may take longer now as manufacturers and distributors are not keeping large amounts of inventory in stock. The approved firms will order materials and equipment in a timely manner from manufacturers and distributors that can deliver the material and equipment on time to avoid delays caused by late shipments.

f) Awareness and involvement by local contractors and suppliers

The Contractor and or Manufacturer selected will be required to identify local contractors and suppliers prior to starting the Bid Process. The project management team and contractor or manufacturer will schedule meetings with local contractors and suppliers to review the scope of work and bid dates. This process allows for local contractor and supplier participation in the projects.

g) Qualified Management

The project management team working on these projects is well equipped to manage the complexities of a RFP/CB construction process.

3. Operational, Budget and Financial Data:

The RFB/CB should will result in efficient construction and turf installation thus minimizing acceleration costs and get the improvements ready for use by students and the community.

4. Public Benefits:

The primary public benefit is a safe and expeditious completion of the projects. The RFP/CB process provides for better collaboration time to plan safe projects and should ensure the Projects will be completed safely, on time, on budget and at, or above, the quality described in the construction documents.

5. Value Engineering:

Because the contractor will assist the project team to identify and implement possible cost savings, the value engineering process allows the project team to evaluate quality materials and life cycle costs, thereby helping to reduce operating costs.

6. Specialized Expertise Required:

Completing a complicated project on time, on budget and at, or above, the quality expected requires the RFP/CB firms to dedicate a qualified team with the experience and expertise to work with Hillsboro School District, the architect and the project manager. With such experience, mistakes are likely fewer and disruptions are likely to be minimized. The request for proposals process used to select the RFP/CB will enable Hillsboro School District to select the best contractor and manufacturer for the Projects.

7. Public Safety:

The contractor will prepare a construction safety plan for the project. The construction safety plan will help ensure the projects are built safely and will help minimize risk to students, neighborhoods and the projects.

8. Technical Complexity:

Completing a fast track construction project on an occupied site is complex. The RFP/CB process will assist the District to address technical complexity and should save time and reduce the final cost.

9. Funding Sources:

The projects will be paid for as part of 2017 Capital Improvement Bond and other funds. The bond measure will also fund other construction projects.

The RFP/CB process will provide Hillsboro School District with the following advantages:

- Cost savings, as described above.
- Reduction of schedule risk typically associated with complex construction projects.
- Opportunity to select qualified firms versus award project to any bondable low bidder.
- Accurate cost data for project decisions.
- Greatest assurance of project timely completion.
- Higher confidence in obtaining quality construction.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting a specific exemption from competitive bidding requirements for use of the Request for Proposal with Competitive Bid process for the turf, track and field lighting projects at CHS, HHS and GHS.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2017
REVIEW FINDINGS OF FACT FOR SPECIAL PROCUREMENTS AND
EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING A SPECIFIC
PRODUCT SPECIFICATION
(HVAC CONTROL SYSTEMS)**

SITUATION

The design work on many projects approved by voters in November 2017 is well underway. The management team has selected the system and has some specific recommendations regarding HVAC control systems.

Historically, public improvement contracts are competitively bid and awarded to the responsible low bidder and such solicitation may not specify particular products or equipment. During recent project coordination meetings, the financial and operational benefits to purchase and install specific types of HVAC control systems has been discussed. This process involves the selection of the type of HVAC control systems during the design phase and specifies the selected product and systems in construction documents, which are publicly advertised, for all District buildings. In all cases listed above, use of the same systems throughout the district will make repairs, upgrades, installation of new systems, maintenance, replacement, training and operation much more efficient. The Projects will require tight schedule adherence to resolve issues that could impact timely completion.

Public Agencies that have used this process include:

- Beaverton School District
- Salem-Keizer School District
- Oregon State University

ORS 279C.345 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to specify particular products or systems upon making certain findings. In doing so, the statute specifically says that the Local Contract Review Board shall: “where appropriate, allow the purchase of products or systems from a particular manufacturer or seller.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that allow Special Procurements and Exemptions from Competitive Bidding.

The Oregon Public Contracting Rules requires Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments and make a final decision on the Hillsboro School District draft findings. Notice of this public

hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

Project Descriptions

Install new, upgrade, renovate or expand HVAC control systems in new and existing buildings.

Rationale

Based upon the above analysis, selection of a particular product or system for HVAC control systems in new or existing buildings and then specifying the same product or system for all district buildings, qualifies for an exemption from competitive bidding based upon the following findings under ORS 279C.345(2):

Efficient utilization of existing equipment requires acquisition of compatible equipment.

The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, could result in a substantial cost savings.

It is unlikely that the exemption will encourage favoritism in awarding public improvement contracts.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft the Findings of Fact supporting specific exemptions from competitive bidding for Alerton HVAC Controls.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2017
REVIEW FINDINGS OF FACT FOR SPECIAL PROCUREMENTS AND
EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING A SPECIFIC
PRODUCT SPECIFICATION
(WIRELESS CLOCK SYSTEMS)**

SITUATION

The design work on many projects approved by voters in November 2017 is well underway. The management team has selected the system and has some specific recommendations regarding wireless clock systems.

Historically, public improvement contracts are competitively bid and awarded to the responsible low bidder and such solicitation may not specify particular products or equipment. During recent project coordination meetings, the financial and operational benefits to purchase and install specific types of wireless clock systems has been discussed. This process involves the selection of the type of wireless clock systems during the design phase and specifies the selected product and systems in construction documents, which are publicly advertised, for all District buildings. In all cases listed above, use of the same systems throughout the district will make repairs, upgrades, installation of new systems, maintenance, replacement, training and operation much more efficient. The Projects will require tight schedule adherence to resolve issues that could impact timely completion.

Public Agencies that have used this process include:

- Beaverton School District
- Salem-Keizer School District
- Oregon State University

ORS 279C.345 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to specify particular products or systems upon making certain findings. In doing so, the statute specifically says that the Local Contract Review Board shall: “where appropriate, allow the purchase of products or systems from a particular manufacturer or seller.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that allow Special Procurements and Exemptions from Competitive Bidding.

The Oregon Public Contracting Rules requires Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments and make a final decision on the Hillsboro School District draft findings. Notice of this public

hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

Project Descriptions

Install new, upgrade, renovate or expand wireless clock systems in new and existing buildings.

Rationale

Based upon the above analysis, selection of a particular product or system for wireless clock systems in new or existing buildings and then specifying the same product or system for all district buildings, qualifies for an exemption from competitive bidding based upon the following findings under ORS 279C.345(2):

Efficient utilization of existing equipment requires acquisition of compatible equipment.

The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, could result in a substantial cost savings.

It is unlikely that the exemption will encourage favoritism in awarding public improvement contracts.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting specific exemptions from competitive bidding requirements for Primex Wireless Clock Systems.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2017
REVIEW FINDINGS OF FACT FOR SPECIAL PROCUREMENTS AND
EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING A SPECIFIC
PRODUCT SPECIFICATION
(FIRE ALARM SYSTEMS)**

SITUATION

The design work on many projects approved by voters in November 2017 is well underway. The management team has selected the system and has some specific recommendations regarding fire alarm systems.

Historically, public improvement contracts are competitively bid and awarded to the responsible low bidder and such solicitation may not specify particular products or equipment. During recent project coordination meetings, the financial and operational benefits to purchase and install specific types of fire alarm systems has been discussed. This process involves the selection of the type of fire alarm systems during the design phase and specifies the selected product and systems in construction documents, which are publicly advertised, for all District buildings. In all cases listed above, use of the same systems throughout the district will make repairs, upgrades, installation of new systems, maintenance, replacement, training and operation much more efficient. The Projects will require tight schedule adherence to resolve issues that could impact timely completion.

Public Agencies that have used this process include:

- Beaverton School District
- Salem-Keizer School District
- Oregon State University

ORS 279C.345 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to specify particular products or systems upon making certain findings. In doing so, the statute specifically says that the Local Contract Review Board shall: “where appropriate, allow the purchase of products or systems from a particular manufacturer or seller.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that allow Special Procurements and Exemptions from Competitive Bidding.

The Oregon Public Contracting Rules requires Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments and make a final decision on the Hillsboro School District draft findings. Notice of this public hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

Project Descriptions

Install new, upgrade, renovate or expand fire alarm systems in new and existing buildings.

Rationale

Based upon the above analysis, selection of a particular product or system for fire alarm systems in new or existing buildings and then specifying the same product or system for all district buildings, qualifies for an exemption from competitive bidding based upon the following findings under ORS 279C.345(2):

Efficient utilization of existing equipment requires acquisition of compatible equipment.

The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, could result in a substantial cost savings.

It is unlikely that the exemption will encourage favoritism in awarding public improvement contracts.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting specific exemptions from competitive bidding requirements for Silent Knight Fire Alarm Systems.

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**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2017
REVIEW FINDINGS OF FACT FOR SPECIAL PROCUREMENTS AND
EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING A SPECIFIC
PRODUCT SPECIFICATION
(ROOFING PRODUCTS AND SYSTEMS)**

SITUATION

The design work on many projects approved by voters in November 2017 is well underway. The management team has selected the system and has some specific recommendations regarding roofing products and systems.

Historically, public improvement contracts are competitively bid and awarded to the responsible low bidder and such solicitation may not specify particular products or equipment. During recent project coordination meetings, the financial and operational benefits to purchase and install specific types of roofing products and systems has been discussed. This process involves the selection of the type of roofing products and systems during the design phase and specifies the selected products and systems in construction documents, which are publicly advertised, for all District buildings. In all cases listed above, use of the same systems throughout the district will make repairs, upgrades, installation of new systems, maintenance, replacement, training and operation much more efficient. The Projects will require tight schedule adherence to resolve issues that could impact timely completion.

Public Agencies that have used this process include:

- Beaverton School District
- Salem-Keizer School District
- Oregon State University

ORS 279C.345 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to specify particular products or systems upon making certain findings. In doing so, the statute specifically says that the Local Contract Review Board shall: “where appropriate, allow the purchase of products or systems from a particular manufacturer or seller.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that allow Special Procurements and Exemptions from Competitive Bidding.

The Oregon Public Contracting Rules requires Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments and make a final decision on the Hillsboro School District draft findings. Notice of this public

hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

Project Descriptions

Install new, upgrade, renovate or expand roofing products and systems in new and existing buildings.

Rationale

Based upon the above analysis, selection of particular roofing products and systems in new or existing buildings and then specifying the same products or systems for all district buildings, qualifies for an exemption from competitive bidding based upon the following findings under ORS 279C.345(2):

Efficient utilization of existing equipment requires acquisition of compatible equipment.

The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, could result in a substantial cost savings.

It is unlikely that the exemption will encourage favoritism in awarding public improvement contracts.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting specific exemptions from competitive bidding for Tremco Roofing Products.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2017
REVIEW FINDINGS OF FACT FOR SPECIAL PROCUREMENTS AND
EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING A SPECIFIC
PRODUCT SPECIFICATION
(LOCK AND DOOR HARDWARE SYSTEMS)**

SITUATION

The design work on many projects approved by voters in November 2017 is well underway. The management team has selected the system and has some specific recommendations regarding lock and door hardware systems.

Historically, public improvement contracts are competitively bid and awarded to the responsible low bidder and such solicitation may not specify particular products or equipment. During recent project coordination meetings, the financial and operational benefits to purchase and install specific types of lock and door hardware systems has been discussed. This process involves the selection of the type of lock and door hardware systems during the design phase and specifies the selected product and systems in construction documents, which are publicly advertised, for all District buildings. In all cases listed above, use of the same systems throughout the district will make repairs, upgrades, installation of new systems, maintenance, replacement, training and operation much more efficient. The Projects will require tight schedule adherence to resolve issues that could impact timely completion.

Public Agencies that have used this process include:

- Beaverton School District
- Salem-Keizer School District
- Oregon State University

ORS 279C.345 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to specify particular products or systems upon making certain findings. In doing so, the statute specifically says that the Local Contract Review Board shall: “where appropriate, allow the purchase of products or systems from a particular manufacturer or seller.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that allow Special Procurements and Exemptions from Competitive Bidding.

The Oregon Public Contracting Rules requires Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments and make a final decision on the Hillsboro School District draft findings. Notice of this public

hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

Project Descriptions

Install new, upgrade, renovate or expand lock and door hardware systems in new and existing buildings.

Rationale

Based upon the above analysis, selection of a particular product or system for lock and door hardware systems in new or existing buildings and then specifying the same product or system for all district buildings, qualifies for an exemption from competitive bidding based upon the following findings under ORS 279C.345(2):

Efficient utilization of existing equipment requires acquisition of compatible equipment.

The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, could result in a substantial cost savings.

It is unlikely that the exemption will encourage favoritism in awarding public improvement contracts.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting specific exemptions from competitive bidding requirements for Schlage Locks and Door Hardware.

**HILLSBORO SCHOOL DISTRICT
LOCAL CONTRACT REVIEW BOARD HEARING
January 23, 2018
REVIEW FINDINGS OF FACT FOR SPECIAL PROCUREMENTS AND
EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING A SPECIFIC
PRODUCT SPECIFICATION
(MOBILE SECURITY CAMERA SYSTEM AND
DIGITAL RECORDING SYSTEM)**

SITUATION

The design work on many projects approved by voters in November 2017 is well underway. The management team has reviewed a number of systems and has some specific recommendations regarding the mobile security camera and digital recorder system for the buses that are used in Hillsboro School District.

Historically, public improvement contracts are competitively bid and awarded to the responsible low bidder and such solicitation may not always specify particular products or equipment. During recent project coordination meetings, the financial and operational benefits to purchase and install a specific type of mobile security camera and digital recorder system have been discussed. This process involves the selection of a specific type of mobile security camera and digital recorder system. Utilizing a process allowed in the State of Oregon to exempt a system from the standard bid process will be beneficial to the District. Installing the same systems in most or all of the buses in the District will make repairs, upgrades, installation of new systems, maintenance, replacement, training and operation much more efficient.

Public agencies that have used this process include:

- Beaverton School District
- Salem-Keizer School District
- Oregon State University

ORS 279C.345 permits the Local Contract Review Board, which for Hillsboro School District is the Board of Directors, to specify particular products or systems upon making certain findings. In doing so, the statute specifically says that the Local Contract Review Board shall: “where appropriate, allow the purchase of products or systems from a particular manufacturer or seller.”

Oregon law and duly adopted resolution of the Hillsboro School District permits the Hillsboro School District Board of Directors, acting as the Local Contract Review Board, to consider and approve specific findings that allow Special Procurements and Exemptions from Competitive Bidding.

The Oregon Public Contracting Rules requires Hillsboro School District to hold a public hearing of the Local Contract Review Board to allow comments and make a final decision on the Hillsboro School District draft findings. Notice of this public hearing must be advertised in at least one trade newspaper of general statewide circulation not less than 14 days prior to the hearing.

Notice of public hearing was advertised in the Oregonian on January 7, 2018, and the Daily Journal of Commerce on January 8, 2018.

FINDINGS OF FACT

Project Descriptions

Provide and install the mobile security cameras and digital recorder system on most or all of the buses operated in the District. Assist with system installation in buildings owned by the District.

Rationale

Based upon the above analysis, selection of a particular product or system for the mobile security cameras and digital recorder system and then specifying the same product or system for all district buildings, qualifies for an exemption from competitive bidding based upon the following findings under ORS 279C.345(2):

The purchase and installation of these systems will improve the safety of the students and staff on the buses operated by the District.

The specification of a product by brand name or mark, or the product of a particular manufacturer or seller, could result in a substantial cost savings.

It is unlikely that the exemption will encourage favoritism in awarding public improvement contracts.

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, conduct a public hearing to allow comments on the Hillsboro School District draft Findings of Fact supporting specific exemptions from competitive bidding requirements for 24/7Security, Inc.

HILLSBORO SCHOOL DISTRICT 1J

January 23, 2018

LOCAL CONTRACT REVIEW BOARD – APPROVE FINDINGS OF FACT AND RECOMMENDATIONS, AND GRANT SPECIFIC EXEMPTIONS FROM COMPETITIVE BIDDING REQUIREMENTS FOR:

**USE OF A CONSTRUCTION MANAGEMENT / GENERAL CONTRACTOR (CM/GC)
PROCESS FOR THE PROJECT AT BROOKWOOD ELEMENTARY SCHOOL;
USE OF ALTERNATE PROCUREMENT METHOD FOR REQUEST FOR PROPOSAL WITH
COMPETITIVE BID FOR PROCESS FOR SYNTHETIC TURF FIELDS IN 2018-2022;
AND EXEMPTION FROM COMPETITIVE BIDDING AUTHORIZING SPECIFIC PRODUCT
SPECIFICATIONS FOR HVAC CONTROL SYSTEMS, WIRELESS CLOCK SYSTEMS,
FIRE ALARM SYSTEMS, ROOFING PRODUCTS AND SYSTEMS, LOCK AND DOOR
HARDWARE SYSTEMS, AND MOBILE SECURITY CAMERA SYSTEM AND DIGITAL
RECORDING SYSTEM**

SITUATION

The Hillsboro School District Board of Directors, acting in the capacity of the Local Contract Review Board, conducted a public hearing during this evening's regular Board meeting session, to allow comments on the Findings of Fact supporting specific exemptions from competitive bidding requirements for the following:

- Use of the Construction Management / General Contractor process for the project at Brookwood Elementary School.
- Use of Alternate Procurement Method for Request for Proposal with Competitive Bid for Process for Synthetic Turf Fields in 2018-2022
- Exemption from Competitive Bidding Authorizing Specific Product Specifications for the following:
 - HVAC Control Systems to Allerton HVAC Controls
 - Wireless Clock Systems to Primex Wireless Clock Systems
 - Fire Alarm Systems to Silent Knight Fire Alarm Systems
 - Roofing Products and Systems to Tremco Roofing Products
 - Lock and Door Hardware Systems to Schlage Locks and Door Hardware
 - Mobile Security Camera System and Digital Recording System to 24/7 Security

RECOMMENDATION

The Superintendent recommends that the Board of Directors, acting in the capacity of the Local Contract Review Board, review and approve the draft Findings of Fact supporting specific exemptions from competitive bidding, as presented in these evening's public hearing and listed above in this situation page.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2017
HILLSBORO SCHOOL DISTRICT PARENT ADVISORY COMMITTEE REPORT

SITUATION

The role of the Hillsboro School District's Parent Advisory Committee (HSD PAC) is to advise HSD staff members on matters concerning planning, developing, administering, and evaluating the District's parent engagement program, and to consequently make recommendations regarding State policies and guidelines, project proposals, and other matters of interest to the PAC.

Further, the PAC collaborates and consults with the District's Office of Federal Programs, which receives federal funds under the Every Student Succeeds Act (ESSA), in order to: 1) raise achievement for low-income and/or otherwise disadvantaged children; 2) provide access and opportunities for parent involvement; 3) increase family engagement in schools; and 4) enhance collaboration between educators and parents.

PAC members are selected from schools serving high concentrations of students who are eligible to receive services under federal programs. In order to ensure that the majority of the membership is representative of ESSA-funded programs, the responsibility of recommending members for appointment is delegated to the District's PAC or the parent advisory committee area from which the member is selected.

RECOMMENDATION

The Superintendent recommends that the Board of Directors listen to this report and ask any questions they may have.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
NORTHWEST REGIONAL EDUCATION SERVICE DISTRICT UPDATE

SITUATION

Lisa Poehlitz represents Hillsboro School District on the Northwest Regional Education Service District (NWRES D) Board of Directors. This evening, Director Poehlitz will provide an update on the work of the ESD.

RECOMMENDATION

The Superintendent recommends that the Board of Directors listen to this report and ask any questions they may have.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
DUAL CREDIT REPORT / CAREER TECHNICAL EDUCATION (CTE) REPORT

SITUATION

During the past four years, Hillsboro leaders have been collaborating in a formal process to create a shared vision, establish goals, and carry out action plans to create clear and viable pathways to career and post-secondary educational opportunities for all students. Using “collective impact” strategies, the Career & College Pathways Steering Committee has leveraged interagency partnerships to involve more students in career-related learning, college-level coursework, and support systems for financial aid and post-secondary planning.

Tonight’s report will update the Board on the current work to further expand Career & College Pathways since the passage of Measure 98, the passage of the Hillsboro School District capital construction bond, and the broadening of partnerships with industry and higher education partners.

RECOMMENDATION

The Superintendent recommends that the Board of Directors listen to this report and ask any questions they may have.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
INTER-DISTRICT TRANSFERS OVERVIEW AND INPUT –
OPEN ENROLLMENT UPDATE

SITUATION

Two pieces of legislation currently dictate how districts manage and process inter-district transfers: House Bill 3681 (Open Enrollment, 2011), and House Bill 2747 (Inter-District Transfers, 2013). Both processes attempt to foster choice and remove barriers for families who wish their students to attend school outside of their resident districts; however, the rules and timelines for the two processes are different.

The chart below compares specific attributes of each process:

	Open Enrollment (HB 3681)	Inter-District Transfers (HB 2747)
Board action	Must act before March 1 to announce participation and slots available	Must act to announce participation and slots available; can act multiple times, as long as no requests are pending
Timeline	March 1-31	District decision
Release from home district	Not required	Required, but based on slot availability / lottery
Length of transfer	Through completion of 12 th grade	District decision, must be applied consistently
Revocation	Not possible; the student is considered a resident of the new district; however, the student could be moved to another school within the new district	Possible for attendance and behavior; must be applied consistently
OSAA implications	9 th graders eligible; others not eligible for one year	None
Sunset	July 1, 2018 (may be extended one year in the 2018 short session)	None
Decision process	Lottery	Lottery
Sibling preference	Allowed	Allowed
Impact of mid-year move	No impact	Student allowed to remain in current district for remainder of school year

Hillsboro School District intends to participate in both processes in good faith, opening spots at schools that can accommodate additional enrollment. The District is currently conducting its priority process for in-district transfer requests, and will use that information to help determine the number and location of openings for the HB 3681 process in March. A recommendation will be brought forth at the February 27, 2018, Board meeting for approval.

A recommendation for the number and location of HB 2747 slots will be brought forth in April, so that the regular inter-district transfer process can begin in May.

RECOMMENDATION

The Superintendent recommends that the Board of Directors listen to this report and ask any questions they may have.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
LOCAL WELLNESS PROGRAM – ANNUAL ASSESSMENT

As a part of the Healthy, Hunger-Free Kids Act of 2010 (HHFKA), the District's Local Wellness Program is to be evaluated on a yearly basis. The purpose of this evaluation is to provide the Board of Directors, District staff, parents, and the community with information regarding ongoing objectives, and progress toward achieving the goals of the policy.

The yearly assessment of the Local Wellness Program is based on the following standards:

- 1) Nutrition Education and Promotion
- 2) Standards for Child Nutrition Programs and School Meals
- 3) Nutrition Standards for Competitive and Other Foods and Beverages
- 4) Physical Education and Other School-Based Activities
- 5) School Employee Wellness
- 6) Implementation, Evaluation, and Communication

1) Nutrition Education and Promotion

- The District's curriculum teaches a sequential, comprehensive, age-appropriate health education program at every grade level.
- Nutrition education is linked to the school food environment, and models making healthy food choices.
- Nutrition Services offers an interactive nutrition education presentation to students at the elementary level each school year.

2) Standards for Child Nutrition Programs and School Meals

- There is access to United States Department of Agriculture (USDA) breakfast and lunch programs at all schools, and school meals meet the USDA standards.
- The District protects the privacy of students who qualify for free and reduced-price meals.
- The School Nutrition Program encourages students to participate in the school meal program by providing meal information on the District website.
- The program offers a variety of fresh fruits and vegetables, and menu choices that are appealing to students.
- Access to free drinking water is available throughout the school day.
- Students have adequate time to eat at each school.
- Smart Snack standards are implemented in the schools, and a link to the standards is available on the Nutrition Services website.

3) Nutrition Standards for Competitive and Other Foods and Beverages

- The District is in compliance with the Smart Snacks and Beverage Regulations that address all foods sold to students during the school day.

4) Physical Education and Other School-Based Activities

- The District has a written curriculum for physical education for grades K-12 that aligns with the state physical education standards; the curriculum addresses times-per-week and teacher-to-student ratio, and encourages continued physical activity away from school.
- The District promotes community-based activities that foster healthy eating and create environments that promote physical activity.
- Educational workshops, health screenings, and information related to healthy lifestyle, food choices, and physical activity may be offered to families.
- Schools participated in Alliance for a Healthier Generation, Educational Theatre Program, Fire Up Your Feet, Oregon Active Schools, Playworks, Health Career Scholarships, Fuel Up to Play 60, and the Oregon Dairy Council Grant.
- Five District schools made the Alliance for a Healthier Generation's 2017 list of America's Healthiest Schools by achieving the Bronze Award for making changes that promote healthier eating and physical activity for students and staff.

5) School Employee Wellness

- The District promotes and reinforces messages on healthy lifestyles. The physical and mental health of school employees is essential to sponsoring and protecting the health of students, and helps support academic success.

6) Implementation, Evaluation, and Communication

- The District will provide a yearly assessment of the Local Wellness Program, and provide an annual report to the Board of Directors. The assessment will provide information to meet ongoing wellness goals for students and staff.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review this report and ask any questions they may have.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
FINANCIAL REPORT

Business Office – General Update. The Business Office is focused on closing the 2017 calendar year and moving forward into the new calendar year. As a result of the construction bond measure being passed on November 7, some restructuring is taking place in the Business Office, based on identified strengths and opportunities to continue providing excellent, relevant service to District stakeholders. During the transition, the Business Office will continue to focus on three operating standards that have been developed through training with the Center for Education Leadership:

1. Start from “why”
2. We exist to serve
3. We continuously seek feedback to ensure quality service

Finance Team – Accounts Payable, Banking, and Student Body Accounting. The finance team (three staff members) is developing systems and account structures to track bond proceeds and expenditures, in addition to processing payables. The finance team has established strong partnerships and gained access to resources and organizational supports that will help determine the best use of both general fund and bond resources. In order to maximize investment earnings from bond sale proceeds, the District has hired financial advisors and established new banking partnerships. Finance Manager Jeff Jones is leading the finance time while Finance Manager Koral Unger is on a leave of absence.

Finance Team – Financial Reporting and Grants. In addition to supporting the Finance team as described above, Finance Manager Jeff Jones continues to work with Student Services on the High Cost Disability Reimbursement report. In 2017, the Oregon Department of Education used \$18,000,000 to reimburse school districts for a portion of the costs for each student whose needs exceed \$30,000 per year. The District must identify and document costs at a student level in order to qualify for the reimbursement, which requires reconciliation of the services provided to each student and the associated costs.

Payroll Team and Employee Benefits. Payroll supervisor Kim Grannis is leading the Payroll team through the end-of-year reporting, including data for W2 and Affordable Care Act forms. Payroll also supports District staff by completing verification of employment requests for mortgages and personal loans, processing leave transfers, and providing salary information for Free Applications for Federal Student Aid. Payroll continues to work closely with Human Resources staff on the implementation of electronic personnel action requests (ePARs) and position control.

Employee Benefits Supervisor Lynette Coffman and the Benefits team (three staff members) are monitoring the recent legislative changes to the Oregon Educator Benefit Board (OEBB) that may impact staff and the insurance pools. A few changes include the elimination of the “Opt-out” function for employee benefits, as well as the elimination of the double-coverage option for staff who have spouse or partners with OEBB or Public Employees Benefit Board (PEBB) benefits plans. As implementation details are released, the Benefits team is working with representatives of the licensed and classified employee unions during the Benefits Advisory Group meetings.

Workers’ Compensation Report. In order to ensure accurate reports to the Board, and allow adequate time for the claims submitted each month to be fully processed, there is a one-month delay in reporting workers’ compensation claims to the Board. The table below includes workers’ compensation claims reported in November 2017.

The District received 13 workers’ compensation claims in November 2017. As of November 30, 2017, there were 59 open claims; 33 were for medical costs only, and 26 included time loss. Seven employees were on modified work plans during November.

Workers’ Compensation Reports			
	2015-16	2016-17	2017-18
July	3	3	3
August	2	6	2
September	10	7	6
October	8	15	18
November	7	17	13
December	13	7	
January	11	5	
February	11	11	
March	12	12	
April	10	13	
May	8	10	
June	9	14	
Yearly Total:	104	120	42

Student Incident Report. There is a one-month delay in reporting student incidents to the Board, in order to allow adequate time to ensure that these reports are complete and accurate. There were 191 student incidents reported in November.

Student Incident Reports			
	2015-16	2016-17	2017-18
July	0	1	8
August	6	14	1
September	181	249	267
October	243	291	298
November	160	235	191
December	43	104	
January	134	150	
February	177	220	
March	165	228	
April	183	216	
May	175	261	
June	68	179	
Yearly Total:	1,467	2,148	765

Vehicle Accidents. There is a one-month delay in reporting vehicle accidents to the Board, in order to allow adequate time to ensure that monthly reports are accurate and complete. There were three bus accidents in November.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
MONTHLY FINANCIAL REPORT - Actual as of December 31, 2017

	July Actual	August Actual	September Actual	1st Quarter Actual	October Actual	November Actual	December Actual	2nd Quarter Actual	Fiscal YTD 2017-18	Budget 2017-18	% of 2017-18 Budget Expended	2016-17 Fiscal YTD	% of 2016-17 Budget Expended
Revenues													
Taxes	\$0.00	\$253,268.33	\$73,309.79	\$326,578.12	\$61,815.36	\$65,085,743.73	\$3,037,289.79	\$68,184,848.88	\$68,511,427.00	\$70,221,745.00	97.56%	\$64,585,768.52	96.07%
Interest	\$37,093.11	\$46,903.66	\$45,716.11	\$129,712.88	\$39,201.51	\$54,350.25	\$110,022.00	\$203,573.76	\$333,286.64	\$404,635.00	82.37%	\$207,583.09	67.41%
Local Sources	\$152,378.28	\$22,845.94	\$40,307.26	\$215,531.48	\$32,519.58	\$32,359.34	\$31,918.34	\$96,797.26	\$312,328.74	\$1,790,759.00	17.44%	\$330,080.43	17.42%
Total Local	\$189,471.39	\$323,017.93	\$159,333.16	\$671,822.48	\$133,536.45	\$65,172,453.32	\$3,179,230.13	\$68,485,219.90	\$69,157,042.38	\$72,417,139.00	95.50%	\$65,123,432.04	93.79%
County / ESD	\$0.00	\$0.00	\$1,034,848.32	\$1,034,848.32	\$301,899.72	\$258,712.08	\$258,712.08	\$819,323.88	\$1,854,172.20	\$3,554,545.00	52.16%	\$2,315,392.52	71.16%
State Sources	\$21,476,015.00	\$10,819,309.48	\$10,731,488.00	\$43,026,812.48	\$10,731,488.00	\$11,017,010.55	\$10,731,857.00	\$32,480,355.55	\$75,507,168.03	\$130,042,910.00	58.06%	\$73,012,730.44	58.72%
Federal Sources	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0.00%
Other Sources	\$5,377.30	\$297.48	\$11.24	\$5,686.02	\$851.24	\$2,884.30	\$564.76	\$4,300.30	\$9,986.32	\$1,000,000.00	0.00%	\$1,321.30	0.00%
Beginning Balance	\$12,985,264.72	\$0.00	\$0.00	\$12,985,264.72	\$0.00	\$0.00	\$0.00	\$0.00	\$12,985,264.72	\$11,598,462.00	111.96%	\$14,558,454.24	106.59%
Total Revenue	\$34,656,128.41	\$11,142,624.89	\$11,925,680.72	\$57,724,434.02	\$11,167,775.41	\$76,451,060.25	\$14,170,363.97	\$101,789,199.63	\$159,513,633.65	\$218,613,056.00	72.97%	\$155,011,330.54	73.57%
Expenditures													
Instruction													
Salaries	\$11,382.45	\$118,253.65	\$6,665,907.05	\$6,795,543.15	\$6,731,492.92	\$6,719,473.39	\$6,682,837.95	\$20,133,804.26	\$26,929,347.41	\$77,955,932.49	34.54%	\$25,542,597.39	32.91%
Benefits	\$981.42	\$32,719.81	\$3,328,910.06	\$3,362,611.29	\$3,583,293.41	\$3,484,085.08	\$3,508,384.75	\$10,575,763.24	\$13,938,374.53	\$38,646,081.96	36.07%	\$11,691,964.04	32.22%
Purchased Service	\$386,713.96	\$113,415.07	\$600,384.36	\$1,100,513.39	\$738,827.42	\$344,589.33	\$263,628.78	\$1,347,045.53	\$2,447,558.92	\$4,203,855.40	58.22%	\$3,134,726.26	52.51%
Supplies / Materials	\$73,514.53	\$71,291.71	\$310,787.15	\$455,593.39	\$203,134.71	\$191,013.20	\$83,839.82	\$477,987.73	\$933,581.12	\$1,914,845.70	48.75%	\$1,008,029.95	70.03%
Capital Purchases	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$3,000.00	0.00%
Other	\$31,949.96	\$3,505.00	\$46,562.78	\$82,017.74	\$13,576.00	\$55,807.50	\$2,637.60	\$72,021.10	\$154,038.84	\$199,392.45	77.25%	\$123,421.40	67.72%
Total Instruction	\$504,542.32	\$339,185.24	\$10,952,551.40	\$11,796,278.96	\$11,270,324.46	\$10,794,968.50	\$10,541,328.90	\$32,606,621.86	\$44,402,900.82	\$122,920,108.00	36.12%	\$41,503,739.04	34.16%
Support Services													
Salaries	\$1,633,594.23	\$1,720,457.70	\$3,368,713.66	\$6,722,765.59	\$3,271,373.43	\$3,279,371.11	\$3,176,621.39	\$9,727,365.93	\$16,450,131.52	\$39,746,401.28	41.39%	\$16,597,867.11	43.63%
Benefits	\$927,612.52	\$916,009.17	\$1,862,207.03	\$3,705,828.72	\$1,962,423.87	\$1,859,208.49	\$1,867,145.06	\$5,688,777.42	\$9,394,606.14	\$24,893,304.97	37.74%	\$8,496,895.85	46.13%
Purchased Service	\$376,525.73	\$1,927,186.03	\$721,957.14	\$3,025,668.90	\$609,709.55	\$1,070,262.39	\$1,494,650.77	\$3,174,622.71	\$6,200,291.61	\$14,973,635.57	41.41%	\$6,704,053.93	49.62%
Supplies / Materials	\$419,313.34	\$391,955.04	\$699,687.74	\$1,510,956.12	\$1,336,327.32	\$294,781.98	\$261,699.58	\$1,892,808.88	\$3,403,765.00	\$3,407,810.16	99.88%	\$3,397,228.91	51.16%
Capital Purchases	\$5,933.00	\$40,570.00	\$250,732.02	\$297,235.02	\$60,561.99	-\$330,207.83	\$78,675.00	-\$190,970.84	\$106,264.18	\$101,962.00	104.22%	\$271,028.58	108.39%
Other	\$20,063.45	\$1,159,038.07	\$9,503.43	\$1,188,604.95	\$65,480.14	\$9,398.34	\$5,400.69	\$80,279.17	\$1,268,884.12	\$1,625,907.02	78.04%	\$1,187,667.55	85.66%
Total Support	\$3,383,042.27	\$6,155,216.01	\$6,912,801.02	\$16,451,059.30	\$7,305,876.30	\$6,182,814.48	\$6,884,192.49	\$20,372,883.27	\$36,823,942.57	\$84,749,021.00	43.45%	\$36,654,741.93	46.85%

<i>Expenditures (continued)</i>	July Actual	August Actual	September Actual	1st Quarter Actual	October Actual	November Actual	December Actual	2nd Quarter Actual	Fiscal YTD 2017-18	Budget 2017-18	% of 2017-18 Budget Expended	2016-17 Fiscal YTD	% of 2016-17 Budget Expended
Community Services													
Salaries	\$14,305.41	\$14,305.41	\$39,319.49	\$67,930.31	\$28,188.80	\$38,948.27	\$28,917.44	\$96,054.51	\$163,984.82	\$316,891.23	51.75%	\$143,797.95	54.42%
Benefits	\$6,965.64	\$6,966.32	\$19,141.17	\$33,073.13	\$16,111.85	\$18,795.39	\$17,151.16	\$52,058.40	\$85,131.53	\$161,434.07	52.73%	\$58,522.31	53.25%
Purchased Service	\$238.20	\$0.00	\$6,438.76	\$6,676.96	\$13,692.18	\$22.00	\$0.00	\$13,714.18	\$20,391.14	\$88,964.02	22.92%	\$50,021.55	138.68%
Supplies / Materials	\$71.45	\$1,369.59	\$0.00	\$1,441.04	\$1,468.42	\$0.00	\$0.00	\$1,468.42	\$2,909.46	\$6,494.14	44.80%	\$7,258.94	238.53%
Capital Purchases	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0.00%
Other	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$919.52	0.00%	\$700.00	0.00%
Total Community Services	\$21,580.70	\$22,641.32	\$64,899.42	\$109,121.44	\$59,461.25	\$57,765.66	\$46,068.60	\$163,295.51	\$272,416.95	\$574,703.00	47.40%	\$260,300.75	62.75%
Capital Projects													
Purchased Service	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0.00%
Capital Projects	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0.00%
Total Capital Projects	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0.00%
Debt Service Payment	\$0.00	\$0.00	\$29,209.42	\$29,209.42	\$0.00	-\$610.04	-\$115.93	-\$725.97	\$28,483.45	\$528,500.00	5.39%	\$38,205.05	4.62%
Transfers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	0.00%
Contingency	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,840,724.00	0.00%	\$0.00	0.00%
Total Expenditures	\$3,909,165.29	\$6,517,042.57	\$17,959,461.26	\$28,385,669.12	\$18,635,662.01	\$17,034,938.60	\$17,471,474.06	\$53,142,074.67	\$81,527,743.79	\$218,613,056.00	37.29%	\$78,456,986.77	37.24%

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
FIRST READING – POLICY JHC:
STUDENT HEALTH SERVICES AND REQUIREMENTS

SITUATION

During the November 14, 2017, Board meeting, Board members discussed input received from community members who have concerns regarding policy JHC: Student Health Services and Requirements, and they agreed to add policy JHC to an upcoming Board meeting agenda for review and discussion. During the December 12 and January 9 Board meetings, Board members discussed potential policy revisions, with a focus on legal requirements regarding services that must be provided by school-based health centers. A key point of the discussions was the language that currently prohibits school-based health center staff from prescribing contraceptives.

During tonight's meeting, Board members will review the first reading of policy revisions that were drafted during the January 9 discussion.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review the first reading of policy JHC: Student Health Services and Requirements.

Student Health Services and Requirements

Although the District's primary responsibility is to educate students, students' health and general welfare are also a major Board concern. The Board believes school programs should be conducted in a manner that protects and enhances student and employee health and is consistent with good health practices.

The nurse(s) employed by the District shall be licensed to practice as a registered nurse or nurse practitioner in Oregon, and will function as an integral member(s) of the instructional staff, serving as a resource person(s) to teachers in securing appropriate information and materials on health-related topics.

School districts are required to ensure that they have access to a sufficient level of nursing services to provide:

1. One registered nurse or school nurse for every 125 medically fragile students;
2. One registered nurse or school nurse or one licensed practical nurse under the supervision of a registered nurse or school nurse for each nursing-dependent student; and
3. One registered nurse or school nurse for every 225 medically complex students.

Districts may use the most cost-effective means available to meet the above requirements, and they may satisfy the nursing requirements for medically complex students by providing personnel trained and supervised by a registered nurse or school nurse, and complying with the requirements of ORS 678.010 to 678.448.

The District shall maintain a prevention-oriented health services program which provides:

1. Pertinent health information on the students, as required by Oregon statutes or regulations;
2. Health appraisal to include screening for possible vision or hearing problems;
3. Health counseling for students and parents when appropriate;
4. Health care and first-aid assistance that is appropriately supervised and isolates the sick or injured child from the student body;
5. Control and prevention of communicable diseases, as required by the Oregon Department of Human Services, Health Services, and the county health department;

6. Assistance for students in taking prescription and/or nonprescription medication according to established District procedures;
7. Services for students who are medically fragile or have special health care needs;
8. Integration of school health services with school health education programs.

The Board directs its District health staff to coordinate with health personnel from other public agencies in matters pertaining to health instruction or the general health of students and employees.

In accordance with the requirements of the ~~No Child Left Behind Act of 2001~~ **Every Student Succeeds Act of 2015 (ESSA)**, the District recognizes its responsibility to notify parents in advance of any nonemergency, invasive physical examination¹ or screening that is required as a condition of attendance, administered and scheduled by the school in advance, and not necessary to protect the immediate health and safety of the student or other students. Notification will be provided at least annually at the beginning of the school year or when enrolling students for the first time in school and will include the specific or approximate dates during the school year when such activities are scheduled or expected to be scheduled.

School-based health clinics will provide **all** health services in accordance with Oregon laws and the most current version of the Oregon School-Based Health Centers Standards for Certification ~~best medical practices. School-based health providers shall observe the District's Health curriculum and the high school learning targets in Sexual Health and the Prevention and Control of Disease, which are aligned with the Oregon State Standards in Health Education. The District promotes abstinence as the safest, most effective method of protection from HPV, STD/HIV, Hepatitis B and C, and pregnancy.~~

~~School-based health providers in the Hillsboro School District may also provide accurate and balanced information regarding the proper use and effectiveness of any contraceptive or disease reduction method, but will not prescribe or dispense contraceptives.~~

Procedures shall be developed and implemented to carry out this policy. All District employees will be apprised of their responsibilities in this area. Parents shall have the opportunity to request that their students be exempt from participation in vision or hearing screening. The District will abide by those requests.

END OF POLICY

Legal Reference(s):

[OAR 581-022-0705](#)

[OAR 581-022-1420](#)

[OAR 581-022-1440](#)

¹The term "invasive physical examination," as defined by law, means any medical examination that involves the exposure of private body parts, or any act during such examination that includes incision, insertion, or injection into the body, but does not include a hearing, vision or scoliosis screening. The term does not include any physical examination or screening that is permitted or required by state law, including physical examinations or screenings that are permitted without parental notification.

Protection of Pupil Rights, 20 U.S.C. § 1232h (2006~~15~~); Student Rights in Research, Experimental Programs and Testing, 34 C.F.R. Part 98 (2006~~15~~).

Every Student Succeeds Act of 2015, 20 U.S.C. § 8548.

Family Education Rights and Privacy Act, 20 U.S.C. § 1232g.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
FIRST READING – POLICY FF: NAMING FACILITIES

SITUATION

With the approval of the District's capital construction bond, the review of policy FF: Naming Facilities is timely. Recommended revisions are being presented to the Board this evening for first reading.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review the first reading of policy FF: Naming Facilities.

Naming Facilities

The Superintendent shall develop and recommend a process for naming facilities. The process may include a committee representing students, parents, staff, and the community.

The Board has the final decision in naming schools.

The Board will stipulate specific criteria when beginning a name selection process and may consider names associated with the community; names of historical persons, places, or events; concepts which would have long-term significance for students and the community; or reflect community circumstances and values specific to that time. Names of persons who are living or have been deceased less than twenty years will not be considered. The name should be easily identifiable with the school and not be in conflict with other names in the area.

Naming of Portions of Existing Facilities

Under special circumstances and recommendation by the Superintendent, the Board of Directors may name portions of an existing facility. Such circumstances may include, but are not limited to, persons or businesses honored as benefactors to the school or school district, and memorial dedications in honor of a deceased person making a substantial material or other kind of contribution to the community. Portions of a facility can include, but are not limited to, rooms, auditoriums, gymnasiums, athletic fields, and libraries. The process for selecting a name must comply with this policy and accompanying regulations.

In recognition of the efforts of those involved in the project to construct new facilities, a plaque containing the following information shall be attached to each new facility:

1. School or facility name;
2. Completion or dedication date;
3. Name of Board members as of the Board-approved construction date;
4. Superintendent as of the Board-approved construction date;
5. Principal at the opening of a school; and
6. Name of the architect, contractor, and other District project leaders.

END OF POLICY

Legal Reference(s):

[ORS 332](#).107

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
FIRST READING – POLICY DDB: NATIVE AMERICAN IMPACT AID FUNDS; AND
POLICY DDC: NATIVE AMERICAN EDUCATION PROGRAM GRANTS: TITLE VI
INDIAN EDUCATION

SITUATION

School districts that receive federal funds pursuant to Title VII for children residing on American Indian lands are required to adopt policy DDB: Native American Impact Aid Funds; and districts that receive federal funds to support Native American Education Program efforts are required to adopt policy DDC: Native American Education Program Grants: Title VI Indian Education. Oregon School Boards Association (OSBA) has updated these policies to align with the new requirements of the Every Student Succeeds Act of 2015 (ESSA). Because the District receives federal funding for these programs, the policies are being presented to the Board of Directors for first reading.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review the first reading of policy DDB: Native American Impact Aid Funds, and policy DDC: Native American Education Program Grants: Title VI Indian Education.

Native American Impact Aid Funds

The district may claim children residing on American Indian lands for the purpose of receiving federal funds pursuant to the Title VII - Impact Aid laws.

The district ensures:

1. The equal participation of American Indian children in the educational programs and activities of the district on the same basis as all other district students;
2. Parents of such children and American Indian tribes are afforded an opportunity to present their views on such programs and activities, including an opportunity to make recommendations on the needs of those children and how the district may help such children realize the benefits of district programs and activities;
3. Parents and American Indian tribes are consulted and involved in planning and developing such programs and activities;
4. Relevant applications, evaluations and program plans are disseminated to the parents and American Indian tribes;
5. Parents and American Indian tribes are afforded an opportunity to present their views to the district regarding the district's general educational program.

The policy will be reviewed annually and modified as needed.

Documentation demonstrating district compliance with the requirements of this policy and law will be maintained in the district office.

END OF POLICY

Legal Reference(s):

Every Student Succeeds Act of 2015, 20 U.S.C. § 7704 (2017).
Special Provisions for Local Educational Agencies that Claim Children Residing on Indian Lands, 34 C.F.R. §§ 222.90 - 222.122 (2006).

Native American Education Program Grants - Title VI Indian Education

The district may submit a grant application for the purpose of receiving federal funds to support Native American Education Program efforts.

The application should include a description of the comprehensive program for meeting the language and cultural needs of American Indian children, that includes:

1. How the program will offer programs and activities to meet the culturally related academic needs of American Indian students;
2. Is consistent with the State, tribal and local plans;
3. Includes academic content and student academic achievement goals for identified children, and benchmarks for attaining goals that are based on the Oregon Department of Education's (ODE) academic standards and content and student academic achievement standards adopted under Title I for all students;
4. Explains how Federal, State and local programs, especially programs carried out under Title I, will meet the needs of American Indian students;
5. Demonstrates how funds will be used for the activities described above;
6. Describes the professional development opportunities that will be provided, as needed, to ensure that:
 - a. Teachers and other school professionals who are new to the American Indian community are prepared to work with American Indian children; and
 - b. All teachers involved in programs are properly trained to carry out such programs; and
7. Describes how the district will:
 - a. Periodically assess the progress of all American Indian children enrolled in district schools, including American Indian children who do not participate in programs assisted;
 - b. Provide results of each assessment to the committee described below, to the community served by the district and to the American Indian tribes whose children are served by the district; and
 - c. Provide communication of responses to findings of any previous assessments, similar to the assessments described above.
8. Describes the process the district used to meaningfully collaborate with American Indian tribe(s) located in the community in a timely, active and ongoing manner in the

development of the comprehensive program and the actions taken as a result of such collaboration.

The district programs and activities shall be developed in consultation with and the written approval of a committee consisting of parents of American Indian children and teachers, and when appropriate, American Indian students at the secondary level. A majority of committee members shall be parents of American Indian children.

END OF POLICY

Legal Reference(s):

Every Student Succeeds Act of 2015, 20 U.S.C. § 7424.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
FIRST READING – POLICY GBI: GIFTS AND SOLICITATIONS

SITUATION

Revisions to policy GBI: Gifts and Solicitations are based on recommendations from Oregon School Boards Association (OSBA) to address situations wherein school staff members are offered gifts or wish to secure additional materials for their classrooms or students via internet-sourced crowdfunding or similar fund-raising methods.

RECOMMENDATION

The Superintendent recommends that the Board of Directors review the first reading of policy GBI: Gifts and Solicitations.

Hillsboro School District 1J

Code: **GBI**
Adopted: 7/96
Readopted: 11/25/08; _____

Gifts and Solicitations

Individual employees need to be accountable for maintaining integrity and avoid accepting anything of material value* offered by another for the purpose of influencing their professional judgment, including things from companies or organizations doing business with the district.

Students and their parents should not be encouraged to give gifts to teachers and other district employees. Staff members will not accept items of materials value* from individual students. Instead, the Board welcomes, as appropriate, the writing of letters by students to staff members expressing gratitude and appreciation.

Individual employees ~~will limit~~ ~~refrain from~~ giving gifts¹ to staff members who exercise any direct or indirect administrative or supervisory jurisdiction over them. Collecting money for group gifts is discouraged except in special circumstances such as bereavement, serious illness or for retirement gifts. Staff-initiated “sunshine funds” are exempt from this policy.

No staff member may solicit funds in the name of the school or district through the use of, including but not limited to, internet-sourced crowdfunding or other similar types of fund raising without the approval of the principal/superintendent or designee.

~~All employees are prohibited from accepting things of material value from companies or organizations doing business with the District. {moved to paragraph 1}~~

No organization may solicit funds from staff members within the schools, nor may anyone distribute flyers or other materials related to fund drives through the schools without the ~~Superintendent's / designee's~~ approval. Staff members may not be made responsible, or assume responsibility, for collecting money or distributing any fund-drive literature within the schools without the ~~approval of the principal / Superintendent's or designee approval.~~

Upon receiving authorization from the principal and consent of the person with whom they wish to confer, solicitors and/or consultants may be allowed to meet with a staff member in a school building prior to or after duty hours or during the staff person's lunch period. Preparation periods shall not be used for the purpose of meeting with solicitors or consultants.

The soliciting of staff by sales people, other staff or agents during on-duty hours is prohibited. Any solicitation should be reported at once to the principal or supervisor. Advertising is not allowed in the building without the approval of the principal/superintendent or designee.

END OF POLICY

(*Material Value is defined as \$50 from a single source in a single year.)

¹“Gift” means something of economic value given to a public official or the public official's relative or household member without valuable consideration of equivalent value, including the full or partial forgiveness of indebtedness, which is not extended to others who are not public officials or the relatives or household members of public officials on the same terms and conditions; and something of economic value given to a public official or the public official's relative for valuable consideration less than that required from others who are not public officials. See ORS Chapter 244 for gift definition exceptions.

Gifts and Solicitations - GBI

1-2

Legal Reference(s):

[ORS 244](#).010 to -244.400
[ORS 339](#).880

[OAR 584-020](#)-0000 to -0045
[OAR 199-005](#)-0005 to -199-020-0020

Cross Reference(s):

BBF - Board Member Standards of Conduct
DJG - Vendor Relations
GBC - Staff Ethics
KH - Public Gifts to the District
KI/KJ - Public Solicitation/Advertising in District Facilities
KJA - Materials Distribution

HILLSBORO SCHOOL DISTRICT BOARD OF DIRECTORS—MINUTES
December 12, 2017
District Administration Center, 3083 NE 49th Place, Hillsboro, Oregon

DRAFT

1. **WORK SESSION**

Board Present:

Kim Strelchun, Vice Chair
Wayne Clift
Martin Granum
Erika Lopez
Jaci Spross
Mark Watson*

*on speaker phone

Staff Present:

Mike Scott, Superintendent
Travis Reiman, Assistant Superintendent, Academic Services
Dayle Spitzer, Assistant Superintendent, School Performance
Kona Lew-Williams, Chief Human Resources Officer
Adam Stewart, Chief Financial Officer
Michelle Morrison, Director, Business Services
Beth Graser, Director, Communications
Val Bokma, Assistant to the Board
Diana Kleintob, Technology Support

Board Vice Chair Kim Strelchun called the meeting to order at 5:16 PM, and announced that Board Chair Lisa Allen was unable to attend the meeting, and Director Mark Watson would be attending via speaker phone.

a. Discuss Process and Timeline for Filling Board Vacancy

Board members discussed the process and timeline for filling the vacant position on the Board. They approved the following process and timeline, which will be posted on the District website:

12/12/17 Board Meeting	• The Board determines a process and timeline for filling the vacant position • The Board officially accepts the resignation and declares the vacancy • The Board votes to approve the process
12/13/17	• A news release will be sent to the papers • Application information will be posted on the District website
12/13/17 – 1/16/18	• Applications (paper and email) will be received by the Board secretary and date-stamped ○ Eligible applicants must be legally registered voters and residents within the District for one year immediately preceding the appointment ○ Applicants cannot be current Hillsboro School District staff members
1/16/18	Applications must be received by the Board Secretary by 5:00 PM on January 16, 2018
1/9/18 Board Meeting	The Board will discuss the interview questions
1/17/18 – 1/23/18	Board members will individually screen applications

1/23/18 Board Meeting	• The Board will finalize the interview questions • The Board will discuss the screening scores and identify the applicants to be interviewed ○ Each Board member will identify their top three candidates and briefly explain their reasons ○ The number of candidates to be interviewed will depend on the number of applicants
1/24/18	The Board secretary will inform applicants of the Board's decision, and schedule interviews with the selected candidates
2/13/18 Board Meeting	• The Board will conduct interviews • The Board will vote to select the candidate • The Board will appoint the new Board member and administer the oath of office

- b. Discuss Revisions to Policy JHC: Student Health Services and Requirements
Board members discussed potential revisions to policy JHC: Student Health Services and Requirements. A key point of the discussion was whether the language prohibiting school-based health center staff from prescribing contraceptives should be revised. Board members asked staff to obtain clarification regarding legal requirements and to research policy language that other districts have adopted regarding this matter. The Board is tentatively scheduled to review and discuss potential revisions to policy JHC on January 9, review a first reading of the policy on January 23, and policy revisions on February 27.
- c. Budget Update / Bond Update / Present Bond Oversight Committee Plan
Chief Financial Officer Adam Stewart provided an update on the December 12 bond sale, and presented a draft process for forming a Citizens' Bond Oversight Committee, with an outline of the work to be performed by the committee. (The draft document is included in the Board meeting packet.) Based on the Board's input, the timeline for appointing members to the committee will be adjusted so that selection and appointment occurs after the Board member vacancy is filled. The application and timeline will be posted on the District's website.
- d. Public Employees Retirement System (PERS) Update
Director of Business Services Michelle Morrison presented an overview of the Public Employees Retirement System (PERS) and its impact on the District's budget.
- e. Legislative Priorities Input / Update
The Board reviewed the legislative priorities that were adopted for the 2017 full session, and discussed priorities for the 2018 short session and current legislative activity.
- f. Board Discussion Time
1) Process for First Reading of Policies
Superintendent Mike Scott presented a suggestion, discussed recently by the District's Policy Committee, that policy first readings continue to be scheduled on Board meeting agendas and included in Board meeting packets, and that staff members continue to be present at Board meetings to answer any questions that may arise regarding the policy revisions, but that staff members no longer present information that is already included in the Board meeting packet. This would improve the efficiency of processing policy updates, while ensuring that the first readings of policies continue to be available to the public.

g. Recess Board Meeting

The meeting was recessed at 6:43 PM.

REGULAR SESSION

Board Present:

Kim Strelchun, Vice Chair
Wayne Clift
Martin Granum
Erika Lopez
Jaci Spross
Mark Watson*
*on speaker phone

Others Present:

Larry Grant,
Grove, Mueller &
Swank, PC
Brian Pendergrass, HHS
Kori Shackelford, HHS
Paul Lardy, LHS
Kevin Crabtree, LHS
Todd Patterson, GHS
Chris Winikka, CHS
Terry Alexander, HHS
Devin Hunter, HCU
Jill Golay, HEA

Staff Present:

Mike Scott, Superintendent
Travis Reiman, Assistant Superintendent, Academic Services
Dayle Spitzer, Assistant Superintendent, School Performance
Kona Lew-Williams, Chief Human Resources Officer
Adam Stewart, Chief Financial Officer
Nathan Roedel, Executive Director, Nutrition Services
Casey Waletich, Executive Director, Facilities, Safety, Operations
Beth Graser, Director, Communications
Michelle Morrison, Director, Business Services
Leah McCarthy, Risk Manager
Jeff Jones, Finance Manager
Val Bokma, Assistant to the Board
Martha Méndez Bolaños, Bilingual Interpreter
Gaspar Lopez Lopez, Bilingual Interpreter
Diana Kleintob, Technology Support

2. Call to Order and Flag Salute

Board Vice Chair Kim Strelchun reconvened the meeting at 7:00 PM and led the Pledge of Allegiance. Board Chair Lisa Allen was unable to attend the meeting. Director Mark Watson attended via speaker phone.

3. RECOGNITION / PRESENTATION

Recognition and Appreciation – Outgoing Board Member Wayne Clift

Superintendent Mike Scott and Board members recognized Director Wayne Clift for his years of leadership and service on the Hillsboro School District Board of Directors, and expressed support for his decision to continue the work of education as a teacher. Director Clift's resignation from the Board of Directors was effective on December 12, following the adjournment of the Board meeting.

4. Approval of Agenda

Director Martin Granum MOVED, SECONDED by Director Erika Lopez, to approve the agenda. The MOTION CARRIED (6-0).

5. Audience Time

The following audience members addressed the Board:

- Joe Everton addressed the Board regarding proposed revisions to policy BDDH and BDDH-AR: Public Comments at Board Meetings
- Erika Probst addressed the Board regarding school-based health center services

6. REPORTS AND DISCUSSION

a. First Reading – 2017-18 Drug, Alcohol, and Tobacco Prevention Plan

Casey Waletich, Executive Director of Facilities, Safety, and Operations, presented the first reading of the 2017-18 Drug, Alcohol, and Tobacco Prevention Plan. The plan is included in the Board meeting packet.

b. Annual Safety Report

Executive Director Casey Waletich presented the annual safety report. The report is included in the Board meeting packet.

c. First Reading – New High School Courses

Assistant Superintendent Travis Reiman, Citizens' Curriculum Advisory Committee (CCAC) Chair Linda Osuna, CCAC Vice Chair Rebecca Nelson, and sponsoring teachers presented the following new course proposals for first reading:

- 1) Bioscience Technologies – Brian Pendergrass (Hillsboro High School)
- 2) Veterinary Science Pathway – Kori Shackelford (Hillsboro High School)
- 3) Sustainable Agriculture 1 and 2 – Paul Lardy (Liberty High School)
- 4) Sustainable Design 1 and 2 – Todd Patterson (Glencoe High School)
- 5) Basic Construction and Advanced Construction – Kevin Crabtree (Liberty High School)
- 6) Computer Game Programming 1, 2, and 3 – Chris Winikka (Century High School) and Terri Alexander (Hillsboro High School)
- 7) Computer Science Principles – Terry Alexander (Hillsboro High School)

The course proposals are included in the Board meeting packet. They are scheduled to be presented to the Board for approval on January 23, 2018, and implemented in the 2018-19 school year.

d. Division 22 Assurances

Assistant Superintendent Travis Reiman presented the required annual report on the District's compliance with the Division 22 Standards for Public Elementary and Secondary Schools, stating that the Hillsboro School District assures compliance with all associated laws and regulations, with the exception of curriculum adoption. He explained that, due to budgetary restrictions, curriculum has not been adopted on cycle in several content areas, but instruction in all content areas aligns with the required standards.

e. Annual Risk Management Report

Chief Financial Officer Adam Stewart introduced District Risk Manager Leah McCarthy and presented the annual risk management report. The report is included in the Board meeting packet.

f. Annual Support Services Report

Chief Financial Officer Adam Stewart presented the annual support services report, which includes information regarding the Facilities and Maintenance, Nutrition Services, and Transportation Services departments. The report is included in the Board meeting packet.

g. Strategic Plan Goals Update

Assistant Superintendent Travis Reiman presented a progress update on the SMART goals that were identified for year two of the District's Strategic Plan. The 2017-18 work plan and SMART goals updates are posted on the District website.

h. Financial Report

Chief Financial Officer Adam Stewart presented the monthly financial report. Superintendent Mike Scott announced that, effective January 1, Chief Financial Officer Stewart will be moving into a new role as the District's Capital Projects Officer, and Director of Business Services Michelle Morrison will become the Chief Financial Officer.

The financial report is included in the Board meeting packet.

e. Policies—First Reading

The following policies were presented for first reading, and are included in the Board meeting packet. If no public comments or questions are received regarding these policies during the review period, they will be placed on the consent agenda for approval during the January 23 Board meeting.

- 1) Policy JEA: Compulsory Attendance
(presented by Assistant Superintendent Dayle Spitzer)
- 2) Policy IKF: Graduation Requirements
(presented by Assistant Superintendent Dayle Spitzer)
- 3) Policy CBA: Qualifications and Duties of the Superintendent;
Policy CBG: Evaluation of the Superintendent; and
CBG-AR: Superintendent Evaluation Form (delete)
(presented by Superintendent Mike Scott)

7. CONSENT AGENDA

Consent agenda items are distributed to Board members in advance for study, and enacted with a single motion.

Director Jaci Spross MOVED, SECONDED by Director Martin Granum, to approve the Consent Agenda as printed. The MOTION CARRIED (6-0).

Consent Agenda items were as follows:

- a. Approve Minutes of November 14, 2017, Board Meeting
- b. Approve Minutes of November 28, 2017, Board Meeting
- c. Approve Routine Personnel Matters
- d. Accept Donations
- e. Adopt Planning Calendar for the 2018-19 Budget
- f. Approve Clerk / Officer Designations
- g. Approve Policy Revisions

The following policies were presented for first reading on November 14, 2017

- 1) Policy GCDA/GDDA: Criminal Records Check / Fingerprinting; and IICC: Volunteers

- 2) Policy IGBI: Bilingual Education
- 3) Policy KBA and KBA-AR: Public Records

8. ACTION ITEMS

a. Accept Board Member Resignation, Announce Board Vacancy, and Approve Appointment Process and Timeline

Director Jaci Spross, SECONDED by Director Erika Lopez, MOVED to accept Director Wayne Clift's resignation from position 7 on the Board of Directors, effective December 12, 2017; announce the vacancy of Board position 7; and approve the appointment process and timeline. The MOTION CARRIED (6-0).

The appointment process and timeline was discussed during the work session and will be posted on the District website.

b. Approve Annual Report

Director of Communications Beth Graser presented the annual report – a compilation of data from the 2016-17 school and District report cards – which is posted on the District website.

Director Erika Lopez, SECONDED by Director Jaci Spross, MOVED to approve the annual report. The MOTION CARRIED (6-0).

c. Accept 2016-17 Audit Report

Larry Grant of Grove, Mueller & Swank, PC, the District's financial auditor, presented the 2016-17 Comprehensive Annual Financial Report, and explained that there were no findings. The report is posted on the District website.

Director Martin Granum, SECONDED by Director Wayne Clift, MOVED to accept the audit report for 2016-17. The MOTION CARRIED (6-0).

d. Approve Bond Oversight Committee Plan

Director Erika Lopez, SECONDED by Director Jaci Spross, MOVED to approve the plan for the Citizens' Bond Oversight Committee, with date adjustments discussed during the work session to accommodate the Board member selection process. The MOTION CARRIED (6-0).

The draft Citizens' Bond Oversight Committee plan, discussed during the work session, is included in the Board meeting packet.

e. Approve Revisions to Policy BDDH and BDDH-AR: Public Comment at Board Meetings; and Policy BDDC: Board Meeting Agenda

Superintendent Mike Scott presented policy BDDH and BDDH-AR: Public Comment at Board Meetings; and policy BDDC: Board Meeting Agenda for approval. (These policies were presented for first reading on November 14 and November 28, 2017, and are included in the Board meeting packet.)

Director Martin Granum, SECONDED by Director Jaci Spross, MOVED to approve the revisions to policy BDDH and BDDH-AR and policy BDDC, with the following amended language in policy BDDH: "During a regular session of a Board meeting that is open to the public, a portion of the agenda shall be designated for public comment." The MOTION CARRIED (6-0).

- f. Elect Member to the OSBA Board of Directors
Director Erika Lopez, **SECONDED** by Director Jaci Spross, **MOVED** that the Board cast its vote for Marueen Wolf for the OSBA Board of Directors, position 16. The **MOTION CARRIED (6-0)**.
 - g. Elect Members to the OSBA Legislative Policy Committee
Director Jaci Spross, **SECONDED** by Director Martin Granum, **MOVED** that the Board cast its votes for Kim Strelchun for the OSBA Legislative Policy Committee, position 15, and Becky Tymchuk for the OSBA Legislative Policy Committee, position 16. The **MOTION CARRIED (6-0)**.
 - h. Vote on OSBA Resolution
Director Martin Granum, **SECONDED** by Director Erika Lopez, **MOVED** that the Board vote to support Resolution 1 to reorganize the Oregon School Boards Association as a non-profit corporation and adopt the proposed 2017 bylaws. The **MOTION CARRIED (6-0)**.
 - i. Approve the Appointment of Metro Policy Advisory Committee (MPAC) Alternate
Director Mark Watson, **SECONDED** by Director Jaci Spross, **MOVED** to appoint Karen Emerson to the Metro Policy Advisory Committee alternate position. The **MOTION CARRIED (6-0)**.
9. NWRESA/HCU/HEA Reports
HCU President Devin Hunter thanked Chief Financial Officer Adam Stewart for the work he has done in his position as Chief Financial Officer, and discussed collaborating to find solutions for challenges related to the Public Employees Retirement System (PERS) and the availability of trained substitutes.
- HEA President Jill Golay thanked Chief Financial Officer Adam Stewart and Director Wayne Clift for the positive impact they have had in their roles, discussed ballot measure 101, and thanked Superintendent Scott for the recent listening session.
10. Superintendent's Time
Superintendent Scott thanked Director Wayne Clift and Chief Financial Officer Adam Stewart for their service, welcomed Director Michelle Morrison to her new role, discussed District programs and processes, and provided a brief summary of his recent and upcoming activities.
11. Board of Directors' Time
Board members discussed District programs and resources, expressed appreciation for Director Wayne Clift and Chief Financial Officer Adam Stewart, and welcomed Director Michelle Morrison to her new position.
- Board Chair Kim Strelchun announced that she would be unable to attend the January 9 Board meeting.
12. Follow-Up Items

Agenda Item / Request	Action

13. Executive Session

No executive session was called.

14. Adjournment

The meeting was adjourned at 9:26 PM.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE ROUTINE PERSONNEL MATTERS

The Superintendent recommends that the Board of Directors:

- A. Ratify the acceptance of the resignation of the following licensed personnel:

William R. Johnson

Assignment: 1.0 FTE AVID-Tutorial/Drama
Location: Century High School
Effective Date: November 30, 2017

Bradley Post

Assignment: 1.0 FTE Social Learning Center
Location: Century High School
Effective Date: January 31, 2018

- B. Approve the employment of the following licensed personnel in the 2017-18 school year:

Linda Brownstein

Education: MA – University of Oregon, Eugene, OR
Experience: 34 years
Assignment: 1.0 FTE Speech Language Pathologist – Mooberry Elementary School

Meredith Gerstner

Education: MA – Portland State University, Portland, OR
Experience: None
Assignment: 1.0 FTE Drama – Century High School

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2017
ACCEPT GIFTS AND DONATIONS
(as of December 31, 2017)

SITUATION

District Policy KH states that the District may receive donations of gifts that may serve to enhance and extend the work of the District, subject to Board approval. Individuals who desire to make contributions are encouraged to consider donations for equipment or services that are not likely to be acquired from public fund expenditures.

The purpose of this report is to describe to the Board the donations received that are valued at \$5,000 or more.

- Donation of \$5,105.50 from Farmington View Booster Club to Farmington View Elementary School to be used as follows:
 - \$1127.00 for Read Live subscription
 - \$3,978.50 for classroom books
- Donation of \$15,287.94 from Ladd Acres PTA to Ladd Acres Elementary School to be used as follows:
 - \$262.50 for Leadership T-shirts
 - \$15,025.44 for .2 FTE for garden/STEM teacher
- Donation of \$12,318.32 from Patterson Booster Club to Patterson Elementary School to be used as follows:
 - \$200.00 for textbooks
 - \$944.61 for Google Chrome Console Management software licenses
 - \$1,249.00 for laptop cart
 - \$2,346.00 for after-school club teacher supervisor stipend
 - \$7,578.71 for Chromebooks

RECOMMENDATION

The Superintendent recommends that the Board of Directors accept these donations.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
ADOPT 2017-18 DRUG, ALCOHOL, AND TOBACCO
PREVENTION PLAN

SITUATION

District Policy IGAEB directs an annual review and re-adoption of the District's drug, alcohol, and tobacco prevention programs. The Board receives an annual report, outlining curricular programs and activities that are provided to students as part of the District's comprehensive Drug, Alcohol, and Tobacco Prevention Plan. The 2017-18 Drug, Alcohol, and Tobacco Prevention Plan was presented for first reading on December 12, 2017.

RECOMMENDATION

The Superintendent recommends that the Board of Directors adopt the 2017-18 Drug, Alcohol, and Tobacco Prevention Plan.

HILLSBORO SCHOOL DISTRICT 1J 2017-18 DRUG, ALCOHOL, AND TOBACCO PREVENTION PLAN

This report outlines curricular programs and activities that are provided for students as part of the District's comprehensive Drug, Alcohol, and Tobacco Prevention Plan.

DISTRICT HEALTH CURRICULUM

In 2012, the Oregon Department of Education (ODE) revised the Oregon Health Education Standards (OHES). In 2016, the OHES and performance indicators were adopted by the State Board of Education. The standards and indicators can be reviewed on the [ODE website](#) and on the [District website](#).

Health Education Standards help define the knowledge and skills students will need throughout their K-12 experience. Standards also provide consistency in what is taught to students across the state to ensure equity in education.

Prevention is the basis for national, state, and District standards. The key components for all levels of instruction are as follows:

- Comprehend concepts related to health promotion and disease prevention
- Access valid health information and health-promoting products and services
- Practice health-enhancing behaviors, and reduce health risks
- Analyze the influences of culture, media, technology, and other factors on health
- Use interpersonal communication skills to enhance health
- Use goal-setting to enhance health
- Use decision-making skills to enhance health
- Advocate for personal, family, and community health

The District's text materials, approved by ODE, support these standards and address drug, alcohol, and tobacco prevention.

The District-adopted "Here's Looking at You 2000" program for grades K through 5 continues to be an important supplement to the adopted health curriculum. This program teaches students useful social skills, such as self-control and resisting peer pressure, with a focus on "gateway" drugs, such as nicotine, alcohol, and marijuana. Education and activities about cocaine and steroids are also provided. "Here's Looking at You 2000" is one of the curricula that ODE has listed as effective for drug, alcohol, and tobacco prevention, based on research studies.

"Second Steps" curriculum is currently being used in elementary and middle schools. "Second Steps" is a pro-social / emotional curriculum designed to help students learn how to be empathetic, be problem solvers, use impulse control, and manage stress. Lessons are taught by classroom teachers in elementary schools, and health teachers in middle schools. In addition, grades 4 through 8 are exposed to "Steps to Respect," which enhances the "Second Steps" curriculum. This curriculum goes further with peer resistance, harassment, bullying, and anger management.

K-12 PREVENTION ACTIVITIES

The District continues to teach and reinforce substance abuse prevention through a variety of programs outside the regular curriculum.

Care Teams. Care Teams operate as an intervention strategy in grades K through 12 districtwide. The teams, made up of teachers, counselors, administrators, care coordinators, and school resource officers, identify potential at-risk students, assess the level of risk, and plan interventions. Risk factors include declining grades, erratic attendance, insubordination, frequent disciplinary referrals, disregard for personal appearance, drug talk, and a sudden change in friends. Interventions include parent contact, referral for outside evaluation and counseling, and case management of student progress in school. The link between home, school, and outside resource agencies is an important support for students at risk.

Peer Mediation / Mentoring. This peer-assistance program is available at District high schools, and serves as an informal safety net for students. Peer mediators are identified by students and teachers as individuals to whom students routinely turn for help. These students are provided training in active listening and other communication techniques. The goal of the program is to provide a caring listener for any student who is troubled, is considering using drugs / alcohol / tobacco, or is putting himself or herself at risk. Peer mediators are not trained to solve problems, but rather to refer their peers to qualified adults. Peer mediators have also worked with the Tobacco-Free Coalition of Washington County, and assisted during Red Ribbon Week – the national “Say No to Drugs” campaign.

BLAST / Zone Programs. The District partners with Hillsboro Parks and Recreation (HPR) to provide after-school tutoring, academic support, and recreational activities for students who attend Brookwood, Butternut Creek, Eastwood, Free Orchards, Groner, W. L. Henry, Imlay, Indian Hills, Jackson, Ladd Acres, Lincoln Street, McKinney, Minter Bridge, Mooberry, Orenco, Patterson, Quatama, Reedville, Rosedale, Tobias, and Witch Hazel Elementary Schools. All middle schools participate in the Zone program through HPR. The Zone and BLAST programs include homework support, academic enrichment activities, life skills, and service learning five days per week for approximately 2.5 hours each day.

School Resource Officers (SROs). The Hillsboro Police Department and the Washington County Sheriff’s Office provide an ongoing, visible deterrent to drug and alcohol activity at school. SROs assist in prevention by providing information on drug / alcohol / tobacco use and abuse, both in formal classroom settings and informally, through contact with students at lunchtime, during activities and, upon request, during individual conversations with students. They teach students about the legal consequences of drug / alcohol / tobacco use, and assist in investigations referred to them by school administration. SROs are seen by school staff, parents, and students as effective partners in crime prevention, as well as drug / alcohol / tobacco education providers.

Student Safety Survey. A student safety survey is administered annually to students to provide data regarding self-reported behaviors with respect to safety and drug / alcohol frequency of use. Results of the survey are used by schools and the District to measure the effectiveness of prevention programs, and the perceptions of students related to drugs and alcohol. In addition, survey information is used to plan future programs to continue reducing students' abuse of illegal substances.

The District uses the Oregon Student Wellness Survey and the Oregon Healthy Teens Survey to examine HSD trends and state rates. The Oregon Student Wellness Survey (grades 6, 8, 11) is administered in even-numbered years, and the Oregon Healthy Teens Survey (grades 8, 11) is administered in odd-numbered years. The results below are a comparison from the 2015 and 2017 Oregon Healthy Teens Survey.

Category	8th 2015	8th 2017	State 8th 2017	11th 2015	11th 2017	State 11th 2017
Tobacco 30-day use	11.6	3.4	8.4	19.8	14.1	18.9
E-cig, vape, hookah 30-day use	9.1	2.2	6.3	16.2	9.8	12.9
Alcohol 30-day use	8.7	5.9	10.3	24.7	20.8	26.9
Marijuana 30-day use	8.0	4.3	6.7	21.7	16.6	20.9

Standards of Student Conduct and Athletic / Activity Handbook. These publications provide specific policies regarding the use, possession, or distribution of drugs, alcohol, or tobacco by students at any school site, school-sponsored activity, or school-sponsored sporting event.

Transition Planning. Brown, Evergreen, Poynter, and South Meadows Middle Schools offer transition programs for students entering the seventh grade. WEB (Welcoming Everyone Back) training is led by a cadre of eighth grade students who are trained before the beginning of the school year. The purpose of WEB is to provide a smooth entry into middle school by way of regularly planned activities throughout the year with the same student leaders. WEB training is an extension of the transition activities currently offered at all four high schools, based on the LINK Crew program. LINK Crew is a research-based program to increase student participation, while decreasing attendance issues and other problems associated with lack of attachment to the school community.

All schools, grades K through 12, are working on greater articulation of transition activities within their feeder-school alignments. The goal is to have seamless transitions between the three school levels and between each grade.

Care Coordinator Program. Care coordinators provide outreach to students and parents when high-risk behaviors have been observed. After conducting an informal assessment, care coordinators provide referral and case management services and psycho-education. Families may be referred to community mental health, drug and alcohol treatment, and/or parent education programs. Care coordinators also lead District Flight Teams in response to school tragedies, and train Flight Team members to identify high-risk students. They coordinate District suicide prevention and intervention activities, including staff awareness trainings, intensive two-day intervention training, and District protocol development. All activities stress the importance of drug and alcohol awareness, as related to suicide risk and prevention. Finally, the care coordinators facilitate parenting classes that are open to District parents of students in grades 7 through 12. Topics include communication, positive discipline, and alcohol and drug prevention.

Positive Behavior Intervention Support (PBIS). PBIS is a well-designed, comprehensive, schoolwide system to support students in managing behavior. PBIS focuses on universal instruction and interventions to enhance positive behavior in students. PBIS educates students on consequences of negative behaviors, including substance abuse.

PAX: Good Behavior Game. Pax teaches students self-regulation, self-control, and self-management in the context of collaborating with others for peace, productivity, health, and happiness.

Youth Contact Student Assistance Program. Contracted by the District, Youth Contact provides counseling services for students at all middle and high schools. These counselors work especially with students who have been identified as being at risk of using drugs and/or alcohol, or have used drugs or alcohol and need support to help them stay free from further use. The counselors facilitate support groups, teach students strategies for avoiding risky situations, and reinforce good problem-solving and goal-setting skills. Hundreds of hours of individual and family counseling are provided by Youth Contact counselors.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
BIOSCIENCE TECHNOLOGIES

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled "Bioscience Technologies," has been submitted by Brian Pendergrass, a teacher of Bioscience Technologies at Hillsboro High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on November 6, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the proposed new high school course, Bioscience Technologies.

Microbiology Course Outline

Optional Unit: Biochemistry → (covered in Chemistry???)

1. Proteins, Carbohydrates, Lipids, Nucleic Acids
2. Chemical Bonds
3. Chemical Reactions

NGSS

- LS1-6: Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.

Unit #1: Cell Biology

1. Organelles
2. Prokaryotes vs. Eukaryotes
3. Hierarchy & Interactions of Systems
4. Microscopy (Lab)

NGSS

- LS1-2: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

Unit #2: Cell Metabolism

1. Enzymes
2. Photosynthesis
3. Cell Respiration
4. Algae & Yeast CO₂ Lab

NGSS

- LS1-5: Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.
- LS1-6: Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.
- LS1-7: Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.
- LS2-3: Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.
- LS2-4: Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.
- LS2-5: Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.

Unit #3: Bacterial Growth

1. Requirements for Bacterial Growth
 - Cell Division
 - Space/Density
 - Nutrients
2. Controlling Bacterial Growth
 - Temperature
 - Antibacterial Resistance
3. Homeostasis → Cell Growth Lab(s)
 - Liquid Culture(s) w/ & w/o antibiotics
 - Agar Plate Culture(s) w/ & w/o antibiotics
 - DNA Purifications???

NGSS

- LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
- LS1-4: Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
- LS2-1: Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.
- LS2-6: Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

Optional Unit: Microbial Genetics → (covered in Intro to Bioscience Technologies)

1. DNA & Protein Synthesis
 - DNA Structure
 - DNA Replication
 - Transcription & Translation
2. Gene Regulation
 - Operon Model
 - Differentiation
3. Mutations

NGSS

- LS1-1: Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
- LS3-2: Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.

Unit #4: Microorganism Evolution

1. Microbial DNA Changes over time
2. Epidemiology
 - Tracking the spread of an outbreak activity
3. Antimicrobial Drugs (Antibiotics & Antivirals)
 - MRSA

NGSS

- LS3-1: Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.
- LS3-2: Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.
- LS3-3: Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.
- LS4-1: Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.
- LS4-2: Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in numbers, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.
- LS4-3: Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait.
- LS4-4: Construct an explanation based on evidence for how natural selection leads to adaptation of populations.
- LS4-5: Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.

Unit #5: Immunity

1. Pathogenicity (how microbes make you sick/attack the body)
 - Bacteria
 - Viruses
2. Innate Immunity (nonspecific)
 - Skin
 - Mucus Membranes
 - Cell Walls/Membranes
3. Adaptive Immunity
 - Antibodies & Antigens
4. Vaccines
5. Immune System Disorders

NGSS

- LS2-2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.
- LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- LS2-8: Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.
- LS4-6: Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.

Unit #6: Microorganisms & Disease

1. Research Project & Presentations
 - Diseases of the Skin & Eyes

- Diseases of the Nervous System
- Diseases of the Cardiovascular & Lymphatic System
- Diseases of the Respiratory System
- Diseases of the Digestive System
- Diseases of the Urinary & Reproductive System

NGSS

- LS1-4: Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
- LS2-2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

Unit #7: Environmental Microbiology

1. Microorganisms in the Environment
 - Soil Cycles (Carbon, Nitrogen, etc.)
 - Water Cycle
 - Bioremediation & Biotreatment

NGSS

- LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- LS4-6: Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.

Unit #8: Applied Microbiology

1. Food Microbiology
2. Industrial Microbiology
3. Microorganisms in Medicine & Research

NGSS

- LS2-5: Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.
- LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- LS4-6: Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.

Research Plan - Abstract

Microbiology & Advanced Bioscience Technologies

1. Identify the goals of the proposed course:

Microbiology – NGSS

- HS-LS1-1: Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
- HS-LS1-2: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- HS-LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
- HS-LS1-4: Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
- HS-LS1-5: Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.
- HS-LS1-6: Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.
- HS-LS1-7: Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.
- HS-LS2-1: Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.
- HS-LS2-2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.
- HS-LS2-3: Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.
- HS-LS2-4: Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.
- HS-LS2-5: Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.
- HS-LS2-6: Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.
- HS-LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- HS-LS2-8: Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.
- HS-LS3-1: Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.
- HS-LS3-2: Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.
- HS-LS3-3: Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.
- HS-LS4-1: Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.
- HS-LS4-2: Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in numbers, (2) the heritable genetic

variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.

- HS-LS4-3: Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait.
- HS-LS4-4: Construct an explanation based on evidence for how natural selection leads to adaptation of populations.
- HS-LS4-5: Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.
- HS-LS4-6: Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.

Advanced Bioscience Technologies

- Make informed decisions about career options and education/training requirements for employment and advancement in the bioscience field.
- Communicate effectively with peers and potential employers in the bioscience field using available methods, including, but not limited to letters, email, professional networking, and informational interviewing.
- Research, apply and interview for employment in the bioscience industry.
- Determine the appropriate volumes of DNA, water, buffer(s) and enzyme for digesting the necessary amount of plasmid; explain the rationale behind the specific conditions chosen for the enzyme digest.
- Calculate the amount of any particular restriction fragment to be generated from the digest of a given amount of plasmid on which the restriction sites are known.
- Determine with reasonable accuracy the size of a DNA fragment using agarose gel electrophoresis.
- Describe and carry out alternative methods for purifying fragments of DNA from common “contaminants” (other DNA fragments, proteins and enzymes, RNA, agarose and salts).
- Determine the approximate concentration of fragmented plasmid DNA using gel electrophoresis with ethidium bromide staining and typical DNA standards
- Explain the use of alkaline phosphatase in the preparation of cloning vectors.
- Describe several strategies for creating compatible ends.
- Explain the difference between and consequences of directional vs. non-directional cloning.
- Setup a ligation reaction, including appropriate controls. Explain the rationale for selecting particular parameters for the reaction (DNA concentration, vector:insert ratio, amount of enzyme, buffer components, time and temperature of the reaction, and controls).
- Transform competent bacteria with ligated plasmid, including appropriate controls.
- Plate transformed bacteria. Determine transformation efficiency.
- Pick colonies to prepare “mini-preps” of plasmid DNA for analysis.
- Plan and carry out restriction digests that will allow analysis of transformation results (identify clones containing insert and determine the orientation of the insert with respect to the vector sequence).
- Carry out capillary transfer of DNA to nitrocellulose or nylon membranes, and demonstrate understanding of the principles and practices involved. Describe at least two methods for labeling DNA, and also for detection of labeled probes. Carry out hybridization, wash and detection of DNA probe on Southern Blot.
- Setup, carry out and interpret the results of a PCR reaction designed to identify clones containing insert, and determine the orientation of insert with respect to the vector sequence.
- Purify plasmid from cultured bacteria in large scale using ultracentrifugation in CsCl.
- Interpret, research and describe a technical innovation in cloning strategy promoted by one of the molecular biology material suppliers.

1. What data will be collected? (Include enrollment data).

- Enrollment data/demographics (ELL, SPED)
- Grades (broken down by demographics)
- Student Course Evaluation
- Post-Secondary Interest Before/After
- Career Interest Before/After

2. When and how will data be collected?

Data will be collected at the end of each year, as students forecast for future classes. It will also be collected at the beginning of each school year to determine official enrollment demographics, and at the end of each semester to determine student performance and growth, as well as to evaluate the success and growth of the program.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
VETERINARY SCIENCE PATHWAY

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled "Veterinary Science Pathway," has been submitted by Kori Shackelford, a teacher of the Horticulture CTE (Career Technical Education) Program at Hillsboro High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on November 6, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the first reading of the proposed new high school course, Veterinary Science Pathway.

Introduction to Veterinary Technology Elective

Course Description

This course is an introductory course designed to explore the job of the Certified Veterinary Technician. As well as covering medical terminology used in Veterinary Technology.

Course Objectives:

1. Recognize the historical significance of the role of a Certified Veterinary Technician.
2. Identify and describe the various job opportunities of the Certified Veterinary Technician and the duties performed by a technician in a veterinary hospital.
3. Recognize and describe commonly used hospital procedures associated with various types of animal care facilities.
4. Identify and describe the common breeds of dogs and cats, their unique differences, and their routine daily care.
5. Recognize and apply safe procedures for the storage, utilization and disposal of all chemicals and sharps (needles, scalpel blades, etc.) used in the care of college-owned animals while participating in VT program lectures and laboratories.
6. Recognize and apply the basic rules of word construction and vocabulary of the body systems, read and understand veterinary medical documentation in medical records and medical reports, and communicate with veterinary health care professionals utilizing proper medical terminology.

Units:
Historical aspects of veterinary medicine and the technician
Occupational safety
Duties of the technician
Ethics and Welfare
Infectious diseases
Commonly used vaccines
Breeds of animals
First aid and nursing care
Job opportunities
Veterinary medical terminology

Rationale for Proposed Program of Study

The Agriculture Science and Technology department at Hillsboro High School, with the support of our administration, would like to offer a new elective pathway that aligns with the Oregon Department of Education's Ag, Food, and Natural Resource Systems, as well as Portland Community College. By aligning more classes we will be able to receive more State Funding from Perkins. Within our department, we currently have the option of giving students experience of greenhouse work through the Hillsboro Greenhouses but we do not offer our

students any other agriculture work experience or animal husbandry. The Veterinary Science Pathway would provide students with the opportunity to learn how the Animal Industry runs while receiving hands on experience through classwork, guest speakers, and field trips into the animal industry. In addition, community service learning offers the option for students to build volunteerism into their school day as an elective. As the reduction of electives has taken place over the past years, this allows students to create a fuller schedule, at no cost to the school or district. This course will be under the PERKINS umbrella and will receive funding from the State of Oregon and the Federal Government.

The Agriculture Science and Technology department at Hilhi is excited at the possibility of offering a pathway within the department that has a broad application in college/career planning. The department sees this pathway as a way to bridge practical application to student's career pathway courses and elective work completed at Hilhi. There is also the possibility of offering cooperative learning dual credit, adding an additional layer of practicality to this elective pathway.

We see the potential for students to become stand out candidates for scholarships and college admissions applications by providing leadership skills and community service skills built into their school day, so that students can draw upon these experiences when drafting scholarship and admissions essays. We are interested and excited about an option in career guidance that allows students the opportunity to gain insight and practical hands on experience.

Academic Content Standards

The above course and activities cover a *majority* of the below essential skills state standards (grades 9 – 12 Benchmarks):

<http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>

1. Read and comprehend a variety of text*

This skill includes all of the following:

- Demonstrate the ability to read and understand text.
- Summarize and critically analyze key points of text, events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements.
- Follow instructions from informational or technical text to perform a task, answer questions, and solve problems.

**text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*

2. Write clearly and accurately

This skill includes all of the following:

- Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology.
- Develop organized, well-reasoned, supported, and focused communications.
- Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications.
- Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.

3. Apply mathematics in a variety of settings

This skill includes all of the following:

- Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable
- Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.
- Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.

4. Listen actively and speak clearly and coherently

This skill includes all of the following

- *This skill includes all of the following:*
- Listen actively to understand verbal and non-verbal communication.
- Give and follow spoken instructions to perform a task, ask and answer questions, and solve problems.
- Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques.
- Use language appropriate to particular audiences and contexts.

5. Think critically and analytically

This skill includes all of the following:

- Identify and explain the key elements of complex events, text*, issue, problem, or phenomenon.
- Develop a method to explore the relationships between the key elements of complex event, text*, issue, problem, or phenomenon.
- Gather, question, and evaluate the quality of information from multiple primary and secondary sources.
- Propose defensible conclusions that address multiple and diverse perspectives.

- Evaluate the strength of conclusions, differentiating reasoning based on facts from reasoning based on opinions.

**Text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats.*

6. Use technology to learn, live, and work

This skill includes all of the following:

- Use technology to participate in a broader community through networking, collaboration and learning.
- Recognize and practice legal and responsible behavior in the use and access of information and technology.
- Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

7. Demonstrate civic and community engagement

This skill includes all of the following:

- Apply knowledge of local, state, and U.S. history and government to explain current social and political issues.
- Perform the civic and community responsibilities essential to living in a representative democracy.

8. Demonstrate global literacy

This skill includes all of the following:

- Demonstrate knowledge of diverse cultural, linguistic, and artistic expressions.
- Apply a global perspective to analyze contemporary and historical issues.

9. Demonstrate personal management and teamwork skills

This skill includes all of the following:

- Participate cooperatively and productively in work teams to identify and solve problems.
- Display initiative and demonstrate respect for other team members to complete tasks.
- Plan, organize, and complete assigned tasks accurately and on time.
- Exhibit work ethic and performance, including the ability to be responsible and dependable.

Agriculture Skill Set Standard

The above course and activities cover a *majority* of the below Oregon Skill Set state standards; <http://www.ode.state.or.us/search/results/?id=285>

AG 1- Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster™.

AG 3- Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations.

AG 5- Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.

AG 6- Analyze the interaction among ANFR systems in the production, processing and management of food, fiber, and fuel and sustainable use of natural resources.

AG-ENV 3- Develop proposed solutions to environmental issues, problems, and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry, and ecology.

AG-NR 1- Plan and conduct natural resource management activities that apply logical, reasoned, and scientifically based solutions to natural resource issues and goals.

AG-NR 2- Analyze interrelationships between natural resources and humans needed to manage natural resource systems.

AG-BIZ 1- Apply management planning principles in AFNR business enterprises.

AG-ANI 1- Analyze historic and current trends impacting the animal systems industry.

AG-ANI 3- Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.

AG-ANI 4- Apply principles of animal reproduction given desired outcomes for performance, development, and/or economic production.

AG-ANI 5- Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.

AG-ANI 6- Classify, evaluate and select animals based on anatomical and physiological characteristics.

AG-ANI 7- Apply principles of effective animal health care.

Impact on Content Program

This will be a new pathway for Hilhi. By adding this pathway, we will need to look at removing our singleton classes. We will put this class on the 2018-2019 school year forecasting sheet and look at the numbers to decide what classes will not be offered that year.

This pathway will be a great addition to the elective courses offered at Hilhi. This is a pathway that students have been asking about. This pathway will help increase the Hillsboro FFA numbers.

Projected Additional Costs

There is no additional supplies or equipment necessary to run this course. PERKINS is a Federal Government funding program that will help with start up costs. We will work with community and local veterinaries for animals to look at and other costs.

Evaluation

The Introduction to Veterinary Technology Elective students will need to keep a journal every day of what they completed that day, this will be done through AET (Agriculture Experience Tracker). This is a program that the National FFA will be paying for. In AET students will be keeping track of their hours of experience during the class, their volunteer hours, and anything else that has to do with their Supervised Agriculture Experience (SAE). Students will take a test at the end of every unit and their final will be an Animal Presentation.

Action Research Plan

Identify the goals of the proposed course

The goals of the course are:

To prepare students with leadership skills that they will need to have any job they apply for. This will be accomplished by focusing on the Agriculture Field. The skills that the students will learn in this class will help them in real world application.

What data will be collected?

Data will be collected on student activities and the AET tracking system.

When and how will data be collected?

Students will need to keep daily records of everything they do during class. This is done using the AET record system (from National FFA). Students will need to keep very accurate details of everything they do. Students will have access to this system for life. If they ever need to look up what they did as a freshman they will have a record of it.

Animal Nutrition Elective

Course Description

Introduces various types of nutrients, the basic principles of nutrition as applied to small and large animals, various feeding practices and their economic importance, and important nutritionally caused diseases. Covers care and handling of orphaned animals and special prescription diets.

Course Objectives:

1. Understand the feeding of small and large animals and how their needs vary throughout the various stages of their life cycle in both healthy and diseased states.
2. Apply the body condition scoring method to assess the ideal weights of dogs and cats.
3. Recognize nutrients by classification, function, analysis, signs of deficiency and signs of toxicity.
4. Discuss proximate analysis, systems of energy measurement and the concept of ration formulation for small and large animals.
5. Recognize different prescription diets on the market for small animals and their basic indications for use.
6. Recognize common feed-related medical problems of horses, ruminants and swine.
7. Understand the basic nutritional requirements of laboratory animals.

Units:	Objectives:
BASIC NUTRITION	● For each of the following nutrient classes, list their sources, components, functions, signs of toxicity and signs of deficiency. a. Water b. Carbohydrates c. Proteins d. Fats e. Vitamins f. Minerals ● Discuss specifically the sources, functions, analysis, signs of deficiency and signs of toxicity for each of the following: a. Vitamin A b. Vitamin D c. Vitamin E d. Vitamin K e. Thiamine f. Riboflavin

	g. Niacin h. Pyridoxine i. Cyanocobalamin j. Folic acid k. Pantothenic acid l. Biotin m. Choline n. Vitamin C o. Calcium p. Phosphorus q. Magnesium r. Sodium s. Potassium t. Iron u. Iodine v. Copper w. Zinc x. Selenium ● Discuss feedstuff sampling and submission for nutrient analysis. ● Discuss proximate analysis and the Van Soest procedure for fiber analysis. ● Discuss the following measurements of energy values of a feed. a. Total digestible nutrients b. Gross energy c. Digestible energy d. Metabolizable energy e. Net energy f. Net energy maintenance g. Net energy production ● Discuss the animal, feedstuff and nutrient parameters used in formulating rations in small and large animals.
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FEEDSTUFFS	● Define the following feed classifications. a. Roughages b. Concentrates c. Supplements d. Additives ● Classify, describe the use and compare the following feedstuffs. Understand how processing effects their nutritional value. a. Corn b. Barley c. Sorghum grains d. Oats e. Wheat f. Rye g. Molasses h. Urea i. Millrun j. Bran k. Bakery wastes l. Alfalfa hay and pellets m. Clover hay n. Ryegrass hay o. Tall Fescue hay p. Orchard grass hay q. Timothy hay r. Kentucky bluegrass hay s. Pastures t. Silage u. Haylage v. Green chop w. Straw x. Stover y. Seed and animal by-product meals
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THE NUTRITIONAL NEEDS OF SMALL ANIMALS	● List the information and ingredients on a pet food label and discuss the guaranteed analysis. ● Describe the various types of pet food and how they are manufactured. ● Discuss the AAFCO nutrient profiles for dog and cat foods. ● Describe and calculate the caloric needs of dogs and cats for the following conditions. a. Maintenance b. Growth c. Pregnancy d. Lactation e. Working f. Cold weather g. Geriatric h. Illness i. Growth of giant dog breeds j. Orphan neonates k. Obesity ● Discuss the water, feeding practices and non-caloric nutrient requirements in dogs and for each of the following conditions. a. Maintenance b. Growth c. Pregnancy d. Lactation e. Working f. Cold weather g. Geriatric h. Illness i. Growth of giant dog breeds j. Orphan neonates k. Obesity ● Discuss the indications for the comparison of, the types, the palatability and the techniques of feeding of the different prescription diets on the market.
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	● Discuss body condition scoring and ideal weights in dogs and cats. ● Discuss nutritional needs, feeds and feeding practices for laboratory animals and birds. ● Discuss the most common diets to treat nutritionally responsive diseases.
THE NUTRITIONAL NEEDS OF LARGE ANIMALS	● Discuss the feeding requirements for the following conditions in the horse. a. Maintenance b. Pregnancy c. Lactation d. Working e. Nursing foal f. Weanling g. Yearling h. Stallions ● Discuss water and pasture quality as it relates to equine nutrition. ● Discuss the following feed related medical problems in the horse. a. Colic b. Founder c. Milk fever d. Fescue poisoning e. Rye grass staggers f. Blister beetle toxicity g. Ergotism h. Botulism ● Discuss the nutrition and feeding requirements for the following species and/or life stages of the following animals. a. Beef cows b. Calves c. Replacement heifers d. Bulls e. Feedlot cattle

	f. Lactating dairy cattle g. Dry dairy cattle h. Llamas i. Ewes j. lambs k. Rams l. Goats m. Gilts o. Sows p. Baby pigs q. Boars ● Discuss the following feed related medical problems Ruminants. a. Bloat b. Grass Tetany c. Displaced abomasum d. Milk fever e. Urinary Calculi f. Overeating disease ● Discuss the following feed related medical problems in swine. a. Iron deficiency anemia b. Lysine deficiency c. Nutritional secondary hyperparathyroidism
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Rationale for Proposed Program of Study

The Agriculture Science and Technology department at Hillsboro High School, with the support of our administration, would like to offer a new elective pathway that aligns with the Oregon Department of Education's Ag, Food, and Natural Resource Systems, as well as Portland Community College. By aligning more classes we will be able to receive more State Funding from Perkins. Within our department, we currently have the option of giving students experience of greenhouse work through the Hillsboro Greenhouses but we do not offer our students any other agriculture work experience or animal husbandry. The Veterinary Science Pathway would provide students with the opportunity to learn how the Animal Industry runs while receiving hands on experience through classwork, guest speakers, and field trips into the animal industry. In addition, community service learning offers the option for students to build volunteerism into their school day as an elective. As the reduction of electives has taken place

over the past years, this allows students to create a fuller schedule, at no cost to the school or district. This course will be under the PERKINS umbrella and will receive funding from the State of Oregon and the Federal Government.

The Agriculture Science and Technology department at Hilhi is excited at the possibility of offering a pathway within the department that has a broad application in college/career planning. The department sees this pathway as a way to bridge practical application to student's career pathway courses and elective work completed at Hilhi. There is also the possibility of offering cooperative learning dual credit, adding an additional layer of practicality to this elective pathway.

We see the potential for students to become stand out candidates for scholarships and college admissions applications by providing leadership skills and community service skills built into their school day, so that students can draw upon these experiences when drafting scholarship and admissions essays. We are interested and excited about an option in career guidance that allows students the opportunity to gain insight and practical hands on experience.

Academic Content Standards

The above course and activities cover a *majority* of the below essential skills state standards (grades 9 – 12 Benchmarks):

<http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>

1. Read and comprehend a variety of text*

This skill includes all of the following:

- Demonstrate the ability to read and understand text.
- Summarize and critically analyze key points of text, events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements.
- Follow instructions from informational or technical text to perform a task, answer questions, and solve problems.

**text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*

2. Write clearly and accurately

This skill includes all of the following:

- Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology.
- Develop organized, well-reasoned, supported, and focused communications.
- Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications.

- Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.

3. Apply mathematics in a variety of settings

This skill includes all of the following:

- Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable
- Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.
- Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.

4. Listen actively and speak clearly and coherently

This skill includes all of the following

- *This skill includes all of the following:*
- Listen actively to understand verbal and non-verbal communication.
- Give and follow spoken instructions to perform a task, ask and answer questions, and solve problems.
- Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques.
- Use language appropriate to particular audiences and contexts.

5. Think critically and analytically

This skill includes all of the following:

- Identify and explain the key elements of complex events, text*, issue, problem, or phenomenon.
- Develop a method to explore the relationships between the key elements of complex event, text*, issue, problem, or phenomenon.
- Gather, question, and evaluate the quality of information from multiple primary and secondary sources.
- Propose defensible conclusions that address multiple and diverse perspectives.
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This skill includes all of the following:

- Use technology to participate in a broader community through networking, collaboration and learning.
- Recognize and practice legal and responsible behavior in the use and access of information and technology.
- Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

7. Demonstrate civic and community engagement

This skill includes all of the following:

- Apply knowledge of local, state, and U.S. history and government to explain current social and political issues.
- Perform the civic and community responsibilities essential to living in a representative democracy.

8. Demonstrate global literacy

This skill includes all of the following:

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- Display initiative and demonstrate respect for other team members to complete tasks.
- Plan, organize, and complete assigned tasks accurately and on time.
- Exhibit work ethic and performance, including the ability to be responsible and dependable.

Agriculture Skill Set Standard

The above course and activities cover a *majority* of the below Oregon Skill Set state standards; <http://www.ode.state.or.us/search/results/?id=285>

AG 1- Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster™.

AG 3- Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations.

AG-PL 3- Propagate, culture, and harvest plants and plant products based on current industry standards.

AG-BIZ 1- Apply management planning principles in AFNR business enterprises.

AG-ANI 3- Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.

AG-ANI 5- Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.

Impact on Content Program

This will be a new pathway for Hilhi. By adding this pathway, we will need to look at removing our singleton classes. We will put this class on the 2018-2019 school year forecasting sheet and look at the numbers to decide what classes will not be offered that year.

This pathway will be a great addition to the elective courses offered at Hilhi. This is a pathway that students have been asking about. This pathway will help increase the Hillsboro FFA numbers.

Projected Additional Costs

There is no additional supplies or equipment necessary to run this course. PERKINS is a Federal Government funding program that will help with start up costs. We will work with community and local veterinaries for animals to look at and other costs.

Evaluation

The Introduction to Veterinary Technology Elective students will need to keep a journal every day of what they completed that day, this will be done through AET (Agriculture Experience Tracker). This is a program that the National FFA will be paying for. In AET students will be keeping track of their hours of experience during the class, their volunteer hours, and anything else that has to do with their Supervised Agriculture Experience (SAE). Students will take a test at the end of every unit and their final will be an Animal Presentation.

Action Research Plan

Identify the goals of the proposed course

The goals of the course are:

To prepare students with leadership skills that they will need to have any job they apply for. This will be accomplished by focusing on the Agriculture Field. The skills that the students will learn in this class will help them in real world application.

What data will be collected?

Data will be collected on student activities and the AET tracking system.

When and how will data be collected?

Students will need to keep daily records of everything they do during class. This is done using the AET record system (from National FFA). Students will need to keep very accurate details of everything they do. Students will have access to this system for life. If they ever need to look up what they did as a freshman they will have a record of it.

Veterinary Technology 1 Elective

Course Description

Teaches nursing techniques and principles of restraint of small and large animals. Emphasizes techniques to maximize the safety aspect of restraint to both the handler and to the animal patient. Introduces the livestock industry and the various species of large animal livestock. Includes livestock terminology, breeds, production systems, basic management practices, and animal products and by-products.

Course Objectives:

1. The goal is for the student to develop an understanding of what constitutes safe and effective restraint, and why knowledge of proper restraint techniques is vitally important in the day-to-day practice of veterinary medicine.
2. The goal is for the student to develop knowledge and understanding of basic principles of behavior in the dog and cat.
3. The goal is for the student to gain knowledge and understanding of the techniques of handling, restraint, grooming, medicating, and nursing utilized in small, avian, and laboratory animal practice.
4. The goal is for the student to gain knowledge and understanding of the basic principles of behavior in the large domestic species
5. The goal is for the student to gain knowledge and understanding of the techniques of handling, restraint, grooming, medicating, and nursing utilized in large domestic animal species.
6. The goal is for the student to learn skills and procedures in the handling, restraint, grooming, medicating and nursing of small, avian, and laboratory animal species.
7. The goal is for the student to learn skills and procedures in the handling, restraint, grooming, medicating and nursing of large animal species
8. Describe basic characteristics of common breeds of livestock species.
9. Demonstrate a basic understanding of the livestock industry as it pertains to various livestock species.
10. Recognize the digestive systems of various livestock species, including the functions of individual organs and the overall digestive process.
11. Demonstrate a basic understanding of livestock nutrition.
12. Recognize normal behaviors of livestock species.
13. Identify safe and humane handling, restraint, and nursing techniques utilized in various livestock species.
14. Describe various perspectives on contentious issues in animal agriculture and medicine.
15. Complete all essential skills found in this course as indicated by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities.

Units:	Objectives:
Basic Principles of restraint	● Discuss basic principles of restraint, emphasizing both the psychological and physical aspects that the handler must be aware of for safe and effective restraint of all species, including: 1. The differences between effective and ineffective or improper restraint. 2. Incidence of injury to animals occurring through either improper restraint or unacceptable aggression on the part of veterinary staff, and prevention thereof. 3. Incidence of injury to handler, other veterinary staff, and animal owners and prevention thereof. 4. Legal liability of the veterinarian and veterinary technician for injuries to owners, animals, or veterinary staff, resulting from ineffective or improper restraint.
Small animal Behavior	● Describe the behavior patterns in dogs and cats and how they may vary between breeds. ● Identify the behavior patterns that require differing approaches to handling and restraint
SMALL ANIMAL NURSING AND RESTRAINT TECHNIQUES	● Discuss specific restraint techniques utilized in the small, avian, and laboratory animal patient. ● Discuss the principles and techniques of history-taking and physical exam in the small, avian, and laboratory animal patient, utilizing the systems approach. ● Discuss principles of first aid and physical exam findings that signal an immediate emergency. ● Discuss basic principles of small, avian, and laboratory animal nursing and treatment techniques, including: 1. Administration of medication 2. Venipuncture 3. Physical therapy 4. Application of bandages, splints, and casts 5. Expression of anal glands 6. Toe nail trims 7. Wing and beak trims 8. Ear exam and cleaning 9. Therapeutic bathing and dipping 10. Care of the recumbent small animal

Large animal behavior	• Describe the behavior patterns and how they vary between the different species of large animals. • Learn to identify the behavior patterns that require differing approaches to handling and restraint.
Large animal nursing and restraint techniques	• Discuss specific restraint techniques utilized for each large animal species • Discuss the principles and techniques of history-taking and physical exam in the large animal patient, utilizing the systems approach. • Discuss basic principles of large animal nursing and treatment techniques, including: 1. Administration of medications 2. Venipuncture 3. Application of bandages, splints, and casts 4. Mastitis treatment 5. Care of the recumbent large animal 6. Common animal husbandry techniques, including: a. Deworming b. Castration c. Dehorning d. Floating teeth e. Artificial insemination f. Routine neonatal care
Procedures in small animal nursing and restraint	• Perform physical exams, utilizing the systems approach, on dogs and cats and record exam results in medical records using the SOAP method. • Know normal values of temperature, pulse, respiration, and blood pressure for the dog and cat. • Perform various techniques used in small animal, avian, and laboratory animal restraint and handling, including: 1. Removal of animals from and placement into cages 2. Placement on, removal from, and restraint of small and laboratory 3. animals on examination tables 4. Restraint of avian patients 5. Placing the dog and cat in lateral recumbency 6. Muzzling the dog and cat 7. Correctly lifting a large dog

	8. Proper use of the leash, choke collar, and rabies pole in the dog 9. Proper use of the restraint bag in the cat 10. Restraint techniques for: 1. Exam procedures 2. SQ injections 3. IM injections 4. IV injections 5. Giving IV injections: 1. cephalic vein (dog, cat, rabbit) 2. Lateral saphenous vein (dog, rabbit) 3. Medial saphenous vein (cat) 4. Ear vein (rabbit) 6. Drawing blood from a vein: 1. Cephalic vein (dog, cat, rabbit) 2. Jugular vein (dog, cat) 3. Lateral saphenous vein (dog, rabbit) 4. Medial saphenous vein (cat) 5. Ear vein (cat, rabbit) 6. Toenail clip (laboratory animals) 7. Nail Trim 8. Temperature taking 9. Expression of anal sacs 10. Skin scrapings 11. Ear exam and cleaning 12. Application of limb bandages ● Perform therapeutic bathing, dipping, and grooming of small animals, and be able to correctly describe and identify the various grooming tools. ● Perform the following methods of medication administration in dogs and cats: 1. Oral 2. SQ 3. IM 4. IV 5. Ocular 6. Topical 7. Intraaural
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	● Observe and be able to describe how to: 1. Give an intraperitoneal injection in the dog, cat, and laboratory animals 2. Pass an orogastric tube in the dog and cat 3. Administer medications to birds and laboratory animals 4. Apply and remove a metamason spoon splint, Robert-Jones splint, and Schroeder-Thomas splint ● Perform the following nursing procedural techniques, and be able to describe how they are done: 1. Weighing small animals 2. Taking TPR 3. Auscult the heart and lungs using the stethoscope 4. Toenail trim in dogs, cats, and birds 5. Obtaining a fecal sample with a fecal loop in dogs and cats 6. Expressing the anal glands in the dog 7. Administration of an enema 8. Determination of sex in dogs, cats, and laboratory animal species 9. Ear cleaning and intraaural medication administration 10. Administration of oral medication (pill and liquid) in the dog and cat using manual technique, pill gun technique, and syringe technique 11. Application and removal of a paw wrap in the dog and cat 12. Application of an Elizabethan collar in the dog and cat 13. Obtaining and examining skin scrapings 14. Suture removal* 15. Wing and beak trimming in birds 16. Tube feeding in birds
Procedures in large animal nursing and restraint	● Explain and demonstrate the basic principles of performing the physical exam. ● Know normal values of temperature, pulse, and respiration for the horse, cow, sheep, and pig.

	● Demonstrate the various techniques in large animal restraint and handling and demonstrate the specialized equipment used in the following: 1. Application of the chain twitch and humane twitch to the lip of the horse 2. Application of ear and shoulder twitches in the horse. 3. Application of nose tongs in cattle 4. Application of the hog board and hog snare in swine 5. Head and body restraint in sheep 6. Use of the squeeze chute on cattle and llamas 7. Haltering and leading: a. With a rope on horses and cattle b. With a regular halter on horses, cattle, and llamas 8. Picking up a horses leg (front and rear) 9. Tail restraint in cattle 10. Casting cattle with a rope 11. Restraint for an equine nasogastric tube 12. Flanking a calf 13. Ear twitch in llamas ● Demonstrate the correct procedures used in simple grooming techniques, and be able to correctly describe and identify the various grooming tools. ● Perform the following methods of medication administration: 1. Orally, by balling gun, dose syringe, and paste 2. SQ 3. IM 4. IV 5. Ocular 6. Topical 7. Intraaural ● Observe and be able to describe how to: 1. Give intraperitoneal injections to large animal species 2. Administer intramammary mastitis therapy 3. Insert a nasogastric tube in the horse 4. Perform a perineal wash in the mare preparatory for vaginal exam/cervical or uterine culture
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	● Perform the large animal procedural techniques: 1. Taking the TPR 2. Physical exam in the horse, cattle, sheep, and llama using the systems approach 3. Auscult the heart and lungs using the stethoscope 4. Administer medications via an oral speculum and stomach tube in cattle and sheep 5. Apply and remove a leg wrap in the horse 6. Administer IV fluids using a large animal fluid bag and simplex 7. Apply a tail tie in the horse and cattle 8. Apply a tail wrap in the horse 9. Trim hooves in the sheep and llama ● Perform the following knots: 1. Square 2. Surgeon's 3. Reefers 4. Bowline 5. Slipknot 6. Halter tie 7. Single and double half hitch
<u>CLASSIFICATION OF LIVESTOCK</u>	● Describe the zoological method and the differences between mammals and birds. ● Describe the type and breed method. ● Describe the breed purity method and discuss purebred, crossbred and grading up. ● Describe the market method based on age, sex, weight and grade and understand the various terms for each classification. ● Discuss dressed weight.
<u>DIGESTIVE SYSTEMS AND BASIC NUTRITION</u>	● Discuss differences between carnivores, omnivores, and herbivores. ● Discuss and illustrate the parts of a ruminant digestive system and how it differs in the newborn. ● Discuss basic rumen breakdown of feeds, why and how bloat occurs and common treatment objectives.

	• Discuss and illustrate the parts of a monogastric digestive system and how each part contributes to digestion. • Discuss various nutrition terms used on the farm, concentrates, roughage, feed efficiency, free choice, guaranteed analysis, dry matter, etc. • Discuss common feed additives and their place in animal feeds. • Define and describe the six basic nutrients, their sources, functions and deficiency symptoms or diseases.
<u>BEEF CATTLE</u>	• Discuss the origin of beef cattle and the differences between European, American, and Exotic breeds. • Students will be expected to identify and describe three characteristics such as temperament, fertility, carcass quality, popularity and origin of at least eleven common breeds of beef cattle. • Discuss average beef statistics such as birth weight, productive life, gestation, estrous cycle, body temperature and age. • Describe management systems, fall vs. spring calving, different breeding methods, production goals and taking pelvic measurements. • Describe three production systems: cow/calf; stocker system; and feedlot system. • Discuss pros and cons of purebred vs. commercial beef operations and goals of each. • Discuss the following beef cattle traits: conformation, carcass traits, EPDs and milk production. • Discuss and illustrate how embryo transfers can help improve a breed. • Discuss consumer trends and how they influence changes in a breed and its production. • Discuss and show visual aids depicting various calving presentations and associated problems. • Discuss routine health care issues and herd health programs, i.e. deworming, vaccination, etc.
<u>LLAMAS AND ALPACAS</u>	• Describe the camelid family and emphasis on the South American camelids (SAC), the llama, Alpaca, Guanaco, and Vicuna.

	• Discuss the llamas behavior, different sounds they make, berserk llama syndrome and how llamas are raised. • Discuss common restraint methods especially for veterinary procedures. • Discuss vital statistics, size, breeds, and various SAC terminology. • Discuss different breeding methods and how pregnancy is determined. Students will view a slide series on the birth of an alpaca, which includes the three stages of delivery; newborn cria care, common vaccinations and signs of prematurity. • Discuss the production uses of fiber and how it is marketed, breeding operation and value of offspring, pets, packing, and meat production. • Discuss nutritional requirements and how to feed a SAC for work, maintenance, or pregnancy. • List and describe via slides some common health care routines i.e. vaccinations, fighting teeth removal, trimming feet, etc.
<u>SHEEP</u>	• Explain the distribution of sheep population throughout the world, and particularly where the USA ranks. • Discuss current marketing and consumer trends in the sheep industry. • Students must identify seven major sheep breeds, learn three characteristics of each breed, and be able to identify sheep anatomy. • Discuss and describe behavior, sheep restraint methods, and various terminology associated with the sheep and wool industry. • Describe sheep vital statistics. • Describe the characteristics of wool, its quality and wool processing and grading. • Discuss the sheep reproductive cycle, gestation, and breeding systems. • Describe the difference between fine wool breeds, crossbred wool breeds, long wool breeds, and meat breeds. • Discuss the four basic sheep production systems as follows: Purebred System, Milkfed Lamb Production, Feeder Lamb Production and Fattening Feeder Lambs System.

	• Describe one year in the life of a sheep producer, emphasizing herd health requirements, feeding, shearing, lambing and lamb care. • Discuss and describe the different methods of pregnancy diagnosis in ewes. • List and discuss common sheep problems and diseases.
<u>SWINE</u>	• Discuss swine population and production in the world and USA . • Students must learn major swine anatomy, at least six swine breeds and characteristics of each. • Describe swine behavior, hog loading, sow hysteria, etc. • Learn vital statistics and terminology related to swine. • Describe swine reproduction, including, estrous cycles, how swine are bred, hard mating, A-I, teasing posture and pen breeding. • Discuss purebred vs. crossbred systems and how the 2 breed, 3 breed, and 4 breed systems are used. • Describe two types of production systems - purebred production vs. commercial production. • Discuss market predictability. • Learn about composition of swine feeds and how to feed a pig. • Discuss major swine diseases, newborn pig care and common vaccinations.
<u>DAIRY CATTLE</u>	• Explain dairy industry trends and cow population in USA . • Students are taught basic dairy cow anatomy. They must identify five common breeds and describe at least three characteristics of each breed. • Discuss general behavior, restraint, and safety issues when working with cattle. • Discuss vital statistics and dairy terminology, including calving interval, DHIA test sheets and how to select or judge a dairy cow. • Discuss reproduction, AI Service vs. Natural Service, how to recognize a cow in estrus, and the goals of a dairy herd health service. • Describe the three stages of parturition and newborn calf care. • Discuss production uses of dairy cows, i.e. meat, milk, breeding.

	• Discuss milk composition, colostrum composition, bulk tank sampling, various milk quality tests, SCC, CMT, and WMT. • Describe milk marketing and the differences between Grade A and Grade B milk. Discuss the three classes of milk and their uses for the consumer. • Students will learn about milk processing, pasteurizing, how cheese is made, and about homogenization. • Discuss a list of influences the farmer faces concerning milk production. • Describe how calves are raised on the farm from newborn/bred yearling heifer/lactating first calf heifer/dry cow/lactating cow. • Discuss proper milking procedures, parlor designs and housing. • Describe different feeding methods, commodity feeding, and types of feeds used. • List and discuss the three types of disease classes metabolic, reproductive, and infectious. • Discuss routine health care issues and herd health programs, i.e. deworming, vaccination, etc.
<u>GOATS</u>	• List common goat behavior traits and restraint methods. • Students will learn vital statistics, goat anatomy, about teeth development, aging and goat terminology. • Students must identify at least seven common goat breeds and list three characteristics of each. Students must be knowledgeable of dairy breeds, fleece breeds, meat breeds and pygmy breeds. • Discuss goat reproduction, flushing, buck care, how to recognize signs of estrus, and pregnancy diagnosis. • Describe goat parturition, newborn care, vaccinations and raising orphans. • Discuss three production systems, Fleece/Meat System, Pet System, and Dairy System. • Explain the differences between goat and cows milk, proper milking techniques, Grade A goat dairies, SCC, and row milk goat dairies. • Discuss basic health care, foot trimming, dehorning, and vaccinations. • Discuss proper feeding of goats and plant poisonings.

	• List and discuss common goat diseases.
<u>HORSES</u>	• Describe horse populations and trends in the USA today. • Discuss common behavior and restrain methods. • List common vital statistics, including teeth eruption and aging. • List common terms used in the equine industry. • Students must learn major horse anatomy and be able to identify at least seven major horse breeds and know characteristics of each. • Discuss reproduction, signs of estrus, teasing, natural and A-I breeding. Foaling season, foal heat, mare culture, pregnancy diagnosis, foaling and foal care are also discussed. • Cold-blooded, hot-blooded and warm-blooded horse breeds are discussed. • Colors and markings of horses are described, including breed registries. • Ten common rules for proper feeding of horses are discussed. • Ten common rules for proper housing of horses are discussed. • Describe equine production systems for breeding, racing, pets, rodeo, show, and meat use. • Look at the teeth of a horse and tell its age. • Discuss routine vaccination and worming programs. • Discuss proper restraint methods. • List and discuss common horse diseases. • Discuss the differences between donkeys, mules, jacks, jennets, and hinnies.
<u>RABBITS</u>	• Discuss the differences between rabbits and hares. • Domestic rabbits are divided into three breed classes of meat rabbits, fur rabbits, and pet or show rabbits. • Basic behavior and restraint is discussed. • Vital statistics and terminology is discussed. • Rabbit reproduction, breeding, kindling and sexing is discussed. • Production systems involve commercial meat, commercial fur, pet/show industry and research. • Students are taught proper feeding of the rabbit for pet and commercial use. • Common rabbit diseases are discussed. • Students must identify at least five major breeds and know common rabbit anatomy.

<u>POULTRY, DUCKS, TURKEYS , RATITES, AND GEESE</u>	• Discuss consumer trends in the poultry industry. • Discuss common body parts of the avian class. • Identify at least two breeds of each species. • Discuss vital statistics and poultry terminology. • Discuss the avian digestive tract and respiratory system. • Describe avian reproduction, the egg-laying process, egg incubation, and egg parts. • Discuss the broiler production system on a commercial basis. • Discuss egg production system on a commercial basis and as a small farm hobby. • Discuss egg classifications, marketing of eggs and spent hens. • Discuss feeding differences for the different species and common requirements. • Describe common avian diseases and customary problems with pet birds.
<u>GENETICS/REPRODUCTION</u>	• Students must be able to identify common reproductive parts of the cow and bull and know the function of each part. • Discuss the four types of placentas seen in mammals cotyledonary, diffuse, zonary, and discoidal. Students learn how the placenta is formed including the amnion, allantois and the structures making up the umbilical cord. • Discuss common livestock breeding systems such as inbreeding, line breeding, close breeding, line crossing, out crossing, cross breeding, and hybrid vigor. • Discuss cellular mitosis, meiosis, zygote formation, and how sex of the offspring is determined in aves and mammals. • Discuss chromosome numbers in wolf hybrids and mules. • Discuss basic punnet square calculations to predict gene characteristics. Sex-linked genes, mutations and genetic engineering are also to be discussed. • Discuss dominant vs. recessive traits, lethal traits, etc.
<u>ANIMAL RIGHTS</u>	• Discuss where farmers, veterinarians and veterinarian technicians stand as far as their approval rating with the various animals rights groups. • Discuss the reformist vs. animal rights groups, • Discuss Rollins book, Farm Animal Welfare. • Discuss PCCs Animal Rehabilitation Program with respect to the various animals used in the Vet Tech Program.

	• Common group discussion topics include: ○ Tail docking 5-day old pups without anesthetic ○ Using dogs for medical research ○ Euthanasia in veterinary practices ○ Dehorning a 4-month old steer with or without anesthetic
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Rationale for Proposed Program of Study

The Agriculture Science and Technology department at Hillsboro High School, with the support of our administration, would like to offer a new elective pathway that aligns with the Oregon Department of Education's Ag, Food, and Natural Resource Systems, as well as Portland Community College. By aligning more classes we will be able to receive more State Funding from Perkins. Within our department, we currently have the option of giving students experience of greenhouse work through the Hillsboro Greenhouses but we do not offer our students any other agriculture work experience or animal husbandry. The Veterinary Science Pathway would provide students with the opportunity to learn how the Animal Industry runs while receiving hands on experience through classwork, guest speakers, and field trips into the animal industry. In addition, community service learning offers the option for students to build volunteerism into their school day as an elective. As the reduction of electives has taken place over the past years, this allows students to create a fuller schedule, at no cost to the school or district. This course will be under the PERKINS umbrella and will receive funding from the State of Oregon and the Federal Government.

The Agriculture Science and Technology department at Hilhi is excited at the possibility of offering a pathway within the department that has a broad application in college/career planning. The department sees this pathway as a way to bridge practical application to student's career pathway courses and elective work completed at Hilhi. There is also the possibility of offering cooperative learning dual credit, adding an additional layer of practicality to this elective pathway.

We see the potential for students to become stand out candidates for scholarships and college admissions applications by providing leadership skills and community service skills built into their school day, so that students can draw upon these experiences when drafting scholarship and admissions essays. We are interested and excited about an option in career guidance that allows students the opportunity to gain insight and practical hands on experience.

Academic Content Standards

The above course and activities cover a *majority* of the below essential skills state standards (grades 9 – 12 Benchmarks):

<http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>

1. Read and comprehend a variety of text*

This skill includes all of the following:

- Demonstrate the ability to read and understand text.
- Summarize and critically analyze key points of text, events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements.
- Follow instructions from informational or technical text to perform a task, answer questions, and solve problems.

**text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*

2. Write clearly and accurately

This skill includes all of the following:

- Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology.
- Develop organized, well-reasoned, supported, and focused communications.
- Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications.
- Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.

3. Apply mathematics in a variety of settings

This skill includes all of the following:

- Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable
- Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.
- Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.

4. Listen actively and speak clearly and coherently

This skill includes all of the following

- *This skill includes all of the following:*
- Listen actively to understand verbal and non-verbal communication.

- Give and follow spoken instructions to perform a task, ask and answer questions, and solve problems.
- Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques.
- Use language appropriate to particular audiences and contexts.

5. Think critically and analytically

This skill includes all of the following:

- Identify and explain the key elements of complex events, text*, issue, problem, or phenomenon.
- Develop a method to explore the relationships between the key elements of complex event, text*, issue, problem, or phenomenon.
- Gather, question, and evaluate the quality of information from multiple primary and secondary sources.
- Propose defensible conclusions that address multiple and diverse perspectives.
- Evaluate the strength of conclusions, differentiating reasoning based on facts from reasoning based on opinions.

**Text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats.*

6. Use technology to learn, live, and work

This skill includes all of the following:

- Use technology to participate in a broader community through networking, collaboration and learning.
- Recognize and practice legal and responsible behavior in the use and access of information and technology.
- Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

7. Demonstrate civic and community engagement

This skill includes all of the following:

- Apply knowledge of local, state, and U.S. history and government to explain current social and political issues.
- Perform the civic and community responsibilities essential to living in a representative democracy.

8. Demonstrate global literacy

This skill includes all of the following:

- Demonstrate knowledge of diverse cultural, linguistic, and artistic expressions.
- Apply a global perspective to analyze contemporary and historical issues.

9. Demonstrate personal management and teamwork skills

This skill includes all of the following:

- Participate cooperatively and productively in work teams to identify and solve problems.
- Display initiative and demonstrate respect for other team members to complete tasks.
- Plan, organize, and complete assigned tasks accurately and on time.
- Exhibit work ethic and performance, including the ability to be responsible and dependable.

Agriculture Skill Set Standard

The above course and activities cover a *majority* of the below Oregon Skill Set state standards; <http://www.ode.state.or.us/search/results/?id=285>

AG 1- Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster™.

AG 3- Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations.

AG-BIZ 1- Apply management planning principles in AFNR business enterprises.

AG-ANI 3- Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.

AG-ANI 4- Apply principles of animal reproduction given desired outcomes for performance, development, and/or economic production.

AG-ANI 5- Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.

AG-ANI 6- Classify, evaluate and select animals based on anatomical and physiological characteristics.

AG-ANI 7- Apply principles of effective animal health care.

Impact on Content Program

This will be a new pathway for Hilhi. By adding this pathway, we will need to look at removing our singleton classes. We will put this class on the 2018-2019 school year forecasting sheet and look at the numbers to decide what classes will not be offered that year.

This pathway will be a great addition to the elective courses offered at Hilhi. This is a pathway that students have been asking about. This pathway will help increase the Hillsboro FFA numbers.

Projected Additional Costs

There is no additional supplies or equipment necessary to run this course. PERKINS is a Federal Government funding program that will help with start up costs. We will work with community and local veterinaries for animals to look at and other costs.

Evaluation

The Introduction to Veterinary Technology Elective students will need to keep a journal every day of what they completed that day, this will be done through AET (Agriculture Experience Tracker). This is a program that the National FFA will be paying for. In AET students will be keeping track of their hours of experience during the class, their volunteer hours, and anything else that has to do with their Supervised Agriculture Experience (SAE). Students will take a test at the end of every unit and their final will be an Animal Presentation.

Action Research Plan

Identify the goals of the proposed course

The goals of the course are:

To prepare students with leadership skills that they will need to have any job they apply for. This will be accomplished by focusing on the Agriculture Field. The skills that the students will learn in this class will help them in real world application.

What data will be collected?

Data will be collected on student activities and the AET tracking system.

When and how will data be collected?

Students will need to keep daily records of everything they do during class. This is done using the AET record system (from National FFA). Students will need to keep very accurate details of everything they do. Students will have access to this system for life. If they ever need to look up what they did as a freshman they will have a record of it.

Veterinary Technology 2 Elective

Course Description

Covers clinically important diseases and disease processes occurring in small animals and large animals. Includes the causes, pathogenesis, clinical signs, treatment and prevention of each disease.

Course Objectives:

1. Recognize and discuss the diverse types of diseases, disease processes, and disorders that occur in small animals.
2. Recognize the scientific name, common name, etiology, signalment, clinical signs, diagnosis, treatment and prevention of the major diseases of small animals.
3. Classify diseases occurring in the following organ systems: gastrointestinal, respiratory, cardiovascular, nervous, metabolic, musculoskeletal, reproductive, and integumentary systems.
4. Recognize and discuss the primary clinical diseases occurring in caged birds.
5. Recognize and discuss the primary neoplastic diseases of small animals.
6. Recognize the description, location, species, age, and/or breed predisposition, special considerations, and treatment for common tumors occurring in small animals.
7. Recognize the important clinical diseases affecting sheep, goats, cattle, camelids, horses and swine- including disease etiology, pathogenesis, clinical signs, treatment, and prevention.
8. Recognize the common zoonotic diseases of the species listed above.
9. Understand and assist with commonly used diagnostic and treatment procedures used in large animal veterinary practice.
10. Recognize and assist with the elements of a thorough physical examination of camelids and horses.
11. Correctly and safely position horses for radiographs using portable radiographic equipment to evaluate the equine distal limb.
12. Understand and assist with the techniques used for hoof and dental care in camelids and horses.
13. Recognize the anesthetic drugs commonly used for sedation and anesthesia in the horse and special clinical considerations of anesthesia of the horse.

Units:	Objectives:
SMALL ANIMAL DISEASES	● Discuss or describe for each disease listed in this section (1.0), the following items: a. Scientific name (s) b. Common name (s) c. Species affected d. Age Predisposition e. Sex Predisposition f. Breed Predisposition g. Etiology/Pathogenesis h. Clinical signs

	i. Diagnosis (based on) j. Treatment k. Prevention ● Infectious diseases: fill in the list (items a items k from the above Section 1.1) for each of the following diseases: a. Canine Distemper b. Infectious Canine Hepatitis c. Leptospirosis d. Infectious Tracheobronchitis e. Canine Parvovirus Enteritis f. Canine Coronavirus Enteritis g. Rabies h. Salmon Poisoning i. Elokomin Fluke Fever j. Salmonellosis k. Canine Brucellosis l. Coccidioidomycosis m. Lyme Borreliosis n. Tropical Canine Pancytopenia o. Panleukopenia p. Feline Upper Respiratory Disease Complex q. Toxoplasmosis r. Feline Infectious Peritonitis s. Feline Infectious Anemia t. Feline Leukemia Virus (FeLV) Infection u. Tropical Canine Pancytopenia v. Canine Herpesvirus w. Spontaneous Feline Ataxia x. Feline Immunodeficiency Virus (FIV) Infection y. Feline Syncytium-Forming Virus (FeSFV) Infection z. Campylobacteriosis ● Respiratory diseases: Fill in the list (Items a – Items k from the above Section 1.1) for the following diseases: a. Rhinitis b. Sinusitis
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	c. Tracheal Collapse d. Bronchial Asthma e. Bronchitis f. Pneumonia g. Pulmonary Edema h. Pneumothorax i. Chylothorax j. Hemothorax k. Pyothorax l. Diaphragmatic Hernia ● Digestive system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases: a. Stomatitis b. Labial Granuloma c. Periodontal Disease d. Megaesophagus/Achalasia e. Persistent Right Aortic Arch f. Gastritis g. Differential Diagnosis of vomiting, diarrhea, and constipation h. Gastric Dilation/Torsion Syndrome i. Colitis j. Megacolon ● Cardiac system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Congestive Heart Failure b. Patent Ductus Arteriosis c. Tetralogy of Fallot ● Liver diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases, unless otherwise noted: a. Causes of Icterus and Jaundice b. Liver Disease ● Hemic diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Anemia b. Blood Coagulation Disorders
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	c. Autoimmunine Hemolytic Anemia d. Systemic Lupus Erythematosus e. Idiopathic Thrombocytopenic Purpura f. Disseminated Intravascular Coagulopathy ● Endocrine system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Diabetes Mellitus b. Diabetes Insipidus c. Hypothyroidism d. Hypoadrenalcorticism e. Hyperadrenalcorticism ● Urinary Diseases: Fill in the list (Items a “ Items k from the above Section 1.1) for the following diseases/disorders, unless otherwise stated: a. List and briefly describe the three diseases of dogs classified as Congenital Urinary Disorders which are all characterized by thin renal cortices. b. Acute Renal Diseases c. Glomerulonephritis d. Pyelonephritis e. Chronic Renal Disease f. Cystitis-urolithiasis in the cat g. Cystitis-urolithiasis in the dog ● Genital disease: Fill in the list (Items a “ Items k from the above Section 1.1) for the following diseases/disorders, unless otherwise stated: a. Prostatitis b. List and briefly describe the following disorders of the penis and prepuce: 1. Fractured os penis 2. Balanoposthitis 3. Transmissible Venereal Tumor 4. Cryptorchidism c. List and briefly describe the following disorders of the ovaries: 1. Oophoritis 2. Follicular Cyst
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	3. Lutein Cysts 4. Neoplasia d. Acute Metritis e. Pyometra f. Vulvo-vaginitis ● Integumentary system disease: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders, unless otherwise stated: a. Pyoderma b. Seborrhea c. Allergic Skin Disease d. Feline Acne e. Otitis Externa, Media, Interna f. Aural Hematoma (briefly describe only) g. Pemphigus ● Nervous system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Seizuring Disorders b. Polyradiculoneuritis c. Tick Paralysis ● Diseases characterized by pain: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Pancreatitis b. Thoraco-lumbar Disc Syndrome c. Cervical Disc Disease d. Spondylolithesis, Discospondylitis, Spondylosis Deformans ● Musculo-skeletal system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Osteochondritis Dessicans b. Eosinophilic Panosteitis c. Ununited Anconeal Process d. Avascular Necrosis of the femoral head e. Hypertrophic Osteopathy f. Osteomyelitis g. Osteosarcoma
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	h. Osteoarthritis of the coxofemoral joint i. Eosinophilic Myositis
THERIOGENOLOGY	● For the following disorders fill in the lists (Items a Items k from the above Section 1.1) for the following disorders: a. Hypocalcemic Tetany b. Dystocia ● Define and list the causes of the following in small animals: a. Maternal Dystocia b. Fetal Dystocia ● List the breed predilections for the above dystocias listed in 2.2. ● Define what is meant by the following terms: presentation, position, and posture. ● Describe the variations in the normal delivery in small animals. ● Discuss the criteria for the diagnosis of dystocia in small animals. ● Describe the methods used to treat dystocia in small animals, include the drugs used, manual assistance, instrument extraction, and caesarian section. ● Discuss the nutritional needs of the fetus and the mother, which is necessary for the normal delivery, and health of both. ● Discuss the condition known as eclampsia, how to recognize it, prevent it, and treat it. ● Discuss the proper methods of caring for the neonatal animal, in terms of or after a normal delivery vs. a caesarian section. ● Discuss False Pregnancy, how to recognize and treat it.
AVIAN DISEASES	● Using an organ system approach, discuss the subsequent diseases and disorders a. Integument 1. Characteristics of bird skin 2. Knemidocoptes infestation 3. Tumors and growths in birds, such as xanthomas feather cysts, preen gland problems, dermal cysts 4. Pox 5. Tuberculosis 6. Feather problems 7. Lice Infestation

	8. Abscesses 9. Wounds 10. Overgrown toenail b. Digestive Tract 1. Anatomy 2. Mouth Disorders (Thrush) 3. Crop Disorders (sour crop) 4. Proventriculus Disorders 5. Gizzard Disorders 6. Intestinal Disorders (Enteritis) 7. Trichomonias 8. Coccidiosis 9. Prolapse of the Cloaca c. Respiratory System 1. Anatomy 2. Diseases: Sinus infections, mycoplasmal and/or chlamydial infections, fungal infections, Vitamin A deficiency, and aspiration pneumonia. d. Other System Diseases 1. Kidney diseases 2. Lead/zinc poisoning 3. Gout 4. Neoplasia 5. Hypothyroidism 6. Reproductive disorders (egg bound, egg yolk peritonitis) e. Infectious Diseases 1. Psittacosis 2. Pachecos Virus 3. Papovaviruses 4. Pox 5. Aspergillosis
ONCOLOGY	● Define the following terms: neoplasia, benign, malignant, sarcoma, and carcinoma. ● Describe embryonic germ layer classification of tumors.

	● Understand the description, location, species, age, and/or breed predisposition, special consideration, and treatment for the following types of tumors: a. Cutaneous papilloma b. Oral papilloma c. Meibomian gland adenoma d. Sebaceous gland tumor e. Perianal gland adenoma and adenocarcinoma f. Squamous cell carcinoma g. Adenocarcinoma of the alimentary tract h. Adenocarcinoma of the upper respiratory tract i. Adenocarcinoma of the lung j. Mast cell tumor k. Malignant Melanoma l. Histiocytoma m. Chondrosarcoma or chondroma n. Melanoma o. Mammary tumors ● List the seven cytological criteria for the diagnosis of cancer
LARGE ANIMAL DISEASES	● Discuss or describe for each disease listed in this section (1.0) the following items: a. Proper medical name(s) of the disease b. Common name(s) of the disease c. Species affected d. Age Predisposition e. Breed predisposition f. Etiology/Pathogenesis g. Clinical signs h. Diagnosis (based on) i. Treatment j. Prevention ● Equine diseases: Fill in the list (a-j in 1.1) for the following diseases: a. Colic b. Give a brief description of the following types of colic (Spasmodic coli, Impaction colic, Thrombo-embolic (verminous) colic, Intussusception, Volvulus or Torsion, Strangulation or Incarceration, Intestinal Stenosis, Acute Dilatation of the Stomach, Intestinal Tympany (flatulent colic), Sand Colic, Retention of Meconium, Choke)

	c. Salmonellosis d. Colitis-X e. Ehrlichial colitis f. Chronic diarrhea of adult horses g. Foal heat diarrhea h. Enteric diseases of foals i. Streptococcus equi infection j. Equine influenza k. Equine Herpesvirus 1 l. Equine Viral Arteritis m. Chronic Obstructive Pulmonary Disease n. Guttural Pouch Empyema o. Laryngeal Hemiplegia p. Exercise-Induced Pulmonary Hemorrhage q. Give a brief description of the following types of respiratory diseases: 1. Streptococcus zooepidemicus infection 2. Rhodococcus equi infection 3. Equine Adenovirus infection 4. Equine Rhinovirus infection r. Eastern, Western, & Venezuelan Encephalomyelitis s. Tetanus t. Rabies u. Equine Wobblers Syndrome v. Equine Infectious Anemia w. Equine Protozoal Myelitis x. West Nile Virus y. Exertional Rhabdomyolysis z. Babesiosis - aa. Cystic Calculi - ab. Poll Evil/Fistulous Withers - ac. Equine Sarcoid - ad. Equine Lameness: Understand common etiologies and conformational problems - ae. Laminitis - af. Define what a soundness exam is
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	● Ruminant Diseases: Fill in the list (a-j in 1.1) for the following diseases: a. Bluetongue b. Bovine Viral Diarrhea/Mucosal Disease c. Malignant Cararrhal Fever d. Foot and Mouth Disease e. Vesicular Stomatitis f. Traumatic Reticuloperitonitis (reticulitis) g. Actinobacillosis h. Actinomycosis i. Ruminal Tympany j. Left (& right) Displaced Abomasum k. Respiratory Disease Complex l. Parainfluenza virus type 3 m. Infectious Bovine Rhinotracheitis n. Anaplasmosis o. Babesiosis p. Leptospirosis q. Necrotic Laryngitis r. Listeriosis s. Hypomagnesmic Tetany t. Parturient Paresis u. Ketonemia v. Mastitis w. Urolithiasis x. Haemophilosis y. Blackleg z. Malignant Edema - aa. Infectious Necrotic Hepatitis - ab. Tuberculosis - ac. Paratuberculosis - ad. Polioencephalomalacia - ae. Brucellosis - af. Pseudorabies - ag. Interdigital Necrobacillosis
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	- ah. Clostridium perfringens type B & C infections - ai. Type D Enterotoxemia - aj. Pasteurellosis - ak. Salmonellosis - al. Chlamydial Polyarthrititis-serositis - am. Contagious Ecthyma - an. Infectious keratoconjunctivitis - ao. Chlamydial Abortion - ap. Pregnancy Toxemia - aq. Caseative Lymphadenitis - ar. White Muscle Disease - as. Scrapie - at. Bovine Spongiform Encephalopathy - au. Transport Tetany - av. Tularemia ● Porcine Diseases: Fill in the list (a-j in 1.1) for the following diseases: a. Transmissible Gastroenteritis b. Enteric Colibacillosis c. Swine Dysentery d. Atrophic Rhinitis e. Necrotic Rhinitis f. Mycoplasmal pneumonia g. Swine Influenza h. Erysipelas i. Parakeratosis j. Hog Cholera 1. List the diseases which Specific Pathogen Free Hogs are considered free.
Units:	Objectives:
SMALL ANIMAL DISEASES	● Discuss or describe for each disease listed in this section (1.0), the following items: a. Scientific name (s) b. Common name (s) c. Species affected

	d. Age Predisposition e. Sex Predisposition f. Breed Predisposition g. Etiology/Pathogenesis h. Clinical signs i. Diagnosis (based on) j. Treatment k. Prevention ● Infectious diseases: fill in the list (items a items k from the above Section 1.1) for each of the following diseases: a. Canine Distemper b. Infectious Canine Hepatitis c. Leptospirosis d. Infectious Tracheobronchitis e. Canine Parvovirus Enteritis f. Canine Coronavirus Enteritis g. Rabies h. Salmon Poisoning i. Elokomin Fluke Fever j. Salmonellosis k. Canine Brucellosis l. Coccidioidomycosis m. Lyme Borreliosis n. Tropical Canine Pancytopenia o. Panleukopenia p. Feline Upper Respiratory Disease Complex q. Toxoplasmosis r. Feline Infectious Peritonitis s. Feline Infectious Anemia t. Feline Leukemia Virus (FeLV) Infection u. Tropical Canine Pancytopenia v. Canine Herpesvirus w. Spontaneous Feline Ataxia x. Feline Immunodeficiency Virus (FIV) Infection
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	y. Feline Syncytium-Forming Virus (FeSFV) Infection z. Campylobacteriosis ● Respiratory diseases: Fill in the list (Items a–k from the above Section 1.1) for the following diseases: a. Rhinitis b. Sinusitis c. Tracheal Collapse d. Bronchial Asthma e. Bronchitis f. Pneumonia g. Pulmonary Edema h. Pneumothorax i. Chylothorax j. Hemothorax k. Pyothorax l. Diaphragmatic Hernia ● Digestive system diseases: Fill in the list (Items a–k from the above Section 1.1) for the following diseases: a. Stomatitis b. Labial Granuloma c. Periodontal Disease d. Megaesophagus/Achalasia e. Persistent Right Aortic Arch f. Gastritis g. Differential Diagnosis of vomiting, diarrhea, and constipation h. Gastric Dilation/Torsion Syndrome i. Colitis j. Megacolon ● Cardiac system diseases: Fill in the list (Items a–k from the above Section 1.1) for the following diseases/disorders: a. Congestive Heart Failure b. Patent Ductus Arteriosus c. Tetralogy of Fallot ● Liver diseases: Fill in the list (Items a–k from the above Section 1.1) for the following diseases, unless otherwise noted:
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	a. Causes of Icterus and Jaundice b. Liver Disease ● Hemic diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Anemia b. Blood Coagulation Disorders c. Autoimmunine Hemolytic Anemia d. Systemic Lupus Erythematosus e. Idiopathic Thrombocytopenic Purpura f. Disseminated Intravascular Coagulopathy ● Endocrine system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Diabetes Mellitus b. Diabetes Insipidus c. Hypothyroidism d. Hypoadrenalcorticism e. Hyperadrenalcorticism ● Urinary Diseases: Fill in the list (Items a 2 Items k from the above Section 1.1) for the following diseases/disorders, unless otherwise stated: a. List and briefly describe the three diseases of dogs classified as Congenital Urinary Disorders which are all characterized by thin renal cortices. b. Acute Renal Diseases c. Glomerulonephritis d. Pyelonephritis e. Chronic Renal Disease f. Cystitis-urolithiasis in the cat g. Cystitis-urolithiasis in the dog ● Genital disease: Fill in the list (Items a 2 Items k from the above Section 1.1) for the following diseases/disorders, unless otherwise stated: a. Prostatitis b. List and briefly describe the following disorders of the penis and prepuce: 1. Fractured os penis 2. Balanoposthitis
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	3. Transmissible Venereal Tumor 4. Cryptorchidism c. List and briefly describe the following disorders of the ovaries: 1. Oophoritis 2. Follicular Cyst 3. Lutein Cysts 4. Neoplasia d. Acute Metritis e. Pyometra f. Vulvo-vaginitis ● Integumentary system disease: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders, unless otherwise stated: a. Pyoderma b. Seborrhea c. Allergic Skin Disease d. Feline Acne e. Otitis Externa, Media, Interna f. Aural Hematoma (briefly describe only) g. Pemphigus ● Nervous system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Seizuring Disorders b. Polyradiculoneuritis c. Tick Paralysis ● Diseases characterized by pain: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Pancreatitis b. Thoraco-lumbar Disc Syndrome c. Cervical Disc Disease d. Spondylolithesis, Discospondylitis, Spondylosis Deformans ● Musculo-skeletal system diseases: Fill in the list (Items a Items k from the above Section 1.1) for the following diseases/disorders: a. Osteochondritis Dessicans
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	b. Eosinophilic Panosteitis c. Ununited Anconeal Process d. Avascular Necrosis of the femoral head e. Hypertrophic Osteopathy f. Osteomyelitis g. Osteosarcoma h. Osteoarthritis of the coxofemoral joint i. Eosinophilic Myositis
THERIOGENOLOGY	● For the following disorders fill in the lists (Items a Items k from the above Section 1.1) for the following disorders: a. Hypocalcemic Tetany b. Dystocia ● Define and list the causes of the following in small animals: a. Maternal Dystocia b. Fetal Dystocia ● List the breed predilections for the above dystocias listed in 2.2. ● Define what is meant by the following terms: presentation, position, and posture. ● Describe the variations in the normal delivery in small animals. ● Discuss the criteria for the diagnosis of dystocia in small animals. ● Describe the methods used to treat dystocia in small animals, include the drugs used, manual assistance, instrument extraction, and caesarian section. ● Discuss the nutritional needs of the fetus and the mother, which is necessary for the normal delivery, and health of both. ● Discuss the condition known as eclampsia, how to recognize it, prevent it, and treat it. ● Discuss the proper methods of caring for the neonatal animal, in terms of or after a normal delivery vs. a caesarian section. ● Discuss False Pregnancy, how to recognize and treat it.
AVIAN DISEASES	● Using an organ system approach, discuss the subsequent diseases and disorders f. Integument 11. Characteristics of bird skin 12. Knemidocoptes infestation 13. Tumors and growths in birds, such as xanthomas feather cysts, preen gland problems, dermal cysts

	14. Pox 15. Tuberculosis 16. Feather problems 17. Lice Infestation 18. Abscesses 19. Wounds 20. Overgrown toenail g. Digestive Tract 10. Anatomy 11. Mouth Disorders (Thrush) 12. Crop Disorders (sour crop) 13. Proventriculus Disorders 14. Gizzard Disorders 15. Intestinal Disorders (Enteritis) 16. Trichomonias 17. Coccidiosis 18. Prolapse of the Cloaca h. Respiratory System 3. Anatomy 4. Diseases: Sinus infections, mycoplasmal and/or chlamydial infections, fungal infections, Vitamin A deficiency, and aspiration pneumonia. i. Other System Diseases 1. Kidney diseases 2. Lead/zinc poisoning 3. Gout 4. Neoplasia 5. Hypothyroidism 6. Reproductive disorders (egg bound, egg yolk peritonitis) j. Infectious Diseases 1. Psittacosis 2. Pachecos Virus 3. Papovaviruses 4. Pox 5. Aspergillosis
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ONCOLOGY	● Define the following terms: neoplasia, benign, malignant, sarcoma, and carcinoma. ● Describe embryonic germ layer classification of tumors. ● Understand the description, location, species, age, and/or breed predisposition, special consideration, and treatment for the following types of tumors: a. Cutaneous papilloma b. Oral papilloma c. Meibomian gland adenoma d. Sebaceous gland tumor e. Perianal gland adenoma and adenocarcinoma f. Squamous cell carcinoma g. Adenocarcinoma of the alimentary tract h. Adenocarcinoma of the upper respiratory tract i. Adenocarcinoma of the lung j. Mast cell tumor k. Malignant Melanoma l. Histiocytoma m. Chondrosarcoma or chondroma n. Melanoma o. Mammary tumors ● List the seven cytological criteria for the diagnosis of cancer
LARGE ANIMAL DISEASES	● Discuss or describe for each disease listed in this section (1.0) the following items: a. Proper medical name(s) of the disease b. Common name(s) of the disease c. Species affected d. Age Predisposition e. Breed predisposition f. Etiology/Pathogenesis g. Clinical signs h. Diagnosis (based on) i. Treatment j. Prevention ● Equine diseases: Fill in the list (a-j in 1.1) for the following diseases: a. Colic b. Give a brief description of the following types of colic (Spasmodic coli, Impaction colic,Thrombo-embolic (verminous) colic, Intussusception, Volvulus or Torsion,

	Strangulation or Incarceration, Intestinal Stenosis, Acute Dilatation of the Stomach, Intestinal Tympany (flatulent colic), Sand Colic, Retention of Meconium, Choke) c. Salmonellosis d. Colitis-X e. Ehrlichial colitis f. Chronic diarrhea of adult horses g. Foal heat diarrhea h. Enteric diseases of foals i. Streptococcus equi infection j. Equine influenza k. Equine Herpesvirus 1 l. Equine Viral Arteritis m. Chronic Obstructive Pulmonary Disease n. Guttural Pouch Empyema o. Laryngeal Hemiplegia p. Exercise-Induced Pulmonary Hemorrhage q. Give a brief description of the following types of respiratory diseases: 1. Streptococcus zooepidemicus infection 2. Rhodococcus equi infection 3. Equine Adenovirus infection 4. Equine Rhinovirus infection r. Eastern, Western, & Venezuelan Encephalomyelitis s. Tetanus t. Rabies u. Equine Wobblers Syndrome v. Equine Infectious Anemia w. Equine Protozoal Myelitis x. West Nile Virus y. Exertional Rhabdomyolysis z. Babesiosis - aa. Cystic Calculi - ab. Poll Evil/Fistulous Withers - ac. Equine Sarcoid
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	ad. Equine Lameness: Understand common etiologies and conformational problems ae. Laminitis af. Define what a soundness exam is ● Ruminant Diseases: Fill in the list (a-j in 1.1) for the following diseases: a. Bluetongue b. Bovine Viral Diarrhea/Mucosal Disease c. Malignant Cararrhal Fever d. Foot and Mouth Disease e. Vesicular Stomatitis f. Traumatic Reticuloperitonitis (reticulitis) g. Actinobacillosis h. Actinomycosis i. Ruminal Tympany j. Left (& right) Displaced Abomasum k. Respiratory Disease Complex l. Parainfluenza virus type 3 m. Infectious Bovine Rhinotracheitis n. Anaplasmosis o. Babesiosis p. Leptospirosis q. Necrotic Laryngitis r. Listeriosis s. Hypomagnesmic Tetany t. Parturient Paresis u. Ketonemia v. Mastitis w. Urolithiasis x. Haemophilosis y. Blackleg z. Malignant Edema - aa. Infectious Necrotic Hepatitis - ab. Tuberculosis - ac. Paratuberculosis
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	ad. Polioencephalomalacia ae. Brucellosis af. Pseudorabies ag. Interdigital Necrobacillosis ah. Clostridium perfringens type B & C infections ai. Type D Enterotoxemia aj. Pasteurellosis ak. Salmonellosis al. Chlamydial Polyarthritis-serositis am. Contagious Ecthyma an. Infectious keratoconjunctivitis ao. Chlamydial Abortion ap. Pregnancy Toxemia aq. Caseative Lymphadenitis ar. White Muscle Disease as. Scrapie at. Bovine Spongiform Encephalopathy au. Transport Tetany av. Tularemia ● Porcine Diseases: Fill in the list (a-j in 1.1) for the following diseases: a. Transmissible Gastroenteritis b. Enteric Colibacillosis c. Swine Dysentery d. Atrophic Rhinitis e. Necrotic Rhinitis f. Mycoplasmal pneumonia g. Swine Influenza h. Erysipelas i. Parakeratosis j. Hog Cholera 2. List the diseases which Specific Pathogen Free Hogs are considered free.
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Rationale for Proposed Program of Study

The Agriculture Science and Technology department at Hillsboro High School, with the support of our administration, would like to offer a new elective pathway that aligns with the Oregon Department of Education's Ag, Food, and Natural Resource Systems, as well as Portland Community College. By aligning more classes we will be able to receive more State Funding from Perkins. Within our department, we currently have the option of giving students experience of greenhouse work through the Hillsboro Greenhouses but we do not offer our students any other agriculture work experience or animal husbandry. The Veterinary Science Pathway would provide students with the opportunity to learn how the Animal Industry runs while receiving hands on experience through classwork, guest speakers, and field trips into the animal industry. In addition, community service learning offers the option for students to build volunteerism into their school day as an elective. As the reduction of electives has taken place over the past years, this allows students to create a fuller schedule, at no cost to the school or district. This course will be under the PERKINS umbrella and will receive funding from the State of Oregon and the Federal Government.

The Agriculture Science and Technology department at Hilhi is excited at the possibility of offering a pathway within the department that has a broad application in college/career planning. The department sees this pathway as a way to bridge practical application to student's career pathway courses and elective work completed at Hilhi. There is also the possibility of offering cooperative learning dual credit, adding an additional layer of practicality to this elective pathway.

We see the potential for students to become stand out candidates for scholarships and college admissions applications by providing leadership skills and community service skills built into their school day, so that students can draw upon these experiences when drafting scholarship and admissions essays. We are interested and excited about an option in career guidance that allows students the opportunity to gain insight and practical hands on experience.

Academic Content Standards

The above course and activities cover a *majority* of the below essential skills state standards (grades 9 – 12 Benchmarks): <http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>

1. Read and comprehend a variety of text*

This skill includes all of the following:

- Demonstrate the ability to read and understand text.
- Summarize and critically analyze key points of text, events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements.
- Follow instructions from informational or technical text to perform a task, answer questions, and solve problems.

**text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*

2. Write clearly and accurately

This skill includes all of the following:

- Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology.
- Develop organized, well-reasoned, supported, and focused communications.
- Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications.
- Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.

3. Apply mathematics in a variety of settings

This skill includes all of the following:

- Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable
- Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.
- Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.

4. Listen actively and speak clearly and coherently

This skill includes all of the following

- *This skill includes all of the following:*
- Listen actively to understand verbal and non-verbal communication.
- Give and follow spoken instructions to perform a task, ask and answer questions, and solve problems.
- Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques.
- Use language appropriate to particular audiences and contexts.

5. Think critically and analytically

This skill includes all of the following:

- Identify and explain the key elements of complex events, text*, issue, problem, or phenomenon.
- Develop a method to explore the relationships between the key elements of complex event, text*, issue, problem, or phenomenon.

- Gather, question, and evaluate the quality of information from multiple primary and secondary sources.
- Propose defensible conclusions that address multiple and diverse perspectives.
- Evaluate the strength of conclusions, differentiating reasoning based on facts from reasoning based on opinions.

**Text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats.*

6. Use technology to learn, live, and work

This skill includes all of the following:

- Use technology to participate in a broader community through networking, collaboration and learning.
- Recognize and practice legal and responsible behavior in the use and access of information and technology.
- Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

7. Demonstrate civic and community engagement

This skill includes all of the following:

- Apply knowledge of local, state, and U.S. history and government to explain current social and political issues.
- Perform the civic and community responsibilities essential to living in a representative democracy.

8. Demonstrate global literacy

This skill includes all of the following:

- Demonstrate knowledge of diverse cultural, linguistic, and artistic expressions.
- Apply a global perspective to analyze contemporary and historical issues.

9. Demonstrate personal management and teamwork skills

This skill includes all of the following:

- Participate cooperatively and productively in work teams to identify and solve problems.
- Display initiative and demonstrate respect for other team members to complete tasks.
- Plan, organize, and complete assigned tasks accurately and on time.
- Exhibit work ethic and performance, including the ability to be responsible and dependable.

Agriculture Skill Set Standard

The above course and activities cover a *majority* of the below Oregon Skill Set state standards;
<http://www.ode.state.or.us/search/results/?id=285>

AG 3- Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations.

AG 5- Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.

AG-ENV 3- Develop proposed solutions to environmental issues, problems, and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry, and ecology.

AG-BIZ 1- Apply management planning principles in AFNR business enterprises.

AG-ANI 3- Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production.

AG-ANI 5- Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.

AG-ANI 7- Apply principles of effective animal health care.

Impact on Content Program

This will be a new pathway for Hilhi. By adding this pathway, we will need to look at removing our singleton classes. We will put this class on the 2018-2019 school year forecasting sheet and look at the numbers to decide what classes will not be offered that year.

This pathway will be a great addition to the elective courses offered at Hilhi. This is a pathway that students have been asking about. This pathway will help increase the Hillsboro FFA numbers.

Projected Additional Costs

There is no additional supplies or equipment necessary to run this course. PERKINS is a Federal Government funding program that will help with start up costs. We will work with community and local veterinarians for animals to look at and other costs.

Evaluation

The Introduction to Veterinary Technology Elective students will need to keep a journal every day of what they completed that day, this will be done through AET (Agriculture Experience Tracker). This is a program that the National FFA will be paying for. In AET students will be keeping track of their hours of experience during the class, their volunteer hours, and anything else that has to do with their Supervised Agriculture Experience (SAE). Students will take a test at the end of every unit and their final will be an Animal Presentation.

Action Research Plan

Identify the goals of the proposed course

The goals of the course are:

To prepare students with leadership skills that they will need to have any job they apply for. This will be accomplished by focusing on the Agriculture Field. The skills that the students will learn in this class will help them in real world application.

What data will be collected?

Data will be collected on student activities and the AET tracking system.

When and how will data be collected?

Students will need to keep daily records of everything they do during class. This is done using the AET record system (from National FFA). Students will need to keep very accurate details of everything they do. Students will have access to this system for life. If they ever need to look up what they did as a freshman they will have a record of it.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
SUSTAINABLE AGRICULTURE 1 AND 2

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled “Sustainable Agriculture 1 and 2,” has been submitted by Paul Lardy, a teacher of Science and the CTE (Career Technical Education) Program at Liberty High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on November 6, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the proposed new high school course, Sustainable Agriculture 1 and 2.

Sustainable Agriculture

Paul Lardy
Liberty High School

Course Description

Sustainable Agriculture 1

This class is focused on learning essential gardening and farming methods that do not harm the soil, air, or water for future generations. Students will plan, plant, compost, save seeds, use garden tools / equipment and develop a variety of growing techniques in the school garden. In addition, students will investigate factors that affect plant health, growth, and reproduction by designing and conducting experiments in the garden. Students will use prior knowledge, new knowledge and experience in this class to think critically about how our current food system operates, to develop real solutions to help change social and environmental problems.

Sustainable Agriculture 2

This class is the capstone course for the sustainable agriculture program of study. Students will complete their senior project and manage the Falcon Farm. Students will demonstrate their knowledge of the three main goals of sustainable agriculture: Environmental Health, Economic Profitability, and Social and Economic Equity.

Rationale for Proposed Program of Study

The Sustainability department at Liberty High School, with the support of our administration, is developing two different programs of study: Sustainable Design and Sustainable Agriculture. The first program within the department would be Sustainable Agriculture. The Sustainable Agriculture program will align with the Oregon Department of Education's Ag, Food, and Natural Resources Systems. In developing a program of study and adding more classes, the program will be eligible to receive state funding from Perkins. The Sustainable Agriculture courses will allow students the opportunity to learn more about this growing field through hands on experience, guest speakers, and class field trips. Students will be given the opportunity to gain valuable internships within the community, participate in service learning projects, and gain experience in entrepreneurial projects.

Over the past several years students have participated in the Liberty Falcon Farm through the Environmental Science and Construction Technology courses. It has been an engaging experience for students to have the opportunity to apply and obtain concepts through

experiential learning; however, one class does not allow students the opportunity to dive deep into their interest or explore career opportunities in this area of study. From student interest and research into the high wage and high demand area of sustainability this program was developed. Sustainable Agriculture and Sustainable Design, would allow students to develop Career and College going skills that will help them be more prepared as they graduate from High School and move onto their post-secondary pathways.

The concept of Sustainability is a growing field that offers students a wide variety of opportunities. Several Community Colleges, Public Universities, and Private Colleges in the Pacific Northwest offer programs in the field of Sustainability. The following are some examples: Portland Community College, Clackamas Community College, Oregon State University, Portland State University, University of Oregon, and Pacific University.

The Sustainable Agriculture Program is being designed with purpose to prepare students with experiences that will guide them into these Post-Secondary Institutes. Having High School experiences in this field will allow students to be more competitive in the application process for admission as well as the scholarship application process.

The development of the onsite “Falcon Farm” at Liberty High School is a key component of the program. The importance of field experience has also been demonstrated by local institutions such as Pacific Universities “B” Street Farm, PCC Rock Creek’s Learning Garden, and Portland State University’s Learning Garden Laboratory.

High Wage High Demand

“In Oregon, there are over 38,000 farms producing crops on over 16 million acres. Horticultural fruits, nuts, berries, vegetables, and specialty crops are produced on over 320,000 acres, and production has been increasing by 12% per year. Farmers' markets and cooperatives create new opportunities for producers and consumers.”

<http://horticulture.oregonstate.edu/content/sustainable-food-farming-systems> (October 2017).

The Bureau of Labor Statistics states that careers in Agriculture and Food Science is expected to grow 7% from 2016 to 2026. The U.S. Department of Agriculture and Purdue University predict 60,000 new jobs per year over the next five years, and only 35,000 grads per year in the Agricultural related fields.

Program Course Objectives:

1. Students will be able to explain the relative connections of the three main goals of Sustainable Agriculture.
2. Students will be able to demonstrate proper safety techniques used in agriculture.
3. Students will be able to create a pest management program for a specific crop or area.
4. Students will be able to critique food systems and their impacts on the environment.
5. Students will be able to explain a variety of different career fields within agricultural sciences.
6. Students will be able to research, plant, and propagate several varieties of local crops.
7. Students will be able to evaluate soil nutrients and their impact on plants.
8. Students will be able to describe various methods of irrigation and explain the trade-offs of each system.
- *9. Students will be able to design, market, manage, and orchestrate a school run agricultural entrepreneurship.

* *Sustainable Agriculture 2*

Course Outline

Units:	Topics to be covered
Introduction to the Principles of Sustainable Agriculture	● Environmental Health ● Economic Profitability ● Social and Economic Equity
Proper safety and knowledge of tool use	● Lab Safety ● Farm Safety ● Proper Tool use
Pest Management	● Weeds ● Insects ● Pests
Food Systems	● Food Production ● Processing ● Distribution ● Retail & Market ● Consumption ● Waste Recovery
Agricultural Careers	● Careers in Agriculture ● Science related fields ● Agribusiness ● Farming Options

Plant Science	● Anatomy ● Plant Processes ● Plant Nutrients ● Propagation
Soil Management	● Composting ● Soil Nutrients ● Cover Crops ● Crop rotation ● Soil testing
Irrigation and Water Management Systems	● Water sources ● Irrigation methods ● Water capture ● Distribution

Academic Content Standards

The above course and activities cover a *majority* of the below Oregon Essential Skills State Standards (grades 9 – 12 Benchmarks):

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Next Generation Science Standards

<https://www.nextgenscience.org/>

HS-LS1 From Molecules to Organisms: Structures and Processes	
HS-LS1-5	Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.

HS-LS1-7	Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed, resulting in a net transfer of energy.
HS-LS2 Ecosystems: Interactions, Energy, and Dynamics	
HS-LS2-4	Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem
HS-LS2-7	Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.*
HS Human Sustainability	
HS-ESS3-1.	Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
HS-ESS3-2.	Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.*
HS Engineering Design	
HS-ETS1-1.	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
HS-ETS1-2.	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
HS-ETS1-3.	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.
Science and Engineering Practices in the NGSS	
	1. Asking questions (for science) and defining problems (for engineering) 2. Developing and using models 3. Planning and carrying out investigations 4. Analyzing and interpreting data 5. Using mathematics and computational thinking 6. Constructing explanations (for science) and designing solutions (for engineering) 7. Engaging in argument from evidence 8. Obtaining, evaluating, and communicating information

Impact on Content Program

Measure 98 money is being used in the planning year of the course. I have had a release period first semester to plan the courses and program of study pathway. Next year we may need additional Measure 98 funds for period release. This release time would be used to develop

curriculum, build program supports, and strengthen community partnerships for the first year program. It would be projected to fill two sections, one for Intro to Horticulture and one section for Sustainable Agriculture 2.

Hillsboro School District Science Adoption will be completed by Liberty HS in 2018-2019. Current Elective Science Courses will be impacted by the Physics, Chemistry, and Biology required sequence. This has the potential to free up FTE. There are currently five sections of Environmental Science at Liberty High School. This is the last group of juniors that was not required to take Physics, Chemistry, and Biology. This resulted in an increased number of Environmental Science sections, it would be expected that the number of sections decreases in the future. This would free up FTE to teach Sustainable Agriculture courses.

The current plan is to offer Sustainable Agriculture 2 and Intro to Horticulture in the 2018-2019 school year. Students from Environmental Science and Construction Technology would be able to enter the Sustainable Agriculture 2 course. Intro to Horticulture would also be added in the 2018-2019 school year. Sustainable Agriculture 1 could be added to either the 2018-2019 or 2019-2020 academic year, this would depend on forecasting and program recruiting.

Liberty High School Currently has the fewest CTE programs of study of the four comprehensive High Schools. In adding this new CTE pathway, students will have more comprehensive programs of study to choose from, as they plan their secondary and post-secondary pathways.

The Intro to Horticulture class has the potential to increase freshman course opportunities. If the decision is made to offer the intro class to freshman, it would allow a semester option for students to take an exploratory course in the program of study. Liberty High School currently has a limited number of freshman exploratory courses.

Projected Additional Costs

The Sustainable Agriculture program will need to be supported in constructing a hoop house. The program has secured some funds from the Nike innovations grants to help with the building of a hoop house. Additional Measure 98 funds may also be required to complete the hoop house. Additional development of the current Falcon Farm will be dependent on the current bond. The completion of a greenhouse would help create opportunities for student enterprises and additional funds for program discretion.

Action Research Plan

Identify the goals of the proposed course

One of the goals of the courses in this program of study is to increase relevant offerings for the students at Liberty High School. Another goal includes student enrollment being representative

of the demographics at Liberty High School, while also being an access point for students who identify as female to explore the field of sustainability and agriculture.

What data will be collected?

During the first few years of this program of study the data that will be collected includes forecasting data, relevant course enrollment data and demographic breakdowns of program participants.

When and how will data be collected?

The relevant data will be collected through Liberty HS counseling department as well as through Synergy and DCA by counselors, program teachers and Liberty CTE administrators.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
SUSTAINABLE DESIGN 1 AND 2

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled “Sustainable Design 1 and 2,” has been submitted by Kevin Crabtree, a teacher of Science and Engineering at Liberty High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on December 4, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the proposed new high school course, Sustainable Design 1 and 2.

Sustainable Design

Course Description

Sustainable Design 1

Prerequisites: Construction Technology

Credits: (CTE/SCI) 1.0

This course will focus on basic design processes including planning, prototyping, fabricating, testing, and revising sustainable small structures and devices. Topics will include rationale for sustainable building, drafting, building science, sustainable materials, as well as water and energy efficiency. Sustainable building methods and systems will be introduced in preparation for the capstone course.

Sustainable Design 2

Prerequisites: Sustainable Design 1

Credits: (CTE/SCI) 1.0

This course will expand upon concepts explored in Sustainable Design 1 but will focus on the application of sustainable building concepts and further practical skill development. This is the capstone course for the Sustainable Design Program of Study. Students will complete a senior project in support of structures and systems related to the Falcon Farm.

Program & Course Objectives:

1. Students will apply the techniques and skills of modern drafting, design, engineering, and construction to projects.
2. Students will employ appropriate representational media to communicate concepts and design.
3. Students will understand how fundamental science concepts and strategies are applied through building science.
4. Students will understand the rationale for sustainability and sustainable building.
5. Students will explain the issues, concepts, strategies, and practices of sustainable site planning and land use.
6. Students will identify water-efficiency and management issues, concepts, strategies, and practices associated with sustainable building.
7. Students will understand how energy is used in buildings and how energy-saving materials, systems, and techniques are utilized in sustainable buildings.
8. Students will identify indoor environmental quality (IEQ) issues, concepts, strategies and practices associated with sustainable building.
9. Students will understand how materials selection and use is applied in sustainable building.

10. Students will identify sustainable building industry tools, resources, and trade organizations.
11. Students will understand how industry accepted practices associated with design, construction and certification impact sustainable building.

*Adapted from ODE Career Technical Education CLA.

Rationale for Proposed Program of Study

The Sustainability department at Liberty High School, with the support of building administration, is developing parallel programs of study; Sustainable Design and Sustainable Agriculture. The Sustainable Design program will align with the Oregon Department of Education's Industrial and Engineering Systems Career Learning Area. Content will be drawn from the Design/Pre-Construction and Sustainable Building Focus Areas within the Architecture and Construction Cluster. In developing this program of study and the courses within, it will be eligible to receive Perkins funding from the state.

The Sustainable Design courses will provide opportunities for students to explore science and engineering through experiential learning, guest speakers, and class field trips. A heavy focus will be placed on the design process in an effort to build student skills that can be applied in a multitude of technical disciplines. Students will be given industry experience through internships with community partners, participate in service learning opportunities, and will gain entrepreneurial experience by marketing a variety of constructed products.

In recent years, Environmental Science and Construction Technology students have supported the design and development of structures and systems in the Falcon Farm on the Liberty campus. This has been an engaging and rewarding experience for students to apply STEM concepts through experiential learning; however, without a full Career Pathway there is little continuity. Given increasingly strong student interest and research into the high wage and high demand area of sustainable design, this pathway is being developed. The Sustainable Design and Sustainable Agriculture Career Pathways will allow students to develop knowledge, understanding, and skill that will help them be more prepared as they move onto their post-secondary lives.

The development of the Falcon Farm at Liberty High School is a key component of the sustainable design program as it provides a context for a variety of projects. Students will be afforded the opportunity to develop design projects and test effectiveness in field conditions unlike most other programs. Installed projects will also serve as a teaching tool for younger students and community visitors. The Falcon Farm will serve as an active learning laboratory supported by Sustainable Design.

High Wage High Demand Careers

A 2015 study by the U.S. Green Building Council finds that “by 2018, green construction will account for more than 3.3 million U.S. jobs—more than one-third of the entire U.S. construction sector—and generate \$190.3 billion in labor earnings. The industry's direct contribution to U.S. Gross Domestic Product (GDP) is also expected to reach \$303.5 billion from 2015-2018.”

(<https://www.usgbc.org/articles/new-study-finds-green-construction-major-us-economic-driver>)

Careers related to sustainable design and construction range from architects and engineers earning 75,000 to 85,000 dollars per year to construction trades professionals at wages between

30,000 and 45,000 dollars per year. While the focus of the Sustainable Design Program will be on the construction sector, sustainability professionals exist in most major areas of our economy. In fact, according to the U.S. Bureau of Labor Statistics, the top two fastest growing occupations projected to 2026 are solar photovoltaic installers and wind turbine service technicians. (www.bls.gov/emp/ep_table_103.htm).

Regardless of a student's future occupation or career path, a background in sustainable design concepts will give them a competitive edge over those without such skills.

Course Outline

	Sustainable Design I / II			
	I	II	III	IV
A	Sustainability Concepts	Sustainable Materials	Sustainable Methods	Sustainable Systems
1	Geography	Wood & Fiber	Site Planning	Solar Power
2	Climate	Stone & Earth	Structural	Wind / Water
3	Economy	Metals	Plumbing	Geothermal
4	Waste Stream	Composites	Electrical	Biofuels
B	Design Concepts	Design Materials	Design Methods	Systems Design
1	Sketching	Stress & Load	Prototype	Building Envelope
2	Orthographic View	Natural Factors	Modeling	Energy Efficiency
3	Plan View	Life Cycle	Circuits	Air Management
4	Elevation View	LEED	Landscape	Water Efficiency
C	Functional Concepts	Materials Function	Functional Methods	Systems Function

1	Building Layout	Insulation	Climate Control	Food Production
2	Maintenance	Thermal Mass	Windows & Vents	Indoor Air Quality
3	Input / Output	Pest & Decay	Reclaimed Materials	Pest Control
4	Reconfiguration	Weatherproofing	Swales & Storage	Waste Water

Academic Content Standards

Courses activities to include a *majority* of Oregon Essential Skills State Standards
(grades 9 – 12 Benchmarks):

(<http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>)

1. Read and comprehend a variety of text*

- Demonstrate the ability to read and understand text.
- Summarize and critically analyze key points of text, events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements.
- Follow instructions from informational or technical text to perform a task, answer questions, and solve problems.

**Includes but not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*

2. Write clearly and accurately

- Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology.
- Develop organized, well-reasoned, supported, and focused communications.
- Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications.
- Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.

3. Apply mathematics in a variety of settings

- Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable.
- Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.
- Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.

4. Listen actively and speak clearly and coherently

- Listen actively to understand verbal and nonverbal communication.
- Give and follow spoken instructions to perform a task, ask and answer questions, and solve

problems.

- Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques.
- Use language appropriate to particular audiences and contexts.

5. Think critically and analytically

- Identify and explain the key elements of complex events, text*, issue, problem, or phenomenon.
- Develop a method to explore the relationships between the key elements of complex event, text*, issue, problem, or phenomenon.
- Gather, question, and evaluate the quality of information from multiple primary and secondary sources.
- Propose defensible conclusions that address multiple and diverse perspectives.
- Evaluate the strength of conclusions, differentiating reasoning based on facts from reasoning based on opinions.

**Includes but not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats.*

6. Use technology to learn, live, and work

- Use technology to participate in a broader community through networking, collaboration and learning.
- Recognize and practice legal and responsible behavior in the use and access of information and technology.
- Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

7. Demonstrate civic and community engagement

- Apply knowledge of local, state, and U.S. history and government to explain current social and political issues.
- Perform the civic and community responsibilities essential to living in a representative democracy.

8. Demonstrate global literacy

- Demonstrate knowledge of diverse cultural, linguistic, and artistic expressions.
- Apply a global perspective to analyze contemporary and historical issues.

9. Demonstrate personal management and teamwork skills

- Participate cooperatively and productively in work teams to identify and solve problems.
- Display initiative and demonstrate respect for other team members to complete tasks.
- Plan, organize, and complete assigned tasks accurately and on time.
- Exhibit work ethic and performance, including the ability to be responsible and dependable.

Next Generation Science Standards (<https://www.nextgenscience.org/>)

HS-PS3 Energy

HS-PS3-3

Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

HS-ESS2 Earth's Systems

HS-ESS2-2

Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.

HS-ESS2-5

Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.

HS-ESS3 Earth and Human Activity

HS-ESS3-1

Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

HS-ESS3-2

Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.

HS-ESS3-4

Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

HS-ETS1 Engineering Design

HS-ETS1-1

Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ETS1-2

Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

HS-ETS1-3

Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts.

NGSS - Science and Engineering Practices

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data

5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Action Research Plan

Identification of Proposed Course Goals

A primary goal of the Sustainable Design Program of Study is to increase the number of relevant course offerings for students at Liberty High School. We also see a need to reduce the imbalance of male to female students in the technical programs at Liberty High School. While focused on the construction industry, Sustainable Design will offer content applicable to a variety of occupations and careers. The design component of industrial and engineering disciplines is often neglected in the current engineering course offerings and this has shown to discourage many students interested in architecture, land use planning, and sustainable community development.

What Data Will be Collected

During the first three years of the Sustainable Design Program of Study data will be collected including forecasting trends, course enrollment, and demographic breakdowns of program participants. Also, an effort will be made to collect data related to college attendance, trade school enrollment and completion. We hope to partner with local industry and educational institutions to better track our graduates successes.

How and When Data Will be Collected

All relevant data will be collected from Liberty HS counseling department as well as using basic Synergy tools and DCA . This work will be a collaboration between counselors, program teachers, and CTE administrators. Most information will be tracked and discussed yearly with some data points being collected mid school year. With help from local community colleges, we also hope to track post-secondary trends in order to tailor the Program of Study to the needs of industry.

Impact on Current Programs and Funding

Measure 98 funds will be used for me to have a release period next year to plan the Program of Study and complete my CTE credential. This release time will be used to develop curriculum, build program supports, and strengthen community partnerships. I will also need to be involved in the planning, design and construction of the new Sustainability Program building on the site of the Falcon Farm.

At this time we can project the elimination of some existing courses and transformation of others as we streamline the current science and engineering related pathways. These changes should result in no net increase in FTE as some current course content will be absorbed into both the newly formed Sustainable Design Program and other Engineering courses. Also, as the Engineering Pathway is reorganized at Liberty, students will have more clear and specific Programs of Study to choose from.

Hillsboro School District Science Adoption will be completely phased in at Liberty HS in 2018-2019. Some current Elective Science Courses will likely be reduced as the Physics, Chemistry, and Biology sequence is finalized. This has the potential to free up FTE currently allocated to five sections of Environmental Science. This year's juniors will be the last group not required to take Physics, Chemistry, and Biology thus reducing the number of Environmental Science sections filled in the future. Students with interest in sustainability will now have the opportunity to take Sustainable Agriculture and Design, also reducing the number of environmental science sections.

Our current plan is to offer Sustainable Design 1 and 2 in the 2018-2019 school year. Students currently in Environmental Science and Construction Technology will be able to enter the Sustainable Design1 or 2 courses based on class standing. Current juniors can choose Sustainable Design 2 in order to do a related senior project and current sophomores will be guided into the Sustainable Design 1 course. The existing Construction Technology course would be condensed and offered as a semester course in order to facilitate more sophomores in the 2018-2019 school year to explore the Sustainable Design Program. Also, there have been discussions of offering Construction Technology to Freshmen but the impact on other Liberty programs needs to be explored.

Liberty High School Currently has the fewest CTE programs of study of the four comprehensive High Schools in Hillsboro. In adding the Sustainable Design and Agriculture CTE pathways, students will have two more comprehensive programs of study to choose from, as they prepare for their post-secondary opportunities in college and careers.

Projected Additional Costs

The Sustainable Design program will need to be supported by constructing a shop facility on the Falcon Farm site. Given the passage of the recent construction bond, the Sustainability Program at Liberty will have a good start toward constructing shop and indoor agriculture space but continued measure 98 funds will be needed. Given the name of the program, the ultimate goal is for both the Sustainable Design and Agriculture Paths to be self funded in the future. This will be accomplished through the development of a Farmers Market style system where students can sell various agricultural and construction products. Once the Program is certified CTE by the state, we will be eligible for Perkins Grant Funding.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
BASIC CONSTRUCTION AND ADVANCED CONSTRUCTION

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled “Basic Construction and Advanced Construction,” has been submitted by Todd Patterson, a teacher of U.S History and the AVID program (Advancement Via Individual Determination) at Glencoe High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on December 4, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the proposed new high school course, Basic Construction and Advanced Construction.

Construction

Glencoe High School

Course Description

Basic Construction: 1.0 Credits

Prerequisites: Wood Tech 1, Drafting 1, or Architecture 1

Grade levels: 10-11

Basic Construction will use both the classroom setting and job site environment to give students an introduction to the high-demand field of construction and teach them the skills that are necessary to build a house. Over the course of the school year students will be introduced to all phases of home construction from framing to floor and countertop installation. Students will learn how to safely utilize and operate a variety of tools. Another goal of this course is to embed math instruction into lessons so students realize the importance of the math they learn and its relevance in a real-world work environment. Student will be put in situations where they will have to collaborate and problem solve in order to complete projects. Different aspects of the course will be taught by industry professionals who have agreed to partner with Glencoe High School to provide this type of education for students. Safety will be a top priority for this course, students will have safety training related to the field of construction. Lastly, students will learn professional skills like customer service, punctuality, bookkeeping and construction management.

Advanced Construction: 1.0 Credits (if double block it would be a 2.0)

Prerequisites: Woods, Drafting or Architecture, Basic Construction

Advanced Construction will be the capstone course for the construction pathway. Students must apply to be in this course. In this course students will build a home to donate or to sell as a class. Students in this course will be putting to use what they have learned in prerequisite courses. Safety will be a top priority and students will enhance their understanding of the construction process and industry through constructing a home themselves. Their education will be supplemented by industry professionals who will demonstrate how to frame, insulate, sheetrock, plumb, wire, paint, finish, and landscape a home. They will meet with city and county inspectors, OSHA inspectors, Clean Water Services inspectors, land developers and real estate agents to enhance their understanding of the many aspects that go into the industry of home construction. Another aspect of the advanced course is that students will gain first-hand knowledge of the skills required to be a construction manager.

Program Course Objectives:

Students will be able to:

1. Demonstrate both academic and hands-on mastery of the basic uses and safe operation of the following tools and machinery: circular saw, framing nailer, table saw, miter saw, pneumatic guns, multiple hand tools.
2. Maintain safe construction worksite conditions and behaviors.
3. Maintain hand and power tools for effective use and longevity.

4. Practice good employability attitudes, and skills in the areas of personal conduct, basic measurement, and following both written and verbal instructions.
 5. Demonstrate basic understanding of the materials and methods to be utilized in the construction of major class projects.
 6. *Successfully frame a floor and walls to a house demonstrating their understanding and initial mastery of their Woods 1 and Basic Construction skill sets.
 7. *Market, manage, and orchestrate a school run construction entrepreneurship.
- *Advanced Construction*

Rationale for Proposed Program of Study:

With the current labor shortage in many construction trades, high school students will have the opportunity to learn valuable skills that could land them a well-paying career after graduation. For some, they will gain skills and knowledge they will be able to utilize in a college construction and engineering management program like the undergraduate program offered at Oregon State University.

(<http://cce.oregonstate.edu/content/construction-engineering-management>).

Other goals of this program will be to:

- Implement mathematics into construction education allowing students to utilize its real-world application.
- Enroll girls as well as boys and encourage them to pursue a career in a traditionally male-dominated field.
- Enroll underserved populations providing them with not only skills, but a real connection to Glencoe High School.
- Build professional (soft) skills like effective verbal and written communication, punctuality, appropriate conduct, etc.
- Increase private sector and community involvement in the lives of Glencoe students.

KPTV story about how construction projects in Portland have been affected by a shortage of workers:

<http://www.kptv.com/story/36351040/construction-projects-in-portland-affected-by-shortage-of-workers>

Tradesmen International story on the national shortage of skilled construction workers:

<https://www.tradesmeninternational.com/news-events/the-construction-labor-shortage-where-did-all-the-skilled-labor-go/>

Units:	Topics to be covered
Safety	-PPE (Personal Protective Equipment) -Importance of clean worksite -OSHA regulations
Tools	-Hand tools -Power tools -Tool maintenance

Plans / Blueprints	-Basic plan understanding and navigation -Elevations -Details -Scale
Excavation / Foundation	-Construct Forms -Pier Pads -Footings -Slab on grade
Floor Framing	-Post and Beam -Decking -Sill Plate
Wall Framing	-Stair stringers -Window installation -Headers -Studs / Joists
Roof Framing	-Truss details -Sheeting -Fall protection -Framing /
Plumbing	-H2O Heater -Different piping, plumbing codes -Water supply -Water drainage
HVAC	-Furnace -Ducting -Mechanical codes
Electrical	-Safety -Electrical codes -Panel installation
Insulation / Drywall	-R Value, wall, attic, underfloor -Loading and hanging drywall -Mudding and taping -Texture and touch up
Cabinets / Countertops	-Tile installation -Cabinet installation -Granite slab installation

Flooring	-Planing floor, eliminating squeaks -Wood, vinyl, tile, laminate
Painting	-Prep and Masking -Interior walls -Interior trim -Exterior
Finish Carpentry	-Tools -Door and window trim -Baseboards -Hanging and adjusting doors
Flatwork / Concrete	-Prep work, set up forms -Exposed Aggregate finish -Broomed finish
Siding / Roofing	-Various types of siding installation -Various types of roofing installation
Landscaping	-Prep work -Planting trees / shrubs -Laying Sod, spreading bark

Academic Content Standards

The above course and activities cover a *majority* of the below Oregon Essential Skills State Standards (grades 9 – 12 Benchmarks):

<http://www.ode.state.or.us/teachlearn/certificates/diploma/essential-skills-definitions.pdf>

1. Read and comprehend a variety of text*

This skill includes all of the following:

- Demonstrate the ability to read and understand text.
- Summarize and critically analyze key points of text, events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements.
- Follow instructions from informational or technical text to perform a task, answer questions, and solve problems.

**text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*

2. Write clearly and accurately

This skill includes all of the following:

- Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology.
- Develop organized, well-reasoned, supported, and focused communications.
- Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications.
- Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.

3. Apply mathematics in a variety of settings

This skill includes all of the following:

- Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable
- Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.
- Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.

4. Listen actively and speak clearly and coherently

This skill includes all of the following

- *This skill includes all of the following:*
- Listen actively to understand verbal and nonverbal communication.
- Give and follow spoken instructions to perform a task, ask and answer questions, and solve problems.
- Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques.
- Use language appropriate to particular audiences and contexts.

5. Think critically and analytically

This skill includes all of the following:

- Identify and explain the key elements of complex events, text*, issue, problem, or phenomenon.
- Develop a method to explore the relationships between the key elements of complex event, text*, issue, problem, or phenomenon.
- Gather, question, and evaluate the quality of information from multiple primary and secondary sources.
- Propose defensible conclusions that address multiple and diverse perspectives.
- Evaluate the strength of conclusions, differentiating reasoning based on facts from reasoning based on opinions.

**Text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats.*

6. Use technology to learn, live, and work

This skill includes all of the following:

- Use technology to participate in a broader community through networking, collaboration and learning.
- Recognize and practice legal and responsible behavior in the use and access of information and technology.
- Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.

7. Demonstrate civic and community engagement

This skill includes all of the following:

- Apply knowledge of local, state, and U.S. history and government to explain current social and political issues.
- Perform the civic and community responsibilities essential to living in a representative democracy.

8. Demonstrate global literacy

This skill includes all of the following:

- Demonstrate knowledge of diverse cultural, linguistic, and artistic expressions.
- Apply a global perspective to analyze contemporary and historical issues.

9. Demonstrate personal management and teamwork skills

This skill includes all of the following:

- Participate cooperatively and productively in work teams to identify and solve problems.
- Display initiative and demonstrate respect for other team members to complete tasks.

- Plan, organize, and complete assigned tasks accurately and on time.
- Exhibit work ethic and performance, including the ability to be responsible and dependable.

Oregon Skills Sets for Industrial Engineering/Architectural and Construction Cluster

CCTC	Code Number	KS Statement
AC 1	AC01	Use vocabulary, symbols, and formulas commonly used in design and construction.
AC 2	AC02	Use architecture and construction skills to create and manage a project.
AC 3	AC03	Comply with regulations and applicable codes to establish and manage a legal and safe workplace/jobsite.
AC 4	AC04	Understand the nature and scope of the Architecture & Construction Career Cluster™ and the role architecture and construction play in society and the economy.
AC 5	AC05	Understand the roles and responsibilities among trades and professions, including labor/management relationships.
AC 6	AC06	Read, interpret, and use technical drawings, documents, and specifications to plan a project.
AC 7	AC07	Evaluate a wide range of career pathway opportunities for success in architecture and construction careers.

Action Research Plan

Identify the goals of the proposed course

One of the goals of the courses in this program of study is to increase relevant offerings for the students at Glencoe High School. Another goal includes student enrollment being representative of the demographics at Glencoe High School while also being an access point for students who identify as female to explore the field of sustainability and agriculture.

What data will be collected?

During the first few years of this program of study the data that will be collected includes forecasting data, relevant course enrollment data and and demographic breakdowns of program participants.

When and how will data be collected?

The relevant data will be collected through Glencoe High School counseling department as well as through Synergy and DCA by counselors, program teachers and Glencoe CTE administrators.

Impact on Content Program

Measure 98 money is being used in the planning year of the course as I have had a release period this first semester to plan the courses and program of study pathway. Next year we may need additional Measure 98 funds for FTE to hire a classified position to assist in the pathway with invoices, purchasing and supervising student projects for safety. Need to have advanced course at the end of the day for working on the construction site. In addition the teacher will need to have period 1 prep each day in order to plan and work with construction partners. The current plan is to offer Basic Construction in the 2018-2019 school year and roll out the Advanced Construction course in 2019-20.

The Hillsboro School District currently does not have a full construction program of study and Glencoe High School will be the magnet program for traditional construction and students from all of the district will be able to eventually travel to take this pathway. In adding this new CTE pathway students will have more comprehensive programs of study to choose from as they plan their secondary and post-secondary pathways.

Projected Additional Costs

This program of study will be an approved Perkins Program of Study and will be eligible for Perkins funds. The Bond and additional Measure 98 funds may also be required to purchase start up equipment and materials. In addition we have been awarded funds from the Nike Student Entrepreneur & Leadership Grant.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
COMPUTER GAME PROGRAMMING 1, 2, AND 3

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled “Computer Game Programming 1, 2, and 3,” has been submitted by Chris Winikka, a teacher of Computer Science at Century High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on December 4, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the proposed new high school course, Computer Game Programming 1, 2, and 3.

Computer Game Design 1, 2, & 3

Course Description

Computer Game Design 1, 2, & 3

Prerequisites: Introduction to Digital Tech or by teacher approval.

Credits: 0.5

This class focuses on creating computer games through the use of a game engine, such as Game Maker. Students will learn basic computer coding and computational thinking through a drag-and-drop interface, allowing them to make a variety of different kinds of games. These will include platform games (like Mario Brothers), role-playing games (like Legend of Zelda), maze games (like PacMan), and scrolling shooter games (like Asteroids).

About Course Levels (Levels 1, 2, & 3):

The course descriptions for levels 1, 2, and 3 are the same with the following differences.

Computer Game Design Level 1

The level 1 course covers the basics of game design, and students are primarily working through a drag-and-drop environment with limited exposure to advanced techniques and scripting.

Computer Game Design Level 2

The level 2 course expands on concepts of data types and scripting. Students begin working in a 3D environment in the 2nd level course.

Computer Game Design Level 3

Students in the level 3 course will work in software development teams to create a single complex video game using an industry-standard software (such as Unity, Unreal Engine, or Game Maker Studio). They will be implementing software engineering practices used in the industry. The project in this course may qualify for a senior project.

Course Objectives

Upon completion of this course, students should be able to:

- Develop and storyboard a video game idea
- Develop a design document
- Implement a complete 2D game, including gameplay, character design and animation, multiple levels, user interface, and game audio
- Use an understanding of the necessary algorithms, data structures, and optimization for successful video game development
- Write game scripts to expand the functionality of game mechanics and AI algorithms
- Apply effective engineering methodology for game development and testing
- Use tools and methods for collaboration on a project
- Explore game development as a career and explore related fields

Rationale for Proposed Course

Students are naturally attracted to games and learning how to make their own games. The desire to make a game provides a problem and the motivation to persevere in solving the problem.

Skills and concepts learned in these classes contribute towards careers such as computer engineering, software engineering, quality assurance engineer, database administration, system administration, system analyst, customer support, web design, and other fields.

Course Organization

This class is a series of projects for students to complete. Students learn the various skills independently, and then are moved to work in teams collaborating on larger projects. Each project has particular set of standards that will be evaluated by proficiency. Each assignment will have particular aspects that will be evaluated based on a rubric contained in the assignment.

In addition to projects, students will learn short modules on various aspects of programming, engineering, and careers that tap into the skills they are learning on the projects and integrate them with other fields and essential skills.

Units of Study

For Both Level 1 and Level 2 Courses

- **Overview of Computer Games** - we recommend that this unit be interspersed throughout the course as students are working through the various game genre projects
 - History of games and technological advances
 - Video Game Basics (sprites, setup/initialization, the game loop, etc.)
 - Overview of various game engines, programming languages, and tools
- **Game Project Management, software engineering, & the agile methodology** - this is introduced at the beginning of the course and becomes the methodology that students practice throughout the course
- **Game AI (Artificial intelligence)** - game designers need to program various algorithms to simulate intelligence. This concept is introduced early in level 1 and continues to expand throughout level 2 as students are encouraged to develop their own unique AI algorithms.

Level 1 Units of Study & Projects

Level 1 students work through online tutorials to develop the sprites, rooms, and mechanics of common game genres. As they follow the tutorials, they take the skills learned in the tutorials and use them to expand the functionality of the program.

- **Catch Game** - intro to a basic game with core game mechanics.
- **Maze Game** - user controls a sprite to navigate several rooms trying to gather treasure and avoid enemies. Introduces concepts of object oriented design and event driven control flow.

- **Breakout** - user controls a paddle and attempts to keep the ball from falling through the floor while trying to destroy all the blocks above. Introduces variables and modular programming.
- **Scrolling Shooter** - this is a game genre like Defender, Asteroids, or similar game where the user controls a plane, space ship, or something similar and tries to shoot incoming objects and enemies. Introduces concepts of object hierarchy and inheritance.
- **Tower Defense** - user must place defensive objects designed to automatically shoot at enemies that follow a preset path. Game includes power-ups and upgrade mechanics.
- **Platformer** - user jumps from platform to platform while trying to navigate a world and avoid enemies. Concepts include physics simulation (gravity, velocity, acceleration, friction, forces).
- **Zelda-style RPG** - students work on a team to develop a world with multiple rooms and a quest to follow.

Level 2 Units of Study & Projects

In the 2nd level, students have more flexibility to choose their primary game genres. They may repeat genres from the level 1 course, but the games must be new and incorporate the following tools & techniques:

- **Collaboration and versioning tools** - students begin working in teams and collaborating on a text-based, file versioning and collaboration tools such as Git.
- **Game Scripting** - students learn to write text scripts in one or more of the following languages: GML, JavaScript, C#, etc.
- **Object-Oriented Design** - students are introduced to the concepts of objects, inheritance, and object oriented design through game objects
- **3D Game Design** - students explore 3D space in Unity and begin developing their own assets using tools such as Rhino and Blender
- **Animations & state machines** - students learn about various animation cycles (idle, running, throwing, etc.) and use game engines and various tools to animate their sprites

Academic Content Standards

CSTA.org Standards

- 3A-AP-13 Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests. (P5.2)
- 3A-AP-16 Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue by using events to initiate instructions.
- 3A-AP-17 Decompose problems into smaller components through systematic analysis, using constructs such as procedures, modules, and/or objects.
- 3A-AP-18 Create artifacts by using procedures within a program, combinations of data and procedures, or independent but interrelated programs.
- 3A-AP-19 Systematically design and develop programs for broad audiences by incorporating feedback from users.
- 3A-AP-20 Evaluate licenses that limit or restrict use of computational artifacts when using resources such as libraries.
- 3A-AP-21 Evaluate and refine computational artifacts to make them more usable and accessible.

- 3A-AP-22 Design and develop computational artifacts working in team roles using collaborative tools.
- 3A-AP-23 Document design decisions using text, graphics, presentations, and/or demonstrations in the development of complex programs.
- 3A-IC-27 Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields.

Common Core Standards

- Mathematical Practice One: Make Sense of Problems and Persevere in Solving Them
- CCSS.MATH.CONTENT.HSN.VM.A.1 Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., v , $|v|$, $\|v\|$, v).
- CCSS.MATH.CONTENT.HSN.VM.2 Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.
- CCSS.MATH.CONTENT.HSN.VM.4 Add and subtract vectors.
- CCSS.MATH.CONTENT.HSN.VM.5 Multiply a vector by a scalar.
- CCSS.MATH.CONTENT.HSN.VM.6 Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
- CCSS.MATH.CONTENT.HSA.CED.A.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.
- CCSS.MATH.CONTENT.HSN.Q.A.2 Define appropriate quantities for the purpose of descriptive modeling.
- CCSS.ELA-LITERACY.WHST.11-12.1.D Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- CCSS.ELA-LITERACY.WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience
- CCSS.ELA-LITERACY.WHST.11-12.10 Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Action Research:

Goals: Capitalize on student interest in computer gaming and use it as a gateway into learning computer science. Action research will include data collection to show correlation with student interests and hobbies and career goals before and after. Care will be taken to understand computer gaming demographics and to be sure that our presentation of the class is encouraging all students, not just computer gamers. Data will be taken to track this correlation as well.

1. What data will be collected? (Include enrollment data).
 - Enrollment data/demographics (gender, ELL, SPED)
 - Grades (broken down by demographics)

- Student Course Evaluation
 - Student interests by category
 - Game play/story
 - Game mechanics
 - Graphic arts/audio creation
 - Other student interests
 - Student access to computer at home
 - Time spent on computer
 - Time spent playing Computer Games (all platforms)
 - Student participation in after school Game Dev club
- Post-Secondary Interest Before/After
- Career Interest Before/After

2. When and how will data be collected?

Data will be collected at the end of each year, as students forecast for future classes. It will also be collected at the beginning of each school year to determine official enrollment demographics, and at the end of each semester to determine student performance and growth, as well as to evaluate the success and growth of the program.

Impact on Content Program

Computer Game Design is a projects-based course that is part of the Computer Technology Career Technical Education pathway. It should not impact current FTE at Century High School or Hillsboro High School.

It is designed so that all three levels could run concurrently at the same time. This would minimize impact on FTE, and also allow the course to be offered at all levels, even if there are lower numbers on one or more of the individual course levels.

The course is designed to be run in a computer lab and would require desktop computers (as opposed to simply Chrome books). The entire course can be taught and run entirely using free software). Future software upgrade choices could cause a subscription fee to be added to the class. This would most likely be optional and could be covered through Career Pathways or Perkins funds.

Evaluation

Projects and assignments are evaluated on the following items:

- Individual Project Requirements
- Syntax
- Structure
- Modular Design
- Soft Skills
- Game Design

Game Design Resources

The Portland Indie Game Jam has provided a link to a [document of Game Design resources](#), and it details links to all kinds of resources including game engines, IDEs, asset creation tools, and more (many of which are open-source and free).

[Article](#) on Forbes.com on the Computer Gaming Industry.

Abstract

Computer Game Design 1 & 2

This class focuses on creating computer games through the use of a game engine, such as Game Maker. Students will learn basic computer coding and computational thinking through a drag-and-drop interface, allowing them to make a variety of different kinds of games. These will include platform games (like Mario Brothers), role-playing games (like Legend of Zelda), maze games (like PacMan), and scrolling shooter games (like Asteroids).

Upon completion of this course, students should be able to:

- Develop and storyboard a video game idea
- Develop a design document
- Implement a complete 2D game, including gameplay, character design and animation, multiple levels, user interface, and game audio
- Use an understanding of the necessary algorithms, data structures, and optimization for successful video game development
- Write game scripts to expand the functionality of game mechanics and AI algorithms
- Apply effective engineering methodology for game development and testing
- Use tools and methods for collaboration on a project
- Explore game development as a career and explore related fields

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE NEW HIGH SCHOOL COURSE PROPOSAL:
COMPUTER SCIENCE PRINCIPLES

SITUATION

Board approval is required for all proposed new courses. Once a course has been approved, it may be offered at the school bringing forth the proposal, as well as any other District school of the same level.

A new course proposal, entitled "Computer Science Principles," has been submitted by Teresa Alexander, a teacher of Technology Engineering at Hillsboro High School. The course proposal is attached. This proposal was presented to the CCAC at its regular meeting on December 4, 2017. The Board reviewed the first reading of the course proposal during the December 12 Board meeting.

If the course is available during the 2018-19 school year, the Board will evaluate its success based on the evaluation presented by teachers to the CCAC in June 2019. This evaluation will include the number of students who signed up for the course, pre- and post-assessments, and the number of students forecasting for the course for the following year. If the course is not available in the 2018-19 school year (due to staffing or enrollment constraints), the Board will evaluate the success of the new course in the year of enactment.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the proposed new high school course, Computer Science Principles.

Computer Science Principles

By: Terry Alexander, Technology Engineering Teacher
Hillsboro High School

Course Description

This two semester class explores the field of computer science. Students will explore computer architecture, software development engineering, data organization, problem-solving strategies, ethics, and theory of computation. Students will also explore career options and develop rudimentary software development skills.

This course is designed to be able to be offered with dual credit from PCC for PCC Computer Science 160, Exploring Computer Science. Skills and concepts learned in this class contribute towards careers such as computer engineering, software engineering, quality assurance engineer, database administration, system administration, system analyst, customer support, web design and other fields.

Prerequisites for this course include two semesters of introductory level programming classes, including Programming 1/2, Computer Game Design 1/2, Robotics 1/2, or Web Design or Applied Web Design

Program Course Objectives:

On completion of this course the student should be able to:

- Identify career opportunities in computer science and distinguish computer science from related disciplines.
- Develop and analyze simple algorithms, and design, code, and test a program.
- Use a variety of problem-solving strategies, and be aware of the operation of computer hardware.
- Use an understanding of the underlying computational limitations of computers when identifying solutions.
- Apply ethical understanding of issues of privacy, professional integrity, and service to work in the field.
- Analyze different data organization techniques, including data structures, files, records and databases to identify an optimal solution to organize data.

Rationale for Proposed Course

This course fills a need for students who are not in an Advanced Placement program to have access to a college level Introduction to Computer Science. This course is aligned to be offered for dual credit with PCC for PCC CS 160, a core course that is a prerequisite for many courses that follow it in the Computer Science course of study. It is equivalent to the AP Computer Science Principles class offered at some Hillsboro School District high schools but with specific alignment to Oregon college programs.

Students who complete this course are ready to take more advanced college level courses that can lead to careers in software development and other related computer fields, including Intro to Computer Science which is already included in the HSD catalog.

Course Organization:

Students will perform a series of lessons and lab activities which will model concepts, sometimes “unplugged”, where students explore concepts modeled conceptually in the physical world that they will later implement digitally. For example, using and analyzing a quick sort algorithm with playing cards by following the described algorithm written in pseudocode.

Another thread of the course will include exposure to careers in computer fields, including direct contact with local computer development professionals.

Course Outline with Learning Targets:

First Semester

Course Content

The following concepts will be introduced:

1. Careers
 - a. Computer scientist
 - b. Computer engineer
 - c. Software engineer
 - d. Software developer
 - e. Quality assurance engineer
 - f. Database administrator
 - g. Systems/web administrator
 - h. Systems Analyst
 - i. Technical marketer, customer support
2. Ethics
 - a. Privacy
 - b. Security
 - c. Professional integrity
3. Software Engineering and Development
 - a. Software development life cycle
 - i. Analysis
 - ii. Design
 - iii. Implementation
 - iv. Testing
 - v. Tools
 - vi. Documentation
 - b. Teamwork
4. Problem-solving
 - a. Problem identification
 - b. Inductive and deductive reasoning
 - c. Scientific method
5. Data Representation
 - a. Numeric (integer, floating point)
 - b. Character
 - c. Video/audio/graphics
 - d. Compression

Academic Content Standards

Standard are
taken from
Oregon
Computer
Science
Teachers’

6. Data Organization
 - a. Data structures (stacks, queues, lists) from a user perspective
 - b. Data hierarchy (field, record, file, database)
7. Hardware
 - a. CPU architecture
 - b. Instruction execution cycle
8. Operating Systems
 - a. Resource management (disk, cpu, ram)
 - b. User interface
9. Programming Languages
 - a. Procedural, non-procedural
 - b. Program translation
10. Algorithms
 - a. Finiteness
 - b. Halting
 - c. Deterministic
 - d. Algorithm expression
11. Theory of Computation
 - a. Computability
 - b. Tractability
12. Artificial Intelligence
 - a. Cognition
 - b. Applications of AI (knowledge, language)
 - c. Neural net

Association as part of the nation CS For All initiative and correlated with Common Core standards.

CSTA Standards:
Analyze the

representation and trade-offs among various forms of digital information. (L3A:6.CT)

Explain how sequence, selection, iteration, and recursion are building blocks of algorithms. (L3A:3.CT)

Work in a team to design and develop a software artifact. (L3A:1.CL)

Explain how sequence, selection, iteration, and recursion are building blocks of algorithms. (L3A:3.CT)

Select appropriate file formats for various types and uses of data. (L3A:6.CP)

Describe how mathematical and statistical functions, sets, and logic are used in computation. (L3A:12.CP)

Analyze data and identify patterns through modeling and simulation. (L3B:9.CT)

Use collaborative tools to communicate with project team members (e.g., discussion threads, wikis, blogs, version control, etc.). (L3A:2.CL)

Deploy various data collection techniques for different types of problems. (L3B:8.CPP)

Describe how various types of data are stored in a computer system. (L3A:7.CT)

Use advanced tools to create digital artifacts (e.g., web design, animation, video, multimedia). (L3B:1.CP)

Discuss the impact of computing technology on business and commerce (e.g., automated tracking of goods, automated financial transactions, e-commerce, cloud computing). (L3A:2.CI)

Common Core State Standards for Mathematics:

Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (A –CED.2)

Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods. (A –CED.3)

Interpret parts of an expression, such as terms, factors, and coefficients. (A –SSE.1a)

Define appropriate quantities for the purpose of descriptive modeling. (N–Q.2)

Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., $\mathbf{v}$, $|\mathbf{v}|$, $\|\mathbf{v}\|$, v). (N-VM.1)

Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point. (N-VM.2)

Add and subtract vectors. (N-VM.4)

Multiply a vector by a scalar. (N-VM.5)

Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network. (N-VM.6)

Action Research:

1. What data will be collected? (Include enrollment data).

- Enrollment data/demographics (ELL, SPED)
- Grades (broken down by demographics)
- Student Course Evaluation
- Post-Secondary Interest Before/After
- Career Interest Before/After

2. When and how will data be collected?

Data will be collected at the end of each year, as students forecast for future classes. It will also be collected at the beginning of each school year to determine official enrollment demographics, and at the end of each semester to determine student performance and growth, as well as to evaluate the success and growth of the program.

Evaluation:

Assessment includes lab assignments, quizzes, written essays, and group work evaluated by rubric.

Project assessment will be the largest indicator of proficiency against standards. Midterm and final exams may also be used to measure proficiency.

Impact on Content Program

This class offers an option for Intermediate programming

Projected Additional Costs

Course resources

There is no additional costs to the students or the school for classroom equipment or supplies above and beyond normal computer use and printing costs.

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE REVISIONS TO POLICY JEA: COMPULSORY ATTENDANCE

SITUATION

In October, the Board approved revisions to District policy JEA: Compulsory Attendance, as recommended by Oregon School Boards Association (OSBA) in order to clarify and update the policy, including references to Oregon Revised Statutes regarding an exemption from compulsory attendance for emancipated minors or minors who have made application to become emancipated.

Additional revisions have now been recommended by OSBA, to align with new legislation (House Bills 3029 and 3409 and Senate Bill 20) regarding compulsory attendance.

These proposed revisions were presented to the Board for first reading on December 12, 2017. No public comments or questions were received during the review period.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the revisions to policy JEA: Compulsory Attendance.

Hillsboro School District 1J

Code: **JEA**
Adopted: 2/26/02
Readopted: 09/23/08; 10/12; 5/01/16
10/24/17;

Compulsory Attendance**

Except when exempt by Oregon law, all students between ages 6 and 18, who have not completed the 12th grade, are required to regularly attend a public, full-time school during the entire school term.

All students five years of age who have been enrolled in a public school are required to attend regularly while enrolled in the public school.

Persons having legal control of a student between ages 6 and 18, who has not completed the 12th grade, are required to have the student attend school, and maintain the child in regular attendance during the entire school term. Persons having legal control of a student who is five years of age and who has been enrolled in a public school are required to have the student attend, and maintain the student in regular attendance during the school term.

~~Under the superintendent's direction and supervision, building principals / designees~~ Attendance supervisors shall monitor and report any violation of the compulsory attendance law to the superintendent or designee. Failure to send a student to school and to maintain a student in regular attendance is a Class C violation.

A parent or other person lawfully charged with care or custody of a child, who is not supervising his/her student by requiring school attendance, may also be in violation of Oregon Revised Statute (ORS) 163.577(1)(c). Failing to supervise a child is a Class A violation.

The district will develop procedures for issuing a citation.

Exemptions from Compulsory School Attendance

In the following cases, students shall not be required to attend public, ~~schools~~ full-time schools:

1. Students being taught in a private or parochial school in courses of study usually taught in kindergarten through grade 12 in the public schools; and in attendance for a period equivalent to that required of students attending public schools;
2. Students proving to the Board's satisfaction that they have acquired equivalent knowledge to that acquired in the courses of study taught in kindergarten through grade 12 in the public schools;
3. Students who have received a high school diploma or a modified diploma.
- 4 ~~3~~. Students being taught, by a private teacher, the courses of study usually taught in kindergarten through grade 12 in the public school, for a period equivalent to that required of students attending public schools;

5 4. Students being educated in the home by a parent or ~~legal~~ guardian;

- a. When a student is taught or is withdrawn from a public school to be taught by a parent or private teacher, the parent or teacher must notify the Northwest Regional Education Service District (ESD) in writing within 10 days of such occurrence. In addition, when a home-schooled student moves to a new ESD, the parent shall notify the new ESD in writing, within 10 days, of the intent to continue home schooling. The ESD superintendent shall acknowledge receipt of any notification in writing within 90 days of receipt of the notification. The ESD is to notify, at least annually, school districts of home-schooled students who reside in their district;
- b. Each student being taught by a parent or private teacher shall be examined no later than August 15, following grades 3, 5, 8 and 10:
 - (1) If the student was withdrawn from public school, the first examination shall be administered at least 18 months after the date the student withdrew;
 - (2) If the student never attended public or private school, the first examination shall be administered prior to the end of grade 3;
 - (3) Procedures for home-schooled students with disabilities are set out in Oregon Administrative Rule (OAR) 581-021-0029.
- c. Examinations testing each student shall be from the list of approved examinations from the State Board of Education;
- d. The examination must be administered by a neutral individual qualified to administer tests on the approved list provided by the Oregon Department of Education;
- e. The person administering the examination shall score the examination and report the results to the parent. Upon request of the ESD superintendent, the parent shall submit the results of the examination to the ESD;
- f. All costs for the test instrument, administration and scoring are the responsibility of the parent;
- g. In the event the ESD superintendent finds that the student is not showing satisfactory educational progress, the ESD superintendent shall provide the parent with a written statement of the reasons for the finding, based on the test results and shall follow the guidelines in Oregon Revised Statutes and Oregon Administrative Rules.

6. Children whose sixth birthday occurred on or before September 1 immediately proceeding the beginning of the current school year, if the parent or guardian notified the child's resident district in writing that the parent or guardian is delaying the enrollment of their child for one school year to better meet the child's needs for cognitive, social or physical development, as determined by the parent or guardian.

7. Children who are present in the United States on a nonimmigrant visa and who are attending a private, accredited English language learner program in preparation for attending a private high school or college.

8 5. Students excluded from attendance as provided by law;

- 9 ~~6~~. An exemption may be granted to the parent or ~~legal~~ guardian of any student 16 or 17 years of age who is lawfully employed full-time, or who is lawfully employed part-time and enrolled in school, a community college, or an alternative education program as defined in ORS 336.615.
- 10 ~~7~~. An exemption may be granted to any child who is an emancipated minor or who has initiated the procedure for emancipation under ORS 419B.550 to 419B.588.

END OF POLICY

Legal Reference(s):

[ORS 153.018](#)
[ORS 163.577](#)
[ORS 336.615](#) to -336.665
[ORS 339.010](#) to -339.090
[ORS 339.095](#)

[ORS 339.257](#)
[ORS 339.990](#)
[ORS 419B.550](#) to -419B.558
[ORS 807.065](#)
[ORS 807.066](#)

[OAR 581-021-0026](#)
[OAR 581-021-0029](#)
[OAR 581-021-0071](#)
[OAR 581-021-0077](#)

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE REVISIONS TO POLICY IKF: GRADUATION REQUIREMENTS

SITUATION

The proposed revisions to policy IKF: Graduation Requirements are based on recommendations from the Oregon School Boards Association (OSBA) to ensure that the policy aligns with recent legislative requirements, including changes adopted by the Oregon State Board of Education to Oregon Administrative Rule (OAR) 581-022-0617 - Essential Skills Assessment for English Language Learners; House Bill (HB) 3267 regarding graduation requirement waivers for students in certain situations; Senate Bill (SB) 20, regarding participation in graduation exercises for students who qualify to earn modified or extended diplomas or alternative certificates; and HB 2220 regarding high school diplomas for persons who have served in the U. S. Armed Forces. An additional change is proposed to align the District's modified diploma requirements with the state requirements.

These proposed revisions were presented to the Board for first reading on December 12, 2017. No public comments or questions were received during the review period.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the revisions to policy IKF: Graduation Requirements.

Hillsboro School District 1J

Code: **IKF**
Adopted: 7/96
Revised/Readopted: 3/24/15; 10/01/16;

Graduation Requirements**

The Board will establish graduation requirements for the awarding of a chancellor's diploma, a standard diploma, a modified diploma, an extended diploma, and an alternative certificate that meets or exceeds state requirements.

A student may satisfy graduation requirements in less than four years. The District will award a diploma to a student fulfilling graduation requirements in less than four years if consent is given by the student's parent or guardian, or by the student, if he/she is 18 years of age or older or emancipated.

Students and their parents/guardians will be notified annually of the requirements for all Hillsboro diplomas. See the graduation requirement manual for specific instructions.

If the district requires diploma requirements beyond the state requirements, the district shall grant a waiver for those requirements to any student who, at any time from grade 9 to 12, was:

1. A foster child¹;
2. Homeless;
3. A runaway;
4. A child in a military family covered by the Interstate Compact on Educational Opportunity for Military Children;
5. A child of a migrant worker; or
6. Enrolled in the Youth Corrections Education Program or the Juvenile Detention Education Program.

For any student identified above, the district shall accept any credits earned by the student in another district or public charter school, applying those credits toward the state requirements for a diploma if the credits satisfied those requirements in that district or public charter school².

Chancellor's Diploma

The Chancellor's Diploma will be awarded to students who have demonstrated their commitment to a rigorous course of study during high school in order to prepare for college and career success. The Chancellor's Diploma includes classes and requirements that promote critical thinking skills and an enriched learning experience. These requirements are aligned with general Oregon university admissions, but do not guarantee automatic acceptance. Students who earn a Chancellor's Diploma demonstrate the experience that is desired for every student in the Hillsboro School District (HSD). All students earning a

¹As defined in ORS 30.297.

²For a diploma awarded on or after January 1, 2018.

Chancellor's Diploma will be recognized with a Chancellor's Diploma Recognition during the graduation ceremony.

HSD Chancellor's Diploma Requirements	Graduating classes through 2018	Cohort class of 2019 and following years	
Math (including one unit at the Algebra 1 level; and two units at a higher level than Algebra 1)*	3.0	4.0	
English* (one unit in written comprehension)	4.0	4.0	
Science*	3.0	3.0**	**Minimum of 3 credits in each plus one additional credit in either; total = 7 credits
Social Sciences (including history, civics, geography, and economics (including personal finance))*	3.0	3.0**	
Science*/Social Sciences*		1.0**	
Health Education	1.0	1.0	
Physical Education	1.0	1.0	
Career and Technical Education (CTE), the Arts, and World Language* (with at least two credits of world language)	3.0	3.0	
Electives	7.0	5.0	
Senior Seminar (or Focused Program Internship credit)	0.5	0.5	
Career and College Development	0.5	0.5	
Total Credits	26.0	26.0	
*Academic Credit Requirements (English, mathematics, science, social science, and/or world language)			
Number of required academic credits	18.0	18.0	
Minimum number of required academic credits that must be completed in advanced-level coursework (as defined by AP, IB, or dual-credit designation)		4.0	
Required cumulative GPA in academic courses	3.4	3.0	
Minimum grade in every academic requirement course	C	C	
Required GPA in all coursework	3.0 GPA	3.0 GPA	
Proficiency in Essential Skills	Required	Required	

In addition to credit requirements as outlined in Oregon Administrative Rule (OAR) 581-022-1130 2000 and OAR 581-022-2010, respectively, a student must:

1. Demonstrate proficiency in the Essential Skills of reading, writing, and apply math;
2. Develop an education plan and build an education profile;

3. Demonstrate extended application through a collection of evidence; and
4. Participate in career-related learning experiences.

The District shall offer students credit options, provided the method for obtaining such credits is described in the student's personal education plan; and the credit is earned by meeting requirements described in OAR 581-022-1131-2025.

Graduation Honors - Valedictorian and Salutatorian: Students who earn a Chancellor's Diploma may be eligible for graduation honors.

Valedictorian: Students earning a Chancellor's Diploma and receiving an unweighted GPA of 4.0 for all classes taken will be recognized as Valedictorians. In the event that no students receive a 4.0 GPA, but earn a Chancellor's Diploma, the student(s) with the highest GPA will be recognized as the Valedictorian(s). More than one person may be recognized as the Valedictorian(s).

Salutatorian: Student(s) who earn a Chancellor's Diploma and have the second highest unweighted GPA will be recognized as the Salutatorian(s). More than one person may be recognized as the Salutatorian(s).

Honors Graduate: The students who earn a Chancellor's Diploma and maintain above a 3.75 unweighted GPA will be recognized as Honors graduates.

Standard Diploma

A standard diploma will be awarded to students who have satisfactorily completed all state and local graduation requirements. Students completing the standard diploma may qualify for entrance to colleges, community colleges, military and trade schools. A standard diploma will be awarded to students in grades 9 through 12 who complete a minimum of 24 credits that include at least:

Standard Diploma Requirements	Required Credits
Math (one unit at the Algebra 1 level; and two units at a higher level than Algebra 1)	3.0
English (one unit in written comprehension)	4.0
Science	3.0
Social Sciences (including history, civics, geography; and economics (including personal finance))	3.0
Health Education	1.0
Physical Education	1.0
Career and College Development	0.5
Senior Seminar (or Focused Program Internship credit)	0.5
Career and Technical Education (CTE), the Arts, and or World Language (units shall be earned in any one or a combination)	3.0
Electives	5.0
Total Credits	24.0

The District shall offer students credit options, provided the method for obtaining such credits is described in the student's personal education plan, and the credit is earned by meeting requirements described in OAR 581-022-1131~~2025~~.

In addition to credit requirements as outlined in OAR 581-022-1130~~2000~~ and OAR 581-022-2010, respectively, a student must:

1. Demonstrate proficiency in the Essential Skills of reading, writing, and apply math;
2. Develop an education plan and build an education profile;
3. Demonstrate extended application through a collection of evidence; and
4. Participate in career-related learning experiences.

Essential Skills

The District will allow English Language Learners (ELLs) students to demonstrate proficiency in the Essential Skill of "Apply mathematics in a variety of settings" in the student's language of origin for those ELL-students who, by the end of high school:

1. Are on track to meet all other graduation requirements; and
2. Are unable to demonstrate proficiency in the Essential Skill in English.

The District will allow ELL-students to demonstrate proficiency in Essential Skills other than "Apply mathematics in a variety of settings" in the student's language of origin for those ELL-students who, by the end of high school:

1. Are on track to meet all other graduation requirements;
2. Are unable to demonstrate proficiency in the Essential Skills in English;
3. Have been enrolled in a U.S. school for five years or less; and
4. Have demonstrated sufficient English language skills using the English Language Proficiency Assessment for the 21st Century (ELPA21)³.

The district will develop procedures to provide assessment options as described in the *Essential Skills and Local Performance Assessment Manual*, in the EL's language of origin for those ELs who meet the criteria above, and will develop procedures to ensure that locally scored assessment options administered in an EL's language of origin are scored by a qualified rater.⁴

Modified Diploma

A modified diploma will be awarded only to students who have demonstrated difficulty meeting the full set of academic standards established adopted by the State Board of Education for a diploma; while

³This criteria does not apply to students seeking a diploma in 2017-2018.

⁴[This paragraph is required if the district allows ELs to demonstrate proficiency in Essential Skill of Apply Mathematics and other courses.]

receiving reasonable modifications and accommodations. Students completing the modified diploma may qualify for entrance to colleges, community colleges, military and trade schools. ~~To be eligible for a modified diploma, may only be awarded to a student must who meets the eligibility criteria below:~~

1. Have a documented history of difficulty maintaining grade-level achievement due to significant learning and instructional barriers; or
2. Have a documented history of a medical condition that creates a barrier to achievement.

Having met the above eligibility criteria, a modified diploma will be awarded to students who, while in grade 9 through completion of high school, complete 24 credits, which shall include:

Modified Diploma Requirements	Required Credits
Math	2.0
English	~~4.0~~ 3.0
Science	2.0
Social Sciences	2.0
Health Education	1.0
Physical Education	1.0
Career and College Development	2.5
Electives (including 0.5 Senior Seminar or Focused Program Internship credit)	~~8.5~~ 9.5 (0.5)
Career and Technical Education (CTE), the Arts, ~~and~~ or World Language	1.0
Total Credits	24.0

In addition to credit requirements as outlined in OAR 581-022-~~2010~~, a student must:

1. Develop an education plan and build an education profile; ~~and~~
2. Demonstrate extended application through a collection of evidence; ~~and~~
- ~~3. Participate in career-related learning experiences.~~

A student must also demonstrate proficiency in the Essential Skills ~~of reading, writing, and apply math~~ with reasonable modifications and accommodations.

Districts may make modifications to the assessment for students who seek a modified diploma when the following conditions are met:

1. For a student on an individualized education program (IEP) ~~or 504 plan~~, any modifications to work samples must be consistent with the requirements established in the IEP ~~or 504 plan~~. Modifications are changes to the achievement level, construct, or measured outcome of an assessment. This means that IEP or school teams responsible for approving modifications for a student's assessment may adjust the administration of the assessment and/or the assessment's achievement standard.

2. For a student not on an IEP, any modifications to work samples must have been provided to the student during their instruction in the content area to be assessed, and in the year in which the student is being assessed, and modifications must be approved by the school team that is responsible for monitoring the student's progress toward the modified diploma.

Students not on an IEP or a **Section 504** plan may not receive any modified state-approved assessments.

A student's school team shall decide whether a student should work toward a modified diploma no earlier than the end of grade 6, and no later than two years before the student's anticipated exit from high school. A student's school team may decide to revise a modified diploma decision.

A student's school team may decide that a student who was not previously working toward a modified diploma should work toward one when the student is less than two years from anticipated exit from high school, if the documented history has changed.

Extended Diploma

An extended diploma will be awarded only to students who have demonstrated difficulty the inability to meeting the full set of academic content standards adopted by the State Board of Education for a diploma, while receiving modifications and accommodations. Students receiving an extended diploma may have varying educational opportunities after graduation to help meet IEP goals and objectives through age 21. To be eligible for an extended diploma, a student must:

1. While in grade 9 through completion of high school, complete 12 credits, which may not include more than 6 credits in a self-contained special education classroom, and will include:

Extended Diploma Requirements	Required Credits
Math	2.0
English	2.0
Science	2.0
History, Geography, Economics, or Civics	3.0
Health Education	1.0
Physical Education	1.0
The Arts or a World Language	1.0
Total Credits	12.0

2. Have a documented history of:
 - a. An inability to maintain grade level achievement due to significant learning and instructional barriers;
 - b. A medical condition that creates a barrier to achievement; or
 - c. A change in the student's ability to participate in grade level activities as a result of a serious illness or injury that occurred after grade eight.

Beginning in grade 5, or after a documented history to qualify for an extended diploma has been established, the District shall annually provide to the parents or guardians of the student, information

about the availability and requirements of a modified diploma, an extended diploma, and an alternative certificate.

Alternative Certificate

An alternative certificate will be awarded to students who do not satisfy the requirements for a chancellor's diploma, standard diploma, modified diploma, or extended diploma, if the students meet minimum credit requirements established by the District. Students receiving an alternative certificate may have varying educational opportunities after graduation. Alternative certificates will be awarded based on individual student needs and achievement.

Other District Responsibilities

The District will ensure that students have onsite access to the appropriate resources to achieve a chancellor's diploma, a standard diploma, a modified diploma, an extended diploma, or an alternative certificate at each high school. The District will provide age-appropriate and developmentally appropriate literacy instruction to all students until graduation.

The District may not deny a student, who has a documented history of difficulty maintaining grade-level achievement due to significant learning and instructional barriers, or of a medical condition that creates a barrier to achievement, the opportunity to pursue a diploma with more stringent requirements than a modified diploma or an extended diploma for the sole reason that the student has a documented history.

The District may award a modified diploma or an extended diploma to a student only upon the written consent of the student's parent or guardian. The District shall receive the written consent during the school year in which the modified diploma or the extended diploma is awarded. A student who is emancipated or has reached the age of 18 at the time the modified diploma or the extended diploma is awarded may sign the consent.

A student shall have the opportunity to satisfy the requirements for a modified diploma, an extended diploma, or an alternative certificate either within four 4 years after starting the ninth grade, or until the student reaches the age of 21, if the student is entitled to a public education until the age of 21 under state or federal law.

A student may satisfy the requirements for a modified diploma, an extended diploma, or an alternative certificate in less than four years, but not less than three years. In order to satisfy the requirements for a modified diploma, an extended diploma, or an alternative certificate in less than four years, the student's parent or guardian, or a student who is emancipated or has reached the age of 18, must provide written consent which clearly states that the parent, guardian, or student is waiving the fourth year and/or years until the student reaches the age of 21. A copy of the consent will be forwarded to the District Superintendent or designee, who will annually report to the Superintendent of Public Instruction the number of such consents.

A student who qualifies to receive or receives a modified diploma, an extended diploma, or an alternative certificate will shall have the option of participating in a high school graduation ceremony with the student's class.

A student on an IEP who receives a modified diploma, an extended diploma, or an alternative certificate shall have access to individually designed instructional hours, hours of transition services, and hours of other services that equals at least the total number of instructional hours that is are required to be provided to students who are attending a public high school, unless reduced as determined by the IEP team.

The District must provide a Summary of Performance to students who are graduating from secondary school with a standard diploma, or are leaving due to exceeding the age of eligibility for a free appropriate public education (end of school year in which they turn 21).

A student who qualifies to receive a modified diploma but has not yet been awarded the modified diploma shall continue to have access to individually designed instructional hours, hours of transition services and hours of other services that are designed to meet the unique needs of the student, as determined by the IEP or school team.⁵

The District will award to students with disabilities a document certifying successful completion of program requirements. No document issued to students with disabilities educated in full or in part in a special education program shall indicate that the document is issued by such a program. When a student who has an IEP completes high school, the district will give the student an individualized summary of performance.

Eligible students with disabilities are entitled to a Free Appropriate Public Education (FAPE) until the age of 21, even if they have earned a modified diploma, an extended diploma, an alternative certificate, or completion of a General Education Development document. The continuance of services for students with disabilities who receive a modified diploma, an extended diploma, or an alternative certificate is contingent on the IEP team determining the student's continued eligibility and need for special education services are needed.

Students and their parents will be notified by grade five of graduation and diploma requirements.

The District may not deny a diploma to a student who has opted out of statewide assessments if the student is able to satisfy all other requirements for the diploma. Students who opt-out will need to meet the Essential Skills graduation requirement using another approved assessment option. Students may opt out of the Smarter Balanced or alternate Oregon Extended Assessment by completing the Oregon Department of Education's Opt-out Form⁶; and submitting the form to the District.

The District will issue a high school diploma, upon request and pursuant to Oregon law (ORS 332.114), to a person or a representative of a deceased person who served in the U.S. Armed Forces⁷, as specified in Oregon law, if the person and was discharged or released under honorable conditions and has received

⁵A student who received a modified diploma prior to July 1, 2018 shall continue to have access to instructional hours, hours of transition services and hours of other services that are designed to meet the unique needs of the student, as determined by the IEP or school team.

⁶www.ode.state.or.us; or navigate to Teaching & Learning > Testing - Student Assessment > Smarter Balanced

⁷The policy applies to any person who:

1. Served in the Armed Forces of the U.S. at any time during:
 - a. World War I;
 - b. World War II;
 - c. The Korean Conflict; or
 - d. The Vietnam War;
2. Served in the Armed Forces of the U.S. and was physically present in:
 - a. Operation Urgent Fury (Grenada);
 - b. Operation Just Cause (Panama);
 - c. Operation Desert Shield/Desert Storm (Persian Gulf War);
 - d. Operation Restore Hope (Somalia);
 - e. Operation Enduring Freedom (Afghanistan); or
 - f. Operation Iraqi Freedom (Iraq);
3. Served in the Armed Forces of the U.S. in an area designated as a combat zone by the President of the U.S.

either a General Educational Development or a post-secondary degree, or has received a minimum score on the Armed Services Vocational Aptitude Battery.

The District shall establish conduct and discipline consequences for student-initiated test impropriety. "Student-initiated test impropriety" means student conduct that is inconsistent with the *Test Administration Manual* or accompanying guidance; or results in a score that is invalid.

END OF POLICY

Legal Reference(s):

[ORS 329.095](#)
[ORS 329.451](#)
[ORS 329.479](#)
[ORS 332.107](#)
[ORS 332.114](#)
[ORS 338.115](#)
[ORS 339.115](#)
[ORS 339.505](#)

[ORS 343.295](#)

[OAR 581-022-06152115](#)
[OAR 581-022-06172120](#)
[OAR 581-022-11302000](#)
[OAR 581-022-11312025](#)
[OAR 581-022-11332015](#)
[OAR 581-022-11342010](#)

[OAR 581-022-11352020](#)
[OAR 581-022-12102030](#)
[OAR 581-022-1215](#)
[OAR 581-022-13502505](#)
[OAR 581-022-1910](#)

Test Administration Manual, published by the OREGON DEPARTMENT OF EDUCATION (FEBRUARY 4, 2016).
Essential Skills and Local Performance Assessment Manual, published by the OREGON DEPARTMENT OF EDUCATION (MARCH 17, 2016).

Cross Reference(s):

IKFA - Early Graduation

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
APPROVE REVISIONS TO POLICY CBA: QUALIFICATIONS AND DUTIES
OF THE SUPERINTENDENT, AND POLICY CBG: EVALUATION OF THE
SUPERINTENDENT; AND THE DELETION OF CGB-AR: SUPERINTENDENT
EVALUATION FORM

SITUATION

The proposed revisions to policies CBA: Qualifications and Duties of the Superintendent and CBG: Evaluation of the Superintendent will align the District's versions of these policies with the recommendations of Oregon School Boards Association (OSBA).

OSBA recommends that CGB-AR: Superintendent Evaluation Form be deleted because the Superintendent evaluation instrument / process, which is agreed upon between the Board and Superintendent, can change from year to year or contract to contract. The current evaluation process and timeline are reviewed by the Board annually prior to the commencement of the evaluation process.

These proposed revisions were presented to the Board for first reading on December 12, 2017. No public comments or questions were received during the review period.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the revisions to policies CBA: Qualifications and Duties of the Superintendent, and CBG: Evaluation of the Superintendent, and the deletion of CGB-AR Superintendent Evaluation Form.

Hillsboro School District 1J

Code: CBA
Adopted: 07/96
Revised: 10/07

Qualifications and Duties of the Superintendent

POSITION: Superintendent of Schools

- QUALIFICATIONS:**
1. A current Oregon administrative license with an authorization for all levels, superintendent's endorsement or a transitional superintendent license;
 2. Successful experience as an educational leader and administrator;
 3. In lieu of the experience and training requirements above, the Board may consider as a candidate for its superintendent's position an individual who meets transitional administrator or exceptional administrator licensure requirements. The Board may, jointly with the individual, submit an application for such license for Teacher Standards and Practices Commission approval pursuant to OAR 584-080-0151 and 584-080-0161;
 4. Other qualifications as determined by the Board.

Qualifications

1. ~~Meet state licensing;~~
2. ~~Other qualifications as determined by the Board.~~

REPORTS TO: Board of Directors

SUPERVISES: Central office administrators and school principals; and through them, all district personnel.

JOB GOAL: Provide effective administration of all schools and departments, and educational leadership throughout the school system and community.

Performance Responsibilities

The superintendent:

1. Serves as chief executive officer of the Board except as otherwise provided by law, makes rules not in conflict with law or with Board policies and decides all matters of

administrative and supervisory detail in connection with the operation and maintenance of the schools;

2. Initiates and directs the development of policies for approval by the Board, delegating such responsibility to associates and subordinates as deemed desirable;
3. Attends all meetings of the Board except those concerned with his/her own contract status and takes part in the deliberations, but does not vote;
4. Assists the Board in reaching sound judgments, establishing policies and approving those matters which the law requires the Board to approve; places before the Board necessary and helpful facts, comparisons, investigations, information and reports; and makes available the personal advice on special or technical matters by those persons who are qualified to furnish it;
5. Implements and interprets Board policies;
6. Recommends the appointment, renewal, contract extension, contract nonrenewal, contract nonextension or discharge of licensed employees of the Board as provided by law, Board policies and the employee's collective bargaining agreement, as applicable, and with such recommendations reported to the Board for approval;
7. Assigns or transfers licensed employees as provided by state law, Board policies, collective bargaining agreements and meet and confer agreements, as applicable;
8. Appoints, assigns, transfers, promotes, demotes or discharges classified and nonrepresented employees as provided by state law, Board policies, collective bargaining agreements and meet and confer agreements, as applicable;
9. Directs the professional supervisory staff in visits to the schools under the superintendent's charge; through this staff, directs, assigns and assists teachers and all other educational employees in the performance of their duties; classifies, assigns and controls the promotion of students; and performs other duties as the Board determines;
10. Directs the work of the professional staff in evaluating curriculum and instructional materials and, upon the basis of such study, makes recommendations to the Board;
11. Supervises the establishment or modification of attendance and transportation area boundaries subject to Board approval;
12. Directs the preparation of the budget showing the estimated receipts and disbursements necessary to cover the needs of the district for the ensuing budget period, and submits this estimate to the Board in accordance with law;
13. Approves and directs, in accordance with law and Board policy, purchases and expenditures, within the limits of the budget;

14. Exercises leadership in directing studies of sites and buildings, considering the population trend and the educational and cultural needs of the district, to ensure timely decisions by the Board and electorate regarding construction and renovation projects;
15. Represents the district in dealings with other school systems, social institutions, business firms, government agencies and the general public;
16. Keeps the public informed about current educational practices, educational trends and issues confronting the district.

The specific enumeration of the superintendent's duties as detailed above will not act to limit the broad authority and responsibility of the office.

Duties

The Superintendent performs seven major tasks:

1. — Performs as educational leader of the schools;
2. — Serves as chief executive officer of the Board;
3. — Oversees staff personnel management;
4. — Oversees facilities and construction management;
5. — Oversees financial management;
6. — Oversees community relations activities;
7. — Oversees student personnel services.

Chief Responsibilities and Powers as the Superintendent

1. — Attend all Board meetings including Board appointed committee meetings, except when his/her own selection, efficiency, or salary is being considered.
2. — Prepare an agenda with the Board Chair for each Board meeting and forward it, together with abstract and supporting data, so that it will reach each Board member before the meeting.
3. — Assist the Board in its formulation of school policies, plans, and programs; and by the preparation and presentation of facts and explanations, and assist the Board in its duties.
4. — Keep the Board informed as to how its policies are being carried out, as to the effectiveness of such policies, and as to the conditions and efficiency of the District.
5. — Exercise general supervision over all employees of the District and retain the right to nominate, assign, alter, transfer, and recommend for promotion or dismissal all employees of the Board except himself/herself. Have the power to suspend any employee for cause and report such suspension to the Board.
6. — Provide the Board with information on employee evaluations.

7. ~~Have full responsibility to execute Board policies.~~
8. ~~Be responsible for the development, maintenance, and operation of a suitable program of staff development.~~
9. ~~Be responsible for the development and effective operation of such curriculum, special courses, and activities as will provide a complete system of instruction.~~
10. ~~Have the authority over and exercise supervision of the policies and management of District programs.~~
11. ~~Direct the annual budget preparatory to its adoption by the Board.~~
12. ~~Direct implementation of the budget as enacted by the Board.~~
13. ~~Inform employees of any policy changes.~~
14. ~~Be the official representative of the District and maintain a program of publicity as may serve to improve understanding and morale within the schools and keep the public informed.~~
15. ~~See that the constitution, laws, and all State Board of Education regulations governing the schools are effectively carried out and that the rules and regulations of the Board are enforced.~~
16. ~~In accordance with approved budget, attend such local, state, and national conferences, meetings, or workshops as may be deemed beneficial to the interests of the District.~~
17. ~~Act as the District's emergency officer and assume authority in emergency conditions in the absence of specific policies and procedures adopted and report this action to the Board chair and to the Board as soon as possible.~~
18. ~~Perform such other duties and exercise such other authority as may be required or conferred upon him/her by law or the Board.~~

END OF POLICY

Legal Reference(s):

ORS 327.133	ORS 342.173	OAR 581-022-0102 to -1940	OAR 584-080-0151
ORS 332.075	ORS 342.175	OAR 581-023-0006 to -0050	OAR 584-080-0152
ORS 332.515	ORS 342.200	OAR 584-020-0000 to -0045	OAR 584-080-0161
ORS 342.125		OAR 584-036-0035(1)	
ORS 342.140		OAR 584-046-0003 to -0024	
ORS 342.143		OAR 584-048-0085 to -0095	

Hillsboro School District 1J

Code: **CBG**
Adopted: 7/96
Revised/Readopted: 10/30/07; 10/26/10

Evaluation of the Superintendent

The Board will formally evaluate the Superintendent's job performance will be evaluated at least once a each year. The evaluation will be based on his/her performance of the duties listed in the administrative job description, any applicable standards of performance, Board policy CBA—Qualifications and Duties of the Superintendent and progress in attaining any goals for the year established by the superintendent and/or the Board. The evaluation, in part, shall include the district's adopted Superintendent evaluation instrument.

Additional criteria for the evaluation, if any, will be developed at a public Board meeting prior to conducting the evaluation. The Superintendent will be notified of the additional criteria prior to the evaluation.

, but The Board's discussion and conferences with and about the Superintendent and his/her their performance will be conducted in an executive session, unless the Superintendent requests that it be done in a session open session to the public. Such an executive session will not include a general evaluation of any district goal, objective, or operation. Results of the evaluation will be written and placed in the Superintendent's personnel file.

If the Superintendent's performance is deemed to be unsatisfactory, the Superintendent will be notified in writing of specific areas to be remedied and will be given an opportunity to correct these problems. If performance continues to be unsatisfactory, the Board may either dismiss the Superintendent or not renew his/her contract pursuant to Board policy, the employment contract with the Superintendent, state administrative regulations, and state law. At the Board's discretion, it may notify the Superintendent in writing of specific areas to be remedied, and the Superintendent may be given an opportunity to correct the problem(s). Where the Board provided written notice pursuant to the prior sentence, if the Board determines the Superintendent's performance remains unsatisfactory, the Board may dismiss or nonrenew the Superintendent pursuant to Board policy, the Superintendent's employment contract and state law and rules. In those situations where the Superintendent's employment contract includes an evaluation, dismissal or nonrenewal provision, it shall take precedent over this policy.

In gathering information to use in evaluating the Superintendent, the Board may ask the Superintendent to report on progress made toward goals mutually determined in the prior year and may discuss new goals for the subsequent year.

Prior to July 1, based on this evaluation, the Board shall take action in regard to the terms of the Superintendent's contract. Such actions could include an extension of the current contract or revision as negotiated.

END OF POLICY

Legal Reference(s):

[ORS 192](#).660(2), (8)
[ORS 332](#).107

[ORS 332](#).505
[ORS 342](#).513

[ORS 342](#).815
[OAR 581-022](#)-1720

Hanson v. Culver Sch. Dist. (FDAB 1975).

Hillsboro School District 1J

Code: CBG-AR
Adopted: 09/05
Revised: 10/10

Superintendent Evaluation Form

Standard 1: Leadership and District Culture

The Superintendent leads by empowering others, casting vision, shaping school culture and climate, and promoting a District environment that embraces multi-cultural and ethnic differences.

Examples of successful performance:

- Facilitates a community process to develop and implement a shared vision that focuses on improving student achievement.
- Promotes academic rigor that focuses on learning and excellence for schools.
- Creates and supports a community of learners that empowers others to reach high levels of performance to achieve each school's vision.
- Models learning for staff and students.
- Promotes understanding and appreciation of school/community cultures.
- Promotes and expects a school-based climate of tolerance, acceptance, and civility.
- Develops, implements, promotes, and monitors continuous improvement processes.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 2: Policy and Governance
--

The Superintendent works with the Board to formulate internal and external District policy, define mutual expectations of policy implementation, and demonstrate responsible school oversight to staff, students, and the community at large.

Examples of successful performance:

- Understands and articulates the system of public school governance and differentiates between policy-making and administrative roles.
- Establishes procedures for Superintendent/Board interpersonal and working relationships.
- Understands and interprets the role of federal, state, and regional governments' policies and politics, and their relationships to the District and schools.
- Uses legal counsel in governance and procedures to avoid civil and criminal liabilities.
- Actively functions as a member of the Board/Superintendent team.
 - Keeps the Board informed of needs, issues, and operations of the District.
 - Makes recommendations to the Board on matters requiring Board action based on analysis of impact on students, community, and staff. Implements policies approved by the Board.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 3: Communications and Community Relations

The Superintendent demonstrates the skills necessary to establish effective communication with students, staff, parents, and the community as a whole, including beneficial relationships with reporters. He/She also responds to community feedback, and builds community support for the District.

Examples of successful performance:

- Develops formal and informal techniques to garner community perceptions about the District.
- Demonstrates effective communication skills (e.g., written, verbal, and non-verbal contexts; formal and informal settings; large group, small group, and one-on-one environments).
- Promotes the involvement of all stakeholders to fully participate in the process of building a world-class educational school district.
- Establishes effective school/community relations, school/business partnerships, and public service.
- Understands the role of the media in shaping and forming public opinions, and promotes positive working relationships with reporters.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 4: Organizational Management
--

The Superintendent gathers and analyzes data for decision making, and makes recommendations to the Board. He/She has the skills necessary to meet internal and external customer expectations and to effectively allocate resources.

Examples of successful performance:

- Demonstrates proactive budget management, including financial forecasting, planning, cash flow management, and account auditing and monitoring.
- Develops and monitors long-range plans for technology and information systems, making informed decisions about computer hardware and software, and staff development and training needs.
- Demonstrates knowledge of school facilities, and develops a process that builds internal and public support for facility needs, including bond issues.
- Establishes procedures and practices for dealing with emergencies.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 5: Curriculum Planning Development
--

The Superintendent is knowledgeable about the latest designs in curriculum, teaching, learning, and testing theories, and promotes the use of electronics and other learning technologies as needed.

Examples of successful performance:

- Develops core curriculum design and delivery systems based on content and assessment standards, and best practices.
- Establishes curriculum planning to anticipate occupational trends and school-to-career needs.
- Uses child development and learning theories to select developmentally appropriate curriculum and instruction.
- Includes the use of computers, the internet, networking, distance learning, and other technologies in educational programming.
- Assesses student progress using a variety of appropriate techniques.
- Involves faculty and stakeholders in the enhancement and renewal of curriculum to ensure the alignment of curriculum, instruction, and assessment.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 6: Instructional Leadership

The Superintendent ensures that the most effective teaching techniques are in place, and that all instructional resources are used to maximize student achievement.

Examples of successful performance:

- Collaboratively develops, implements, and monitors the change process to improve student and adult learning.
- Implements appropriate safety and security practices in schools.
- Formulates plans to assess appropriate teaching methods, classroom management, and strategies for all learners.
- Analyzes available instructional resources, including applications of technology and facility design, and assigns them in a cost-effective and equitable manner to enhance student outcomes.
- Establishes instructional strategies that include cultural diversity and differences in learning styles.
- Applies effective methods of providing, monitoring, evaluating, and reporting student achievement, and uses cutting-edge research and assessments to improve the learning process.
- Encourages various staffing patterns, student grouping plans, class scheduling plans, school organizational structures, and facilities design processes to support various teaching strategies and desired student outcomes.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 7: Human Resources Management

The Superintendent implements a staff performance evaluation system that applies ethical, contractual, and legal requirements for personnel selection, development, retention, promotion, and dismissal.

Examples of successful performance:

- Demonstrates the use of system and staff evaluation data for personnel policies, decision making, promotion of career growth, and professional development.
- Identifies and applies appropriate policies, criteria, and processes for the recruitment, selection, induction, compensation, and separation of personnel with attention to issues of equity and diversity.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 8: Values and Ethics of Leadership
--

The Superintendent understands and models appropriate value systems, ethics, and moral leadership, including multi-cultural and ethnic sensitivity. He/She ensures that the District coordinates with social agencies and human services to help students grow and develop as caring, informed citizens.

Examples of successful performance:

- Exhibits multi-cultural and ethnic understanding and sensitivity.
- Understands and embraces the role of public schools in a democratic society.
- Manifests a professional code of ethics and demonstrates personal integrity in all interactions.
- Explores and develops ways to find common ground in dealing with difficult and divisive issues.
- Promotes the value that moral and ethical practices are established and practiced throughout the District.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Standard 9: Labor Relations
--

The Superintendent provides technical advice to the Board during labor negotiations, keeps the Board apprised of negotiation status, understands and effectively administers negotiated labor contracts, and keeps abreast of legislative changes affecting the collective bargaining process.

Examples of successful performance:

- Develops bargaining strategies based upon collective bargaining laws and processes.
- Identifies contract language issues and proposes modifications.
- Participates in the collective bargaining processes as determined by the Board.
- Establishes productive relationships with bargaining groups while managing contracts effectively.

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

Superintendent's Goal : Statement 1
--

[Enter one of Superintendent's current goals here. Have a separate page for each goal.]

Examples of successful performance:

-
-
-

Exceeds	Meets	Does not Meet (Explanation required in comments below)

Comments:

HILLSBORO SCHOOL DISTRICT 1J
January 23, 2018
AWARD CONTRACT FOR CONSTRUCTION MANAGEMENT /
GENERAL CONTRACTOR (CM/GC) SERVICES FOR
REEDVILLE ELEMENTARY SCHOOL RENOVATIONS
TO INLINE CONSTRUCTION

SITUATION

During the November 14, 2017, Board meeting, the Board, acting as the Local Contract Review Board, approved the use of the Construction Management / General Contractor alternative construction method for the Reedville Elementary Renovation Project. On November 24, 2017, the District published a Request for Proposals for these services.

A total of six construction firms submitted proposals for this project. A screening committee, composed of Jim Peterson, Hillsboro School District Facilities Coordinator, and John Abel and Craig Markus of Cornerstone Construction Management, independently screened the proposals, using a tool that consider the following criteria:

- Firm background – Maximum 10 points
- Project Approach – Maximum 20 points
- Project Support: Pre-Construction Phase – Maximum 15 points
- K-12 Project Experience – Maximum 15 points
- Scheduling/Expediting Approach – Maximum 10 points
- Key Individual Experience/Team Availability – Maximum 15 points
- History of Legal Claims – Maximum 5 points
- Cost Proposal – 10 points

Following the screening process, the team agreed to interview the top three firms. On January 4, an interview team, consisting of School Board Member Erika Lopez, John Abel, Adam Stewart, Casey Waletich, and Craig Markus, interviewed three firms. These firms were Inline Construction, P&C Construction, and Kirby Nagelhout Construction. Following the interviews, the team met to discuss the interviews and rank the firms. The interview team used the following criteria to rank the firms:

- Quality of the team proposed for these projects
- Quality of the approach to the projects presented during the interview
- Responses to the interview questions

The result of this process is a recommendation to award the contract for Construction Management / General Contractor services for Reedville Elementary School renovations to Inline Construction.

RECOMMENDATION

The Superintendent recommends that the Board of Directors award the contract for Construction Management / General Contractor services for Reedville Elementary School renovations to Inline Construction.

**HILLSBORO SCHOOL DISTRICT 1J
JANUARY 23, 2017
APPROVE THE DEDICATION DEED AND RIGHT-OF-WAY DEDICATION
BETWEEN THE CITY OF HILLSBORO AND THE
HILLSBORO SCHOOL DISTRICT FOR THE BROOKWOOD ELEMENTARY SCHOOL /
CEDAR STREET IMPROVEMENT PROJECT**

SITUATION

For several months, the City of Hillsboro has been working on street improvements along Cedar Street, the street running in front of Brookwood Elementary School. This project is part of the City of Hillsboro's Bicycle and Pedestrian Capital Improvement Program and adds bicycle lanes, sidewalk improvements, street lighting, and a new waterline and storm system to SE Cedar Street. This project will be paid for by the City's Transportation Utility Fee. At Hillsboro School District's request, the City will also include additional on-street parking along the school frontage and a flashing beacon at the school crossing in front of the school. In order to complete these improvements, the City will need to obtain right-of-way interests from all impacted property owners, including the Hillsboro School District, which needs to sign the attached dedication deed and right-of-way documents.

In exchange for this Dedication Deed and Right-of-Way, the City is constructing the street improvements mentioned above, including a storm water facility that will meet the needs of the new Brookwood Elementary School. The City will benefit by not having to pay for the right-of-way, and not having to appraise and acquire additional property for storm water treatment that will instead take place on the school site.

In addition to the dedication deed and right-of-way documents, the cover letter from the City of Hillsboro's Public Works Department, describing the request and the benefits to both the District and the City, is also attached.

RECOMMENDATION

The Superintendent recommends that the Board of Directors approve the Dedication Deed and Right-of-Way Dedication between the City of Hillsboro and the Hillsboro School District for the Brookwood Elementary School / Cedar Street Improvement Project.



December 1, 2017

Adam Stewart
Hillsboro School District 1J
3083 NE 49th Place
Hillsboro, OR 97124

Re: Brookwood Elementary School Dedication and Easements

Mr. Stewart,

Thank you for working with the City of Hillsboro to complete our Cedar Street Improvement Project. This project is part of our Bicycle and Pedestrian Capital Improvement Program. The project will widen Cedar Street from Brookwood Avenue to 32nd Avenue, and includes the installation of bike lanes, sidewalks, and street lighting. At the request of the school district, the City is also including additional on-street parking along the school frontage and a flashing beacon at the school crossing in front of Brookwood Elementary school.

This project is a great opportunity for the City and District to work together to improve the community and save taxpayer dollars. The School District's property dedication to the City will be a benefit to both the road improvement project and the Brookwood Elementary School replacement project.

School District Benefits

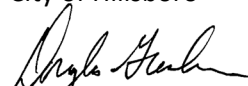
- ☐☐ City constructs street improvements for replacement school
- ☐☐ City provides additional on-street parking
- ☐☐ City constructs storm water facility that meets district needs for new school
- ☐☐ City provides flashing beacon school crossing
- ☐☐ Sidewalks and bike lanes on Cedar expand school walk/bike routes saving transportation costs

City Benefits

- ☐☐ District provides right of way at no cost
- ☐☐ District provides space for storm water on school site
- ☐☐ District grants City easement for existing public storm line on school site
- ☐☐ City saves appraisal and acquisition costs

Attached to this letter is the dedication deed for the Brookwood Elementary School site. In addition to the right of way dedication, this deed includes the storm water easement and a temporary construction easement. Please contact me if you have questions at 503-681-6238 or by email at doug.gresham@hillsboro-oregon.gov.

Sincerely,
City of Hillsboro


Douglas Gresham

Public Works Department

Mail 150 E Main Street, Hillsboro, Oregon 97123 Physical 4415 NE 30th Avenue, Hillsboro, Oregon 97124
Phone 503.681.6146 Fax 503.681.6245 Web Hillsboro-Oregon.gov/PublicWorks

After recording, return to:

City of Hillsboro, Engineering Division
150 East Main Street
Hillsboro, OR 97123

Until a change is requested, all

Tax statements shall be sent to:

NO CHANGE IN TAX STATEMENTS

DEDICATION DEED

Hillsboro School District 1J, Grantor, who acquired title as School District No. 7, conveys and dedicates to the CITY OF HILLSBORO (CITY), an Oregon municipal corporation, Grantee, the real property described in Parcel I Exhibit A and shown in Exhibit B, free from all monetary liens or encumbrances for public right-of-way purposes. The CITY (and other entities or persons the CITY deems appropriate) shall have the perpetual right to construct, improve, operate and maintain a public right-of-way (and such other uses deemed by the CITY not to be incompatible therewith) across, under and on the property described on Exhibit A and shown in Exhibit B, provided said right-of-way is intended or used for public road, highway, sidewalk and similar public purposes.

Grantor hereby grants a permanent storm drainage easement over, across and under the real property described in Parcel II, Exhibit A and shown in Exhibit B, attached hereto, with the right to install, maintain and replace the storm sewer system and all appurtenances thereto, the City shall restore the premises or improvements disturbed by the City to a condition equivalent to or better than that which existed prior to such disturbance. If such restoration is not practicable, the City shall then pay reasonable compensation to the owner of the property. This permanent drainage easement shall run with the land and will be binding on both parties and their respective heirs, successors, and assigns.

Grantor hereby grants a temporary construction easement over, across and under the real property described in Parcel III, Exhibit A and shown in Exhibit B, attached hereto, with the right to ingress and egress of vehicles and equipment and personnel associated with the construction project; to build roadways and ditches; to stockpile materials and equipment; to cut and remove trees, brush, rocks and other obstructions; to alter the surface of the ground by cutting or filling; and to perform other activities which may be necessary to allow access to the project. Within the temporary construction easement area, the City shall restore the premises or improvements disturbed by the City to a condition equivalent to or better than that which existed prior to such disturbance. If such restoration is not practicable, the City shall then pay reasonable compensation to the owner of the property. This temporary construction easement shall run for two years from 1/23/2018 to 1/23/2019 or upon completion of the project, whichever is sooner.

The true consideration for this conveyance is other valuable consideration given or promised.

Dated as of _____, 20____

(See following page for signatures and acknowledgement)

GRANTOR

By: _____

STATE OF _____)

)

County of _____)

By: _____

This instrument was acknowledged before me by _____ on the _____ day of _____, 20____

Notary Public for _____

My commission expires: _____

APPROVAL AND ACCEPTANCE BY THE CITY OF HILLSBORO (ORS 93.808)

The City of Hillsboro hereby approves and accepts the foregoing

dedication this _____ day of _____, 20____

Michael Brown, City Manager



EXHIBIT "A"

SE Cedar Street
November 20, 2017
Parcels I, II, and III

Page 1 of 3
File No.: Ced-028
Tax Map 1S 2 04BD
Tax Lot: 100

PARCEL I (RIGHT-OF-WAY DEDICATION)

A parcel of land lying in the George H. Smith Donation Land Claim Number 37 in Township 1 South, Range 2 West of the Willamette Meridian, City of Hillsboro, Washington County, Oregon and being a portion of that tract of land conveyed to School District No. 7, Washington County, Oregon by Warranty Deed recorded March 18, 1953 in Book 342, Page 514, Washington County Book of Records, said parcel also being that portion lying northerly of the lines delineated by following the below denoted stations and offsets southerly of the centerline of SE Cedar Street as described below.

SE Cedar Street Centerline

A road centerline in the George H. Smith Donation Land Claim Number 37 in Township 1 South, Range 2 West of the Willamette Meridian, City of Hillsboro, Washington County, Oregon, being specifically described as follows:

Beginning at Station 10+00.00 at a 5/8" iron rod with an aluminum cap marked "HILLSBORO ENGR. DEPT." in a monument box as shown set in Survey Number 23578, Washington County Survey Records to replace a 1/2" iron pipe at the southwest corner of Lot 11 of the plat of "Virginia Place", Washington County Plat Records, which is also the point of beginning of County Road 1953; thence from said point of beginning, South 87°52'12" East, along the centerline of said county road, a distance of 890.82 feet to Station 18+90.82 at a 3/4" iron pipe, which is an angle point in the centerline of said county road at the southeast corner of Lot 11 of said plat; thence South 88°02'33" East, along the centerline of said county road, a distance of 1233.20 feet to Station 31+24.02 at a 3/4" iron pipe, which is an angle point in the centerline of said county road at the southeast corner of Lot 13 of said plat; thence South 87°58'36" East, along the centerline of said county road, a distance of 1212.88 feet to the point of termination at Station 43+36.90 at a 5/8" iron rod with a yellow plastic cap marked "D.E.A. INC." in a monument box as shown set in Survey Number 31974, said survey records, said point of termination being at the intersection of said county road with an angle point in the centerline of County Road Number 1643, also known as Brookwood Avenue. The above described centerline is shown in Survey Number 32620, said survey records.

The basis of bearing is the Oregon State Plane North Zone, Reference Frame: NAD 83 (2011) (Epoch 2010.00) as shown in Survey Number 32620, said survey records.



EXHIBIT "A"

SE Cedar Street
November 20, 2017
Parcels I, II, and III

Page 2 of 3
File No.: Ced-028
Tax Map 1S 2 04BD
Tax Lot: 100

Station to Station	Offset Distances Southerly of SE Cedar Street Centerline
25+05.00 to 29+06.81	37.00 feet parallel with the centerline
29+06.81 to 29+06.81	37.00 feet along a straight line to 30.00 feet
29+06.81 to 31+27.00	30.00 feet parallel with the centerline

Excepting Therefrom, all that portion of said parcel lying within the existing right-of-way of SE Cedar Street.

The parcel of land to which this description applies contains 5,877 square feet, more or less.

PARCEL II (PERMANENT DRAINAGE EASEMENT)

A parcel of land lying in the George H. Smith Donation Land Claim Number 37 in Township 1 South, Range 2 West of the Willamette Meridian, City of Hillsboro, Washington County, Oregon and being a portion of that tract of land conveyed to School District No. 7, Washington County, Oregon by Warranty Deed recorded March 18, 1953 in Book 342, Page 514, Washington County Book of Records, said parcel also being particularly described as follows:

Beginning at a point at Station 30+78.09 and an offset distance of 614.38 from and south of the SE Cedar Street centerline as described above under Parcel 1;

Thence from said point of beginning, South 2°05'09" West, a distance of 20.00 feet;

Thence South 46°56'50" West, a distance of 14.18 feet;

Thence North 88°11'30" West, a distance of 120.54 feet;

Thence South 1°48'30" West, a distance of 46.01 feet;

Thence North 88°11'30" West, a distance of 281.75 feet;

Thence South 1°48'30" West, a distance of 15.00 feet more or less to the south line of that parcel of land described in said Warranty Deed;

Thence South 88°11'30" East along said south line, a distance of 459.60 feet to the southeast corner of said parcel;

Thence North 1°50'47" East along the east line of said parcel, a distance of 91.00 feet more or less to a point that bears South 87°54'51" East from the point of beginning;

Thence North 87°54'51" West, a distance of 47.09 feet more or less to the point of beginning;

The parcel of land to which this description applies contains 16,553 square feet, more or less.



EXHIBIT "A"

SE Cedar Street
November 20, 2017
Parcels I, II, and III

Page 3 of 3
File No.: Ced-028
Tax Map 1S 2 04BD
Tax Lot: 100

The basis of bearing is the Oregon State Plane North Zone, Reference Frame: NAD 83 (2011) (Epoch 2010.00) as shown in Survey Number 32620, said survey records.

PARCEL III (TEMPORARY CONSTRUCTION EASEMENT)

A parcel of land lying in the George H. Smith Donation Land Claim Number 37 in Township 1 South, Range 2 West of the Willamette Meridian, City of Hillsboro, Washington County, Oregon and being a portion of that tract of land conveyed to School District No. 7, Washington County, Oregon by Warranty Deed recorded March 18, 1953 in Book 342, Page 514, Washington County Book of Records, said parcel also being that portion lying northerly of the lines delineated by following the below denoted stations and offsets southerly of the centerline of SE Cedar Street as described below.

Station to Station	Offset Distances Southerly of SE Cedar Street Centerline
25+05.00 to 25+23.79	75.50 feet parallel with the centerline
25+23.79 to 25+54.23	75.50 feet along a straight line to 45.06 feet
25+54.23 to 27+71.48	45.06 feet parallel with the centerline
27+71.48 to 28+09.91	45.06 feet along a straight line to 83.50 feet
28+09.91 to 31+27.00	83.50 feet parallel with the centerline

Excepting Therefrom, all that portion of said parcel lying within the existing right-of-way of SE Cedar Street and the above described PARCEL I (RIGHT-OF-WAY DEDICATION).

The parcel of land to which this description applies contains 20,273 square feet, more or less.

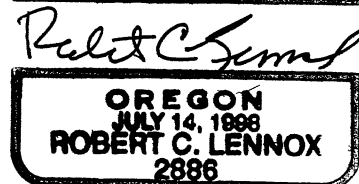
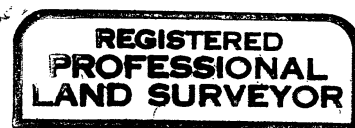
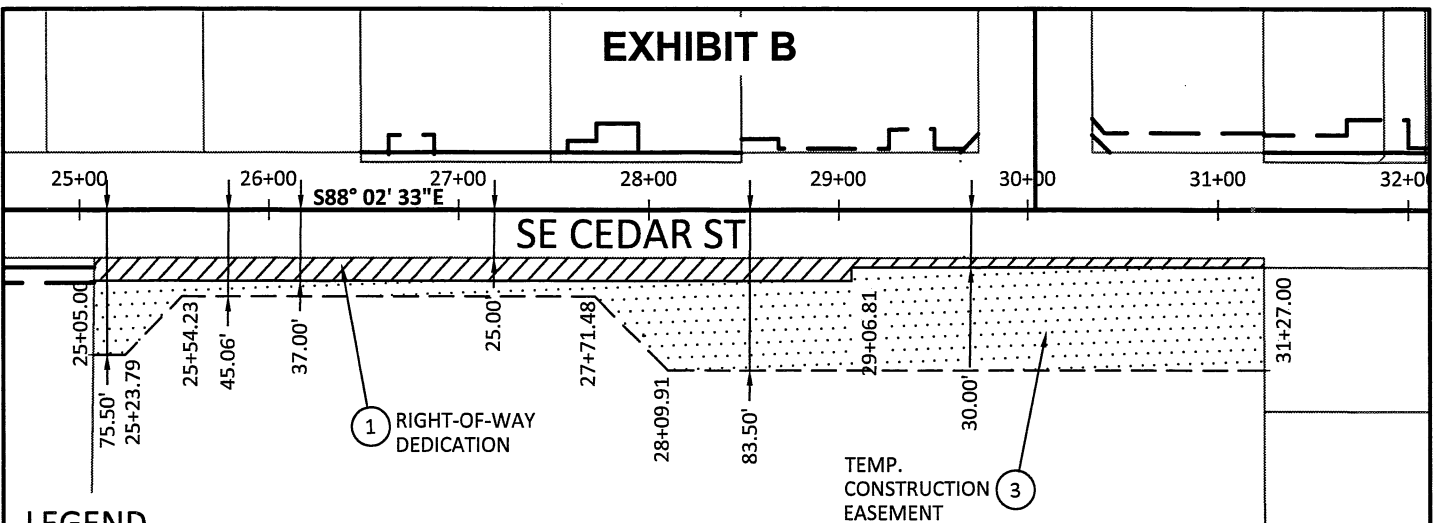


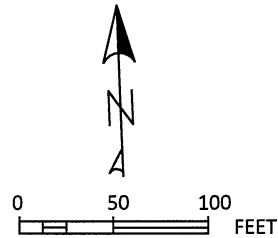
EXHIBIT B



LEGEND

- | | | |
|--|-----------------------------|--------------------|
| | RIGHT-OF-WAY DEDICATION | (1) 5877 SQ. FT ± |
| | PERM. DRAINAGE EASEMENT | (2) 16553 SQ. FT ± |
| | TEMP. CONSTRUCTION EASEMENT | (4) 20273 SQ. FT ± |

FILE NO. CED-028
3960 SE CEDAR
1S204BD TL00100

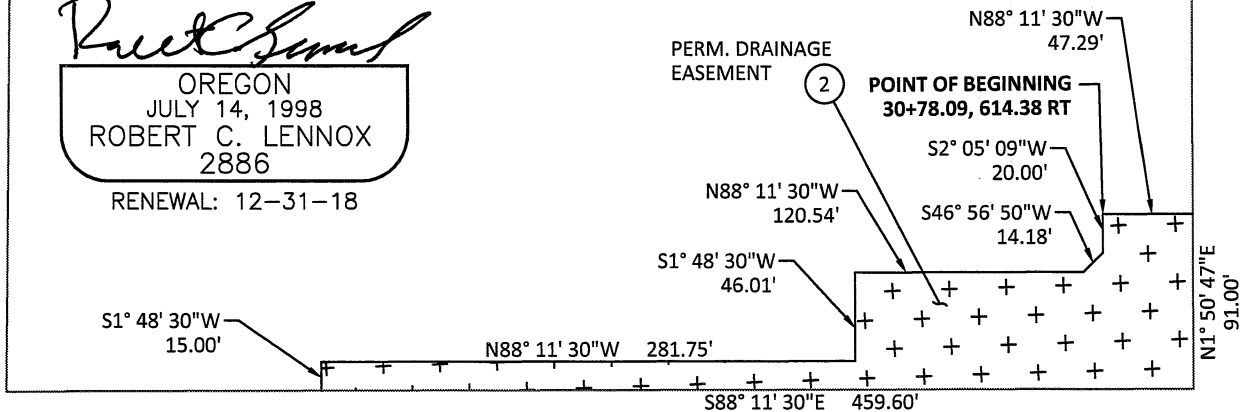


REGISTERED
PROFESSIONAL
LAND SURVEYOR

Robert C. Lennox

OREGON
JULY 14, 1998
ROBERT C. LENNOX
2886

RENEWAL: 12-31-18



SE CEDAR STREET IMPROVEMENT PROJECT

CITY OF HILLSBORO PROJECT NO: 10971

FILE NO: CED-028

SUBMITTAL DATE: 11/20/2017

REV'D:

TAX LOT: 0100

ADDRESS: 3960 SE CEDAR

TAX MAP: 1S204BD

