

Pierce Joint Unified School District
540A 6th Street
P.O. Box 239
Arbuckle CA 95912
(530) 476-2892 * (530) 476-2289 Fax

BOARD OF TRUSTEES REGULAR MEETING
PIERCE JOINT UNIFIED SCHOOL DISTRICT
TECHNOLOGY BUILDING
940A WILDWOOD ROAD, ARBUCKLE CA 95912

THURSDAY MARCH 9, 2017 6:00 p.m.

AGENDA

Governing Board

Abel Gomez, President

John Friel, Vice President

Nadine High, Board Clerk

George Green, Member

Amy Charter, Member

Documents provided to a majority of the Governing Board regarding an open session item on this agenda will be made available for public inspection in the District Office located at 540A 6th Street, Arbuckle CA 95912, during normal business hours.

1. CALL TO ORDER
 - A. *Pledge of Allegiance*

2. APPROVAL OF AGENDA ACTION

3. HEARING OF THE PUBLIC INFORMATION
(Speakers will be given three (3) minutes to speak with a twenty (20) minute limit per topic)

4. PHS Student Body Representative Report REPORT

5. Consider and approve **TENURE FOR THE FOLLOWING CERTIFICATED STAFF:** ACTION
 - A. Michael Barber
 - B. Anne Felix
 - C. Carol Keiser
 - D. Haley Leue
 - E. Norma Madrigal
 - F. Samuel Stump
 - G. Kevin Wolfman

6. *Adjourn for Refreshments*

7. *Proceed with Meeting*

2016/17 Board Goals:

1. Pierce Joint Unified School District students will graduate high school college and career ready.
2. Pierce Joint Unified School District students will feel a sense of connectedness academically, socially, and physically in their schools.
3. Pierce Joint Unified School District will engage families and members of the greater school community as educational partners.



- | | |
|---|----------------------------|
| 8. Kindergarten Program Presentation | INFORMATION |
| 9. PRINCIPAL’S REPORTS | INFORMATION |
| A. Arbuckle Elementary School/Grand Island Elementary School | |
| B. Lloyd G. Johnson Junior High School | |
| C. Pierce High School/Arbuckle Alternative High School | |
| 10. REPORTS: | INFORMATION/
DISCUSSION |
| A. Facilities / Transportation Report | |
| B. 2016/17 2 nd Interim Budget Report | |
| C. CAASPP/Smarter Balanced Report | |
| D. LCAP Report | |
| 11. PJUEA (Pierce Joint Unified Educators Association) Report | INFORMATION |
| 12. CSEA (California School Employees Association) Report | INFORMATION |
| 13. Consider and approve Resolution #16/17 – 20: Budget Revision | ACTION |
| 14. Consider and approve Resolution #16/17 – 21: Resolution for Adopting Extended Day Kindergarten Program | ACTION |
| 15. Consider and approve Resolution #16/17 – 22: Resolution for On-Call Architectural Services for Measure B and Other Construction Projects | ACTION |
| 16. Consider and approve Resolution #16/17 – 23: Resolution of the Board of Trustees of the Pierce Joint Unified School District Authorizing the Issuance and Sale of General Obligation Bonds, Election of 2016, Series A, in the Aggregate Principal Amount of Not to Exceed \$7,000,000 and Approving Related Documents and Actions | ACTION |
| 17. Consider and approve Resolution #16/17 – 24: To Adopt Certain Findings and Approve the Installation Agreement Between Pierce Joint Unified School District and Climatec, LLC for Energy Efficiency Upgrades on Selected School Sites | ACTION |
| 18. Consider and approve The Citizens’ Bond Oversight Committee Members | ACTION |
| 19. Consider and approve 2016/17 2nd Interim Budget Report | ACTION |
| 20. Consider and approve Agreement between the Pierce Joint Unified Educators Association and the Pierce Joint Unified School District for the 2016/17 School Year Increasing Salary Schedule by 3%, Retroactive to July 1, 2016 and a one-time 3% Payment Based on Contracted Annual Salary | ACTION |

- 21. Consider and approve **Agreement between the California School Employees Association Pierce Chapter #97 and the Pierce Joint Unified School District for the 2016/17 School Year Increasing Salary by 3%, Retroactive to July 1, 2016, a one-time 3% Payment Based on Contracted Annual Salary and Move Technology Support Technician on Salary Schedule** ACTION

- 22. Consider and approve **Agreement between the Unrepresented Employees and the Pierce Joint Unified School District for the 2016/17 School Year Increasing Administrative Salary Schedule, Confidential Salary Schedule, and Classified Management Salary Schedule by 3%, Retroactive to July 1, 2016 and a one-time 3% Payment Based on Contracted Annual Salary** ACTION

- 23. Consider and approve **Amendment to Employee Contract between Carol Geyer and the Board of Trustees of the Pierce Joint Unified School District of Colusa County, California Increasing Salary by 3%, Retroactive to July 1, 2016 and a one-time 3% Payment Based on Contracted Annual Salary** ACTION

- 24. Consider and approve **Public Disclosure of Proposed Collective Bargaining Agreement between the Pierce Joint Educators Association; the California School Employees Association Pierce Chapter #97; the Unrepresented Employees and the Pierce Joint Unified School District for the 2016/17 School Year** ACTION

- 25. Consider and approve Consent Agenda: ACTION
 - A. Minutes of February 16, 2017 Regular Board Meeting
 - B. Minutes of February 13, 2017 Special Board Meeting
 - C. Minutes of February 23, 2017 Special Board Meeting
 - D. Warrant List for February 2017
 - E. Interdistrict Transfers:
 - 1. Transferring **OUT** for the **2016/17** School Year:
 - a. Three (3) Students to Colusa County Office of Education (new)
 - b. One (1) Student to Woodland CA (continuing)
 - 2. Transferring **IN** for the **2017/18** School Year:
 - a. Two (2) Students from Williams CA (continuing)
 - F. Donations:
 - 1. Shady Creek – JJH
 - a. Allen and Bonnie Ehrke
 - b. Grand Island Parent’s Club
 - c. Grimmer Farms
 - d. Dunnigan Volunteer Fire Department
 - 2. Wayne and Kay Peck – Music Program at AES
 - G. Overnight Field Trip Requests:
 - 1. Varsity Volleyball: Yerington Tournament – Yerington NV

BOARD POLICIES:

- A. **FIRST READING:**
 - 1. BP/AR 3311: Bids
 - 2. AR 3311.2: Lease-Leaseback Contracts
 - 3. BB 9005: Governance Standards

FIRST
READING/
POSSIBLE
ACTION

26. Items to be agendized for the next regular meeting:

27. Superintendent’s Report

28. Board President Report

29. CLOSED SESSION:

ACTION

A. PUBLIC EMPLOYMENT: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss employee matters:

Certification	Position	Status
Certificated	Long Term Substitute 6 th Grade Teacher – JJH	Hiring
Classified	After School Program Site Lead – GI	Hiring
Classified	After School Program Para Educator - GI	Hiring
Certificated	Long Term Substitute Grade 5 Teacher – GI	Hiring

B. CONFERENCE WITH LABOR NEGOTIATOR: Pursuant to Government Code Section 54957.6, the Board will meet in CLOSED SESSION to give direction to Agency Negotiator, Carol Geyer, regarding negotiations with PJUEA (Pierce Joint Unified Educators Association), CSEA (California School Employees Association), and unrepresented groups.

C. PUBLIC EMPLOYEE DISCIPLINE / DISMISSAL / RELEASE: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss public employee discipline/dismissal/release

D. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Pursuant to Paragraph (2) or (3) of Subdivision (D) of Government Code 54956.9 – One Case

30. OPEN SESSION - REPORT ACTION TAKEN IN CLOSED SESSION:

A. PUBLIC EMPLOYMENT: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss employee matters:

Certification	Position	Status
Certificated	Long Term Substitute 6 th Grade Teacher – JJH	Hiring
Classified	After School Program Site Lead - GI	Hiring
Classified	After School Program Para Educator - GI	Hiring
Certificated	Long Term Substitute Grade 5 Teacher – GI	Hiring

B. CONFERENCE WITH LABOR NEGOTIATOR: Pursuant to Government Code Section 54957.6, the Board will meet in CLOSED SESSION to give direction to Agency Negotiator, Carol Geyer, regarding negotiations with PJUEA (Pierce Joint Unified Educators Association), CSEA (California School Employees Association), and unrepresented groups.

C. PUBLIC EMPLOYEE DISCIPLINE / DISMISSAL / RELEASE: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss public employee discipline/dismissal/release

D. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION:
Pursuant to Paragraph (2) or (3) of Subdivision (D) of Government Code 54956.9 –
One Case

31. Adjourn

In compliance with the American with Disabilities Act, if you need special assistance to access the Board meeting room or to otherwise participate at this meeting, including auxiliary aids or services, please contact our office at (530) 476-2892 x13000. Notification at least 48 hours prior to the meeting will enable the office to make reasonable arrangements to ensure accessibility to the Board meeting. (Government Code § 54954.2)

NOTICE OF CRITERIA AND STANDARDS REVIEW. This interim report was based upon and reviewed using the state-adopted Criteria and Standards. (Pursuant to Education Code (EC) sections 33129 and 42130)

Signed: _____ Date: _____
District Superintendent or Designee

NOTICE OF INTERIM REVIEW. All action shall be taken on this report during a regular or authorized special meeting of the governing board.

To the County Superintendent of Schools:

This interim report and certification of financial condition are hereby filed by the governing board of the school district. (Pursuant to EC Section 42131)

Meeting Date: March 09, 2017 Signed: _____
President of the Governing Board

CERTIFICATION OF FINANCIAL CONDITION

- POSITIVE CERTIFICATION**
As President of the Governing Board of this school district, I certify that based upon current projections this district will meet its financial obligations for the current fiscal year and subsequent two fiscal years.
- QUALIFIED CERTIFICATION**
As President of the Governing Board of this school district, I certify that based upon current projections this district may not meet its financial obligations for the current fiscal year or two subsequent fiscal years.
- NEGATIVE CERTIFICATION**
As President of the Governing Board of this school district, I certify that based upon current projections this district will be unable to meet its financial obligations for the remainder of the current fiscal year or for the subsequent fiscal year.

Contact person for additional information on the interim report:

Name: Daena Meras Telephone: 530-476-2892 ext 13005
Title: Chief Business Official E-mail: dmeras@pierce.k12.ca.us

Criteria and Standards Review Summary

The following summary is automatically completed based on data provided in the Criteria and Standards Review form (Form 01CSI). Criteria and standards that are "Not Met," and supplemental information and additional fiscal indicators that are "Yes," may indicate areas of potential concern, which could affect the interim report certification, and should be carefully reviewed.

CRITERIA AND STANDARDS			Met	Not Met
1	Average Daily Attendance	Funded ADA for any of the current or two subsequent fiscal years has not changed by more than two percent since first interim.	X	

CRITERIA AND STANDARDS (continued)			Met	Not Met
2	Enrollment	Projected enrollment for any of the current or two subsequent fiscal years has not changed by more than two percent since first interim.	X	
3	ADA to Enrollment	Projected second period (P-2) ADA to enrollment ratio for the current and two subsequent fiscal years is consistent with historical ratios.	X	
4	Local Control Funding Formula (LCFF)	Projected LCFF for any of the current or two subsequent fiscal years has not changed by more than two percent since first interim.		X
5	Salaries and Benefits	Projected ratio of total unrestricted salaries and benefits to total unrestricted general fund expenditures has not changed by more than the standard for the current and two subsequent fiscal years.		X
6a	Other Revenues	Projected operating revenues (federal, other state, other local) for the current and two subsequent fiscal years have not changed by more than five percent since first interim.		X
6b	Other Expenditures	Projected operating expenditures (books and supplies, services and other expenditures) for the current and two subsequent fiscal years have not changed by more than five percent since first interim.	X	
7	Ongoing and Major Maintenance Account	If applicable, changes occurring since first interim meet the required contribution to the ongoing and major maintenance account (i.e., restricted maintenance account).	X	
8	Deficit Spending	Unrestricted deficit spending, if any, has not exceeded the standard in any of the current or two subsequent fiscal years.	X	
9a	Fund Balance	Projected general fund balance will be positive at the end of the current and two subsequent fiscal years.	X	
9b	Cash Balance	Projected general fund cash balance will be positive at the end of the current fiscal year.	X	
10	Reserves	Available reserves (e.g., reserve for economic uncertainties, unassigned/unappropriated amounts) meet minimum requirements for the current and two subsequent fiscal years.	X	

SUPPLEMENTAL INFORMATION			No	Yes
S1	Contingent Liabilities	Have any known or contingent liabilities (e.g., financial or program audits, litigation, state compliance reviews) occurred since first interim that may impact the budget?	X	
S2	Using One-time Revenues to Fund Ongoing Expenditures	Are there ongoing general fund expenditures funded with one-time revenues that have changed since first interim by more than five percent?	X	
S3	Temporary Interfund Borrowings	Are there projected temporary borrowings between funds?	X	
S4	Contingent Revenues	Are any projected revenues for any of the current or two subsequent fiscal years contingent on reauthorization by the local government, special legislation, or other definitive act (e.g., parcel taxes, forest reserves)?	X	
S5	Contributions	Have contributions from unrestricted to restricted resources, or transfers to or from the general fund to cover operating deficits, changed since first interim by more than \$20,000 and more than 5% for any of the current or two subsequent fiscal years?	X	

SUPPLEMENTAL INFORMATION (continued)			No	Yes
S6	Long-term Commitments	Does the district have long-term (multiyear) commitments or debt agreements?		X
		• If yes, have annual payments for the current or two subsequent fiscal years increased over prior year's (2015-16) annual payment?		X
		• If yes, will funding sources used to pay long-term commitments decrease or expire prior to the end of the commitment period, or are they one-time sources?	X	
S7a	Postemployment Benefits Other than Pensions	Does the district provide postemployment benefits other than pensions (OPEB)?	X	
		• If yes, have there been changes since first interim in OPEB liabilities?	n/a	
S7b	Other Self-insurance Benefits	Does the district operate any self-insurance programs (e.g., workers' compensation)?	X	
		• If yes, have there been changes since first interim in self-insurance liabilities?	n/a	
S8	Status of Labor Agreements	As of second interim projections, are salary and benefit negotiations still unsettled for:		
		• Certificated? (Section S8A, Line 1b)	X	
		• Classified? (Section S8B, Line 1b)	X	
S8	Labor Agreement Budget Revisions	For negotiations settled since first interim, per Government Code Section 3547.5(c), are budget revisions still needed to meet the costs of the collective bargaining agreement(s) for:		
		• Certificated? (Section S8A, Line 3)		X
		• Classified? (Section S8B, Line 3)		X
S9	Status of Other Funds	Are any funds other than the general fund projected to have a negative fund balance at the end of the current fiscal year?	X	

ADDITIONAL FISCAL INDICATORS			No	Yes
A1	Negative Cash Flow	Do cash flow projections show that the district will end the current fiscal year with a negative cash balance in the general fund?	X	
A2	Independent Position Control	Is personnel position control independent from the payroll system?		X
A3	Declining Enrollment	Is enrollment decreasing in both the prior and current fiscal years?	X	
A4	New Charter Schools Impacting District Enrollment	Are any new charter schools operating in district boundaries that are impacting the district's enrollment, either in the prior or current fiscal year?	X	
A5	Salary Increases Exceed COLA	Has the district entered into a bargaining agreement where any of the current or subsequent fiscal years of the agreement would result in salary increases that are expected to exceed the projected state funded cost-of-living adjustment?	X	
A6	Uncapped Health Benefits	Does the district provide uncapped (100% employer paid) health benefits for current or retired employees?	X	
A7	Independent Financial System	Is the district's financial system independent from the county office system?	X	
A8	Fiscal Distress Reports	Does the district have any reports that indicate fiscal distress? If yes, provide copies to the COE, pursuant to EC 42127.6(a).	X	
A9	Change of CBO or Superintendent	Have there been personnel changes in the superintendent or chief business official (CBO) positions within the last 12 months?	X	

Provide methodology and assumptions used to estimate ADA, enrollment, revenues, expenditures, reserves and fund balance, and multiyear commitments (including cost-of-living adjustments).

Deviations from the standards must be explained and may affect the interim certification.

CRITERIA AND STANDARDS

1. CRITERION: Average Daily Attendance

STANDARD: Funded average daily attendance (ADA) for any of the current fiscal year or two subsequent fiscal years has not changed by more than two percent since first interim projections.

District's ADA Standard Percentage Range: -2.0% to +2.0%

1A. Calculating the District's ADA Variances

DATA ENTRY: First Interim data that exist will be extracted into the first column, otherwise, enter data for all fiscal years. Second Interim Projected Year Totals data that exist for the current year will be extracted; otherwise, enter data for all fiscal years. Enter district regular ADA and charter school ADA corresponding to financial data reported in the General Fund, only, for all fiscal years.

Estimated Funded ADA

Fiscal Year	First Interim Projected Year Totals (Form 01CSI, Item 1A)	Second Interim Projected Year Totals (Form AI, Lines A4 and C4)	Percent Change	Status
Current Year (2016-17)				
District Regular	1,433.66	1,433.66		
Charter School	0.00	0.00		
Total ADA	1,433.66	1,433.66	0.0%	Met
1st Subsequent Year (2017-18)				
District Regular	1,436.00	1,436.00		
Charter School				
Total ADA	1,436.00	1,436.00	0.0%	Met
2nd Subsequent Year (2018-19)				
District Regular	1,440.83	1,440.83		
Charter School				
Total ADA	1,440.83	1,440.83	0.0%	Met

1B. Comparison of District ADA to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

1a. STANDARD MET - Funded ADA has not changed since first interim projections by more than two percent in any of the current year or two subsequent fiscal years.

Explanation:
(required if NOT met)

2. CRITERION: Enrollment

STANDARD: Projected enrollment for any of the current fiscal year or two subsequent fiscal years has not changed by more than two percent since first interim projections.

District's Enrollment Standard Percentage Range: -2.0% to +2.0%

2A. Calculating the District's Enrollment Variances

DATA ENTRY: First Interim data that exist will be extracted; otherwise, enter data into the first column for all fiscal years. Enter data in the second column for all fiscal years. Enter district regular enrollment and charter school enrollment corresponding to financial data reported in the General Fund, only, for all fiscal years.

Fiscal Year	Enrollment		Percent Change	Status
	First Interim (Form 01CSI, Item 2A)	Second Interim CBEDS/Projected		
Current Year (2016-17)				
District Regular	1,480	1,480		
Charter School				
Total Enrollment	1,480	1,480	0.0%	Met
1st Subsequent Year (2017-18)				
District Regular	1,485	1,485		
Charter School				
Total Enrollment	1,485	1,485	0.0%	Met
2nd Subsequent Year (2018-19)				
District Regular	1,490	1,490		
Charter School				
Total Enrollment	1,490	1,490	0.0%	Met

2B. Comparison of District Enrollment to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

1a. STANDARD MET - Enrollment projections have not changed since first interim projections by more than two percent for the current year and two subsequent fiscal years.

Explanation:
(required if NOT met)

3. CRITERION: ADA to Enrollment

STANDARD: Projected second period (P-2) average daily attendance (ADA) to enrollment ratio for any of the current fiscal year or two subsequent fiscal years has not increased from the historical average ratio from the three prior fiscal years by more than one half of one percent (0.5%).

3A. Calculating the District's ADA to Enrollment Standard

DATA ENTRY: Unaudited Actuals data that exist will be extracted into the P-2 ADA column for the First Prior Year; otherwise, enter First Prior Year data. P-2 ADA for the second and third prior years are preloaded. First Interim data that exist will be extracted into the Enrollment column; otherwise, enter Enrollment data for all fiscal years. Data should reflect district regular and charter school ADA/enrollment corresponding to financial data reported in the General Fund, only, for all fiscal years.

*Please note for FY 2013-14 unaudited actuals: Line C4 in Form A reflects total charter school ADA corresponding to financial data reported in funds 01, 09, and 62. Please adjust charter school ADA or explain accordingly.

Fiscal Year	P-2 ADA Unaudited Actuals (Form A, Lines A4 and C4*)	Enrollment CBEDS Actual (Form 01CSI, Item 3A)	Historical Ratio of ADA to Enrollment
Third Prior Year (2013-14)	1,357	1,393	97.4%
Second Prior Year (2014-15)			
District Regular	1,393	1,443	
Charter School			
Total ADA/Enrollment	1,393	1,443	96.5%
First Prior Year (2015-16)			
District Regular	1,442	1,486	
Charter School	0		
Total ADA/Enrollment	1,442	1,486	97.0%
Historical Average Ratio:			97.0%
District's ADA to Enrollment Standard (historical average ratio plus 0.5%):			97.5%

3B. Calculating the District's Projected Ratio of ADA to Enrollment

DATA ENTRY: Estimated P-2 ADA will be extracted into the first column for the Current Year; enter data in the first column for the subsequent fiscal years. Data should reflect district regular and charter school ADA/enrollment corresponding to financial data reported in the General Fund, only, for all fiscal years. All other data are extracted.

Fiscal Year	Estimated P-2 ADA (Form AI, Lines A4 and C4)	Enrollment CBEDS/Projected (Criterion 2, Item 2A)	Ratio of ADA to Enrollment	Status
Current Year (2016-17)				
District Regular	1,434	1,480		
Charter School	0			
Total ADA/Enrollment	1,434	1,480	96.9%	Met
1st Subsequent Year (2017-18)				
District Regular	1,436	1,485		
Charter School				
Total ADA/Enrollment	1,436	1,485	96.7%	Met
2nd Subsequent Year (2018-19)				
District Regular	1,441	1,490		
Charter School				
Total ADA/Enrollment	1,441	1,490	96.7%	Met

3C. Comparison of District ADA to Enrollment Ratio to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

- 1a. STANDARD MET - Projected P-2 ADA to enrollment ratio has not exceeded the standard for the current year and two subsequent fiscal years.

Explanation:
(required if NOT met)

4. CRITERION: LCFF Revenue

STANDARD: Projected LCFF revenue for any of the current fiscal year or two subsequent fiscal years has not changed by more than two percent since first interim projections.

District's LCFF Revenue Standard Percentage Range:

4A. Calculating the District's Projected Change in LCFF Revenue

DATA ENTRY: First Interim data that exist will be extracted; otherwise, enter data into the first column. In the Second Interim column, Current Year data are extracted; enter data for the two subsequent years.

Fiscal Year	LCFF Revenue (Fund 01, Objects 8011, 8012, 8020-8089)		Percent Change	Status
	First Interim (Form 01CSI, Item 4A)	Second Interim Projected Year Totals		
	Current Year (2016-17)	13,612,027.00		
1st Subsequent Year (2017-18)	14,119,005.00	13,767,522.00	-2.5%	Not Met
2nd Subsequent Year (2018-19)	14,385,048.00	14,325,065.00	-0.4%	Met

4B. Comparison of District LCFF Revenue to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

- 1a. STANDARD NOT MET - Projected LCFF revenue has changed since first interim projections by more than two percent in any of the current year or two subsequent fiscal years. Provide reasons why the change(s) exceed the standard and a description of the methods and assumptions used in projecting LCFF revenue.

Explanation:
(required if NOT met)

The 2017-18 revenue projection changed per the proposed Governor's Budget in January 2017.

5. CRITERION: Salaries and Benefits

STANDARD: Projected ratio of total unrestricted salaries and benefits to total unrestricted general fund expenditures for any of the current fiscal year or two subsequent fiscal years has not changed from the historical average ratio from the three prior fiscal years by more than the greater of three percent or the district's required reserves percentage.

5A. Calculating the District's Historical Average Ratio of Unrestricted Salaries and Benefits to Total Unrestricted General Fund Expenditures

DATA ENTRY: Unaudited Actuals data that exist for the First Prior Year will be extracted; otherwise, enter data for the First Prior Year. Unaudited Actuals data for the second and third prior years are preloaded.

Fiscal Year	Unaudited Actuals - Unrestricted (Resources 0000-1999)		Ratio of Unrestricted Salaries and Benefits to Total Unrestricted Expenditures
	Salaries and Benefits (Form 01, Objects 1000-3999)	Total Expenditures (Form 01, Objects 1000-7499)	
Third Prior Year (2013-14)	7,140,324.56	8,387,678.76	85.1%
Second Prior Year (2014-15)	8,206,821.08	10,054,676.16	81.6%
First Prior Year (2015-16)	9,304,249.70	11,571,369.60	80.4%
Historical Average Ratio:			82.4%

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
District's Reserve Standard Percentage (Criterion 10B, Line 4)	3.0%	3.0%	3.0%
District's Salaries and Benefits Standard (historical average ratio, plus/minus the greater of 3% or the district's reserve standard percentage):	79.4% to 85.4%	79.4% to 85.4%	79.4% to 85.4%

5B. Calculating the District's Projected Ratio of Unrestricted Salaries and Benefits to Total Unrestricted General Fund Expenditures

DATA ENTRY: If Form MYPI exists, Projected Year Totals data for the two subsequent years will be extracted; if not, enter Projected Year Totals data. Projected Year Totals data for Current Year are extracted.

Fiscal Year	Projected Year Totals - Unrestricted (Resources 0000-1999)		Ratio of Unrestricted Salaries and Benefits to Total Unrestricted Expenditures	Status
	Salaries and Benefits (Form 011, Objects 1000-3999) (Form MYPI, Lines B1-B3)	Total Expenditures (Form 011, Objects 1000-7499) (Form MYPI, Lines B1-B8, B10)		
Current Year (2016-17)	9,817,068.00	14,390,569.00	68.2%	Not Met
1st Subsequent Year (2017-18)	10,221,356.00	12,760,243.00	80.1%	Met
2nd Subsequent Year (2018-19)	10,540,770.00	13,149,233.00	80.2%	Met

5C. Comparison of District Salaries and Benefits Ratio to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

- 1a. STANDARD NOT MET - Projected ratio of unrestricted salary and benefit costs to total unrestricted expenditures has changed by more than the standard in any of the current year or two subsequent fiscal years. Provide reasons why the change(s) exceed the standard and a description of the methods and assumptions used in projecting salaries and benefits.

Explanation:
(required if NOT met)

The standard is not met in 2016/17 due to an increase in one-time expenditures, increasing the equipment budget for purchase of new bus.

6. CRITERION: Other Revenues and Expenditures

STANDARD: Projected operating revenues (including federal, other state and other local) or expenditures (including books and supplies, and services and other operating), for any of the current fiscal year or two subsequent fiscal years, have not changed by more than five percent since first interim projections.

Changes that exceed five percent in any major object category must be explained.

District's Other Revenues and Expenditures Standard Percentage Range:	-5.0% to +5.0%
District's Other Revenues and Expenditures Explanation Percentage Range:	-5.0% to +5.0%

6A. Calculating the District's Change by Major Object Category and Comparison to the Explanation Percentage Range

DATA ENTRY: First Interim data that exist will be extracted; otherwise, enter data into the first column. Second Interim data for the Current Year are extracted. If Second Interim Form MYPI exists, data for the two subsequent years will be extracted; if not, enter data for the two subsequent years into the second column.

Explanations must be entered for each category if the percent change for any year exceeds the district's explanation percentage range.

Object Range / Fiscal Year	First Interim Projected Year Totals (Form 01CSI, Item 6A)	Second Interim Projected Year Totals (Fund 01) (Form MYPI)	Percent Change	Change Is Outside Explanation Range
Federal Revenue (Fund 01, Objects 8100-8299) (Form MYPI, Line A2)				
Current Year (2016-17)	430,226.00	469,303.00	9.1%	Yes
1st Subsequent Year (2017-18)	333,995.00	333,995.00	0.0%	No
2nd Subsequent Year (2018-19)	333,995.00	333,995.00	0.0%	No

Explanation:
(required if Yes)

In 2016-17 added Rural and Low Income funding of \$32,096

Other State Revenue (Fund 01, Objects 8300-8599) (Form MYPI, Line A3)				
Current Year (2016-17)	1,612,367.00	1,732,211.00	7.4%	Yes
1st Subsequent Year (2017-18)	814,902.00	814,902.00	0.0%	No
2nd Subsequent Year (2018-19)	814,902.00	814,902.00	0.0%	No

Explanation:
(required if Yes)

In 2016-17 added Ca Clean Energy-Prop 39 funds received \$116,723

Other Local Revenue (Fund 01, Objects 8600-8799) (Form MYPI, Line A4)				
Current Year (2016-17)	419,275.00	433,527.00	3.4%	No
1st Subsequent Year (2017-18)	288,134.00	288,134.00	0.0%	No
2nd Subsequent Year (2018-19)	224,608.00	224,608.00	0.0%	No

Explanation:
(required if Yes)

Books and Supplies (Fund 01, Objects 4000-4999) (Form MYPI, Line B4)				
Current Year (2016-17)	2,836,299.00	2,926,536.00	3.2%	No
1st Subsequent Year (2017-18)	1,118,099.00	1,118,099.00	0.0%	No
2nd Subsequent Year (2018-19)	1,147,170.00	1,147,170.00	0.0%	No

Explanation:
(required if Yes)

Services and Other Operating Expenditures (Fund 01, Objects 5000-5999) (Form MYPI, Line B5)				
Current Year (2016-17)	2,821,947.00	2,936,756.00	4.1%	No
1st Subsequent Year (2017-18)	1,829,113.00	1,831,248.00	0.1%	No
2nd Subsequent Year (2018-19)	1,872,670.00	1,874,861.00	0.1%	No

Explanation:
(required if Yes)

6B. Calculating the District's Change in Total Operating Revenues and Expenditures

DATA ENTRY: All data are extracted or calculated.

Object Range / Fiscal Year	First Interim Projected Year Totals	Second Interim Projected Year Totals	Percent Change	Status
Total Federal, Other State, and Other Local Revenue (Section 6A)				
Current Year (2016-17)	2,461,868.00	2,635,041.00	7.0%	Not Met
1st Subsequent Year (2017-18)	1,437,031.00	1,437,031.00	0.0%	Met
2nd Subsequent Year (2018-19)	1,373,505.00	1,373,505.00	0.0%	Met
Total Books and Supplies, and Services and Other Operating Expenditures (Section 6A)				
Current Year (2016-17)	5,658,246.00	5,863,292.00	3.6%	Met
1st Subsequent Year (2017-18)	2,947,212.00	2,949,347.00	0.1%	Met
2nd Subsequent Year (2018-19)	3,019,840.00	3,022,031.00	0.1%	Met

6C. Comparison of District Total Operating Revenues and Expenditures to the Standard Percentage Range

DATA ENTRY: Explanations are linked from Section 6A if the status in Section 6B is Not Met; no entry is allowed below.

- 1a. STANDARD NOT MET - One or more projected operating revenue have changed since first interim projections by more than the standard in one or more of the current year or two subsequent fiscal years. Reasons for the projected change, descriptions of the methods and assumptions used in the projections, and what changes, if any, will be made to bring the projected operating revenues within the standard must be entered in Section 6A above and will also display in the explanation box below.

Explanation:
Federal Revenue
(linked from 6A
if NOT met)

In 2016-17 added Rural and Low Income funding of \$32,096

Explanation:
Other State Revenue
(linked from 6A
if NOT met)

In 2016-17 added Ca Clean Energy-Prop 39 funds received \$116,723

Explanation:
Other Local Revenue
(linked from 6A
if NOT met)

- 1b. STANDARD MET - Projected total operating expenditures have not changed since first interim projections by more than the standard for the current year and two subsequent fiscal years.

Explanation:
Books and Supplies
(linked from 6A
if NOT met)

Explanation:
Services and Other Exps
(linked from 6A
if NOT met)

7. CRITERION: Facilities Maintenance

STANDARD: Identify changes that have occurred since first interim projections in the projected contributions for facilities maintenance funding as required pursuant to Education Code Section 17070.75, or in how the district is providing adequately to preserve the functionality of its facilities for their normal life in accordance with Education Code sections 52060(d)(1) and 17002(d)(1).

Determining the District's Compliance with the Contribution Requirement for EC Section 17070.75, as amended by AB 104 (Chapter 13, Statutes of 2015), effective 2015-16 and 2016-17 - Ongoing and Major Maintenance/Restricted Maintenance Account (OMMA/RMA)

NOTE: AB 104 (Chapter 13, Statutes of 2015) requires the district to deposit into the account, for the 2015-16 and 2016-17 fiscal years, a minimum amount that is the lesser of 3% of the total general fund expenditures and other financing uses for that fiscal year or the amount that the district deposited into the account for the 2014-15 fiscal year.

DATA ENTRY: For the Required Minimum Contribution, enter the lesser of 3% of the total general fund expenditures and other financing uses for the current year or the amount that the district deposited into the account for the 2014-15 fiscal year. If EC 17070.75(e)(1) and (e)(2) apply, input 3%. First Interim data that exists will be extracted; otherwise, enter First Interim data into lines 1 and 2. All other data are extracted.

	Required Minimum Contribution	Second Interim Contribution Projected Year Totals (Fund 01, Resource 8150, Objects 8900-8999)	Status
1. OMMA/RMA Contribution	237,755.00	433,344.00	Met
2. First Interim Contribution (information only) (Form 01CSI, First Interim, Criterion 7, Line 1)		433,344.00	

If status is not met, enter an X in the box that best describes why the minimum required contribution was not made:

- Not applicable (district does not participate in the Leroy F. Greene School Facilities Act of 1998)
- Exempt (due to district's small size [EC Section 17070.75 (b)(2)(E)])
- Other (explanation must be provided)

Explanation:
(required if NOT met
and Other is marked)

8: CRITERION: Deficit Spending

STANDARD: Unrestricted deficit spending (total unrestricted expenditures and other financing uses is greater than total unrestricted revenues and other financing sources) as a percentage of total unrestricted expenditures and other financing uses, has not exceeded one-third of the district's available reserves¹ as a percentage of total expenditures and other financing uses² in any of the current fiscal year or two subsequent fiscal years.

¹Available reserves are the unrestricted amounts in the Reserve for Economic Uncertainties and the Unassigned/Unappropriated accounts in the General Fund and the Special Reserve Fund for Other Than Capital Outlay Projects. Available reserves will be reduced by any negative ending balances in restricted resources in the General Fund.

²A school district that is the Administrative Unit of a Special Education Local Plan Area (SELPA) may exclude from its expenditures the distribution of funds to its participating members.

8A. Calculating the District's Deficit Spending Standard Percentage Levels

DATA ENTRY: All data are extracted or calculated.

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
District's Available Reserve Percentages (Criterion 10C, Line 9)	30.2%	34.6%	33.8%
District's Deficit Spending Standard Percentage Levels (one-third of available reserve percentage):	10.1%	11.5%	11.3%

8B. Calculating the District's Deficit Spending Percentages

DATA ENTRY: Current Year data are extracted. If Form MYPI exists, data for the two subsequent years will be extracted; if not, enter data for the two subsequent years into the first and second columns.

Fiscal Year	Projected Year Totals		Deficit Spending Level (If Net Change in Unrestricted Fund Balance is negative, else N/A)	Status
	Net Change in Unrestricted Fund Balance (Form 011, Section E) (Form MYPI, Line C)	Total Unrestricted Expenditures and Other Financing Uses (Form 011, Objects 1000-7999) (Form MYPI, Line B11)		
Current Year (2016-17)	(1,300,020.00)	14,390,569.00	9.0%	Met
1st Subsequent Year (2017-18)	(104,514.00)	12,760,243.00	0.8%	Met
2nd Subsequent Year (2018-19)	13,276.00	13,149,233.00	N/A	Met

8C. Comparison of District Deficit Spending to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

- 1a. STANDARD MET - Unrestricted deficit spending, if any, has not exceeded the standard percentage level in any of the current year or two subsequent fiscal years.

Explanation:
(required if NOT met)

9. CRITERION: Fund and Cash Balances

A. FUND BALANCE STANDARD: Projected general fund balance will be positive at the end of the current fiscal year and two subsequent fiscal years.

9A-1. Determining if the District's General Fund Ending Balance is Positive

DATA ENTRY: Current Year data are extracted. If Form MYPI exists, data for the two subsequent years will be extracted; if not, enter data for the two subsequent years.

Fiscal Year	Ending Fund Balance General Fund Projected Year Totals (Form 011, Line F2) (Form MYPI, Line D2)		Status
	Current Year (2016-17)	5,407,575.93	
1st Subsequent Year (2017-18)	5,303,060.00	Met	
2nd Subsequent Year (2018-19)	5,316,336.00	Met	

9A-2. Comparison of the District's Ending Fund Balance to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

1a. STANDARD MET - Projected general fund ending balance is positive for the current fiscal year and two subsequent fiscal years.

Explanation:
(required if NOT met)

B. CASH BALANCE STANDARD: Projected general fund cash balance will be positive at the end of the current fiscal year.

9B-1. Determining if the District's Ending Cash Balance is Positive

DATA ENTRY: If Form CASH exists, data will be extracted; if not, data must be entered below.

Fiscal Year	Ending Cash Balance General Fund (Form CASH, Line F, June Column)		Status
	Current Year (2016-17)	5,457,058.00	

9B-2. Comparison of the District's Ending Cash Balance to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

1a. STANDARD MET - Projected general fund cash balance will be positive at the end of the current fiscal year.

Explanation:
(required if NOT met)

10. CRITERION: Reserves

STANDARD: Available reserves¹ for any of the current fiscal year or two subsequent fiscal years are not less than the following percentages or amounts² as applied to total expenditures and other financing uses³:

DATA ENTRY: Current Year data are extracted. Enter district regular ADA corresponding to financial data reported in the General Fund, only, for the two subsequent years.

Percentage Level	District ADA		
5% or \$66,000 (greater of)	0	to	300
4% or \$66,000 (greater of)	301	to	1,000
3%	1,001	to	30,000
2%	30,001	to	400,000
1%	400,001	and	over

¹ Available reserves are the unrestricted amounts in the Reserve for Economic Uncertainties and the Unassigned/Unappropriated accounts in the General Fund and Special Reserve Fund for Other Than Capital Outlay Projects. Available reserves will be reduced by any negative ending balances in restricted resources in the General Fund.

² Dollar amounts to be adjusted annually by the prior year statutory cost-of-living adjustment (Education Code Section 42238), rounded to the nearest thousand.

³ A school district that is the Administrative Unit (AU) of a Special Education Local Plan Area (SELPA) may exclude from its expenditures the distribution of funds to its participating members.

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
District Estimated P-2 ADA (Form AI, Line A4):	1,434	1,436	1,441
District's Reserve Standard Percentage Level:	3%	3%	3%

10A. Calculating the District's Special Education Pass-through Exclusions (only for districts that serve as the AU of a SELPA)

DATA ENTRY: For SELPA AUs, if Form MYPI exists, all data will be extracted including the Yes/No button selection. If not, click the appropriate Yes or No button for item 1 and, if Yes, enter data for item 2a and for the two subsequent years in item 2b; Current Year data are extracted.

For districts that serve as the AU of a SELPA (Form MYPI, Lines F1a, F1b1, and F1b2):

- Do you choose to exclude from the reserve calculation the pass-through funds distributed to SELPA members?
- If you are the SELPA AU and are excluding special education pass-through funds:
 - Enter the name(s) of the SELPA(s): _____

- Special Education Pass-through Funds
(Fund 10, resources 3300-3499 and 6500-6540, objects 7211-7213 and 7221-7223)

	Current Year Projected Year Totals (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
	0.00		

10B. Calculating the District's Reserve Standard

DATA ENTRY: If Form MYPI exists, all data will be extracted or calculated. If not, enter data for line 1 for the two subsequent years; Current Year data are extracted.

	Current Year Projected Year Totals (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
1. Expenditures and Other Financing Uses (Form 011, objects 1000-7999) (Form MYPI, Line B11)	17,935,755.00	15,309,069.00	15,685,294.00
2. Plus: Special Education Pass-through (Criterion 10A, Line 2b, if Criterion 10A, Line 1 is No)			
3. Total Expenditures and Other Financing Uses (Line B1 plus Line B2)	17,935,755.00	15,309,069.00	15,685,294.00
4. Reserve Standard Percentage Level	3%	3%	3%
5. Reserve Standard - by Percent (Line B3 times Line B4)	538,072.65	459,272.07	470,558.82
6. Reserve Standard - by Amount (\$66,000 for districts with less than 1,001 ADA, else 0)	0.00	0.00	0.00
7. District's Reserve Standard (Greater of Line B5 or Line B6)	538,072.65	459,272.07	470,558.82

10C. Calculating the District's Available Reserve Amount

DATA ENTRY: All data are extracted from fund data and Form MYPI. If Form MYPI does not exist, enter data for the two subsequent years.

Reserve Amounts (Unrestricted resources 0000-1999 except Line 4)	Current Year	1st Subsequent Year	2nd Subsequent Year
	Projected Year Totals (2016-17)	(2017-18)	(2018-19)
1. General Fund - Stabilization Arrangements (Fund 01, Object 9750) (Form MYPI, Line E1a)	0.00		
2. General Fund - Reserve for Economic Uncertainties (Fund 01, Object 9789) (Form MYPI, Line E1b)	5,407,574.28	5,303,060.00	5,306,337.00
3. General Fund - Unassigned/Unappropriated Amount (Fund 01, Object 9790) (Form MYPI, Line E1c)	0.00		
4. General Fund - Negative Ending Balances in Restricted Resources (Fund 01, Object 979Z, if negative, for each of resources 2000-9999) (Form MYPI, Line E1d)	(0.46)		
5. Special Reserve Fund - Stabilization Arrangements (Fund 17, Object 9750) (Form MYPI, Line E2a)	0.00		
6. Special Reserve Fund - Reserve for Economic Uncertainties (Fund 17, Object 9789) (Form MYPI, Line E2b)	0.00		
7. Special Reserve Fund - Unassigned/Unappropriated Amount (Fund 17, Object 9790) (Form MYPI, Line E2c)	0.00		
8. District's Available Reserve Amount (Lines C1 thru C7)	5,407,573.82	5,303,060.00	5,306,337.00
9. District's Available Reserve Percentage (Information only) (Line 8 divided by Section 10B, Line 3)	30.15%	34.64%	33.83%
District's Reserve Standard (Section 10B, Line 7):	538,072.65	459,272.07	470,558.82
Status:	Met	Met	Met

10D. Comparison of District Reserve Amount to the Standard

DATA ENTRY: Enter an explanation if the standard is not met.

- 1a. STANDARD MET - Available reserves have met the standard for the current year and two subsequent fiscal years.

Explanation:
(required if NOT met)

SUPPLEMENTAL INFORMATION

DATA ENTRY: Click the appropriate Yes or No button for items S1 through S4. Enter an explanation for each Yes answer.

S1. Contingent Liabilities

1a. Does your district have any known or contingent liabilities (e.g., financial or program audits, litigation, state compliance reviews) that have occurred since first interim projections that may impact the budget?

1b. If Yes, identify the liabilities and how they may impact the budget:

S2. Use of One-time Revenues for Ongoing Expenditures

1a. Does your district have ongoing general fund expenditures funded with one-time revenues that have changed since first interim projections by more than five percent?

1b. If Yes, identify the expenditures and explain how the one-time resources will be replaced to continue funding the ongoing expenditures in the following fiscal years:

S3. Temporary Interfund Borrowings

1a. Does your district have projected temporary borrowings between funds?
(Refer to Education Code Section 42603)

1b. If Yes, identify the interfund borrowings:

S4. Contingent Revenues

1a. Does your district have projected revenues for the current fiscal year or either of the two subsequent fiscal years contingent on reauthorization by the local government, special legislation, or other definitive act (e.g., parcel taxes, forest reserves)?

1b. If Yes, identify any of these revenues that are dedicated for ongoing expenses and explain how the revenues will be replaced or expenditures reduced:

S5. Contributions

Identify projected contributions from unrestricted resources in the general fund to restricted resources in the general fund for the current fiscal year and two subsequent fiscal years. Provide an explanation if contributions have changed by more than \$20,000 and more than five percent since first interim projections.

Identify projected transfers to or from the general fund to cover operating deficits in either the general fund or any other fund for the current fiscal year and two subsequent fiscal years. Provide an explanation if transfers have changed by more than \$20,000 and more than five percent since first interim projections.

Identify capital project cost overruns that have occurred since first interim projections that may impact the general fund budget.

District's Contributions and Transfers Standard: -5.0% to +5.0%
or -\$20,000 to +\$20,000

S5A. Identification of the District's Projected Contributions, Transfers, and Capital Projects that may Impact the General Fund

DATA ENTRY: First Interim data that exist will be extracted; otherwise, enter data into the first column. For Contributions, the Second Interim's Current Year data will be extracted. Enter Second Interim Contributions for the 1st and 2nd Subsequent Years. For Transfers In and Transfers Out, if Form MYP exists, the data will be extracted into the Second Interim column for the Current Year, and 1st and 2nd Subsequent Years. If Form MYP does not exist, enter data in the Current Year, and 1st and 2nd Subsequent Years. Click on the appropriate button for item 1d; all other data will be calculated.

Description / Fiscal Year	First Interim (Form 01CSI, item S5A)	Second Interim Projected Year Totals	Percent Change	Amount of Change	Status
1a. Contributions, Unrestricted General Fund (Fund 01, Resources 0000-1999, Object 8980)					
Current Year (2016-17)	(1,371,869.00)	(1,371,869.00)	0.0%	0.00	Met
1st Subsequent Year (2017-18)	(1,540,498.00)	(1,542,585.00)	0.1%	2,087.00	Met
2nd Subsequent Year (2018-19)	(1,599,688.00)	(1,601,823.00)	0.1%	2,135.00	Met
1b. Transfers In, General Fund *					
Current Year (2016-17)	0.00	0.00	0.0%	0.00	Met
1st Subsequent Year (2017-18)	0.00	0.00	0.0%	0.00	Met
2nd Subsequent Year (2018-19)	0.00	0.00	0.0%	0.00	Met
1c. Transfers Out, General Fund *					
Current Year (2016-17)	0.00	0.00	0.0%	0.00	Met
1st Subsequent Year (2017-18)	0.00	0.00	0.0%	0.00	Met
2nd Subsequent Year (2018-19)	0.00	0.00	0.0%	0.00	Met

1d. Capital Project Cost Overruns

Have capital project cost overruns occurred since first interim projections that may impact the general fund operational budget?

No

* Include transfers used to cover operating deficits in either the general fund or any other fund.

S5B. Status of the District's Projected Contributions, Transfers, and Capital Projects

DATA ENTRY: Enter an explanation if Not Met for items 1a-1c or if Yes for Item 1d.

1a. MET - Projected contributions have not changed since first interim projections by more than the standard for the current year and two subsequent fiscal years.

Explanation:
(required if NOT met)

1b. MET - Projected transfers in have not changed since first interim projections by more than the standard for the current year and two subsequent fiscal years.

Explanation:
(required if NOT met)

1c. MET - Projected transfers out have not changed since first interim projections by more than the standard for the current year and two subsequent fiscal years.

Explanation:
(required if NOT met)

1d. NO - There have been no capital project cost overruns occurring since first interim projections that may impact the general fund operational budget.

Project Information:
(required if YES)

S6. Long-term Commitments

Identify all existing and new multiyear commitments¹ and their annual required payment for the current fiscal year and two subsequent fiscal years.

Explain how any increase in annual payments will be funded. Also, explain how any decrease to funding sources used to pay long-term commitments will be replaced.

¹ Include multiyear commitments, multiyear debt agreements, and new programs or contracts that result in long-term obligations.

S6A. Identification of the District's Long-term Commitments

DATA ENTRY: If First Interim data exist (Form 01CSI, Item S6A), long-term commitment data will be extracted and it will only be necessary to click the appropriate button for Item 1b. Extracted data may be overwritten to update long-term commitment data in Item 2, as applicable. If no First Interim data exist, click the appropriate buttons for items 1a and 1b, and enter all other data, as applicable.

1. a. Does your district have long-term (multiyear) commitments?
(If No, skip items 1b and 2 and sections S6B and S6C) Yes
- b. If Yes to Item 1a, have new long-term (multiyear) commitments been incurred since first interim projections? No
2. If Yes to Item 1a, list (or update) all new and existing multiyear commitments and required annual debt service amounts. Do not include long-term commitments for postemployment benefits other than pensions (OPEB); OPEB is disclosed in Item S7A.

Type of Commitment	# of Years Remaining	SACS Fund and Object Codes Used For:		Principal Balance as of July 1, 2016
		Funding Sources (Revenues)	Debt Service (Expenditures)	
Capital Leases				
Certificates of Participation				
General Obligation Bonds				
Supp Early Retirement Program				
State School Building Loans				
Compensated Absences				55,444

Other Long-term Commitments (do not include OPEB):

Supp Employee Retirement Plan	5			105,444
TOTAL:				160,888

Type of Commitment (continued)	Prior Year (2015-16)	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
	Annual Payment (P & I)	Annual Payment (P & I)	Annual Payment (P & I)	Annual Payment (P & I)
Capital Leases				
Certificates of Participation				
General Obligation Bonds				
Supp Early Retirement Program				
State School Building Loans				
Compensated Absences				

Other Long-term Commitments (continued):

Supp Employee Retirement Plan	48,528	56,616	16,176	16,176
Total Annual Payments:	48,528	56,616	16,176	16,176
Has total annual payment increased over prior year (2015-16)?	Yes	No	No	No

S6B. Comparison of the District's Annual Payments to Prior Year Annual Payment

DATA ENTRY: Enter an explanation if Yes.

- 1a. Yes - Annual payments for long-term commitments have increased in one or more of the current or two subsequent fiscal years. Explain how the increase in annual payments will be funded.

Explanation:
(Required if Yes
to increase in total
annual payments)

Funded with base unrestricted funds.

S6C. Identification of Decreases to Funding Sources Used to Pay Long-term Commitments

DATA ENTRY: Click the appropriate Yes or No button in Item 1; if Yes, an explanation is required in Item 2.

1. Will funding sources used to pay long-term commitments decrease or expire prior to the end of the commitment period, or are they one-time sources?

No

2. No - Funding sources will not decrease or expire prior to the end of the commitment period, and one-time funds are not being used for long-term commitment.

Explanation:
(Required if Yes)

S7. Unfunded Liabilities

Identify any changes in estimates for unfunded liabilities since first interim projections, and indicate whether the changes are the result of a new actuarial valuation.

S7A. Identification of the District's Estimated Unfunded Liability for Postemployment Benefits Other Than Pensions (OPEB)

DATA ENTRY: Click the appropriate button(s) for items 1a-1c, as applicable. First Interim data that exist (Form 01CSI, Item S7A) will be extracted; otherwise, enter First Interim and Second Interim data in items 2-4.

1. a. Does your district provide postemployment benefits other than pensions (OPEB)? (If No, skip items 1b-4)

No

b. If Yes to Item 1a, have there been changes since first interim in OPEB liabilities?

n/a

c. If Yes to Item 1a, have there been changes since first interim in OPEB contributions?

n/a

2. OPEB Liabilities

	First Interim (Form 01CSI, Item S7A)	Second Interim
a. OPEB actuarial accrued liability (AAL)		
b. OPEB unfunded actuarial accrued liability (UAAL)		
c. Are AAL and UAAL based on the district's estimate or an actuarial valuation?		
d. If based on an actuarial valuation, indicate the date of the OPEB valuation.		

3. OPEB Contributions

a. OPEB annual required contribution (ARC) per actuarial valuation or Alternative Measurement Method

	First Interim (Form 01CSI, Item S7A)	Second Interim
Current Year (2016-17)		
1st Subsequent Year (2017-18)		
2nd Subsequent Year (2018-19)		

b. OPEB amount contributed (for this purpose, include premiums paid to a self-insurance fund)
(Funds 01-70, objects 3701-3752)

Current Year (2016-17)	0.00	0.00
1st Subsequent Year (2017-18)		
2nd Subsequent Year (2018-19)		

c. Cost of OPEB benefits (equivalent of "pay-as-you-go" amount)

Current Year (2016-17)		
1st Subsequent Year (2017-18)		
2nd Subsequent Year (2018-19)		

d. Number of retirees receiving OPEB benefits

Current Year (2016-17)		
1st Subsequent Year (2017-18)		
2nd Subsequent Year (2018-19)		

4. Comments:

S7B. Identification of the District's Unfunded Liability for Self-insurance Programs

DATA ENTRY: Click the appropriate button(s) for items 1a-1c, as applicable. First Interim data that exist (Form 01CSI, Item S7B) will be extracted; otherwise, enter First Interim and Second Interim data in items 2-4.

- 1. a. Does your district operate any self-insurance programs such as workers' compensation, employee health and welfare, or property and liability? (Do not include OPEB; which is covered in Section S7A) (If No, skip items 1b-4)

No

- b. If Yes to item 1a, have there been changes since first interim in self-insurance liabilities?

n/a

- c. If Yes to item 1a, have there been changes since first interim in self-insurance contributions?

n/a

2. Self-Insurance Liabilities

	First Interim (Form 01CSI, Item S7B)	Second Interim
a. Accrued liability for self-insurance programs		
b. Unfunded liability for self-insurance programs		

3. Self-Insurance Contributions

	First Interim (Form 01CSI, Item S7B)	Second Interim
a. Required contribution (funding) for self-insurance programs		
Current Year (2016-17)		
1st Subsequent Year (2017-18)		
2nd Subsequent Year (2018-19)		
b. Amount contributed (funded) for self-insurance programs		
Current Year (2016-17)		
1st Subsequent Year (2017-18)		
2nd Subsequent Year (2018-19)		

4. Comments:

S8. Status of Labor Agreements

Analyze the status of employee labor agreements. Identify new labor agreements that have been ratified since first interim projections, as well as new commitments provided as part of previously ratified multiyear agreements; and include all contracts, including all administrator contracts (and including all compensation). For new agreements, indicate the date of the required board meeting. Compare the increase in new commitments to the projected increase in ongoing revenues and explain how these commitments will be funded in future fiscal years.

If salary and benefit negotiations are not finalized, upon settlement with certificated or classified staff:

The school district must determine the cost of the settlement, including salaries, benefits, and any other agreements that change costs, and provide the county office of education (COE) with an analysis of the cost of the settlement and its impact on the operating budget.

The county superintendent shall review the analysis relative to the criteria and standards and may provide written comments to the president of the district governing board and superintendent.

S8A. Cost Analysis of District's Labor Agreements - Certificated (Non-management) Employees

DATA ENTRY: Click the appropriate Yes or No button for "Status of Certificated Labor Agreements as of the Previous Reporting Period." There are no extractions in this section.

Status of Certificated Labor Agreements as of the Previous Reporting Period
Were all certificated labor negotiations settled as of first interim projections?
If Yes, complete number of FTEs, then skip to section S8B.
If No, continue with section S8A.

Certificated (Non-management) Salary and Benefit Negotiations

	Prior Year (2nd Interim) (2015-16)	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
Number of certificated (non-management) full-time-equivalent (FTE) positions	71.0	73.4	74.4	74.4

1a. Have any salary and benefit negotiations been settled since first interim projections?
If Yes, and the corresponding public disclosure documents have been filed with the COE, complete questions 2 and 3.
If Yes, and the corresponding public disclosure documents have not been filed with the COE, complete questions 2-5.
If No, complete questions 6 and 7.

1b. Are any salary and benefit negotiations still unsettled?
If Yes, complete questions 6 and 7.

Negotiations Settled Since First Interim Projections

2a. Per Government Code Section 3547.5(a), date of public disclosure board meeting:

2b. Per Government Code Section 3547.5(b), was the collective bargaining agreement certified by the district superintendent and chief business official?
If Yes, date of Superintendent and CBO certification:

3. Per Government Code Section 3547.5(c), was a budget revision adopted to meet the costs of the collective bargaining agreement?
If Yes, date of budget revision board adoption:

4. Period covered by the agreement: Begin Date: End Date:

5. Salary settlement:

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
Is the cost of salary settlement included in the interim and multiyear projections (MYPs)?	No	No	No

One Year Agreement

Total cost of salary settlement	350,322	178,664	182,238
---------------------------------	---------	---------	---------

% change in salary schedule from prior year or	3.0%
--	------

Multiyear Agreement

Total cost of salary settlement			
---------------------------------	--	--	--

% change in salary schedule from prior year (may enter text, such as "Reopener")			
--	--	--	--

Identify the source of funding that will be used to support multiyear salary commitments:

Negotiations Not Settled

6. Cost of a one percent increase in salary and statutory benefits

--

Current Year
(2016-17)

1st Subsequent Year
(2017-18)

2nd Subsequent Year
(2018-19)

7. Amount included for any tentative salary schedule increases

--	--	--

Certificated (Non-management) Health and Welfare (H&W) Benefits

Current Year
(2016-17)

1st Subsequent Year
(2017-18)

2nd Subsequent Year
(2018-19)

- Are costs of H&W benefit changes included in the interim and MYPs?
- Total cost of H&W benefits
- Percent of H&W cost paid by employer
- Percent projected change in H&W cost over prior year

Certificated (Non-management) Prior Year Settlements Negotiated Since First Interim Projections

Are any new costs negotiated since first interim projections for prior year settlements included in the interim?

--

If Yes, amount of new costs included in the interim and MYPs
If Yes, explain the nature of the new costs:

--	--	--

--

Certificated (Non-management) Step and Column Adjustments

Current Year
(2016-17)

1st Subsequent Year
(2017-18)

2nd Subsequent Year
(2018-19)

- Are step & column adjustments included in the interim and MYPs?
- Cost of step & column adjustments
- Percent change in step & column over prior year

Certificated (Non-management) Attrition (layoffs and retirements)

Current Year
(2016-17)

1st Subsequent Year
(2017-18)

2nd Subsequent Year
(2018-19)

- Are savings from attrition included in the budget and MYPs?
- Are additional H&W benefits for those laid-off or retired employees included in the interim and MYPs?

Certificated (Non-management) - Other

List other significant contract changes that have occurred since first interim projections and the cost impact of each change (i.e., class size, hours of employment, leave of absence, bonuses, etc.):

S8B. Cost Analysis of District's Labor Agreements - Classified (Non-management) Employees

DATA ENTRY: Click the appropriate Yes or No button for "Status of Classified Labor Agreements as of the Previous Reporting Period." There are no extractions in this section.

Status of Classified Labor Agreements as of the Previous Reporting Period

Were all classified labor negotiations settled as of first interim projections?

If Yes, complete number of FTEs, then skip to section S8C.

If No, continue with section S8B.

Classified (Non-management) Salary and Benefit Negotiations

	Prior Year (2nd Interim) (2015-16)	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
Number of classified (non-management) FTE positions	40.7	39.0	39.0	39.0

1a. Have any salary and benefit negotiations been settled since first interim projections?

If Yes, and the corresponding public disclosure documents have been filed with the COE, complete questions 2 and 3.

If Yes, and the corresponding public disclosure documents have not been filed with the COE, complete questions 2-5.

If No, complete questions 6 and 7.

1b. Are any salary and benefit negotiations still unsettled?

If Yes, complete questions 6 and 7.

Negotiations Settled Since First Interim Projections

2a. Per Government Code Section 3547.5(a), date of public disclosure board meeting:

2b. Per Government Code Section 3547.5(b), was the collective bargaining agreement certified by the district superintendent and chief business official?

If Yes, date of Superintendent and CBO certification:

3. Per Government Code Section 3547.5(c), was a budget revision adopted to meet the costs of the collective bargaining agreement?

If Yes, date of budget revision board adoption:

4. Period covered by the agreement:

Begin Date:

End Date:

5. Salary settlement:

Current Year
(2016-17)

1st Subsequent Year
(2017-18)

2nd Subsequent Year
(2018-19)

Is the cost of salary settlement included in the interim and multiyear projections (MYPs)?

No	No	No
----	----	----

One Year Agreement

Total cost of salary settlement

95,898	48,908	49,886
--------	--------	--------

% change in salary schedule from prior year
or

3.0%

Multiyear Agreement

Total cost of salary settlement

--	--	--

% change in salary schedule from prior year
(may enter text, such as "Reopener")

--	--	--

Identify the source of funding that will be used to support multiyear salary commitments:

Negotiations Not Settled

6. Cost of a one percent increase in salary and statutory benefits

7. Amount included for any tentative salary schedule increases

Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)

Classified (Non-management) Health and Welfare (H&W) Benefits

1. Are costs of H&W benefit changes included in the interim and MYPs?
2. Total cost of H&W benefits
3. Percent of H&W cost paid by employer
4. Percent projected change in H&W cost over prior year

Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)

Classified (Non-management) Prior Year Settlements Negotiated Since First Interim

Are any new costs negotiated since first interim for prior year settlements included in the interim?

- If Yes, amount of new costs included in the interim and MYPs
If Yes, explain the nature of the new costs:

Classified (Non-management) Step and Column Adjustments

1. Are step & column adjustments included in the interim and MYPs?
2. Cost of step & column adjustments
3. Percent change in step & column over prior year

Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)

Classified (Non-management) Attrition (layoffs and retirements)

1. Are savings from attrition included in the interim and MYPs?
2. Are additional H&W benefits for those laid-off or retired employees included in the interim and MYPs?

Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)

Classified (Non-management) - Other

List other significant contract changes that have occurred since first interim and the cost impact of each (i.e., hours of employment, leave of absence, bonuses, etc.):

S8C. Cost Analysis of District's Labor Agreements - Management/Supervisor/Confidential Employees

DATA ENTRY: Click the appropriate Yes or No button for "Status of Management/Supervisor/Confidential Labor Agreements as of the Previous Reporting Period." There are no extractions in this section.

Status of Management/Supervisor/Confidential Labor Agreements as of the Previous Reporting Period

Were all managerial/confidential labor negotiations settled as of first interim projections? No
If Yes or n/a, complete number of FTEs, then skip to S9.
If No, continue with section S8C.

Management/Supervisor/Confidential Salary and Benefit Negotiations

	Prior Year (2nd Interim) (2015-16)	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
Number of management, supervisor, and confidential FTE positions	14.0	15.0	15.0	15.0

1a. Have any salary and benefit negotiations been settled since first interim projections?
If Yes, complete question 2.
If No, complete questions 3 and 4. Yes

1b. Are any salary and benefit negotiations still unsettled?
If Yes, complete questions 3 and 4. No

Negotiations Settled Since First Interim Projections

2. Salary settlement:

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
Is the cost of salary settlement included in the interim and multiyear projections (MYPs)?	No	No	No
Total cost of salary settlement	104,192	53,138	54,201
Change in salary schedule from prior year (may enter text, such as "Reopener")	3.0%	0.0%	0.0%

Negotiations Not Settled

3. Cost of a one percent increase in salary and statutory benefits

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
4. Amount included for any tentative salary schedule increases			

Management/Supervisor/Confidential Health and Welfare (H&W) Benefits

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
1. Are costs of H&W benefit changes included in the interim and MYPs?			
2. Total cost of H&W benefits			
3. Percent of H&W cost paid by employer			
4. Percent projected change in H&W cost over prior year			

Management/Supervisor/Confidential Step and Column Adjustments

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
1. Are step & column adjustments included in the budget and MYPs?			
2. Cost of step & column adjustments			
3. Percent change in step and column over prior year			

Management/Supervisor/Confidential Other Benefits (mileage, bonuses, etc.)

	Current Year (2016-17)	1st Subsequent Year (2017-18)	2nd Subsequent Year (2018-19)
1. Are costs of other benefits included in the interim and MYPs?			
2. Total cost of other benefits			
3. Percent change in cost of other benefits over prior year			

S9. Status of Other Funds

Analyze the status of other funds that may have negative fund balances at the end of the current fiscal year. If any other fund has a projected negative fund balance, prepare an interim report and multiyear projection for that fund. Explain plans for how and when the negative fund balance will be addressed.

S9A. Identification of Other Funds with Negative Ending Fund Balances

DATA ENTRY: Click the appropriate button in Item 1. If Yes, enter data in Item 2 and provide the reports referenced in Item 1.

1. Are any funds other than the general fund projected to have a negative fund balance at the end of the current fiscal year?

If Yes, prepare and submit to the reviewing agency a report of revenues, expenditures, and changes in fund balance (e.g., an interim fund report) and a multiyear projection report for each fund.

2. If Yes, identify each fund, by name and number, that is projected to have a negative ending fund balance for the current fiscal year. Provide reasons for the negative balance(s) and explain the plan for how and when the problem(s) will be corrected.

ADDITIONAL FISCAL INDICATORS

The following fiscal indicators are designed to provide additional data for reviewing agencies. A "Yes" answer to any single indicator does not necessarily suggest a cause for concern, but may alert the reviewing agency to the need for additional review.

DATA ENTRY: Click the appropriate Yes or No button for items A2 through A9; Item A1 is automatically completed based on data from Criterion 9.

- A1. Do cash flow projections show that the district will end the current fiscal year with a negative cash balance in the general fund? (Data from Criterion 9B-1, Cash Balance, are used to determine Yes or No)

- A2. Is the system of personnel position control independent from the payroll system?

- A3. Is enrollment decreasing in both the prior and current fiscal years?

- A4. Are new charter schools operating in district boundaries that impact the district's enrollment, either in the prior or current fiscal year?

- A5. Has the district entered into a bargaining agreement where any of the current or subsequent fiscal years of the agreement would result in salary increases that are expected to exceed the projected state funded cost-of-living adjustment?

- A6. Does the district provide uncapped (100% employer paid) health benefits for current or retired employees?

- A7. Is the district's financial system independent of the county office system?

- A8. Does the district have any reports that indicate fiscal distress pursuant to Education Code Section 42127.6(a)? (If Yes, provide copies to the county office of education.)

- A9. Have there been personnel changes in the superintendent or chief business official positions within the last 12 months?

When providing comments for additional fiscal indicators, please include the item number applicable to each comment.

Comments:
(optional)

End of School District Second Interim Criteria and Standards Review

2016-17 Second Interim
General Fund
Summary - Unrestricted/Restricted
Revenues, Expenditures, and Changes in Fund Balance

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
A. REVENUES								
1) LCFF Sources		8010-8099	13,645,844.00	13,612,027.00	8,068,359.19	13,626,541.00	14,514.00	0.1%
2) Federal Revenue		8100-8299	348,490.00	466,352.00	216,592.49	469,303.00	2,951.00	0.6%
3) Other State Revenue		8300-8599	1,207,808.00	1,615,288.00	871,775.28	1,732,211.00	116,923.00	7.2%
4) Other Local Revenue		8600-8799	296,178.00	425,575.00	16,861.44	433,527.00	7,952.00	1.9%
5) TOTAL, REVENUES			15,498,320.00	16,119,242.00	9,173,588.40	16,261,582.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	6,366,422.00	6,384,822.00	3,362,152.89	6,384,822.00	0.00	0.0%
2) Classified Salaries		2000-2999	1,733,317.00	1,734,688.00	959,380.39	1,734,688.00	0.00	0.0%
3) Employee Benefits		3000-3999	2,902,146.00	2,893,402.00	1,429,584.63	2,893,402.00	0.00	0.0%
4) Books and Supplies		4000-4999	1,767,474.00	2,887,360.00	820,340.70	2,926,536.00	(39,176.00)	-1.4%
5) Services and Other Operating Expenditures		5000-5999	1,701,144.00	2,810,875.00	847,465.83	2,936,756.00	(125,881.00)	-4.5%
6) Capital Outlay		6000-6999	101,905.00	107,263.00	83,221.91	266,666.00	(159,403.00)	-148.6%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299 7400-7499	751,247.00	810,788.00	729,700.00	810,788.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	0.00	(17,903.00)	0.00	(17,903.00)	0.00	0.0%
9) TOTAL, EXPENDITURES			15,323,655.00	17,611,295.00	8,231,846.35	17,935,755.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			174,665.00	(1,492,053.00)	941,742.05	(1,674,173.00)		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	39,897.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	0.00	0.00	0.00	0.00	0.00	0.0%
4) TOTAL, OTHER FINANCING SOURCES/USES			(39,897.00)	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			134,768.00	(1,492,053.00)	941,742.05	(1,674,173.00)		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	7,081,748.93	7,081,748.93		7,081,748.93	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			7,081,748.93	7,081,748.93		7,081,748.93		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			7,081,748.93	7,081,748.93		7,081,748.93		
2) Ending Balance, June 30 (E + F1e)			7,216,516.93	5,589,695.93		5,407,575.93		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Restricted			374,154.65	2.11		2.11		
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	0.00	0.00		0.00		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	6,842,362.28	5,589,694.28		5,407,574.28		
Unassigned/Unappropriated Amount		9790	0.00	(0.46)		(0.46)		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
LCFF SOURCES								
Principal Apportionment								
State Aid - Current Year		8011	8,435,707.00	8,401,890.00	5,553,609.00	8,416,404.00	14,514.00	0.2%
Education Protection Account State Aid - Current Year		8012	2,039,105.00	2,039,105.00	1,004,937.00	2,039,105.00	0.00	0.0%
State Aid - Prior Years		8019	0.00	0.00	0.00	0.00	0.00	0.0%
Tax Relief Subventions								
Homeowners' Exemptions		8021	25,972.00	25,972.00	5,439.91	25,972.00	0.00	0.0%
Timber Yield Tax		8022	0.00	0.00	0.00	0.00	0.00	0.0%
Other Subventions/In-Lieu Taxes		8029	0.00	0.00	917.95	0.00	0.00	0.0%
County & District Taxes								
Secured Roll Taxes		8041	3,133,751.00	3,133,751.00	1,257,472.28	3,133,751.00	0.00	0.0%
Unsecured Roll Taxes		8042	221,296.00	221,296.00	218,418.13	221,296.00	0.00	0.0%
Prior Years' Taxes		8043	2,343.00	2,343.00	226.01	2,343.00	0.00	0.0%
Supplemental Taxes		8044	16,271.00	16,271.00	27,338.91	16,271.00	0.00	0.0%
Education Revenue Augmentation Fund (ERAF)		8045	(228,601.00)	(228,601.00)	0.00	(228,601.00)	0.00	0.0%
Community Redevelopment Funds (SB 617/699/1992)		8047	0.00	0.00	0.00	0.00	0.00	0.0%
Penalties and Interest from Delinquent Taxes		8048	0.00	0.00	0.00	0.00	0.00	0.0%
Miscellaneous Funds (EC 41604)								
Royalties and Bonuses		8081	0.00	0.00	0.00	0.00	0.00	0.0%
Other In-Lieu Taxes		8082	0.00	0.00	0.00	0.00	0.00	0.0%
Less: Non-LCFF (50%) Adjustment		8089	0.00	0.00	0.00	0.00	0.00	0.0%
Subtotal, LCFF Sources			13,645,844.00	13,612,027.00	8,068,359.19	13,626,541.00	14,514.00	0.1%
LCFF Transfers								
Unrestricted LCFF Transfers - Current Year	0000	8091	0.00	0.00	0.00	0.00	0.00	0.0%
All Other LCFF Transfers - Current Year	All Other	8091	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers to Charter Schools in Lieu of Property Taxes		8096	0.00	0.00	0.00	0.00	0.00	0.0%
Property Taxes Transfers		8097	0.00	0.00	0.00	0.00	0.00	0.0%
LCFF/Revenue Limit Transfers - Prior Years		8099	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, LCFF SOURCES			13,645,844.00	13,612,027.00	8,068,359.19	13,626,541.00	14,514.00	0.1%
FEDERAL REVENUE								
Maintenance and Operations		8110	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Entitlement		8181	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Discretionary Grants		8182	0.00	0.00	0.00	0.00	0.00	0.0%
Child Nutrition Programs		8220	0.00	0.00	0.00	0.00	0.00	0.0%
Donated Food Commodities		8221	0.00	0.00	0.00	0.00	0.00	0.0%
Forest Reserve Funds		8260	0.00	0.00	0.00	0.00	0.00	0.0%
Flood Control Funds		8270	0.00	0.00	0.00	0.00	0.00	0.0%
Wildlife Reserve Funds		8280	0.00	0.00	0.00	0.00	0.00	0.0%
FEMA		8281	0.00	0.00	0.00	0.00	0.00	0.0%
Interagency Contracts Between LEAs		8285	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues from Federal Sources		8287	0.00	0.00	0.00	0.00	0.00	0.0%
NCLB: Title I, Part A, Basic Grants Low-Income and Neglected	3010	8290	247,120.00	317,851.00	176,029.12	317,851.00	0.00	0.0%
NCLB: Title I, Part D, Local Delinquent Program	3025	8290	0.00	0.00	0.00	0.00	0.00	0.0%
NCLB: Title II, Part A, Teacher Quality	4035	8290	40,810.00	40,810.00	10,104.00	40,810.00	0.00	0.0%

2016-17 Second Interim
General Fund
Summary - Unrestricted/Restricted
Revenues, Expenditures, and Changes in Fund Balance

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
NCLB: Title III, Immigration Education Program	4201	8290	3,765.00	4,765.00	0.00	4,765.00	0.00	0.0%
NCLB: Title III, Limited English Proficient (LEP); Student Program	4203	8290	43,269.00	57,304.00	11,179.37	57,304.00	0.00	0.0%
NCLB: Title V, Part B, Public Charter Schools Grant Program (PCSGP)	4610	8290	0.00	0.00	0.00	0.00	0.00	0.0%
Other No Child Left Behind	3012-3020, 3030-3199, 4036-4126, 5510	8290	0.00	32,096.00	16,048.00	32,096.00	0.00	0.0%
Vocational and Applied Technology Education	3500-3699	8290	11,078.00	11,078.00	0.00	10,797.00	(281.00)	-2.5%
Safe and Drug Free Schools	3700-3799	8290	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Federal Revenue	All Other	8290	2,448.00	2,448.00	3,232.00	5,680.00	3,232.00	132.0%
TOTAL, FEDERAL REVENUE			348,490.00	466,352.00	216,592.49	469,303.00	2,951.00	0.6%
OTHER STATE REVENUE								
Other State Apportionments								
ROC/P Entitlement								
Prior Years	6360	8319	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Master Plan								
Current Year	6500	8311	0.00	0.00	0.00	0.00	0.00	0.0%
Prior Years	6500	8319	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Apportionments - Current Year	All Other	8311	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Apportionments - Prior Years	All Other	8319	0.00	0.00	0.00	0.00	0.00	0.0%
Child Nutrition Programs		8520	0.00	0.00	0.00	0.00	0.00	0.0%
Mandated Costs Reimbursements		8550	392,906.00	362,657.00	205,150.00	362,657.00	0.00	0.0%
Lottery - Unrestricted and Instructional Materi		8560	272,582.00	272,582.00	90,813.64	272,582.00	0.00	0.0%
Tax Relief Subventions								
Restricted Levies - Other								
Homeowners' Exemptions		8575	0.00	0.00	0.00	0.00	0.00	0.0%
Other Subventions/In-Lieu Taxes		8576	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues from State Sources		8587	0.00	0.00	0.00	0.00	0.00	0.0%
After School Education and Safety (ASES)	6010	8590	242,456.00	242,456.00	157,596.40	242,456.00	0.00	0.0%
Charter School Facility Grant	6030	8590	0.00	0.00	0.00	0.00	0.00	0.0%
Career Technical Education Incentive Grant Program	6387	8590	0.00	107,735.00	107,735.08	107,735.00	0.00	0.0%
Drug/Alcohol/Tobacco Funds	6650, 6690	8590	0.00	0.00	0.00	0.00	0.00	0.0%
California Clean Energy Jobs Act	6230	8590	0.00	223,691.00	223,691.00	340,414.00	116,723.00	52.2%
Specialized Secondary	7370	8590	0.00	0.00	0.00	0.00	0.00	0.0%
American Indian Early Childhood Education	7210	8590	0.00	0.00	0.00	0.00	0.00	0.0%
Quality Education Investment Act	7400	8590	0.00	0.00	0.00	0.00	0.00	0.0%
Common Core State Standards Implementation	7405	8590	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Revenue	All Other	8590	299,864.00	406,167.00	86,789.16	406,367.00	200.00	0.0%
TOTAL, OTHER STATE REVENUE			1,207,808.00	1,615,288.00	871,775.28	1,732,211.00	116,923.00	7.2%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
OTHER LOCAL REVENUE								
Other Local Revenue								
County and District Taxes								
Other Restricted Levies								
Secured Roll		8615	0.00	0.00	0.00	0.00	0.00	0.0%
Unsecured Roll		8616	0.00	0.00	0.00	0.00	0.00	0.0%
Prior Years' Taxes		8617	0.00	0.00	0.00	0.00	0.00	0.0%
Supplemental Taxes		8618	0.00	0.00	0.00	0.00	0.00	0.0%
Non-Ad Valorem Taxes								
Parcel Taxes		8621	0.00	0.00	0.00	0.00	0.00	0.0%
Other		8622	0.00	0.00	0.00	0.00	0.00	0.0%
Community Redevelopment Funds								
Not Subject to LCFF Deduction		8625	0.00	0.00	0.00	0.00	0.00	0.0%
Penalties and Interest from Delinquent Non-LCFF Taxes								
		8629	0.00	0.00	0.00	0.00	0.00	0.0%
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Sale of Publications		8632	0.00	0.00	0.00	0.00	0.00	0.0%
Food Service Sales		8634	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Sales		8639	0.00	0.00	0.00	0.00	0.00	0.0%
Leases and Rentals		8650	31,814.00	31,814.00	16,309.54	31,814.00	0.00	0.0%
Interest		8660	25,000.00	50,000.00	(22,415.50)	50,000.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Fees and Contracts								
Adult Education Fees		8671	0.00	0.00	0.00	0.00	0.00	0.0%
Non-Resident Students		8672	0.00	0.00	0.00	0.00	0.00	0.0%
Transportation Fees From Individuals		8675	0.00	0.00	0.00	0.00	0.00	0.0%
Interagency Services		8677	112,951.00	173,867.00	0.00	173,867.00	0.00	0.0%
Mitigation/Developer Fees		8681	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Fees and Contracts		8689	0.00	0.00	0.00	0.00	0.00	0.0%
Other Local Revenue								
Plus: Misc Funds Non-LCFF (50%) Adjustment		8691	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues From Local Sources		8697	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Local Revenue		8699	126,413.00	169,894.00	22,967.40	177,846.00	7,952.00	4.7%
Tuition		8710	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In		8781-8783	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers Of Apportionments								
Special Education SELPA Transfers								
From Districts or Charter Schools	6500	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	6500	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	6500	8793	0.00	0.00	0.00	0.00	0.00	0.0%
ROC/P Transfers								
From Districts or Charter Schools	6360	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	6360	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	6360	8793	0.00	0.00	0.00	0.00	0.00	0.0%
Other Transfers of Apportionments								
From Districts or Charter Schools	All Other	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	All Other	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	All Other	8793	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In from All Others		8799	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			296,178.00	425,575.00	16,861.44	433,527.00	7,952.00	1.9%
TOTAL, REVENUES			15,498,320.00	16,119,242.00	9,173,588.40	16,261,582.00	142,340.00	0.9%

2016-17 Second Interim
General Fund
Summary - Unrestricted/Restricted
Revenues, Expenditures, and Changes in Fund Balance

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
CERTIFICATED SALARIES								
Certificated Teachers' Salaries		1100	5,405,748.00	5,416,287.00	2,834,178.77	5,416,287.00	0.00	0.0%
Certificated Pupil Support Salaries		1200	196,208.00	198,208.00	109,458.50	198,208.00	0.00	0.0%
Certificated Supervisors' and Administrators' Salaries		1300	713,996.00	719,857.00	406,604.33	719,857.00	0.00	0.0%
Other Certificated Salaries		1900	50,470.00	50,470.00	11,911.29	50,470.00	0.00	0.0%
TOTAL, CERTIFICATED SALARIES			6,366,422.00	6,384,822.00	3,362,152.89	6,384,822.00	0.00	0.0%
CLASSIFIED SALARIES								
Classified Instructional Salaries		2100	190,754.00	179,954.00	97,961.74	179,954.00	0.00	0.0%
Classified Support Salaries		2200	727,273.00	724,260.00	385,430.47	724,260.00	0.00	0.0%
Classified Supervisors' and Administrators' Salaries		2300	279,395.00	288,410.00	168,821.94	288,410.00	0.00	0.0%
Clerical, Technical and Office Salaries		2400	440,279.00	451,246.00	256,079.55	451,246.00	0.00	0.0%
Other Classified Salaries		2900	95,616.00	90,818.00	51,086.69	90,818.00	0.00	0.0%
TOTAL, CLASSIFIED SALARIES			1,733,317.00	1,734,688.00	959,380.39	1,734,688.00	0.00	0.0%
EMPLOYEE BENEFITS								
STRS		3101-3102	1,070,364.00	1,072,747.00	408,667.77	1,072,747.00	0.00	0.0%
PERS		3201-3202	232,348.00	232,353.00	123,085.20	232,353.00	0.00	0.0%
OASDI/Medicare/Alternative		3301-3302	229,025.00	229,354.00	112,223.01	229,354.00	0.00	0.0%
Health and Welfare Benefits		3401-3402	1,207,587.00	1,195,750.00	701,338.70	1,195,750.00	0.00	0.0%
Unemployment Insurance		3501-3502	8,916.00	8,942.00	2,161.23	8,942.00	0.00	0.0%
Workers' Compensation		3601-3602	153,906.00	154,256.00	82,108.72	154,256.00	0.00	0.0%
OPEB, Allocated		3701-3702	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Active Employees		3751-3752	0.00	0.00	0.00	0.00	0.00	0.0%
Other Employee Benefits		3901-3902	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EMPLOYEE BENEFITS			2,902,146.00	2,893,402.00	1,429,584.63	2,893,402.00	0.00	0.0%
BOOKS AND SUPPLIES								
Approved Textbooks and Core Curricula Materials		4100	502,015.00	824,696.00	352,357.36	824,696.00	0.00	0.0%
Books and Other Reference Materials		4200	127,825.00	257,424.00	19,167.92	259,135.00	(1,711.00)	-0.7%
Materials and Supplies		4300	600,020.00	888,520.00	283,752.60	886,041.00	2,479.00	0.3%
Noncapitalized Equipment		4400	537,614.00	916,720.00	165,062.82	956,664.00	(39,944.00)	-4.4%
Food		4700	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, BOOKS AND SUPPLIES			1,767,474.00	2,887,360.00	820,340.70	2,926,536.00	(39,176.00)	-1.4%
SERVICES AND OTHER OPERATING EXPENDITURES								
Subagreements for Services		5100	0.00	0.00	0.00	0.00	0.00	0.0%
Travel and Conferences		5200	54,145.00	75,107.00	29,459.35	73,125.00	1,982.00	2.6%
Dues and Memberships		5300	15,739.00	15,839.00	16,480.46	17,983.00	(2,144.00)	-13.5%
Insurance		5400-5450	115,544.00	115,544.00	134,559.60	115,544.00	0.00	0.0%
Operations and Housekeeping Services		5500	352,538.00	352,538.00	147,888.29	352,538.00	0.00	0.0%
Rentals, Leases, Repairs, and Noncapitalized Improvements		5600	155,683.00	155,683.00	55,633.59	155,683.00	0.00	0.0%
Transfers of Direct Costs		5710	0.00	0.00	95.00	0.00	0.00	0.0%
Transfers of Direct Costs - Interfund		5750	0.00	0.00	0.00	0.00	0.00	0.0%
Professional/Consulting Services and Operating Expenditures		5800	883,080.00	1,886,749.00	378,732.28	2,012,527.00	(125,778.00)	-6.7%
Communications		5900	124,415.00	209,415.00	84,617.26	209,356.00	59.00	0.0%
TOTAL, SERVICES AND OTHER OPERATING EXPENDITURES			1,701,144.00	2,810,875.00	847,465.83	2,936,756.00	(125,881.00)	-4.5%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
CAPITAL OUTLAY								
Land		6100	0.00	0.00	0.00	0.00	0.00	0.0%
Land Improvements		6170	0.00	0.00	0.00	0.00	0.00	0.0%
Buildings and Improvements of Buildings		6200	0.00	0.00	0.00	0.00	0.00	0.0%
Books and Media for New School Libraries or Major Expansion of School Libraries		6300	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment		6400	101,905.00	107,263.00	83,221.91	266,666.00	(159,403.00)	-148.6%
Equipment Replacement		6500	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CAPITAL OUTLAY			101,905.00	107,263.00	83,221.91	266,666.00	(159,403.00)	-148.6%
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Tuition								
Tuition for Instruction Under Interdistrict Attendance Agreements		7110	0.00	0.00	0.00	0.00	0.00	0.0%
State Special Schools		7130	0.00	0.00	0.00	0.00	0.00	0.0%
Tuition, Excess Costs, and/or Deficit Payments								
Payments to Districts or Charter Schools		7141	0.00	0.00	0.00	0.00	0.00	0.0%
Payments to County Offices		7142	751,247.00	810,788.00	729,700.00	810,788.00	0.00	0.0%
Payments to JPAs		7143	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Pass-Through Revenues								
To Districts or Charter Schools		7211	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices		7212	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs		7213	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education SELPA Transfers of Apportionments								
To Districts or Charter Schools	6500	7221	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices	6500	7222	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs	6500	7223	0.00	0.00	0.00	0.00	0.00	0.0%
ROC/P Transfers of Apportionments								
To Districts or Charter Schools	6360	7221	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices	6360	7222	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs	6360	7223	0.00	0.00	0.00	0.00	0.00	0.0%
Other Transfers of Apportionments	All Other	7221-7223	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers		7281-7283	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers Out to All Others		7299	0.00	0.00	0.00	0.00	0.00	0.0%
Debt Service								
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			751,247.00	810,788.00	729,700.00	810,788.00	0.00	0.0%
OTHER OUTGO - TRANSFERS OF INDIRECT COSTS								
Transfers of Indirect Costs		7310	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Indirect Costs - Interfund		7350	0.00	(17,903.00)	0.00	(17,903.00)	0.00	0.0%
TOTAL, OTHER OUTGO - TRANSFERS OF INDIRECT COSTS			0.00	(17,903.00)	0.00	(17,903.00)	0.00	0.0%
TOTAL, EXPENDITURES			15,323,655.00	17,611,295.00	8,231,846.35	17,935,755.00	(324,460.00)	-1.8%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
From: Special Reserve Fund		8912	0.00	0.00	0.00	0.00	0.00	0.0%
From: Bond Interest and Redemption Fund		8914	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: Child Development Fund		7611	0.00	0.00	0.00	0.00	0.00	0.0%
To: Special Reserve Fund		7612	0.00	0.00	0.00	0.00	0.00	0.0%
To: State School Building Fund/ County School Facilities Fund		7613	0.00	0.00	0.00	0.00	0.00	0.0%
To: Cafeteria Fund		7616	39,897.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			39,897.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
State Apportionments Emergency Apportionments		8931	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds								
Proceeds from Sale/Lease- Purchase of Land/Buildings		8953	0.00	0.00	0.00	0.00	0.00	0.0%
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
Long-Term Debt Proceeds								
Proceeds from Certificates of Participation		8971	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Capital Leases		8972	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Lease Revenue Bonds		8973	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	0.00	0.00	0.00	0.00		
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00		
(e) TOTAL, CONTRIBUTIONS			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES (a - b + c - d + e)			(39,897.00)	0.00	0.00	0.00	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
A. REVENUES								
1) LCFF Sources		8010-8099	13,645,844.00	13,612,027.00	8,068,359.19	13,626,541.00	14,514.00	0.1%
2) Federal Revenue		8100-8299	2,448.00	2,448.00	3,232.00	5,680.00	3,232.00	132.0%
3) Other State Revenue		8300-8599	605,936.00	575,687.00	290,141.04	575,887.00	200.00	0.0%
4) Other Local Revenue		8600-8799	183,227.00	248,227.00	11,511.91	254,310.00	6,083.00	2.5%
5) TOTAL, REVENUES			14,437,455.00	14,438,389.00	8,373,244.14	14,462,418.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	6,008,491.00	5,993,026.00	3,153,230.12	5,993,026.00	0.00	0.0%
2) Classified Salaries		2000-2999	1,400,367.00	1,417,301.00	782,067.96	1,417,301.00	0.00	0.0%
3) Employee Benefits		3000-3999	2,415,128.00	2,406,741.00	1,319,356.56	2,406,741.00	0.00	0.0%
4) Books and Supplies		4000-4999	1,547,830.00	2,230,366.00	627,617.62	2,231,018.00	(652.00)	0.0%
5) Services and Other Operating Expenditures		5000-5999	1,590,464.00	2,204,804.00	753,671.87	2,213,486.00	(8,682.00)	-0.4%
6) Capital Outlay		6000-6999	36,905.00	36,905.00	65,632.42	235,760.00	(198,855.00)	-538.8%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299 7400-7499	0.00	0.00	0.00	0.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	(61,574.00)	(104,723.00)	(4,880.43)	(106,763.00)	2,040.00	-1.9%
9) TOTAL, EXPENDITURES			12,937,611.00	14,184,420.00	6,696,696.12	14,390,569.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)								
			1,499,844.00	253,969.00	1,676,548.02	71,849.00		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	39,897.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	(1,325,179.00)	(1,371,869.00)	0.00	(1,371,869.00)	0.00	0.0%
4) TOTAL, OTHER FINANCING SOURCES/USES			(1,365,076.00)	(1,371,869.00)	0.00	(1,371,869.00)		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			134,768.00	(1,117,900.00)	1,676,548.02	(1,300,020.00)		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	6,707,594.28	6,707,594.28		6,707,594.28	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			6,707,594.28	6,707,594.28		6,707,594.28		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			6,707,594.28	6,707,594.28		6,707,594.28		
2) Ending Balance, June 30 (E + F1e)			6,842,362.28	5,589,694.28		5,407,574.28		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Restricted								
		9740	0.00	0.00		0.00		
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	0.00	0.00		0.00		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	6,842,362.28	5,589,694.28		5,407,574.28		
Unassigned/Unappropriated Amount		9790	0.00	0.00		0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
LCFF SOURCES								
Principal Apportionment								
State Aid - Current Year		8011	8,435,707.00	8,401,890.00	5,553,609.00	8,416,404.00	14,514.00	0.2%
Education Protection Account State Aid - Current Year		8012	2,039,105.00	2,039,105.00	1,004,937.00	2,039,105.00	0.00	0.0%
State Aid - Prior Years		8019	0.00	0.00	0.00	0.00	0.00	0.0%
Tax Relief Subventions								
Homeowners' Exemptions		8021	25,972.00	25,972.00	5,439.91	25,972.00	0.00	0.0%
Timber Yield Tax		8022	0.00	0.00	0.00	0.00	0.00	0.0%
Other Subventions/In-Lieu Taxes		8029	0.00	0.00	917.95	0.00	0.00	0.0%
County & District Taxes								
Secured Roll Taxes		8041	3,133,751.00	3,133,751.00	1,257,472.28	3,133,751.00	0.00	0.0%
Unsecured Roll Taxes		8042	221,296.00	221,296.00	218,418.13	221,296.00	0.00	0.0%
Prior Years' Taxes		8043	2,343.00	2,343.00	226.01	2,343.00	0.00	0.0%
Supplemental Taxes		8044	16,271.00	16,271.00	27,338.91	16,271.00	0.00	0.0%
Education Revenue Augmentation Fund (ERAF)		8045	(228,601.00)	(228,601.00)	0.00	(228,601.00)	0.00	0.0%
Community Redevelopment Funds (SB 617/699/1992)		8047	0.00	0.00	0.00	0.00	0.00	0.0%
Penalties and Interest from Delinquent Taxes		8048	0.00	0.00	0.00	0.00	0.00	0.0%
Miscellaneous Funds (EC 41604)								
Royalties and Bonuses		8081	0.00	0.00	0.00	0.00	0.00	0.0%
Other In-Lieu Taxes		8082	0.00	0.00	0.00	0.00	0.00	0.0%
Less: Non-LCFF (50%) Adjustment		8089	0.00	0.00	0.00	0.00	0.00	0.0%
Subtotal, LCFF Sources			13,645,844.00	13,612,027.00	8,068,359.19	13,626,541.00	14,514.00	0.1%
LCFF Transfers								
Unrestricted LCFF Transfers - Current Year	0000	8091	0.00	0.00	0.00	0.00	0.00	0.0%
All Other LCFF Transfers - Current Year	All Other	8091	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers to Charter Schools in Lieu of Property Taxes		8096	0.00	0.00	0.00	0.00	0.00	0.0%
Property Taxes Transfers		8097	0.00	0.00	0.00	0.00	0.00	0.0%
LCFF/Revenue Limit Transfers - Prior Years		8099	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, LCFF SOURCES			13,645,844.00	13,612,027.00	8,068,359.19	13,626,541.00	14,514.00	0.1%
FEDERAL REVENUE								
Maintenance and Operations		8110	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Entitlement		8181	0.00	0.00	0.00	0.00		
Special Education Discretionary Grants		8182	0.00	0.00	0.00	0.00		
Child Nutrition Programs		8220	0.00	0.00	0.00	0.00		
Donated Food Commodities		8221	0.00	0.00	0.00	0.00		
Forest Reserve Funds		8260	0.00	0.00	0.00	0.00	0.00	0.0%
Flood Control Funds		8270	0.00	0.00	0.00	0.00	0.00	0.0%
Wildlife Reserve Funds		8280	0.00	0.00	0.00	0.00	0.00	0.0%
FEMA		8281	0.00	0.00	0.00	0.00	0.00	0.0%
Interagency Contracts Between LEAs		8285	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues from Federal Sources		8287	0.00	0.00	0.00	0.00		
NCLB: Title I, Part A, Basic Grants Low-Income and Neglected	3010	8290						
NCLB: Title I, Part D, Local Delinquent Program	3025	8290						
NCLB: Title II, Part A, Teacher Quality	4035	8290						

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
NCLB: Title III, Immigration Education Program	4201	8290						
NCLB: Title III, Limited English Proficient (LEP) Student Program	4203	8290						
NCLB: Title V, Part B, Public Charter Schools Grant Program (PCSGP)	4610	8290						
Other No Child Left Behind	3012-3020, 3030-3199, 4036-4126, 5510	8290						
Vocational and Applied Technology Education	3500-3699	8290						
Safe and Drug Free Schools	3700-3799	8290						
All Other Federal Revenue	All Other	8290	2,448.00	2,448.00	3,232.00	5,680.00	3,232.00	132.0%
TOTAL, FEDERAL REVENUE			2,448.00	2,448.00	3,232.00	5,680.00	3,232.00	132.0%
OTHER STATE REVENUE								
Other State Apportionments								
ROC/P Entitlement Prior Years	6360	8319						
Special Education Master Plan Current Year	6500	8311						
Prior Years	6500	8319						
All Other State Apportionments - Current Year	All Other	8311	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Apportionments - Prior Years	All Other	8319	0.00	0.00	0.00	0.00	0.00	0.0%
Child Nutrition Programs		8520	0.00	0.00	0.00	0.00		
Mandated Costs Reimbursements		8550	392,906.00	362,657.00	205,150.00	362,657.00	0.00	0.0%
Lottery - Unrestricted and Instructional Materials		8560	210,840.00	210,840.00	82,601.04	210,840.00	0.00	0.0%
Tax Relief Subventions								
Restricted Levies - Other								
Homeowners' Exemptions		8575	0.00	0.00	0.00	0.00		
Other Subventions/In-Lieu Taxes		8576	0.00	0.00	0.00	0.00		
Pass-Through Revenues from State Sources		8587	0.00	0.00	0.00	0.00	0.00	0.0%
After School Education and Safety (ASES)	6010	8590						
Charter School Facility Grant	6030	8590						
Career Technical Education Incentive Grant Program	6387	8590						
Drug/Alcohol/Tobacco Funds	6650, 6690	8590						
California Clean Energy Jobs Act	6230	8590						
Specialized Secondary	7370	8590						
American Indian Early Childhood Education	7210	8590						
Quality Education Investment Act	7400	8590						
Common Core State Standards Implementation	7405	8590						
All Other State Revenue	All Other	8590	2,190.00	2,190.00	2,390.00	2,390.00	200.00	9.1%
TOTAL, OTHER STATE REVENUE			605,936.00	575,687.00	290,141.04	575,887.00	200.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
OTHER LOCAL REVENUE								
Other Local Revenue								
County and District Taxes								
Other Restricted Levies								
Secured Roll		8615	0.00	0.00	0.00	0.00		
Unsecured Roll		8616	0.00	0.00	0.00	0.00		
Prior Years' Taxes		8617	0.00	0.00	0.00	0.00		
Supplemental Taxes		8618	0.00	0.00	0.00	0.00		
Non-Ad Valorem Taxes								
Parcel Taxes		8621	0.00	0.00	0.00	0.00	0.00	0.0%
Other		8622	0.00	0.00	0.00	0.00	0.00	0.0%
Community Redevelopment Funds								
Not Subject to LCFF Deduction		8625	0.00	0.00	0.00	0.00		
Penalties and Interest from Delinquent Non-LCFF Taxes		8629	0.00	0.00	0.00	0.00		
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Sale of Publications		8632	0.00	0.00	0.00	0.00	0.00	0.0%
Food Service Sales		8634	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Sales		8639	0.00	0.00	0.00	0.00	0.00	0.0%
Leases and Rentals		8650	31,814.00	31,814.00	16,309.54	31,814.00	0.00	0.0%
Interest		8660	25,000.00	50,000.00	(22,415.50)	50,000.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Fees and Contracts								
Adult Education Fees		8671	0.00	0.00	0.00	0.00	0.00	0.0%
Non-Resident Students		8672	0.00	0.00	0.00	0.00	0.00	0.0%
Transportation Fees From Individuals		8675	0.00	0.00	0.00	0.00	0.00	0.0%
Interagency Services		8677	0.00	0.00	0.00	0.00	0.00	0.0%
Mitigation/Developer Fees		8681	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Fees and Contracts		8689	0.00	0.00	0.00	0.00	0.00	0.0%
Other Local Revenue								
Plus: Misc Funds Non-LCFF (50%) Adjustment		8691	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues From Local Sources		8697	0.00	0.00	0.00	0.00		
All Other Local Revenue		8699	126,413.00	166,413.00	17,617.87	172,496.00	6,083.00	3.7%
Tuition		8710	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In		8781-8783	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers Of Apportionments								
Special Education SELPA Transfers								
From Districts or Charter Schools	6500	8791						
From County Offices	6500	8792						
From JPAs	6500	8793						
ROC/P Transfers								
From Districts or Charter Schools	6360	8791						
From County Offices	6360	8792						
From JPAs	6360	8793						
Other Transfers of Apportionments								
From Districts or Charter Schools	All Other	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	All Other	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	All Other	8793	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In from All Others		8799	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			183,227.00	248,227.00	11,511.91	254,310.00	6,083.00	2.5%
TOTAL, REVENUES			14,437,455.00	14,438,389.00	8,373,244.14	14,462,418.00	24,029.00	0.2%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
Certificated Teachers' Salaries		1100	5,054,266.00	5,030,940.00	2,626,791.80	5,030,940.00	0.00	0.0%
Certificated Pupil Support Salaries		1200	196,208.00	198,208.00	109,458.50	198,208.00	0.00	0.0%
Certificated Supervisors' and Administrators' Salaries		1300	707,547.00	713,408.00	405,068.53	713,408.00	0.00	0.0%
Other Certificated Salaries		1900	50,470.00	50,470.00	11,911.29	50,470.00	0.00	0.0%
TOTAL, CERTIFICATED SALARIES			6,008,491.00	5,993,026.00	3,153,230.12	5,993,026.00	0.00	0.0%
CLASSIFIED SALARIES								
Classified Instructional Salaries		2100	43,878.00	44,178.00	25,681.72	44,178.00	0.00	0.0%
Classified Support Salaries		2200	618,634.00	617,917.00	325,600.58	617,917.00	0.00	0.0%
Classified Supervisors' and Administrators' Salaries		2300	205,846.00	214,861.00	125,685.14	214,861.00	0.00	0.0%
Clerical, Technical and Office Salaries		2400	436,393.00	450,564.00	254,467.59	450,564.00	0.00	0.0%
Other Classified Salaries		2900	95,616.00	89,781.00	50,632.93	89,781.00	0.00	0.0%
TOTAL, CLASSIFIED SALARIES			1,400,367.00	1,417,301.00	782,067.96	1,417,301.00	0.00	0.0%
EMPLOYEE BENEFITS								
STRS		3101-3102	747,298.00	745,354.00	382,889.85	745,354.00	0.00	0.0%
PERS		3201-3202	186,176.00	188,330.00	99,665.11	188,330.00	0.00	0.0%
OASDI/Medicare/Alternative		3301-3302	198,358.00	199,327.00	96,848.40	199,327.00	0.00	0.0%
Health and Welfare Benefits		3401-3402	1,134,363.00	1,124,773.00	663,214.17	1,124,773.00	0.00	0.0%
Unemployment Insurance		3501-3502	8,157.00	8,164.00	1,968.76	8,164.00	0.00	0.0%
Workers' Compensation		3601-3602	140,776.00	140,793.00	74,770.27	140,793.00	0.00	0.0%
OPEB, Allocated		3701-3702	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Active Employees		3751-3752	0.00	0.00	0.00	0.00	0.00	0.0%
Other Employee Benefits		3901-3902	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EMPLOYEE BENEFITS			2,415,128.00	2,406,741.00	1,319,356.56	2,406,741.00	0.00	0.0%
BOOKS AND SUPPLIES								
Approved Textbooks and Core Curricula Materials		4100	482,601.00	783,154.00	347,614.87	783,154.00	0.00	0.0%
Books and Other Reference Materials		4200	79,477.00	104,651.00	7,328.50	106,362.00	(1,711.00)	-1.6%
Materials and Supplies		4300	496,203.00	610,512.00	209,599.29	610,418.00	94.00	0.0%
Noncapitalized Equipment		4400	489,549.00	732,049.00	63,074.96	731,084.00	965.00	0.1%
Food		4700	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, BOOKS AND SUPPLIES			1,547,830.00	2,230,366.00	627,617.62	2,231,018.00	(652.00)	0.0%
SERVICES AND OTHER OPERATING EXPENDITURES								
Subagreements for Services		5100	0.00	0.00	0.00	0.00	0.00	0.0%
Travel and Conferences		5200	47,345.00	49,107.00	20,005.35	48,257.00	850.00	1.7%
Dues and Memberships		5300	15,739.00	15,839.00	16,168.46	17,983.00	(2,144.00)	-13.5%
Insurance		5400-5450	115,544.00	115,544.00	134,559.60	115,544.00	0.00	0.0%
Operations and Housekeeping Services		5500	352,538.00	352,538.00	147,888.29	352,538.00	0.00	0.0%
Rentals, Leases, Repairs, and Noncapitalized Improvements		5600	142,894.00	142,894.00	55,485.78	142,894.00	0.00	0.0%
Transfers of Direct Costs		5710	0.00	(710.00)	95.00	(710.00)	0.00	0.0%
Transfers of Direct Costs - Interfund		5750	0.00	0.00	0.00	0.00	0.00	0.0%
Professional/Consulting Services and Operating Expenditures		5800	791,989.00	1,320,177.00	294,852.13	1,327,624.00	(7,447.00)	-0.6%
Communications		5900	124,415.00	209,415.00	84,617.26	209,356.00	59.00	0.0%
TOTAL, SERVICES AND OTHER OPERATING EXPENDITURES			1,590,464.00	2,204,804.00	753,671.87	2,213,486.00	(8,682.00)	-0.4%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
CAPITAL OUTLAY								
Land		6100	0.00	0.00	0.00	0.00	0.00	0.0%
Land Improvements		6170	0.00	0.00	0.00	0.00	0.00	0.0%
Buildings and Improvements of Buildings		6200	0.00	0.00	0.00	0.00	0.00	0.0%
Books and Media for New School Libraries or Major Expansion of School Libraries		6300	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment		6400	36,905.00	36,905.00	65,632.42	235,760.00	(198,855.00)	-538.8%
Equipment Replacement		6500	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CAPITAL OUTLAY			36,905.00	36,905.00	65,632.42	235,760.00	(198,855.00)	-538.8%
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Tuition								
Tuition for Instruction Under Interdistrict Attendance Agreements		7110	0.00	0.00	0.00	0.00	0.00	0.0%
State Special Schools		7130	0.00	0.00	0.00	0.00	0.00	0.0%
Tuition, Excess Costs, and/or Deficit Payments								
Payments to Districts or Charter Schools		7141	0.00	0.00	0.00	0.00	0.00	0.0%
Payments to County Offices		7142	0.00	0.00	0.00	0.00	0.00	0.0%
Payments to JPAs		7143	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Pass-Through Revenues								
To Districts or Charter Schools		7211	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices		7212	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs		7213	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education SELPA Transfers of Apportionments								
To Districts or Charter Schools	6500	7221						
To County Offices	6500	7222						
To JPAs	6500	7223						
ROC/P Transfers of Apportionments								
To Districts or Charter Schools	6360	7221						
To County Offices	6360	7222						
To JPAs	6360	7223						
Other Transfers of Apportionments	All Other	7221-7223	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers		7281-7283	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers Out to All Others		7299	0.00	0.00	0.00	0.00	0.00	0.0%
Debt Service								
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER OUTGO - TRANSFERS OF INDIRECT COSTS								
Transfers of Indirect Costs		7310	(61,574.00)	(86,820.00)	(4,880.43)	(88,860.00)	2,040.00	-2.3%
Transfers of Indirect Costs - Interfund		7350	0.00	(17,903.00)	0.00	(17,903.00)	0.00	0.0%
TOTAL, OTHER OUTGO - TRANSFERS OF INDIRECT COSTS			(61,574.00)	(104,723.00)	(4,880.43)	(106,763.00)	2,040.00	-1.9%
TOTAL, EXPENDITURES			12,937,611.00	14,184,420.00	6,696,696.12	14,390,569.00	(206,149.00)	-1.5%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
From: Special Reserve Fund		8912	0.00	0.00	0.00	0.00	0.00	0.0%
From: Bond Interest and Redemption Fund		8914	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: Child Development Fund		7611	0.00	0.00	0.00	0.00	0.00	0.0%
To: Special Reserve Fund		7612	0.00	0.00	0.00	0.00	0.00	0.0%
To: State School Building Fund/ County School Facilities Fund		7613	0.00	0.00	0.00	0.00	0.00	0.0%
To: Cafeteria Fund		7616	39,897.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			39,897.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
State Apportionments Emergency Apportionments		8931	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds								
Proceeds from Sale/Lease- Purchase of Land/Buildings		8953	0.00	0.00	0.00	0.00	0.00	0.0%
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
Long-Term Debt Proceeds								
Proceeds from Certificates of Participation		8971	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Capital Leases		8972	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Lease Revenue Bonds		8973	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	(1,325,179.00)	(1,371,869.00)	0.00	(1,371,869.00)	0.00	0.0%
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			(1,325,179.00)	(1,371,869.00)	0.00	(1,371,869.00)	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES								
(a - b + c - d + e)			(1,365,076.00)	(1,371,869.00)	0.00	(1,371,869.00)	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
A. REVENUES								
1) LCFF Sources		8010-8099	0.00	0.00	0.00	0.00	0.00	0.0%
2) Federal Revenue		8100-8299	346,042.00	463,904.00	213,360.49	463,623.00	(281.00)	-0.1%
3) Other State Revenue		8300-8599	601,872.00	1,039,601.00	581,634.24	1,156,324.00	116,723.00	11.2%
4) Other Local Revenue		8600-8799	112,951.00	177,348.00	5,349.53	179,217.00	1,869.00	1.1%
5) TOTAL, REVENUES			1,060,865.00	1,680,853.00	800,344.26	1,799,164.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	357,931.00	391,796.00	208,922.77	391,796.00	0.00	0.0%
2) Classified Salaries		2000-2999	332,950.00	317,387.00	177,312.43	317,387.00	0.00	0.0%
3) Employee Benefits		3000-3999	487,018.00	486,661.00	110,228.07	486,661.00	0.00	0.0%
4) Books and Supplies		4000-4999	219,644.00	656,994.00	192,723.08	695,518.00	(38,524.00)	-5.9%
5) Services and Other Operating Expenditures		5000-5999	110,680.00	606,071.00	93,793.96	723,270.00	(117,199.00)	-19.3%
6) Capital Outlay		6000-6999	65,000.00	70,358.00	17,589.49	30,906.00	39,452.00	56.1%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299						
		7400-7499	751,247.00	810,788.00	729,700.00	810,788.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	61,574.00	86,820.00	4,880.43	88,860.00	(2,040.00)	-2.3%
9) TOTAL, EXPENDITURES			2,386,044.00	3,426,875.00	1,535,150.23	3,545,186.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			(1,325,179.00)	(1,746,022.00)	(734,805.97)	(1,746,022.00)		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	0.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	1,325,179.00	1,371,869.00	0.00	1,371,869.00	0.00	0.0%
4) TOTAL, OTHER FINANCING SOURCES/USES			1,325,179.00	1,371,869.00	0.00	1,371,869.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			0.00	(374,153.00)	(734,805.97)	(374,153.00)		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	374,154.65	374,154.65		374,154.65	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			374,154.65	374,154.65		374,154.65		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			374,154.65	374,154.65		374,154.65		
2) Ending Balance, June 30 (E + F1e)			374,154.65	1.65		1.65		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Restricted		9740	374,154.65	2.11		2.11		
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	0.00	0.00		0.00		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	0.00	0.00		0.00		
Unassigned/Unappropriated Amount		9790	0.00	(0.46)		(0.46)		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
LCFF SOURCES								
Principal Apportionment								
State Aid - Current Year		8011	0.00	0.00	0.00	0.00		
Education Protection Account State Aid - Current Year		8012	0.00	0.00	0.00	0.00		
State Aid - Prior Years		8019	0.00	0.00	0.00	0.00		
Tax Relief Subventions								
Homeowners' Exemptions		8021	0.00	0.00	0.00	0.00		
Timber Yield Tax		8022	0.00	0.00	0.00	0.00		
Other Subventions/In-Lieu Taxes		8029	0.00	0.00	0.00	0.00		
County & District Taxes								
Secured Roll Taxes		8041	0.00	0.00	0.00	0.00		
Unsecured Roll Taxes		8042	0.00	0.00	0.00	0.00		
Prior Years' Taxes		8043	0.00	0.00	0.00	0.00		
Supplemental Taxes		8044	0.00	0.00	0.00	0.00		
Education Revenue Augmentation Fund (ERAF)		8045	0.00	0.00	0.00	0.00		
Community Redevelopment Funds (SB 617/699/1992)		8047	0.00	0.00	0.00	0.00		
Penalties and Interest from Delinquent Taxes		8048	0.00	0.00	0.00	0.00		
Miscellaneous Funds (EC 41604)								
Royalties and Bonuses		8081	0.00	0.00	0.00	0.00		
Other In-Lieu Taxes		8082	0.00	0.00	0.00	0.00		
Less: Non-LCFF (50%) Adjustment		8089	0.00	0.00	0.00	0.00		
Subtotal, LCFF Sources			0.00	0.00	0.00	0.00		
LCFF Transfers								
Unrestricted LCFF Transfers - Current Year	0000	8091						
All Other LCFF Transfers - Current Year	All Other	8091	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers to Charter Schools in Lieu of Property Taxes		8096	0.00	0.00	0.00	0.00		
Property Taxes Transfers		8097	0.00	0.00	0.00	0.00	0.00	0.0%
LCFF/Revenue Limit Transfers - Prior Years		8099	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, LCFF SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
FEDERAL REVENUE								
Maintenance and Operations		8110	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Entitlement		8181	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Discretionary Grants		8182	0.00	0.00	0.00	0.00	0.00	0.0%
Child Nutrition Programs		8220	0.00	0.00	0.00	0.00	0.00	0.0%
Donated Food Commodities		8221	0.00	0.00	0.00	0.00	0.00	0.0%
Forest Reserve Funds		8260	0.00	0.00	0.00	0.00		
Flood Control Funds		8270	0.00	0.00	0.00	0.00		
Wildlife Reserve Funds		8280	0.00	0.00	0.00	0.00		
FEMA		8281	0.00	0.00	0.00	0.00	0.00	0.0%
Interagency Contracts Between LEAs		8285	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues from Federal Sources		8287	0.00	0.00	0.00	0.00	0.00	0.0%
NCLB: Title I, Part A, Basic Grants Low-Income and Neglected	3010	8290	247,120.00	317,851.00	176,029.12	317,851.00	0.00	0.0%
NCLB: Title I, Part D, Local Delinquent Program	3025	8290	0.00	0.00	0.00	0.00	0.00	0.0%
NCLB: Title II, Part A, Teacher Quality	4035	8290	40,810.00	40,810.00	10,104.00	40,810.00	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
NCLB: Title III, Immigration Education Program	4201	8290	3,765.00	4,765.00	0.00	4,765.00	0.00	0.0%
NCLB: Title III, Limited English Proficient (LEP) Student Program	4203	8290	43,269.00	57,304.00	11,179.37	57,304.00	0.00	0.0%
NCLB: Title V, Part B, Public Charter Schools Grant Program (PCSGP)	4610	8290	0.00	0.00	0.00	0.00	0.00	0.0%
Other No Child Left Behind	3012-3020, 3030-3199, 4036-4126, 5510	8290	0.00	32,096.00	16,048.00	32,096.00	0.00	0.0%
Vocational and Applied Technology Education	3500-3699	8290	11,078.00	11,078.00	0.00	10,797.00	(281.00)	-2.5%
Safe and Drug Free Schools	3700-3799	8290	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Federal Revenue	All Other	8290	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, FEDERAL REVENUE			346,042.00	463,904.00	213,360.49	463,623.00	(281.00)	-0.1%
OTHER STATE REVENUE								
Other State Apportionments								
ROC/P Entitlement								
Prior Years	6360	8319	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education Master Plan								
Current Year	6500	8311	0.00	0.00	0.00	0.00	0.00	0.0%
Prior Years	6500	8319	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Apportionments - Current Year	All Other	8311	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Apportionments - Prior Years	All Other	8319	0.00	0.00	0.00	0.00	0.00	0.0%
Child Nutrition Programs		8520	0.00	0.00	0.00	0.00	0.00	0.0%
Mandated Costs Reimbursements		8550	0.00	0.00	0.00	0.00	0.00	0.0%
Lottery - Unrestricted and Instructional Materials		8560	61,742.00	61,742.00	8,212.60	61,742.00	0.00	0.0%
Tax Relief Subventions								
Restricted Levies - Other								
Homeowners' Exemptions		8575	0.00	0.00	0.00	0.00	0.00	0.0%
Other Subventions/In-Lieu Taxes		8576	0.00	0.00	0.00	0.00	0.00	0.0%
Pass-Through Revenues from State Sources		8587	0.00	0.00	0.00	0.00	0.00	0.0%
After School Education and Safety (ASES)	6010	8590	242,456.00	242,456.00	157,596.40	242,456.00	0.00	0.0%
Charter School Facility Grant	6030	8590	0.00	0.00	0.00	0.00	0.00	0.0%
Career Technical Education Incentive Grant Program	6387	8590	0.00	107,735.00	107,735.08	107,735.00	0.00	0.0%
Drug/Alcohol/Tobacco Funds	6650, 6690	8590	0.00	0.00	0.00	0.00	0.00	0.0%
California Clean Energy Jobs Act	6230	8590	0.00	223,691.00	223,691.00	340,414.00	116,723.00	52.2%
Specialized Secondary	7370	8590	0.00	0.00	0.00	0.00	0.00	0.0%
American Indian Early Childhood Education	7210	8590	0.00	0.00	0.00	0.00	0.00	0.0%
Quality Education Investment Act	7400	8590	0.00	0.00	0.00	0.00	0.00	0.0%
Common Core State Standards Implementation	7405	8590	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Revenue	All Other	8590	297,674.00	403,977.00	84,399.16	403,977.00	0.00	0.0%
TOTAL, OTHER STATE REVENUE			601,872.00	1,039,601.00	581,634.24	1,156,324.00	116,723.00	11.2%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
OTHER LOCAL REVENUE								
Other Local Revenue								
County and District Taxes								
Other Restricted Levies								
Secured Roll		8615	0.00	0.00	0.00	0.00	0.00	0.0%
Unsecured Roll		8616	0.00	0.00	0.00	0.00	0.00	0.0%
Prior Years' Taxes		8617	0.00	0.00	0.00	0.00	0.00	0.0%
Supplemental Taxes		8618	0.00	0.00	0.00	0.00	0.00	0.0%
Non-Ad Valorem Taxes								
Parcel Taxes		8621	0.00	0.00	0.00	0.00	0.00	0.0%
Other		8622	0.00	0.00	0.00	0.00	0.00	0.0%
Community Redevelopment Funds								
Not Subject to LCFF Deduction		8625	0.00	0.00	0.00	0.00	0.00	0.0%
Penalties and Interest from Delinquent Non-LCFF Taxes								
		8629	0.00	0.00	0.00	0.00	0.00	0.0%
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Sale of Publications		8632	0.00	0.00	0.00	0.00	0.00	0.0%
Food Service Sales		8634	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Sales		8639	0.00	0.00	0.00	0.00	0.00	0.0%
Leases and Rentals								
		8650	0.00	0.00	0.00	0.00	0.00	0.0%
Interest								
		8660	0.00	0.00	0.00	0.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments								
		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Fees and Contracts								
Adult Education Fees		8671	0.00	0.00	0.00	0.00		
Non-Resident Students		8672	0.00	0.00	0.00	0.00		
Transportation Fees From Individuals		8675	0.00	0.00	0.00	0.00	0.00	0.0%
Interagency Services		8677	112,951.00	173,867.00	0.00	173,867.00	0.00	0.0%
Mitigation/Developer Fees		8681	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Fees and Contracts		8689	0.00	0.00	0.00	0.00	0.00	0.0%
Other Local Revenue								
Plus: Misc Funds Non-LCFF (50%) Adjustme		8691	0.00	0.00	0.00	0.00		
Pass-Through Revenues From Local Sources		8697	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Local Revenue		8699	0.00	3,481.00	5,349.53	5,350.00	1,869.00	53.7%
Tuition								
		8710	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In								
		8781-8783	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers Of Apportionments								
Special Education SELPA Transfers								
From Districts or Charter Schools	6500	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	6500	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	6500	8793	0.00	0.00	0.00	0.00	0.00	0.0%
ROC/P Transfers								
From Districts or Charter Schools	6360	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	6360	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	6360	8793	0.00	0.00	0.00	0.00	0.00	0.0%
Other Transfers of Apportionments								
From Districts or Charter Schools	All Other	8791	0.00	0.00	0.00	0.00	0.00	0.0%
From County Offices	All Other	8792	0.00	0.00	0.00	0.00	0.00	0.0%
From JPAs	All Other	8793	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In from All Others		8799	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			112,951.00	177,348.00	5,349.53	179,217.00	1,869.00	1.1%
TOTAL, REVENUES			1,060,865.00	1,680,853.00	800,344.26	1,799,164.00	118,311.00	7.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
CERTIFICATED SALARIES								
Certificated Teachers' Salaries		1100	351,482.00	385,347.00	207,386.97	385,347.00	0.00	0.0%
Certificated Pupil Support Salaries		1200	0.00	0.00	0.00	0.00	0.00	0.0%
Certificated Supervisors' and Administrators' Salaries		1300	6,449.00	6,449.00	1,535.80	6,449.00	0.00	0.0%
Other Certificated Salaries		1900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CERTIFICATED SALARIES			357,931.00	391,796.00	208,922.77	391,796.00	0.00	0.0%
CLASSIFIED SALARIES								
Classified Instructional Salaries		2100	146,876.00	135,776.00	72,280.02	135,776.00	0.00	0.0%
Classified Support Salaries		2200	108,639.00	106,343.00	59,829.89	106,343.00	0.00	0.0%
Classified Supervisors' and Administrators' Salaries		2300	73,549.00	73,549.00	43,136.80	73,549.00	0.00	0.0%
Clerical, Technical and Office Salaries		2400	3,886.00	682.00	1,611.96	682.00	0.00	0.0%
Other Classified Salaries		2900	0.00	1,037.00	453.76	1,037.00	0.00	0.0%
TOTAL, CLASSIFIED SALARIES			332,950.00	317,387.00	177,312.43	317,387.00	0.00	0.0%
EMPLOYEE BENEFITS								
STRS		3101-3102	323,066.00	327,393.00	25,777.92	327,393.00	0.00	0.0%
PERS		3201-3202	46,172.00	44,023.00	23,420.09	44,023.00	0.00	0.0%
OASDI/Medicare/Alternative		3301-3302	30,667.00	30,027.00	15,374.61	30,027.00	0.00	0.0%
Health and Welfare Benefits		3401-3402	73,224.00	70,977.00	38,124.53	70,977.00	0.00	0.0%
Unemployment Insurance		3501-3502	759.00	778.00	192.47	778.00	0.00	0.0%
Workers' Compensation		3601-3602	13,130.00	13,463.00	7,338.45	13,463.00	0.00	0.0%
OPEB, Allocated		3701-3702	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Active Employees		3751-3752	0.00	0.00	0.00	0.00	0.00	0.0%
Other Employee Benefits		3901-3902	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EMPLOYEE BENEFITS			487,018.00	486,661.00	110,228.07	486,661.00	0.00	0.0%
BOOKS AND SUPPLIES								
Approved Textbooks and Core Curricula Materials		4100	19,414.00	41,542.00	4,742.49	41,542.00	0.00	0.0%
Books and Other Reference Materials		4200	48,348.00	152,773.00	11,839.42	152,773.00	0.00	0.0%
Materials and Supplies		4300	103,817.00	278,008.00	74,153.31	275,623.00	2,385.00	0.9%
Noncapitalized Equipment		4400	48,065.00	184,671.00	101,987.86	225,580.00	(40,909.00)	-22.2%
Food		4700	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, BOOKS AND SUPPLIES			219,644.00	656,994.00	192,723.08	695,518.00	(38,524.00)	-5.9%
SERVICES AND OTHER OPERATING EXPENDITURES								
Subagreements for Services		5100	0.00	0.00	0.00	0.00	0.00	0.0%
Travel and Conferences		5200	6,800.00	26,000.00	9,454.00	24,868.00	1,132.00	4.4%
Dues and Memberships		5300	0.00	0.00	312.00	0.00	0.00	0.0%
Insurance		5400-5450	0.00	0.00	0.00	0.00	0.00	0.0%
Operations and Housekeeping Services		5500	0.00	0.00	0.00	0.00	0.00	0.0%
Rentals, Leases, Repairs, and Noncapitalized Improvements		5600	12,789.00	12,789.00	147.81	12,789.00	0.00	0.0%
Transfers of Direct Costs		5710	0.00	710.00	0.00	710.00	0.00	0.0%
Transfers of Direct Costs - Interfund		5750	0.00	0.00	0.00	0.00	0.00	0.0%
Professional/Consulting Services and Operating Expenditures		5800	91,091.00	566,572.00	83,880.15	684,903.00	(118,331.00)	-20.9%
Communications		5900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, SERVICES AND OTHER OPERATING EXPENDITURES			110,680.00	606,071.00	93,793.96	723,270.00	(117,199.00)	-19.3%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
CAPITAL OUTLAY								
Land		6100	0.00	0.00	0.00	0.00	0.00	0.0%
Land Improvements		6170	0.00	0.00	0.00	0.00	0.00	0.0%
Buildings and Improvements of Buildings		6200	0.00	0.00	0.00	0.00	0.00	0.0%
Books and Media for New School Libraries or Major Expansion of School Libraries		6300	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment		6400	65,000.00	70,358.00	17,589.49	30,906.00	39,452.00	56.1%
Equipment Replacement		6500	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CAPITAL OUTLAY			65,000.00	70,358.00	17,589.49	30,906.00	39,452.00	56.1%
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Tuition								
Tuition for Instruction Under Interdistrict Attendance Agreements		7110	0.00	0.00	0.00	0.00	0.00	0.0%
State Special Schools		7130	0.00	0.00	0.00	0.00	0.00	0.0%
Tuition, Excess Costs, and/or Deficit Payments								
Payments to Districts or Charter Schools		7141	0.00	0.00	0.00	0.00	0.00	0.0%
Payments to County Offices		7142	751,247.00	810,788.00	729,700.00	810,788.00	0.00	0.0%
Payments to JPAs		7143	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Pass-Through Revenues								
To Districts or Charter Schools		7211	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices		7212	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs		7213	0.00	0.00	0.00	0.00	0.00	0.0%
Special Education SELPA Transfers of Apportionments								
To Districts or Charter Schools	6500	7221	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices	6500	7222	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs	6500	7223	0.00	0.00	0.00	0.00	0.00	0.0%
ROC/P Transfers of Apportionments								
To Districts or Charter Schools	6360	7221	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices	6360	7222	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs	6360	7223	0.00	0.00	0.00	0.00	0.00	0.0%
Other Transfers of Apportionments	All Other	7221-7223	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers		7281-7283	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers Out to All Others		7299	0.00	0.00	0.00	0.00	0.00	0.0%
Debt Service								
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			751,247.00	810,788.00	729,700.00	810,788.00	0.00	0.0%
OTHER OUTGO - TRANSFERS OF INDIRECT COSTS								
Transfers of Indirect Costs		7310	61,574.00	86,820.00	4,880.43	88,860.00	(2,040.00)	-2.3%
Transfers of Indirect Costs - Interfund		7350	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO - TRANSFERS OF INDIRECT COSTS			61,574.00	86,820.00	4,880.43	88,860.00	(2,040.00)	-2.3%
TOTAL, EXPENDITURES			2,386,044.00	3,426,875.00	1,535,150.23	3,545,186.00	(118,311.00)	-3.5%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff (E/B) (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
From: Special Reserve Fund		8912	0.00	0.00	0.00	0.00	0.00	0.0%
From: Bond Interest and Redemption Fund		8914	0.00	0.00	0.00	0.00		
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: Child Development Fund		7611	0.00	0.00	0.00	0.00	0.00	0.0%
To: Special Reserve Fund		7612	0.00	0.00	0.00	0.00	0.00	0.0%
To: State School Building Fund/ County School Facilities Fund		7613	0.00	0.00	0.00	0.00	0.00	0.0%
To: Cafeteria Fund		7616	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
State Apportionments Emergency Apportionments		8931	0.00	0.00	0.00	0.00		
Proceeds Proceeds from Sale/Lease- Purchase of Land/Buildings		8953	0.00	0.00	0.00	0.00	0.00	0.0%
Other Sources Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
Long-Term Debt Proceeds Proceeds from Certificates of Participation		8971	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Capital Leases		8972	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Lease Revenue Bonds		8973	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	1,325,179.00	1,371,869.00	0.00	1,371,869.00	0.00	0.0%
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			1,325,179.00	1,371,869.00	0.00	1,371,869.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES								
(a - b + c - d + e)			1,325,179.00	1,371,869.00	0.00	1,371,869.00	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
A. REVENUES								
1) LCFF Sources		8010-8099	0.00	0.00	0.00	0.00	0.00	0.0%
2) Federal Revenue		8100-8299	494,221.00	509,021.00	153,592.32	509,021.00	0.00	0.0%
3) Other State Revenue		8300-8599	38,308.00	38,308.00	11,582.78	38,308.00	0.00	0.0%
4) Other Local Revenue		8600-8799	107,758.00	128,976.00	55,881.90	128,976.00	0.00	0.0%
5) TOTAL, REVENUES			640,287.00	676,305.00	221,057.00	676,305.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	0.00	0.00	0.00	0.00	0.00	0.0%
2) Classified Salaries		2000-2999	281,446.00	290,251.00	161,656.86	290,251.00	0.00	0.0%
3) Employee Benefits		3000-3999	117,412.00	119,481.00	61,190.93	119,481.00	0.00	0.0%
4) Books and Supplies		4000-4999	266,772.00	322,272.00	132,759.25	322,272.00	0.00	0.0%
5) Services and Other Operating Expenditures		5000-5999	14,554.00	14,754.00	5,980.58	14,754.00	0.00	0.0%
6) Capital Outlay		6000-6999	0.00	0.00	0.00	0.00	0.00	0.0%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299, 7400-7499	0.00	0.00	0.00	0.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	0.00	17,903.00	0.00	17,903.00	0.00	0.0%
9) TOTAL, EXPENDITURES			680,184.00	764,661.00	361,587.62	764,661.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			(39,897.00)	(88,356.00)	(140,530.62)	(88,356.00)		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	39,897.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	0.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	0.00	0.00	0.00	0.00	0.00	0.0%
4) TOTAL, OTHER FINANCING SOURCES/USES			39,897.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			0.00	(88,356.00)	(140,530.62)	(88,356.00)		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	88,355.99	88,355.99		88,355.99	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			88,355.99	88,355.99		88,355.99		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			88,355.99	88,355.99		88,355.99		
2) Ending Balance, June 30 (E + F1e)			88,355.99	(0.01)		(0.01)		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Restricted			88,355.99	0.00		0.00		
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	0.00	0.00		0.00		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	0.00	0.00		0.00		
Unassigned/Unappropriated Amount		9790	0.00	(0.01)		(0.01)		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
FEDERAL REVENUE								
Child Nutrition Programs		8220	494,221.00	509,021.00	153,592.32	509,021.00	0.00	0.0%
Donated Food Commodities		8221	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Federal Revenue		8290	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, FEDERAL REVENUE			494,221.00	509,021.00	153,592.32	509,021.00	0.00	0.0%
OTHER STATE REVENUE								
Child Nutrition Programs		8520	38,308.00	38,308.00	11,582.78	38,308.00	0.00	0.0%
All Other State Revenue		8590	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER STATE REVENUE			38,308.00	38,308.00	11,582.78	38,308.00	0.00	0.0%
OTHER LOCAL REVENUE								
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Food Service Sales		8634	91,750.00	111,750.00	51,264.45	111,750.00	0.00	0.0%
Leases and Rentals		8650	0.00	0.00	0.00	0.00	0.00	0.0%
Interest		8660	600.00	600.00	(206.31)	600.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Fees and Contracts								
Interagency Services		8677	15,408.00	15,408.00	3,467.50	15,408.00	0.00	0.0%
Other Local Revenue								
All Other Local Revenue		8699	0.00	1,218.00	1,356.26	1,218.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			107,758.00	128,976.00	55,881.90	128,976.00	0.00	0.0%
TOTAL, REVENUES			640,287.00	676,305.00	221,057.00	676,305.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
CERTIFICATED SALARIES								
Certificated Supervisors' and Administrators' Salaries		1300	0.00	0.00	0.00	0.00	0.00	0.0%
Other Certificated Salaries		1900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CERTIFICATED SALARIES			0.00	0.00	0.00	0.00	0.00	0.0%
CLASSIFIED SALARIES								
Classified Support Salaries		2200	214,493.00	214,045.00	117,203.36	214,045.00	0.00	0.0%
Classified Supervisors' and Administrators' Salaries		2300	66,953.00	76,206.00	44,453.50	76,206.00	0.00	0.0%
Clerical, Technical and Office Salaries		2400	0.00	0.00	0.00	0.00	0.00	0.0%
Other Classified Salaries		2900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CLASSIFIED SALARIES			281,446.00	290,251.00	161,656.86	290,251.00	0.00	0.0%
EMPLOYEE BENEFITS								
STRS		3101-3102	0.00	0.00	0.00	0.00	0.00	0.0%
PERS		3201-3202	37,501.00	38,721.00	20,155.20	38,721.00	0.00	0.0%
OASDI/Medicare/Alternative		3301-3302	21,530.00	22,203.00	10,419.52	22,203.00	0.00	0.0%
Health and Welfare Benefits		3401-3402	52,724.00	52,724.00	27,463.67	52,724.00	0.00	0.0%
Unemployment Insurance		3501-3502	310.00	319.00	80.94	319.00	0.00	0.0%
Workers' Compensation		3601-3602	5,347.00	5,514.00	3,071.60	5,514.00	0.00	0.0%
OPEB, Allocated		3701-3702	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Active Employees		3751-3752	0.00	0.00	0.00	0.00	0.00	0.0%
Other Employee Benefits		3901-3902	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EMPLOYEE BENEFITS			117,412.00	119,481.00	61,190.93	119,481.00	0.00	0.0%
BOOKS AND SUPPLIES								
Books and Other Reference Materials		4200	0.00	0.00	0.00	0.00	0.00	0.0%
Materials and Supplies		4300	19,301.00	24,301.00	8,649.20	24,301.00	0.00	0.0%
Noncapitalized Equipment		4400	2,890.00	13,390.00	10,589.45	13,390.00	0.00	0.0%
Food		4700	244,581.00	284,581.00	113,520.60	284,581.00	0.00	0.0%
TOTAL, BOOKS AND SUPPLIES			266,772.00	322,272.00	132,759.25	322,272.00	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
SERVICES AND OTHER OPERATING EXPENDITURES								
Subagreements for Services		5100	0.00	0.00	0.00	0.00	0.00	0.0%
Travel and Conferences		5200	2,585.00	2,785.00	244.88	2,785.00	0.00	0.0%
Dues and Memberships		5300	365.00	365.00	200.00	365.00	0.00	0.0%
Insurance		5400-5450	0.00	0.00	0.00	0.00	0.00	0.0%
Operations and Housekeeping Services		5500	0.00	0.00	0.00	0.00	0.00	0.0%
Rentals, Leases, Repairs, and Noncapitalized Improvements		5600	1,036.00	1,036.00	0.00	1,036.00	0.00	0.0%
Transfers of Direct Costs		5710	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Direct Costs - Interfund		5750	0.00	0.00	0.00	0.00	0.00	0.0%
Professional/Consulting Services and Operating Expenditures		5800	10,568.00	10,568.00	5,535.70	10,568.00	0.00	0.0%
Communications		5900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, SERVICES AND OTHER OPERATING EXPENDITURES			14,554.00	14,754.00	5,980.58	14,754.00	0.00	0.0%
CAPITAL OUTLAY								
Buildings and Improvements of Buildings		6200	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment		6400	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment Replacement		6500	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CAPITAL OUTLAY			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Debt Service								
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER OUTGO - TRANSFERS OF INDIRECT COSTS								
Transfers of Indirect Costs - Interfund		7350	0.00	17,903.00	0.00	17,903.00	0.00	0.0%
TOTAL, OTHER OUTGO - TRANSFERS OF INDIRECT COSTS			0.00	17,903.00	0.00	17,903.00	0.00	0.0%
TOTAL, EXPENDITURES			680,184.00	764,661.00	361,587.62	764,661.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
From: General Fund		8916	39,897.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			39,897.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
Long-Term Debt Proceeds								
Proceeds from Capital Leases		8972	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	0.00	0.00	0.00	0.00	0.00	0.0%
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES (a - b + c - d + e)			39,897.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
A. REVENUES								
1) LCFF Sources		8010-8099	0.00	0.00	0.00	0.00	0.00	0.0%
2) Federal Revenue		8100-8299	0.00	0.00	0.00	0.00	0.00	0.0%
3) Other State Revenue		8300-8599	0.00	0.00	0.00	0.00	0.00	0.0%
4) Other Local Revenue		8600-8799	0.00	0.00	(3.32)	0.00	0.00	0.0%
5) TOTAL REVENUES			0.00	0.00	(3.32)	0.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	0.00	0.00	0.00	0.00	0.00	0.0%
2) Classified Salaries		2000-2999	0.00	0.00	0.00	0.00	0.00	0.0%
3) Employee Benefits		3000-3999	0.00	0.00	0.00	0.00	0.00	0.0%
4) Books and Supplies		4000-4999	0.00	0.00	0.00	0.00	0.00	0.0%
5) Services and Other Operating Expenditures		5000-5999	0.00	0.00	0.00	0.00	0.00	0.0%
6) Capital Outlay		6000-6999	0.00	0.00	0.00	0.00	0.00	0.0%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299, 7400-7499	0.00	0.00	0.00	0.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	0.00	0.00	0.00	0.00	0.00	0.0%
9) TOTAL EXPENDITURES			0.00	0.00	0.00	0.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			0.00	0.00	(3.32)	0.00		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	0.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	0.00	0.00	0.00	0.00	0.00	0.0%
4) TOTAL OTHER FINANCING SOURCES/USES			0.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			0.00	0.00	(3.32)	0.00		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	1,050.36	1,050.36		1,050.36	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			1,050.36	1,050.36		1,050.36		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			1,050.36	1,050.36		1,050.36		
2) Ending Balance, June 30 (E + F1e)			1,050.36	1,050.36		1,050.36		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Restricted								
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	1,050.36	1,050.36		1,050.36		
Bus Replacement Reserve	0000	9780	1,050.36					
Bus Replacement Reserve	0000	9780		1,050.36				
Bus Replacement Reserve	0000	9780				1,050.36		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	0.00	0.00		0.00		
Unassigned/Unappropriated Amount		9790	0.00	0.00		0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
OTHER LOCAL REVENUE								
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Interest		8660	0.00	0.00	(3.32)	0.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			0.00	0.00	(3.32)	0.00	0.00	0.0%
TOTAL, REVENUES			0.00	0.00	(3.32)	0.00		
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
From: General Fund/CSSF		8912	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: General Fund/CSSF		7612	0.00	0.00	0.00	0.00	0.00	0.0%
To: State School Building Fund/ County School Facilities Fund		7613	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES (a - b + c - d + e)			0.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
A. REVENUES								
1) LCFF Sources		8010-8099	0.00	0.00	0.00	0.00	0.00	0.0%
2) Federal Revenue		8100-8299	0.00	0.00	0.00	0.00	0.00	0.0%
3) Other State Revenue		8300-8599	0.00	0.00	0.00	0.00	0.00	0.0%
4) Other Local Revenue		8600-8799	54,629.00	64,629.00	9,648.67	64,629.00	0.00	0.0%
5) TOTAL REVENUES			54,629.00	64,629.00	9,648.67	64,629.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	0.00	0.00	0.00	0.00	0.00	0.0%
2) Classified Salaries		2000-2999	0.00	0.00	0.00	0.00	0.00	0.0%
3) Employee Benefits		3000-3999	0.00	0.00	0.00	0.00	0.00	0.0%
4) Books and Supplies		4000-4999	13,000.00	13,000.00	0.00	13,000.00	0.00	0.0%
5) Services and Other Operating Expenditures		5000-5999	41,629.00	131,629.00	123,274.71	131,629.00	0.00	0.0%
6) Capital Outlay		6000-6999	0.00	0.00	2,950.00	0.00	0.00	0.0%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299, 7400-7499	0.00	0.00	0.00	0.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	0.00	0.00	0.00	0.00	0.00	0.0%
9) TOTAL EXPENDITURES			54,629.00	144,629.00	126,224.71	144,629.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			0.00	(80,000.00)	(116,576.04)	(80,000.00)		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	0.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	0.00	0.00	0.00	0.00	0.00	0.0%
4) TOTAL OTHER FINANCING SOURCES/USES			0.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			0.00	(80,000.00)	(116,576.04)	(80,000.00)		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	1,227,457.29	1,227,457.29		1,227,457.29	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			1,227,457.29	1,227,457.29		1,227,457.29		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			1,227,457.29	1,227,457.29		1,227,457.29		
2) Ending Balance, June 30 (E + F1e)			1,227,457.29	1,147,457.29		1,147,457.29		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Legally Restricted Balance			0.00	0.00		0.00		
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	1,227,457.29	1,147,457.29		1,147,457.29		
Facility Needs	0000	9780	1,227,457.29					
Facility Needs	0000	9780		1,147,457.29				
Facility Needs	0000	9780				1,147,457.29		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	0.00	0.00		0.00		
Unassigned/Unappropriated Amount		9790	0.00	0.00		0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
OTHER STATE REVENUE								
Tax Relief Subventions								
Restricted Levies - Other								
Homeowners' Exemptions		8575	0.00	0.00	0.00	0.00	0.00	0.0%
Other Subventions/in-Lieu Taxes		8576	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Revenue		8590	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER STATE REVENUE			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER LOCAL REVENUE								
County and District Taxes								
Other Restricted Levies								
Secured Roll		8615	0.00	0.00	0.00	0.00	0.00	0.0%
Unsecured Roll		8616	0.00	0.00	0.00	0.00	0.00	0.0%
Prior Years' Taxes		8617	0.00	0.00	0.00	0.00	0.00	0.0%
Supplemental Taxes		8618	0.00	0.00	0.00	0.00	0.00	0.0%
Non-Ad Valorem Taxes								
Parcel Taxes		8621	0.00	0.00	0.00	0.00	0.00	0.0%
Other		8622	0.00	0.00	0.00	0.00	0.00	0.0%
Community Redevelopment Funds								
Not Subject to LCFF Deduction		8625	0.00	0.00	0.00	0.00	0.00	0.0%
Penalties and Interest from Delinquent								
Non-LCFF Taxes		8629	0.00	0.00	0.00	0.00	0.00	0.0%
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Interest		8660	3,000.00	13,000.00	(4,174.33)	13,000.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Fees and Contracts								
Mitigation/Developer Fees		8681	50,000.00	50,000.00	13,253.00	50,000.00	0.00	0.0%
Other Local Revenue								
All Other Local Revenue		8699	1,629.00	1,629.00	570.00	1,629.00	0.00	0.0%
All Other Transfers In from All Others		8799	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			54,629.00	64,629.00	9,648.67	64,629.00	0.00	0.0%
TOTAL, REVENUES			54,629.00	64,629.00	9,648.67	64,629.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
CERTIFICATED SALARIES								
Other Certificated Salaries		1900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CERTIFICATED SALARIES			0.00	0.00	0.00	0.00	0.00	0.0%
CLASSIFIED SALARIES								
Classified Support Salaries		2200	0.00	0.00	0.00	0.00	0.00	0.0%
Classified Supervisors' and Administrators' Salaries		2300	0.00	0.00	0.00	0.00	0.00	0.0%
Clerical, Technical and Office Salaries		2400	0.00	0.00	0.00	0.00	0.00	0.0%
Other Classified Salaries		2900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CLASSIFIED SALARIES			0.00	0.00	0.00	0.00	0.00	0.0%
EMPLOYEE BENEFITS								
STRS		3101-3102	0.00	0.00	0.00	0.00	0.00	0.0%
PERS		3201-3202	0.00	0.00	0.00	0.00	0.00	0.0%
OASDI/Medicare/Alternative		3301-3302	0.00	0.00	0.00	0.00	0.00	0.0%
Health and Welfare Benefits		3401-3402	0.00	0.00	0.00	0.00	0.00	0.0%
Unemployment Insurance		3501-3502	0.00	0.00	0.00	0.00	0.00	0.0%
Workers' Compensation		3601-3602	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Allocated		3701-3702	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Active Employees		3751-3752	0.00	0.00	0.00	0.00	0.00	0.0%
Other Employee Benefits		3901-3902	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EMPLOYEE BENEFITS			0.00	0.00	0.00	0.00	0.00	0.0%
BOOKS AND SUPPLIES								
Approved Textbooks and Core Curricula Materials		4100	0.00	0.00	0.00	0.00	0.00	0.0%
Books and Other Reference Materials		4200	0.00	0.00	0.00	0.00	0.00	0.0%
Materials and Supplies		4300	13,000.00	13,000.00	0.00	13,000.00	0.00	0.0%
Noncapitalized Equipment		4400	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, BOOKS AND SUPPLIES			13,000.00	13,000.00	0.00	13,000.00	0.00	0.0%
SERVICES AND OTHER OPERATING EXPENDITURES								
Subagreements for Services		5100	0.00	0.00	0.00	0.00	0.00	0.0%
Travel and Conferences		5200	0.00	0.00	0.00	0.00	0.00	0.0%
Insurance		5400-5450	0.00	0.00	0.00	0.00	0.00	0.0%
Operations and Housekeeping Services		5500	0.00	0.00	0.00	0.00	0.00	0.0%
Rentals, Leases, Repairs, and Noncapitalized Improvements		5600	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Direct Costs		5710	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Direct Costs - Interfund		5750	0.00	0.00	0.00	0.00	0.00	0.0%
Professional/Consulting Services and Operating Expenditures		5800	41,629.00	131,629.00	123,274.71	131,629.00	0.00	0.0%
Communications		5900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, SERVICES AND OTHER OPERATING EXPENDITURES			41,629.00	131,629.00	123,274.71	131,629.00	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
CAPITAL OUTLAY								
Land		6100	0.00	0.00	0.00	0.00	0.00	0.0%
Land Improvements		6170	0.00	0.00	0.00	0.00	0.00	0.0%
Buildings and Improvements of Buildings		6200	0.00	0.00	2,950.00	0.00	0.00	0.0%
Books and Media for New School Libraries or Major Expansion of School Libraries		6300	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment		6400	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment Replacement		6500	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CAPITAL OUTLAY			0.00	0.00	2,950.00	0.00	0.00	0.0%
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Other Transfers Out								
All Other Transfers Out to All Others		7299	0.00	0.00	0.00	0.00	0.00	0.0%
Debt Service								
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EXPENDITURES			54,629.00	144,629.00	126,224.71	144,629.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: State School Building Fund/ County School Facilities Fund		7613	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
Proceeds								
Proceeds from Sale/Lease- Purchase of Land/Buildings		8953	0.00	0.00	0.00	0.00	0.00	0.0%
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
Long-Term Debt Proceeds		8971	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Certificates of Participation		8972	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Capital Leases		8973	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Lease Revenue Bonds		8979	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	0.00	0.00	0.00	0.00	0.00	0.0%
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES (a - b + c - d + e)			0.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
A. REVENUES								
1) LCFF Sources		8010-8099	0.00	0.00	0.00	0.00	0.00	0.0%
2) Federal Revenue		8100-8299	0.00	0.00	0.00	0.00	0.00	0.0%
3) Other State Revenue		8300-8599	0.00	0.00	0.00	0.00	0.00	0.0%
4) Other Local Revenue		8600-8799	0.00	0.00	(687.76)	0.00	0.00	0.0%
5) TOTAL, REVENUES			0.00	0.00	(687.76)	0.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	0.00	0.00	0.00	0.00	0.00	0.0%
2) Classified Salaries		2000-2999	0.00	0.00	0.00	0.00	0.00	0.0%
3) Employee Benefits		3000-3999	0.00	0.00	0.00	0.00	0.00	0.0%
4) Books and Supplies		4000-4999	0.00	0.00	0.00	0.00	0.00	0.0%
5) Services and Other Operating Expenditures		5000-5999	0.00	197,236.00	0.00	197,236.00	0.00	0.0%
6) Capital Outlay		6000-6999	0.00	0.00	0.00	0.00	0.00	0.0%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299, 7400-7499	0.00	0.00	0.00	0.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	0.00	0.00	0.00	0.00	0.00	0.0%
9) TOTAL, EXPENDITURES			0.00	197,236.00	0.00	197,236.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			0.00	(197,236.00)	(687.76)	(197,236.00)		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	0.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	0.00	0.00	0.00	0.00	0.00	0.0%
4) TOTAL, OTHER FINANCING SOURCES/USES			0.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			0.00	(197,236.00)	(687.76)	(197,236.00)		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	197,236.33	197,236.33		197,236.33	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			197,236.33	197,236.33		197,236.33		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			197,236.33	197,236.33		197,236.33		
2) Ending Balance, June 30 (E + F1e)			197,236.33	0.33		0.33		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Legally Restricted Balance			0.00	0.00		0.00		
c) Committed								
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments								
Facility Projects Reserve	0000	9780	197,236.33					
Facility Projects Reserve	0000	9780		0.33				
Facility Projects Reserve	0000	9780				0.33		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	0.00	0.00		0.00		
Unassigned/Unappropriated Amount		9790	0.00	0.00		0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
FEDERAL REVENUE								
FEMA		8281	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Federal Revenue		8290	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, FEDERAL REVENUE			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER STATE REVENUE								
Pass-Through Revenues from State Sources		8587	0.00	0.00	0.00	0.00	0.00	0.0%
California Clean Energy Jobs Act	6230	8590	0.00	0.00	0.00	0.00	0.00	0.0%
All Other State Revenue	All Other	8590	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER STATE REVENUE			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER LOCAL REVENUE								
Other Local Revenue								
Community Redevelopment Funds Not Subject to LCFF Deduction		8625	0.00	0.00	0.00	0.00	0.00	0.0%
Sales								
Sale of Equipment/Supplies		8631	0.00	0.00	0.00	0.00	0.00	0.0%
Leases and Rentals		8650	0.00	0.00	0.00	0.00	0.00	0.0%
Interest		8660	0.00	0.00	(687.76)	0.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Other Local Revenue								
All Other Local Revenue		8699	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In from All Others		8799	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			0.00	0.00	(687.76)	0.00	0.00	0.0%
TOTAL, REVENUES			0.00	0.00	(687.76)	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
CLASSIFIED SALARIES								
Classified Support Salaries		2200	0.00	0.00	0.00	0.00	0.00	0.0%
Classified Supervisors' and Administrators' Salaries		2300	0.00	0.00	0.00	0.00	0.00	0.0%
Clerical, Technical and Office Salaries		2400	0.00	0.00	0.00	0.00	0.00	0.0%
Other Classified Salaries		2900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CLASSIFIED SALARIES			0.00	0.00	0.00	0.00	0.00	0.0%
EMPLOYEE BENEFITS								
STRS		3101-3102	0.00	0.00	0.00	0.00	0.00	0.0%
PERS		3201-3202	0.00	0.00	0.00	0.00	0.00	0.0%
OASDI/Medicare/Alternative		3301-3302	0.00	0.00	0.00	0.00	0.00	0.0%
Health and Welfare Benefits		3401-3402	0.00	0.00	0.00	0.00	0.00	0.0%
Unemployment Insurance		3501-3502	0.00	0.00	0.00	0.00	0.00	0.0%
Workers' Compensation		3601-3602	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Allocated		3701-3702	0.00	0.00	0.00	0.00	0.00	0.0%
OPEB, Active Employees		3751-3752	0.00	0.00	0.00	0.00	0.00	0.0%
Other Employee Benefits		3901-3902	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EMPLOYEE BENEFITS			0.00	0.00	0.00	0.00	0.00	0.0%
BOOKS AND SUPPLIES								
Books and Other Reference Materials		4200	0.00	0.00	0.00	0.00	0.00	0.0%
Materials and Supplies		4300	0.00	0.00	0.00	0.00	0.00	0.0%
Noncapitalized Equipment		4400	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, BOOKS AND SUPPLIES			0.00	0.00	0.00	0.00	0.00	0.0%
SERVICES AND OTHER OPERATING EXPENDITURES								
Subagreements for Services		5100	0.00	0.00	0.00	0.00	0.00	0.0%
Travel and Conferences		5200	0.00	0.00	0.00	0.00	0.00	0.0%
Insurance		5400-5450	0.00	0.00	0.00	0.00	0.00	0.0%
Operations and Housekeeping Services		5500	0.00	0.00	0.00	0.00	0.00	0.0%
Rentals, Leases, Repairs, and Noncapitalized Improvements		5600	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Direct Costs		5710	0.00	0.00	0.00	0.00	0.00	0.0%
Transfers of Direct Costs - Interfund		5750	0.00	0.00	0.00	0.00	0.00	0.0%
Professional/Consulting Services and Operating Expenditures		5800	0.00	197,236.00	0.00	197,236.00	0.00	0.0%
Communications		5900	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, SERVICES AND OTHER OPERATING EXPENDITURES			0.00	197,236.00	0.00	197,236.00	0.00	0.0%

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
CAPITAL OUTLAY								
Land		6100	0.00	0.00	0.00	0.00	0.00	0.0%
Land Improvements		6170	0.00	0.00	0.00	0.00	0.00	0.0%
Buildings and Improvements of Buildings		6200	0.00	0.00	0.00	0.00	0.00	0.0%
Books and Media for New School Libraries or Major Expansion of School Libraries		6300	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment		6400	0.00	0.00	0.00	0.00	0.00	0.0%
Equipment Replacement		6500	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, CAPITAL OUTLAY			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Other Transfers Out								
Transfers of Pass-Through Revenues								
To Districts or Charter Schools		7211	0.00	0.00	0.00	0.00	0.00	0.0%
To County Offices		7212	0.00	0.00	0.00	0.00	0.00	0.0%
To JPAs		7213	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers Out to All Others		7299	0.00	0.00	0.00	0.00	0.00	0.0%
Debt Service								
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, EXPENDITURES			0.00	197,236.00	0.00	197,236.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
From: General Fund/CSSF		8912	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: General Fund/CSSF		7612	0.00	0.00	0.00	0.00	0.00	0.0%
To: State School Building Fund/ County School Facilities Fund		7613	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
Proceeds								
Proceeds from Sale/Lease- Purchase of Land/Buildings		8953	0.00	0.00	0.00	0.00	0.00	0.0%
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
Long-Term Debt Proceeds								
Proceeds from Certificates of Participation		8971	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Capital Leases		8972	0.00	0.00	0.00	0.00	0.00	0.0%
Proceeds from Lease Revenue Bonds		8973	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	0.00	0.00	0.00	0.00	0.00	0.0%
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES (a - b + c - d + e)			0.00	0.00	0.00	0.00		

2016-17 Second Interim
Bond Interest and Redemption Fund
Revenues, Expenditures, and Changes in Fund Balance

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
A. REVENUES								
1) LCFF Sources		8010-8099	0.00	0.00	0.00	0.00	0.00	0.0%
2) Federal Revenue		8100-8299	0.00	0.00	0.00	0.00	0.00	0.0%
3) Other State Revenue		8300-8599	1,741.00	1,741.00	2,265.61	1,741.00	0.00	0.0%
4) Other Local Revenue		8600-8799	469,560.00	469,560.00	554,961.05	469,560.00	0.00	0.0%
5) TOTAL, REVENUES			471,301.00	471,301.00	557,226.66	471,301.00		
B. EXPENDITURES								
1) Certificated Salaries		1000-1999	0.00	0.00	0.00	0.00	0.00	0.0%
2) Classified Salaries		2000-2999	0.00	0.00	0.00	0.00	0.00	0.0%
3) Employee Benefits		3000-3999	0.00	0.00	0.00	0.00	0.00	0.0%
4) Books and Supplies		4000-4999	0.00	0.00	0.00	0.00	0.00	0.0%
5) Services and Other Operating Expenditures		5000-5999	0.00	0.00	0.00	0.00	0.00	0.0%
6) Capital Outlay		6000-6999	0.00	0.00	0.00	0.00	0.00	0.0%
7) Other Outgo (excluding Transfers of Indirect Costs)		7100-7299, 7400-7499	451,935.00	451,935.00	0.00	451,935.00	0.00	0.0%
8) Other Outgo - Transfers of Indirect Costs		7300-7399	0.00	0.00	0.00	0.00	0.00	0.0%
9) TOTAL, EXPENDITURES			451,935.00	451,935.00	0.00	451,935.00		
C. EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES BEFORE OTHER FINANCING SOURCES AND USES (A5 - B9)			19,366.00	19,366.00	557,226.66	19,366.00		
D. OTHER FINANCING SOURCES/USES								
1) Interfund Transfers								
a) Transfers In		8900-8929	0.00	0.00	0.00	0.00	0.00	0.0%
b) Transfers Out		7600-7629	0.00	0.00	0.00	0.00	0.00	0.0%
2) Other Sources/Uses								
a) Sources		8930-8979	0.00	0.00	0.00	0.00	0.00	0.0%
b) Uses		7630-7699	0.00	0.00	0.00	0.00	0.00	0.0%
3) Contributions		8980-8999	0.00	0.00	0.00	0.00	0.00	0.0%
4) TOTAL, OTHER FINANCING SOURCES/USES			0.00	0.00	0.00	0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
E. NET INCREASE (DECREASE) IN FUND BALANCE (C + D4)			19,366.00	19,366.00	557,226.66	19,366.00		
F. FUND BALANCE, RESERVES								
1) Beginning Fund Balance								
a) As of July 1 - Unaudited		9791	927,348.37	927,348.37		927,348.37	0.00	0.0%
b) Audit Adjustments		9793	0.00	0.00		0.00	0.00	0.0%
c) As of July 1 - Audited (F1a + F1b)			927,348.37	927,348.37		927,348.37		
d) Other Restatements		9795	0.00	0.00		0.00	0.00	0.0%
e) Adjusted Beginning Balance (F1c + F1d)			927,348.37	927,348.37		927,348.37		
2) Ending Balance, June 30 (E + F1e)			946,714.37	946,714.37		946,714.37		
Components of Ending Fund Balance								
a) Nonspendable								
Revolving Cash		9711	0.00	0.00		0.00		
Stores		9712	0.00	0.00		0.00		
Prepaid Expenditures		9713	0.00	0.00		0.00		
All Others		9719	0.00	0.00		0.00		
b) Legally Restricted Balance								
c) Committed		9740	0.00	0.00		0.00		
Stabilization Arrangements		9750	0.00	0.00		0.00		
Other Commitments		9760	0.00	0.00		0.00		
d) Assigned								
Other Assignments		9780	946,714.37	946,714.37		946,714.37		
Bond Fund Balance	0000	9780	946,714.37					
Bond Fund Balance	0000	9780		946,714.37				
Bond Fund Reserve	0000	9780				946,714.37		
e) Unassigned/Unappropriated								
Reserve for Economic Uncertainties		9789	0.00	0.00		0.00		
Unassigned/Unappropriated Amount			0.00	0.00		0.00		

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
FEDERAL REVENUE								
All Other Federal Revenue		8290	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, FEDERAL REVENUE			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER STATE REVENUE								
Tax Relief Subventions Voted Indebtedness Levies								
Homeowners' Exemptions		8571	1,741.00	1,741.00	2,265.61	1,741.00	0.00	0.0%
Other Subventions/In-Lieu Taxes		8572	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER STATE REVENUE			1,741.00	1,741.00	2,265.61	1,741.00	0.00	0.0%
OTHER LOCAL REVENUE								
County and District Taxes Voted Indebtedness Levies Secured Roll								
		8611	436,144.00	436,144.00	512,687.54	436,144.00	0.00	0.0%
Unsecured Roll		8612	23,463.00	23,463.00	37,486.69	23,463.00	0.00	0.0%
Prior Years' Taxes		8613	1,020.00	1,020.00	169.24	1,020.00	0.00	0.0%
Supplemental Taxes		8614	5,741.00	5,741.00	2,157.03	5,741.00	0.00	0.0%
Penalties and Interest from Delinquent Non-LCFF Taxes		8629	0.00	0.00	0.00	0.00	0.00	0.0%
Interest		8660	3,192.00	3,192.00	2,460.55	3,192.00	0.00	0.0%
Net Increase (Decrease) in the Fair Value of Investments		8662	0.00	0.00	0.00	0.00	0.00	0.0%
Other Local Revenue								
All Other Local Revenue		8699	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Transfers In from All Others		8799	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER LOCAL REVENUE			469,560.00	469,560.00	554,961.05	469,560.00	0.00	0.0%
TOTAL, REVENUES			471,301.00	471,301.00	557,226.66	471,301.00		
OTHER OUTGO (excluding Transfers of Indirect Costs)								
Debt Service								
Bond Redemptions		7433	425,000.00	425,000.00	0.00	425,000.00	0.00	0.0%
Bond Interest and Other Service Charges		7434	26,935.00	26,935.00	0.00	26,935.00	0.00	0.0%
Debt Service - Interest		7438	0.00	0.00	0.00	0.00	0.00	0.0%
Other Debt Service - Principal		7439	0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER OUTGO (excluding Transfers of Indirect Costs)			451,935.00	451,935.00	0.00	451,935.00	0.00	0.0%
TOTAL, EXPENDITURES			451,935.00	451,935.00	0.00	451,935.00		

2016-17 Second Interim
Bond Interest and Redemption Fund
Revenues, Expenditures, and Changes in Fund Balance

Description	Resource Codes	Object Codes	Original Budget (A)	Board Approved Operating Budget (B)	Actuals To Date (C)	Projected Year Totals (D)	Difference (Col B & D) (E)	% Diff Column B & D (F)
INTERFUND TRANSFERS								
INTERFUND TRANSFERS IN								
Other Authorized Interfund Transfers In		8919	0.00	0.00	0.00	0.00	0.00	0.0%
(a) TOTAL, INTERFUND TRANSFERS IN			0.00	0.00	0.00	0.00	0.00	0.0%
INTERFUND TRANSFERS OUT								
To: General Fund		7614	0.00	0.00	0.00	0.00	0.00	0.0%
Other Authorized Interfund Transfers Out		7619	0.00	0.00	0.00	0.00	0.00	0.0%
(b) TOTAL, INTERFUND TRANSFERS OUT			0.00	0.00	0.00	0.00	0.00	0.0%
OTHER SOURCES/USES								
SOURCES								
Other Sources								
Transfers from Funds of Lapsed/Reorganized LEAs		8965	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Sources		8979	0.00	0.00	0.00	0.00	0.00	0.0%
(c) TOTAL, SOURCES			0.00	0.00	0.00	0.00	0.00	0.0%
USES								
Transfers of Funds from Lapsed/Reorganized LEAs		7651	0.00	0.00	0.00	0.00	0.00	0.0%
All Other Financing Uses		7699	0.00	0.00	0.00	0.00	0.00	0.0%
(d) TOTAL, USES			0.00	0.00	0.00	0.00	0.00	0.0%
CONTRIBUTIONS								
Contributions from Unrestricted Revenues		8980	0.00	0.00	0.00	0.00	0.00	0.0%
Contributions from Restricted Revenues		8990	0.00	0.00	0.00	0.00	0.00	0.0%
(e) TOTAL, CONTRIBUTIONS			0.00	0.00	0.00	0.00	0.00	0.0%
TOTAL, OTHER FINANCING SOURCES/USES (a - b + c - d + e)			0.00	0.00	0.00	0.00		

Description	ESTIMATED FUNDED ADA Original Budget (A)	ESTIMATED FUNDED ADA Board Approved Operating Budget (B)	ESTIMATED P-2 REPORT ADA Projected Year Totals (C)	ESTIMATED FUNDED ADA Projected Year Totals (D)	DIFFERENCE (Col. D - B) (E)	PERCENTAGE DIFFERENCE (Col. E / B) (F)
A. DISTRICT						
1. Total District Regular ADA Includes Opportunity Classes, Home & Hospital, Special Day Class, Continuation Education, Special Education NPS/LCI and Extended Year, and Community Day School (includes Necessary Small School ADA)	1,433.66	1,433.66	1,433.66	1,433.66	0.00	0%
2. Total Basic Aid Choice/Court Ordered Voluntary Pupil Transfer Regular ADA Includes Opportunity Classes, Home & Hospital, Special Day Class, Continuation Education, Special Education NPS/LCI and Extended Year, and Community Day School (ADA not included in Line A1 above)	0.00	0.00	0.00	0.00	0.00	0%
3. Total Basic Aid Open Enrollment Regular ADA Includes Opportunity Classes, Home & Hospital, Special Day Class, Continuation Education, Special Education NPS/LCI and Extended Year, and Community Day School (ADA not included in Line A1 above)	0.00	0.00	0.00	0.00	0.00	0%
4. Total, District Regular ADA (Sum of Lines A1 through A3)	1,433.66	1,433.66	1,433.66	1,433.66	0.00	0%
5. District Funded County Program ADA						
a. County Community Schools	0.00	0.00	0.00	0.00	0.00	0%
b. Special Education-Special Day Class	0.00	0.00	0.00	0.00	0.00	0%
c. Special Education-NPS/LCI	0.00	0.00	0.00	0.00	0.00	0%
d. Special Education Extended Year	0.00	0.00	0.00	0.00	0.00	0%
e. Other County Operated Programs: Opportunity Schools and Full Day Opportunity Classes, Specialized Secondary Schools, Technical, Agricultural, and Natural Resource Conservation Schools	0.00	0.00	0.00	0.00	0.00	0%
f. County School Tuition Fund (Out of State Tuition) [EC 2000 and 46380]	0.00	0.00	0.00	0.00	0.00	0%
g. Total, District Funded County Program ADA (Sum of Lines A5a through A5f)	0.00	0.00	0.00	0.00	0.00	0%
6. TOTAL DISTRICT ADA (Sum of Line A4 and Line A5g)	1,433.66	1,433.66	1,433.66	1,433.66	0.00	0%
7. Adults in Correctional Facilities	0.00	0.00	0.00	0.00	0.00	0%
8. Charter School ADA (Enter Charter School ADA using Tab C. Charter School ADA)						

		Reporting Period (06/01/16 - 06/30/16)	July	August	September	October	November	December	January	February
ACTUALS THROUGH THE MONTH OF (Enter Month Name):		January								
A. BEGINNING CASH			7,009,917.00	7,570,369.00	7,832,640.00	8,653,327.00	8,798,107.00	8,143,015.00	8,883,800.00	8,013,491.00
B. RECEIPTS										
LCFF/Revenue Limit Sources										
Principal Apportionment		8010-8019	1,262,184.00	1,262,184.00	1,764,652.00	1,262,184.00	0.00	502,469.00	504,873.00	779,393.00
Property Taxes		8020-8079		821.00	46,282.00	217,170.00	12,811.00	1,232,730.00	0.00	2,551.00
Miscellaneous Funds		8080-8099								
Federal Revenue		8100-8299		1,967.00			16,048.00	198,577.00	0.00	2,001.00
Other State Revenue		8300-8599	126,035.00	226,081.00	157,596.00	8,036.00	103,741.00	167,508.00	82,778.00	252,001.00
Other Local Revenue		8600-8799	(23,359.00)	11,993.00	3,069.00	5,097.00	2,232.00	13,779.00	4,050.00	10,000.00
Interfund Transfers In		8910-8929								
All Other Financing Sources		8930-8979								
TOTAL RECEIPTS			1,364,860.00	1,503,046.00	1,971,599.00	1,492,487.00	134,832.00	2,115,063.00	591,701.00	1,045,946.00
C. DISBURSEMENTS										
Certificated Salaries		1000-1999	17,271.00	567,860.00	547,662.00	551,398.00	555,472.00	571,508.00	550,982.00	588,034.00
Classified Salaries		2000-2999	71,402.00	153,600.00	145,261.00	138,980.00	145,964.00	159,657.00	144,515.00	151,176.00
Employee Benefits		3000-3999	69,812.00	200,925.00	231,035.00	226,671.00	218,259.00	237,704.00	245,179.00	290,253.00
Books and Supplies		4000-4999	20,669.00	224,469.00	295,036.00	54,454.00	34,745.00	125,860.00	65,108.00	406,641.00
Services		5000-5999	260,682.00	90,099.00	140,799.00	60,750.00	61,905.00	145,631.00	87,601.00	382,831.00
Capital Outlay		6000-6599				29,914.00		35,718.00	17,589.00	
Other Outgo		7000-7499				378,664.00			351,036.00	
Interfund Transfers Out		7600-7629								
All Other Financing Uses		7630-7699								
TOTAL DISBURSEMENTS			439,836.00	1,236,953.00	1,359,793.00	1,440,831.00	1,016,345.00	1,276,078.00	1,462,010.00	1,818,935.00
D. BALANCE SHEET ITEMS										
<u>Assets and Deferred Outflows</u>										
Cash Not In Treasury		9111-9199								
Accounts Receivable		9200-9299	609,621.00	44,070.00	94,150.00	246,452.00	93,124.00	131,825.00		
Due From Other Funds		9310	94,596.00				94,596.00			
Stores		9320								
Prepaid Expenditures		9330	20,260.00	20,260.00						
Other Current Assets		9340								
Deferred Outflows of Resources		9490								
SUBTOTAL			724,477.00	64,330.00	94,150.00	246,452.00	93,124.00	226,421.00	0.00	0.00
<u>Liabilities and Deferred Inflows</u>										
Accounts Payable		9500-9599	594,741.00	360,998.00	97,972.00	37,571.00	0.00	98,200.00		
Due To Other Funds		9610	216.00	216.00						
Current Loans		9640								
Unearned Revenues		9650	67,688.00	67,688.00						
Deferred Inflows of Resources		9690								
SUBTOTAL			662,645.00	428,902.00	97,972.00	37,571.00	0.00	98,200.00	0.00	0.00
<u>Nonoperating</u>										
Suspense Clearing		9910								
TOTAL BALANCE SHEET ITEMS			61,832.00	(364,572.00)	(3,822.00)	208,881.00	93,124.00	226,421.00	0.00	0.00
E. NET INCREASE/DECREASE (B - C + D)			560,452.00	262,271.00	820,687.00	144,780.00	(655,092.00)	740,785.00	(870,309.00)	(772,989.00)
F. ENDING CASH (A + E)			7,570,369.00	7,832,640.00	8,653,327.00	8,798,107.00	8,143,015.00	8,883,800.00	8,013,491.00	7,240,502.00
G. ENDING CASH, PLUS CASH ACCRUALS AND ADJUSTMENTS										

	Object	March	April	May	June	Accruals	Adjustments	TOTAL	BUDGET
ACTUALS THROUGH THE MONTH OF (Enter Month Name):	January								
A. BEGINNING CASH		7,240,502.00	6,656,793.00	6,833,072.00	5,785,483.00				
B. RECEIPTS									
LCFF/Revenue Limit Sources									
Principal Apportionment	8010-8019	779,393.00	779,393.00	779,392.00	779,392.00			10,455,509.00	10,455,509.00
Property Taxes	8020-8079		1,007,275.00	250,000.00	401,392.00			3,171,032.00	3,171,032.00
Miscellaneous Funds	8080-8099							0.00	0.00
Federal Revenue	8100-8299	86,496.00	25,255.00	58,959.00	45,000.00	35,000.00		469,303.00	469,303.00
Other State Revenue	8300-8599	185,652.00	152,452.00	158,347.00	91,984.00	20,000.00		1,732,211.00	1,732,211.00
Other Local Revenue	8600-8799	78,757.00	46,818.00	5,976.00	275,115.00			433,527.00	433,527.00
Interfund Transfers In	8910-8929							0.00	0.00
All Other Financing Sources	8930-8979							0.00	0.00
TOTAL RECEIPTS		1,130,298.00	2,011,193.00	1,252,674.00	1,592,883.00	55,000.00	0.00	16,261,582.00	16,261,582.00
C. DISBURSEMENTS									
Certificated Salaries	1000-1999	588,033.00	588,034.00	588,034.00	588,034.00	82,500.00		6,384,822.00	6,384,822.00
Classified Salaries	2000-2999	151,176.00	151,176.00	151,176.00	151,174.00	19,431.00		1,734,688.00	1,734,688.00
Employee Benefits	3000-3999	290,253.00	290,253.00	290,253.00	290,254.00	12,551.00		2,893,402.00	2,893,402.00
Books and Supplies	4000-4999	275,115.00	354,251.00	535,094.00	535,094.00			2,926,536.00	2,926,536.00
Services	5000-5999	385,985.00	451,200.00	512,521.00	356,752.00			2,936,756.00	2,936,756.00
Capital Outlay	6000-6599	23,445.00		160,000.00				266,666.00	266,666.00
Other Outgo	7000-7499			63,185.00		0.00		792,885.00	792,885.00
Interfund Transfers Out	7600-7629							0.00	0.00
All Other Financing Uses	7630-7699							0.00	0.00
TOTAL DISBURSEMENTS		1,714,007.00	1,834,914.00	2,300,263.00	1,921,308.00	114,482.00	0.00	17,935,755.00	17,935,755.00
D. BALANCE SHEET ITEMS									
<u>Assets and Deferred Outflows</u>									
Cash Not In Treasury	9111-9199							0.00	
Accounts Receivable	9200-9299							609,621.00	
Due From Other Funds	9310							94,596.00	
Stores	9320							0.00	
Prepaid Expenditures	9330							20,260.00	
Other Current Assets	9340							0.00	
Deferred Outflows of Resources	9490							0.00	
SUBTOTAL		0.00	0.00	0.00	0.00	0.00	0.00	724,477.00	
<u>Liabilities and Deferred Inflows</u>									
Accounts Payable	9500-9599							594,741.00	
Due To Other Funds	9610							216.00	
Current Loans	9640							0.00	
Unearned Revenues	9650							67,688.00	
Deferred Inflows of Resources	9690							0.00	
SUBTOTAL		0.00	0.00	0.00	0.00	0.00	0.00	662,645.00	
<u>Nonoperating</u>									
Suspense Clearing	9910							0.00	
TOTAL BALANCE SHEET ITEMS		0.00	0.00	0.00	0.00	0.00	0.00	61,832.00	
E. NET INCREASE/DECREASE (B - C + D)		(583,709.00)	176,279.00	(1,047,589.00)	(328,425.00)	(59,482.00)	0.00	(1,612,341.00)	(1,674,173.00)
F. ENDING CASH (A + E)		6,656,793.00	6,833,072.00	5,785,483.00	5,457,058.00				
G. ENDING CASH, PLUS CASH ACCRUALS AND ADJUSTMENTS								5,397,576.00	

		Beginning Balance (6/30/16)	July	August	September	October	November	December	January	February
ACTUALS THROUGH THE MONTH OF (Enter Month Name):		January								
A. BEGINNING CASH			5,457,058.00	5,288,998.00	5,524,303.00	6,401,058.00	6,550,424.00	5,781,956.00	6,636,982.00	6,248,441.00
B. RECEIPTS										
LCFF/Revenue Limit Sources										
Principal Apportionment	8010-8019		1,265,000.00	1,265,000.00	1,850,000.00	1,265,000.00		750,000.00	758,828.00	688,538.00
Property Taxes	8020-8079			950.00	50,150.00	225,000.00	9,045.00	1,135,000.00	25,000.00	2,000.00
Miscellaneous Funds	8080-8099									
Federal Revenue	8100-8299			2,000.00			26,282.00	160,520.00	32,025.00	25,000.00
Other State Revenue	8300-8599		125,035.00	225,000.00			7,500.00	65,000.00	100,000.00	150,000.00
Other Local Revenue	8600-8799			15,000.00		8,010.00			12,000.00	10,000.00
Interfund Transfers In	8910-8929									
All Other Financing Sources	8930-8979									
TOTAL RECEIPTS			1,390,035.00	1,507,950.00	1,900,150.00	1,498,010.00	42,827.00	2,110,520.00	927,853.00	875,538.00
C. DISBURSEMENTS										
Certificated Salaries	1000-1999		547,542.00	547,542.00	547,542.00	547,542.00	547,542.00	547,542.00	547,542.00	547,542.00
Classified Salaries	2000-2999		147,448.00	147,448.00	147,448.00	147,448.00	147,448.00	147,448.00	147,448.00	147,448.00
Employee Benefits	3000-3999		258,905.00	258,905.00	258,905.00	258,904.00	258,905.00	258,904.00	258,904.00	258,905.00
Books and Supplies	4000-4999		25,000.00	220,000.00	200,000.00	50,000.00	32,000.00	65,500.00	92,500.00	52,005.00
Services	5000-5999		200,000.00	95,000.00	50,000.00	60,000.00	45,000.00	100,000.00	150,000.00	132,000.00
Capital Outlay	6000-6599				35,000.00			45,000.00		24,351.00
Other Outgo	7000-7499					380,000.00			120,000.00	
Interfund Transfers Out	7600-7629									
All Other Financing Uses	7630-7699									
TOTAL DISBURSEMENTS			1,178,895.00	1,268,895.00	1,238,895.00	1,443,894.00	1,030,895.00	1,164,394.00	1,316,394.00	1,162,251.00
D. BALANCE SHEET ITEMS										
Assets and Deferred Outflows										
Cash Not In Treasury	9111-9199									
Accounts Receivable	9200-9299	610,000.00	45,000.00	95,150.00	250,500.00	95,250.00	124,100.00			
Due From Other Funds	9310	95,500.00					95,500.00			
Stores	9320									
Prepaid Expenditures	9330	21,000.00	21,000.00							
Other Current Assets	9340									
Deferred Outflows of Resources	9490									
SUBTOTAL		726,500.00	66,000.00	95,150.00	250,500.00	95,250.00	219,600.00	0.00	0.00	0.00
Liabilities and Deferred Inflows										
Accounts Payable	9500-9599	595,000.00	370,000.00	98,900.00	35,000.00			91,100.00		
Due To Other Funds	9610	200.00	200.00							
Current Loans	9640									
Unearned Revenues	9650	75,000.00	75,000.00							
Deferred Inflows of Resources	9690									
SUBTOTAL		670,200.00	445,200.00	98,900.00	35,000.00	0.00	0.00	91,100.00	0.00	0.00
Nonoperating										
Suspense Clearing	9910									
TOTAL BALANCE SHEET ITEMS		56,300.00	(379,200.00)	(3,750.00)	215,500.00	95,250.00	219,600.00	(91,100.00)	0.00	0.00
E. NET INCREASE/DECREASE (B - C + D)			(168,060.00)	235,305.00	876,755.00	149,366.00	(768,468.00)	855,026.00	(388,541.00)	(286,713.00)
F. ENDING CASH (A + E)			5,288,998.00	5,524,303.00	6,401,058.00	6,550,424.00	5,781,956.00	6,636,982.00	6,248,441.00	5,961,728.00
G. ENDING CASH, PLUS CASH ACCRUALS AND ADJUSTMENTS										

	Object	March	April	May	June	Accruals	Adjustments	TOTAL	BUDGET
ACTUALS THROUGH THE MONTH OF (Enter Month Name):	January								
A. BEGINNING CASH		5,961,728.00	5,497,289.00	6,207,143.00	5,651,813.00				
B. RECEIPTS									
LCFF/Revenue Limit Sources									
Principal Apportionment	8010-8019	688,538.00	688,538.00	688,540.00	688,508.00			10,596,490.00	10,596,490.00
Property Taxes	8020-8079		1,115,211.00	200,000.00	408,676.00			3,171,032.00	3,171,032.00
Miscellaneous Funds	8080-8099							0.00	
Federal Revenue	8100-8299	15,551.00	0.00	15,025.00	19,592.00	38,000.00		333,995.00	333,995.00
Other State Revenue	8300-8599	5,367.00	20,000.00	45,000.00	50,000.00	22,000.00		814,902.00	814,902.00
Other Local Revenue	8600-8799	65,000.00	40,000.00	100,000.00	38,124.00			288,134.00	288,134.00
Interfund Transfers In	8910-8929							0.00	
All Other Financing Sources	8930-8979							0.00	
TOTAL RECEIPTS		774,456.00	1,863,749.00	1,048,565.00	1,204,900.00	60,000.00	0.00	15,204,553.00	15,204,553.00
C. DISBURSEMENTS									
Certificated Salaries	1000-1999	547,542.00	547,542.00	547,542.00	547,536.00			6,570,498.00	6,570,498.00
Classified Salaries	2000-2999	147,448.00	147,448.00	147,448.00	147,454.00			1,769,382.00	1,769,382.00
Employee Benefits	3000-3999	258,905.00	258,905.00	258,905.00	258,903.00			3,106,855.00	3,106,855.00
Books and Supplies	4000-4999	35,000.00	50,000.00	150,000.00	146,094.00			1,118,099.00	1,118,099.00
Services	5000-5999	250,000.00	150,000.00	250,000.00	349,248.00			1,831,248.00	1,831,248.00
Capital Outlay	6000-6599							104,351.00	104,351.00
Other Outgo	7000-7499			250,000.00	58,636.00			808,636.00	808,636.00
Interfund Transfers Out	7600-7629							0.00	
All Other Financing Uses	7630-7699							0.00	
TOTAL DISBURSEMENTS		1,238,895.00	1,153,895.00	1,603,895.00	1,507,871.00	0.00	0.00	15,309,069.00	15,309,069.00
D. BALANCE SHEET ITEMS									
Assets and Deferred Outflows									
Cash Not In Treasury	9111-9199							0.00	
Accounts Receivable	9200-9299							610,000.00	
Due From Other Funds	9310							95,500.00	
Stores	9320							0.00	
Prepaid Expenditures	9330							21,000.00	
Other Current Assets	9340							0.00	
Deferred Outflows of Resources	9490							0.00	
SUBTOTAL		0.00	0.00	0.00	0.00	0.00	0.00	726,500.00	
Liabilities and Deferred Inflows									
Accounts Payable	9500-9599							595,000.00	
Due To Other Funds	9610							200.00	
Current Loans	9640							0.00	
Unearned Revenues	9650							75,000.00	
Deferred Inflows of Resources	9690							0.00	
SUBTOTAL		0.00	0.00	0.00	0.00	0.00	0.00	670,200.00	
Nonoperating									
Suspense Clearing	9910							0.00	
TOTAL BALANCE SHEET ITEMS		0.00	0.00	0.00	0.00	0.00	0.00	56,300.00	
E. NET INCREASE/DECREASE (B - C + D)		(464,439.00)	709,854.00	(555,330.00)	(302,971.00)	60,000.00	0.00	(48,216.00)	(104,516.00)
F. ENDING CASH (A + E)		5,497,289.00	6,207,143.00	5,651,813.00	5,348,842.00				
G. ENDING CASH, PLUS CASH ACCRUALS AND ADJUSTMENTS								5,408,842.00	

Part I - General Administrative Share of Plant Services Costs

California's indirect cost plan allows that the general administrative costs in the indirect cost pool may include that portion of plant services costs (maintenance and operations costs and facilities rents and leases costs) attributable to the general administrative offices. The calculation of the plant services costs attributed to general administration and included in the pool is standardized and automated using the percentage of salaries and benefits relating to general administration as proxy for the percentage of square footage occupied by general administration.

A. Salaries and Benefits - Other General Administration and Centralized Data Processing

- 1. Salaries and benefits paid through payroll (Funds 01, 09, and 62, objects 1000-3999 except 3701-3702)
(Functions 7200-7700, goals 0000 and 9000) 472,137.00
- 2. Contracted general administrative positions not paid through payroll
 - a. Enter the costs, if any, of general administrative positions performing services ON SITE but paid through a contract, rather than through payroll, in functions 7200-7700, goals 0000 and 9000, Object 5800. _____
 - b. If an amount is entered on Line A2a, provide the title, duties, and approximate FTE of each general administrative position paid through a contract. Retain supporting documentation in case of audit. _____

B. Salaries and Benefits - All Other Activities

- 1. Salaries and benefits paid through payroll (Funds 01, 09, and 62, objects 1000-3999 except 3701-3702)
(Functions 1000-6999, 7100-7180, & 8100-8400; Functions 7200-7700, all goals except 0000 & 9000) 10,540,775.00

C. Percentage of Plant Services Costs Attributable to General Administration

(Line A1 plus Line A2a, divided by Line B1; zero if negative) (See Part III, Lines A5 and A6) 4.48%

Part II - Adjustments for Employment Separation Costs

When an employee separates from service, the local educational agency (LEA) may incur costs associated with the separation in addition to the employee's regular salary and benefits for the final pay period. These additional costs can be categorized as "normal" or "abnormal or mass" separation costs.

Normal separation costs include items such as pay for accumulated unused leave or routine severance pay authorized by governing board policy. Normal separation costs are not allowable as direct costs to federal programs, but are allowable as indirect costs. State programs may have similar restrictions. Where federal or state program guidelines required that the LEA charge an employee's normal separation costs to an unrestricted resource rather than to the restricted program in which the employee worked, the LEA may identify and enter these costs on Line A for inclusion in the indirect cost pool.

Abnormal or mass separation costs are those costs resulting from actions taken by an LEA to influence employees to terminate their employment earlier than they normally would have. Abnormal or mass separation costs include retirement incentives such as a Golden Handshake or severance packages negotiated to effect termination. Abnormal or mass separation costs may not be charged to federal programs as either direct costs or indirect costs. Where an LEA paid abnormal or mass separation costs on behalf of positions in general administrative functions included in the indirect cost pool, the LEA must identify and enter these costs on Line B for exclusion from the pool.

A. Normal Separation Costs (optional)

Enter any normal separation costs paid on behalf of employees of restricted state or federal programs that were charged to an unrestricted resource (0000-1999) in funds 01, 09, and 62 with functions 1000-6999 or 8100-8400 rather than to the restricted program. These costs will be moved in Part III from base costs to the indirect cost pool. _____
Retain supporting documentation.

B. Abnormal or Mass Separation Costs (required)

Enter any abnormal or mass separation costs paid on behalf of general administrative positions charged to unrestricted resources (0000-1999) in funds 01, 09, and 62 with functions 7200-7700. These costs will be moved in Part III from the indirect cost pool to base costs. If none, enter zero. 0.00

Part III - Indirect Cost Rate Calculation (Funds 01, 09, and 62, unless indicated otherwise)

A. Indirect Costs

1. Other General Administration, less portion charged to restricted resources or specific goals (Functions 7200-7600, objects 1000-5999, minus Line B9)	521,901.00
2. Centralized Data Processing, less portion charged to restricted resources or specific goals (Function 7700, objects 1000-5999, minus Line B10)	272,745.00
3. External Financial Audit - Single Audit (Function 7190, resources 0000-1999, goals 0000 and 9000, objects 5000-5999)	15,600.00
4. Staff Relations and Negotiations (Function 7120, resources 0000-1999, goals 0000 and 9000, objects 1000-5999)	0.00
5. Plant Maintenance and Operations (portion relating to general administrative offices only) (Functions 8100-8400, objects 1000-5999 except 5100, times Part I, Line C)	112,415.48
6. Facilities Rents and Leases (portion relating to general administrative offices only) (Function 8700, resources 0000-1999, objects 1000-5999 except 5100, times Part I, Line C)	295.68
7. Adjustment for Employment Separation Costs	
a. Plus: Normal Separation Costs (Part II, Line A)	0.00
b. Less: Abnormal or Mass Separation Costs (Part II, Line B)	0.00
8. Total Indirect Costs (Lines A1 through A7a, minus Line A7b)	922,957.16
9. Carry-Forward Adjustment (Part IV, Line F)	(290,623.15)
10. Total Adjusted Indirect Costs (Line A8 plus Line A9)	632,334.01

B. Base Costs

1. Instruction (Functions 1000-1999, objects 1000-5999 except 5100)	10,750,821.00
2. Instruction-Related Services (Functions 2000-2999, objects 1000-5999 except 5100)	1,294,683.00
3. Pupil Services (Functions 3000-3999, objects 1000-5999 except 5100)	827,664.00
4. Ancillary Services (Functions 4000-4999, objects 1000-5999 except 5100)	200,201.00
5. Community Services (Functions 5000-5999, objects 1000-5999 except 5100)	13,964.00
6. Enterprise (Function 6000, objects 1000-5999 except 5100)	7,206.00
7. Board and Superintendent (Functions 7100-7180, objects 1000-5999, minus Part III, Line A4)	453,896.00
8. External Financial Audit - Single Audit and Other (Functions 7190-7191, objects 5000-5999, minus Part III, Line A3)	0.00
9. Other General Administration (portion charged to restricted resources or specific goals only) (Functions 7200-7600, resources 2000-9999, objects 1000-5999; Functions 7200-7600, resources 0000-1999, all goals except 0000 and 9000, objects 1000-5999)	1,649.00
10. Centralized Data Processing (portion charged to restricted resources or specific goals only) (Function 7700, resources 2000-9999, objects 1000-5999; Function 7700, resources 0000-1999, all goals except 0000 and 9000, objects 1000-5999)	0.00
11. Plant Maintenance and Operations (all except portion relating to general administrative offices) (Functions 8100-8400, objects 1000-5999 except 5100, minus Part III, Line A5)	2,396,858.52
12. Facilities Rents and Leases (all except portion relating to general administrative offices) (Function 8700, objects 1000-5999 except 5100, minus Part III, Line A6)	6,304.32
13. Adjustment for Employment Separation Costs	
a. Less: Normal Separation Costs (Part II, Line A)	0.00
b. Plus: Abnormal or Mass Separation Costs (Part II, Line B)	0.00
14. Adult Education (Fund 11, functions 1000-6999, 8100-8400, and 8700, objects 1000-5999 except 5100)	0.00
15. Child Development (Fund 12, functions 1000-6999, 8100-8400, and 8700, objects 1000-5999 except 5100)	0.00
16. Cafeteria (Funds 13 and 61, functions 1000-6999, 8100-8400, and 8700, objects 1000-5999 except 5100)	746,758.00
17. Foundation (Funds 19 and 57, functions 1000-6999, 8100-8400, and 8700, objects 1000-5999 except 5100)	0.00
18. Total Base Costs (Lines B1 through B12 and Lines B13b through B17, minus Line B13a)	16,700,004.84

C. Straight Indirect Cost Percentage Before Carry-Forward Adjustment
(For information only - not for use when claiming/recovering indirect costs)
(Line A8 divided by Line B18)

5.53%

D. Preliminary Proposed Indirect Cost Rate
(For final approved fixed-with-carry-forward rate for use in 2017-18 see www.cde.ca.gov/fg/ac/ic)
(Line A10 divided by Line B18)

3.79%

Part IV - Carry-forward Adjustment

The carry-forward adjustment is an after-the-fact adjustment for the difference between indirect costs recoverable using the indirect cost rate approved for use in a given year, and the actual indirect costs incurred in that year. The carry-forward adjustment eliminates the need for LEAs to file amended federal reports when their actual indirect costs vary from the estimated indirect costs on which the approved rate was based.

Where the ratio of indirect costs incurred in the current year is less than the estimated ratio of indirect costs on which the approved rate for use in the current year was based, the carry-forward adjustment is limited by using either the approved rate times current year base costs, or the highest rate actually used to recover costs from any program times current year base costs, if the highest rate used was less than the approved rate. Rates used to recover costs from programs are displayed in Exhibit A.

A. Indirect costs incurred in the current year (Part III, Line A8)	<u>922,957.16</u>
B. Carry-forward adjustment from prior year(s)	
1. Carry-forward adjustment from the second prior year	<u>67,310.06</u>
2. Carry-forward adjustment amount deferred from prior year(s), if any	<u>0.00</u>
C. Carry-forward adjustment for under- or over-recovery in the current year	
1. Under-recovery: Part III, Line A8, plus carry-forward adjustment from prior years, minus (approved indirect cost rate (7.67%) times Part III, Line B18); zero if negative	<u>0.00</u>
2. Over-recovery: Part III, Line A8, plus carry-forward adjustment from prior years, minus the lesser of (approved indirect cost rate (7.67%) times Part III, Line B18) or (the highest rate used to recover costs from any program (9.31%) times Part III, Line B18); zero if positive	<u>(290,623.15)</u>
D. Preliminary carry-forward adjustment (Line C1 or C2)	<u>(290,623.15)</u>
E. Optional allocation of negative carry-forward adjustment over more than one year	
Where a negative carry-forward adjustment causes the proposed approved rate to fall below zero or would reduce the rate at which the LEA could recover indirect costs to such an extent that it would cause the LEA significant fiscal harm, the LEA may request that the carry-forward adjustment be allocated over more than one year. Where allocation of a negative carry-forward adjustment over more than one year does not resolve a negative rate, the CDE will work with the LEA on a case-by-case basis to establish an approved rate.	
Option 1. Preliminary proposed approved rate (Part III, Line D) if entire negative carry-forward adjustment is applied to the current year calculation:	<u>3.79%</u>
Option 2. Preliminary proposed approved rate (Part III, Line D) if one-half of negative carry-forward adjustment (\$-145,311.58) is applied to the current year calculation and the remainder (\$-145,311.57) is deferred to one or more future years:	<u>4.66%</u>
Option 3. Preliminary proposed approved rate (Part III, Line D) if one-third of negative carry-forward adjustment (\$-96,874.38) is applied to the current year calculation and the remainder (\$-193,748.77) is deferred to one or more future years:	<u>4.95%</u>
LEA request for Option 1, Option 2, or Option 3	<u>1</u>
F. Carry-forward adjustment used in Part III, Line A9 (Line D minus amount deferred if Option 2 or Option 3 is selected)	<u>(290,623.15)</u>

Section I - Expenditures	Funds 01, 09, and 62			2016-17 Expenditures
	Goals	Functions	Objects	
A. Total state, federal, and local expenditures (all resources)	All	All	1000-7999	17,935,755.00
B. Less all federal expenditures not allowed for MOE (Resources 3000-5999, except 3385)	All	All	1000-7999	481,396.00
C. Less state and local expenditures not allowed for MOE: (All resources, except federal as identified in Line B)				
1. Community Services	All	5000-5999	1000-7999	13,964.00
2. Capital Outlay	All except 7100-7199	All except 5000-5999	6000-6999	266,666.00
3. Debt Service	All	9100	5400-5450, 5800, 7430-7439	0.00
4. Other Transfers Out	All	9200	7200-7299	0.00
5. Interfund Transfers Out	All	9300	7600-7629	0.00
6. All Other Financing Uses	All	9100	7699	0.00
		9200	7651	
7. Nonagency	7100-7199	All except 5000-5999, 9000-9999	1000-7999	0.00
8. Tuition (Revenue, in lieu of expenditures, to approximate costs of services for which tuition is received)	All	All	8710	0.00
9. Supplemental expenditures made as a result of a Presidentially declared disaster	Manually entered. Must not include expenditures in lines B, C1-C8, D1, or D2.			
10. Total state and local expenditures not allowed for MOE calculation (Sum lines C1 through C9)				280,630.00
D. Plus additional MOE expenditures:				
1. Expenditures to cover deficits for food services (Funds 13 and 61) (If negative, then zero)	All	All	1000-7143, 7300-7439 minus 8000-8699	88,356.00
2. Expenditures to cover deficits for student body activities	Manually entered. Must not include expenditures in lines A or D1.			
E. Total expenditures subject to MOE (Line A minus lines B and C10, plus lines D1 and D2)				17,262,085.00

SECTION IV - Detail of Adjustments to Base Expenditures (used in Section III, Line A.1)		
Description of Adjustments	Total Expenditures	Expenditures Per ADA
Total adjustments to base expenditures	0.00	0.00

Pierce Joint Unified School District

2016/17

2nd Interim

Unrestricted/Restricted			
MULTIPLE YEAR PROJECTION - March 9, 2017			

INCOME	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
8011-8089 LCFF SOURCES	11,587,436	11,898,741	12,613,380
8012 EPA-EDUCATION PROTECTION ACT	2,039,105	1,868,781	1,711,685
8019 PRIOR YEAR ADJUSTMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL REVENUE LIMIT SOURCES</i>	13,626,541	13,767,522	14,325,065
<i>TOTAL FEDERAL REVENUE</i>	469,303	333,995	333,995
STATE REVENUES			
8311 STATE APPORTIONMENT PROGRAMS	0	0	0
8550 MANDATED COSTS	362,657	0	0
8560 LOTTERY	272,582	272,582	272,582
8590 OTHER STATE	<u>1,096,972</u>	<u>542,320</u>	<u>542,320</u>
<i>TOTAL STATE REVENUE</i>	1,732,211	814,902	814,902
OTHER LOCAL REVENUES			
8650 LEASES AND RENTALS	31,814	31,814	31,814
8660 INTEREST	50,000	55,000	60,500
8677 INTERAGENCY REVENUES	173,867	72,000	0
8699 OTHER LOCAL INCOME	177,846	129,320	132,294
8782 OTHER TRANSFERS FROM COUNTY	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL LOCAL REVENUES</i>	433,527	288,134	224,608
TOTAL REVENUES	16,261,582	15,204,553	15,698,570
8912-8919 INTERFUND TRANSFERS IN	0	0	0
TOTAL REVENUES AND TRANSFERS IN	16,261,582	15,204,553	15,698,570
 EXPENDITURES			
1100 TEACHER'S SALARIES	5,416,287	5,582,593	5,692,225
1200 PUPIL SUPPORT SALARIES	198,208	202,172	206,216
1300 SUPERVISOR/ADMIN. SALARIES	719,857	734,254	748,939
1900 OTHER CERTIFICATED SALARIES	<u>50,470</u>	<u>51,479</u>	<u>52,509</u>
<i>TOTAL CERTIFICATED</i>	6,384,822	6,570,498	6,699,888
2100 INSTRUCTIONAL AIDES	179,954	183,553	187,224
2200 CLASSIFIED SUPPORT	724,260	738,745	753,520
2300 CLASSIFIED ADMINISTRATORS	288,410	294,178	300,062
2400 CLERICAL AND OFFICE	451,246	460,271	469,476
2900 OTHER CLASSIFIED SALARIES	<u>90,818</u>	<u>92,634</u>	<u>94,487</u>
<i>TOTAL CLASSIFIED</i>	1,734,688	1,769,382	1,804,769
<i>TOTAL SALARIES</i>	8,119,510	8,339,880	8,504,658
3100 STRS	1,072,747	1,226,160	1,368,779
3200 PERS	232,353	274,254	308,616
3300 SOCIAL SECURITY/MEDICARE	229,354	233,941	238,620
3400 HEALTH	1,195,750	1,206,038	1,206,038
EXPENDITURES (Continued)	16/17	17/18	18/19
3500 UNEMPLOYMENT INSURANCE	8,942	9,121	9,303

3600 WORKER'S COMPENSATION	154,256	157,341	160,488
3900 OTHER BENEFITS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL BENEFITS</i>	2,893,402	3,106,855	3,291,844
4100 TEXTBOOKS	824,696	164,063	168,329
4200 OTHER BOOKS	259,135	130,893	134,296
4300 INSTRUCTIONAL SUPPLIES	886,041	272,626	279,714
4400 NON CAPITALIZED EQUIPMENT	<u>956,664</u>	<u>550,517</u>	<u>564,830</u>
<i>TOTAL BOOKS AND SUPPLIES</i>	2,926,536	1,118,099	1,147,170
5200 TRAVEL AND CONFERENCE	73,125	55,444	52,886
5300 DUES AND MEMBERSHIPS	17,983	18,415	18,893
5400 INSURANCE	115,544	118,317	121,393
5500 UTILITIES	352,538	360,999	370,385
5600 CONTRACTS, RENTS, LEASES	155,683	159,419	163,564
5800 OTHER SERV. & OPERATING EXP.	2,012,527	904,274	927,785
5900 COMMUNICATIONS	<u>209,356</u>	<u>214,381</u>	<u>219,954</u>
<i>TOTAL CONTRACTS</i>	2,936,756	1,831,248	1,874,861
6170 LAND IMPROVEMENTS	0	0	0
6200 NEW BLDGS/IMPROVEMENTS	0	0	0
6400 NEW EQUIPMENT	266,666	104,351	42,064
6500 EQUIPMENT REPLACEMENT	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL EQUIPMENT</i>	266,666	104,351	42,064
7142 COMMUNITY SCHOOL/SELPA	810,788	827,004	843,544
7282 ALL OTHER TRANSFERS TO COUNTY	0	0	0
7350 INTERFUND INDIRECT COST	-17,903	-18,368	-18,846
7400 DEBT SERVICE	0	0	0
7600 TRANSFERS TO OTHER FUNDS	0	0	0
7649 OTHER LOAN PAYMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL 7000 OTHER OUTGO</i>	792,885	808,635	824,698
TOTAL EXPENDITURES & TRANSFERS OUT	17,935,755	15,309,069	15,685,294

MULTIPLE YEAR PROJECTION SUMMARY

2016/17

2nd Interim

Unrestricted/Restricted

MULTIPLE YEAR PROJECTION - March 9, 2017

	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
TOTAL REVENUES & TRANSFERS IN	16,261,582	15,204,553	15,698,570
TOTAL EXPENSES & TRANSFERS OUT	17,935,755	15,309,069	15,685,294
TOTAL REVENUES LESS EXPENDITURES	-1,674,173	-104,516	13,277
BEGINNING BALANCE	7,081,749	5,407,576	5,303,060
LESS AMOUNT ABOVE REVENUES LESS EXP	-1,674,173	-104,516	13,277
LESS REVOLVING CASH	<u>-10,000</u>	<u>-10,000</u>	<u>-10,000</u>
UNDISTRIBUTED RESERVE	5,397,576	5,293,060	5,306,337
% UNDISTRIBUTED RESERVE	30.09%	34.57%	33.83%
3% UNDISTRIBUTED RESERVE IS	538,073	459,272	470,559
AMOUNT ABOVE (-BELOW) 3%	4,859,503	4,833,788	4,835,778
5% UNRESTRICTED BOARD RESERVE	719,528	638,012	657,462
AMOUNT ABOVE (-BELOW) 5%	4,678,048	4,655,048	4,648,875
<i>Recommended Reserve: 3% plus one year LCFF Growth</i>			
LCFF Growth over prior year	710,496	517,896	252,499
Plus 3% reserve	<u>538,073</u>	<u>459,272</u>	<u>470,559</u>
Total Recommended Reserve	1,248,569	977,168	723,058
Amount Above (-Below) Recommended Reserve	4,149,007	4,315,892	4,583,279
% Undistributed Reserve	23.13%	28.19%	29.22%

Pierce Joint Unified School District
2016/17
2nd Interim

UNRESTRICTED
MULTIPLE YEAR PROJECTION - March 9, 2017

INCOME	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
8011-8089 LCFF SOURCES	11,587,436	11,898,741	12,613,380
8012 EDUCATION PROTECTION ACT-EPA	2,039,105	1,868,781	1,711,685
8019 PRIOR YEAR ADJUSTMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL REVENUE LIMIT SOURCES</i>	13,626,541	13,767,522	14,325,065
<i>TOTAL FEDERAL REVENUE</i>	5,680	1,628	1,628
STATE REVENUES			
8311 STATE APPORTIONMENT PROGRAMS	0	0	0
8550 MANDATED COSTS	362,657	0	0
8560 LOTTERY	210,840	210,840	210,840
8590 OTHER STATE	<u>2,390</u>	<u>2,190</u>	<u>2,190</u>
<i>TOTAL STATE REVENUE</i>	575,887	213,030	213,030
OTHER LOCAL REVENUES			
8650 LEASES AND RENTALS	31,814	31,814	31,814
8660 INTEREST	50,000	55,000	60,500
8677 INTERAGENCY SERVICES	0	0	0
8699 OTHER LOCAL INCOME	172,496	129,320	132,294
8782 OTHER TRANSFERS FROM COUNTY	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL LOCAL REVENUES</i>	254,310	216,134	224,608
8912-8919 INTERFUND TRANSFERS IN	0	0	0
TOTAL REVENUES	14,462,418	14,198,314	14,764,331
 8980-8999 CONTRIBUTIONS TO RESTRICTED	 -1,371,869	 -1,542,585	 -1,601,823
 EXPENDITURES			
1100 TEACHER'S SALARIES	5,030,940	5,189,539	5,291,310
1200 PUPIL SUPPORT SALARIES	198,208	202,172	206,216
1300 SUPERVISOR/ADMIN. SALARIES	713,408	727,676	742,230
1900 OTHER CERTIFICATED SALARIES	<u>50,470</u>	<u>51,479</u>	<u>52,509</u>
<i>TOTAL CERTIFICATED</i>	5,993,026	6,170,867	6,292,264
2100 INSTRUCTIONAL AIDES	44,178	45,062	45,963
2200 CLASSIFIED SUPPORT	617,917	630,275	642,881
2300 CLASSIFIED ADMINISTRATORS	214,861	219,158	223,541
2400 CLERICAL AND OFFICE	450,564	459,575	468,767
2900 OTHER CLASSIFIED SALARIES	<u>89,781</u>	<u>91,577</u>	<u>93,408</u>
<i>TOTAL CLASSIFIED</i>	1,417,301	1,445,647	1,474,560

<i>TOTAL SALARIES</i>	7,410,327	7,616,514	7,766,824
3100 STRS	745,354	890,456	1,024,381
3200 PERS	188,330	224,075	252,150
3300 SOCIAL SECURITY/MEDICARE	199,327	203,314	207,380
3400 HEALTH	1,124,773	1,135,061	1,135,061
3500 UNEMPLOYMENT INSURANCE	8,164	8,327	8,494
EXPENDITURES (Continued)	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
3600 WORKER'S COMPENSATION	140,793	143,609	146,481
3900 OTHER BENEFITS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL BENEFITS</i>	2,406,741	2,604,842	2,773,946
4100 APPROVED TEXTBOOKS	783,154	144,183	147,932
4200 BOOKS OTHER THAN TEXTBOOKS	106,362	81,384	83,500
4300 INSTRUCTIONAL SUPPLIES	610,418	166,318	170,642
4400 NON CAPITALIZED EQUIPMENT	<u>731,084</u>	<u>501,298</u>	<u>514,332</u>
<i>TOTAL BOOKS AND SUPPLIES</i>	2,231,018	893,183	916,406
5200 TRAVEL AND CONFERENCE	48,257	48,481	49,742
5300 DUES AND MEMBERSHIPS	17,983	18,415	18,893
5400 INSURANCE	115,544	118,317	121,393
5500 UTILITIES	352,538	360,999	370,385
5600 CONTRACTS, RENTS, LEASES	142,894	146,323	150,128
5700 TRANSFERS OF DIRECT COSTS	-710	-727	-746
5800 OTHER SERV. & OPERATING EXP.	1,327,624	810,997	832,083
5900 COMMUNICATIONS	<u>209,356</u>	<u>214,381</u>	<u>219,954</u>
<i>TOTAL CONTRACTS</i>	2,213,486	1,717,186	1,761,832
6100 IMPROVEMENTS OF SITES	0	0	0
6170 LAND IMPROVEMENTS	0	0	0
6200 NEW BLDGS/IMPROVEMENTS	0	0	0
6400 NEW EQUIPMENT	235,760	37,791	42,065
6500 EQUIPMENT REPLACEMENT	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL EQUIPMENT</i>	235,760	37,791	42,065
7142 COMMUNITY SCHOOL/SELPA	0	0	0
7282 ALL OTHER TRANSFERS TO COUNTY	0	0	0
7310 TRANSFERS OF INDIRECT COSTS	-88,860	-90,904	-92,995
7350 TRANSFERS OF INDIRECT COSTS-INTERFUND	-17,903	-18,368	-18,846
7600 TRANSFERS TO OTHER FUNDS	0	0	0
7649 OTHER LOAN PAYMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL 7000 OTHER OUTGO</i>	-106,763	-109,272	-111,841
TOTAL EXPENDITURES & TRANSFERS OUT	14,390,569	12,760,243	13,149,233

**UNRESTRICTED
MULTIPLE YEAR PROJECTION SUMMARY**

	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
TOTAL REVENUES	14,462,418	14,198,314	14,764,331
Other Financing Sources-Contributions to Rest.	<u>-1,371,869</u>	<u>-1,542,585</u>	<u>-1,601,823</u>
Total Revenues & Contributions	13,090,549	12,655,729	13,162,508
TOTAL EXPENSES & TRANSFERS OUT	14,390,569	12,760,243	13,149,233
TOTAL REVENUES LESS EXPENDITURES	-1,300,020	-104,514	13,276
ESTIMATED BEGINNING BALANCE	6,707,594	5,407,574	5,303,060
LESS AMOUNT ABOVE REVENUES LESS EXP	-1,300,020	-104,514	13,276
LESS REVOLVING CASH	<u>-10,000</u>	<u>-10,000</u>	<u>-10,000</u>
UNDISTRIBUTED RESERVE	5,397,574	5,293,060	5,306,336
% UNDISTRIBUTED RESERVE	37.51%	41.48%	40.35%
3% UNDISTRIBUTED RESERVE IS	538,073	459,272	470,559
AMOUNT ABOVE (-BELOW) 3%	4,859,501	4,833,788	4,835,777
5% UNRESTRICTED BOARD RESERVE	719,528	638,012	657,462
AMOUNT ABOVE (-BELOW) 5%	4,678,046	4,655,048	4,648,874
<i>Recommended Reserve: 3% plus one year LCFF Growth</i>			
LCFF Growth over prior year	710,496	517,896	252,499
Plus 3% reserve	<u>538,073</u>	<u>459,272</u>	<u>470,559</u>
Total Recommended Reserve	1,248,569	977,168	723,058
Amount Above (-Below) Recommended Reserve	4,149,005	4,315,892	4,583,278
% Undistributed Reserve	28.83%	33.82%	34.86%

Pierce Joint Unified School District

2016/17

2nd Interim

RESTRICTED
MULTIPLE YEAR PROJECTION - March 9, 2017

INCOME	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
<i>TOTAL FEDERAL REVENUE</i>	463,623	332,367	332,367
STATE REVENUES			
8560 LOTTERY	61,742	61,742	61,742
8590 OTHER STATE	<u>1,094,582</u>	<u>540,130</u>	<u>540,130</u>
<i>TOTAL STATE REVENUE</i>	1,156,324	601,872	601,872
OTHER LOCAL REVENUES			
8677 INTERAGENCY REVENUES	173,867	72,000	0
8699 OTHER LOCAL INCOME	5,350	0	0
8782 OTHER TRANSFERS FROM COUNTY	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL LOCAL REVENUES</i>	179,217	72,000	0
TOTAL REVENUES	1,799,164	1,006,239	934,239
8980-8999 Contributions	1,371,869	1,542,585	1,601,823
EXPENDITURES			
1100 TEACHER'S SALARIES	385,347	393,054	400,915
1200 PUPIL SUPPORT SALARIES	0	0	0
1300 SUPERVISOR/ADMIN. SALARIES	6,449	6,578	6,710
1900 OTHER CERTIFICATED SALARIES	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL CERTIFICATED</i>	391,796	399,632	407,625
2100 INSTRUCTIONAL AIDES	135,776	138,492	141,261
2200 CLASSIFIED SUPPORT	106,343	108,470	110,639
2300 CLASSIFIED ADMINISTRATORS	73,549	75,020	76,520
2400 CLERICAL AND OFFICE	682	696	710
2900 OTHER CLASSIFIED SALARIES	<u>1,037</u>	<u>1,058</u>	<u>1,079</u>
<i>TOTAL CLASSIFIED</i>	317,387	323,735	330,209
<i>TOTAL SALARIES</i>	<i>709,183</i>	<i>723,367</i>	<i>737,834</i>
3100 STRS	327,393	335,704	344,398
3200 PERS	44,023	50,179	56,466
3300 SOCIAL SECURITY/MEDICARE	30,027	30,628	31,240
3400 HEALTH	70,977	70,977	70,977
3500 UNEMPLOYMENT INSURANCE	778	794	809
EXPENDITURES (Continued)	16/17	17/18	18/19
3600 WORKER'S COMPENSATION	<u>13,463</u>	<u>13,732</u>	<u>14,007</u>
<i>TOTAL BENEFITS</i>	486,661	502,013	517,898
4100 TEXTBOOKS	41,542	19,880	20,397
4200 OTHER BOOKS	152,773	49,508	50,795
4300 INSTRUCTIONAL SUPPLIES	275,623	106,309	109,073
4400 NON CAPITALIZED EQUIPMENT	<u>225,580</u>	<u>49,219</u>	<u>50,499</u>

<i>TOTAL BOOKS AND SUPPLIES</i>	695,518	224,916	230,764
5200 TRAVEL AND CONFERENCE	24,868	6,963	3,144
5300 DUES AND MEMBERSHIPS	0	0	0
5400 INSURANCE	0	0	0
5600 CONTRACTS, RENTS, LEASES	12,789	13,096	13,436
5700 TRANSFERS OF DIRECT COSTS	710	727	746
5800 OTHER SERV. & OPERATING EXP.	684,903	93,277	95,702
5900 COMMUNICATIONS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL CONTRACTS</i>	723,270	114,063	113,029
6170 LAND IMPROVEMENTS	0	0	0
6200 NEW BLDGS/IMPROVEMENTS	0	0	0
6400 NEW EQUIPMENT	30,906	66,560	0
6500 EQUIPMENT REPLACEMENT	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL EQUIPMENT</i>	30,906	66,560	0
7142 COMMUNITY SCHOOL/SELPA	810,788	827,004	843,544
7282 ALL OTHER TRANSFERS TO COUNTY	0	0	0
7310 TRANSFER OF INDIRECT COSTS	88,860	90,904	92,995
7600 TRANSFERS TO OTHER FUNDS	0	0	0
7649 OTHER LOAN PAYMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL 7000 OTHER OUTGO</i>	899,648	917,908	936,538
TOTAL EXPENDITURES & TRANSFERS OUT	3,545,186	2,548,826	2,536,062

RESTRICTED MULTIPLE YEAR PROJECTION SUMMARY
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	16/17	17/18	18/19
TOTAL REVENUES	1,799,164	1,006,239	934,239
Other Financing Sources-Contributions	<u>1,371,869</u>	<u>1,542,585</u>	<u>1,601,823</u>
Total Revenues & Contributions	3,171,033	2,548,823	2,536,062
TOTAL EXPENSES & TRANSFERS OUT	3,545,186	2,548,826	2,536,062
TOTAL REVENUES LESS EXPENDITURES	<u>-374,153</u>	<u>-2</u>	<u>0</u>
BEGINNING BALANCE	374,155	2	0
LESS AMOUNT ABOVE REVENUES LESS EXP	<u>-374,153</u>	<u>-2</u>	<u>0</u>
UNDISTRIBUTED RESERVE	2	0	0

Arbuckle Elementary School

P. O. Box 100 / 701 Hall St., Arbuckle, CA 95912

Phone (530) 476-2522 Fax (530) 476-2234

Summer Shadley, Principal

Blake Kitchen, Vice Principal

A Place to Learn

A Place to Grow

A Place to be Safe

A Place to be Proud

To: Carol Geyer
From: Blake Kitchen
Date: February 27, 2017
RE: CAASPP spring testing update

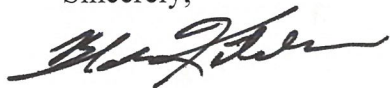
Dear Carol,

I have listed below an update of the upcoming testing cycle this spring for all of our PJUSD students:

- 1) The CAASPP testing window for grades 3rd through 8th and 11th opens February 24th, 2017 and closes on June 2nd, 2017. Most of our students will be taking the CAASPP assessments from the end of April through mid-May.
- 2) There will be no CST Science test given to grades 5th-8th-and 10th this spring as it is being replaced by the new Pilot CAASPP Science test which will only be given to our 5th and 8th graders this year.
- 3) The PJUSD PE teachers will be administering the state Physical Fitness Test to our 5th, 7th and 9th grades beginning the month of March.
- 4) Our AES 4th graders were selected to take the National Assessment of Educational Practices (NAEP) assessment on March 6th, 2017. Fifty random AES 4th grade students were selected to take one NAEP assessment in either, reading, math, or writing.
- 5) This spring AES was also selected to administer the Pilot ELPAC assessment which will be replacing the CELDT test which we have given over a long period of time to our students. A total of fifty AES 2nd graders will be taking the Pilot ELPAC assessment sometime in March. ELPAC testing for all grades will begin in 2018.

That is currently what we have coming in the next few months in regards to spring testing for our PJUSD students.

Sincerely,



Blake Kitchen

PIERCE JOINT UNIFIED SCHOOL DISTRICT

2016/17 BUDGET REVISION

March 9, 2017

RESOLUTION #16/17-20

General Fund

2016-17 Beginning Balance	\$7,081,749
Estimated Income	<u>16,119,242</u>
Total Income + Beg. Balance	<u>23,200,991</u>

REVENUES:

Resource # and Description

0000 0000 Unrestricted
 LCFF revision
 MAA and Misc revenue
 Contribution to Transportation-bus/cameras

	<i>Current Budget</i>	<i>Revenue Revision</i>	<i>Revised Budget</i>
	7,906,149	(165,885)	7,740,264
	14,514		
	9,515		
	(189,914)		
	(\$165,885)		
0723 Transportation-contribution from unrestricted	390,198	189,914	580,112
3550 CD Perkins	11,078	(281)	10,797
6230 Ca Clean Energy Jobs Act-Prop 39	223,691	116,723	340,414
9090 Donations	3,481	1,869	5,350

Revenue Revision	142,340
Revised Revenue	<u>16,261,582</u>
Revised Revenue + Beg. Balance	<u><u>23,343,331</u></u>

EXPENDITURES

Resource # and Description

0000 Unrestricted
 0723 Transportation
 1100 Lottery
 3550 CD Perkins
 6230 Ca Clean Energy Jobs Act-Prop 39
 9090 Donations

	<i>Current</i>	<i>Expenditure Revision</i>	<i>Revised Expenditures</i>
	8,230,049	7,294	8,237,343
	390,198	189,914	580,112
	254,735	8,941	263,676
	11,078	(281)	10,797
	339,148	116,723	455,871
	57,253	1,869	59,122

Expenditure Revision	324,460
Total Current Expenditures	<u>17,611,295</u>
Revised Expenditure Budget	<u><u>17,935,755</u></u>

2016-17 Beginning Balance	\$7,081,749
+Total Revised Revenue	16,261,582
Less Revised Expenditure Budget	(17,935,755)
Estimated Ending Fund Balance	<u><u>\$5,407,576</u></u>

PASSED AND ADOPTED this 9th day of March 2017 at a meeting of the Board of Trustees of Pierce Joint Unified School District.

AYES:
 NOES:
 ABSENT:

 Carol Geyer, Superintendent

 Date

PIERCE JOINT UNIFIED SCHOOL DISTRICT
Arbuckle, CA

RESOLUTION #16/17 - 21:

RESOLUTION FOR ADOPTING EXTENDED DAY KINDERGARTEN PROGRAM

WHEREAS, the Pierce Joint Unified School District desires to extend the current Kindergarten Program: and

WHEREAS, the Board declares that the extended-day Kindergarten program will not exceed to length of the primary school day; and

WHEREAS, the Board declares that the extended-day Kindergarten program will take into account ample opportunity for both active and quiet activities within an integrated, experiential, and developmentally appropriate educational program;

NOW THEREFORE BE IT RESOLVED THAT the Pierce Joint Unified School District Board, by adopting this resolution, adopts the Extended – Day Kindergarten Program.

Passed and adopted at a regular meeting of the Pierce Joint Unified School District Board of Trustees held on the 9th day of March, 2017 by the following vote:

Ayes:

Noes:

Absent:

President of the Governing Board

Clerk of the Governing Board

PIERCE JOINT UNIFIED SCHOOL DISTRICT

RESOLUTION #16/17-22

**RESOLUTION FOR ON-CALL ARCHITECTURAL SERVICES
FOR MEASURE B AND OTHER CONSTRUCTION PROJECTS**

WHEREAS, Pierce Joint Unified School District Board of Trustees desires to obtain on-call Architectural Services related to Measure B construction projects and other construction projects; and

WHEREAS, on February 3, 2017, Pierce Joint Unified School District advertised for Request for Qualifications (RFQ) for on-call Architectural Services related to Measure B construction projects and other construction projects.

NOW THEREFORE, BE IT RESOLVED that the Pierce Joint Unified School District Board of Trustees has selected Sommers Architecture and Eagle Architects for on-call Architectural Services related to Measure B construction projects and other construction projects; and

BE IT FURTHER RESOLVED that the Board of Trustees authorizes the Superintendent or designee to take actions and negotiate agreements.

PASSED AND ADOPTED by the Board of Trustees of the Pierce Joint Unified School District on March 9, 2017 at a duly noticed meeting by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

Nadine High, Clerk of the Governing Board
of the Pierce Joint Unified School District

PIERCE JOINT UNIFIED SCHOOL DISTRICT

RESOLUTION NO. 16/17 – 23:

**RESOLUTION OF THE BOARD OF TRUSTEES OF THE PIERCE
JOINT UNIFIED SCHOOL DISTRICT AUTHORIZING THE
ISSUANCE AND SALE OF GENERAL OBLIGATION BONDS,
ELECTION OF 2016, SERIES A, IN THE AGGREGATE PRINCIPAL
AMOUNT OF NOT TO EXCEED \$7,000,000 AND APPROVING
RELATED DOCUMENTS AND ACTIONS**

WHEREAS, an election was duly and regularly held in the Pierce Joint Unified School District (the "District") on November 8, 2016, in accordance with Section 1(b)(3) of Article XIII A of the California Constitution, for the purpose of submitting Measure B (the "Bond Measure") to the qualified electors of the District, authorizing the issuance of general obligation bonds in the aggregate principal amount of \$15,000,000 (the "Bonds"), and the requisite 55% of the votes cast were in favor of the issuance of the Bonds; and

WHEREAS, the Board is authorized to provide for the issuance and sale of any series of Bonds under the provisions of Article 4.5 of Chapter 3 of Part 1 of Division 2 of Title 5 of the California Government Code (the "Bond Law"); and

WHEREAS, the District wishes at this time to initiate proceedings for the issuance of an initial series of the Bonds under the Bond Law in the aggregate principal amount of not to exceed \$7,000,000 to be designated "Pierce Joint Unified School District (Colusa and Yolo Counties, California) General Obligation Bonds, Election of 2016, Series A" (the "Series A Bonds") as provided in this Resolution for the purpose of providing financing for projects which are authorized under the Bond Measure including prepayment of certain lease obligations;

WHEREAS, as provided herein, the Series A Bonds shall be issued as current interest bonds only (no capital appreciation bonds), shall have a ratio of total debt service to principal of not to exceed four to one, and shall be subject to optional redemption prior to maturity as determined upon the sale thereof; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Pierce Joint Unified School District as follows:

ARTICLE I

DEFINITIONS; AUTHORITY

SECTION 1.01. *Definitions.* The terms defined in this Section 1.01, as used and capitalized herein, shall, for all purposes of this Resolution, have the meanings given them below, unless the context clearly requires some other meaning.

"Authorized Investments" means the County Investment Pool, the Local Agency Investment Fund of the California State Treasurer, any investments authorized pursuant to Sections 53601 and 53635 of the California Government Code, and investment agreements, including guaranteed investment contracts, float contracts or other investment products (provided that such agreements comply with the requirements of Section 148 of the Tax Code). The County Treasurer shall assume no responsibility in the reporting, reconciling and monitoring in the investment of proceeds related to the Series A Bonds.

"Board" means the Board of Trustees of the District.

"Bond Counsel" means (a) the firm of Jones Hall, A Professional Law Corporation, or (b) any other attorney or firm of attorneys nationally recognized for expertise in rendering opinions as to the legality and tax exempt status of securities issued by public entities.

"Bond Law" means Article 4.5 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California, commencing with Section 53506 of said Code, as in effect on the date of adoption hereof and as amended hereafter.

"Bond Measure" means Measure B, submitted to and approved by the requisite 55% of the voters on November 8, 2016, under which the issuance of the Bonds has been authorized.

"Bond Purchase Agreement" means the Bond Purchase Agreement between the District and the Underwriter, under which the Underwriter agrees to purchase the Series A Bonds and pay the purchase price therefor.

"Building Fund" means the fund established and held by the County Treasurer under Section 3.03.

"Closing Date" means the date upon which there is a delivery of the Series A Bonds in exchange for the amount representing the purchase price of the Series A Bonds by the Underwriter.

"Continuing Disclosure Certificate" means the Continuing Disclosure Certificate which is executed and delivered by a District Representative on the Closing Date.

"Costs of Issuance" means all items of expense directly or indirectly payable by or reimbursable to the District and related to the authorization, issuance, sale and delivery of the Series A Bonds, including but not limited to the costs of preparation and reproduction of documents, printing expenses, filing and recording fees, initial fees and charges of the Paying Agent and its counsel, legal fees and charges, fees and disbursements of consultants and professionals, rating agency fees and any other cost, charge or fee in connection with the original issuance and sale of the Series A Bonds.

"Counties" means the County of Colusa and the County of Yolo.

"County" means the County of Colusa, a political subdivision of the State of California, duly organized and existing under the Constitution and laws of the State of California.

“County Treasurer” means the Colusa County Treasurer-Tax Collector, or any authorized deputy thereof.

“Current Interest Bonds” means those Series A Bonds the interest on which is payable on a current basis on each Interest Payment Date. All of the Series A Bonds shall be Current Interest Bonds.

“Debt Service Fund” means the account established and held by the County Treasurer under Section 4.02.

“Depository” means (a) initially, DTC, and (b) any other Securities Depository acting as Depository under Section 2.09.

“Depository System Participant” means any participant in the Depository’s book-entry system.

“District” means the Pierce Joint Unified School District, a school district organized under the Constitution and laws of the State of California, and any successor thereto.

“District Representative” means the President of the Board, the Superintendent, the District’s business official, or the written designee of such officers, or any other person authorized by resolution of the Board of Trustees of the District to act on behalf of the District with respect to this Resolution and the Bonds.

“DTC” means The Depository Trust Company, New York, New York, and its successors and assigns.

“Education Code” means the Education Code of the State of California, as in effect on the Closing Date or as thereafter amended from time to time.

“Federal Securities” means United States Treasury notes, bonds, bills or certificates of indebtedness, or any other obligations the timely payment of which is directly or indirectly guaranteed by the faith and credit of the United States of America.

“Interest Payment Dates” means February 1 and August 1 in each year during the term of such Series A Bond, commencing on the date set forth in the Bond Purchase Agreement, provided, however, that such dates are subject to modification as provided in the Bond Purchase Agreement.

“Office” means the office or offices of the Paying Agent for the payment of the Bonds and the administration of its duties hereunder. The Paying Agent may designate and re-designate the Office from time to time by written notice filed with the County and the District.

“Outstanding,” when used as of any particular time with reference to Series A Bonds, means all Series A Bonds except: (a) Series A Bonds theretofore canceled by the Paying Agent or surrendered to the Paying Agent for cancellation; (b) Series A Bonds paid or deemed to have been paid within the meaning of Section 9.02; and (c)

Series A Bonds in lieu of or in substitution for which other Series A Bonds have been authorized, executed, issued and delivered by the District under this Resolution.

“Owner”, whenever used herein with respect to a Series A Bond, means the person in whose name the ownership of such Series A Bond is registered on the Registration Books.

“Paying Agent” means, initially The Bank of New York Mellon Trust Company, N.A., or thereafter any bank, trust company, national banking association or other financial institution appointed as paying agent for the Bonds in the manner provided in Article VI of this Resolution.

“Record Date” means the 15th day of the month preceding an Interest Payment Date, whether or not such day is a business day.

“Registration Books” means the records maintained by the Paying Agent for the registration of ownership and registration of transfer of the Series A Bonds under Section 2.08.

“Resolution” means this Resolution, as originally adopted by the Board and including all amendments hereto and supplements hereof which are duly adopted by the Board from time to time in accordance herewith.

“Securities Depositories” means DTC; and, in accordance with the then current guidelines of the Securities and Exchange Commission, such other addresses and/or such other securities depositories as the District may designate in a Written Request of the District delivered to the Paying Agent.

“Series A Bonds” means the not-to-exceed \$7,000,000 aggregate principal amount of Pierce Joint Unified School District (Colusa and Yolo Counties, California) General Obligation Bonds, Election of 2016, Series A, issued and at any time Outstanding under this Resolution.

“Tax Code” means the Internal Revenue Code of 1986 as in effect on the Closing Date or (except as otherwise referenced herein) as it may be amended to apply to obligations issued on the Closing Date, together with applicable proposed, temporary and final regulations promulgated, and applicable official public guidance published, under said Code.

“Underwriter” means the initial purchaser of the Series A Bonds upon the negotiated sale thereof, as designated pursuant to Section 3.01.

“Written Certificate of the District” means an instrument in writing signed by a District Representative or by any other officer of the District duly authorized by the District and listed on a Written Request of the District for that purpose.

SECTION 1.02. *Interpretation.*

(a) Unless the context otherwise indicates, words expressed in the singular include the plural and singular and the use of the neuter, masculine, or feminine gender

is for convenience only and includes the neuter, masculine or feminine gender, as appropriate.

(b) Headings of articles and sections herein and the table of contents hereof are solely for convenience of reference, do not constitute a part hereof and shall not affect the meaning, construction or effect hereof.

(c) All references herein to "Articles," "Sections" and other subdivisions are to the corresponding Articles, Sections or subdivisions of this Resolution; the words "herein," "hereof," "hereby," "hereunder" and other words of similar import refer to this Resolution as a whole and not to any particular Article, Section or subdivision hereof.

SECTION 1.03. *Authority for this Resolution; Findings.* This Resolution is entered into under the provisions of the Bond Law. The Board hereby certifies that all of the things, conditions and acts required to exist, to have happened or to have been performed precedent to and in the issuance of the Series A Bonds do exist, have happened or have been performed in due and regular time and manner as required by the laws of the State of California, and that the amount of the Series A Bonds, together with all other indebtedness of the District, does not exceed any limit prescribed by any laws of the State of California.

ARTICLE II

THE SERIES A BONDS

SECTION 2.01. *Authorization.* The Board hereby authorizes the issuance of the Series A Bonds in the aggregate principal amount not to exceed \$7,000,000 under and subject to the terms of Article XIII A, Section 1 paragraph (b) of the California Constitution, the Bond Law and this Resolution, for the purpose of raising money for the acquisition or improvement of educational facilities in accordance with the Bond Measure and to pay Costs of Issuance. This Resolution constitutes a continuing agreement between the District and the Owners of all of the Series A Bonds issued or to be issued hereunder and then Outstanding to secure the full and final payment of principal thereof and interest and premium, if any, on all Series A Bonds, subject to the covenants, agreements, provisions and conditions herein contained. The Series A Bonds shall be issued as Current Interest Bonds and shall be designated the "Pierce Joint Unified School District (Colusa and Yolo Counties, California) General Obligation Bonds, Election of 2016, Series A".

SECTION 2.02. *Terms of Series A Bonds.*

(a) Terms of Series A Bonds. The Series A Bonds will be issued as fully registered bonds, without coupons, in the denomination of \$5,000 each or any integral multiple thereof, but in an amount not to exceed the aggregate principal amount of Series A Bonds maturing in the year of maturity of the Series A Bonds for which the denomination is specified. The Series A Bonds will be lettered and numbered as the Paying Agent may prescribe. The Series A Bonds will be dated as of the Closing Date.

Interest on the Series A Bonds is payable semiannually on each Interest Payment Date. Each Series A Bond will bear interest from the Interest Payment Date

next preceding the date of registration and authentication thereof unless (i) it is authenticated as of an Interest Payment Date, in which event it will bear interest from such date, or (ii) it is authenticated prior to an Interest Payment Date and after the close of business on the Record Date preceding such Interest Payment Date, in which event it will bear interest from such Interest Payment Date, or (iii) it is authenticated prior to the first Record Date, in which event it will bear interest from the Closing Date. Notwithstanding the foregoing, if interest on any Series A Bond is in default at the time of authentication thereof, such Series A Bond will bear interest from the Interest Payment Date to which interest has previously been paid or made available for payment thereon.

(b) Maturities; Basis of Interest Calculation. The Series A Bonds will mature on August 1 (unless otherwise provided in the Bond Purchase Agreement) in the years and in the amounts, and will bear interest at the rates (up to the legal maximum), as determined upon the sale thereof as provided in the Bond Purchase Agreement. Interest on the Series A Bonds will be calculated on the basis of a 360-day year comprised of twelve 30-day months. The final maturity of the Series A Bonds shall not exceed thirty years from the Closing Date.

(c) CUSIP Identification Numbers. CUSIP identification numbers will be imprinted on the Series A Bonds, but such numbers do not constitute a part of the contract evidenced by the Series A Bonds and any error or omission with respect thereto will not constitute cause for refusal of any purchaser to accept delivery of and pay for the Series A Bonds. In addition, failure on the part of the District to use such CUSIP numbers in any notice to Owners of the Series A Bonds will not constitute an event of default or any violation of the District's contract with such Owners and will not impair the effectiveness of any such notice.

(d) Payment. Interest on the Series A Bonds (including the final interest payment upon maturity or redemption) is payable by check, draft or wire of the Paying Agent mailed to the Owner thereof (which will be DTC so long as the Series A Bonds are held in the book-entry system of DTC) at such Owner's address as it appears on the Registration Books at the close of business on the preceding Record Date; except that at the written request of the Owner of at least \$1,000,000 aggregate principal amount of the Series A Bonds, which written request is on file with the Paying Agent as of any Record Date, interest on such Series A Bonds will be paid by wire payment on the succeeding Interest Payment Date to such account as will be specified in such written request. Principal of and premium (if any) on the Series A Bonds is payable in lawful money of the United States of America upon presentation and surrender at the Office of the Paying Agent.

(e) Provisions of Bond Purchase Agreement to Control. Notwithstanding the foregoing provisions of this Section and the following provisions of Section 2.03, any of the terms of the Series A Bonds may be established or modified under the Bond Purchase Agreement provided such terms are in conformity with the Bond Law. In the event of a conflict or inconsistency between this Resolution and the Bond Purchase Agreement relating to the terms of the Series A Bonds, the provisions of the Bond Purchase Agreement will be controlling.

SECTION 2.03. *Redemption of Series A Bonds.*

(a) Optional Redemption Dates and Prices. The Series A Bonds are subject to redemption prior to maturity, at the option of the District, in whole or in part, from any available source of funds, on the dates and at the respective redemption prices as set forth in the Bond Purchase Agreement.

(b) Mandatory Sinking Fund Redemption. If the Bond Purchase Agreement specifies that any one or more maturities of the Series A Bonds are term bonds which are subject to mandatory sinking fund redemption, each such maturity of Series A Bonds shall be subject to such mandatory sinking fund redemption on August 1 (unless otherwise provided in the Bond Purchase Agreement) in each of the years and in the respective principal amounts as set forth in the Bond Purchase Agreement, at a redemption price equal to 100% of the principal amount thereof to be redeemed (without premium), together with interest accrued thereon to the date fixed for redemption. If any such term bonds are redeemed under the provisions of the preceding clause (a), the total amount of all future payments under this subsection (b) with respect to such term bonds shall be reduced by the aggregate principal amount of such term bonds so redeemed, to be allocated among such payments on a pro rata basis in integral multiples of \$5,000 (or on such other basis as the District may determine) as set forth in written notice given by the District to the Paying Agent.

(c) Selection of Series A Bonds for Redemption. Whenever less than all of the Outstanding Series A Bonds of any one maturity are designated for redemption, the Paying Agent shall select the Outstanding Series A Bonds of such maturity to be redeemed by lot in any manner deemed fair by the Paying Agent. For purposes of such selection, each Series A Bond will be deemed to consist of individual bonds of \$5,000 principal amount. The Series A Bonds may all be separately redeemed.

(d) Redemption Procedure. The Paying Agent will cause notice of any redemption to be mailed, first class mail, postage prepaid, at least 20 days but not more than 60 days prior to the date fixed for redemption, to the respective Owners of any Series A Bonds designated for redemption, at their addresses appearing on the Registration Books. Such notice may be a conditional notice of redemption and subject to rescission as set forth in clause (e) below. Such mailing is not a condition precedent to such redemption and the failure to mail or to receive any such notice will not affect the validity of the proceedings for the redemption of such Series A Bonds. In addition, the Paying Agent will give notice of redemption by telecopy or certified, registered or overnight mail to the Municipal Securities Rulemaking Board and each of the Securities Depositories at least two days prior to such mailing to the Series A Bond Owners.

Such notice shall state the redemption date and the redemption price and, if less than all of the then Outstanding Series A Bonds are to be called for redemption, shall designate the serial numbers of the Series A Bonds to be redeemed by giving the individual number of each Series A Bond or by stating that all Series A Bonds between two stated numbers, both inclusive, or by stating that all of the Series A Bonds of one or more maturities have been called for redemption, and shall require that such Series A Bonds be then surrendered at the Office of the Paying Agent for redemption at the said redemption price, giving notice also that further interest on such Series A Bonds will not accrue from and after the redemption date.

Upon surrender of Series A Bonds redeemed in part only, the District shall execute and the Paying Agent shall authenticate and deliver to the Owner, at the expense of the District, a new Series A Bond or Bonds, of the same maturity, of authorized denominations in aggregate principal amount equal to the unredeemed portion of the Series A Bond or Bonds.

From and after the date fixed for redemption, if notice of such redemption has been duly given and funds available for the payment of the principal of and interest (and premium, if any) on the Series A Bonds so called for redemption have been duly provided, the Series A Bonds called for redemption will cease to be entitled to any benefit under this Resolution other than the right to receive payment of the redemption price, and no interest will accrue thereon on or after the redemption date specified in the notice. The Paying Agent will cancel all Series A Bonds redeemed under this Section and will furnish a certificate of cancellation to the District.

(e) Right to Rescind Notice of Redemption. The District has the right to rescind any notice of the optional redemption of Series A Bonds under subsection (a) of this Section by written notice to the Paying Agent on or prior to the date fixed for redemption. Any notice of redemption shall be cancelled and annulled if for any reason funds will not be or are not available on the date fixed for redemption for the payment in full of the Series A Bonds then called for redemption. The District and the Paying Agent shall have no liability to the Series A Bond Owners or any other party related to or arising from such rescission of redemption. The Paying Agent shall mail notice of such rescission of redemption in the same manner as the original notice of redemption was sent under subsection (c) of this Section.

SECTION 2.04. *Form of Series A Bonds.* The Series A Bonds, the form of the Paying Agent's certificate of authentication and registration and the form of assignment to appear thereon will be substantially in the forms, respectively, with necessary or appropriate variations, omissions and insertions, as permitted or required by this Resolution and the Bond Purchase Agreement, as are set forth in Appendix A attached hereto.

SECTION 2.05. *Execution of Series A Bonds.* The Series A Bonds shall be signed by the facsimile signature of the President of the Board and shall be attested by the facsimile signature of the Secretary or Clerk of the Board. Only those Series A Bonds bearing a certificate of authentication and registration in the form set forth in Appendix A attached hereto, executed and dated by the Paying Agent, shall be valid or obligatory for any purpose or entitled to the benefits of this Resolution, and such certificate of the Paying Agent is conclusive evidence that the Series A Bonds so registered have been duly authenticated, registered and delivered hereunder and are entitled to the benefits of this Resolution.

SECTION 2.06. *Transfer of Series A Bonds.* Subject to Section 2.10, any Series A Bond may, in accordance with its terms, be transferred, upon the Registration Books, by the person in whose name it is registered, in person or by his duly authorized attorney, upon surrender of such Series A Bond for cancellation at the Office of the Paying Agent, accompanied by delivery of a written instrument of transfer in a form approved by the Paying Agent, duly executed. The District may charge a reasonable sum for each new Series A Bond issued upon any transfer.

Whenever any Series A Bond or Bonds is surrendered for transfer, the District shall execute and the Paying Agent shall authenticate and deliver a new Series A Bond or Bonds, for like aggregate principal amount. No transfers of Series A Bonds shall be required to be made (a) 15 days prior to the date established by the Paying Agent for selection of Series A Bonds for redemption or (b) with respect to a Series A Bond which has been selected for redemption.

SECTION 2.07. *Exchange of Series A Bonds.* Series A Bonds may be exchanged at the principal Office of the Paying Agent for a like aggregate principal amount of Series A Bonds of authorized denominations and of the same maturity, together with a request for exchange signed by the owner or by a person legally empowered to do so in a form satisfactory to the Paying Agent. The District may charge a reasonable sum for each new Series A Bond issued upon any exchange (except in the cases of any exchange of temporary Series A Bonds for definitive Series A Bonds). No exchange of Series A Bonds is required to be made (a) 15 days prior to the date established by the Paying Agent for selection of Series A Bonds for redemption or (b) with respect to a Series A Bond after it has been selected for redemption.

SECTION 2.08. *Registration Books.* The Paying Agent shall keep or cause to be kept sufficient books for the registration and transfer of the Series A Bonds, which shall at all times be open to inspection by the District upon reasonable notice; and, upon presentation for such purpose, the Paying Agent shall, under such reasonable regulations as it may prescribe, register or transfer or cause to be registered or transferred, on said books, Series A Bonds as herein before provided.

SECTION 2.09. *Book-Entry System.* Except as provided below, DTC shall be the Owner of all of the Series A Bonds, and the Series A Bonds shall be registered in the name of Cede & Co. as nominee for DTC. The Series A Bonds shall be initially executed and delivered in the form of a single fully registered Series A Bond for each maturity date of the Series A Bonds in the full aggregate principal amount of the Series A Bonds maturing on such date. The Paying Agent and the District may treat DTC (or its nominee) as the sole and exclusive owner of the Series A Bonds registered in its name for all purposes of this Resolution, and neither the Paying Agent nor the District shall be affected by any notice to the contrary. The Paying Agent and the District have no responsibility or obligation to any Depository System Participant, any person claiming a beneficial ownership interest in the Series A Bonds under or through DTC or a Depository System Participant, or any other person which is not shown on the register of the District as being an owner, with respect to the accuracy of any records maintained by DTC or any Depository System Participant or the payment by DTC or any Depository System Participant by DTC or any Depository System Participant of any amount in respect of the principal or interest with respect to the Series A Bonds. The District shall cause to be paid all principal and interest with respect to the Series A Bonds only to DTC, and all such payments shall be valid and effective to fully satisfy and discharge the District's obligations with respect to the principal and interest with respect to the Series A Bonds to the extent of the sum or sums so paid. Except under the conditions noted below, no person other than DTC shall receive a Series A Bond. Upon delivery by DTC to the District of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., the term "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

If the District determines that it is in the best interest of the beneficial owners that they be able to obtain Series A Bonds and delivers a written certificate to DTC and the District to that effect, DTC shall notify the Depository System Participants of the availability through DTC of Series A Bonds. In such event, the District shall issue, transfer and exchange Series A Bonds as requested by DTC and any other owners in appropriate amounts.

DTC may determine to discontinue providing its services with respect to the Series A Bonds at any time by giving notice to the District and discharging its responsibilities with respect thereto under applicable law. Under such circumstances (if there is no successor securities depository), the District shall be obligated to deliver Series A Bonds as described in this Resolution. Whenever DTC requests the District to do so, the District will cooperate with DTC in taking appropriate action after reasonable notice to (a) make available one or more separate Series A Bonds evidencing the Series A Bonds to any Depository System Participant having Series A Bonds credited to its DTC account or (b) arrange for another securities depository to maintain custody of certificates evidencing the Series A Bonds.

Notwithstanding any other provision of this Resolution to the contrary, so long as any Series A Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to the principal and interest with respect to such Series A Bond and all notices with respect to such Series A Bond shall be made and given, respectively, to DTC as provided as in the representation letter delivered on the date of issuance of the Series A Bonds.

Section 2.10. *Transfer Under Book-Entry System: Discontinuation of Book-Entry System.* Registered ownership of the Series A Bonds, or any portion thereof, may not be transferred except as follows:

(i) To any successor of Cede & Co., as nominee of DTC, or its nominee, or to any substitute depository designated pursuant to clause (ii) of this section (a "substitute depository"); *provided that* any successor of Cede & Co., as nominee of DTC or substitute depository, shall be qualified under any applicable laws to provide the services proposed to be provided by it;

(ii) To any substitute depository not objected to by the District, upon (1) the resignation of the DTC or its successor (or any substitute depository or its successor) from its functions as depository, or (2) a determination by the District to substitute another depository for DTC (or its successor) because DTC or its successor (or any substitute depository or its successor) is no longer able to carry out its functions as depository; *provided*, that any such substitute depository shall be qualified under any applicable laws to provide the services proposed to be provided by it; or

(iii) To any person upon (1) the resignation of DTC or its successor (or substitute depository or its successor) from its functions as depository, or (2) a determination by the District to remove The Depository Trust Company or its successor (or any substitute depository or its successor) from its functions as depository.

ARTICLE III

SALE OF SERIES A BONDS; APPLICATION OF PROCEEDS

SECTION 3.01. *Sale of Series A Bonds; Approval of Sale Documents.*

(a) Negotiated Sale of Series A Bonds. Pursuant to Section 53508.7 of the Bond Law, the Board hereby authorizes the negotiated sale of the Series A Bonds to the Underwriter. The Series A Bonds shall be sold pursuant to the Bond Purchase Agreement in substantially the form on file with the Clerk of the Board with such changes therein, deletions therefrom and modifications thereto as a District Representative may approve, such approval to be conclusively evidenced by the execution and delivery of the Bond Purchase Agreement; provided that the Bond Purchase Agreement shall contain the following terms:

- (i) the Series A Bonds shall bear a rate of interest of not to exceed 8 percent per annum;
- (ii) the Series A Bonds shall have a final maturity date of 30 years or less from the date of issuance;
- (iii) the Series A Bonds shall have a ratio of total debt service to principal of not to exceed four to one; and
- (iv) the Underwriter's discount shall not exceed 0.7% of the principal amount of the Series A Bonds.

The Board hereby authorizes a District Representative to execute and deliver the final form of the Bond Purchase Agreement in the name and on behalf of the District.

In accordance with Section 53508.7 of the Bond Law, the Board has determined to sell the Series A Bonds at negotiated sale for the following reasons: (a) a negotiated sale provides more flexibility to choose the time and date of the sale which is advantageous in a volatile municipal bond market; (b) a negotiated sale will permit the time schedule for the issuance and sale of the Series A Bonds to be expedited and (c) a negotiated sale provides opportunity to sell bonds to local investors.

As required pursuant to Section 53509.5 of the Bond Law, after the sale of the Series A Bonds, the Board will present actual cost information for the sale at its next scheduled public meeting.

(b) Official Statement. The Board hereby approves, and hereby authorizes the Superintendent to deem nearly final as of its date within the meaning of Rule 15c2-12 of the Securities Exchange Act of 1934, the Preliminary Official Statement describing the Series A Bonds in substantially the form on file with the Clerk of the Board. The Superintendent is hereby authorized to execute an appropriate certificate stating that the Preliminary Official Statement has been deemed nearly final within the meaning of such Rule. A District Representative is hereby authorized and directed to approve any changes in or additions to a final form of said Official Statement, and the execution thereof by a District Representative shall be conclusive evidence of his or her approval

of any such changes and additions. The Board hereby authorizes the distribution of the Official Statement by the Underwriter. The final Official Statement shall be executed in the name and on behalf of the District by a District Representative.

(c) Actions to Close Bond Issuance. Each District Representative and any and all other officers of the District are each authorized and directed in the name and on behalf of the District to execute and deliver any and all certificates, requisitions, agreements, notices, consents, warrants and other documents, which they or any of them might deem necessary or appropriate in order to consummate the lawful issuance, sale and delivery of the Series A Bonds, including but not limited to the execution and delivery of a document with respect to the engagement of the Paying Agent appointed hereby, and an agreement facilitating the payment of Costs of Issuance. Whenever in this Resolution any officer of the District is authorized to execute or countersign any document or take any action, such execution, countersigning or action may be taken on behalf of such officer by any person designated by such officer to act on his or her behalf if such officer is absent or unavailable.

SECTION 3.02. *Application of Proceeds of Sale of Series A Bonds.* The proceeds of the Series A Bonds shall be paid to the County Treasurer on the Closing Date, and shall be applied by the County Treasurer as follows:

- (a) The portion of the proceeds representing the premium (if any) received by the County Treasurer on the sale of the Series A Bonds will be deposited in the Debt Service Fund established pursuant to Section 4.02.
- (b) All remaining proceeds received by the County Treasurer from the sale of the Series A Bonds will be deposited in the Building Fund established pursuant to Section 3.03.

At the option of the District, a portion of the proceeds of the Series A Bonds to be used by the District to pay Costs of Issuance may be deposited with a fiscal agent selected by the District, as provided in Section 15146(h) of the Education Code in order to facilitate the payment of Costs of Issuance. A District Representative is authorized to enter into an agreement with such fiscal agent to facilitate such payment. In addition or alternatively, the Bond Purchase Agreement may provide that the Underwriter is obligated to pay certain Costs of Issuance and a District Representative is authorized to review and consent to a schedule of such costs.

SECTION 3.03. *Building Fund.* The County Treasurer shall create and maintain a fund designated as the "Pierce Joint Unified School District, Election of 2016, Series A Building Fund," into which the proceeds from the sale of the Series A Bonds shall be deposited, to the extent required under Section 3.02(b). The County Treasurer shall maintain separate accounting for the proceeds of the Series A Bonds, including all earnings received from the investment thereof. Amounts credited to the Building Fund for the Series A Bonds shall be expended by the District solely for the financing of projects for which the Series A Bond proceeds are authorized to be expended under the Bond Measure (which includes related Costs of Issuance). All interest and other gain arising from the investment of proceeds of the Series A Bonds shall be retained in the Building Fund and used for the purposes thereof. At the Written Request of the District filed with the County Treasurer, any amounts remaining on deposit in the Building Fund

and not needed for the purposes thereof shall be withdrawn from the Building Fund and transferred to the Debt Service Fund, to be applied to pay the principal of and interest on the Series A Bonds.

If excess amounts remain on deposit in the Building Fund after payment in full of the Series A Bonds, any such excess amounts shall be transferred to the general fund of the District, to be applied for the purposes for which the Series A Bonds have been authorized or otherwise in accordance with the Bond Law.

SECTION 3.04. *Estimated Financing Costs.* The firm of Jones Hall, A Professional Law Corporation, has previously been engaged to act as the District's bond counsel and disclosure counsel in connection with bonds issued pursuant to the Bond Measure, and the firm of Isom Advisors, A Division of Urban Futures, Inc., has previously been engaged to act as the District's financial advisor in connection with bonds issued pursuant to the Bond Measure. The estimated costs of issuance associated with the bond sale are \$150,000 which include bond counsel and disclosure counsel fees, costs of printing the Official Statement, financial advisor fees, rating agency fees, and paying agent fees, but which do not include underwriting fees and the cost of municipal bond insurance, if obtained.

ARTICLE IV

SECURITY FOR THE SERIES A BONDS; DEBT SERVICE FUND

SECTION 4.01. *Security for the Series A Bonds.* The Series A Bonds are general obligations of the District. The Board has the power to direct the Counties to levy and collect *ad valorem* taxes upon all property within the District that is subject to taxation by the District, without limitation of rate or amount, for the payment of the Series A Bonds and the interest and redemption premium (if any) thereon. The District hereby directs the Counties to levy and collect on all the taxable property in the District, in addition to all other taxes, a continuing direct and *ad valorem* tax annually during the period the Series A Bonds are Outstanding in an amount sufficient to pay the principal of and interest on the Series A Bonds when due, including the principal of any Series A Bonds upon the mandatory sinking fund redemption thereof under Section 2.03(b), which moneys when collected will be paid to the County Treasurer and placed in the Debt Service Fund.

The principal of and interest and redemption premium (if any) on the Series A Bonds do not constitute a debt of the Counties, the State of California, or any of its political subdivisions other than the District, or any of the officers, agents or employees thereof. None of the Counties, the State of California, any of their political subdivisions nor any of the officers, agents or employees thereof are liable on the Series A Bonds. In no event are the principal of and interest and redemption premium (if any) on Series A Bonds payable out of any funds or properties of the District other than *ad valorem* taxes levied on taxable property in the District. The Series A Bonds, including the interest thereon, are payable solely from taxes levied under Sections 15250 and 15252 of the Education Code.

SECTION 4.02. *Establishment of Debt Service Fund.* The District hereby directs the County Treasurer to establish, hold and maintain a fund to be known as the "Pierce Joint Unified School District Election of 2016, Series A General Obligation Bonds Debt Service Fund", which the County Treasurer shall maintain as a separate account, distinct from all other funds of the County and the District. All taxes levied by the Counties, at the request of the District, for the payment of the principal of and interest and premium (if any) on the Series A Bonds shall be deposited in the Debt Service Fund by the County promptly upon apportionment of said levy.

The Debt Service Fund is hereby pledged for the payment of the principal of and interest on the Series A Bonds when and as the same become due, including the principal of any term Series A Bonds required to be paid upon the mandatory sinking fund redemption thereof. Amounts in the Debt Service Fund shall be transferred by the County to the Paying Agent to the extent required to pay the principal of and interest and redemption premium (if any) on the Series A Bonds when due. In addition, amounts on deposit in the Debt Service Fund shall be applied to pay the fees and expenses of the Paying Agent insofar as permitted by law, including specifically by Section 15232 of the Education Code.

SECTION 4.03. *Disbursements From Debt Service Fund.* The County Treasurer shall administer the Debt Service Fund and make disbursements therefrom in the manner set forth in this Section. The County Treasurer shall transfer amounts on deposit in the Debt Service Fund, to the extent necessary to pay the principal of and interest on the Series A Bonds when due and payable, to the Paying Agent which, in turn, shall pay such moneys to DTC to pay the principal of and interest on the Series A Bonds. DTC will thereupon make payments of principal and interest on the Series A Bonds to the DTC Participants who will thereupon make payments of principal and interest to the beneficial owners of the Series A Bonds. Any moneys remaining in the Debt Service Fund after the Series A Bonds and the interest thereon have been paid, shall be transferred to any other interest and sinking fund for general obligation bond indebtedness of the District, and in the event there is no such debt outstanding, shall be transferred to the District's general fund upon the order of the County Auditor, as provided in Section 15234 of the Education Code.

SECTION 4.04. *Investments.* All moneys held in any of the funds or accounts established with the County hereunder will be invested in Authorized Investments in accordance with the investment policies of the County, as such policies exist at the time of investment. Obligations purchased as an investment of moneys in any fund or account will be deemed to be part of such fund or account. All interest or gain derived from the investment of amounts in any of the funds or accounts established hereunder will be deposited in the fund or account from which such investment was made, and will be expended for the purposes thereof. The County Treasurer has no responsibility in the reporting, reconciling and monitoring of the investment of the proceeds of the Bonds.

The District covenants that all investments of amounts deposited in any fund or account created by or under this Resolution, or otherwise containing proceeds of the Series A Bonds, shall be acquired and disposed of at the Fair Market Value thereof. For purposes of this Section, the term "Fair Market Value" shall mean, with respect to any investment, the price at which a willing buyer would purchase such investment from a willing seller in a bona fide, arm's length transaction (determined as of the date the contract to purchase or sell the investment becomes binding) if the investment is traded

on an established securities market (within the meaning of Section 1273 of the Tax Code) and, otherwise, the term "Fair Market Value" means the acquisition price in a bona fide arm's length transaction (as described above) if (i) the investment is a certificate of deposit that is acquired in accordance with applicable regulations under the Tax Code, (ii) the investment is an agreement with specifically negotiated withdrawal or reinvestment provisions and a specifically negotiated interest rate (for example, a guaranteed investment contract, a forward supply contract or other investment agreement) that is acquired in accordance with applicable regulations under the Tax Code, or (iii) the investment is a United States Treasury Security - State and Local Government Series that is acquired in accordance with applicable regulations of the United States Bureau of Public Debt.

ARTICLE V

OTHER COVENANTS OF THE DISTRICT

SECTION 5.01. *Punctual Payment.* The Board will direct the Counties to levy *ad valorem* taxes, as provided in Section 15250 of the Education Code, so as to enable the District to punctually pay, or cause to be paid, the principal of and interest on the Series A Bonds, in conformity with the terms of the Series A Bonds and of this Resolution. Nothing herein contained shall prevent the District from making advances of its own moneys howsoever derived to any of the uses or purposes permitted by law.

SECTION 5.02. *Books and Accounts; Financial Statements.* The District will keep, or cause to be kept, proper books of record and accounts, separate from all other records and accounts of the District in which complete and correct entries are made of all transactions relating to the expenditure of the proceeds of the Series A Bonds. Such books of record and accounts shall at all times during business hours be subject to the inspection of the Paying Agent and the Owners of not less than 10% in aggregate principal amount of the Series A Bonds then Outstanding, or their representatives authorized in writing.

SECTION 5.03. *Protection of Security and Rights of Series A Bond Owners.* The District will preserve and protect the security of the Series A Bonds and the rights of the Series A Bond Owners, and will warrant and defend their rights against all claims and demands of all persons. Following the issuance of the Series A Bonds by the District, the Series A Bonds shall be incontestable by the District.

SECTION 5.04. *Tax Covenants.*

(a) Private Activity Bond Limitation. The District shall assure that the proceeds of the Series A Bonds are not so used as to cause the Series A Bonds to satisfy the private business tests of Section 141(b) of the Tax Code or the private loan financing test of Section 141(c) of the Tax Code.

(b) Federal Guarantee Prohibition. The District shall not take any action or permit or suffer any action to be taken if the result of the same would be to cause any of the Series A Bonds to be "federally guaranteed" within the meaning of Section 149(b) of the Tax Code.

(c) No Arbitrage. The District shall not take, or permit or suffer to be taken by the Paying Agent or the Counties or otherwise, any action with respect to the proceeds of the Series A Bonds which, if such action had been reasonably expected to have been taken, or had been deliberately and intentionally taken, on the Closing Date would have caused the Series A Bonds to be "arbitrage bonds" within the meaning of Section 148 of the Tax Code.

(d) Maintenance of Tax-Exemption. The District shall take all actions necessary to assure the exclusion of interest on the Series A Bonds from the gross income of the Owners of the Series A Bonds to the same extent as such interest is permitted to be excluded from gross income under the Tax Code as in effect on the Closing Date.

(e) Rebate of Excess Investment Earnings to United States. The District shall calculate or cause to be calculated excess investment earnings with respect to the Series A Bonds which are required to be rebated to the United States of America under Section 148(f) of the Tax Code, and shall pay the full amount of such excess investment earnings to the United States of America in such amounts, at such times and in such manner as may be required under the Tax Code, if and to the extent such Section 148(f) is applicable to the Series A Bonds. Such payments shall be made by the District from any source of legally available funds of the District. The District shall keep or cause to be kept, and retain or cause to be retained for a period of six years following the retirement of the Series A Bonds, records of the determinations made under this subsection (e). In order to provide for the administration of this subsection (e), the District may provide for the employment of independent attorneys, accountants and consultants compensated on such reasonable basis as the District may deem appropriate.

(f) Small Issuer Exemption from Bank Nondeductibility Restriction. The District hereby designates the Series A Bonds as "qualified tax-exempt obligations" for purposes of paragraph (3) of Section 265(b) of the Tax Code and represents that not more than \$10,000,000 aggregate principal amount of obligations the interest on which is excludable (under Section 103(a) of the Tax Code) from gross income for federal income tax purposes (excluding (i) private activity bonds, as defined in Section 141 of the Tax Code, except qualified 501(c)(3) bonds as defined in Section 145 of the Tax Code and (ii) current refunding obligations to the extent the amount of the refunding obligation does not exceed the outstanding amount of the refunded obligation), including the Series A Bonds, has been or will be issued by the District, including all subordinate entities of the District, during the calendar year 2017. If the District determines prior to the sale of the Series A Bonds that obligations which exceed \$10,000,000 aggregate principal amount will be issued in calendar year 2017, the District Representative shall provide in the Bond Purchase Agreement that the Series A Bonds are not bank qualified.

SECTION 5.05. *Continuing Disclosure*. The District hereby covenants and agrees that it will comply with and carry out all of the provisions of the Continuing Disclosure Certificate, which shall be executed by a District Representative and delivered on the Closing Date. Notwithstanding any other provision of this Resolution, failure of the District to comply with the Continuing Disclosure Certificate does not constitute a default by the District hereunder or under the Series A Bonds; however, any Participating Underwriter (as that term is defined in the Continuing Disclosure Certificate) or any holder or beneficial owner of the Series A Bonds may, take such actions as may be

necessary and appropriate to compel performance, including seeking mandate or specific performance by court order.

SECTION 5.06. *CDIAC Annual Reporting.* The District hereby covenants and agrees that it will comply with and the provisions of California Government Code Section 8855 subdivision (k) with respect to annual reporting to the California Debt and Investment Advisory Commission. Said reporting will occur at the times and include the types of information as set forth therein. Notwithstanding any other provision of this Resolution, failure of the District to comply with said reporting does not constitute a default by the District hereunder or under the Series A Bonds.

SECTION 5.07. *Further Assurances.* The District will adopt, make, execute and deliver any and all such further resolutions, instruments and assurances as may be reasonably necessary or proper to carry out the intention or to facilitate the performance of this Resolution, and for the better assuring and confirming unto the Owners of the Series A Bonds of the rights and benefits provided in this Resolution.

ARTICLE VI

THE PAYING AGENT

SECTION 6.01. *Appointment of Paying Agent.* The Bank of New York Mellon Trust Company, N.A., is hereby appointed to act as the initial Paying Agent for the Series A Bonds and, in such capacity, shall also act as registration agent and authentication agent for the Series A Bonds. The Paying Agent undertakes to perform such duties, and only such duties, as are specifically set forth in this Resolution, and even during the continuance of an event of default with respect to the Series A Bonds, no implied covenants or obligations shall be read into this Resolution against the Paying Agent. The Paying Agent shall signify its acceptance of the duties and obligations imposed upon it by the District by executing and delivering to the District a certificate or agreement to that effect.

The District may remove the Paying Agent initially appointed, and any successor thereto, and may appoint a successor or successors thereto, but any such successor shall be a bank or trust company doing business and having an office in the State of California, having a combined capital (exclusive of borrowed capital) and surplus of at least \$50,000,000, and subject to supervision or examination by federal or state authority. If such bank or trust company publishes a report of condition at least annually, under law or to the requirements of any supervising or examining authority above referred to, then for the purposes of this Section the combined capital and surplus of such bank or trust company shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

The Paying Agent may at any time resign by giving written notice to the District and the Series A Bond Owners of such resignation. Upon receiving notice of such resignation, the District shall promptly appoint a successor Paying Agent by an instrument in writing. Any resignation or removal of the Paying Agent and appointment of a successor Paying Agent will become effective upon acceptance of appointment by the successor Paying Agent.

Any bank, national association, federal savings association, or trust company into which the Paying Agent may be merged or converted or with which it may be consolidated or any bank, national association, federal savings association, or trust company resulting from any merger, conversion or consolidation to which it shall be a party or any bank, national association, federal savings association, or trust company to which the Paying Agent may sell or transfer all or substantially all of its corporate trust business, provided such bank, federal savings association, or trust company shall be eligible as described in this Section 6.01 shall be the successor to such Paying Agent, without the execution or filing of any paper or any further act, anything herein to the contrary notwithstanding.

SECTION 6.02. *Paying Agent May Hold Series A Bonds.* The Paying Agent may become the owner of any of the Series A Bonds in its own or any other capacity with the same rights it would have if it were not Paying Agent.

SECTION 6.03. *Liability of Agents.* The recitals of facts, covenants and agreements herein and in the Series A Bonds contained shall be taken as statements, covenants and agreements of the District, and the Paying Agent assumes no responsibility for the correctness of the same, nor makes any representations as to the validity or sufficiency of this Resolution or of the Series A Bonds, nor shall incur any responsibility in respect thereof, other than as set forth in this Resolution. The Paying Agent is not liable in connection with the performance of its duties hereunder, except for its own negligence or willful default.

In the absence of bad faith, the Paying Agent may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Paying Agent and conforming to the requirements of this Resolution.

The Paying Agent is not liable for any error of judgment made in good faith by a responsible officer of its corporate trust department in the absence of the negligence of the Paying Agent.

No provision of this Resolution shall require the Paying Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it has reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

The Paying Agent may execute any of the powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Paying Agent is not responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder.

SECTION 6.04. *Notice to Paying Agent.* The Paying Agent may rely and shall be protected in acting or refraining from acting upon any notice, resolution, request, consent, order, certificate, report, warrant, bond or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or proper parties. The Paying Agent may consult with counsel, who may be counsel to the District, with regard to legal questions, and the opinion of such counsel shall be full and complete

authorization and protection in respect of any action taken or suffered by it hereunder in good faith and in accordance therewith.

Whenever in the administration of its duties under this Resolution the Paying Agent shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of bad faith on the part of the Paying Agent, be deemed to be conclusively proved and established by a certificate of the District, and such certificate shall be full warrant to the Paying Agent for any action taken or suffered under the provisions of this Resolution upon the faith thereof, but in its discretion the Paying Agent may, in lieu thereof, accept other evidence of such matter or may require such additional evidence as to it may seem reasonable.

SECTION 6.05. *Compensation; Indemnification.* The District shall pay to the Paying Agent from time to time reasonable compensation for all services rendered under this Resolution, and also all reasonable expenses, charges, counsel fees and other disbursements, including those of their attorneys, agents and employees, incurred in and about the performance of their powers and duties under this Resolution. The District further agrees to indemnify and save the Paying Agent harmless against any liabilities which it may incur in the exercise and performance of its powers and duties hereunder which are not due to its negligence or bad faith.

ARTICLE VII

REMEDIES OF SERIES A BOND OWNERS

SECTION 7.01. *Remedies of Series A Bond Owners.* Any Series A Bond Owner has the right, for the equal benefit and protection of all Series A Bond Owners similarly situated:

- (a) by mandamus, suit, action or proceeding, to compel the District and its board members, officers, agents or employees to perform each and every term, provision and covenant contained in this Resolution and in the Series A Bonds, and to require the carrying out of any or all such covenants and agreements of the District and the fulfillment of all duties imposed upon it;
- (b) by suit, action or proceeding in equity, to enjoin any acts or things which are unlawful, or the violation of any of the Series A Bond Owners' rights; or
- (c) upon the happening and continuation of any default by the District hereunder or under the Series A Bonds, by suit, action or proceeding in any court of competent jurisdiction, to require the District and its board members and employees to account as if it and they were the trustees of an express trust.

SECTION 7.02. *Remedies Not Exclusive.* No remedy herein conferred upon the Owners of Series A Bonds is exclusive of any other remedy. Each and every remedy is

cumulative and may be exercised in addition to every other remedy given hereunder or thereafter conferred on the Series A Bond Owners.

SECTION 7.03. *Non-Waiver.* Nothing in this Article VII or in any other provision of this Resolution or in the Series A Bonds, affects or impairs the obligation of the District, which is absolute and unconditional, to pay the principal of and interest on the Series A Bonds to the respective Owners of the Series A Bonds at the respective dates of maturity, as herein provided, or affects or impairs the right of action against the District, which is also absolute and unconditional, of such Owners to institute suit against the District to enforce such payment by virtue of the contract embodied in the Series A Bonds.

A waiver of any default by any Series A Bond Owner shall not affect any subsequent default or impair any rights or remedies on the subsequent default. No delay or omission of any Owner of any of the Series A Bonds to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein, and every power and remedy conferred upon the Series A Bond Owners by this Article VII may be enforced and exercised from time to time and as often as shall be deemed expedient by the Owners of the Series A Bonds.

If a suit, action or proceeding to enforce any right or exercise any remedy be abandoned or determined adversely to the Series A Bond Owners, the District and the Series A Bond Owners shall be restored to their former positions, rights and remedies as if such suit, action or proceeding had not been brought or taken.

ARTICLE VIII

AMENDMENT OF THIS RESOLUTION

SECTION 8.01. *Amendments Effective Without Consent of the Owners.* The Board may amend this Resolution from time to time, without the consent of the Owners of the Series A Bonds, for any one or more of the following purposes:

- (a) To add to the covenants and agreements of the District in this Resolution, other covenants and agreements to be observed by the District which are not contrary to or inconsistent with this Resolution as theretofore in effect;
- (b) To confirm, as further assurance, any pledge under, and to subject to any lien or pledge created or to be created by, this Resolution, of any moneys, securities or funds, or to establish any additional funds or accounts to be held under this Resolution;
- (c) To cure any ambiguity, supply any omission, or cure or correct any defect or inconsistent provision in this Resolution, in a manner which does not materially adversely affect the interests of the Series A Bond Owners in the opinion of Bond Counsel filed with the District; or

- (d) To make such additions, deletions or modifications as may be necessary or desirable to assure exemption from federal income taxation of interest on the Series A Bonds.

SECTION 8.02. *Amendments Effective With Consent of the Owners.* The Board may amend this Resolution from time to time for any purpose not set forth in Section 8.01, with the written consent of the Owners of a majority in aggregate principal amount of the Series A Bonds Outstanding at the time such consent is given. Without the consent of all the Owners of such Series A Bonds, no such modification or amendment shall permit (a) a change in the terms of maturity of the principal of any Outstanding Series A Bonds or of any interest payable thereon or a reduction in the principal amount thereof or in the rate of interest thereon, (b) a reduction of the percentage of Series A Bonds the consent of the Owners of which is required to effect any such modification or amendment, (c) a change in any of the provisions in Section 7.01 or (d) a reduction in the amount of moneys pledged for the repayment of the Series A Bonds, and no right or obligation of any Paying Agent may be changed or modified without its written consent.

ARTICLE IX

MISCELLANEOUS

SECTION 9.01. *Benefits of Resolution Limited to Parties.* Nothing in this Resolution, expressed or implied, gives any person other than the District, the Counties, the Paying Agent and the Owners of the Series A Bonds, any right, remedy, claim under or by reason of this Resolution. The covenants, stipulations, promises or agreements in this Resolution are for the sole and exclusive benefit of the Owners of the Series A Bonds.

SECTION 9.02. *Defeasance of Series A Bonds.*

(a) Discharge of Resolution. Any or all of the Series A Bonds may be paid by the District in any of the following ways, provided that the District also pays or causes to be paid any other sums payable hereunder by the District:

- (i) by paying or causing to be paid the principal or redemption price of and interest on such Series A Bonds, as and when the same become due and payable;
- (ii) by irrevocably depositing, in trust, at or before maturity, money or securities in the necessary amount (as provided in Section 9.02(c) hereof) to pay or redeem such Series A Bonds; or
- (iii) by delivering such Series A Bonds to the Paying Agent for cancellation by it.

If the District pays all Outstanding Series A Bonds and also pays or causes to be paid all other sums payable hereunder by the District, then and in that case, at the election of the District (evidenced by a certificate of a District Representative filed with

the Paying Agent, signifying the intention of the District to discharge all such indebtedness and this Resolution), and notwithstanding that any Series A Bonds have not been surrendered for payment, this Resolution and other assets made under this Resolution and all covenants, agreements and other obligations of the District under this Resolution shall cease, terminate, become void and be completely discharged and satisfied, except only as provided in Section 9.02(b). In such event, upon request of the District, the Paying Agent shall cause an accounting for such period or periods as may be requested by the District to be prepared and filed with the District and shall execute and deliver to the District all such instruments as may be necessary to evidence such discharge and satisfaction, and the Paying Agent shall pay over, transfer, assign or deliver to the District all moneys or securities or other property held by it under this Resolution which are not required for the payment or redemption of Series A Bonds not theretofore surrendered for such payment or redemption.

(b) Discharge of Liability on Series A Bonds. Upon the deposit, in trust, at or before maturity, of money or securities in the necessary amount (as provided in Section 9.02(c) hereof) to pay or redeem any Outstanding Series A Bond (whether upon or prior to its maturity or the redemption date of such Series A Bond), provided that, if such Series A Bond is to be redeemed prior to maturity, notice of such redemption has been given as provided in Section 2.03 or provision satisfactory to the Paying Agent has been made for the giving of such notice, then all liability of the District in respect of such Series A Bond shall cease and be completely discharged, except only that thereafter the Owner thereof shall be entitled only to payment of the principal of and interest on such Series A Bond by the District, and the District shall remain liable for such payment, but only out of such money or securities deposited with the Paying Agent as aforesaid for such payment, provided further, however, that the provisions of Section 9.02(d) shall apply in all events.

The District may at any time surrender to the Paying Agent for cancellation by it any Series A Bonds previously issued and delivered, which the District may have acquired in any manner whatsoever, and such Series A Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired.

(c) Deposit of Money or Securities with Paying Agent. Whenever in this Resolution it is provided or permitted that there be deposited with or held in trust by the Paying Agent money or securities in the necessary amount to pay or redeem any Series A Bonds, the money or securities so to be deposited or held may include money or securities held by the Paying Agent in the funds and accounts established under this Resolution and shall be:

- (i) lawful money of the United States of America in an amount equal to the principal amount of such Series A Bonds and all unpaid interest thereon to maturity, except that, in the case of Series A Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption has been given as provided in Section 2.03 or provision satisfactory to the Paying Agent has been made for the giving of such notice, the amount to be deposited or held shall be the principal amount or redemption price of such Series A Bonds and all unpaid interest thereon to the redemption date; or

- (ii) Federal Securities (not callable by the issuer thereof prior to maturity) the principal of and interest on which when due, in the opinion of a certified public accountant delivered to the District, will provide money sufficient to pay the principal or redemption price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Series A Bonds to be paid or redeemed, as such principal or redemption price and interest become due, provided that, in the case of Series A Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption has been given as provided in Section 2.03 or provision satisfactory to the Paying Agent has been made for the giving of such notice.

(d) Payment of Series A Bonds After Discharge of Resolution. Notwithstanding any provisions of this Resolution, any moneys held by the Paying Agent in trust for the payment of the principal or redemption price of, or interest on, any Series A Bonds and remaining unclaimed for two years after the principal of all of the Series A Bonds has become due and payable (whether at maturity or upon call for redemption as provided in this Resolution), if such moneys were so held at such date, or two years after the date of deposit of such moneys if deposited after said date when all of the Series A Bonds became due and payable, shall, upon request of the District, be repaid to the District free from the trusts created by this Resolution, and all liability of the Paying Agent with respect to such moneys shall thereupon cease; *provided, however*, that before the repayment of such moneys to the District as aforesaid, the Paying Agent may (at the cost of the District) first mail to the Owners of all Series A Bonds which have not been paid at the addresses shown on the Registration Books a notice in such form as may be deemed appropriate by the Paying Agent, with respect to the Series A Bonds so payable and not presented and with respect to the provisions relating to the repayment to the District of the moneys held for the payment thereof. Thereafter, the District shall remain liable to the Owners for payment of any amounts due on the Series A Bonds, which amounts shall be deemed to be paid by the District from moneys remitted to it by the Paying Agent under this subsection (d).

SECTION 9.03. *Execution of Documents and Proof of Ownership by Series A Bond Owners.* Any request, declaration or other instrument which this Resolution may require or permit to be executed by Series A Bond Owners may be in one or more instruments of similar tenor, and shall be executed by Series A Bond Owners in person or by their attorneys appointed in writing.

Except as otherwise herein expressly provided, the fact and date of the execution by any Series A Bond Owner or his attorney of such request, declaration or other instrument, or of such writing appointing such attorney, may be proved by the certificate of any notary public or other officer authorized to take acknowledgments of deeds to be recorded in the state in which he purports to act, that the person signing such request, declaration or other instrument or writing acknowledged to him the execution thereof, or by an affidavit of a witness of such execution, duly sworn to before such notary public or other officer.

Except as otherwise herein expressly provided, the ownership of registered Series A Bonds and the amount, maturity, number and date of holding the same shall be proved by the Registration Books.

Any request, declaration or other instrument or writing of the Owner of any Series A Bond shall bind all future Owners of such Series A Bond in respect of anything done or suffered to be done by the District or the Paying Agent in good faith and in accordance therewith.

SECTION 9.04. *Waiver of Personal Liability.* No Board member, officer, agent or employee of the District shall be individually or personally liable for the payment of the principal of or interest on the Series A Bonds; but nothing herein contained shall relieve any such Board member, officer, agent or employee from the performance of any official duty provided by law.

SECTION 9.05. *Limited Duties of Counties; Indemnification.* The Counties (including their officers, agents and employees) shall undertake only those duties of the Counties under this Resolution which are specifically set forth in this Resolution and in applicable provisions of the Bond Law and the Education Code, and even during the continuance of an event of default with respect to the Series A Bonds, no implied covenants or obligations shall be read into this Resolution against the Counties (including its officers, agents and employees).

The District further agrees to indemnify, defend and save the Counties (including their officers, agents and employees) harmless against any and all liabilities, costs, expenses, damages and claims which it may incur in the exercise and performance of its powers and duties hereunder which are not due to its negligence or bad faith.

SECTION 9.06. *Destruction of Canceled Series A Bonds.* Whenever in this Resolution provision is made for the surrender to the District of any Series A Bonds which have been paid or canceled under the provisions of this Resolution, a certificate of destruction duly executed by the Paying Agent shall be deemed to be the equivalent of the surrender of such canceled Series A Bonds and the District shall be entitled to rely upon any statement of fact contained in any certificate with respect to the destruction of any such Series A Bonds therein referred to.

SECTION 9.07. *Partial Invalidity.* If any section, paragraph, sentence, clause or phrase of this Resolution shall for any reason be held illegal or unenforceable, such holding shall not affect the validity of the remaining portions of this Resolution. The District hereby declares that it would have adopted this Resolution and each and every other section, paragraph, sentence, clause or phrase hereof and authorized the issue of the Series A Bonds pursuant thereto irrespective of the fact that any one or more sections, paragraphs, sentences, clauses, or phrases of this Resolution may be held illegal, invalid or unenforceable. If, by reason of the judgment of any court, the District is rendered unable to perform its duties hereunder, all such duties and all of the rights and powers of the District hereunder shall be assumed by and vest in the chief financial officer of the District in trust for the benefit of the Series A Bond Owners.

SECTION 9.08. *Effective Date of Resolution.* This Resolution shall take effect from and after the date of its passage and adoption.

* * * * *

PASSED AND ADOPTED on March 9, 2017, by the following vote:

AYES:

NOES:

ABSENT:

President of the Board of Trustees
Pierce Joint Unified School District,
Colusa and Yolo Counties, California

ATTEST:

Secretary of the Board of Trustees
Pierce Joint Unified School District,
Colusa and Yolo Counties, California

APPENDIX A

FORM OF SERIES A BOND

[Exhibit only; Not for execution]

REGISTERED BOND NO. _____

***\$ _____ ***

PIERCE JOINT UNIFIED SCHOOL DISTRICT

(Colusa and Yolo Counties, California)

GENERAL OBLIGATION BOND

ELECTION OF 2016, SERIES A

**INTEREST RATE
PER ANNUM:**

MATURITY DATE:

DATED DATE:

CUSIP:

REGISTERED OWNER: Cede & Co.

PRINCIPAL AMOUNT: *** _____ **DOLLARS*****

The Pierce Joint Unified School District (the "District"), located in the Counties of Colusa and Yolo (the "Counties"), for value received, hereby promises to pay to the Registered Owner named above, or registered assigns, the principal amount on the Maturity Date, each as stated above, and interest thereon, calculated on a 30/360 day basis, until the principal amount is paid or provided for, at the Interest Rate stated above, such interest to be paid on February 1 and August 1 of each year, commencing August 1, 2017 (the "Interest Payment Dates"). This Bond will bear interest from the Interest Payment Date next preceding the date of authentication hereof, unless (a) it is authenticated as of a business day following the 15th day of the month immediately preceding any Interest Payment Date and on or before such Interest Payment Date, in which event it shall bear interest from such Interest Payment Date, or (b) it is authenticated on or before July 15, 2017, in which event it shall bear interest from the Dated Date referred to above. Principal hereof is payable at the corporate trust office of the paying agent for the Bonds (the "Paying Agent"), initially being the Bank of New York Mellon Trust Company in Dallas, Texas. Interest hereon (including the final interest payment upon maturity) is payable by check or draft of the Paying Agent mailed by first-class mail to the Owner at the Owner's address as it appears on the registration books maintained by the Paying Agent as of the close of business on the 15th day of the month next preceding such Interest Payment Date (the "Record Date"), or at such other address as the Owner may have filed with the Paying Agent for that purpose.

Principal hereof is payable at the corporate trust office of the Paying Agent. Interest hereon (including the final interest payment upon maturity) is payable by check or draft of the Paying Agent mailed by first-class mail to the Owner at the Owner's

address as it appears on the registration books maintained by the Paying Agent as of the close of business on the 15th day of the month next preceding such Interest Payment Date (the "Record Date"), or at such other address as the Owner may have filed with the Paying Agent for that purpose.

This Bond is one of a duly authorized issue of Bonds of the District designated as "Pierce Joint Unified School District (Pierce Joint, California) General Obligation Bonds, Election of 2016, Series A" (the "Bonds"), in an aggregate principal amount of \$_____, all of like tenor and date (except for such variation, if any, as may be required to designate varying numbers, maturities, interest rates or redemption and other provisions) and all issued under the provisions of Article 4.5 of Chapter 3 of Part 1 of Division 2 of Title 5 of the California Government Code (the "Bond Law"), and under a Resolution of the Board of Trustees of the District adopted on March 9, 2017 (the "Resolution"), authorizing the issuance of the Bonds. The issuance of the Bonds has been authorized by the requisite 55% vote of the electors of the District cast at an election held on November 8, 2016, upon the question of issuing bonds in the amount of \$15,000,000.

The Bonds are being issued in the form of current interest bonds in the aggregate principal amount of \$_____, all subject to the terms and conditions of the Resolution. All capitalized terms herein and not otherwise defined have the meaning given them in the Resolution, and if not therein defined, in the Bond Purchase Agreement with respect to the Bonds. Reference is hereby made to the Resolution and the Bond Purchase Agreement (copies of which are on file at the office of the Paying Agent) and the Bond Law for a description of the terms on which the Bonds are issued and the rights thereunder of the owners of the Bonds and the rights, duties and immunities of the Paying Agent and the rights and obligations of the District thereunder, to all of the provisions of which Resolution the Owner of this Bond, by acceptance hereof, assents and agrees.

The principal of and interest and redemption premium, if any, on this Bond does not constitute a debt of the Counties, the State of California, or any of its political subdivisions other than the District, or any of the officers, agents and employees thereof, and neither the Counties, the State of California, any of its political subdivisions, nor any of the officers, agents and employees thereof shall be liable hereon. In no event shall the principal of and interest and redemption premium, if any, on this Bond be payable out of any funds or properties of the District other than *ad valorem* taxes levied upon all taxable property in the District.

The Bonds of this issue are issuable only as fully registered Bonds in the denominations of \$5,000 or any integral multiple thereof. This Bond is exchangeable and transferable for Bonds of other authorized denominations at the principal corporate trust office of the Paying Agent, by the Registered Owner or by a person legally empowered to do so, upon presentation and surrender hereof to the Paying Agent, together with a request for exchange or an assignment signed by the Registered Owner or by a person legally empowered to do so, in a form satisfactory to the Paying Agent, all subject to the terms, limitations and conditions provided in the Bond Resolution. Any tax or governmental charges shall be paid by the transferor. The District and the Paying Agent may deem and treat the Registered Owner as the absolute owner of this Bond for the purpose of receiving payment of or on account of principal or interest and for all

other purposes, and neither the District nor the Paying Agent shall be affected by any notice to the contrary.

The Bonds maturing on or after August 1, 20__ are subject to redemption prior to maturity, at the option of the District, in whole or in part among maturities on such basis as shall be designated by the District and by lot within a maturity, from any available source of funds, on August 1, 20__, or on any date thereafter, at a price equal to 100% of the principal amount thereof, without premium, together with accrued interest thereon to the redemption date.

The Bonds maturing on August 1, 20__ and August 1, 20__ (the "Term Bonds"), are subject to mandatory sinking fund redemption on August 1 of each year in accordance with the respective schedules set forth below. The Term Bonds so called for mandatory sinking fund redemption shall be redeemed in the sinking fund payments amounts and on the dates set forth below, without premium.

Term Bonds Maturing August 1, 20__

Redemption Date (August 1)	Sinking Fund Redemption
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Term Bonds Maturing August 1, 20__

Redemption Date (August 1)	Sinking Fund Redemption
-------------------------------	----------------------------

If any such Term Bonds are redeemed pursuant to optional redemption, the total amount of all future sinking fund payments with respect to such Term Bonds shall be reduced by the aggregate principal amount of such Term Bonds so redeemed, to be allocated among such payments on a pro rata basis in integral multiples of \$5,000 principal amount (or on such other basis as the District may determine) as set forth in written notice given by the District to the Paying Agent.

The Paying Agent shall give notice of the redemption of the Bonds at the expense of the District. Such notice shall specify: (a) that the Bonds or a designated portion thereof are to be redeemed, (b) the numbers and CUSIP numbers of the Bonds to be redeemed, (c) the date of notice and the date of redemption, (d) the place or places where the redemption will be made, and (e) descriptive information regarding the Bonds including the dated date, interest rate and stated maturity date. Such notice shall further state that on the specified date there shall become due and payable upon each Bond to be redeemed, the portion of the principal amount of such Bond to be redeemed, together with interest accrued to said date, the redemption premium, if any, and that from and after such date interest with respect thereto shall cease to accrue and be payable. Such notice may be conditional and subject to rescission as described in the Resolution.

Notice of redemption shall be by registered or otherwise secured mail or delivery service, postage prepaid, to the registered owner of the Bonds, to a municipal registered securities depository and to a national information service that disseminates securities redemption notices and, by first class mail, postage prepaid, to the District and the respective Owners of any Bonds designated for redemption at their addresses appearing on the Bond registration books, in every case at least 30 days, but not more than 60 days, prior to the redemption date; provided that neither failure to receive such notice nor any defect in any notice so mailed shall affect the sufficiency of the proceedings for the redemption of such Bonds.

Neither the District nor the Paying Agent will be required: (a) to issue or transfer any Bond during a period beginning with the opening of business on the 15th calendar day next preceding either any Interest Payment Date or any date of selection of any Bond to be redeemed and ending with the close of business on the Interest Payment Date or a day on which the applicable notice of redemption is given, or (b) to transfer any Bond which has been selected or called for redemption in whole or in part.

THE DISTRICT HAS DESIGNATED THE BONDS AS "QUALIFIED TAX-EXEMPT OBLIGATIONS" WITHIN THE MEANING OF SECTION 265(B)(3) OF THE INTERNAL REVENUE CODE OF 1986 (the "Tax Code"), and, in the case of certain financial institutions (within the meaning of section 265(b)(5) of the Tax Code), a deduction is allowed for 80 percent of that portion of such financial institutions' interest expense allocable to interest payable on the Bonds.

Reference is made to the Bond Resolution for a more complete description of the provisions, among others, with respect to the nature and extent of the security for the Bonds of this series, the rights, duties and obligations of the District, the Paying Agent and the Registered Owners, and the terms and conditions upon which the Bonds are issued and secured. The owner of this Bond assents, by acceptance hereof, to all of the provisions of the Bond Resolution.

It is certified, recited and declared that all acts and conditions required by the Constitution and laws of the State of California to exist, to be performed or to have been met precedent to and in the issuing of the Bonds in order to make them legal, valid and binding general obligations of the District, have been performed and have been met in regular and due form as required by law; that payment in full for the Bonds has been received; that no statutory or constitutional limitation on indebtedness or taxation has been exceeded in issuing the Bonds; and that due provision has been made for levying and collecting *ad valorem* property taxes on all of the taxable property within the District in an amount sufficient to pay principal and interest when due, and for levying and collecting such taxes the full faith and credit of the District are hereby pledged.

This Bond shall be not be valid or obligatory for any purpose and is not entitled to any security or benefit under the Bond Resolution (described on the reverse hereof) until the Certificate of Authentication below has been manually signed by the Paying Agent.

Unless this Bond is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the Paying Agent for registration of transfer, exchange, or payment, and any Bond issued is registered in the name of Cede & Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an

authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE
HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL
inasmuch as the registered owner hereof, Cede & Co., has an interest in this Bond.

IN WITNESS WHEREOF, the Pierce Joint Unified School District has caused this
Bond to be executed by the facsimile signature of its President and attested by the
facsimile signature of the Secretary of its Board of Trustees, all as of the date stated
above.

PIERCE JOINT UNIFIED SCHOOL DISTRICT

By _____
President

Attest:

Secretary of the Board

FORM OF CERTIFICATE OF AUTHENTICATION

This is one of the Bonds described in the within-mentioned Resolution.

Authentication Date: _____, 2017

**THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A.,**
as Paying Agent

Authorized Signatory

FORM OF ASSIGNMENT

For value received, the undersigned do(es) hereby sell, assign and transfer unto

(Name, Address and Tax Identification or Social Security Number of Assignee)

the within Bond and do(es) hereby irrevocably constitute and appoint _____, attorney, to transfer the same on the registration books of the Bond Registrar, with full power of substitution in the premises.

Dated: _____

Signature Guaranteed:

Note: Signature(s) must be guaranteed by a an eligible guarantor institution.

Note: The signature(s) on this Assignment must correspond with the name(s) as written on the face of the within Bond in every particular without alteration or enlargement or any change whatsoever.

\$ _____
PIERCE JOINT UNIFIED SCHOOL DISTRICT
(Colusa and Yolo Counties, California)
General Obligation Bonds
Election of 2016, Series A
(Bank Qualified)

BOND PURCHASE AGREEMENT

_____, 2017

Board of Trustees
Pierce Joint Unified School District
540A 6th Street
Arbuckle, CA 95912

Ladies and Gentlemen:

Stifel, Nicolaus & Company, Incorporated, as underwriter (the "Underwriter"), acting on its own behalf and not as fiduciary or agent for the hereinafter defined District, offers to enter into this Bond Purchase Agreement (this "Purchase Agreement") with the Pierce Joint Unified School District (the "District"), which, upon acceptance hereof by the District, will be binding upon the District and the Underwriter. This offer is made subject to the written acceptance of this Purchase Agreement by the District and delivery of such acceptance to the Underwriter at its office prior to 11:59 p.m., California Time, on the date hereof.

1. **Purchase and Sale of the Bonds.** Upon the terms and conditions and in reliance upon the representations, warranties and agreements herein set forth, the Underwriter hereby agrees to purchase from the District for reoffering to the public, and the District hereby agrees to sell to the Underwriter for such purpose, all (but not less than all) of \$_____ in aggregate principal amount of Pierce Joint Unified School District (Colusa and Yolo Counties, California) General Obligation Bonds, Election of 2016, Series A (the "Bonds"). The Underwriter shall purchase the Bonds at a purchase price of \$_____ (representing the principal amount of the Bonds, plus [net] original issue premium of \$_____, less Underwriter's discount of \$_____).

The Bonds are issued under the provisions of a resolution adopted by the Board of Trustees of the District on March 9, 2017 (the "Bond Resolution") and the provisions of Article 4.5 of Chapter 3 of Part 1 of Division 2 of Title 5 of the California Government Code (the "Bond Law"), for the purpose of financing educational projects approved by District voters at the November 8, 2016 election, as more particularly described in the Bond Resolution.

The Bonds are being issued as current interest bonds, and shall bear interest at the rates, and shall mature in the years shown on Appendix A hereto, which is incorporated herein by this reference.

The District acknowledges and agrees that (i) the purchase and sale of the Bonds pursuant to this Purchase Agreement is an arm's-length commercial transaction between the

District and the Underwriter, (ii) in connection with such transaction, the Underwriter is and has been acting solely as a principal and not as an agent or a fiduciary of the District, (iii) the Underwriter has not assumed (individually or collectively) a fiduciary responsibility in favor of the District with respect to (x) the offering of the Bonds or the process leading thereto (whether or not the Underwriter or any affiliate of the Underwriter has advised or is currently advising the District on other matters) or (y) any other obligation to the District except the obligations expressly set forth in this Purchase Agreement and (iv) the District has consulted with its own legal, financial and other professional advisors to the extent it deemed appropriate in connection with the offering of the Bonds. The District acknowledges that it has previously provided the Underwriter with an acknowledgment of receipt of the required Underwriter disclosure under Rule G-17 of the Municipal Securities Rulemaking Board (the "MSRB").

2. **The Bonds.** The Bonds shall be dated their date of delivery, and shall otherwise be as described in, and shall be issued and secured pursuant to, the provisions of the Bond Resolution and the Bond Law.

The Bonds shall be executed and delivered under and in accordance with the provisions of this Purchase Agreement and the Bond Resolution. The Bonds shall be in book-entry form, shall bear CUSIP numbers, shall be in fully registered form initially, registered in the name of Cede & Co., as nominee of the Depository Trust Company.

3. **Redemption.** The Bonds shall be subject to redemption as provided in Appendix A hereto.

4. **Use of Documents.** The District hereby authorizes the Underwriter to use, in connection with the offer and sale of the Bonds, this Purchase Agreement, a Preliminary Official Statement and an Official Statement (both as defined below), the Bond Resolution, and all information contained herein and therein and all of the documents, certificates, or statements furnished by the District to the Underwriter in connection with the transactions contemplated by this Purchase Agreement.

5. **Public Offering of the Bonds.** The Underwriter agrees to make a bona fide public offering of all the Bonds at the initial public offering prices or yields to be set forth on the inside cover page of the Official Statement and in Appendix A hereto. Subsequent to such initial public offering, the Underwriter reserves the right to change such initial public offering prices or yields as it deems necessary in connection with the marketing of the Bonds.

6. **Review of Official Statement.** The Underwriter hereby represents that it has received and reviewed the Preliminary Official Statement with respect to the Bonds, dated _____, 2017 (the "Preliminary Official Statement"). The District represents that the Preliminary Official Statement was "deemed final" as of the date thereof, for purposes of Securities and Exchange Commission Rule 15c2-12 ("Rule 15c2-12"), except for either revisions or additions to the offering price(s), interest rate(s), yield(s), Underwriter's discount, aggregate principal amount, principal amount per maturity, delivery date, rating(s) and other terms of the Bonds which depend upon the foregoing as provided in and pursuant to Rule 15c2-12. The District hereby ratifies, confirms and approves of the use and distribution by the Underwriter prior to the date hereof of the Preliminary Official Statement. The District does not object to distribution of the Preliminary Official Statement in electronic form.

The Underwriter agrees that prior to the time the final Official Statement (as defined in Section 10(b)) relating to the Bonds is available, the Underwriter will send to any potential

purchaser of the Bonds, upon the request of such potential purchaser, a copy of the most recent Preliminary Official Statement. Such Preliminary Official Statement shall be sent by first class mail (or other equally prompt means) not later than the first business day following the date upon which each such request is received. The District does not object to distribution of the final Official Statement in electronic form.

7. **Closing.** At 8:30 a.m., California Time, on _____, 2017 or at such other time or on such other date as shall have been mutually agreed upon by the District and the Underwriter (such payment and delivery herein called the “Closing,” and the date thereof the “Closing Date”), the District will deliver to the Underwriter, through the facilities of The Depository Trust Company (“DTC”) utilizing DTC’s FAST delivery system, or at such other place as the District and the Underwriter may mutually agree upon, the Bonds in fully registered book-entry form, duly executed and registered in the name of Cede & Co., as nominee of DTC, and at the offices of Jones Hall, A Professional Law Corporation, in San Francisco, California (“Bond Counsel”), the other documents hereinafter mentioned, and the Underwriter will accept such delivery and pay the purchase price thereof set forth in Section 1 hereof in immediately available funds by check, draft or wire transfer to or upon the order of the District.

8. **Representations, Warranties and Agreements of the District.** The District hereby represents, warrants and agrees with the Underwriter that:

- (a) **Due Organization.** The District is and will be on the Closing Date a school district duly organized and validly existing under the laws of the State of California, with the power to issue the Bonds pursuant to the Bond Law, to adopt the Bond Resolution and to enter into this Purchase Agreement, and the Continuing Disclosure Certificate (as defined in paragraph (i) below).
- (b) **Due Authorization.** (i) At or prior to the Closing, the District will have taken all action required to be taken by it to authorize the issuance and delivery of the Bonds; (ii) the District has full legal right, power and authority to enter into this Purchase Agreement and the Continuing Disclosure Certificate, to adopt the Bond Resolution, to perform its obligations under each such document or instrument, and to carry out and effectuate the transactions contemplated by this Purchase Agreement and the Continuing Disclosure Certificate and the Bond Resolution; (iii) the execution and delivery or adoption of, and the performance by the District of the obligations contained in the Bonds, the Bond Resolution, the Continuing Disclosure Certificate and this Purchase Agreement have been duly authorized and such authorization shall be in full force and effect at the time of the Closing; (iv) this Purchase Agreement and the Continuing Disclosure Certificate constitute valid and legally binding obligations of the District; and (v) the District has duly authorized the consummation by it of all transactions contemplated by this Purchase Agreement.
- (c) **Consents.** No consent, approval, authorization, order, filing, registration, qualification, election or referendum, of or by any court or governmental agency or public body whatsoever is required in connection with the issuance, delivery or sale of the Bonds or the consummation of the other transactions effected or contemplated herein or hereby. The District gives no representation or warranty with regard to compliance with Blue Sky or similar securities requirements.

- (d) Internal Revenue Code. The District has complied with the Internal Revenue Code of 1986, as amended, with respect to the Bonds, and the District shall not knowingly take or omit to take any action that, under existing law, may adversely affect the exclusion from gross income for federal income tax purposes, or the exemption from any applicable State tax of the interest on the Bonds.
- (e) No Conflicts. To the best knowledge of the District, the issuance of the Bonds, and the execution, delivery and performance of this Purchase Agreement, the Bond Resolution, the Continuing Disclosure Certificate and the Bonds, and the compliance with the provisions hereof and thereof, do not conflict with or constitute on the part of the District a violation of or material default under the Constitution of the State of California or any existing law, charter, ordinance, regulation, decree, order or resolution and do not conflict with or result in a violation or breach of, or constitute a material default under, any agreement, indenture, mortgage, lease or other instrument to which the District is a party or by which it is bound or to which it is subject.
- (f) Litigation. As of the time of acceptance hereof no action, suit, proceeding, hearing or investigation is pending or, to the best knowledge of the District, threatened against the District: (i) in any way affecting the existence of the District or in any way challenging the respective powers of the several offices or of the title of the officials of the District to such offices; or (ii) seeking to restrain or enjoin the sale, issuance or delivery of any of the Bonds, the application of the proceeds of the sale of the Bonds, or the collection or the levy of any taxes contemplated by the Bond Resolution and available to pay debt service on the Bonds or in any way contesting or affecting the validity or enforceability of the Bonds, this Purchase Agreement, the Continuing Disclosure Certificate or the Bond Resolution or contesting the powers of the District or the Bond Resolution or this Purchase Agreement or contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement; or (iii) in which a final adverse decision could (a) materially adversely affect the operations of the District or the consummation of the transactions contemplated by this Purchase Agreement or the Bond Resolution, (b) declare this Purchase Agreement to be invalid or unenforceable in whole or in material part, or (c) adversely affect the exclusion of the interest paid on the Bonds from gross income for federal income tax purposes and the exemption of such interest from California personal income taxation.
- (g) No Other Debt. Between the date hereof and the Closing, without the prior written consent of the Underwriter, the District will not have issued any bonds, notes or other obligations for borrowed money except for such borrowings as may be described in or contemplated by the Official Statement.
- (h) Certificates. Except as specifically provided, any certificates signed by any officer of the District and delivered to the Underwriter shall be deemed a

representation and warranty by the District to the Underwriter, but not by the person signing the same, as to the statements made therein.

- (i) Continuing Disclosure. The District shall undertake, pursuant to the Bond Resolution, the Continuing Disclosure Certificate with respect to the Bonds in substantially the form attached as Appendix E of the Preliminary Official Statement (the "Continuing Disclosure Certificate") and Rule 15c2-12, to provide certain annual financial information and notices of the occurrence of certain events described therein. A description of this undertaking is set forth in the Preliminary Official Statement and will also be set forth in the final Official Statement. The Preliminary Official Statement describes, and the final Official Statement will describe, any instances in the previous five years in which the District failed to comply in all material respects with its prior undertakings pursuant to Rule 15c2-12.

- (j) Official Statement Accurate and Complete. The Preliminary Official Statement, at the date thereof, did not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. At the date hereof and on the Closing Date, the final Official Statement did not and will not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The District makes no representation or warranty as to the information contained in or omitted from the Preliminary Official Statement or the final Official Statement in reliance upon and in conformity with information furnished in writing to the District by or on behalf of the Underwriter through a representative of the Underwriter specifically for inclusion therein. If the Official Statement is supplemented or amended pursuant to Section 10(c) of this Purchase Agreement, at the time of each supplement or amendment thereto and (unless subsequently again supplemented or amended pursuant to such paragraph) at all times subsequent thereto during the period up to and including the Closing Date, the Official Statement as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which made, not misleading.

- (k) Financial Information. The financial statements of, and other financial information regarding the District contained in the Official Statement fairly present the financial position of the District as of the dates and for the periods therein set forth, (i) the audited financial statements have been prepared in accordance with generally accepted accounting principles consistently applied, (ii) the unaudited financial statements (if any) have been prepared on a basis substantially consistent with the audited financial statements included in the Official Statement and reflect all adjustments necessary to that affect, and (iii) the other financial information has been determined on a basis substantially consistent with that of the District's audited financial statements included in the Official Statement.

- (l) No Financial Advisory Relationship. The District has had no financial advisory relationship with the Underwriter with respect to the Bonds, nor with any investment firm controlling, controlled by or under common control with the Underwriter.
- (m) Underwriter Not Fiduciary. Inasmuch as this purchase and sale represents a negotiated transaction, the District understands, and hereby confirms, that the Underwriter is not acting as a fiduciary of the District, but rather is acting solely in its capacity as Underwriter, for its own account.
- (n) Levy of Tax. The District hereby agrees to take any and all actions as may be required by Colusa and Yolo Counties (the "County") or otherwise necessary in order to arrange for the levy and collection of taxes and payment of the Bonds. In particular, the District hereby agrees to provide to the Treasurer-Tax Collector for the County a copy of the Bond Resolution, a copy of Appendix A hereto, and the full debt service schedule for the Bonds, in accordance with Education Code Sections 15250 et seq., Government Code Section 53559 and policies and procedures of the County.

9. **Underwriter Representations, Warranties and Agreements.** The Underwriter represents, warrants to and agrees with the District that, as of the date hereof and as of the Closing Date:

- (a) The execution and delivery hereof and the consummation of the transactions contemplated hereby does not and will not violate any of the prohibitions set forth in Rule G-37 promulgated by the MSRB;
- (b) All reports required to be submitted to the MSRB pursuant to Rule G-37 have been or will be submitted to the MSRB; and
- (c) The Underwriter has not paid or agreed to pay, nor will it pay or agree to pay, any entity, company, firm, or person (including, but not limited to the District's financial advisor, or any officer, agent or employee thereof), other than a bona fide officer, agent or employee working for Underwriter, any compensation, fee, gift or other consideration contingent upon or resulting from the award of or entering into this Purchase Agreement.

10. **Covenants of the District.** The District covenants and agrees with the Underwriter that:

- (a) Securities Laws. The District will furnish such information, execute such instruments, and take such other action in cooperation with, and at the expense of, the Underwriter if and as the Underwriter may reasonably request in order to qualify the Bonds for offer and sale under the Blue Sky or other securities laws and regulations of such states and jurisdictions, provided, however, that the District shall not be required to consent to service of process in any jurisdiction in which they are not so subject as of the date hereof.

- (b) Official Statement. The District hereby agrees to deliver or cause to be delivered to the Underwriter, not later than the seventh business day following the date this Purchase Agreement is signed, copies of a final Official Statement substantially in the form of the Preliminary Official Statement, with only such changes therein as shall have been accepted by the Underwriter and the District (such Official Statement with such changes, if any, and including the cover page and all appendices, exhibits, maps, reports and statements included therein or attached thereto being called the "Official Statement") in such reasonable quantities as may be requested by the Underwriter not later than five business days following the date this Purchase Agreement is signed, in order to permit the Underwriter to comply with paragraph (b)(4) of Rule 15c2-12 and with the rules of the MSRB. The District hereby authorizes the Underwriter to use and distribute the Official Statement in connection with the offering and sale of the Bonds.
- (c) Subsequent Events; Amendments to Official Statement. If between the date hereof and the date which is 25 days after the End of the Underwriting Period for the Bonds (determined pursuant to Section 16), an event occurs which would cause the information contained in the final Official Statement, as then supplemented or amended, to contain an untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make such information therein, in the light of the circumstances under which it was presented, not misleading, the District will notify the Underwriter, and, if in the opinion of the District or the Underwriter, such event requires the preparation and publication of a supplement or amendment to the Official Statement, the District will forthwith prepare and furnish to the Underwriter (at the expense of the District) a reasonable number of copies of an amendment of or supplement to the Official Statement (in form and substance satisfactory to the Underwriter) which will amend or supplement the Official Statement so that they will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at the time the Official Statement is delivered to prospective purchasers, not misleading. If such notification shall be given subsequent to the Closing, the District also shall furnish, or cause to be furnished, such additional legal opinions, certificates, instruments and other documents as the Underwriter may reasonably deem necessary to evidence the truth and accuracy of any such supplement or amendment to the Official Statement. For the purposes of this subsection, between the date hereof and the date which is 25 days after the End of the Underwriting Period for the Bonds, the District will furnish such information with respect to itself as the Underwriter may from time to time reasonably request;
- (d) Application of Proceeds. The District will apply the proceeds from the sale of the Bonds for the purposes specified in the Bond Resolution.
- (e) Filings. The District authorizes the Underwriter to file, to the extent required by the applicable rules promulgated by the Securities and Exchange Commission or the MSRB, and the Underwriter agrees to file or cause to be filed, the Official Statement with (i) the MSRB or its designee (including the MSRB's Electronic Municipal Market Access system); or (ii) other

repositories approved from time to time by the Securities and Exchange Commission (either in addition to or in lieu of the filing referred to above). If an amended Official Statement is prepared in accordance with Section 10(c) of this Purchase Agreement during the "Primary Offering Disclosure Period" (as defined herein), and if required by an applicable Securities and Exchange Commission Rule or MSRB rule, the Underwriter also shall make the required filings of the amended Official Statement. The "Primary Offering Disclosure Period" is used as defined in MSRB Rule G-32 and shall end on the twenty-fifth day after the Closing Date.

11. **Conditions to Closing.** The Underwriter has entered into this Purchase Agreement in reliance upon the representations and warranties of the District contained herein and the performance by the District, of its obligations hereunder, both as of the date hereof and as of the date of Closing. The Underwriter's obligations under this Purchase Agreement are and shall be subject at the option of the Underwriter, to the following further conditions at the Closing:

- (a) Representations True. The representations and warranties of the District contained herein shall be true, complete and correct in all material respects at the date hereof and at and as of the Closing, as if made at and as of the Closing, and the statements made in all certificates and other documents delivered to the Underwriter at the Closing pursuant hereto shall be true, complete and correct in all material respects on the date of the Closing; and the District shall be in compliance with each of the agreements made by it in this Purchase Agreement.
- (b) Obligations Performed. At the time of the Closing, (i) the Official Statement, this Purchase Agreement, the Continuing Disclosure Certificate and the Bond Resolution shall be in full force and effect and shall not have been amended, modified or supplemented except as may have been agreed to in writing by the Underwriter; (ii) all actions under the Bond Law which, in the opinion of Bond Counsel, shall be necessary in connection with the transactions contemplated hereby, shall have been duly taken and shall be in full force and effect; and (iii) the District shall perform or have performed all of its obligations required under or specified in the Bond Resolution, this Purchase Agreement, the Continuing Disclosure Certificate or the Official Statement to be performed at or prior to the Closing.
- (c) Adverse Rulings. No decision, ruling or finding shall have been entered by any court or governmental authority since the date of this Purchase Agreement (and not reversed on appeal or otherwise set aside), or to the best knowledge of the District, pending or threatened which has any of the effects described in Section 8(f) hereof or contesting in any way the completeness or accuracy of the Official Statement.
- (d) Marketability. Between the date hereof and the Closing Date, the market price or marketability or the ability of the Underwriter to enforce contracts for the sale of the Bonds, at the initial offering prices set forth in the Official Statement, shall not have been materially adversely affected by reason of any of the following:

- (1) legislation enacted or introduced in the Congress or recommended for passage by the President of the United States, or a decision rendered by a court established under Article III of the Constitution of the United States or by the United States Tax Court, or an order, ruling, regulation (final, temporary or proposed) or official statement issued or made:
 - (i) by or on behalf of the United States Treasury Department or by or on behalf of the Internal Revenue Service, with the purpose or effect, directly or indirectly, of causing inclusion in gross income for purposes of federal income taxation of the interest received by the owners of the Bonds; or
 - (ii) by or on behalf of the Securities and Exchange Commission, or any other governmental agency having jurisdiction over the subject matter thereof, to the effect that the Bonds, or obligations of the general character of the Bonds, including any and all underlying arrangements, are not exempt from registration under the Securities Act of 1933, as amended;
- (2) the declaration of war or engagement in major military hostilities by the United States or the occurrence of any other national or international emergency or calamity relating to the effective operation of the government or the financial community in the United States;
- (3) the declaration of a general banking moratorium by federal, New York or California authorities, or the general suspension of trading on any national securities exchange;
- (4) the imposition by the New York Stock Exchange, other national securities exchange, or any governmental authority, of any material restrictions not now in force with respect to the Bonds, or obligations of the general character of the Bonds, or securities generally, or the material increase of any such restrictions now in force;
- (5) an order, decree or injunction of any court of competent jurisdiction, or order, filing, regulation or official statement by the Securities and Exchange Commission, or any other governmental agency issued or made to the effect that the issuance, offering or sale of obligations of the general character of the Bonds, or the issuance, offering or sale of the Bonds, as contemplated hereby or by the Official Statement, is or would be in violation of the federal securities laws, as amended and then in effect;
- (6) the occurrence or giving of notice of the intended withdrawal or downgrading or placement on credit watch of any underlying rating of the District's outstanding indebtedness by a national rating agency;
- (7) any materially adverse change in the affairs or the financial condition of the District; or

- (8) any event occurring, or information becoming known which makes untrue in any material adverse respect any statement or information contained in the Official Statement, or has the effect that the Official Statement contains any untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.
- (e) Delivery of Documents. At or prior to the date of the Closing, the Underwriter shall receive two copies of the following documents in each case dated as of the Closing Date and satisfactory in form and substance to the Underwriter:
- (1) Bond Opinion and Reliance Letter. An approving opinion of Bond Counsel, as to the validity and tax-exempt status of the Bonds, dated the date of the Closing, addressed to the District and in substantially the form attached as Appendix D to the Official Statement, and a reliance letter from Bond Counsel, addressed to the Underwriter, to the effect that the Underwriter may rely upon such approving opinion;
 - (2) Supplemental Opinion. A supplemental opinion of Bond Counsel in form and substance satisfactory to the Underwriter, dated the Closing Date and addressed to the District and the Underwriter, to the effect that:
 - (i) the description of the Bonds and the security for the Bonds and statements in the Official Statement on the cover page thereof and under the captions "INTRODUCTION," "THE FINANCING PLAN," "THE SERIES A BONDS" (excluding any and all information contained with respect to the Book-Entry Only System of DTC [and _____ (the "Bond Insurer") and the bond insurance policy issued with respect to the Bonds (the "Bond Insurance Policy")], "TAX MATTERS" and "CERTAIN LEGAL MATTERS - Continuing Disclosure" to the extent they purport to summarize certain provisions of the Bond Resolution, the Continuing Disclosure Certificate, California law or federal law, fairly and accurately summarize the matters purported to be summarized therein;
 - (ii) assuming due authorization, execution and delivery by the parties to this Purchase Agreement other than the District, this Purchase Agreement and the Continuing Disclosure Certificate have been duly authorized, executed and delivered by the District and constitute legal, valid and binding agreements of the District and are enforceable in accordance with their respective terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other laws relating to or affecting generally the enforcement of creditors' rights and except as their enforcement may be subject to the application of equitable principles and the exercise of

judicial discretion in appropriate cases if equitable remedies are sought; and

- (iii) the Bonds are exempt from registration pursuant to the Securities Act of 1933, as amended, and the Bond Resolution is exempt from qualification as an indenture pursuant to the Trust Indenture Act of 1939, as amended;
- (3) Disclosure Counsel Letter. A letter of Jones Hall, A Professional Law Corporation, Disclosure Counsel, dated the Closing Date and addressed to the District and the Underwriter, to the effect that, without having undertaken to determine independently the accuracy or completeness of the statements contained in the Preliminary Official Statement and the final Official Statement, but on the basis of their participation in conferences with representatives of the District, the Underwriter and others, and their examination of certain documents, nothing has come to their attention which has led them to believe that the Preliminary Official Statement as of its date, and the final Official Statement as of its date and as of the Closing Date, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading (except that no opinion or belief need be expressed as to any financial or statistical data, or information concerning DTC and the book-entry only system[, or the Bond Insurer and the Bond Insurance Policy]) contained in the Preliminary Official Statement or the final Official Statement);
- (4) Certificates of the District. A certificate or certificates signed by an appropriate official of the District to the effect that (i) such official is authorized to execute this Purchase Agreement, (ii) the representations, agreements and warranties of the District herein are true and correct in all material respects as of the date of Closing, (iii) the District has complied with all the terms of the Bond Resolution and this Purchase Agreement to be complied with by the District prior to or concurrently with the Closing and such documents are in full force and effect, (iv) such official has reviewed the Preliminary Official Statement and the final Official Statement and on such basis certifies that the Preliminary Official Statement did not as of its date, and the final Official Statement does not as of its date and as of the Closing Date, contain any untrue statement of a material fact, nor omit to state to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, (v) the Bonds being delivered on the date of the Closing to the Underwriter under this Purchase Agreement substantially conform to the descriptions thereof contained in the Bond Resolution, and (vi) no further consent is required for inclusions of the audit in the Official Statement;
- (5) Arbitrage. A non-arbitrage certificate of the District in form satisfactory to Bond Counsel;

- (6) Bond Resolution. A certificate, together with fully executed copies of the Bond Resolution, of the Clerk of the District Board of Trustees to the effect that:
 - (i) such copies are true and correct copies of the Bond Resolution; and
 - (ii) the Bond Resolution was duly adopted and has not been modified, amended, rescinded or revoked and is in full force and effect on the date of the Closing;
- (7) Official Statement. Certificates of the appropriate officials of the District evidencing their determinations respecting the Preliminary Official Statement in accordance with the Rule;
- (8) Continuing Disclosure Certificate. The Continuing Disclosure Certificate, duly executed by the District;
- (9) Paying Agent Certificate. A written certificate of The Bank of New York Mellon Trust Company, N.A., as paying agent (the “Paying Agent”), executed by a duly authorized representative of the Paying Agent, dated the date of the Closing, to the effect that the Paying Agent is validly existing under the laws of the State, and has full power to enter into, accept and perform its duties under the Bond Resolution;
- (10) Tax Rate and Bonding Capacity Certificates. A certificate signed by a District official setting forth a projection evidencing that tax rates are projected not to exceed \$60 per \$100,000 of assessed value during the term of the Bonds, and a certificate signed by a County official confirming that the District is in compliance with applicable bonding capacity limitations;
- (11) Underwriter’s Counsel Opinion. An opinion of Kutak Rock LLP, as counsel to the Underwriter, dated the Closing Date and addressed to the Underwriter, in form and substance acceptable to the Underwriter;
- (12) Rating. Evidence that the Bonds have been assigned a rating of “___” [(underlying)] by S&P Global Ratings, a business unit of Standard & Poor’s Financial Services LLC business (“S&P”)[, and an insured rating of “__” by S&P, based on the delivery of the Bond Insurance Policy], and that [each] such rating has not been withdrawn or downgraded; and
- [(13) Bond Insurer Documents. A copy of the Bond Insurance Policy, together with supporting opinions and certifications as shall be deemed advisable by Bond Counsel and as may be reasonably requested by the Underwriter.]

(14) Other Documents. Such additional legal opinions, certificates, proceedings, instruments and other documents as the Underwriter may reasonably request to evidence compliance (i) by the District with legal requirements, (ii) the truth and accuracy, as of the time of Closing, of the representations of the District herein contained, (iii) the truth and accuracy, as of the time of Closing, of the Official Statement and (iv) the due performance or satisfaction by the District at or prior to such time of all agreements then to be performed and all conditions then to be satisfied by the District.

(f) Termination. Notwithstanding anything to the contrary herein contained, if for any reason whatsoever the Bonds shall not have been delivered by the District to the Underwriter prior to the close of business, California Time, on the Closing Date, then the obligation to purchase Bonds hereunder shall terminate and be of no further force or effect.

If the District shall be unable to satisfy the conditions to the Underwriter's obligations contained in this Purchase Agreement or if the Underwriter's obligations shall be terminated for any reason permitted by this Purchase Agreement, this Purchase Agreement may be canceled by the Underwriter at, or at any time prior to, the time of Closing. Notice of such cancellation shall be given, to the District in writing, or by telephone or telegraph, confirmed in writing. Notwithstanding any provision herein to the contrary, the performance of any and all obligations of the District hereunder and the performance of any and all conditions contained herein for the benefit of the Underwriter may be waived by the Underwriter in writing at its sole discretion.

12. **Conditions to Obligations of the District**. The performance by the District of its obligations is conditioned upon (i) the performance by the Underwriter of its obligations hereunder; and (ii) receipt by the District and the Underwriter of the opinion and certificates being delivered at the Closing by persons and entities other than the District.

13. **Costs and Expenses**. The District shall pay any expenses incident to the issuance of the Bonds, including but not limited to the following: (i) the fees and disbursements of the District's financial advisor; (ii) the fees and disbursements of Bond Counsel and Disclosure Counsel; (iii) the cost of the preparation, printing and delivery of the Bonds; (iv) the fees, if any, for Bond ratings, including all necessary travel expenses; (v) the cost of the printing and distribution of the Preliminary Official Statement and the Official Statement; (vi) the initial fees of the Paying Agent; [(vii) Bond Insurance Policy premium], and (viii) all other fees and expenses incident to the issuance and sale of the Bonds. Such expenses shall be paid from the proceeds of the Bonds or any other lawfully available funds. [The District hereby instructs the Underwriter, on its behalf, to pay the Bond Insurance Policy premium of \$_____ directly to the Bond Insurer at Closing.]

Except as provided above, all out-of-pocket expenses of the Underwriter, including but not limited to California Debt and Investment Advisory Commission fees, CUSIP fees and Underwriter's Counsel shall be paid by the Underwriter.

14. **Notices**. Any notice or other communication to be given under this Purchase Agreement (other than the acceptance hereof as specified in the first paragraph hereof) may be given by delivering the same in writing if to the District, to the Superintendent (or Superintendent's designee), at the address set forth on page 1 hereof, or if to the Underwriter as follows:

Stifel, Nicolaus & Company, Incorporated
One Montgomery Street, 37th Floor
San Francisco, CA 94104
Attn: Katherine Perkins

15. **Parties in Interest; Survival of Representations and Warranties.** This Purchase Agreement when accepted by the District in writing as heretofore specified shall constitute the entire agreement among the District and the Underwriter. This Purchase Agreement is made solely for the benefit of the District and the Underwriter (including the successors or assigns of the Underwriter). No person shall acquire or have any rights hereunder or by virtue hereof. All the representations, warranties and agreements of the District in this Purchase Agreement shall survive regardless of (a) any investigation or any statement in respect thereof made by or on behalf of the Underwriter, (b) delivery of and payment by the Underwriter for the Bonds hereunder, and (c) any termination of this Purchase Agreement.

16. **Determination of End of the Underwriting Period.** For purposes of this Purchase Agreement, the “end of the underwriting period” for the Bonds is used as defined in Rule 15c2-12 and shall occur on the later of (a) the day of the Closing, or (b) when the Underwriter no longer retains an unsold balance of the Bonds. Unless otherwise advised in writing by the Underwriter on or prior to the Closing Date, or otherwise agreed to by the District, the District may assume that the “end of the underwriting period” is the Closing Date.

17. **Severability.** In the event any provision of this Purchase Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

18. **Non-assignment.** Notwithstanding anything stated to the contrary herein, neither party hereto may assign or transfer its interest herein, or delegate or transfer any of its obligations hereunder, without the prior written consent of the other party hereto.

19. **Entire Agreement.** This Purchase Agreement, when executed by the parties hereto, shall constitute the entire agreement of the parties hereto (including their permitted successors and assigns, respectively).

20. **Execution in Counterparts.** This Purchase Agreement may be executed in several counterparts each of which shall be regarded as an original and all of which shall constitute but one and the same document.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

21. **Applicable Law.** This Purchase Agreement shall be interpreted, governed and enforced in accordance with the law of the State of California applicable to contracts made and performed in the State of California.

Very truly yours,

**STIFEL, NICOLAUS & COMPANY,
INCORPORATED**

By: _____
Director

The foregoing is hereby agreed to and accepted as of the date first above written:

PIERCE JOINT UNIFIED SCHOOL DISTRICT

By: _____
Superintendent

Time of Execution: _____ p.m.

APPENDIX A

Maturity Schedule

Maturity Date (August 1)	Principal Amount	Interest Rate	Yield	Price
-------------------------------------	-----------------------------	----------------------	--------------	--------------

\$_____ – _____% Term Bond due August 1, 20____; Yield: _____%; Price _____

C: Priced to first par call on August 1, _____.

Redemption Provisions

**NEW ISSUE - FULL BOOK-ENTRY
BANK QUALIFIED**

**RATING: S&P “_”
See “RATING” herein.**

In the opinion of Jones Hall, A Professional Law Corporation, San Francisco, California, Bond Counsel, subject, however to certain qualifications described in this Official Statement, under existing law, interest on the Series A Bonds is excluded from gross income for federal income tax purposes, and such interest is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations, although for the purpose of computing the alternative minimum tax imposed on certain corporations, interest on the Series A Bonds is taken into account in determining certain income and earnings, and the Series A Bonds are “qualified tax-exempt obligations” within the meaning of Section 265(b)(3) of the Internal Revenue Code of 1986. In the further opinion of Bond Counsel, interest on the Series A Bonds is exempt from California personal income taxes. See “TAX MATTERS.”

\$7,000,000*
PIERCE JOINT UNIFIED SCHOOL DISTRICT
(Colusa and Yolo Counties, California)
General Obligation Bonds
Election of 2016, Series A
(Bank Qualified)

Dated: Date of Delivery

Due: August 1, as shown on inside front cover

Authority and Purpose. The captioned bonds (the “Series A Bonds”) are being issued by the Pierce Joint Unified School District (the “District”) pursuant to certain provisions of the California Government Code and a resolution of the Board of Trustees of the District adopted on March 9, 2017 (the “Bond Resolution”). The Series A Bonds were authorized at an election of the registered voters of the District held on November 8, 2016, which authorized the issuance of \$15,000,000 principal amount of general obligation bonds for the purpose of financing the renovation, construction and improvement of school facilities (the “2016 Authorization”). The Series A Bonds are the first series of bonds to be issued under the 2016 Authorization. See “THE SERIES A BONDS – Authority For Issuance” and “THE FINANCING PLAN” herein.

Security. The Series A Bonds are general obligations of the District, payable solely from *ad valorem* property taxes levied and collected by Colusa and Yolo Counties (the “Counties”). The County Board of Supervisors is empowered and obligated to annually levy *ad valorem* taxes for the payment of interest on, and principal of, the Series A Bonds upon all property subject to taxation by the District, without limitation of rate or amount (except certain personal property which is taxable at limited rates). The District has other series of general obligation bonds outstanding that are secured by tax levies on a parity basis with the Series A Bonds. See “SECURITY FOR THE SERIES A BONDS.”

Book-Entry Only. The Series A Bonds will be issued in book-entry form only, and will be initially issued and registered in the name of Cede & Co. as nominee of The Depository Trust Company, New York, New York (“DTC”). Purchasers will not receive physical certificates representing their interests in the Series A Bonds. See “THE SERIES A BONDS” and Appendix F.

Payments. The Series A Bonds are being issued as current interest bonds. The Series A Bonds accrue interest at the rates set forth on the inside cover page hereof, payable semiannually on each February 1 and August 1 until maturity, commencing August 1, 2017. Payments of principal of and interest on the Series A Bonds will be paid by The Bank of New York Mellon Trust Company, N.A., the designated paying agent, registrar and transfer agent for the Series A Bonds (the “Paying Agent”), to DTC for subsequent disbursement to DTC Participants who will remit such payments to the beneficial owners of the Series A Bonds. See “THE SERIES A BONDS - Description of the Series A Bonds.”

Redemption*. The Series A Bonds are subject to redemption prior to maturity as described herein. See “THE SERIES A BONDS – Redemption.”

Bond Insurance. The District has applied for bond insurance to guarantee the scheduled payment of principal of and interest on the Series A Bonds, and will decide prior to the sale of the Series A Bonds whether to purchase such insurance.

MATURITY SCHEDULE
(See inside cover)

Cover Page. This cover page contains certain information for general reference only. It is not a summary of all the provisions of the Series A Bonds. Prospective investors must read the entire Official Statement to obtain information essential to making an informed investment decision.

The Series A Bonds will be offered when, as and if issued and accepted by the Underwriter, subject to the approval as to legality by Jones Hall, A Professional Law Corporation, San Francisco, California, Bond Counsel to the District, and subject to certain other conditions. Jones Hall, A Professional Law Corporation, is also serving as Disclosure Counsel to the District. Kutak Rock LLP, Denver, Colorado is serving as Underwriter’s Counsel. It is anticipated that the Series A Bonds, in book-entry form, will be available for delivery through the facilities of DTC in New York, New York, on or about _____, 2017.

STIFEL

The date of this Official Statement is _____, 2017.

*Preliminary subject to change.

This Preliminary Official Statement and the information contained herein are subject to completion or amendment. These securities may not be sold nor may offers to buy be accepted prior to the time the Official Statement is delivered in final form. Under no circumstances shall this Preliminary Official Statement constitute an offer to sell or a solicitation of an offer to buy nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such jurisdiction.

MATURITY SCHEDULE

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
(Colusa and Yolo Counties, California)
General Obligation Bonds
Election of 2016, Series A
(Bank Qualified)**

Base CUSIP†: _____

Maturity Date (August 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP†
-------------------------------------	-----------------------------	----------------------	--------------	--------------	---------------

\$ _____ – % Term Bond due August 1, 20__; Yield: _____ %; Price: _____ ; CUSIP†:

† CUSIP Copyright 2017, CUSIP Global Services, and a registered trademark of American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, which is managed on behalf of American Bankers Association by S&P Capital IQ. Neither the District nor the Underwriter takes any responsibility for the accuracy of the CUSIP data.

GENERAL INFORMATION ABOUT THIS OFFICIAL STATEMENT

Use of Official Statement. This Official Statement is submitted in connection with the sale of the Series A Bonds referred to herein and may not be reproduced or used, in whole or in part, for any other purpose. This Official Statement is not a contract between any bond owner and the District or the Underwriter.

No Offering Except by This Official Statement. No dealer, broker, salesperson or other person has been authorized by the District or the Underwriter to give any information or to make any representations other than those contained in this Official Statement and, if given or made, such other information or representation must not be relied upon as having been authorized by the District or the Underwriter.

No Unlawful Offers or Solicitations. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor may there be any sale of the Series A Bonds by a person in any jurisdiction in which it is unlawful for such person to make such an offer, solicitation or sale.

Information in Official Statement. The information set forth in this Official Statement has been furnished by the District and other sources which are believed to be reliable, but it is not guaranteed as to accuracy or completeness.

Estimates and Forecasts. When used in this Official Statement and in any continuing disclosure by the District in any press release and in any oral statement made with the approval of an authorized officer of the District or any other entity described or referenced herein, the words or phrases "will likely result," "are expected to," "will continue," "is anticipated," "estimate," "project," "forecast," "expect," "intend" and similar expressions identify "forward looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in such forward-looking statements. Any forecast is subject to such uncertainties. Inevitably, some assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between forecasts and actual results, and those differences may be material. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, give rise to any implication that there has been no change in the affairs of the District or any other entity described or referenced herein since the date hereof.

Involvement of Underwriter. The Underwriter has provided the following statement for inclusion in this Official Statement: The Underwriter has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under the Federal Securities Laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

Stabilization of and Changes to Offering Prices. The Underwriter may over allot or take other steps that stabilize or maintain the market prices of the Series A Bonds at levels above that which might otherwise prevail in the open market. If commenced, the Underwriter may discontinue such market stabilization at any time. The Underwriter may offer and sell the Series A Bonds to certain securities dealers, dealer banks and banks acting as agent at prices lower than the public offering prices stated on the inside cover page of this Official Statement, and those public offering prices may be changed from time to time by the Underwriter.

Document Summaries. All summaries of the Bond Resolution or other documents referred to in this Official Statement are made subject to the provisions of such documents and qualified in their entirety to reference to such documents, and do not purport to be complete statements of any or all of such provisions.

No Securities Laws Registration. The Series A Bonds have not been registered under the Securities Act of 1933, as amended, in reliance upon exceptions therein for the issuance and sale of municipal securities. The Series A Bonds have not been registered or qualified under the securities laws of any state.

Effective Date. This Official Statement speaks only as of its date, and the information and expressions of opinion contained in this Official Statement are subject to change without notice. Neither the delivery of this Official Statement nor any sale of the Series A Bonds will, under any circumstances, give rise to any implication that there has been no change in the affairs of the District, the Counties, the other parties described in this Official Statement, or the condition of the property within the District since the date of this Official Statement.

Website. The District maintains a website. However, the information presented on the website is not a part of this Official Statement and should not be relied upon in making an investment decision with respect to the Series A Bonds.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
(COLUSA AND YOLO COUNTIES, CALIFORNIA)**

BOARD OF TRUSTEES OF THE DISTRICT

Abel Gomez, President
John Friel, Vice President
Nadine High, Clerk
George Green, Member
Amy Charter, Member

DISTRICT ADMINISTRATION

Carol Geyer, Superintendent
Daena Meras, Chief Business Official

PROFESSIONAL SERVICES

FINANCIAL ADVISOR

Isom Advisors, a Division of Urban Futures, Inc.
Walnut Creek, California

BOND AND DISCLOSURE COUNSEL

Jones Hall, A Professional Law Corporation
San Francisco, California

BOND REGISTRAR, TRANSFER AGENT AND PAYING AGENT

The Bank of New York Mellon Trust Company, N.A.
Dallas, Texas

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\$7,000,000*
PIERCE JOINT UNIFIED SCHOOL DISTRICT
(Colusa and Yolo Counties, California)
General Obligation Bonds
Election of 2016, Series A
(Bank Qualified)

The purpose of this Official Statement, which includes the cover page, inside cover page and attached appendices, is to set forth certain information concerning the sale and delivery of the general obligation bonds captioned above (the “**Series A Bonds**”) by the Pierce Joint Unified School District (the “**District**”).

INTRODUCTION

This Introduction is not a summary of this Official Statement. It is only a brief description of and guide to, and is qualified by, more complete and detailed information contained in the entire Official Statement and the documents summarized or described in this Official Statement. A full review should be made of the entire Official Statement. The offering of Series A Bonds to potential investors is made only by means of the entire Official Statement.

The District. The District encompasses an area of approximately 435 square miles, serving the communities of Arbuckle, Dunnigan, Grimes and College City and the surrounding areas in southern Colusa County and a small portion of Yolo County (the “**Counties**”). The District currently operates two elementary schools, one middle school, one high school and one continuation high school, serving approximately 1,480 students.

For more information regarding the District and the District’s finances, see Appendix B attached hereto. See also Appendix C hereto for demographic and other statistical information regarding Colusa County.

Purpose. The net proceeds of the Series A Bonds will be used to finance construction and improvements to school facilities, as approved by the voters at an election held in the District on November 8, 2016 (the “**Bond Election**”). See “THE FINANCING PLAN” herein.

Authority for Issuance of the Series A Bonds. Issuance of the Series A Bonds was approved by the requisite 55% of the voters of the District voting at the Bond Election, and the Series A Bonds will be issued pursuant to certain provisions of the Government Code of the State, commencing with Section 53506 thereof (the “**Bond Law**”), and pursuant to a resolution adopted by the Board of Trustees of the District on March 9, 2017 (the “**Bond Resolution**”). See “THE SERIES A BONDS - Authority for Issuance” herein.

Payment and Registration of the Series A Bonds. The Series A Bonds are being issued as current interest bonds. The Series A Bonds mature in the years and in the amounts as set forth on the inside cover page hereof. The Series A Bonds will be issued in book-entry form only, and will be initially issued and registered in the name of Cede & Co. as nominee for DTC. Purchasers will not receive physical certificates representing their interest in the Bonds. See “THE SERIES A BONDS” and Appendix F.

Redemption. The Series A Bonds are subject to redemption prior to maturity as described herein. See “THE SERIES A BONDS – Redemption.”

Security and Sources of Payment for the Series A Bonds. The Series A Bonds are general obligation bonds of the District payable solely from *ad valorem* property taxes levied and collected by the Counties. The Counties are empowered and obligated to annually levy *ad valorem* taxes for the payment of interest on, and principal of, the Series A Bonds upon all property subject to taxation by the District, without limitation of rate or amount (except with respect to certain personal property which is taxable at limited rates). See "SECURITY FOR THE SERIES A BONDS."

Tax Matters; Bank Qualification. Assuming compliance with certain covenants and provisions of the Internal Revenue Code of 1986, in the opinion of Jones Hall, A Professional Law Corporation, bond counsel to the District ("**Bond Counsel**"), interest on the Series A Bonds is excluded from gross income for federal income tax purposes although it may be includable in the calculation for certain taxes. Also, in the opinion of Bond Counsel, interest on the Series A Bonds will be exempt from State of California personal income taxes. The District has designated the Series A Bonds as "qualified tax-exempt obligations" pursuant to Section 265(b)(3) of the Internal Revenue Code of 1986. Such section provides an exception to the prohibition against the ability of a "financial institution" (as defined in the Internal Revenue Code of 1986) to deduct its interest expense allocable to interest payable on the Series A Bonds. See "TAX MATTERS."

Bond Insurance. The District has applied for bond insurance to guarantee the scheduled payment of principal of and interest on the Series A Bonds. The District will decide at the time of sale whether or not to purchase such bond insurance.

Continuing Disclosure. The District will execute a Continuing Disclosure Certificate in connection with the issuance of the Series A Bonds in the form attached hereto as Appendix E. See "CONTINUING DISCLOSURE."

Other Information. This Official Statement speaks only as of its date, and the information contained in this Official Statement is subject to change. Copies of documents referred to in this Official Statement and information concerning the Series A Bonds are available from the District from the Superintendent's Office at 540A 6th Street, Arbutle, California 95912, Telephone (530) 476-2892. The District may impose a charge for copying, mailing and handling.

THE FINANCING PLAN

The proceeds of the Series A Bonds will be used to finance projects approved by the voters at the Bond Election, which was approved by more than the requisite 55% of voters in the District. The abbreviated form of the ballot measure is as follows:

“To improve the quality of education by modernizing, constructing and/or renovating classrooms, restrooms, and school facilities; replace outdated heating, ventilation and air-conditioning systems; make health, safety and handicapped accessibility improvements; and replace deteriorating plumbing and sewer systems; with funding that cannot be taken by the state; shall the Pierce Joint Unified School District issue \$15,000,000 of bonds at legal interest rates, have an independent citizens’ oversight committee and have NO money used for administrative or teacher salaries?”

The Series A Bonds described herein represent the first series of bonds to be issued pursuant to the authority of the Bond Election.

SOURCES AND USES OF FUNDS

The estimated sources and uses of funds with respect to the Series A Bonds are as follows:

Sources of Funds

Principal Amount of Series A Bonds
Plus (Less) Net Original Issue Premium (Discount)

Total Sources

Uses of Funds

Deposit to Building Fund
Debt Service Fund
Costs of Issuance ⁽¹⁾

Total Uses

(1) All estimated costs of issuance of the District including, but not limited to, printing costs, fees of Bond Counsel, Disclosure Counsel, the Financial Advisor, the Paying Agent, bond insurance premium (if any), the Underwriter and the rating agency.

APPLICATION OF PROCEEDS OF SERIES A BONDS

Building Fund

The proceeds from the sale of the Series A Bonds, to the extent of the principal amount thereof, will be paid to the County of Colusa ("**Colusa County**") for credit to the fund created and established in the Bond Resolution and known as the "Pierce Joint Unified School District, Election of 2016, Series A Building Fund" (the "**Building Fund**"), which will be accounted for as separate and distinct from all other District and County funds. The proceeds will be used solely for the purposes for which the Series A Bonds are being issued and for payment of permissible costs of issuance. Any excess proceeds of the Series A Bonds not needed for the authorized purposes for which the Series A Bonds are being issued shall be transferred to the Debt Service Fund and applied to the payment of principal of and interest on the Series A Bonds. If, after payment in full of the Series A Bonds, there remain excess proceeds, any such excess amounts shall be transferred to the general fund of the District. Interest earnings on the investment of monies held in the Building Fund will be retained in the Building Fund.

Debt Service Fund

The accrued interest and any premium, if any, received by Colusa County from the sale of the Series A Bonds will be deposited in a separate fund known as the Pierce Joint Unified School District Election of 2016, Series A General Obligation Bonds Debt Service Fund (the "**Debt Service Fund**") which, together with the collections of *ad valorem* taxes, will be used only for payment of principal of and interest on the Series A Bonds. Interest earnings on the investment of monies held in the Debt Service Fund will be retained in the Debt Service Fund and used by Colusa County to pay the principal of and interest on the Series A Bonds when due.

Investment of Proceeds of Series A Bonds

Under California law, the District is generally required to pay all monies received from any source into the County Treasury to be held on behalf of the District. The proceeds of the Series A Bonds to be deposited in the Building Fund and the Debt Service Fund initially will be deposited in the Treasury of Colusa County, which is administered by the County Treasurer (the "**Treasurer**"). All moneys held in any of the funds or accounts established with Colusa County hereunder will be invested in Authorized Investments (defined in the Bond Resolution to include the County Investment Pool, the Local Agency Investment Fund of the California State Treasurer, any investments authorized pursuant to Sections 53601 and 53635 of the California Government Code, and investment agreements, including guaranteed investment contracts, float contracts or other investment products, provided that such agreements comply with the requirements of Section 148 of the Tax Code). Obligations purchased as investments of moneys in any fund or account will be deemed to be part of such fund or account. All interest or gain derived from the investment of amounts in any of the funds or accounts established hereunder will be deposited in the fund or account from which such investment was made, and will be expended for the purposes thereof.

For a description of Colusa County's investment policy, see Appendix G. Money on deposit in the Building Fund and the Debt Service Fund will be accounted for separately from other moneys held by the Treasurer.

THE SERIES A BONDS

Authority for Issuance

The Series A Bonds will be issued under the Bond Law and the Bond Resolution. The Series A Bonds were authorized at an election of the registered voters of the District held on November 8, 2016 (the “**2016 Authorization**”), which authorized the issuance of \$15,000,000 principal amount of general obligation bonds for the purpose of financing the renovation, construction and improvement of school facilities. The Series A Bonds represent the first series of bonds issued pursuant to the 2016 Authorization. Following this issuance of the Series A Bonds, the principal amount remaining under the 2016 Authorization will be \$8,000,000.*

Description of the Series A Bonds

The Series A Bonds are being issued as current interest bonds. The Series A Bonds mature in the years and in the amounts, and bear interest at the rates per annum, as set forth on the inside cover page hereof. Interest shall be computed based on a 360-day year of twelve 30-day months. The Series A Bonds will be issued in book-entry form only, and will be initially issued and registered in the name of Cede & Co. as nominee for DTC. Purchasers will not receive physical certificates representing their interest in the Series A Bonds. See “Book-Entry Only System” below and Appendix F.

The Series A Bonds shall be issued in denominations of \$5,000 principal amount each or any integral multiple thereof. Interest on the Series A Bonds is payable semiannually on each February 1 and August 1, commencing August 1, 2017 (each, an “**Interest Payment Date**”). Each Series A Bond will bear interest from the Interest Payment Date next preceding the date of registration and authentication thereof unless (i) it is authenticated as of an Interest Payment Date, in which event it will bear interest from such date, or (ii) it is authenticated prior to an Interest Payment Date and after the close of business on the fifteenth (15th) day of the month preceding the Interest Payment Date (the “**Record Date**”), in which event it will bear interest from such Interest Payment Date, or (iii) it is authenticated prior to July 15, 2017, in which event it will bear interest from the Closing Date identified on the cover page hereof. Notwithstanding the foregoing, if interest on any Series A Bond is in default at the time of authentication thereof, such Series A Bond will bear interest from the Interest Payment Date to which interest has previously been paid or made available for payment thereon. Payments of principal of and interest on the Series A Bonds will be paid by the Paying Agent to DTC for subsequent disbursement to DTC Participants who will remit such payments to the Beneficial Owners of the Series A Bonds.

See the maturity schedule on the inside cover page of this Official Statement and “DEBT SERVICE SCHEDULES” herein.

Book-Entry Only System

The Series A Bonds will be issued in book-entry form only, and will be initially issued and registered in the name of Cede & Co. as nominee of The Depository Trust Company (“**DTC**”). Purchasers of the Series A Bonds (the “**Beneficial Owners**”) will not receive physical certificates representing their interest in the Series A Bonds. Payments of principal of and

* Preliminary, subject to change.

interest on the Series A Bonds will be paid by The Bank of New York Mellon Trust Company, N.A., the designated paying agent for the Series A Bonds (the “**Paying Agent**”) to DTC for subsequent disbursement to DTC Participants which will remit such payments to the Beneficial Owners of the Series A Bonds.

As long as DTC’s book-entry method is used for the Series A Bonds, the Paying Agent will send any notice of prepayment or other notices to owners only to DTC. Any failure of DTC to advise any DTC Participant, or of any DTC Participant to notify any Beneficial Owner, of any such notice and its content or effect will not affect the validity or sufficiency of the proceedings relating to the prepayment of the Series A Bonds called for prepayment or of any other action premised on such notice. See Appendix F.

The Paying Agent, the District, and the Underwriter of the Series A Bonds have no responsibility or liability for any aspects of the records relating to or payments made on account of beneficial ownership, or for maintaining, supervising or reviewing any records relating to beneficial ownership, of interests in the Series A Bonds.

Redemption*

Optional Redemption. The Series A Bonds maturing on or before August 1, 20__ are not subject to redemption prior to maturity. The Series A Bonds maturing on or after August 1, 20__ are subject to redemption prior to maturity, at the option of the District, in whole or in part among maturities on such basis as shall be designated by the District and by lot within a maturity, from any available source of funds, on August 1, 20__, or on any date thereafter, at a price equal to 100% of the principal amount thereof, without premium, together with accrued interest thereon to the redemption date.

For the purpose of selection for optional redemption, Series A Bonds will be deemed to consist of \$5,000 portions, and any such portion may be separately redeemed. Whenever less than all of the outstanding Series A Bonds of any one maturity are designated for redemption, the Paying Agent shall select the outstanding Series A Bonds of such maturity to be redeemed by lot in any manner deemed fair by the Paying Agent. For purposes of such selection, each Series A Bond will be deemed to consist of individual bonds of \$5,000 portions. The Series A Bonds may all be separately redeemed.

Mandatory Sinking Fund Redemption. The Series A Bonds maturing on August 1, 20__ (the “**Term Bonds**”) are subject to mandatory sinking fund redemption on August 1 of each year in accordance with the schedule set forth below. The Term Bonds so called for mandatory sinking fund redemption shall be redeemed in the sinking fund payments amounts and on the dates set forth below, without premium.

Term Bonds Maturing August 1, 20__

Redemption Date (August 1)	Sinking Fund Redemption
-------------------------------	----------------------------

* Preliminary; subject to change.

If any such Term Bonds are redeemed pursuant to optional redemption, the total amount of all future sinking fund payments with respect to such Term Bonds shall be reduced by the aggregate principal amount of such Term Bonds so redeemed, to be allocated among such payments on a pro rata basis in integral multiples of \$5,000 principal amount (or on such other basis as the District may determined) as set forth in written notice given by the District to the Paying Agent.

Notice of Redemption

The Paying Agent is required to give notice of the redemption of the Series A Bonds, at the expense of the District, at least 20 but no more than 60 days prior to the redemption date. Notice of any redemption of Series A Bonds shall specify: (a) the Series A Bonds or designated portions thereof (in the case of redemption of the Series A Bonds in part but not in whole) which are to be redeemed, (b) the date of redemption, (c) the place or places where the redemption will be made, including the name and address of the Paying Agent, (d) the redemption price, (e) the CUSIP numbers (if any) assigned to the Series A Bonds to be redeemed, (f) the Series A Bond numbers of the Series A Bonds to be redeemed in whole or in part and, in the case of any Series A Bond to be redeemed in part only, the principal amount of such Series A Bond to be redeemed, and (g) the original issue date, interest rate and stated maturity date of each Series A Bond to be redeemed in whole or in part. Such notice shall further state that on the specified date there shall become due and payable upon each Series A Bond or portion thereof being redeemed the redemption price thereof, and that from and after such date, interest thereon shall cease to accrue.

Neither failure to receive or failure to send any notice of redemption nor any defect in any such redemption notice so given shall affect the sufficiency of the proceedings for the redemption of the affected Series A Bonds.

Partial Redemption of Series A Bonds

Upon the surrender of any Series A Bond redeemed in part only, the Paying Agent shall execute and deliver to the Owner thereof a new Series A Bond or Bonds of like tenor and maturity and of authorized denominations equal in transfer amounts to the unredeemed portion of the Series A Bond surrendered. Such partial redemption shall be valid upon payment of the amount required to be paid to such Owner, and Colusa County and the District shall be released and discharged thereupon from all liability to the extent of such payment.

Right to Rescind Notice of Redemption

The District has the right to rescind any notice of the optional redemption of Series A Bonds by written notice to the Paying Agent on or prior to the date fixed for redemption. Any notice of redemption shall be cancelled and annulled if for any reason funds will not be or are not available on the date fixed for redemption for the payment in full of the Series A Bonds then called for redemption. The District and the Paying Agent have no liability to the Bond owners or any other party related to or arising from such rescission of redemption. The Paying Agent shall mail notice of such rescission of redemption in the same manner as the original notice of redemption was sent under the Bond Resolution.

Registration, Transfer and Exchange of Series A Bonds

If the book entry system is discontinued, the District shall cause the Paying Agent to maintain and keep at its principal corporate trust office all books and records necessary for the registration, exchange and transfer of the Series A Bonds. If the book entry system is discontinued, the person in whose name a Series A Bond is registered on the Bond Register shall be regarded as the absolute owner of that Bond. Payment of the principal of and interest on any Series A Bond shall be made only to or upon the order of that person; neither the District, Colusa County nor the Paying Agent shall be affected by any notice to the contrary, but the registration may be changed as provided the Bond Resolution.

Bonds may be exchanged at the principal corporate trust office of the Paying Agent in Los Angeles, California for a like aggregate principal amount of Series A Bonds of authorized denominations and of the same maturity. Any Series A Bond may, in accordance with its terms, but only if (i) the District determines to no longer maintain the book entry only status of the Series A Bonds, (ii) DTC determines to discontinue providing such services and no successor securities depository is named or (iii) DTC requests the District to deliver Series A Bond certificates to particular DTC Participants, be transferred, upon the books required to be kept pursuant to the provisions of the Bond Resolution, by the person in whose name it is registered, in person or by his duly authorized attorney, upon surrender of such Series A Bond for cancellation at the office of the Paying Agent, accompanied by delivery of a written instrument of transfer in a form approved by the Paying Agent, duly executed.

No exchanges of Series A Bonds shall be required to be made (a) fifteen days prior to an Interest Payment Date or the date established by the Paying Agent for selection of Series A Bonds for redemption until the close of business on the Interest Payment Date or day on which the applicable notice of redemption is given or (b) with respect to a Series A Bond after such Series A Bond has been selected or called for redemption in whole or in part.

Defeasance

The Series A Bonds may be paid by the District, in whole or in part, in any one or more of the following ways:

- (a) by paying or causing to be paid the principal or redemption price of and interest on such Series A Bonds, as and when the same become due and payable;

- (b) by irrevocably depositing, in trust, at or before maturity, money or securities in the necessary amount (as provided in the Bond Resolution) to pay or redeem such Series A Bonds; or
- (c) by delivering such Series A Bonds to the Paying Agent for cancellation by it.

Whenever in the Bond Resolution it is provided or permitted that there be deposited with or held in trust by the Paying Agent money or securities in the necessary amount to pay or redeem any Series A Bonds, the money or securities to be deposited or held may be held by the Paying Agent or by any other fiduciary. Such money or securities may include money or securities held by the Paying Agent in the funds and accounts established under the Bond Resolution and will be:

- (i) lawful money of the United States of America in an amount equal to the principal amount of such Series A Bonds and all unpaid interest thereon to maturity, except that, in the case of Series A Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption is given as provided in the Bond Resolution or provision satisfactory to the Paying Agent is made for the giving of such notice, the amount to be deposited or held will be the principal amount or redemption price of such Series A Bonds and all unpaid interest thereon to the redemption date; or
- (ii) Federal Securities (not callable by the issuer thereof prior to maturity) the principal of and interest on which when due, in the opinion of a certified public accountant delivered to Colusa County and the District, will provide money sufficient to pay the principal or redemption price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Series A Bonds to be paid or redeemed, as such principal or redemption price and interest become due, provided that, in the case of Series A Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption is given as provided in the Bond Resolution or provision satisfactory to the Paying Agent is made for the giving of such notice.

Upon the deposit, in trust, at or before maturity, of money or securities in the necessary amount (as described above) to pay or redeem any outstanding Series A Bond (whether upon or prior to its maturity or the redemption date of such Bond), then all liability of Colusa County and the District in respect of such Series A Bond will cease and be completely discharged, except only that thereafter the owner thereof will be entitled only to payment of the principal of and interest on such Series A Bond by the District, and the District will remain liable for such payment, but only out of such money or securities deposited with the Paying Agent for such payment.

“Federal Securities” means United States Treasury notes, bonds, bills or certificates of indebtedness, or any other obligations the timely payment of which is directly or indirectly guaranteed by the faith and credit of the United States of America.

DEBT SERVICE SCHEDULES

Series A Bonds Debt Service. The following table shows the debt service schedule with respect to the Series A Bonds, assuming no optional redemptions.

PIERCE JOINT UNIFIED SCHOOL DISTRICT Series A Bonds Debt Service Schedule

Bond Year Ending August 1	Principal	Interest	Total Debt Service
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
2039			
2040			
2041			
2042			
2043			
2044			
2045			
2046			
Total			

Combined Debt Service. The following table shows the combined annual debt service schedule for all outstanding general obligation bonds and refunding general obligation bonds of the District, together with the Series A Bonds, assuming no optional redemptions. See “DISTRICT FINANCIAL INFORMATION – Existing Debt Obligations” in Appendix B.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
 Combined Annual General Obligation Bond Debt Service Schedule**

Bond Year Ending Aug. 1	2002 Capital Appreciation Bonds	2011 General Obligation Refunding Bonds	2016 Election, Series A Bonds	Total Debt Service
2017	\$ --	\$464,710		
2018	--	480,810		
2019	530,000	--		
2020	550,000	--		
2021	565,000	--		
2022	585,000	--		
2023	605,000	--		
2024	630,000	--		
2025	650,000	--		
2026	675,000	--		
2027	700,000	--		
2028	--	--		
2029	--	--		
2030	--	--		
2031	--	--		
2032	--	--		
2033	--	--		
2034	--	--		
2035	--	--		
2036	--	--		
2037	--	--		
2038	--	--		
2039	--	--		
2040	--	--		
2041	--	--		
Total	\$5,490,000	\$945,520		

SECURITY FOR THE SERIES A BONDS

General

Ad Valorem Tax Collections. The Series A Bonds are general obligations of the District, payable by the District solely from *ad valorem* property taxes levied and collected by the Counties. The Counties are empowered and is obligated to annually levy such *ad valorem* taxes upon all property within the District subject to taxation by the District, without limitation of rate or amount (except certain personal property which is taxable at limited rates), as security for the Bonds as described herein.

Other Bonds Payable from Ad Valorem Property Taxes. In addition to the general obligation bonds issued by the District, there is other debt issued by entities with jurisdiction in the District, which is payable from *ad valorem* taxes levied on parcels in the District. See “- Typical Tax Rates” and “- Direct and Overlapping Debt” below.

Levy and Collection. The Counties will levy and collect such *ad valorem* taxes in such amounts and at such times as is necessary to ensure the District’s timely payment of debt service. Such taxes, when collected, will be deposited into debt service funds established for the Bonds, which are maintained by Colusa County and which are irrevocably pledged by the District for its payment of principal of and interest on the Bonds when due.

District property taxes are assessed and collected by the Counties in the same manner and at the same time, and in the same installments as other *ad valorem* taxes on real property, and will have the same priority, become delinquent at the same times and in the same proportionate amounts, and bear the same proportionate penalties and interest after delinquency, as do the other *ad valorem* taxes on real property.

Statutory Lien on Ad Valorem Tax Revenues. Pursuant to Senate Bill 222 effective January 1, 2016, voter approved general obligation bonds which are secured by *ad valorem* tax collections, including the Bonds, are secured by a statutory lien on all revenues received pursuant to the levy and collection of the property tax imposed to service those bonds. Said lien attaches automatically and is valid and binding from the time the bonds are executed and delivered. The lien is enforceable against the school district or community college district, its successors, transferees, and creditors, and all others asserting rights therein, irrespective of whether those parties have notice of the lien and without the need for any further act.

Annual Tax Rates. The amount of the annual *ad valorem* tax levied by the Counties for the District to repay the Bonds will be determined by the relationship between the assessed valuation of taxable property in the District and the amount of debt service due on the Bonds. Fluctuations in the annual debt service on the Bonds and the assessed value of taxable property in the District may cause the annual tax rate to fluctuate.

Economic and other factors beyond the District’s control, such as economic recession, deflation of property values, a relocation out of the District or financial difficulty or bankruptcy by one or more major property taxpayers, or the complete or partial destruction of taxable property caused by, among other eventualities, earthquake, flood, fire or other natural disaster, could cause a reduction in the assessed value within the District and necessitate a corresponding increase in the annual tax rate.

Ad Valorem Property Taxation

Taxes are levied by the County for each fiscal year on taxable real and personal property which is situated in the District as of the preceding January 1. For assessment and collection purposes, property is classified either as “secured” or “unsecured” and is listed accordingly on separate parts of the assessment roll. The “**secured roll**” is that part of the assessment roll containing State-assessed public utilities property and real property having a tax lien which is sufficient, in the opinion of the County Assessor, to secure payment of the taxes. Other property is assessed on the “**unsecured roll**.”

Property taxes on the secured roll are due in two installments, on November 1 and February 1 of each fiscal year. If unpaid, such taxes become delinquent on December 10 and April 10, respectively, and a 10% penalty attaches to any delinquent payment. Property on the secured roll with respect to which taxes are delinquent becomes tax defaulted on or about June 30 of the fiscal year. Such property may thereafter be redeemed by payment of a penalty of 1.5% per month to the time of redemption, plus costs and a redemption fee. If taxes are unpaid for a period of five years or more, the property is subject to sale by the Tax Collector and Treasurer.

Property taxes on the unsecured roll are due as of the January 1 lien date and become delinquent, if unpaid, on August 31. A 10% penalty attaches to delinquent unsecured taxes. If unsecured taxes are unpaid on October 31, an additional penalty of 1.5% attaches to them on the first day of each month until paid. The taxing authority has four ways of collecting delinquent unsecured personal property taxes: (1) bringing a civil action against the taxpayer; (2) filing a certificate in the office of the County Clerk specifying certain facts in order to obtain a lien on certain property of the taxpayer; (3) filing a certificate of delinquency for record in the County Clerk and County Recorder's office in order to obtain a lien on certain property of the taxpayer; and (4) seizing and selling personal property, improvements, or possessory interests belonging or assessed to the assessee.

Assessed Valuations

General. The assessed valuation of property in the District is established by the County Assessors, except for public utility property, which is assessed by the State Board of Equalization. Assessed valuations are reported at 100% of the “full value” of the property, as defined in Article XIII A of the California Constitution. The full value may be adjusted annually to reflect inflation at a rate not to exceed 2% per year, or to reflect a reduction in the consumer price index or comparable data for the area, or to reflect declines in property value caused by substantial damage, destruction or other factors, including assessment appeals filed by property owners. For a discussion of how properties currently are assessed, see Appendix B under the heading “CONSTITUTIONAL AND STATUTORY PROVISIONS AFFECTING DISTRICT REVENUES AND APPROPRIATIONS.”

Certain classes of property, such as churches, colleges, not-for-profit hospitals, and charitable institutions, are exempt from property taxation and do not appear on the tax rolls. No reimbursement is made by the State for such exemptions.

Assessed Valuation History. Shown in the following table are the recent assessed valuations for the District.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
Assessed Valuation of All Taxable Property
Fiscal Year 2007-08 through Fiscal Year 2016-17**

<u>Colusa County Portion</u>					
<u>Tax Year</u>	<u>Local Secured</u>	<u>Utility</u>	<u>Unsecured</u>	<u>Total</u>	<u>% Change</u>
2007-08	635,632,113	201,395	61,355,345	697,188,853	-- %
2008-09	655,296,384	201,240	81,121,206	736,618,830	5.66
2009-10	648,362,329	201,240	86,806,308	735,369,877	(0.17)
2010-11	641,793,627	201,240	81,281,976	723,276,843	(1.64)
2011-12	658,277,443	201,240	76,227,961	734,706,644	1.58
2012-13	686,741,072	206,386	82,599,356	769,546,814	4.74
2013-14	691,239,472	206,386	86,423,500	777,869,358	1.08
2014-15	699,599,995	206,386	84,473,666	784,280,047	0.82
2015-16	742,361,030	221,228	101,730,940	844,313,198	7.65
2016-17	790,950,467	221,228	102,453,725	893,625,420	5.84

<u>Yolo County Portion</u>					
<u>Tax Year</u>	<u>Local Secured</u>	<u>Utility</u>	<u>Unsecured</u>	<u>Total</u>	<u>% Change</u>
2007-08	198,836,107	99,470	3,828,256	202,763,833	-- %
2008-09	233,029,334	99,470	4,538,816	237,667,620	17.21
2009-10	244,219,876	113,450	4,254,238	248,587,564	4.59
2010-11	247,946,898	113,450	4,118,556	252,178,904	1.44
2011-12	228,542,955	113,450	5,827,469	234,483,874	(7.02)
2012-13	235,978,364	113,450	6,224,698	242,316,512	3.34
2013-14	236,752,999	220,075	7,569,785	244,542,859	0.9
2014-15	242,674,068	220,075	6,935,395	249,829,538	2.16
2015-16	255,327,215	220,075	6,932,077	262,479,367	5.06
2016-17	270,200,582	220,075	7,786,096	278,206,753	5.99

<u>Total District</u>					
<u>Tax Year</u>	<u>Local Secured</u>	<u>Utility</u>	<u>Unsecured</u>	<u>Total</u>	<u>% Change</u>
2007-08	\$834,468,220	\$300,865	\$65,183,601	\$899,952,686	-- %
2008-09	888,325,718	300,710	85,660,022	974,286,450	8.26
2009-10	892,582,205	314,690	91,060,546	983,957,441	0.99
2010-11	889,740,525	314,690	85,400,532	975,455,747	(0.86)
2011-12	886,820,398	314,690	82,055,430	969,190,518	(0.64)
2012-13	922,719,436	319,836	88,824,054	1,011,863,326	4.40
2013-14	927,992,471	426,461	93,993,285	1,022,412,217	1.04
2014-15	942,274,063	426,461	91,409,061	1,034,109,585	1.14
2015-16	997,688,245	441,303	108,663,017	1,106,792,565	7.03
2016-17	1,061,151,049	441,303	110,239,821	1,171,832,173	5.88

Source: California Municipal Statistics, Inc.

As shown in the table above, assessed valuations are subject to change in each year. Increases or decreases in assessed valuation may result from a variety of factors including but not limited to general economic conditions, supply and demand for real property in the area, government regulations such as zoning, and natural disasters such as earthquakes, fires, floods and droughts.

With respect to droughts specifically, the State of California is currently facing water shortfalls, and on January 17, 2014, Governor Brown (the “**Governor**”) declared a state of drought emergency, calling on Californians to conserve water. As part of his declaration, the Governor directed State officials to assist agricultural producers and communities that may be economically impacted by dry conditions. Thereafter, the California State Water Resources Control Board (the “**Water Board**”) issued a statewide notice of water shortages and potential future curtailment of water right diversions. On April 1, 2015, the Governor issued an executive order mandating certain conservation measures, which were implemented by an emergency regulation adopted by the Water Board on May 5, 2015. The temporary conservation measures have been extended and amended by subsequent executive orders of the Governor and related Water Board regulations, most recently with implementation of a “stress test” approach of water conservation, which requires local urban water agencies to ensure a three-year supply of water assuming three years of drought conditions. Those agencies with projected shortages are required to implement conservation measures through May 2017. The District cannot predict or make any representations regarding the effects that the current drought has had, or, if it should continue, may have on the value of taxable property within the District, or to what extent the drought could cause disruptions to economic activity within the boundaries of the District, in which approximately 64% of the assessed valuation of is agricultural property.

Assessed Valuation by Jurisdiction. The following table shows a breakdown of assessed value by jurisdiction in the District for fiscal year 2016-17.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
Assessed Valuation by Jurisdiction
Fiscal Year 2016-17**

<u>Jurisdiction</u>	<u>Assessed Valuation in School District</u>	<u>% of School District</u>	<u>Assessed Valuation of Jurisdiction</u>	<u>% of Jurisdiction in School District</u>
Unincorporated Colusa County	\$893,625,420	76.26%	\$2,293,152,654	38.97%
Unincorporated Yolo County	<u>278,206,753</u>	<u>23.74</u>	4,589,027,043	6.06
Total District	\$1,171,832,173	100.00%		
 <u>Summary by County</u>				
Colusa County	\$893,625,420	76.26%	\$2,973,281,880	30.06%
Yolo County	<u>278,206,753</u>	<u>23.74</u>	24,659,356,448	1.13
Total District	\$1,171,832,173	100.00%		

Source: California Municipal Statistics, Inc.

Assessed Valuation by Land Use. The following table shows the land use of property in the District, as measured by assessed valuation and the number of parcels for fiscal year 2016-17.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
Assessed Valuation and Parcels by Land Use
Fiscal Year 2016-17**

	2016-17 Assessed Valuation⁽¹⁾	% of Total	No. of Parcels	% of Total
Non-Residential:				
Agricultural/Rural	\$682,764,601	64.34%	2,269	49.36%
Commercial	79,237,906	7.47	94	2.04
Vacant Commercial	2,982,187	0.28	29	0.63
Industrial/Oil Exploration	27,062,323	2.55	79	1.72
Vacant Industrial	71,030	0.01	5	0.11
Recreational	669,504	0.06	4	0.09
Government/Social/Institutional	158,274	0.01	36	0.78
Miscellaneous	1,687,830	0.16	16	0.35
Subtotal Non-Residential	\$794,633,655	74.88%	2,532	55.08%
Residential:				
Single-Family Residence	\$220,336,649	20.76%	1,380	30.02%
Mobile Home	17,358,198	1.64	225	4.89
Mobile Home/RV Park	9,546,128	0.90	10	0.22
2+ Residential Units/Apartments	2,905,769	0.27	13	0.28
Hotel/Motel	4,489,896	0.42	2	0.04
Miscellaneous Residential	386,538	0.04	15	0.33
Vacant Residential	11,494,216	1.08	420	9.14
Subtotal Residential	\$266,517,394	25.12%	2,065	44.92%
Total	\$1,061,151,049	100.00%	4,597	100.00%

(1) Local Secured assessed valuation; excluding tax-exempt property.
Source: California Municipal Statistics, Inc.

Assessed Valuation of Single-Family Residential Parcels. The following table shows a breakdown of the assessed valuations of improved single-family residential parcels in the District for fiscal year 2016-17.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
Per Parcel 2016-17 Assessed Valuation of Single-Family Homes**

	<u>No. of Parcels</u>	<u>2016-17 Assessed Valuation</u>	<u>Average Assessed Valuation</u>	<u>Median Assessed Valuation</u>
Single-Family Residential	1,380	\$220,336,649	\$159,664	\$140,315

<u>2016-17 Assessed Valuation</u>	<u>No. of Parcels⁽¹⁾</u>	<u>% of Total</u>	<u>Cumulative % of Total</u>	<u>Total Valuation</u>	<u>% of Total</u>	<u>Cumulative % of Total</u>
\$0 - \$24,999	63	4.565%	4.565%	\$ 988,236	0.449%	0.449%
\$25,000 - \$49,999	116	8.406	12.971	4,299,376	1.951	2.400
\$50,000 - \$74,999	103	7.464	20.435	6,516,961	2.958	5.358
\$75,000 - \$99,999	194	14.058	34.493	16,896,570	7.669	13.026
\$100,000 - \$124,999	144	10.435	44.928	16,101,772	7.308	20.334
\$125,000 - \$149,999	113	8.188	53.116	15,463,443	7.018	27.352
\$150,000 - \$174,999	92	6.667	59.783	14,850,804	6.740	34.092
\$175,000 - \$199,999	104	7.536	67.319	19,268,509	8.745	42.837
\$200,000 - \$224,999	101	7.319	74.638	21,359,109	9.694	52.531
\$225,000 - \$249,999	97	7.029	81.667	22,841,029	10.366	62.897
\$250,000 - \$274,999	92	6.667	88.333	23,920,347	10.856	73.754
\$275,000 - \$299,999	40	2.899	91.232	11,418,785	5.182	78.936
\$300,000 - \$324,999	25	1.812	93.043	7,761,689	3.523	82.459
\$325,000 - \$349,999	34	2.464	95.507	11,391,597	5.170	87.629
\$350,000 - \$374,999	16	1.159	96.667	5,799,063	2.632	90.261
\$375,000 - \$399,999	10	0.725	97.391	3,871,600	1.757	92.018
\$400,000 - \$424,999	7	0.507	97.899	2,895,348	1.314	93.332
\$425,000 - \$449,999	7	0.507	98.406	3,040,292	1.380	94.712
\$450,000 - \$474,999	6	0.435	98.841	2,734,613	1.241	95.953
\$475,000 - \$499,999	7	0.507	99.348	3,409,528	1.547	97.500
\$500,000 and greater	9	0.652	100.000	5,507,978	2.500	100.000
Total	1,380	100.000%		\$220,336,649	100.000%	

(1) Improved single-family residential parcels. Excludes condominiums and parcels with multiple-family units.
Source: California Municipal Statistics, Inc.

Appeals of Assessed Value

There are two types of appeals of assessed values that could adversely impact property tax revenues within the District.

Appeals may be based on Proposition 8, passed in November of 1978, which requires that for each January 1 lien date, the taxable value of real property must be the lesser of its base year value, annually adjusted by the inflation factor pursuant to Article XIII A of the State Constitution, or its full cash value, taking into account reductions in value due to damage, destruction, depreciation, obsolescence, removal of property or other factors causing a decline in value. See "CONSTITUTIONAL AND STATUTORY PROVISIONS AFFECTING DISTRICT REVENUES AND APPROPRIATIONS" in Appendix B.

Under California law, property owners may apply for a reduction of their property tax assessment by filing a written application, in form prescribed by the State Board of Equalization, with the County board of equalization or assessment appeals board. In most cases, the appeal is filed because the applicant believes that present market conditions (such as residential home

prices) cause the property to be worth less than its current assessed value. Proposition 8 reductions may also be unilaterally applied by the County Assessor.

Any reduction in the assessment ultimately granted as a result of such appeal applies to the year for which application is made and during which the written application was filed. These reductions are subject to yearly reappraisals and are adjusted back to their original values when market conditions improve. Once the property has regained its prior value, adjusted for inflation, it once again is subject to the annual inflationary factor growth rate allowed under Article XIII A. See "CONSTITUTIONAL AND STATUTORY PROVISIONS AFFECTING DISTRICT REVENUES AND APPROPRIATIONS" in Appendix B.

A second type of assessment appeal involves a challenge to the base year value of an assessed property. Appeals for reduction in the base year value of an assessment, if successful, reduce the assessment for the year in which the appeal is taken and prospectively thereafter. The base year is determined by the completion date of new construction or the date of change of ownership. Any base year appeal must be made within four years of the change of ownership or new construction date.

The District cannot predict the changes in assessed values that might result from pending or future appeals by taxpayers. Any reduction in aggregate District assessed valuation due to appeals, as with any reduction in assessed valuation due to other causes, will cause the tax rate levied to repay the Series A Bonds to increase accordingly, so that the fixed debt service on the Series A Bonds (and other outstanding general obligation bonds, if any) may be paid.

Typical Tax Rates

Below are historical typical tax rates within the District.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
Typical Tax Rates per \$100 of Assessed Valuation
Fiscal Years 2012-13 through 2016-17
All Tax Rate Areas within the District**

	<u>2012-13</u>	<u>2013-14</u>	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>
General Tax Rate	1.000000	1.000000	1.000000	1.000000	1.000000
Yuba Joint Community College District	.015472	.027422	.025002	.024935	.026346
Pierce Joint Unified School District	.022000	.026000	.023000	.020000	.018000
Total Tax Rate	1.037472	1.053422	1.048002	1.044935	1.044346

Source: California Municipal Statistics, Inc.

Tax Levies and Delinquencies

[Each of the Counties located has adopted the Alternative Method of Distribution of Tax Levies and Collections and of Tax Sale Proceeds (the "Teeter Plan"), as provided for in Section 4701 et seq. of the California Revenue and Taxation Code. Under the Teeter Plan, each local agency is credited the amount of its uncollected property taxes in the same manner as if the amount credited had been collected. In return, the county receives and retains delinquent payments, penalties and interest as collected, that otherwise would have been due the local agency.

The Counties are responsible for determining the amount of the *ad valorem* tax levy on each parcel in the District, which is entered onto the secured real property tax roll. Upon completion of the secured real property tax roll, each County auditor determines the total amount of taxes and assessments actually extended on the roll for each fund for which a tax levy has been included, and apportions 100 percent of the tax and assessment levies to that fund's credit. Such monies may thereafter be drawn against by the taxing agency in the same manner as if the amount credited had been collected.

Under the Teeter Plan, each of the Counties establishes a Tax Loss Reserve Fund. Each of the Counties determines which monies in the treasury of such County (including those credited to the Tax Loss Reserve Fund) shall be available to be drawn onto the extent of the amount of uncollected taxes credited to each fund for which a levy has been included. When amounts are received on the secured tax roll for the current year, or for redemption of tax-defaulted property, Teeter Plan monies are distributed to the apportioned tax resources accounts. The Tax Losses Reserve Fund is used exclusively to cover lost income occurring as a result of tax-defaulted property. Monies in this fund are derived from several sources. While amounts collected as costs are distributed to the respective Counties' general fund, delinquent penalty collections are distributed to the Tax Loss Reserve Fund of such County.

When tax-defaulted property is sold, the taxes and assessments which constitute the amount required to redeem the property are prorated between apportioned (Teeter) levies and unapportioned (or non-Teeter) levies. The pro rata share for apportioned levies is distributed to the Tax Loss Reserve Fund. The pro rata share for unapportioned levies is prorated between tax levies and assessment levies and then distributed to the applicable funds. If the Tax Loss Reserve Fund exceeds 1 percent of the total taxes and assessments levied on the secured roll for that year, the amounts coming in after it reaches 1 percent are credited to the general fund of the related County. Upon adoption of a resolution by the Board of Supervisors of each of the Counties by September 1 of any fiscal year, the 1 percent Tax Loss Reserve Fund threshold may be reduced to 25 percent of the total delinquent taxes and assessments for the previous year for such County.

So long as the Teeter Plan remains in effect in the Counties, the District's receipt of revenues with respect to the levy of *ad valorem* property taxes will not be dependent upon actual collections of the *ad valorem* property taxes by the Counties. However, under the statute creating the Teeter Plan, a Board of Supervisors could under certain circumstances terminate its Teeter Plan in its entirety or terminate its Teeter Plan as to the District if the delinquency rate for all *ad valorem* property taxes levied within the District in any year exceeds 3 percent.]

Largest Property Owners

The following table shows the 20 largest taxpayers in the District as determined by their secured assessed valuations in fiscal year 2016-17. Each taxpayer listed below is a unique name listed on the tax rolls. The District cannot determine from County assessment records whether individual persons, corporations or other organizations are liable for tax payments with respect to multiple properties held in various names that in aggregate may be larger than is suggested by the table below. A large concentration of ownership in a single individual or entity results in a greater amount of tax collections that are dependent upon that property owner’s ability or willingness to pay property taxes.

**PIERCE JOINT UNIFIED SCHOOL DISTRICT
Largest Local Secured Taxpayers
Fiscal Year 2016-17**

<u>Property Owner</u>	<u>Primary Land Use</u>	<u>2016-17 Assessed Valuation</u>	<u>% of Total⁽¹⁾</u>
1. Strain Westside Land LP	Agricultural	\$28,142,909	2.65%
2. Thomas E. and Perry T. Charter	Agricultural	25,426,410	2.40
3. River Garden Farms Co.	Agricultural	25,425,770	2.40
4. Ritchie Bros. Properties Inc.	Agricultural	14,753,461	1.39
5. Mariani-Bonner LLC	Agricultural	13,735,016	1.29
6. Sun Valley Milling Company LLC	Agricultural	12,397,277	1.17
7. California Resources Production Corp.	Oil Exploration	11,627,379	1.10
8. T&P Farms	Agricultural	11,317,084	1.07
9. Anthony and Karyn Alamo	Agricultural	9,843,415	0.93
10. Arbuckle Ranch	Agricultural	9,411,222	0.89
11. ADM Rice Inc.	Food Processing	9,041,020	0.85
12. Arwill Farms LLC	Agricultural	8,158,265	0.77
13. Strain Ventures LP	Agricultural	7,901,875	0.74
14. Pilot Corporation	Truck Terminal	7,400,060	0.70
15. Raminder S. and Amandeep K. Bains	Agricultural	7,278,490	0.69
16. Leonard Revocable Trust	Agricultural	6,964,401	0.66
17. Paul R. Minasian, Trustee	Agricultural	6,950,214	0.65
18. Mohnish and Versha Seth, Trust	Agricultural	6,939,659	0.65
19. Vann Brothers GP	Agricultural	6,608,228	0.62
20. Gerald and Elaine Rominger, Trust	Agricultural	6,561,148	0.62
		<u>\$235,883,303</u>	<u>22.23%</u>

(1) 2016-17 Secured Assessed Valuation: \$1,061,151,049
Source: California Municipal Statistics, Inc.

Debt Obligations

Set forth below is a direct and overlapping debt report (the “**Debt Report**”) prepared by California Municipal Statistics, Inc. and with respect to debt dated as of April 1, 2017. The Debt Report is included for general information purposes only. The District has not reviewed the Debt Report for completeness or accuracy and makes no representation in connection therewith.

The Debt Report generally includes long-term obligations sold in the public credit markets by public agencies whose boundaries overlap the boundaries of the District in whole or in part. Such long-term obligations generally are not payable from revenues of the District (except as indicated) nor are they necessarily obligations secured by land within the District. In many cases, long-term obligations issued by a public agency are payable only from the general fund or other revenues of such public agency.

PIERCE JOINT UNIFIED SCHOOL DISTRICT
Statement of Direct and Overlapping Bonded Debt
Dated as of April 1, 2017⁽¹⁾

2016-17 Assessed Valuation: \$1,171,832,173

<u>DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:</u>	<u>% Applicable</u>	<u>Debt 4/1/17</u>
Yuba Joint Community College District	4.086%	\$6,588,545
Pierce Joint Unified School District	100.000	2,651,041⁽²⁾
TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT		\$9,239,586
 <u>OVERLAPPING GENERAL FUND DEBT:</u>		
Colusa County Pension Obligation Bonds	30.055%	\$ 231,363
Yolo County Certificates of Participation	1.128	258,820
Yolo County Board of Education Certificates of Participation	1.128	65,255
Yuba Joint Community College District Certificates of Participation	4.086	600,217
TOTAL OVERLAPPING GENERAL FUND DEBT		\$1,155,655
 COMBINED TOTAL DEBT		 \$10,395,241⁽³⁾

Ratios to 2016-17 Assessed Valuation:

Direct Debt (\$2,651,041)	0.23%
Total Direct and Overlapping Tax and Assessment Debt..	0.79%
Combined Total Debt.....	0.89%

(1) Excludes any bonds sold between 2/9/17 and 4/1/17.
(2) Excludes the Series A Bonds being offered for sale.
(3) Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue and non-bonded capital lease obligations.
Source: California Municipal Statistics, Inc.

TAX MATTERS

Federal Tax Status. In the opinion of Jones Hall, A Professional Law Corporation, San Francisco, California, Bond Counsel, subject, however to the qualifications set forth below, under existing law, the interest on the Series A Bonds is excluded from gross income for federal income tax purposes and such interest is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations, provided, however, that, for the purpose of computing the alternative minimum tax imposed on corporations (as defined for federal income tax purposes), such interest is taken into account in determining certain income and earnings, and the Series A Bonds are “qualified tax-exempt obligations” within the meaning of section 265(b)(3) of the Internal Revenue Code of 1986, as amended (the “**Tax Code**”) such that, in the case of certain financial institutions (within the meaning of section 265(b)(5) of the Tax Code), a deduction for federal income tax purposes is allowed for 80% of that portion of such financial institution’s interest expense allocable to interest payable on the Series A Bonds.

The opinions set forth in the preceding paragraph are subject to the condition that the District comply with all requirements of the Tax Code that must be satisfied subsequent to the issuance of the Series A Bonds. The District has covenanted to comply with each such requirement. Failure to comply with certain of such requirements may cause the inclusion of such interest in gross income for federal income tax purposes to be retroactive to the date of issuance of the Series A Bonds, or may cause the Series A Bonds to not be “qualified tax-exempt obligations” within the meaning of Section 265(b)(3) of the Tax Code.

Tax Treatment of Original Issue Discount and Premium. If the initial offering price to the public (excluding bond houses and brokers) at which a Series A Bond is sold is less than the amount payable at maturity thereof, then such difference constitutes “**original issue discount**” for purposes of federal income taxes and State of California personal income taxes. If the initial offering price to the public (excluding bond houses and brokers) at which a Series A Bond is sold is greater than the amount payable at maturity thereof, then such difference constitutes “**original issue premium**” for purposes of federal income taxes and State of California personal income taxes. *De minimis* original issue discount and original issue premium are disregarded.

Under the Tax Code, original issue premium is amortized on an annual basis over the term of the Series A Bond (said term being the shorter of the Series A Bond’s maturity date or its call date). The amount of original issue premium amortized each year reduces the adjusted basis of the owner of the Series A Bond for purposes of determining taxable gain or loss upon disposition. The amount of original issue premium on a Series A Bond is amortized each year over the term to maturity of the Series A Bond on the basis of a constant interest rate compounded on each interest or principal payment date (with straight-line interpolations between compounding dates). Amortized bond premium is not deductible for federal income tax purposes. Owners of premium Series A Bonds, including purchasers who do not purchase in the original offering, should consult their own tax advisors with respect to State of California personal income tax and federal income tax consequences of owning such Series A Bonds.

California Tax Status. In the further opinion of Bond Counsel, interest on the Series A Bonds is exempt from California personal income taxes.

Other Tax Considerations. Owners of the Series A Bonds should also be aware that the ownership or disposition of, or the accrual or receipt of interest on, the Series A Bonds may have federal or state tax consequences other than as described above. Bond Counsel

expresses no opinion regarding any federal or state tax consequences arising with respect to the Series A Bonds other than as expressly described above, including any federal tax consequences arising with respect to the ownership, sale or disposition of the Series A Bonds, or the amount, accrual or receipt of interest on the Series A Bonds.

In addition, future legislation, if enacted into law, or clarification of the Tax Code may cause interest on the Series A Bonds to be subject to, directly or indirectly, federal income taxation, or otherwise prevent owners of the Series A Bonds from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such future legislation or clarification of the Tax Code may also affect the market price for, or marketability of, the Series A Bonds. Prospective purchasers of the Series A Bonds should consult their own tax advisors regarding any pending or proposed federal tax legislation, as to which Bond Counsel expresses no opinion.

Form of Opinion. A copy of the proposed form of opinion of Bond Counsel is attached hereto as Appendix D.

CERTAIN LEGAL MATTERS

Continuing Disclosure

The District has covenanted for the benefit of holders and beneficial owners of the Series A Bonds to provide certain financial information and operating data relating to the District by not later than nine (9) months following the end of the District's fiscal year (which currently would be by March 31 each year based upon the June 30 end of the District's fiscal year), commencing March 31, 2018, with the report for the 2016-17 fiscal year (the "**Annual Report**"), and to provide notices of the occurrence of certain enumerated events. The Annual Report and any event notices will be filed by the District with the Municipal Securities Rulemaking Board (the "**MSRB**"). The specific nature of the information to be contained in an Annual Report or other notices is set forth in Appendix E. These covenants have been made in order to assist the Underwriter in complying with S.E.C. Rule 15c2-12(b)(5) (the "**Rule**").

In the previous five years, _____. The District has engaged its financial advisor, Isom Advisors, a Division of Urban Futures Inc., to serve as its dissemination agent in connection with the undertaking to be entered into for the Series A Bonds.

Compensation of Certain Professionals

Payment of the fees and expenses of Jones Hall, A Professional Law Corporation, as Bond Counsel and Disclosure Counsel to the District, Kutak Rock LLP, as counsel to the Underwriter, and Isom Advisors, a Division of Urban Futures, Inc., as financial advisor to the District, is contingent upon issuance of the Series A Bonds.

RATING

S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("**S&P**") has assigned a rating of "____" to the Series A Bonds. The District has provided certain additional information and materials to S&P (some of which does not appear in this Official Statement). Such rating reflects only the view of S&P, and explanations of the significance of such rating may be obtained only from S&P. There is no assurance that any credit ratings given to the Series A Bonds will be maintained for any period of time or that the rating may not be lowered or withdrawn entirely by S&P, in such agency's judgment, circumstances so warrant. Any such downward revision or withdrawal of a rating may have an adverse effect on the market price of the Series A Bonds.

UNDERWRITING

The Series A Bonds are being purchased by Stifel, Nicolaus & Company, Incorporated (the "**Underwriter**"). The Underwriter has agreed to purchase the Series A Bonds at a price of \$_____, which is equal to the initial principal amount of the Series A Bonds of \$_____, plus (less) original issue premium (discount) of \$_____, less an Underwriter's discount of \$_____. The purchase contract relating to the Series A Bonds provides that the Underwriter will purchase all of the Series A Bonds (if any are purchased), and provides that the Underwriter's obligation to purchase is subject to certain terms and conditions, including the approval of certain legal matters by counsel.

The Underwriter may offer and sell Series A Bonds to certain dealers and others at prices lower than the offering prices stated on the inside cover page hereof. The offering prices may be changed by the Underwriter.

ADDITIONAL INFORMATION

The discussions herein about the Bond Resolution and the Continuing Disclosure Certificate are brief outlines of certain provisions thereof. Such outlines do not purport to be complete and for full and complete statements of such provisions reference is made to such documents. Copies of these documents mentioned are available from the Underwriter and following delivery of the Series A Bonds will be on file at the offices of the Paying Agent in Dallas, Texas.

References are also made herein to certain documents and reports relating to the District; such references are brief summaries and do not purport to be complete or definitive. Copies of such documents are available upon written request to the District.

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the District and the purchasers or Owners of any of the Series A Bonds.

EXECUTION

The execution and delivery of this Official Statement have been duly authorized by the District.

PIERCE JOINT UNIFIED SCHOOL DISTRICT

By: _____
Superintendent

APPENDIX A

DISTRICT AUDITED FINANCIAL STATEMENTS FOR FISCAL YEAR 2015-16

APPENDIX B

GENERAL AND FINANCIAL INFORMATION FOR THE DISTRICT

GENERAL DISTRICT INFORMATION

The information in this and other sections concerning the District's operations and operating budget is provided as supplementary information only, and it should not be inferred from the inclusion of this information in this Official Statement that the principal of or interest on the Series A Bonds is payable from the general fund of the District. The Series A Bonds are payable from the proceeds of an ad valorem tax required to be levied by the County of Colusa and the County of Yolo (the "Counties") in an amount sufficient for the payment thereof. See "SECURITY FOR THE SERIES A BONDS" in the front half of the Official Statement.

General Information

The District encompasses an area of approximately 143 square miles, in southern Colusa County and a small portion of Yolo County. The District currently operates one elementary school, one middle school, one high school, one alternative high school, and one alternative home school, serving approximately 1,480 students.

Administration

Board of Trustees. The District is governed by a five-member Board of Trustees (the "Board"), each member of which is elected to a four-year term. Elections for positions to the Board are held every two years, with the members electing a President of the Board annually. Current members of the Board, together with their office/district and the date their term expires, are listed below:

<u>Name</u>	<u>Office</u>	<u>Term Expires</u>
Abel Gomez	President	December 2020
John Friel	Vice President	December 2018
Nadine High	Clerk	December 2020
George Green	Member	December 2020
Amy Charter	Member	December 2018

Administration. The Superintendent of the District is appointed by the Board, manages day-to-day operations of the District and supervises the work of other District administrators. Carol Geyer is the Superintendent of the District, and Daena Meras serves as the Chief Business Official of the District.

Recent Enrollment Trends

The following table shows recent enrollment history for the District with projections for fiscal year 2016-17.

**ANNUAL ENROLLMENT
Fiscal Years 2008-09 through 2016-17
Pierce Joint Unified School District**

School Year	Enrollment	% Change
2008-09	1,296	-- %
2009-10	1,325	2.24
2010-11	1,309	(1.21)
2011-12	1,332	1.78
2012-13	1,377	3.39
2013-14	1,393	1.16
2014-15	1,443	3.59
2015-16	1,486	2.98
2016-17 ⁽¹⁾	1,480	(0.40)

*(1) Projected.
Source: California Department of Education for enrollment through 2015-16; Pierce Joint Unified School District for 2016-17.*

Employee Relations

The certificated, management and classified employees of the District are represented by two bargaining units, as follows.

Employee Group	No. of FTE Employees	Bargaining Group	Contract Expiration Date
Certificated	73.4		
Classified	39.0	California School Employees' Association	June 30, 2019

Source: Pierce Joint Unified School District.

Insurance – Joint Powers Agreements

The District is a member of three joint powers authorities (“**JPA**s”): Tri-Counties Self Insurance Group, North Valley Schools Insurance Group, and Schools Excess Liabilities Fund. The District pays an annual premium to the entities for their coverage. The relationship between the District, the pools, and the JPAs is such that the JPAs are not component units of the District for financial reporting purposes.

DISTRICT FINANCIAL INFORMATION

The information in this and other sections concerning the District's operations and operating budget is provided as supplementary information only, and it should not be inferred from the inclusion of this information in this Official Statement that the principal of or interest on the Series A Bonds is payable from the general fund of the District. The Series A Bonds are payable from the proceeds of an ad valorem tax required to be levied by the Counties in an amount sufficient for the payment thereof.

Education Funding Generally

School districts in California receive operating income primarily from two sources: the State funded portion which is derived from the State's general fund, and a locally funded portion, being the district's share of the one percent general *ad valorem* tax levy authorized by the California Constitution. As a result, decreases or deferrals in education funding by the State could significantly affect a school district's revenues and operations.

From 1973-74 to 2012-13, California school districts operated under general purpose revenue limits established by the State Legislature. In general, revenue limits were calculated for each school district by multiplying (1) the average daily attendance ("**ADA**") for such district by (2) a base revenue limit per unit of ADA. The revenue limit calculations were adjusted annually in accordance with a number of factors designated primarily to provide cost of living increases and to equalize revenues among all California school districts of the same type. Funding of the District's revenue limit was provided by a mix of local property taxes and State apportionments of basic and equalization aid. Generally, the State apportionments amounted to the difference between the District's revenue limit and its local property tax revenues.

The fiscal year 2013-14 State budget package replaced the previous K-12 finance system with a new formula known as the Local Control Funding Formula (the "**LCFF**"). Under the LCFF, revenue limits and most state categorical programs were eliminated. School districts instead receive funding based on the demographic profile of the students they serve and gain greater flexibility to use these funds to improve outcomes of students. The LCFF creates funding targets based on student characteristics. For school districts and charter schools, the LCFF funding targets consist of grade span-specific base grants plus supplemental and concentration grants that reflect student demographic factors. The LCFF includes the following components:

- A base grant for each local education agency per unit of ADA, which varies with respect to different grade spans. The base grant is \$2,375 more than the average revenue limit provided prior to LCFF implementation. The base grants will be adjusted upward each year to reflect cost-of-living increases. In addition, grades K-3 and 9-12 are subject to adjustments of 10.4% and 2.6%, respectively, to cover the costs of class size reduction in grades K-3 and the provision of career technical education in grades 9-12.
- A 20% supplemental grant for English learners, students from low-income families and foster youth to reflect increased costs associated with educating those students.
- An additional concentration grant of up to 50% of a local education agency's base grant, based on the number of English learners, students from low-income

families and foster youth served by the local agency that comprise more than 55% of enrollment.

- An economic recovery target to ensure that almost every local education agency receives at least their pre-recession funding level, adjusted for inflation, at full implementation of the LCFF.

The LCFF was implemented for fiscal year 2013-14 and will be phased in gradually. Beginning in fiscal year 2013-14, an annual transition adjustment was required to be calculated for each school district, equal to each district’s proportionate share of the appropriations included in the State budget (based on the percentage of each district’s students who are low-income, English learners, and foster youth (“**Targeted Students**”)), to close the gap between the prior-year funding level and the target allocation at full implementation of LCFF. In each year, districts will have the same proportion of their respective funding gaps closed, with dollar amounts varying depending on the size of a district’s funding gap.

Based on revenue projections, districts will reach what is referred to as “full funding” in eight years, being fiscal year 2020-21. This projection assumes that the State’s economy will improve each year; if the economy falters it could take longer to reach full funding.

The target LCFF amounts for State school districts and charter schools based on grade levels and Targeted Students is shown below.

Grade Span Funding at Full LCFF Implementation⁽¹⁾ (Target Amount)

Grade Span	Base Grant ⁽²⁾	K-3 Class Size Reduction and 9-12 Adjustments	Average Assuming 0% Targeted Students	Average Assuming 25% Targeted Students	Average Assuming 50% Targeted Students	Average Assuming 100% Targeted Students
K-3	\$6,845	\$712	\$7,557	\$7,935	\$8,313	\$10,769
4-6	6,947	N/A	6,947	7,294	7,642	9,899
7-8	7,154	N/A	7,154	7,512	7,869	10,194
9-12	8,289	\$216	8,505	8,930	9,355	12,119

(1) Full implementation of LCFF expected in fiscal year 2020-21.

(2) Does not include adjustments for cost of living.

Source: California Department of Education.

The new legislation included a “hold harmless” provision which provided that a district or charter school would maintain total revenue limit and categorical funding at least equal to its 2012-13 level, unadjusted for changes in ADA or cost of living adjustments.

The LCFF includes an accountability component. Districts are required to increase or improve services for English language learners, low income, and foster youth students in proportion to supplemental and concentration grant funding received. All school districts, county offices of education, and charter schools are required to develop and adopt local control and accountability plans, which identify local goals in areas that are priorities for the State, including pupil achievement, parent engagement, and school climate.

County superintendents review and provide support to the districts under their jurisdiction, and the Superintendent of Public Instruction performs a corresponding role for

county offices of education. In addition, the 2013-14 Budget created the California Collaborative for Education Excellence to advise and assist school districts, county offices of education, and charter schools in achieving the goals identified in their plans. Under the LCFF and related legislation, the State will continue to measure student achievement through statewide assessments, produce an Academic Performance Index for schools and subgroups of students, determine the contents of the school accountability report card, and establish policies to implement the federal accountability system.

District Accounting Practices

The accounting practices of the District conform to generally accepted accounting principles in accordance with policies and procedures of the California School Accounting Manual. This manual, according to Section 41010 of the California Education Code, is to be followed by all California school districts.

District accounting is organized on the basis of fund groups, with each group consisting of a separate set of self-balancing accounts containing assets, liabilities, fund balances, revenues and expenditures. The major fund classification is the general fund which accounts for all financial resources not requiring a special fund placement. The District's fiscal year begins on July 1 and ends on June 30.

District expenditures are accrued at the end of the fiscal year to reflect the receipt of goods and services in that year. Revenues generally are recorded on a cash basis, except for items that are susceptible to accrual (measurable and/or available to finance operations). Current taxes are considered susceptible to accrual. Revenues from specific state and federally funded projects are recognized when qualified expenditures have been incurred. State block grant apportionments are accrued to the extent that they are measurable and predictable. The State Department of Education sends the District updated information from time to time explaining the acceptable accounting treatment of revenue and expenditure categories.

The Governmental Accounting Standards Board (“**GASB**”) published its Statement No. 34 “Basic Financial Statements - and Management’s Discussion and Analysis - for State and Local Governments” on June 30, 1999. Statement No. 34 provides guidelines to auditors, state and local governments and special purpose governments such as school districts and public utilities, on new requirements for financial reporting for all governmental agencies in the United States. Generally, the basic financial statements and required supplementary information should include (i) Management’s Discussion and Analysis; (ii) financial statements prepared using the economic measurement focus and the accrual basis of accounting, (iii) fund financial statements prepared using the current financial resources measurement focus and the modified accrual method of accounting and (iv) required supplementary information.

Financial Statements

General. The District's general fund finances the legally authorized activities of the District for which restricted funds are not provided. General fund revenues are derived from such sources as State school fund apportionments, taxes, use of money and property, and aid from other governmental agencies. The District's June 30, 2016 Audited Financial Statements were prepared by James Marta & Company, LLP, Sacramento, California and are attached to the Official Statement as Appendix A. Audited financial statements for the District for prior fiscal years are on file with the District and available for public inspection at the Office of the District, 540A 6th Street P.O. Box 239, Arbuckle, California 95912, Telephone: (530) 476-2892. The District has not requested, and the auditor has not provided, any review or update of such Financial Statements in connection with inclusion in this Official Statement. Copies of financial statements will be mailed to prospective investors and their representatives upon written request to the District. This District may impose a charge for copying, mailing and handling.

General Fund Revenues, Expenditures and Changes in Fund Balance. The following table shows the audited income and expense statements for the District for the fiscal years 2011-12 through 2015-16.

REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE Fiscal Years 2011-12 through 2015-16 (Audited) Pierce Joint Unified School District

Revenues	Audited 2011-12	Audited 2012-13	Audited 2013-14	Audited 2014-15	Audited 2015-16
LCFF Sources ⁽¹⁾	\$7,220,995	\$7,467,898	\$9,663,951	\$11,124,936	\$12,948,553
Federal Revenue	594,416	318,153	552,043	470,984	396,468
Other State Revenue	2,169,604	2,260,946	1,155,275	1,224,002	1,849,770
Other Local Revenue	579,761	431,554	434,708	449,470	725,128
Total Revenues	10,564,776	10,478,551	11,805,977	13,269,392	15,919,919
Expenditures					
Certificated Salaries	4,734,763	5,010,389	5,118,054	5,740,269	6,090,785
Classified Salaries	1,324,290	1,335,745	1,383,505	1,547,004	1,695,669
Employee Benefits	1,710,070	1,772,054	1,762,003	2,250,084	2,623,020
Books and Supplies	637,013	569,068	893,531	1,031,415	1,117,374
Services & Other Operating Expenditures	1,022,240	994,401	1,003,055	1,171,967	1,441,483
Capital Outlay	177,515	62,837	203,034	157,637	226,377
Other Outgo	511,024	561,484	437,342	431,100	579,427
Debt Service Expenditures	--	--	--	--	--
Total Expenditures	10,116,915	10,306,527	10,800,524	12,329,476	13,774,135
Excess (Deficiency) of Revenues over Expenditures	447,861	172,024	1,005,453	939,916	2,145,135
Other Financing Sources (Uses)					
Operating Transfers In	--	--	16,693	10,287	4,679
Operating Transfers Out	--	--	--	(400,000)	(450,000)
Total Other Financing Sources (Uses)	--	--	16,693	(389,713)	(445,321)
Net Change In Fund Balance	447,861	172,024	1,022,146	550,203	1,700,463
Fund Balances - July 1	3,190,102	3,637,963	3,809,987	4,832,133	5,382,336
Fund Balances - June 30	<u>\$3,637,963</u>	<u>\$3,809,987</u>	<u>\$4,832,133</u>	<u>\$5,382,336</u>	<u>\$7,082,799</u>

(1) LCFF commenced in fiscal year 2013-14.

Source: Pierce Joint Unified School District Audit Reports

District Budget and Interim Financial Reporting

Budgeting and Interim Reporting Procedures. State law requires school districts to maintain a balanced budget in each fiscal year. The State Department of Education imposes a uniform budgeting and accounting format for school districts.

Under current law, a school district governing board must adopt and file with the county superintendent of schools a tentative budget by July 1 in each fiscal year. The District is under the jurisdiction of the Colusa County Superintendent of Schools (the “**County Superintendent**”).

The County Superintendent must review and approve or disapprove the budget no later than August 15. The County Superintendent is required to examine the adopted budget for compliance with the standards and criteria adopted by the State Board of Education and identify technical corrections necessary to bring the budget into compliance with the established standards. If the budget is disapproved, it is returned to the District with recommendations for revision. The District is then required to revise the budget, hold a public hearing thereon, adopt the revised budget and file it with the County Superintendent no later than September 8. Pursuant to State law, the County Superintendent has available various remedies by which to impose and enforce a budget that complies with State criteria, depending on the circumstances, if a budget is disapproved. After approval of an adopted budget, the school district's administration may submit budget revisions for governing board approval.

Subsequent to approval, the County Superintendent will monitor each district under its jurisdiction throughout the fiscal year pursuant to its adopted budget to determine on an ongoing basis if the district can meet its current or subsequent year financial obligations. If the County Superintendent determines that a district cannot meet its current or subsequent year obligations, the County Superintendent will notify the district's governing board of the determination and may then do either or both of the following: (a) assign a fiscal advisor to enable the district to meet those obligations or (b) if a study and recommendations are made and a district fails to take appropriate action to meet its financial obligations, the County Superintendent will so notify the State Superintendent of Public Instruction, and then may do any or all of the following for the remainder of the fiscal year: (i) request additional information regarding the district's budget and operations; (ii) after also consulting with the district's board, develop and impose revisions to the budget that will enable the district to meet its financial obligations; and (iii) stay or rescind any action inconsistent with such revisions. However, the County Superintendent may not abrogate any provision of a collective bargaining agreement that was entered into prior to the date upon which the County Superintendent assumed authority.

A State law adopted in 1991 (“**A.B. 1200**”) imposed additional financial reporting requirements on school districts, and established guidelines for emergency State aid apportionments. Under the provisions of A.B. 1200, each school district is required to file interim certifications with the County Superintendent (on December 15, for the period ended October 31, and by mid-March for the period ended January 31) as to its ability to meet its financial obligations for the remainder of the then-current fiscal year and, based on current forecasts, for the subsequent fiscal year. The County Superintendent reviews the certification and issues either a positive, negative or qualified certification. A positive certification is assigned to any school district that will meet its financial obligations for the current fiscal year and subsequent two fiscal years. A negative certification is assigned to any school district that is deemed unable to meet its financial obligations for the remainder of the current fiscal year or the subsequent

fiscal year. A qualified certification is assigned to any school district that may not meet its financial obligations for the current fiscal year or two subsequent fiscal years.

Under California law, any school district and office of education that has a qualified or negative certification in any fiscal year may not issue, in that fiscal year or in the next succeeding fiscal year, certificates of participation, tax anticipation notes, revenue bonds or any other debt instruments that do not require the approval of the voters of the district, unless the applicable county superintendent of schools determines that the district's repayment of indebtedness is probable.

District's Budget Approval/Disapproval and Certification History. The District has not received any qualified or negative certifications of its financial reports in the past five years. The District's most recently reviewed interim report, the First Interim Report for fiscal year 2016-17, received a positive certification by the District's Board.

Copies of the District's budget, interim reports and certifications may be obtained upon request from the District Office at 540A 6th Street P.O. Box 239, Arbuckle, California 95912, Telephone: (530) 476-2892. The District may impose charges for copying, mailing and handling.

District's 2016-17 Adopted Budget and First Interim Report. The following table shows the general fund figures for the District's fiscal year 2016-17 adopted budget and 2016-17 first interim projections.

**REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
Fiscal Year 2016-17 Adopted Budget and First Interim Projections
Pierce Joint Unified School District**

Revenues	Adopted Budget 2016-17	1st Interim Projections 2016-17
LCFF Sources	\$13,612,027	\$13,612,027
Federal Revenues	348,490	430,226
Other State Revenues	1,357,373	1,612,367
Other Local Revenues	350,794	419,275
Total Revenues	15,668,684	16,073,895
Expenditures		
Certificated Salaries	6,367,786	6,384,822
Classified Salaries	1,733,317	1,734,688
Employee Benefits	2,902,365	2,893,402
Books And Supplies	2,732,324	2,836,299
Services & Other Operating Exp.	2,438,201	2,821,947
Capital Outlay	101,905	101,905
Other Outgo (Excluding Transfers of Indirect Costs)	751,247	810,788
Other Outgo -Transfers of Indirect Costs	--	(17,903)
Total Expenditures	17,027,145	17,565,948
Excess (Deficiency) Of Revenues Over Expenditures Before Other Financing Sources & Uses	(1,358,461)	1,492,053
Other Financing Sources (Uses)		
Transfers In	--	--
Transfers Out	39,897	--
Total Other Financing Sources (Uses)	(39,897)	--
Net Change In Fund Balance	(1,398,358)	(1,492,053)
Fund Balance, July 1	7,081,748	7,081,748
Fund Balance, June 30 ⁽¹⁾	\$5,683,390	\$5,589,695

(1) Totals may not add due to rounding.

Source: Pierce Joint Unified School District Adopted Budget for Fiscal Year 2016-17

District Reserves. The District's ending fund balance is the accumulation of surpluses from prior years. This fund balance is used to meet the State's minimum required reserve of 3% of expenditures, plus any other allocation or reserve, which might be approved as an expenditure by the District in the future. The District maintains an unrestricted reserve that meets the State's minimum requirements.

In connection with legislation adopted in connection with the State's fiscal year 2014-15 Budget ("**SB 858**"), the Education Code was amended to provide that, beginning in fiscal year 2015-16, if a district's proposed budget includes a local reserve above the minimum recommended level, the governing board must provide the information for review at the annual public hearing on its proposed budget. In addition, SB 858 included a provision, which became effective upon the passage of Proposition 2 at the November 4, 2014 statewide election, which limits the amount of reserves that may be maintained at the District level. Specifically, the legislation, among other things, enacted Education Code Section 42127.01, which became operative December 15, 2014, and provides that in any fiscal year immediately after a fiscal year in which a transfer is made to the State's Public School System Stabilization Account (the Proposition 98 reserve), a school district may not adopt a budget that contains a reserve for economic uncertainties in excess of twice the applicable minimum recommended reserve for economic uncertainties established by the State Board (for school districts with ADA over 400,000, the limit is three times the amount). Exemptions can be granted by the County Superintendent under certain circumstances.

In August of 2015, a bill was introduced into the State Senate in response to SB 858 ("**SB 799**") proposing reforms to the reserve cap. SB 799 proposes a cap on unassigned reserves and special reserves for other than capital outlay of seventeen percent, with exemptions from the cap for school districts with less than 2,500 average daily attendance and basic aid districts.

The District cannot predict how SB 858 or SB 799, if enacted, will impact its reserves and future spending.

Attendance - Revenue Limit and LCFF Funding

As described herein, prior to fiscal year 2013-14, school districts in California derived most State funding based on a formula that considered a revenue limit per unit of average daily attendance (“**ADA**”). With the implementation of the LCFF, commencing in fiscal year 2013-14, school districts receive base funding based on ADA, and may also be entitled to supplemental funding, concentration grants and funding based on an economic recovery target. The following table sets forth LCFF funding for the District for fiscal years 2013-14 through 2016-17 (Projected).

**AVERAGE DAILY ATTENDANCE AND STATE FUNDING UNDER LCFF
Fiscal Years 2013-14 through 2016-17
Pierce Joint Unified School District**

Fiscal Year	ADA	LCFF Entitlement Per ADA⁽¹⁾
2013-14	1,357	\$7,118
2014-15	1,393	7,981
2015-16	1,442	
2016-17	1,433	

*(1) Represents average entitlement across grade spans and averaged across District and charter school.
(2) Projected in First Interim Report.
Source: Pierce Joint Unified School District.*

Unduplicated Pupil Count. The District’s unduplicated pupil count for fiscal year 2015-16 for purposes of calculating entitlement under LCFF for supplemental funding and concentration grant funding is approximately ___%[, and therefore the District is eligible for supplemental and concentration grant funding under LCFF].

Revenue Sources

The District categorizes its general fund revenues into four sources, being LCFF, Federal Revenues, Other State Revenues and Local Revenues. Each of these revenue sources is described below.

LCFF Sources. District funding is provided by a mix of (1) local property taxes and (2) State apportionments of funding under the LCFF. Generally, the State apportionments will amount to the difference between the District’s LCFF funding entitlement and its local property tax revenues.

Beginning in 1978-79, Proposition 13 and its implementing legislation provided for each county to levy (except for levies to support prior voter-approved indebtedness) and collect all property taxes, and prescribed how levies on county-wide property values are to be shared with local taxing entities within each county.

The principal component of local revenues is the school district’s property tax revenues, i.e., the district’s share of the local 1% property tax, received pursuant to Sections 75 and following and Sections 95 and following of the California Revenue and Taxation Code. Education Code Section 42238(h) itemizes the local revenues that are counted towards the base revenue limit before calculating how much the State must provide in equalization aid.

Historically, the more local property taxes a district received, the less State equalization aid it is entitled to.

Federal Revenues. The federal government provides funding for several District programs, including special education programs, programs under No Child Left Behind, the Individuals With Disabilities Education Act, and specialized programs such as Drug Free Schools.

Other State Revenues. As discussed above, the District receives State apportionment of basic and equalization aid in an amount equal to the difference between the District's revenue limit and its property tax revenues. In addition to such apportionment revenue, the District receives other State revenues.

The District receives State aid from the California State Lottery (the "**Lottery**"), which was established by a constitutional amendment approved in the November 1984 general election. Lottery revenues must be used for the education of students and cannot be used for non-instructional purposes such as real property acquisition, facility construction, or the financing of research. Moreover, State Proposition 20 approved in March 2000 requires that 50% of the increase in Lottery revenues over 1997-98 levels must be restricted to use on instruction material.

For additional discussion of State aid to school districts, see "-State Funding of Education."

Other Local Revenues. In addition to local property taxes, the District receives additional local revenues from items such as interest earnings and other local sources.

District Retirement Systems

Qualified employees of the District are covered under multiple-employer defined benefit pension plans maintained by agencies of the State. Certificated employees are members of the State Teachers’ Retirement System (“**STRS**”) and classified employees are members of the Public Employees’ Retirement System (“**PERS**”). Both STRS and PERS are operated on a Statewide basis. *The information set forth below regarding the STRS and PERS programs, other than the information provided by the District regarding its annual contributions thereto, has been obtained from publicly available sources which are believed to be reliable but are not guaranteed as to accuracy or completeness, and should not to be construed as a representation by either the District or the Purchasers.*

Implementation of GASB Nos. 68 and 71. Commencing with fiscal year ended June 30, 2015, the District implemented the provisions of GASB Statement Nos. 68 and 71 which require certain new pension disclosures in the notes to its audited financial statements commencing with the audit for fiscal year 2014-15. Statement No. 68 generally requires the District to recognize its proportionate share of the unfunded pension obligation for STRS and PERS by recognizing a net pension liability measured as of a date (the measurement date) no earlier than the end of its prior fiscal year. As a result of the implementation of GASB Statement Nos. 68 and 71, the District was required to reflect a restatement of its beginning net position as of July 1, 2014. See Appendix A to the Official Statement.

STRS. The District contributes to STRS, which provides retirement and disability benefits and survivor benefits to beneficiaries. Benefit provisions are established by state statutes, as legislatively amended, within the State Teachers’ Retirement Law. The District’s employer contributions to STRS for recent fiscal years are set forth in the following table.

**STRS Contributions
Pierce Joint Unified School District
Fiscal Years 2011-12 through 2016-17**

Fiscal Year	Amount
2011-12	\$382,735
2012-13	403,924
2013-14	412,131
2014-15	493,039
2015-16	635,416
2016-17 ⁽¹⁾	1,072,747

⁽¹⁾ Projected.
Source: Pierce Joint Unified School District.

Historically, employee, employer and State contribution rates did not vary annually to account for funding shortfalls or surpluses in the STRS plan. In recent years, the combination of investment earnings and statutory contributions were not sufficient to pay actuarially required amounts. As a result, the STRS defined benefit program showed an estimated unfunded actuarial liability of approximately \$76.2 billion as of June 30, 2015 (the date of the last actuarial valuation). In connection with the State’s adoption of its fiscal year 2014-15 Budget, the Governor signed into law Assembly Bill 1469 (“**AB 1469**”), which represents a legislative effort to address the unfunded liabilities of the STRS pension plan. AB 1469 addressed the funding gap by increasing contributions by employees, employers and the State. In particular, employer contribution rates are scheduled to increase through at least fiscal year 2020-21, from a

contribution rate of 8.88% in fiscal year 2013-14 to 19.1% in fiscal year 2020-21. Thereafter, employer contribution rates will be determined by the STRS board to reflect the contribution required to eliminate unfunded liabilities by June 30, 2046.

The District’s employer contribution rates for fiscal years 2014-15 and 2015-16 were 8.88% and 10.73%, respectively. Projected employer contribution rates for school districts (including the District) for fiscal year 2016-17 through fiscal year 2020-21 are set forth in the following table.

**PROJECTED EMPLOYER CONTRIBUTION RATES (STRS)
Fiscal Years 2016-17 through 2020-21**

Fiscal Year	Projected Employer Contribution Rate⁽¹⁾
2016-17	12.58%
2017-18	14.43
2018-19	16.28
2019-20	18.13
2020-21	19.10

(1) Expressed as a percentage of covered payroll.
Source: AB 1469

PERS. All full-time and some part-time classified employees participate in PERS, an agent multiple-employer contributory public employee retirement system that acts as a common investment and administrative agent for participating public entities within the State. PERS provides retirement, disability, and death benefits to plan members and beneficiaries. The District is part of a cost-sharing pool within PERS known as the “Schools Pool.” Benefit provisions are established by State statutes, as legislatively amended. Contributions to PERS are made by employers and employees. Each fiscal year, the District is required to contribute an amount based on an actuarially determined employer rate. The District’s employer contributions to PERS for recent fiscal years are set forth in the following table.

**PERS Contributions
Pierce Joint Unified School District
Fiscal Years 2011-12 through 2016-17**

Fiscal Year	Amount
2011-12	\$156,858
2012-13	162,314
2013-14	173,614
2014-15	192,649
2015-16	220,106
2016-17 ⁽¹⁾	232,353

(1) Projected.
Source: Pierce Joint Unified School District.

Like the STRS program, the PERS program has maintained an unfunded liability in recent years. The PERS unfunded liability, on a market value of assets basis, was approximately \$16.5 billion as of June 30, 2015 (the date of the last actuarial valuation). To address such unfunded liability, the PERS board has taken a number of actions. In April 2013, for example, the PERS board approved changes to the PERS amortization and smoothing

policy intended to reduce volatility in employer contribution rates. In addition, in April 2014, PERS set new contribution rates, reflecting new demographic assumptions and other changes in actuarial assumptions. The new rates and underlying assumptions, which are aimed at eliminating the unfunded liability of PERS in approximately 30 years, will be implemented for school districts beginning in fiscal year 2016-17, with the costs spread over 20 years and the increases phased in over the first five years.

The District’s employer contribution rates for fiscal years 2014-15 and 2015-16 were 11.771% and 11.847%, respectively. Projected employer contribution rates for school districts in the State (including the District) for fiscal year 2016-17 through fiscal year 2020-21 are set forth in the following table.

**PROJECTED EMPLOYER CONTRIBUTION RATES (PERS)
Fiscal Years 2016-17 through 2020-21⁽¹⁾**

Fiscal Year	Projected Employer Contribution Rate⁽²⁾
2016-17	13.888%
2017-18	15.500
2018-19	17.100
2019-20	18.600
2020-21	19.800

(1) Rates were estimated by PERS in 2016. The PERS board is expected to approve official employer contribution rates for each fiscal year shown during the immediately preceding fiscal year.
 (2) Expressed as a percentage of covered payroll.
 Source: PERS

California Public Employees’ Pension Reform Act of 2013. On September 12, 2012, the Governor signed into law the California Public Employees’ Pension Reform Act of 2013 (“PEPRA”), which impacted various aspects of public retirement systems in the State, including the STRS and PERS programs. In general, PEPRA (i) increased the retirement age for public employees depending on job function, (ii) capped the annual pension benefit payouts for public employees hired after January 1, 2013, (iii) required public employees hired after January 1, 2013 to pay at least 50% of the costs of their pension benefits (as described in more detail below), (iv) required final compensation for public employees hired after January 1, 2013 to be determined based on the highest average annual pensionable compensation earned over a period of at least 36 consecutive months, and (v) attempted to address other perceived abuses in the public retirement systems in the State. PEPRA applies to all public employee retirement systems in the State, except the retirement systems of the University of California, and charter cities and charter counties whose pension plans are not governed by State law. PEPRA’s provisions went into effect on January 1, 2013 with respect to new State, school, and city and local agency employees hired on or after that date; existing employees who are members of employee associations, including employee associations of the District, have a five-year window to negotiate compliance with PEPRA through collective bargaining.

PERS has predicted that the impact of PEPRA on employees and employers, including the District and other employers in the PERS system, will vary, based on each employer’s current level of benefits. As a result of the implementation of PEPRA, new members must pay at least 50% of the normal costs of the plan, which can fluctuate from year to year. To the extent that the new formulas lower retirement benefits, employer contribution rates could decrease over time as current employees retire and employees subject to the new formulas

make up a larger percentage of the workforce. This change would, in some circumstances, result in a lower retirement benefit for employees than they currently earn.

With respect to the STRS pension program, employees hired after January 1, 2013 will pay the greater of either (1) fifty percent of the normal cost of their retirement plan, rounded to the nearest one-quarter percent, or (2) the contribution rate paid by then-current members (i.e., employees in the STRS plan as of January 1, 2013). The member contribution rate could be increased from this level through collective bargaining or may be adjusted based on other factors. Employers will pay at least the normal cost rate, after subtracting the member's contribution.

The District is unable to predict the amount of future contributions it will have to make to PERS and STRS as a result of the implementation of PEPRA, and as a result of negotiations with its employee associations, or, notwithstanding the adoption of PEPRA, resulting from any legislative changes regarding the PERS and STRS employer contributions that may be adopted in the future.

Additional Information. Additional information regarding the District's retirement programs is available in Note 6 to the District's audited financial statements attached hereto as Appendix A. In addition, both STRS and PERS issue separate comprehensive financial reports that include financial statements and required supplemental information. Copies of such reports may be obtained from STRS and PERS, respectively, as follows: (i) STRS, P.O. Box 15275, Sacramento, California 95851-0275; and (ii) PERS, 400 Q Street, Sacramento, California 95811. More information regarding STRS and PERS can also be obtained at their websites, www.calstrs.com and www.calpers.ca.gov, respectively. *The references to these Internet websites are shown for reference and convenience only and the information contained on such websites is not incorporated by reference into this Official Statement. The information contained on these websites may not be current and has not been reviewed by the District or the Purchaser for accuracy or completeness.*

Other Post-Employment Benefits

The District has entered into various early retirement agreements with certain eligible employees, which require no further services to be performed. The District provides a supplemental employee retirement plan to all certificated employees, age 55 or older, with 5 or more years of service to the District. The District also has obligations to STRS for early retirement incentive granted to retired employees. The agreement requires future payments by the District to STRS for the benefit of retired employees. Future estimated payments at June 30, 2010, are as follows:

<u>Year</u>	<u>SERP</u>	<u>Golden Handshake</u>
2011	\$33,100	\$44,797
2012	-	43,637
2013	-	29,823
2014	-	28,663
2015	-	27,503
	<u>\$33,100</u>	174,423
Less amount representing interest		<u>(23,363)</u>
Present value of net minimum payments		<u>\$151,061</u>

Existing Debt Obligations

General Obligation Bonds. The District has general obligation bonds outstanding that have been issued in past years, which are secured by *ad valorem* property taxes levied and collected in the District. The following table shows the outstanding general obligation bonded debt of the District.

**SUMMARY OF OUTSTANDING GENERAL OBLIGATION BONDS*
Pierce Joint Unified School District**

Dated Date	Series	Amount of Original Issue	Outstanding as of March 1, 2017
7/25/2002	General Obligation Bonds, Election of 2002, Series A (Current Interest)	\$5,996,040.75	\$1,736,040.75
6/2011	2011 General Obligation Refunding Bonds	2,850,000.00	915,000.00
Total		\$8,846,040.75	\$2,651,040.75

* Does not include the Bonds described in this Official Statement.

Capital Lease Obligations. The District has entered into various operating leases for equipment with lease terms in excess of one year. None of these agreements contain purchase options. All the agreements contain a termination clause providing for cancellation after a specified number of days written notice to lessors, but it is unlikely that the District will cancel any of the agreements prior to the expiration date. The District will receive no sublease rental revenues nor pay any contingent amounts under these agreements.

Investment of District Funds

In accordance with Government Code Section 53600 *et seq.*, the Colusa County Treasurer manages funds deposited with it by the District. Colusa County is required to invest such funds in accordance with California Government Code Sections 53601 *et seq.* In addition, counties are required to establish their own investment policies which may impose limitations beyond those required by the Government Code. See Appendix G to the Official Statement.

Effect of State Budget on Revenues

Public school districts in California are dependent on revenues from the State for a large portion of their operating budgets. California school districts generally receive the majority of their operating revenues from various State sources. The primary source of funding for school districts is LCFF funding, which is derived from a combination of State funds and local property taxes (see “—Attendance-Revenue Limit and LCFF Funding” above). State funds typically make up the majority of a district’s LCFF funding. School districts also receive funding from the State for some specialized programs such as special education.

The availability of State funds for public education is a function of constitutional provisions affecting school district revenues and expenditures (see “CONSTITUTIONAL AND STATUTORY PROVISIONS AFFECTING DISTRICT REVENUES AND APPROPRIATIONS” below), the condition of the State economy (which affects total revenue available to the State general fund), and the annual State budget process. The District cannot predict how education funding may further be changed in the future, or the state of the economy which in turn can

impact the amounts of funds available from the State for education funding. See “STATE FUNDING OF EDUCATION; RECENT STATE BUDGETS” below.

STATE FUNDING OF EDUCATION; RECENT STATE BUDGETS

State Funding of Education

General. The State requires that from all State revenues there first shall be set apart the moneys to be applied for support of the public school system and public institutions of higher education. Public school districts in California are dependent on revenues from the State for a large portion of their operating budgets. California school districts receive an average of about 55% of their operating revenues from various State sources. The primary source of funding for school districts is funding under the LCFF, which is a combination of State funds and local property taxes (see “DISTRICT FINANCIAL INFORMATION – Education Funding Generally” above). State funds typically make up the majority of a district’s LCFF entitlement.

The availability of State funds for public education is a function of constitutional provisions affecting school district revenues and expenditures (see “CONSTITUTIONAL AND STATUTORY PROVISIONS AFFECTING DISTRICT REVENUES AND APPROPRIATIONS” below), the condition of the State economy (which affects total revenue available to the State general fund), and the annual State budget process. Decreases in State revenues may significantly affect appropriations made by the legislature to school districts.

The following information concerning the State’s budgets for the current and most recent preceding years has been compiled from publicly-available information provided by the State. Neither the District, the Counties, nor the underwriter are responsible for the information relating to the State’s budgets provided in this section. Further information is available from the Public Finance Division of the State Treasurer’s Office.

The Budget Process. The State’s fiscal year begins on July 1 and ends on June 30. The annual budget is proposed by the Governor by January 10 of each year for the next fiscal year (the “**Governor’s Budget**”). Under State law, the annual proposed Governor’s Budget cannot provide for projected expenditures in excess of projected revenues and balances available from prior fiscal years. Following the submission of the Governor’s Budget, the Legislature takes up the proposal.

Under the State Constitution, money may be drawn from the State Treasury only through an appropriation made by law. The primary source of the annual expenditure authorizations is the Budget Act as approved by the Legislature and signed by the Governor. The Budget Act must be approved by a majority vote of each house of the Legislature. The Governor may reduce or eliminate specific line items in the Budget Act or any other appropriations bill without vetoing the entire bill. Such individual line-item vetoes are subject to override by a two-thirds majority vote of each House of the Legislature.

Appropriations also may be included in legislation other than the Budget Act. Bills containing appropriations (including for K-14 education) must be approved by a majority vote in each house of the Legislature, unless such appropriations require tax increases, in which case they must be approved by a two-thirds vote of each house of the Legislature, and be signed by

the Governor. Continuing appropriations, available without regard to fiscal year, may also be provided by statute or the State Constitution.

Funds necessary to meet an appropriation need not be in the State Treasury at the time such appropriation is enacted; revenues may be appropriated in anticipation of their receipt.

Recent State Budgets

Certain information about the State budgeting process and the State Budget is available through several State of California sources. A convenient source of information is the State's website, where recent official statements for State bonds are posted. *The references to internet websites shown below are shown for reference and convenience only, the information contained within the websites may not be current and has not been reviewed by the District and is not incorporated herein by reference.*

- The California State Treasurer Internet home page at www.treasurer.ca.gov, under the heading "Bond Information", posts various State of California Official Statements, many of which contain a summary of the current State Budget, past State Budgets, and the impact of those budgets on school districts in the State.
- The California State Treasurer's Office Internet home page at www.treasurer.ca.gov, under the heading "Financial Information", posts the State's audited financial statements. In addition, the Financial Information section includes the State's Rule 15c2-12 filings for State bond issues. The Financial Information section also includes the Overview of the State Economy and Government, State Finances, State Indebtedness, Litigation from the State's most current Official Statement, which discusses the State budget and its impact on school districts.
- The California Department of Finance's Internet home page at www.dof.ca.gov, under the heading "California Budget", includes the text of proposed and adopted State Budgets.
- The State Legislative Analyst's Office prepares analyses of the proposed and adopted State budgets. The analyses are accessible on the Legislative Analyst's Internet home page at www.lao.ca.gov under the heading "Subject Area – Budget (State)".

Prior Years' Budgeting Techniques. Declining revenues and fiscal difficulties which arose in the State commencing in fiscal year 2008-09 led the State to undertake a number of budgeting strategies, which had subsequent impacts on local agencies within the State. These techniques included the issuance of IOUs in lieu of warrants (checks), the enactment of statutes deferring amounts owed to public schools, until a later date in the fiscal year, or even into the following fiscal year (known as statutory deferrals), trigger reductions, which were budget cutting measures which were implemented or could have been implemented if certain State budgeting goals were not met, among others, and the dissolution of local redevelopment agencies in part to make available additional funding for local agencies. Although the fiscal year 2014-15 State Budget is balanced and projects a balanced budget for the foreseeable future, largely attributable to the additional revenues generated due to the passage of Proposition 30 at the

November 6, 2012 statewide election, there can be no certainty that budget-cutting strategies such as those used in recent years will not be used in the future should the State Budget again be stressed and if projections included in such budget do not materialize.

2013-14 State Budget: Significant Change in Education Funding. As described previously herein, the 2013-14 State Budget and its related implementing legislation enacted significant reforms to the State's system of K-12 education finance with the enactment of the LCFF. Significant reforms such as the LCFF and other changes in law may have significant impacts on the District's finances.

2016-17 Adopted State Budget

On June 27, 2016, the Governor signed the 2016-17 State Budget (the "**2016-17 State Budget**") into law. The 2016-17 State Budget package calls for \$122.5 billion in general fund spending and \$44.6 billion in special fund spending, along with \$3.6 billion in bond spending. The 2016-17 State Budget includes more money for higher education, repeals a cap on welfare payments, raises rates for child care providers and puts an additional \$3.3 billion into the State's rainy-day reserve, including an optional \$2 billion shift to protect against a future economic downturn. The 2016-17 State Budget establishes a multiyear plan that is balanced and that, among other items, provides for the following:

- contributions to both state budget reserves: the Special Fund for Economic Uncertainties, the state's discretionary reserve, and the Budget Stabilization Account, the state's constitutional rainy day fund, raising such reserves to \$6.7 billion;
- an increase in funding for K-12 schools of more than \$2.9 billion (representing an increase of 5.4 percent over the LCFF funding level for fiscal year 2014-15 and bringing the LCFF level implementation to 96% complete);
- an increase of more than \$1.3 billion in one-time discretionary general funds for school districts, charter schools and county offices of education to use at local discretion (for activities such as deferred maintenance, professional development, induction for beginning teachers, instructional materials, technology, and the implementation of new educational standards);
- a \$1.6 billion early education block grant by combining three existing programs to promote local flexibility, focusing on disadvantaged students and improved accountability;
- \$807 million for statewide deferred maintenance at levees, state parks, universities, community colleges, prisons, state hospitals, and other state facilities;
- a \$3.1 billion cap-and-trade expenditure plan to reduce greenhouse gas emissions;
- over \$2 billion in funds for various infrastructure improvements, \$688 million for critical deferred maintenance at levees, state parks, universities, community colleges, prisons, state hospitals, and other state facilities;
- a \$1.2 billion pay-down of debt and liabilities from Proposition 2 funds; and

- \$710 million to pay for the costs of wildfires and for other effects of the drought.

The execution of the 2016-17 State Budget may be affected by numerous factors, including but not limited to: (i) shifts of costs from the federal government to the State, (ii) national, State and international economic conditions, (iii) litigation risk associated with proposed spending reductions, (iv) rising health care costs and (v) other factors, all or any of which could cause the revenue and spending projections in the 2016-17 State Budget to be unattainable. The District cannot predict the impact that the 2016-17 State Budget, or subsequent budgets, will have on its own finances and operations. Additionally, the District cannot predict the accuracy of any projections made in the 2016-17 State Budget.

The complete enacted 2016-17 State Budget is available from the California State Department of Finance Budget website at www.ebudget.ca.gov. The District cannot, and does not, take any responsibility for the continued accuracy of such internet address or for the accuracy, completeness or timeliness of information posted on such address, and such information is not incorporated in this Official Statement by such reference.

Uncertainty Regarding Future State Budgets. The District cannot predict what actions will be taken in future years by the State Legislature and the Governor to address the State's current or future budget deficits. Future State budgets will be affected by national and state economic conditions and other factors over which the District has no control. The District cannot predict what impact any future budget proposals will have on the financial condition of the District. To the extent that the State budget process results in reduced revenues to the District, the District will be required to make adjustments to its budgets.

The State has not entered into any contractual commitment with the District, the Counties, or the Owners of the Series A Bonds to provide State budget information to the District or the owners of the Series A Bonds. Although they believe the State sources of information listed above are reliable, neither the District nor the Purchaser assumes any responsibility for the accuracy of the State Budget information set forth or referred to in this Official Statement or incorporated herein. However, the Series A Bonds are secured by *ad valorem* taxes levied and collected on taxable property in the District, without limit as to rate or amount, and are not secured by a pledge of revenues of the District or its general fund.

Legal Challenges to State Funding of Education

The application of Proposition 98 and other statutory regulations has been the subject of various legal challenges in the past. The District cannot predict if or when there will be changes to education funding or legal challenges which may arise relating thereto.

CONSTITUTIONAL AND STATUTORY PROVISIONS AFFECTING DISTRICT REVENUES AND APPROPRIATIONS

Principal of and interest on the Series A Bonds are payable from the proceeds of an *ad valorem* tax levied by the Counties for the payment thereof. Articles XIII A, XIII B, XIII C, and XIII D of the State Constitution, Propositions 62, 98, 111, 187 and 218, and certain other provisions of law discussed below, are included in this section to describe the potential effect of these Constitutional and statutory measures on the ability of the District to levy taxes and spend tax proceeds for operating and other purposes, and it should not be inferred from the inclusion of such materials that these laws impose any limitation on the ability of the District to levy taxes for payment of the Series Bonds. The tax levied by the Counties for payment of the Series A Bonds was approved by the District's voters in compliance with Article XIII A and all applicable laws.

Constitutionally Required Funding of Education

The State Constitution requires that from all State revenues, there shall be first set apart the moneys to be applied by the State for the support of the public school system and public institutions of higher education. School districts receive a significant portion of their funding from State appropriations. As a result, decreases and increases in State revenues can significantly affect appropriations made by the State Legislature to school districts.

Article XIII A of the California Constitution

Basic Property Tax Levy. On June 6, 1978, California voters approved Proposition 13 ("**Proposition 13**"), which added Article XIII A to the State Constitution ("**Article XIII A**"). Article XIII A limits the amount of any *ad valorem* tax on real property to 1% of the full cash value thereof, except that additional *ad valorem* taxes may be levied to pay debt service on (i) indebtedness approved by the voters prior to July 1, 1978, (ii) (as a result of an amendment to Article XIII A approved by State voters on June 3, 1986) on bonded indebtedness for the acquisition or improvement of real property which has been approved on or after July 1, 1978 by two-thirds of the voters on such indebtedness (which provided the authority for the issuance of the Refunded Bonds), and (iii) (as a result of an amendment to Article XIII A approved by State voters on November 7, 2000) bonded indebtedness incurred by a school district or community college district for the construction, reconstruction, rehabilitation or replacement of school facilities or the acquisition or lease of real property for school facilities, approved by 55% of the voters of the district, but only if certain accountability measures are included in the proposition. Article XIII A defines full cash value to mean "the county assessor's valuation of real property as shown on the 1975-76 tax bill under full cash value, or thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership have occurred after the 1975 assessment". This full cash value may be increased at a rate not to exceed 2% per year to account for inflation.

Article XIII A has subsequently been amended to permit reduction of the "full cash value" base in the event of declining property values caused by damage, destruction or other factors, to provide that there would be no increase in the "full cash value" base in the event of reconstruction of property damaged or destroyed in a disaster and in other minor or technical ways.

Legislation Implementing Article XIII A. Legislation has been enacted and amended a number of times since 1978 to implement Article XIII A. Under current law, local agencies are no

longer permitted to levy directly any property tax (except to pay voter-approved indebtedness). The 1% property tax is automatically levied by the county and distributed according to a formula among taxing agencies. The formula apportions the tax roughly in proportion to the relative shares of taxes levied prior to 1979.

Increases of assessed valuation resulting from reappraisals of property due to new construction, change in ownership or from the annual adjustment not to exceed 2% are allocated among the various jurisdictions in the "taxing area" based upon their respective "situs." Any such allocation made to a local agency continues as part of its allocation in future years.

Inflationary Adjustment of Assessed Valuation. As described above, the assessed value of a property may be increased at a rate not to exceed 2% per year to account for inflation. On December 27, 2001, the Orange County Superior Court, in *County of Orange v. Orange County Assessment Appeals Board No. 3*, held that where a home's taxable value did not increase for two years, due to a flat real estate market, the Orange County assessor violated the 2% inflation adjustment provision of Article XIII A, when the assessor tried to "recapture" the tax value of the property by increasing its assessed value by 4% in a single year. The assessors in most California counties, including the County, use a similar methodology in raising the taxable values of property beyond 2% in a single year. The State Board of Equalization has approved this methodology for increasing assessed values. On appeal, the Appellate Court held that the trial court erred in ruling that assessments are always limited to no more than 2% of the previous year's assessment. On May 10, 2004 a petition for review was filed with the California Supreme Court. The petition has been denied by the California Supreme Court. As a result of this litigation, the "recapture" provision described above may continue to be employed in determining the full cash value of property for property tax purposes.

Article XIII B of the California Constitution

Article XIII B ("**Article XIII B**") of the State Constitution, as subsequently amended by Propositions 98 and 111, respectively, limits the annual appropriations of the State and of any city, county, school district, authority or other political subdivision of the State to the level of appropriations of the particular governmental entity for the prior fiscal year, as adjusted for changes in the cost of living and in population and for transfers in the financial responsibility for providing services and for certain declared emergencies. For fiscal years beginning on or after July 1, 1990, the appropriations limit of each entity of government shall be the appropriations limit for the 1986-87 fiscal year adjusted for the changes made from that fiscal year under the provisions of Article XIII B, as amended.

The appropriations of an entity of local government subject to Article XIII B limitations include the proceeds of taxes levied by or for that entity and the proceeds of certain state subventions to that entity. "Proceeds of taxes" include, but are not limited to, all tax revenues and the proceeds to the entity from (a) regulatory licenses, user charges and user fees (but only to the extent that these proceeds exceed the reasonable costs in providing the regulation, product or service), and (b) the investment of tax revenues.

Appropriations subject to limitation do not include (a) refunds of taxes, (b) appropriations for debt service, (c) appropriations required to comply with certain mandates of the courts or the federal government, (d) appropriations of certain special districts, (e) appropriations for all qualified capital outlay projects as defined by the legislature, (f) appropriations derived from certain fuel and vehicle taxes and (g) appropriations derived from certain taxes on tobacco products.

Article XIII B includes a requirement that all revenues received by an entity of government other than the State in a fiscal year and in the fiscal year immediately following it in excess of the amount permitted to be appropriated during that fiscal year and the fiscal year immediately following it shall be returned by a revision of tax rates or fee schedules within the next two subsequent fiscal years. However, in the event that a school district's revenues exceed its spending limit, the district may in any fiscal year increase its appropriations limit to equal its spending by borrowing appropriations limit from the State.

Article XIII B also includes a requirement that 50% of all revenues received by the State in a fiscal year and in the fiscal year immediately following it in excess of the amount permitted to be appropriated during that fiscal year and the fiscal year immediately following it shall be transferred and allocated to the State School Fund under Section 8.5 of Article XVI of the State Constitution.

Unitary Property

Some amount of property tax revenue of the District is derived from utility property which is considered part of a utility system with components located in many taxing jurisdictions (“**unitary property**”). Under the State Constitution, such property is assessed by the State Board of Equalization (“**SBE**”) as part of a “going concern” rather than as individual pieces of real or personal property. State-assessed unitary and certain other property is allocated to the counties by SBE, taxed at special county-wide rates, and the tax revenues distributed to taxing jurisdictions (including the District) according to statutory formulae generally based on the distribution of taxes in the prior year.

Articles XIII C and XIII D

On November 5, 1996, the voters of the State of California approved Proposition 218, popularly known as the “Right to Vote on Taxes Act.” Proposition 218 added to the California Constitution Articles XIII C and XIII D (respectively, “**Article XIII C**” and “**Article XIII D**”), which contain a number of provisions affecting the ability of local agencies, including school districts, to levy and collect both existing and future taxes, assessments, fees and charges.

According to the “Title and Summary” of Proposition 218 prepared by the California Attorney General, Proposition 218 limits “the authority of local governments to impose taxes and property-related assessments, fees and charges.” Among other things, Article XIII C establishes that every tax is either a “general tax” (imposed for general governmental purposes) or a “special tax” (imposed for specific purposes), prohibits special purpose government agencies such as school districts from levying general taxes, and prohibits any local agency from imposing, extending or increasing any special tax beyond its maximum authorized rate without a two-thirds vote; and also provides that the initiative power will not be limited in matters of reducing or repealing local taxes, assessments, fees and charges. Article XIII C further provides that no tax may be assessed on property other than *ad valorem* property taxes imposed in accordance with Articles XIII and XIII A of the California Constitution and special taxes approved by a two-thirds vote under Article XIII A, Section 4.

On November 2, 2010, Proposition 26 was approved by State voters, which amended Article XIII C to expand the definition of “tax” to include “any levy, charge, or exaction of any kind imposed by a local government” except the following: (1) a charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and

which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege; (2) a charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product; (3) a charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof; (4) a charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property; (5) a fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law; (6) a charge imposed as a condition of property development; and (7) assessments and property-related fees imposed in accordance with the provisions of Article XIID. Proposition 26 provides that the local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.

Article XIID deals with assessments and property-related fees and charges, and explicitly provides that nothing in Article XIIC or XIID will be construed to affect existing laws relating to the imposition of fees or charges as a condition of property development.

While the provisions of Proposition 218 may have an indirect effect on the District, such as by limiting or reducing the revenues otherwise available to other local governments whose boundaries encompass property located within the District (thereby causing such local governments to reduce service levels and possibly adversely affecting the value of property within the District), the District does not believe that Proposition 218 will directly impact the revenues available to pay Lease Payments and therefore debt service on the Notes.

Proposition 98

On November 8, 1988, California voters approved Proposition 98, a combined initiative constitutional amendment and statute called the "Classroom Instructional Improvement and Accountability Act" (the "**Accountability Act**"). Certain provisions of the Accountability Act have, however, been modified by Proposition 111, discussed below, the provisions of which became effective on July 1, 1990. The Accountability Act changes State funding of public education below the university level and the operation of the State's appropriations limit. The Accountability Act guarantees State funding for K-12 school districts and community college districts (hereinafter referred to collectively as "K-14 school districts") at a level equal to the greater of (a) the same percentage of general fund revenues as the percentage appropriated to such districts in 1986-87, and (b) the amount actually appropriated to such districts from the general fund in the previous fiscal year, adjusted for increases in enrollment and changes in the cost of living. The Accountability Act permits the Legislature to suspend this formula for a one-year period.

The Accountability Act also changes how tax revenues in excess of the State appropriations limit are distributed. Any excess State tax revenues up to a specified amount would, instead of being returned to taxpayers, be transferred to K-14 school districts. Any such transfer to K-14 school districts would be excluded from the appropriations limit for K-14 school districts and the K-14 school district appropriations limit for the next year would automatically be increased by the amount of such transfer. These additional moneys would enter the base

funding calculation for K-14 school districts for subsequent years, creating further pressure on other portions of the State budget, particularly if revenues decline in a year following an Article XIII B surplus. The maximum amount of excess tax revenues which could be transferred to K-14 school districts is 4% of the minimum State spending for education mandated by the Accountability Act.

Proposition 111

On June 5, 1990, the voters approved Proposition 111 (Senate Constitutional Amendment No. 1) called the "Traffic Congestion Relief and Spending Limit Act of 1990" ("**Proposition 111**") which further modified Article XIII B and Sections 8 and 8.5 of Article XVI of the State Constitution with respect to appropriations limitations and school funding priority and allocation.

The most significant provisions of Proposition 111 are summarized as follows:

Annual Adjustments to Spending Limit. The annual adjustments to the Article XIII B spending limit were liberalized to be more closely linked to the rate of economic growth. Instead of being tied to the Consumer Price Index, the "change in the cost of living" is now measured by the change in California *per capita* personal income. The definition of "change in population" specifies that a portion of the State's spending limit is to be adjusted to reflect changes in school attendance.

Treatment of Excess Tax Revenues. "Excess" tax revenues with respect to Article XIII B are now determined based on a two-year cycle, so that the State can avoid having to return to taxpayers excess tax revenues in one year if its appropriations in the next fiscal year are under its limit. In addition, the Proposition 98 provision regarding excess tax revenues was modified. After any two-year period, if there are excess State tax revenues, 50% of the excess are to be transferred to K-14 school districts with the balance returned to taxpayers; under prior law, 100% of excess State tax revenues went to K-14 school districts, but only up to a maximum of 4% of the schools' minimum funding level. Also, reversing prior law, any excess State tax revenues transferred to K-14 school districts are not built into the school districts' base expenditures for calculating their entitlement for State aid in the next year, and the State's appropriations limit is not to be increased by this amount.

Exclusions from Spending Limit. Two exceptions were added to the calculation of appropriations which are subject to the Article XIII B spending limit. First, there are excluded all appropriations for "qualified capital outlay projects" as defined by the Legislature. Second, there are excluded any increases in gasoline taxes above the 1990 level (then nine cents per gallon), sales and use taxes on such increment in gasoline taxes, and increases in receipts from vehicle weight fees above the levels in effect on January 1, 1990. These latter provisions were necessary to make effective the transportation funding package approved by the Legislature and the Governor, which expected to raise over \$15 billion in additional taxes from 1990 through 2000 to fund transportation programs.

Recalculation of Appropriations Limit. The Article XIII B appropriations limit for each unit of government, including the State, is to be recalculated beginning in fiscal year 1990-91. It is based on the actual limit for fiscal year 1986-87, adjusted forward to 1990-91 as if Proposition 111 had been in effect.

School Funding Guarantee. There is a complex adjustment in the formula enacted in Proposition 98 which guarantees K-14 school districts a certain amount of State general fund revenues. Under prior law, K-14 school districts were guaranteed the greater of (1) 40.9% of State general fund revenues (the “**first test**”) or (2) the amount appropriated in the prior year adjusted for changes in the cost of living (measured as in Article XIII B by reference to *per capita* personal income) and enrollment (the “**second test**”). Under Proposition 111, schools will receive the greater of (1) the first test, (2) the second test, or (3) a third test, which will replace the second test in any year when growth in *per capita* State general fund revenues from the prior year is less than the annual growth in California per capita personal income (the “**third test**”). Under the third test, schools will receive the amount appropriated in the prior year adjusted for change in enrollment and *per capita* State general fund revenues, plus an additional small adjustment factor. If the third test is used in any year, the difference between the third test and the second test will become a “credit” to schools which will be paid in future years when State general fund revenue growth exceeds personal income growth.

Proposition 39

On November 7, 2000, California voters approved an amendment (commonly known as “**Proposition 39**”) to the California Constitution. This amendment (1) allows school facilities bond measures to be approved by 55 percent (rather than two-thirds) of the voters in local elections and permits property taxes to exceed the current 1 percent limit in order to repay the bonds and (2) changes existing statutory law regarding charter school facilities. As adopted, the constitutional amendments may be changed only with another Statewide vote of the people. The statutory provisions could be changed by a majority vote of both houses of the Legislature and approval by the Governor, but only to further the purposes of the proposition. The local school jurisdictions affected by this proposition are K-12 school districts, community college districts, including the District, and county offices of education. As noted above, the California Constitution previously limited property taxes to 1 percent of the value of property. Prior to the approval of Proposition 39, property taxes could only exceed this limit to pay for (1) any local government debts approved by the voters prior to July 1, 1978 or (2) bonds to acquire or improve real property that receive two-thirds voter approval after July 1, 1978.

The 55% vote requirement authorized by Proposition 39 applies only if the local bond measure presented to the voters includes: (1) a requirement that the bond funds can be used only for construction, rehabilitation, equipping of school facilities, or the acquisition or lease of real property for school facilities; (2) a specific list of school projects to be funded and certification that the school board has evaluated safety, class size reduction, and information technology needs in developing the list; and (3) a requirement that the school board conduct annual, independent financial and performance audits until all bond funds have been spent to ensure that the bond funds have been used only for the projects listed in the measure. Legislation approved in June 2000 places certain limitations on local school bonds to be approved by 55 percent of the voters. These provisions require that the tax rate levied as the result of any single election be no more than \$60 (for a unified school district), \$30 (for an elementary school district or high school district), or \$25 (for a community college district), per \$100,000 of taxable property value. These requirements are not part of this proposition and can be changed with a majority vote of both houses of the Legislature and approval by the Governor.

Proposition 30

Guaranteed Local Public Safety Funding, Initiative Constitutional Amendment (also known as “**Proposition 30**”), which temporarily increases the State Sales and Use Tax and personal income tax rates on higher incomes. Proposition 30 temporarily imposes an additional tax on all retailers, at the rate of 0.25% of gross receipts from the sale of all tangible personal property sold in the State from January 1, 2013 to December 31, 2016. Proposition 30 also imposes an additional excise tax on the storage, use, or other consumption in the State of tangible personal property purchased from a retailer on and after January 1, 2013. This excise tax will be levied at a rate of 0.25% of the sales price of the property so purchased. For personal income taxes imposed beginning in the taxable year commencing January 1, 2012 and ending December 31, 2018, Proposition 30 increases the marginal personal income tax rate by: (i) 1% for taxable income over \$250,000 but less than \$300,000 for single filers (over \$340,000 but less than \$408,000 for joint filers), (ii) 2% for taxable income over \$300,000 but less than \$500,000 for single filers (over \$408,000 but less than \$680,000 for joint filers), and (iii) 3% for taxable income over \$500,000 for single filers (over \$680,000 for joint filers).

The revenues generated from the temporary tax increases will be included in the calculation of the Proposition 98 minimum funding guarantee for school districts and community college districts. See “Proposition 98” and “Proposition 111” above. From an accounting perspective, the revenues generated from the temporary tax increases will be deposited into the State account created pursuant to Proposition 30 called the Education Protection Account (the “**EPA**”). Pursuant to Proposition 30, funds in the EPA will be allocated quarterly, with 89% of such funds provided to schools districts and 11% provided to community college districts. The funds will be distributed to school districts and community college districts in the same manner as existing unrestricted per-student funding, except that no school district will receive less than \$200 per unit of ADA and no community college district will receive less than \$100 per full time equivalent student. The governing board of each school district and community college district is granted sole authority to determine how the moneys received from the EPA are spent, provided that, the appropriate governing board is required to make these spending determinations in open session at a public meeting and such local governing boards are prohibited from using any funds from the EPA for salaries or benefits of administrators or any other administrative costs.

The California Children’s Education and Health Care Protection Act of 2016, also known as Proposition 55, was approved by voters as a constitutional amendment initiative on the November 8, 2016 general election ballot in California. Proposition 55 will extend the increases to personal income tax rates for high-income taxpayers that were approved as part of Proposition 30 through 2030, instead of the scheduled expiration date of December 31, 2018. Tax revenue received under Proposition 55 will be allocated 89% to K-12 schools and 11% to community colleges.

Proposition 1A and Proposition 22

On November 2, 2004, California voters approved Proposition 1A, which amended the State constitution to significantly reduce the State's authority over major local government revenue sources. Under Proposition 1A, the State cannot (i) reduce local sales tax rates or alter the method of allocating the revenue generated by such taxes, (ii) shift property taxes from local governments to schools or community colleges, (iii) change how property tax revenues are shared among local governments without two-thirds approval of both houses of the State Legislature or (iv) decrease Vehicle License Fee revenues without providing local governments

with equal replacement funding. Under Proposition 1A, beginning, in 2008-09, the State may shift to schools and community colleges a limited amount of local government property tax revenue if certain conditions are met, including: (i) a proclamation by the Governor that the shift is needed due to a severe financial hardship of the State, and (ii) approval of the shift by the State Legislature with a two-thirds vote of both houses. Under such a shift, the State must repay local governments for their property tax losses, with interest, within three years. Proposition 1A does allow the State to approve voluntary exchanges of local sales tax and property tax revenues among local governments within a county. Proposition 1A also amended the State Constitution to require the State to suspend certain State laws creating mandates in any year that the State does not fully reimburse local governments for their costs to comply with the mandates. This provision does not apply to mandates relating to schools or community colleges or to those mandates relating to employee rights.

Proposition 22, a constitutional initiative entitled the “Local Taxpayer, Public Safety, and Transportation Protection Act of 2010,” approved on November 2, 2010, superseded many of the provisions of Proposition 1A. This initiative amends the State constitution to prohibit the legislature from diverting or shifting revenues that are dedicated to funding services provided by local government or funds dedicated to transportation improvement projects and services. Under this proposition, the State is not allowed to take revenue derived from locally imposed taxes, such as hotel taxes, parcel taxes, utility taxes and sales taxes, and local public transit and transportation funds. Further, in the event that a local governmental agency sues the State alleging a violation of these provisions and wins, then the State must automatically appropriate the funds needed to pay that local government. This Proposition was intended to, among other things, stabilize local government revenue sources by restricting the State’s control over local property taxes. Proposition 22 did not prevent the California State Legislature from dissolving State redevelopment agencies pursuant to AB 1X26, as confirmed by the decision of the California Supreme Court decision in *California Redevelopment Association v. Matosantos* (2011).

Because Proposition 22 reduces the State’s authority to use or reallocate certain revenue sources, fees and taxes for State general fund purposes, the State will have to take other actions to balance its budget, such as reducing State spending or increasing State taxes, and school and college districts that receive Proposition 98 or other funding from the State will be more directly dependent upon the State’s general fund.

California Senate Bill 222

Senate Bill 222 (“**SB 222**”) was signed by the California Governor on July 13, 2015 and became effective on January 1, 2016. SB 222 amended Section 15251 of the California Education Code and added Section 52515 to the California Government Code to provide that voter approved general obligation bonds which are secured by *ad valorem* tax collections such as the Series A Bonds are secured by a statutory lien on all revenues received pursuant to the levy and collection of the property tax imposed to service those bonds. Said lien shall attach automatically and is valid and binding from the time the bonds are executed and delivered. The lien is enforceable against the issuer, its successors, transferees, and creditors, and all others asserting rights therein, irrespective of whether those parties have notice of the lien and without the need for any further act. The effect of SB 222 is the treatment of general obligation bonds as secured debt in bankruptcy due to the existence of a statutory lien.

Future Initiatives

Article XIII A, Article XIII B, Article XIII C and Article XIII D of the California Constitution and Propositions 98, 22, 26, 30 and 39 were each adopted as measures that qualified for the ballot under the State’s initiative process. From time to time other initiative measures could be adopted further affecting District revenues or the District’s ability to expend revenues. The nature and impact of these measures cannot be anticipated by the District.

APPENDIX C

GENERAL INFORMATION ABOUT COLUSA COUNTY

The following information concerning Colusa County (the “County”) is included only for the purpose of supplying general information regarding the area of the District. The Series A Bonds are not a debt of the County, the State or any of its political subdivisions, and neither the County, the State nor any of its political subdivisions is liable therefor.

General

Founded in 1850, at the time of California’s admission as a state, the County is located in the western foothills of the Sierra Nevada Mountains, north of Fresno, east of Merced, and southeast of Stockton; the County’s eastern section constitutes the central portion of Yosemite National Park. According to the U.S. Census Bureau, the County has a total area of 1,156 square miles, of which 1,151 square miles is land and 5.6 square miles is water. There are no incorporated cities in the County. As of January 1, 2016 the population was estimated to be 21,948.

Population

The County’s population estimates as of January 1 for the past five years are shown in the following table.

COLUSA COUNTY Population Estimates 2012 through 2016

<u>Year</u>	<u>County Total</u>
2012	21,579
2013	21,700
2014	21,784
2015	21,873
2016	21,948

Source: California State Department of Finance, Demographic Research Unit.

Employment and Industry

The following table summarizes the County’s civilian labor force, employment and unemployment, as well as employment by industry, for the years 2011 through 2015.

**COLUSA COUNTY
Annual Average Civilian Labor Force, Employment and Unemployment,
Employment by Industry
(March 2015 Benchmark)**

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Civilian Labor Force ⁽¹⁾	11,380	11,290	11,320	11,150	11,190
Employment	8,960	8,950	9,180	9,210	9,480
Unemployment	2,420	2,340	2,140	1,940	1,720
Unemployment Rate	21.2%	20.7%	18.9%	17.4%	15.3%
<u>Wage and Salary Employment ⁽²⁾</u>					
Agriculture	2,480	2,280	2,400	2,350	2,580
Mining, Logging and Construction	120	150	90	80	80
Manufacturing	860	970	1,050	1,290	1,430
Wholesale Trade	660	770	790	650	670
Retail Trade	460	440	450	430	420
Transportation, Warehousing and Utilities	180	160	220	240	180
Financial Activities	170	170	160	150	140
Educational and Health Services	460	450	520	540	560
Leisure and Hospitality	580	610	610	610	590
Federal Government	80	80	80	80	70
State Government	70	70	60	60	70
Local Government	1,920	1,940	1,980	2,010	2,020
Total, All Industries ⁽³⁾	8,040	8,090	8,410	8,490	8,810

(1) Labor force data is by place of residence; includes self-employed individuals, unpaid family workers, household domestic workers, and workers on strike.
 (2) Industry employment is by place of work; excludes self-employed individuals, unpaid family workers, household domestic workers, and workers on strike.
 (3) Totals may not add due to rounding.

Source: State of California Employment Development Department.

Major Employers

The County's major employers are set forth below, in alphabetical order.

COLUSA COUNTY As of October 2016

Employer Name	Location	Industry
Adams Grain Co	Arbuckle	Grain Brokers (whls)
Adams Vegetable Oils Inc	Arbuckle	Oils-Vegetable (mfrs)
ADM Milling Co	Arbuckle	Milling (mfrs)
Arbuckle Elementary School	Arbuckle	Schools
California Family Foods LLC	Arbuckle	Rice Products (mfrs)
Colusa Casino Resort	Colusa	Casinos
Colusa County Coroner	Colusa	Government Offices-County
Colusa County Health & Human	Colusa	Government Offices-County
Colusa County Sheriff Office	Colusa	Government Offices-County
Colusa Regional Medical Ctr	Colusa	Hospitals
De Pue Warehouse Co	Williams	Rice-Wholesale
De Pue Warehouse Co Inc	Maxwell	Rice-Wholesale
Enid Prine Continuation High	Maxwell	Schools
George T Egling Middle School	Colusa	Schools
Granzella's Restaurant	Williams	Restaurants
Granzella's Restaurant & Deli	Williams	Delicatessens
James Burchfield Primary Sch	Colusa	Schools
Myers & Charter Inc	Arbuckle	Rice Mills (mfrs)
Petersen Ranch Farms	Arbuckle	Farms
Premier Mushrooms	Colusa	Fruits & Vegetables-Wholesale
Sun VALLEY Rice Co LLC	Arbuckle	Investments
Sunsweet Dryers	Colusa	Fruits & Vegetables-Growers & Shippers
Valley West Care Ctr	Williams	Health Services
Williams Elementary School	Williams	Schools
Williams Elementary School	Williams	Schools

Source: California Employment Development Department, extracted from The America's Labor Market Information System (ALMIS) Employer Database, 2017 1st Edition.

Effective Buying Income

"Effective Buying Income" is defined as personal income less personal tax and nontax payments, a number often referred to as "disposable" or "after-tax" income. Personal income is the aggregate of wages and salaries, other labor-related income (such as employer contributions to private pension funds), proprietor's income, rental income (which includes imputed rental income of owner-occupants of non-farm dwellings), dividends paid by corporations, interest income from all sources, and transfer payments (such as pensions and welfare assistance). Deducted from this total are personal taxes (federal, state and local), nontax payments (fines, fees, penalties, etc.) and personal contributions to social insurance. According to U.S. government definitions, the resultant figure is commonly known as "disposable personal income."

The following table summarizes the median household effective buying income for the County, the State and the United States for the period 2011 through 2015:

**COLUSA COUNTY, CALIFORNIA, AND U.S.
Effective Buying Income
Median Household**

	2011	2012	2013	2014	2015
Colusa County	38,160	40,703	40,540	43,520	45,767
California	47,062	47,307	48,340	50,072	53,589
United States	41,253	41,358	43,715	45,448	46,738

Source: The Nielsen Company (US), Inc.

Commercial Activity

Summaries of historic taxable sales within the County during the past five years in which data is available are shown in the following tables. Figures are not yet available for calendar years 2015 or 2016.

Total taxable sales in the County during the first quarter of calendar year 2015 were reported to be \$92.23 million, a 32.21% increase over the total taxable sales of \$69.76 million reported in the County during the first quarter of calendar year of 2014.

**COLUSA COUNTY
Taxable Retail Sales
Number of Permits and Valuation of Taxable Transactions
(Dollars in Thousands)**

	Retail Stores		Total All Outlets	
	Numbers of Permits	Taxable Transactions	Number of Permits	Taxable Transactions
2010	300	\$140,961	501	\$342,929
2011	290	152,919	498	379,771
2012	312	135,551	522	337,358
2013	353	146,965	557	372,252
2014	364	150,013	577	351,663

Source: State of California, Board of Equalization.

Construction Activity

The following tables show a five-year summary of the valuation of building permits issued in the County.

COLUSA COUNTY
Total Building Permit Valuations
(Figures in Thousands)
2011 through 2015

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
<u>Permit Valuation</u>					
New Single-Family	\$1,385.0	\$1,761.0	\$12,076.5	\$13,545.9	\$10,529.4
New Multi-Family	0.0	0.0	6,172.7	0.0	0.0
Res. Alterations/Additions	<u>1,975.9</u>	<u>1,083.3</u>	<u>1,660.3</u>	<u>1,423.5</u>	<u>2,040.7</u>
Total Residential	3,360.9	2,844.3	19,909.5	14,969.4	12,570.1
New Commercial	5,582.4	11,687.1	11,479.3	2,699.6	5,002.3
New Industrial	0.0	114.8	0.0	0.0	255.8
New Other	1,584.8	0.0	3,468.5	3,600.2	2,103.5
Com. Alterations/Additions	<u>1,859.1</u>	<u>12,553.8</u>	<u>2,071.8</u>	<u>2,502.8</u>	<u>2,092.8</u>
Total Nonresidential	9,026.3	24,355.7	17,019.6	8,802.6	9,454.4
<u>New Dwelling Units</u>					
Single-Family	6	6	50	57	45
Multiple Family	<u>0</u>	<u>0</u>	<u>55</u>	<u>0</u>	<u>0</u>
TOTAL	6	6	105	57	45

Source: Construction Industry Research Board, Building Permit Summary.

Transportation

The County is located approximately 50 miles north of the Sacramento International Airport. Major highways running through the County include California Interstate 5, Highway 20, and Highway 45. The Colusa County Transit consists of nine vehicles and ten full-time employees running five buses each day on various routes and providing out-of-county medical transportation on an on-call basis.

APPENDIX D

PROPOSED FORM OF OPINION OF BOND COUNSEL

[LETTERHEAD OF JONES HALL]

_____, 2017

Board of Trustees
540A 6th Street
P.O. Box 239
Arbuckle, California 95912

OPINION: \$_____ Pierce Joint Unified School District (Colusa and Yolo Counties, California) General Obligation Bonds Election of 2016, Series A

Members of the Board of Trustees:

We have acted as bond counsel to the Pierce Joint Unified School District (the "District") in connection with the issuance by the District of \$_____ principal amount of Pierce Joint Unified School District (Colusa and Yolo Counties, California) General Obligation Bonds Election of 2016, Series A, dated the date hereof (the "Bonds"), under the provisions of Article 4.5 of Chapter 3 of Part 1 of Division 2 of Title 5 of the California Government Code (the "Act"), and a resolution of the Board adopted on March 9, 2017 (the "Bond Resolution"). We have examined the law and such certified proceedings and other papers as we deemed necessary to render this opinion.

As to questions of fact material to our opinion, we have relied upon representations of the Board contained in the Bond Resolution and in the certified proceedings and other certifications furnished to us, without undertaking to verify such facts by independent investigation.

Based upon our examination, we are of the opinion, under existing law, as follows:

1. The District is a duly created and validly existing elementary school district with the power to issue the Bonds, and to perform its obligations under the Bond Resolution and the Bonds.
2. The Bond Resolution has been duly adopted by the Board, and constitutes a valid and binding obligation of the District enforceable upon the District.
3. The Bonds have been duly authorized, executed and delivered by the District, and are valid and binding general obligations of the District.

4. The Board of Supervisors of Colusa County and Yolo County are required under the Act to levy an *ad valorem* tax upon the property in the District, unlimited as to rate or amount, for the payment of principal of and interest on the Bonds.

5. The interest on the Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; it should be noted, however, that for the purpose of computing the alternative minimum tax imposed on corporations (as defined for federal income tax purposes), such interest is taken into account in determining certain income and earnings certain income and earnings, and the Bonds are "qualified tax-exempt obligations" within the meaning of Section 265(b)(3) of the Internal Revenue Code of 1986, as amended (the "Code") such that, in the case of certain financial institutions (within the meaning of section 265(b)(5) of the Code), a deduction for federal income tax purposes is allowed for 80% of that portion of such financial institution's interest expense allocable to interest payable on the Bonds. The opinions set forth in the preceding sentence are subject to the condition that the District comply with all requirements of the Code that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be, or continue to be, excluded from gross income for federal tax purposes. The District has covenanted to comply with each such requirement. Failure to comply with certain of such requirements may cause the inclusion of interest on the Bonds in gross income for federal income tax purposes to be retroactive to the date of issuance of the Bonds, and may cause the Bonds to lose their status as "qualified tax-exempt obligations" within the meaning of Section 265(b)(3) of the Tax Code. We express no opinion regarding other federal tax consequences arising with respect to the ownership, sale or disposition of the Bonds, or the amount, accrual or receipt of interest on the Bonds.

6. The interest on the Bonds is exempt from personal income taxation imposed by the State of California.

The rights of the owners of the Bonds and the enforceability of the Bonds and the Bond Resolution may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted and may also be subject to the exercise of judicial discretion in appropriate cases.

Respectfully submitted,

A Professional Law Corporation

APPENDIX E

FORM OF CONTINUING DISCLOSURE CERTIFICATE

\$ _____
PIERCE JOINT UNIFIED SCHOOL DISTRICT
(Colusa and Yolo Counties, California)
General Obligation Bonds
Election of 2016, Series A

CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate (this “**Disclosure Certificate**”) is executed and delivered by the Pierce Joint Unified School District (the “**District**”) in connection with the execution and delivery of the captioned bonds (the “**Bonds**”). The Bonds are being executed and delivered pursuant to a resolution adopted by the Board of Trustees of the District on March 9, 2017 (the “**Resolution**”). The Bank of New York Mellon Trust Company, N.A., is initially acting as paying agent for the Bonds, (the “**Paying Agent**”).

The District hereby covenants and agrees as follows:

Section 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the District for the benefit of the holders and beneficial owners of the Bonds and in order to assist the Participating Underwriter in complying with S.E.C. Rule 15c2-12(b)(5).

Section 2. Definitions. In addition to the definitions set forth above and in the Bond Resolution, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section 2, the following capitalized terms shall have the following meanings:

“*Annual Report*” means any Annual Report provided by the District pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

“*Annual Report Date*” means the date not later than nine months after the end of each fiscal year of the District (currently June 30th), or March 31, the first being March 31, 2018.

“*Dissemination Agent*” means, initially, Isom Advisors, a Division of Urban Futures, Inc., or any successor Dissemination Agent designated in writing by the District and which has filed with the District and the Paying Agent a written acceptance of such designation.

“*Listed Events*” means any of the events listed in Section 5(a) of this Disclosure Certificate.

“*MSRB*” means the Municipal Securities Rulemaking Board, which has been designated by the Securities and Exchange Commission as the sole repository of disclosure information for purposes of the Rule.

“*Official Statement*” means the final official statement executed by the District in connection with the issuance of the Bonds.

“*Paying Agent*” means, initially, The Bank of New York Mellon Trust Company, N.A., or any successor thereto.

“*Participating Underwriter*” means _____, the original Underwriter of the Bonds required to comply with the Rule in connection with offering of the Bonds.

“*Rule*” means Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

Section 3. Provision of Annual Reports.

(a) The District shall, or shall cause the Dissemination Agent to, not later than the Annual Report Date, commencing not later than March 31, 2018 with the report for the 2016-17 fiscal year, provide to the MSRB in an electronic format as prescribed by the MSRB, an Annual Report that is consistent with the requirements of Section 4 of this Disclosure Certificate. Not later than 15 Business Days prior to the Annual Report Date, the District shall provide the Annual Report to the Dissemination Agent (if other than the District). If by 15 Business Days prior to the Annual Report Date the Dissemination Agent (if other than the District) has not received a copy of the Annual Report, the Dissemination Agent shall contact the District to determine if the District is in compliance with the previous sentence. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may include by reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the District may be submitted separately from the balance of the Annual Report, and later than the Annual Report Date, if not available by that date. If the District’s fiscal year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(c). The District shall provide a written certification with each Annual Report furnished to the Dissemination Agent to the effect that such Annual Report constitutes the Annual Report required to be furnished by the District hereunder.

(b) If the District does not provide (or cause the Dissemination Agent to provide) an Annual Report by the Annual Report Date, the District shall provide (or cause the Dissemination Agent to provide) to the MSRB, in an electronic format as prescribed by the MSRB, a notice in substantially the form attached as Exhibit A, with a copy to the Paying Agent and Participating Underwriter.

(c) With respect to each Annual Report, the Dissemination Agent shall:

- (i) determine each year prior to the Annual Report Date the then-applicable rules and electronic format prescribed by the MSRB for the filing of annual continuing disclosure reports; and
- (ii) if the Dissemination Agent is other than the District, file a report with the District certifying that the Annual Report has been provided pursuant to this Disclosure Certificate, and stating the date it was provided.

Section 4. Content of Annual Reports. The District's Annual Report shall contain or incorporate by reference the following:

(a) Audited financial statements prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the District's audited financial statements are not available by the Annual Report Date, the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

(b) Unless otherwise provided in the audited financial statements filed on or before the Annual Report Date, the following information:

- (i) Assessed value of taxable property in the jurisdiction of the District for the most recently completed fiscal year;
- (ii) Assessed valuation of the properties of the top 20 secured property taxpayers in the District for the most recently completed fiscal year;
- (iii) Property tax collection delinquencies for the District for the most recently completed fiscal year, if available from the Counties at the time of filing the Annual Report;
- (iv) The District's most recently adopted Budget or approved interim report with budgeted figures, which is available at the time of filing the Annual Report; and
- (v) Such further information, if any, as may be necessary to make the statements made pursuant to (a) and (b) of Section 4, in the light of the circumstances under which they are made, not misleading

(c) Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of the District or related public entities, which are available to the public on the MSRB's internet web site or filed with the Securities and Exchange Commission. The District shall clearly identify each such other document so included by reference.

Section 5. Reporting of Significant Events.

(a) The District shall give, or cause to be given, notice of the occurrence of any of the following Listed Events with respect to the Bonds:

- (1) Principal and interest payment delinquencies.
- (2) Non-payment related defaults, if material.
- (3) Unscheduled draws on debt service reserves reflecting financial difficulties.

- (4) Unscheduled draws on credit enhancements reflecting financial difficulties.
- (5) Substitution of credit or liquidity providers, or their failure to perform.
- (6) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the security, or other material events affecting the tax status of the security.
- (7) Modifications to rights of security holders, if material.
- (8) Bond calls, if material, and tender offers.
- (9) Defeasances.
- (10) Release, substitution, or sale of property securing repayment of the securities, if material.
- (11) Rating changes.
- (12) Bankruptcy, insolvency, receivership or similar event of the District.
- (13) The consummation of a merger, consolidation, or acquisition involving the District or the sale of all or substantially all of the assets of the District, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material.
- (14) Appointment of a successor or additional trustee or the change of name of a trustee, if material.

(b) Whenever the District obtains knowledge of the occurrence of a Listed Event, the District shall, or shall cause the Dissemination Agent (if not the District) to, file a notice of such occurrence with the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner not in excess of 10 business days after the occurrence of the Listed Event. Notwithstanding the foregoing, notice of Listed Events described in subsections (a)(8) and (9) above need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to holders of affected Bonds under the Bond Resolution.

(c) The District acknowledges that the events described in subparagraphs (a)(2), (a)(7), (a)(8) (if the event is a bond call), (a)(10), (a)(13), and (a)(14) of this Section 5 contain the qualifier "if material" and that subparagraph (a)(6) also contains the qualifier "material" with respect to certain notices, determinations or other events affecting the tax status of the Bonds. The District shall cause a notice to be filed as set forth in paragraph (b) above with respect to any such event only to the extent that it determines the event's occurrence is material for purposes of U.S. federal securities law. Whenever the District obtains knowledge of the occurrence of any of these Listed Events, the District will as soon as possible determine if such event would be material under applicable federal securities law. If such event is determined to be material, the District will cause a notice to be filed as set forth in paragraph (b) above.

(d) For purposes of this Disclosure Certificate, any event described in paragraph (a)(12) above is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the District in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or

governmental authority has assumed jurisdiction over substantially all of the assets or business of the District, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the District.

Section 6. Identifying Information for Filings with the MSRB. All documents provided to the MSRB under the Disclosure Certificate shall be accompanied by identifying information as prescribed by the MSRB.

Section 7. Termination of Reporting Obligation. The District's obligations under this Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Bonds. If such termination occurs prior to the final maturity of the Bonds, the District shall give notice of such termination in the same manner as for a Listed Event under Section 5(c).

Section 8. Dissemination Agent. The District may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Certificate, and may discharge any Dissemination Agent, with or without appointing a successor Dissemination Agent. The initial Dissemination Agent shall be Isom Advisors, a Division of Urban Futures, Inc. Any Dissemination Agent may resign by providing 30 days' written notice to the District and the Paying Agent.

Section 9. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the District may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) if the amendment or waiver relates to the provisions of Sections 3(a), 4 or 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature, or status of an obligated person with respect to the Bonds, or type of business conducted;

(b) the undertakings herein, as proposed to be amended or waived, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the primary offering of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) the proposed amendment or waiver either (i) is approved by holders of the Bonds in the manner provided in the Bond Resolution for amendments to the Bond Resolution with the consent of holders, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the holders or beneficial owners of the Bonds.

If the annual financial information or operating data to be provided in the Annual Report is amended pursuant to the provisions hereof, the first annual financial information filed pursuant hereto containing the amended operating data or financial information shall explain, in narrative form, the reasons for the amendment and the impact of the change in the type of operating data or financial information being provided.

If an amendment is made to the undertaking specifying the accounting principles to be followed in preparing financial statements, the annual financial information for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. The comparison shall include a qualitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information, in order to provide information to investors to enable them to evaluate the ability of the District to meet its obligations. To the extent reasonably feasible, the comparison shall be quantitative. A notice of the change in the accounting principles shall be filed in the same manner as for a Listed Event under Section 5(c).

Section 10. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the District from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Certificate. If the District chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the District shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

Section 11. Default. If the District fails to comply with any provision of this Disclosure Certificate, the Participating Underwriter or any holder or beneficial owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District to comply with its obligations under this Disclosure Certificate. A default under this Disclosure Certificate shall not be deemed an Event of Default under the Bond Resolution, and the sole remedy under this Disclosure Certificate in the event of any failure of the District to comply with this Disclosure Certificate shall be an action to compel performance.

Section 12. Duties, Immunities and Liabilities of Dissemination Agent.

(a) The Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Certificate, and the District agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which they may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. The Dissemination Agent will have no duty or obligation to review any information provided to it by the District hereunder, and shall not be deemed to be acting in any fiduciary capacity for the District, the Bondholders or any other party. The obligations of the District under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

(b) The Dissemination Agent shall be paid compensation by the District for its services provided hereunder in accordance with its schedule of fees as amended from time to time, and shall be reimbursed for all expenses, legal fees and advances made or incurred by the Dissemination Agent in the performance of its duties hereunder.

Section 13. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the District, the Dissemination Agent, the Participating Underwriter and holders and beneficial owners from time to time of the Bonds, and shall create no rights in any other person or entity.

Date: _____, 2017

PIERCE JOINT UNIFIED SCHOOL DISTRICT

By: _____
Name: _____
Title: _____

Acceptance of Duties as Dissemination Agent;

ISOM ADVISORS, A DIVISION OF URBAN FUTURES, INC.

By: _____
Title: _____

EXHIBIT A

NOTICE OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer: Pierce Joint Unified School District (the "District")
Name of Bond Issue: Pierce Joint Unified School District General Obligation Bonds,
Election of 2016, Series A
Date of Issuance: _____, 2017

NOTICE IS HEREBY GIVEN that the District has not provided an Annual Report with respect to the above-named Bonds as required by the Continuing Disclosure Certificate, dated as of _____, 2017. The District anticipates that the Annual Report will be filed by _____.

Dated: _____

DISSEMINATION AGENT:

By: _____
Its: _____

cc: District, Paying Agent and Participating Underwriter

APPENDIX F

DTC AND THE BOOK-ENTRY ONLY SYSTEM

The following description of the Depository Trust Company (“DTC”), the procedures and record keeping with respect to beneficial ownership interests in the Bonds, payment of principal, interest and other payments on the Series A Bonds to DTC Participants or Beneficial Owners, confirmation and transfer of beneficial ownership interest in the Series A Bonds and other related transactions by and between DTC, the DTC Participants and the Beneficial Owners is based solely on information provided by DTC. Accordingly, no representations can be made concerning these matters and neither the DTC Participants nor the Beneficial Owners should rely on the foregoing information with respect to such matters, but should instead confirm the same with DTC or the DTC Participants, as the case may be.

Neither the District nor the Paying Agent take any responsibility for the information contained in this Section.

No assurances can be given that DTC, DTC Participants or Indirect Participants will distribute to the Beneficial Owners (a) payments of interest, principal or premium, if any, with respect to the Series A Bonds, (b) Bonds representing ownership interest in or other confirmation or ownership interest in the Series A Bonds, or (c) redemption or other notices sent to DTC or Cede & Co., its nominee, as the registered owner of the Series A Bonds, or that they will so do on a timely basis, or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Appendix. The current “Rules” applicable to DTC are on file with the Securities and Exchange Commission and the current “Procedures” of DTC to be followed in dealing with DTC Participants are on file with DTC.

1. The Depository Trust Company (“DTC”), will act as securities depository for the securities (in this Appendix, the “Bonds”). The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond will be issued for each maturity of the Bonds, in the aggregate principal amount of such maturity, and will be deposited with DTC. If, however, the aggregate principal amount of any maturity exceeds \$500 million, one certificate will be issued with respect to each \$500 million of principal amount and an additional certificate will be issued with respect to any remaining principal amount of such issue.

2. DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is

a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com. *The information contained on this Internet site is not incorporated herein by reference.*

3. Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC’s records. The ownership interest of each actual purchaser of each Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive Bonds representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

4. To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

5. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

6. Redemption notices will be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC’s practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

7. Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC’s MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to District as soon as

possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Redemption proceeds, distributions, and interest payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from District or Paying Agent on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC nor its nominee, Paying Agent, or District, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of District or Paying Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

9. DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to District or Paying Agent. Under such circumstances, in the event that a successor securities depository is not obtained, Bonds are required to be printed and delivered.

10. The District may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered to DTC.

11. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that District believes to be reliable, but District takes no responsibility for the accuracy thereof.

APPENDIX G
COLUSA COUNTY INVESTMENT POLICY

PIERCE JOINT UNIFIED SCHOOL DISTRICT

RESOLUTION #16/17-24

**TO ADOPT CERTAIN FINDINGS AND APPROVE THE INSTALLATION
AGREEMENT BETWEEN PIERCE JOINT UNIFIED SCHOOL
DISTRICT AND CLIMATEC, LLC FOR ENERGY EFFICIENCY
UPGRADES ON SELECTED SCHOOL SITES**

WHEREAS, the Pierce Joint Unified School District (“District”) Board of Trustees (“Board”) has endorsed the goal of sustainable school operations and directed staff to develop energy efficient practices for use in the District; and

WHEREAS, the Board wishes to further reduce the District’s energy consumption and costs and improve the energy quality and reliability at existing District facilities; and

WHEREAS, the California Clean Energy Jobs Act, codified in the California Public Resources Code and California Energy Commission Guidelines, (“Proposition 39”) authorizes the District to enter into energy services agreements for energy efficiency projects financed by Proposition 39 funds, provided that the agreement and projects meet Proposition 39 statutory requirements; and

WHEREAS, on September 13, 2016, the District advertised in RFQ/RFP No. 17-01 (“RFP”) for a qualified provider of energy services in connection with preparing an energy expenditure plan for submittal to the California Energy Commission (“CEC”) to meet the guidelines outlined in Proposition 39; and

WHEREAS, the District selected Climatec, LLC (“Climatec”) and entered into a Proposition 39 Utility Conservation Planning Study Agreement, dated as of October 21, 2016, pursuant to which Climatec performed an integrated energy assessment and presented District with recommendations for energy efficiency upgrades at selected school sites (“Recommendations”); and

WHEREAS, based on these Recommendations, Climatec has proposed to the District an Installation Agreement (“Agreement”), attached hereto as Exhibit A, under the terms of which Climatec will install energy efficient upgrades consistent with the funding requirements of Proposition 39.

NOW THEREFORE, BE IT RESOLVED that the foregoing statements are true and correct.

BE IT FURTHER RESOLVED that, based on data and information provided by District staff and a review of the documents, the Board finds that the Agreement and projects meet Proposition 39 statutory requirements for funding;

BE IT FURTHER RESOLVED, in accordance with the above findings, that the Board hereby approves the Agreement in substantially the same form as attached hereto as Exhibit A, subject to final legal approval and revisions necessary to effect the intent of the parties and any

such revisions made in conformity with the purposes and intent of this Resolution are hereby ratified, confirmed, and approved by adoption of this Resolution by the Board;

BE IT FURTHER RESOLVED that the Board authorizes the Superintendent or her designee to take such actions and negotiate such agreements, including executing other documentation necessary to effect the intent of this Resolution.

PASSED AND ADOPTED by the Board of Trustees of the Pierce Joint Unified School District on March 9, 2017 at a duly noticed meeting by the following vote:

AYES: _____ NOES: _____ ABSTAIN: _____ ABSENT: _____

STATE OF CALIFORNIA)
) SS
COUNTY OF COLUSA)

I, Nadine High, Clerk of the Board of Trustees of the Pierce Joint Unified School District, hereby certify that the foregoing is a full, true and correct copy of the Resolution adopted by the Board of Trustees on March 9, 2017.

Nadine High, Clerk of the Governing Board
of the Pierce Joint Unified School District

Exhibit A

Installation Agreement

*INSTALLATION AGREEMENT
FOR
Pierce Joint Unified School District*

TERMS AND CONDITIONS

ATTACHMENTS

Attachment “A” – Scope of Work

Attachment “B” - Lighting Summary

Attachment “C” – Mechanical Equipment Schedule

Attachment “D” – Technical Appendix

Attachment “E” – Contractor Certification

Attachment “F” – Cost Savings Projections (info only)

CLIMATEC INSTALLATION AGREEMENT

This Energy Savings Installation Agreement (“Agreement”) entered into as of March 9, 2017 (“Effective Date”) is made by and between:

Pierce Joint Unified School District
 (“Purchaser”) with its principal place of business at
 540A 6th Street, Arbuckle, CA 95912

and

Climatec LLC
 With its principal place of business at
 18002 Cowan, Irvine, CA 92614

RECITALS

A. The Purchaser intends, in accordance with requirements of Proposition 39: the California Clean Energy Employment Act, approved by the California voters in 2012 and supporting Guidelines, initially approved in December, 2013 as amended (collectively, “Prop 39”), to complete certain equipment installation and retrofit projects at Purchaser schools and other facilities specified in **Attachment A** Scope of Work and Facilities, attached hereto, in order to reduce energy usage at the Purchaser’s facilities and thereby create energy-cost savings (the “Project”).

B. The Purchaser issued a Request for Proposals (“RFP”) for purposes of obtaining the services of a consultant-contractor having specific qualifications and experience in utilities analysis, comprehensive energy management, and energy-related capital improvement services, including, among others, qualifications and experience in regard to the proper utilization of funds allocated pursuant to Prop 39. Upon receipt of the responses to the RFP, the Purchaser reviewed the responses and selected Climatec LLC as the firm providing the best value in performing the work and services required under this Agreement.

C. The Purchaser intends to finance the Project with Prop 39 funds and in order to do so requires that Climatec LLC comply with all applicable laws and regulations, including assessment of Purchaser’s energy usage, recommendations for improvements, measurement and verification of energy savings, and Climatec LLC agrees to comply with all Prop 39 requirements.

D. The Purchaser’s governing board (“Board”) made the determination at a regularly scheduled Board meeting on March 9, 2017 that this Agreement complies with Prop 39 in that the anticipated cost to Purchaser to implement the recommended energy efficiency upgrades is projected to be less than the anticipated energy costs to Purchaser would have been in the absence of the recommended energy efficiency upgrades;

NOW THEREFORE, in consideration of the foregoing and of their respective rights and obligations pursuant to this Agreement, the Parties hereby agree as follows:

1. **INSTALLATION.** Climatec LLC shall provide Purchaser with an Energy Efficiency Program, as identified in **Attachment(s) A thru F** and incorporated herein by reference (hereinafter referred to as the “Work”) at the total fixed price of \$1,096,212.00 including required taxes and Performance Bond (the “Contract Price”).

Climatec LLC is responsible for the design, engineering, permits, fees, approvals (except DSA inspections unless specifically noted in Attachment A), project management, installation, startup, training, checkout, warranty, and insurance specifically associated with the Work to be performed. Climatec LLC is not responsible for any equipment, systems, controls, comfort problems, balancing, duct cleaning, existing deficient conditions, etc. not specifically included in this Agreement. Climatec LLC will provide submittals and engineered drawings (if required), for Purchaser’s technical review and written approval, prior to initiating construction. All construction and associated cleanup shall be performed and scheduled so as to minimize any disruption with any ongoing Purchaser

activities. Climatec LLC requires all underground conduits between buildings to be clear of obstruction, of sufficient size to accommodate new wire and cable, and easily accessible. The Purchaser is responsible for Ethernet drops at each location for Energy Management System communication. This proposal offer is valid until June 8, 2017.

2. **SCOPE OF WORK.** The scope of Work for this Agreement is set forth in Attachment A and incorporated herein by reference. Once this Agreement is executed by the Purchaser and Climatec LLC, Climatec LLC may not revise this Agreement in any way except by mutual agreement with the Purchaser. Prior to this Agreement being signed by both parties and approved by the Purchaser's Board, each Party reserves the right to revise any or all portions of the Agreement. Should the projected Prop 39 funds for the project (\$599,048.00) be reduced, the Purchaser and Climatec LLC shall work together to modify the scope to fit within the available funds.

This Agreement is based upon the use of straight time labor only unless stated otherwise in this Agreement. Purchaser agrees to provide Climatec LLC with required field utilities (electricity, toilets, drinking water, etc.) without charge. Climatec LLC agrees to keep the jobsite clean of debris arising out of its own operations. Purchaser shall not back charge Climatec LLC for any cost or expenses without Climatec LLC's written consent. Unless specifically noted in the statement of the scope of the work or services undertaken by Climatec LLC under this Agreement, Climatec LLC's obligations under this Agreement expressly exclude any work or service of any nature associated or connected with the identification, abatement, clean up, control, removal or disposal of environment Hazards or dangerous substances, to include but not to be limited to asbestos, PCBs, or mold discovered in or on the premises. Any language or provision of the Agreement elsewhere contained which may authorize or empower the Purchaser to change, modify or alter the scope of work or services to be performed by Climatec LLC shall not operate to compel Climatec LLC to perform any work relating to Hazards without Climatec LLC's express written consent.

3. **INVOICING & PAYMENTS.** Climatec LLC may invoice the Purchaser for any equipment and/or materials installed at a job site. Purchaser agrees to pay Climatec LLC amounts invoiced upon receipt of invoice. Waivers of lien will be furnished upon request, as the work progresses; to the extent payments are received. If Climatec LLC's invoice is not paid within thirty (30) days of its issuance, it is delinquent and Climatec LLC may add one percent (1%) per month interest onto delinquent amounts.

Application for Payment. Climatec LLC shall submit to the Purchaser, on or before the fifth (5th) day of each month, an itemized application for payment for the portion of the Work completed during the prior month ("Progress Payment Application"). The Progress Payment Application shall be in a format approved by the Purchaser. Climatec LLC may call upon the Inspector for assistance in preparing any Progress Payment Application and, prior to submittal to the Purchaser, shall permit the Inspector to review the Progress Payment Application. Climatec LLC shall certify in the Progress Payment Application that the portion of the Work for which payment is requested has been satisfactorily completed and/or that any materials specified in the Progress Payment Application not already incorporated into the Project are stored where indicated. Each Progress Payment Application must identify: (i) the portion and amount of Work completed since the last Progress Payment Application; and (ii) the portion of the requested payment amount attributable to each subcontractor, material supplier, and other entity that is entitled to a portion of the payment amount. Each Progress Payment Application shall be accompanied by an updated construction schedule illustrating the actual Work completed to date in relation to the approved construction schedule. If there is a discrepancy between the actual Work completed and the Work required pursuant to the construction schedule (i.e., the Work is either ahead of schedule or behind schedule), Climatec LLC shall include a detailed explanation of such discrepancy with the Progress Payment Application. Payment to Climatec LLC shall not be deemed to be acceptance, acquiescence or waiver by the Purchaser of any of its rights with respect to any such discrepancy or any deficiency in the Work. Climatec LLC shall support each Progress Payment Application with such information as reasonably will be necessary for the Purchaser to verify the requested payment amount. Payment to Climatec LLC may be delayed if Climatec LLC fails to submit complete and accurate information in support of its Progress Payment Applications.

Verification of Payment Application. The Purchaser and/or Architect shall review each Progress Payment Application and, as soon as practicable, but not later than seven (7) days after receipt of a Progress Payment Application, shall: (i) certify that the Progress Payment Application is correct in all aspects and should be paid by the Purchaser; or (ii) recommend to the Purchaser that it reject the Progress Payment Application as not proper, stating the reason(s) why rejection is appropriate; or (iii) require that Climatec LLC provide additional information that the Purchaser reasonably determines is necessary to verify any requested payment amount. In the event the

Purchaser rejects the Progress Payment Application, Climatec LLC may resubmit the Progress Payment Application with additional or new information establishing why payment should be made despite the reason(s) set forth in the Purchaser's initial rejection.

Progress Payments. The Purchaser shall pay the undisputed amount of any Progress Payment Application, less any amounts that may be withheld or retained pursuant to this Agreement or law, within thirty (30) days of receipt thereof and in accordance with Public Contract Code Section 20104.50. If the Purchaser has requested additional information in support of a Progress Payment Application, the time for payment pursuant to that Progress Payment Application shall be extended by the number of days required for Climatec LLC to provide the requested information but reduced by the number of days the Purchaser exceeds the 7-day return requirement described in this Agreement. The Purchaser shall pay interest, at the rate set forth in Code of Civil Procedure Section 685.010(a), on any amount not paid within the time required by Public Contract Code Section 20104.50 and this Agreement, provided that such amount is not subject to dispute or a request for additional information.

Retention. Unless the Purchaser has made a finding that the Project is substantially complex, as provided in Public Contract Code Section 7201, the Purchaser shall retain five percent (5%) of the amount to be paid to Climatec LLC pursuant to each approved Progress Payment Application ("Retention"), and the total amount of Retention shall not exceed five percent (5%) of the Contract Price. However, if the Purchaser made such finding, the Purchaser shall withhold ten percent (10%) of each approved Progress Payment as Retention, and, in such event, the total amount of Retention shall not exceed ten percent (10%) of the Contract Price. The Purchaser shall release the Retention to Climatec LLC ("Final Payment") as provided in in Section 3 of this Agreement. In the event of any dispute between the Purchaser and Climatec LLC, the Purchaser, as provided by Public Contract Code Section 7107, may withhold from the Final Payment an amount not exceeding one-hundred fifty percent (150%) of the amount in dispute.

Ownership of Work. As security for partial, progress, or other payments, title to the portion of the Work for which such payments are made shall pass to the Purchaser at the time of payment. Climatec LLC shall retain title to all new materials and equipment until incorporated into the Work. However, all Work shall be at Climatec LLC's risk exclusively until final completion and acceptance of the Project by the Purchaser. To the extent that title has not previously been vested in the Purchaser by reason of any such payments, full title shall pass to the Purchaser upon delivery of the completed Work as specified in this Agreement. Such transferred title shall in each case be good, free and clear from any and all security interests, liens, and other encumbrances. Climatec LLC promises and agrees that it shall not pledge, hypothecate, or otherwise encumber the Work, materials or other items hereby subject to transfer of title in any manner that would result in any lien, security interest, charge, or claim upon or against said items. Any such transfer of title shall not imply acceptance by the Purchaser, shall not relieve Climatec LLC from the responsibility to strictly comply with this Agreement, and shall not relieve Climatec LLC of responsibility for, any loss of or damage to the Work, materials or other items on the Project.

Securities In Lieu of Retention. Upon request to the Purchaser, Climatec LLC shall be permitted, in accordance with Public Contract Code Section 22300, to substitute securities in lieu of the Retention withheld by the Purchaser in order to ensure Climatec LLC's performance under the Agreement. Alternatively, Climatec LLC may request that Purchaser pay any Retention earned by Climatec LLC directly to an escrow agent who shall, as directed by Climatec LLC, invest the Retention in securities. Any escrow agreement shall be substantially in the form set forth in, and any securities invested or substituted in lieu of Retention shall be of the type permitted pursuant to, Public Contract Code Section 22300. Climatec LLC shall be responsible for all costs (including, without limitation, the Purchaser's costs) attributable to any investment or substitution of securities in lieu of Retention and/or any costs incurred in connection with establishing and maintaining an escrow account.

Deductions for Uncorrected Work. The Purchaser may determine, in its sole discretion, not to correct all or any portion of the Work or Project that is damaged or that was not completed in accordance with this Agreement and, in such event, if applicable, an equitable deduction from the Contract Price shall be made therefor.

Other Withholdings. In addition to the Retention, the Purchaser may withhold from the Final Payment or from amounts payable pursuant to any approved Progress Payment Application any and all amounts necessary to protect Purchaser from any loss or liability that has or might result from: (i) Liquidated Damages; (ii) the costs to the Purchaser of performing any obligation of Climatec LLC related to the Work that Climatec LLC has failed to timely perform or has performed inadequately; (iii) failure of Climatec LLC to timely correct defective Work; (iv) any stop

payment notice(s) related to the Work; (v) reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or prior to any scheduled completion date; (vi) unsatisfactory progress, execution or performance of the Work; (vii) unauthorized deviations from this Agreement; (viii) failure of Climatec LLC to maintain or timely submit proper and sufficient documentation as required by this Agreement or by Purchaser during performance of the Work; (ix) erroneous or false estimates by Climatec LLC of the value of the Work performed; (x) expenses, losses or damages incurred by the Purchaser for which Climatec LLC is liable pursuant to this Agreement; (xi) damage caused by Climatec LLC or its Work to the Project or to the work of any other prime contractor or subcontractor performing work on the Project; and (xii) any other sums that Purchaser is entitled to withhold or recover from Climatec LLC pursuant to law or this Agreement. The failure by Purchaser to withhold any such amount from any payment, or from a particular payment, to Climatec LLC shall not constitute a waiver of Purchaser's right to such amount.

Final Payment. The Inspector shall provide written certification to the Purchaser when, as determined by the Inspector, Climatec LLC has satisfactorily completed the Work and all other obligations pursuant to this Agreement. The Inspector shall indicate in the certificate, based on actual measurements, the whole amount and value of the Work accomplished by Climatec LLC and that all "punch list" items have been satisfactorily completed. The Purchaser shall thereafter inspect the Work and determine whether all of the Work has been completed in accordance with the terms of this Agreement and should be accepted by the Governing Board. Not later than sixty (60) days after acceptance of the Work by the Governing Board, the Purchaser shall issue the Final Payment to Climatec LLC, subject to withholding of disputed or other amounts as permitted by applicable law and/or this Agreement. The Purchaser, within fifteen (15) days after acceptance of the Work by the Governing Board, may cause a Notice of Completion for the Work to be filed in the office of the Riverside County Recorder.

Waiver and Release. Notwithstanding any other provision of this Agreement, as a condition precedent for each payment to Climatec LLC hereunder: (i) Climatec LLC must complete, sign and submit to the Purchaser a conditional waiver and release in accordance with, and in substantially the form set forth in, Civil Code Section 8132, for the full amount of the payment; (ii) Climatec LLC must complete, sign, and submit to the Purchaser an unconditional waiver and release, in substantially the form set forth in Civil Code Section 8134, for all amounts previously paid to Climatec LLC and for which Climatec LLC has not already subcontracted an unconditional waiver; and (iii) a completed and signed unconditional waiver and release, in substantially the form set forth in Civil Code Section 8134, for each subcontractor, materials supplier and other entity that has been paid by Climatec LLC, but that has not already submitted an unconditional waiver and release for all such payment amounts. In addition, the Purchaser may require that Climatec LLC submit to the Purchaser an affidavit to the effect that such releases account for all the labor and material used in connection with the Work for which a stop payment notice could be filed. In the event any subcontractor, materials supplier, or other entity or person refuses to provide a release in full, Climatec LLC may provide the Purchaser with a bond satisfactory to the Purchaser to indemnify the Purchaser against any stop payment notice that may be filed by such entity or person. If any stop payment notice remains unsatisfied after the Purchaser has made the Final Payment to Climatec LLC, Climatec LLC shall pay to the Purchaser all amounts, if any, that the Purchaser may be compelled to pay in discharging such stop payment notice, together with the Purchaser's costs and expenses related thereto, including attorneys' fees and costs.

Claims for Extra Cost. If Climatec LLC claims that instructions related to the Work resulted in costs to Climatec LLC that were not contemplated and are not included within the Contract Price, Climatec LLC shall give written notice thereof to the Purchaser within a reasonable time, but not in excess of five (5) days after the receipt of such instructions. In the event of any such claim, except in an emergency in which life or property is endangered, Climatec LLC shall not commence execution of the portion of the Work that is affected by such claim unless and until directed to do so by the Purchaser. In the event the Purchaser determines that any such claim is valid, the Contract Price shall be adjusted as provided for a Change in the Work. Climatec LLC shall bear the risk, cost and expense of any Change in the Work undertaken without prior approval of the Purchaser.

4. **INDEPENDENT CONTRACTOR.** It is agreed between Purchaser and Climatec LLC that Climatec LLC shall perform the Work as an independent contractor. Climatec LLC may use subcontractors to perform the Work hereunder, provided Climatec LLC shall fully pay said subcontractors and in all instances remain fully responsible for (a) the proper completion of this Agreement and (b) supervising such subcontractor's work and for the quality of the work they produce.

5. **MATERIALS.** All materials shall be new, in compliance with all applicable laws and codes, and shall be covered by a manufacturer's warranty, if appropriate. If the materials or equipment included in this Agreement become temporarily or permanently unavailable, the time for performance of the Work shall be extended to the extent thereof, and in case of permanent unavailability, Climatec LLC shall (a) be excused from furnishing said materials or equipment, and (b) be reimbursed for the difference between the cost of the materials or equipment permanently unavailable and the cost of a reasonable substitute therefore.
6. **COMPLETION.** Climatec LLC must commence the Work not later than April 1, 2017 ("Commencement Date"), and must fully and satisfactorily complete all Work not later than March 31, 2018 ("Completion Date"). Climatec LLC must commence and proceed with the Work with continuous reasonable diligence to ensure full and satisfactory completion of all of the Work within the period between such stated Commencement Date and such stated Completion Date (such period referred to herein as the "Contract Time"). The Parties shall cooperate in developing a written schedule, within fifteen (15) days after the Effective Date, that is reasonably acceptable to both Parties that provides for completion of all Work not later than the Completion Date, while still accommodating Purchaser's operations at the Project Site, including, without limitation, its educational and other programs. Should Purchaser's operations unreasonably restrict access to the sites to allow for completion of the work using straight-time labor, then the Completion Date may be revised by mutual consent. Upon the Parties agreeing on such written schedule, it shall be deemed and construed to be part of this Installation Agreement without need for further action by the Parties. The Contract Time may be extended as provided in this Agreement or as the Parties otherwise may agree in writing, including, without limitation, to account for unanticipated delays in obtaining any approvals required by the California Energy Commission and/or the California Department of General Services, Division of State Architect ("DSA"), and to accommodate Purchaser's operations at the Project Site.

The Work specified in Section 1 shall be considered finally complete upon issuance of written approval by the Purchaser, provided that the Purchaser's approval shall not be unreasonably withheld. Climatec LLC must commence and proceed with the Work with continuous reasonable diligence to ensure full and satisfactory completion of all of the Work within the Contract Time.

For purposes of this Agreement, "substantially complete" and "substantial completion" shall mean that the Work has been completed in such fashion and to such degree that: (i) the Purchaser may take beneficial occupancy and use of, and may have unrestricted access to, those parts of the Work that Climatec LLC and Purchaser agree allow Purchaser to commence operations therein, including, without limitation, educational programs; (ii) only minor cleaning, adjustment or similar corrective items that will not significantly interfere with such occupancy and use by Purchaser, commonly referred to as "punch list" items, remain to be completed in order for the Work to be deemed fully completed; (iii) not as a limitation on the foregoing, all mechanical, electrical, plumbing and other building and site systems a part of the scope of work must, as applicable, be fully operational, tested and balanced, and start-up completed; and (iv) any and all approvals for which Climatec LLC is responsible in connection with the performance of the substantially complete Work have been received from each governmental authority having jurisdiction over the Work, other than DSA close-out approval and final acceptance by Purchaser. For purposes of this Agreement, "Substantial Completion Date" shall mean the date that Purchaser determines after inspection as provided herein that substantial completion has occurred.

7. **WARRANTY.** Climatec LLC warrants that the equipment and systems provided under this Agreement shall be free from defects in material and workmanship arising from normal usage for a period of one year from the date of beneficial use or eighteen months from delivery of said equipment or systems. Within the warranty period, if Purchaser provides written notice to Climatec LLC of any such defects within thirty (30) days after the appearance or discovery of such defect, Climatec LLC shall, at its option, repair or replace the defective equipment and return said equipment to Purchaser. All transportation charges incurred in connection with the warranty for equipment shall be borne by Purchaser, unless otherwise provided for in manufacturer warranties. These warranties do not extend to any equipment which has been repaired by others, abused, altered or misused, or which has not been properly and reasonably maintained. All transferrable manufacturer warranties associated with the equipment will be transferred to the Purchaser. These warranties are in lieu of all other warranties, expressed or implied, including but not limited to those of merchantability and fitness for a specific purpose.
8. **LIABILITY.** Except for each party's obligations of indemnity and defense as set forth in this Agreement, Climatec LLC or Purchaser shall, be liable for any special, indirect, or consequential damages arising in any manner from the equipment, material, or systems furnished or the work performed pursuant to this Agreement.

9. **TAXES.** The Contract Price of this Agreement (\$1,096,212.00) includes duties, sale, use, excise or other similar taxes required by federal, state or local laws in effect at the time of execution of this Agreement.
10. **DELAYS.** Climatec LLC shall not be liable for any delay in the performance of the work resulting from or attributed to acts of circumstance beyond Climatec LLC's control, including but not limited to acts of God, riots, labor disputes, conditions of the premises, acts or omissions of the Purchaser, or other contractors or delays caused by suppliers or subcontractors of Climatec LLC, etc. If Purchaser delays project for greater than sixty (60) days, Climatec LLC can recover any cost inflation on un-billed materials that were either stored or yet to be purchased.
11. **REBATES, UTILITY INCENTIVES, AND GRANTS** Unless otherwise stated in the project scope-of-work, or cash flow analysis, any and all rebates, incentives, grants that are earned through the course of this project from public or private utilities, municipalities, development Purchasers or state funding are one-hundred percent (100%) the property of Climatec LLC or their designee. The paperwork, inspections and verification required to collect these monies are the sole responsibility of Climatec LLC. Purchaser agrees to assist Climatec LLC where required by the jurisdiction in the form of data required for the application and authorizing signatures. In the event Purchaser incurs expenses related to the processing of the applications, Climatec LLC shall reimburse these direct costs. All rebates will be initially received by Climatec LLC and disbursed according to this Agreement.
12. **TAX CREDITS, TAX DEDUCTIONS AND 179d QUALIFYING CREDITS** Unless otherwise stated in this Agreement, any and all eligible tax credits or incentives that can be earned through the course of this project from State, Local or Federal agencies for energy efficient design are one-hundred percent (100%) the property of Climatec LLC or their designee. The paperwork, inspections and verification required to collect these credits are the sole responsibility of Climatec LLC. The Purchaser agrees to assist Climatec LLC where required by the jurisdiction in the form of data required for the application and authorizing signatures and/or transfers. In the event Purchaser incurs expenses related to the processing of the applications, Climatec LLC shall reimburse these direct costs.
13. **COMPLIANCE WITH LAWS.** Climatec LLC shall comply with all applicable federal, state, and local laws and regulations in effect at time of contract execution. All licenses and permits required for the prosecution of the work shall be obtained and paid for by Climatec LLC. Purchaser agrees to provide Climatec LLC with the DIR project registration number within five (5) days of execution of this Agreement as required per statute. Should Purchaser incur DSA inspection costs directly associated with this scope of work, the Purchaser will be reimbursed by Climatec LLC.
14. **CLIMATEC LLC'S LICENSE AND DIR REGISTRATION.** In order to perform the work required by this Agreement, Climatec LLC shall possess a valid, active license in the classification(s) required issued by the State of California, which shall remain valid and active throughout the Project. In addition, Climatec LLC must be registered with DIR as a public works contractor.
15. **WAGE RATES.** Pursuant to the provisions of Article 2, commencing with Section 1770 of the Labor Code, Purchaser has ascertained the general prevailing rate of per diem wages in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Agreement. The general rates of per diem wages are available at Purchaser's office. In the event that the listed or posted rates are in error, Climatec LLC is responsible to pay those rates determined by the Director of Industrial Relations to be applicable, and Purchaser shall not be responsible for any damages arising from the error.
16. **PAYROLL RECORDS.** It is the responsibility of Climatec LLC to comply with the provisions of Labor Code Section 1776 dealing with the maintenance and inspection of employee payroll records.
17. **PREVAILING WAGE.** The project is subject to prevailing wage monitoring and enforcement by the Department of Industrial Relations (DIR). Climatec LLC and all subcontractors will be subject to the requirements of Subchapter 4.5 of Chapter 8 of Title 8 of the California Code of Regulations. Climatec LLC and all subcontractors will be required to furnish electronic certified payroll records to the DIR on a frequency not less than monthly using the DIR's eCPR system at http://www.dir.ca.gov/Public-Works/eCPR_System-iForm.html. Climatec LLC shall comply with all requirements of the Labor Code and attendant regulations pertaining to prevailing wage monitoring and compliance as required by the DIR, including, but not limited to, posting job site notices prescribed by Title 8

CCR § 16451(d). Climatec LLC shall permit Purchaser, the DIR or their designee to interview Climatec LLC's employees concerning compliance with prevailing wage, apprenticeship, and related matters, whether or not during work hours, and shall require each subcontractor to provide Purchaser, the DIR or their designee with such access to its employees.

18. **APPRENTICES.** If applicable, Climatec LLC shall comply with the requirements of Labor Code Section 1777.5 dealing with the employment of apprentices.

19. **DISPUTE RESOLUTION.**

- a. If either Party possesses a claim or dispute with respect to the duties and responsibilities required under this Agreement, that Party shall give the other written notice and demand an informal conference to meet and confer for settlement of the issues in dispute. Notice shall be given within fifteen (15) calendar days of knowledge of the claim or dispute. Upon receipt of a Party's demand, the other Party shall schedule a meet and confer conference, to take place within fifteen (15) calendar days, at a time and location convenient to all Parties. Senior representatives of Purchaser and Climatec LLC, with the authority to settle on the Party's behalf, will attend the meet and confer conference, in good faith, in an attempt to resolve any controversy or claim between the Parties.
- b. If the dispute remains unresolved after such meet and confer conference, either Party may seek resolution through referral to non-binding mediation by a mediator mutually agreed to by the Parties.
- c. If the dispute remains unresolved following non-binding mediation, then before seeking judicial resolution of the dispute in an appropriate court of the State of California, Climatec LLC must comply with Government Code Section 900 et seq.
- d. In the event of a dispute between the Parties as to performance of the services provided herein or the interpretation of the Project documents, including this Agreement, or payment or nonpayment for services performed or not performed, the Parties shall attempt to resolve the dispute as expeditiously as possible and in accordance with this Dispute Resolution section..

20. **CONTRACTOR CERTIFICATIONS.** Climatec LLC must have completed and submitted the following documents, as required by Purchaser: Prevailing Wage Certification, Workers' Compensation Certification, Fingerprinting/Criminal Background Investigation Certification, Drug-Free Workplace/Tobacco-Free Environment Certification (included herein as Attachment E).

21. **CHANGE ORDER (Mid-Performance Amendments).** Climatec LLC and the Purchaser recognize that:

- a. Purchaser may desire a mid-job change in the specifications or scope that would add time and cost to the specified work or inconvenience Climatec LLC.
- b. Other provisions of this Agreement may be difficult to carry out because of unforeseen events, such as material shortage or labor strikes. If these or other events beyond the control of the parties reasonably require adjustments to this Agreement, the parties shall make a good faith attempt to agree on all necessary particulars. Such agreements shall be put in writing, signed by the parties and added to this Agreement. Failure to reach agreement shall be deemed a dispute to be resolved as agreed in Section 19 of this agreement.

Purchaser Authority. For purposes of this Agreement, any significant alteration, deviation, or change in the scope, method of performance, nature of materials or price of the Work or the Project, or any other matter materially affecting the performance or nature of the Work or the Project shall be referred to as a "Change in the Work". The Purchaser shall have the right to require a Change in the Work, without thereby invalidating this Agreement so long as that change meets requirements of Prop 39 and is acceptable within the confines of the savings guarantee from Climatec LLC.

Any Change in the Work that involves an adjustment of the Contract Price or a modification of the Contract Time must be set forth in a written order for the Change in the Work (each a "Change Order"). Each Party shall propose

Change Orders for Changes in the Work that it requests. Any and all modifications of the Contract Time attributable to a Change in the Work must be set forth in the associated Change Order and not left for later determination. No Change Order shall become effective, and the Purchaser shall have no liability related thereto for payment or otherwise, unless and until approved and signed by the Purchaser and Climatec LLC and approved by the Governing Board. Except as expressly provided in the Change Order, all work pursuant to a Change Order shall be performed in accordance with the terms and conditions of this Agreement. In the event of an emergency endangering life or property, notwithstanding the foregoing, Climatec LLC may rely on the Purchaser's oral requests for additional work, which if affecting the Contract Price and/or Contract Time will be adjusted accordingly by the Purchaser. The Purchaser will provide oral requests for additional work only to the extent the Governing Board has expressly delegated such authority.

Valuation of Change Orders. The Parties shall determine and set forth in an applicable Change Order the fair and reasonable value of each Change in the Work, which will be added to or deducted from the amount of the Contract Price. Climatec LLC shall, upon request of the Purchaser, provide all information required by the Purchaser to substantiate the value of a Change in the Work. No time extension shall be granted in conjunction with any Change Order unless the approved Change Order expressly sets forth such adjustment. The valuation of a Change Order shall be determined in one or more of the following ways: (i) by estimate and acceptance in a lump sum amount; (ii) by unit prices specified in this Agreement or as agreed to by the Parties; or (iii) by a percentage of Climatec LLC's cost and a fixed fee, in which case Climatec LLC shall keep detailed records of the net cost of labor and materials. The Purchaser shall certify the amount of each Change Order that does not provide for a fixed lump-sum amount. In the event the Parties are unable to agree on a Change Order valuation method or amount, Climatec LLC nonetheless shall proceed with any Change in the Work required by the Purchaser. In such event, Climatec LLC shall keep detailed records of the net cost of labor and materials, together with vouchers. Pending final determination of value, payment on account of a Change in the Work shall be made based upon the Purchaser's estimate of the value of the Change in the Work, including, if applicable, a reasonable allowance for overhead and profit due to Climatec LLC.

Change Orders Specify Full and Final Compensation. Except as expressly set forth in any particular Change Order, each Change Order shall be deemed and construed to include all change(s) required pursuant to the Change Order, including, without limitation, any and all extensions of time and overhead, acceleration costs, profit, general conditions costs, expenses, and other direct and indirect costs and expenses of such work and/or changes. In addition, each Change Order shall be deemed and construed to include all necessary adjustments attributable to cumulative impacts of that and any and all preceding Change Orders, whether such impacts relate to scheduling, productivity or other matters. By signing a Change Order, Climatec LLC shall be deemed and construed to have waived any and all claims and rights to any adjustments to the Contract Price and/or Contract Time other than as are set forth in the Change Order, and Climatec LLC may not thereafter attempt to hold the Purchaser responsible for any interference, delay, acceleration, or other effect on the Work and/or additional costs attributable to the change(s) required pursuant to the Change Order.

22. **INSURANCE.** Climatec LLC will maintain comprehensive liability and other insurance in amounts not less than those set forth below. Such insurance shall protect Climatec LLC and the Purchaser against any claims, losses, liabilities and expenses arising from the Work, whether performed by Climatec LLC or any subcontractor of Climatec LLC. The coverage shall include:
- a. Workmen's Compensation and Employers Liability Insurance – \$1,000,000 each accident; \$1,000,000 each employee/disease; and \$1,000,000 policy limit.
 - b. Comprehensive or Commercial General Liability – Bodily injury liability of \$1,000,000 per occurrence and general aggregate liability of \$2,000,000 per occurrence.
 - c. Comprehensive Automobile Insurance – Combined single limit of \$1,000,000 per occurrence.

If the Purchaser requires that Climatec LLC maintain any special insurance coverage, policy, amendment, or rider, the Purchaser shall pay the additional cost.

23. **INDEMNITY.** Climatec LLC shall indemnify, defend, and hold-harmless the Purchaser against and from any and all claims, demands, actions, damages, losses, costs, expenses (including, without limitation, reasonable attorneys'

fees), and other liabilities that arise from or in connection with the performance of this Agreement or of the Work by Climatec LLC or its officers, agents, employees or subcontractors. Climatec LLC shall reimburse the Purchaser for all damages, expenses and losses incurred by the Purchaser as a consequence of any claim, demand, action or other proceeding that is within the scope of the foregoing provision of this Section, including, without limitation, any and all disputes between Climatec LLC and any of its subcontractors. However, Climatec LLC shall not be liable or responsible pursuant to this Section to the extent any claim, demand, action, damage, loss, cost, expense or other liability is attributable to the active negligence, sole negligence or willful misconduct of the Purchaser or any Purchaser Agent, in which event the Purchaser and Climatec LLC shall be liable on a comparative basis. The requirements of this Section shall be in addition to any other indemnification provisions contained in this Agreement and shall survive termination of this Agreement. Any and all obligations set forth in this Agreement requiring that Climatec LLC indemnify, defend and hold-harmless the Purchaser (including, without limitation, this Section) shall be deemed and construed as an obligation to indemnify, defend and hold-harmless the Purchaser, the Purchaser Agents, and each of them. Except as provided in this Agreement, neither the Purchaser nor Climatec LLC shall be liable for any special, indirect, or consequential damages arising from this Agreement.

24. **INDEMNIFICATION BY SUBCONTRACTORS.** Climatec LLC shall require that in its subcontracts applicable to the Work that each subcontractor indemnify, defend and hold-harmless the Purchaser in connection with the Work to the extent provided in Section 23 of this Agreement. Climatec LLC shall indemnify, defend and hold-harmless the Purchaser, in accordance with Section 23 of this Agreement, with respect to any failure of any subcontractor to indemnify, defend and hold-harmless the Purchaser as required pursuant to this Section.
25. **DISCLOSURE OF CONFIDENTIAL INFORMATION.** Climatec LLC acknowledges that this Agreement, once fully executed and approved by the Purchaser's Board, is public information, subject to release in response to public information requests under California Government Code § 6250 et seq. (Public Records Act), excluding material that is marked as "proprietary." Purchaser shall use reasonable efforts to prevent or limit disclosure of proprietary or confidential information.
26. **OCCUPATIONAL SAFETY AND HEALTH.** The Parties hereto agree to notify each other immediately upon becoming aware of any alleged violation of, the Occupational Safety and Health Act (OSHA) relating in any way to the project or project site.
27. **ENTIRE AGREEMENT.** This Agreement, upon acceptance, shall constitute the entire agreement between the parties and supersedes any prior representations or understandings.
28. **CHANGES.** No change or modification of any of the terms and conditions stated herein shall be binding upon either Party unless accepted by both Parties in writing.
29. **SEVERABILITY.** If one or more of the provisions of this Agreement are held to be unenforceable under laws, such provision(s) shall be excluded from these terms and conditions and the remaining terms and conditions shall be interpreted as if such provision were so excluded and shall be enforced in accordance to their terms and conditions.
30. **COUNTERPARTS.** This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. A signature on a copy of this Agreement received by either party by facsimile or portable document format (PDF) is binding upon the other party as an original. The parties shall treat a photocopy of such facsimile as a duplicate original.
31. **ASSIGNMENT.** Climatec LLC retains the right to assign its rights and obligations of this Agreement with written consent of Purchaser.
32. **ACKNOWLEDGMENT.** Both Climatec LLC and the Purchaser acknowledge having read this Agreement and all contract documents incorporated herein and have executed this Agreement on the date written above.
33. **APPROVAL.** Each party represents that the person that has executed this Agreement on its behalf is authorized to do so.

34. **EFFECTIVENESS.** This Agreement must be fully executed and approved by the Purchaser's Board in order to be effective.

35. **DEFAULT AND TERMINATION.**

Suspension of Work by Purchaser. Purchaser, in its sole discretion, may at any time suspend performance of the Work and/or Project by giving written notice to Climatec LLC, and the suspension shall be effective upon receipt of such notice by Climatec LLC. Upon receipt of such notice, Climatec LLC shall immediately commence the process of suspending the Work, making safe any work in progress but otherwise taking steps to cease further progress on the Project. Purchaser, consistent with the provisions of this Agreement, shall pay Climatec LLC for all Work adequately performed up to the effective date of such suspension and for Work reasonably required to eliminate safety hazards. Climatec LLC shall resume its Work on the Project within twenty (20) calendar days following written notice from Purchaser to further proceed with Work on the Project. Suspension of work by Purchaser for more than one-hundred eighty (180) calendar days may result in adjustment of the Contract Price, subject to documentation reasonably supporting the adjustment is provided and verified.

Termination for Convenience. Purchaser, in its sole discretion and without need for cause, may at any time terminate this Agreement, or any portion thereof, by giving written notice to Climatec LLC, and such termination shall be effective upon receipt of such notice by Climatec LLC. Upon receipt of such notice, Climatec LLC shall immediately commence the process of terminating the Work, making safe any work in progress but otherwise taking reasonable steps to cease further progress on the Project. Purchaser, consistent with the provisions of this Agreement, shall pay Climatec LLC for all Work adequately performed up to the effective date of the termination for convenience as for work reasonably required to eliminate safety hazards. In the event of a termination for convenience, Climatec LLC shall not be entitled to any profits, overhead or general conditions costs for any portion of the Work that was not performed prior to termination or to compensation for costs related to discontinuing the Work. Notwithstanding a termination pursuant to this Section, Climatec LLC and its surety shall continue to be responsible and liable, in accordance with this Agreement and applicable law for any and all defects in quality, damage to property, injury to any person, and other matters arising from the Work performed prior to the termination.

Termination for Cause.

Events of Default. Each of the following events shall be deemed a default by Climatec LLC of its obligations pursuant to this Agreement (each an "Event of Default"):

- a. Climatec LLC is adjudged bankrupt, makes a general assignment for the benefit of creditors, or a receiver is appointed on account of Climatec LLC's insolvency;
- b. as reasonably determined by Purchaser, Climatec LLC refuses or fails to provide a sufficient number of properly skilled workmen or the proper materials or supplies as are necessary for timely and/or proper completion of the Work;
- c. Climatec LLC fails to promptly pay subcontractors for material or labor;
- d. Climatec LLC fails to comply with any laws, ordinances, or instructions of Purchaser applicable to Purchaser; and
- e. Climatec LLC or its subcontractors otherwise fail to comply with any material provision of the Agreement.

Opportunity to Cure. If an Event of Default occurs, Purchaser may serve notice on Climatec LLC and its surety(ies) describing the unsatisfactory condition or violation that constitutes a default by Climatec LLC ("Notice of Default"). Climatec LLC shall have two (2) working days after service of any such Notice of Default to cure the Event of Default specified in the Notice of Default or to make arrangements satisfactory to Purchaser for cure of the Event of Default. Notwithstanding the foregoing, in the case of an Event of Default, Climatec LLC shall have thirty (30) days to cure or make arrangements satisfactory to Purchaser for cure of the Event of Default.

Purchaser Remedies for Failure to Cure. Upon failure of Climatec LLC to cure or make satisfactory arrangements for cure of an Event of Default, Purchaser may, at its option: (i) take such action as, in Purchaser's opinion, is necessary to correct or cure the Event of Default and deduct the cost thereof from any amounts due or to become due to Climatec LLC pursuant to this Agreement; (ii) proceed to terminate this Agreement, or any portion thereof; or (iii) take such other action as is permitted by this Agreement or applicable law. In the event Purchaser elects to terminate this Agreement or any portion thereof, Purchaser shall schedule and conduct a hearing on the matter, and Climatec LLC shall be permitted to attend and present evidence at such hearing to support a determination by Purchaser that it should not terminate this Agreement. The hearing shall be conducted by the Governing Board, which shall render a final decision. Alternatively, such hearing may be conducted by Purchaser's Assistant Superintendent of Business Services or his designee, who shall make a recommendation to the Governing Board. Unless specified otherwise therein, a decision by the Governing Board shall be effective immediately. Notwithstanding a termination pursuant to this Section, Climatec LLC and its surety shall continue to be responsible and liable, in accordance with this Agreement and applicable law for any and all defects in quality, damage to property, injury to any person, and other matters arising from the Work performed prior to the termination.

Effect of Termination for Cause. In the event of any termination for cause, Purchaser shall be entitled to withhold and retain from any payment due to Climatec LLC all amounts necessary to offset any reasonable costs, expenses (including, but not limited to, attorneys' fees), losses and/or damages incurred by Purchaser as a result of the termination for cause. If the remaining amounts potentially payable to Climatec LLC pursuant to this Agreement are insufficient to offset such costs, expenses, losses and/or damages, Climatec LLC and/or its performance bond surety shall reimburse Purchaser for the uncompensated balance of such costs, expenses, losses and/or damages, including, without limitation, any uncompensated costs to complete the Work. Purchaser's rights pursuant to this Agreement are in addition to, and not in lieu of, any other rights or remedies available to Purchaser in the event of a termination for cause. In addition, the following provisions shall also apply in the event of any termination for cause:

- a. Climatec LLC shall not be entitled to further compensation until satisfactory completion and acceptance by the Purchaser of all of the Work.
- b. Purchaser shall give written notice of a termination to both Climatec LLC and Climatec LLC's performance-bond surety. The surety shall thereafter have the right to take over and perform this Agreement, provided, however, that, if the surety does not, within seven (7) calendar days after service of the notice of termination, notify Purchaser that the surety intends to take over and perform this Agreement, or if the surety does not commence performance of this Agreement within fifteen (15) days after providing such notice to Purchaser, Purchaser may take over and complete the Work by any means Purchaser may deem appropriate, for the account of and at the expense of Climatec LLC, and Climatec LLC and its surety shall be liable to Purchaser for costs thereby incurred by Purchaser in excess of any remaining portion of the Contract Price that otherwise would be payable to Climatec LLC.
- c. In the event Purchaser takes over the Work, Purchaser may, without liability for doing so: (1) take possession of the Work and the Project Site; (2) take possession of all materials, tools, equipment and appliances located at the Project Site and use them in connection with completion of the Project; (3) procure, upon such terms and in such manner as it may determine appropriate, services required to complete the Work; (4) require Climatec LLC to provide all finished or unfinished documents, data, diagrams, drawings, materials or other matter prepared or built by Climatec LLC in connection with its performance of this Agreement; and (5) complete the affected portion(s) of the Project by whatever means and methods Purchaser may deem to be in its best interests, including, but not limited to, calling upon Climatec LLC's surety to complete the Work or to issue payment(s) to Purchaser or its replacement contractor(s).
- d. In the event Purchaser takes over and satisfactorily completes the Work, if the unpaid balance of the Contract Price exceeds the cost to Purchaser of satisfactorily completing the Work, including, without limitation, compensation for any additional architectural, managerial or administrative services needed as a result of Climatec LLC's default, such excess shall be paid to Climatec LLC after satisfactory completion and acceptance of the Work by Purchaser less any amounts attributable to any stop payment notices and amounts withheld by Purchaser in accordance with applicable law or this Agreement. If the cost to Purchaser of satisfactorily completing the Work is greater than the unpaid balance of the Contract Price,

Climatec LLC, or its surety, shall pay the difference to Purchaser within thirty (30) days of notice from Purchaser. In addition, Purchaser may pursue any other recourse or remedies against Climatec and/or its surety, which are available pursuant to law or the Agreement.

Termination by Climatec LLC. Subject to the other provisions of this Section, Climatec LLC may stop the Work or initiate termination of this Agreement by giving written notice to Purchaser if, through no fault of Climatec LLC or its employees, subcontractors or suppliers: (i) all work on the Project ceases for a period exceeding thirty (30) days pursuant to an order or direction of any court or government entity, other than Purchaser, with jurisdiction over any portion of the Project; (ii) Purchaser arbitrarily fails, within thirty (30) days of receipt from Climatec LLC of a Progress Payment Application, to issue a certificate for payment for any undisputed amount(s) due to Climatec LLC; or (iii) Purchaser fails, within sixty (60) days of receipt from Purchaser of a certificate of payment therefor, to pay to Climatec LLC any undisputed amount specified in such certificate of payment. Upon receipt of any such notice from Climatec LLC, Purchaser shall have fifteen (15) days to cure or make other arrangements for cure of the matter as are acceptable to Climatec LLC. If Purchaser fails within the required time period to cure or make such acceptable arrangements for cure of the matter, Climatec LLC may stop the Work or terminate this Agreement by giving additional written notice to Purchaser, which notice shall be effective immediately upon receipt by Purchaser. In the event Climatec LLC stops the Work or terminates this Agreement in pursuant to either subdivision (ii) or (iii) of the first sentence of this Section, Purchaser shall be liable to Climatec LLC for any losses thereby reasonably incurred and by Climatec LLC; provided that Climatec LLC shall not be entitled to recover any lost or foregone profits attributable to the portions of the Work not satisfactorily completed by Climatec LLC prior to stoppage of the Work or termination of the Agreement.

Attorneys' Fees and Costs. In the event any dispute between the Parties arising from this Agreement is resolved through litigation in a court of competent jurisdiction, the prevailing Party in such action shall be entitled to recover its attorneys' fees and other legal costs from the other Party, in such amount(s) as determined by the court.

IN WITNESS WHEREOF, the parties have caused their duly authorized officers to execute this Agreement effective as of the date first above written.

Pierce Joint Unified School District

Climatec LLC

Signature

Signature

Print Name

Print Name

Title

Title

Date

Date

Attachment “A”

Scope of Work

Arbuckle Elementary School

Lighting

- * Retrofit existing outdoor building mounted and pole mounted HID and CFL fixtures with new, high-efficiency LED fixtures. Refer to the Lighting Summary for specific locations and applications.
- * Retrofit existing standard efficiency interior fluorescent tube lighting systems with new, high-efficiency LED lamps and fixtures. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.
- * Install ceiling mounted occupancy sensors and LED dimming controls. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.

HVAC

- * Replace nine (9) packaged gas/electric units with new high efficiency units of similar size and capacity. The scope includes removal of existing units, proper disposal or containment of refrigerant, necessary duct/curb modifications, disconnection/reconnection of the existing electrical to include, if required, new electrical disconnects. Further included is disconnection and reconnection of the existing gas lines and condensate drain piping. Economizers are to be installed on units 5 tons and larger. Start-up/testing of the new units and connection to the BAS will be provided. All equipment removed shall be disposed of per EPA guidelines. Any undisclosed electrical and structural upgrades/modifications are excluded from the scope. Please refer the Mechanical Replacement Inventory for specific locations.
- * Replace six (6) wall mounted HVAC units with new high efficiency units of similar size and capacity. The scope includes removal of existing units, proper disposal or containment of refrigerant, necessary duct/curb modifications, disconnection/reconnection of the existing electrical to include, if required, new electrical disconnects. Further included is disconnection / reconnection of the existing gas lines and condensate drain piping. Economizers are to be installed on units 5 tons and larger. Start-up/testing of the new units and connection to the BAS will be provided. All equipment removed shall be disposed of per EPA guidelines. Any undisclosed electrical and structural upgrades/modifications are excluded from the scope. Please refer the Mechanical Replacement Inventory for specific locations.

Controls

- * Optimize existing schedules and set points to allow for better control of facilities.
- * Occupancy sensor tie in between the control system and the new HVAC units.

Grand Island Elementary School

Lighting

- * Retrofit existing outdoor building mounted HID and CFL fixtures with new, high-efficiency LED fixtures. Refer to the Lighting Summary for specific locations and applications.
- * Retrofit existing standard efficiency interior fluorescent tube lighting systems with new, high-efficiency LED lamps and fixtures. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.

Controls

- * Optimize existing schedules and set points in order to allow for better control of facilities.

Lloyd G. Johnson Junior High

Lighting

- * Retrofit existing outdoor building mounted and pole mounted HID and CFL fixtures with new, high-efficiency LED fixtures. Refer to the Lighting Summary for specific locations and applications.
- * Retrofit existing standard efficiency interior fluorescent tube lighting systems with new, high-efficiency LED lamps and fixtures. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.
- * Install ceiling mounted occupancy sensors and LED dimming controls. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.

Controls

- * Optimize existing schedules and set points in order to allow for better control of facilities.

Pierce High

Lighting

- * Retrofit existing outdoor building mounted and pole mounted HID and CFL fixtures with new, high-efficiency LED fixtures. Refer to the Lighting Summary for specific locations and applications.
- * Retrofit existing standard efficiency interior fluorescent tube lighting systems with new, high-efficiency LED lamps and fixtures. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.
- * Install ceiling mounted occupancy sensors and LED dimming controls. Please see the Lighting Summary for detailed information on lighting scope, quantities, and locations.

Controls

- * Optimize existing schedules and set points in order to allow for better control of facilities.

Attachment “B”
Lighting Summary

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Admin / DO - 540 A Sixth St, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Main Bldgs

1st Floor

Rf#-1 Rm - All Interior Space	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0
Rf#-2 Rm - All Exterior Space	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0

Qty for Admin / DO :



Arbuckle Alternative High (Continuation) - 966 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Main Bldgs

1st Floor

Rf#-1 Rm - All Interior Space	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0
Rf#-2 Rm - All Exterior Space	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0

Qty for Arbuckle Alternative High (Continuation) :

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Arbuckle Elementary - 701 Hall St, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Admin Wing

1st Floor

Rf#-1 Rm - Main Office Reception	2x4x 2L sm box, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	12
Rf#-2 Rm - Nurse Office	2x4x 2L sm box, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast WS	2
Rf#-3 Rm - Staff Restroom	CF 2L wm sconce, CFP-15w, CF ballast	1	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	1
Rf#-4 Rm - Conf Room	1x4x 4L sm wp, F32T8 32w, 4L N electronic ballast	1	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast WS	1
Rf#-5 Rm - Vice Principals Office	1x4x 4L sm wp, F32T8 32w, 2L N electronic ballast	4	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast WS	4
Rf#-6 Rm - Data Closet	CF 1L sm fxt, CFS-15w, CF ballast	2	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	2
Rf#-7 Rm - Psychologist Office	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast WS	2
Rf#-8 Rm - Office	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-9 Rm - Principals Office	4x4x 4L fxt, F32T8 32w, 4L N electronic ballast	2	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-10 Rm - office hallways	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-11 Rm - office hallways	4x4x 4L fxt, F32T8 32w, 4L N electronic ballast	2	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-12 Rm - Staff M RR	CF 1L rec fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-13 Rm - Staff W RR	CF 1L rec fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-14 Rm - Ext-Bldg Mnt (walls) West Side	HPS 1L wm wall pack FT, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Building/Area: MPR Wing

1st Floor

Rf#-15 Rm - Corridor	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-16 Rm - MPR	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	32	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	32
Rf#-17 Rm - MPR	LED 1L exit sign bug eye, LED 2.5w, n/a	1	DND - DND: (do not do, fixtures left as is)	1
Rf#-18 Rm - MPR	CF 2L exit sign, CFP-9w, CF ballast	2	NLX - New LED exit sign with battery backup	2
Rf#-19 Rm - MPR Stage	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	12
Rf#-20 Rm - Kitchen	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	5	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	5
Rf#-21 Rm - Kitchen	CF 1L sm fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-22 Rm - Kitchen Cooler	CF 1L sm fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-23 Rm - Kitchen Freezer	CF 1L sm fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-24 Rm - Kitchen RR	CF 1L sm fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-25 Rm - Custodial Closet	CF 1L pm chin hat, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-26 Rm - Kitchen	CF 3L fxt (ceiling fan), CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-27 Rm - Kitchen	Inc. 1L oven jar, Inc. 60w A19, n/a	3	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	3
Rf#-28 Rm - Kitchen Food storage	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-29 Rm - Reading Classroom	1x4x 2L pm ind hood, F32T8 32w, 2L N electronic ballast	8	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	8

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Arbuckle Elementary - 701 Hall St, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-30 Rm - E.L.D. Classroom	1x4x 2L pm ind hood, F32T8 32w, 2L N electronic ballast	8	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	8
Rf#-31 Rm - Ext-Bldg Mnt (walls)	CF 1L sm low profile rect, CFP-18w, CF ballast	2	DND - DND: (do not do, fixtures left as is)	2

Building/Area: Portables

1st Floor

Rf#-55 Rm - Room 20	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-56 Rm - Portable 20	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-57 Rm - Room 21	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-58 Rm - Room 21	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-59 Rm - Room 22	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	12
Rf#-60 Rm - Room 22 RR	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-61 Rm - Room 22 RR	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-62 Rm - Room 22 RR	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-63 Rm - Room 22 kitchen	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-64 Rm - Room 22 Office	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-65 Rm - Room 22	CF 1L wm vandal, CFP-26w, CF ballast	2	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	2
Rf#-66 Rm - Room 23	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	10	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	10
Rf#-67 Rm - Room 23	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-68 Rm - Room 24	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	10	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	10
Rf#-69 Rm - Room 24	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-70 Rm - Room 25	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	10	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	10
Rf#-71 Rm - Room 25	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-72 Rm - Room 26	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	9
Rf#-73 Rm - Room 26 RR	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-74 Rm - Room 26	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-75 Rm - Room 27	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	10	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	10
Rf#-76 Rm - Room 27	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-77 Rm - Ext-Bldg Mnt (roofline) Rm 27	HPS 1L flood, slip, HPS 400w, HID ballast	1	NL110/p/s - New LED area light, pole or bldg mount, 100,000-Hr L70 rated life, 110w, onboard dimming OCC sensor oemb	1
Rf#-78 Rm - Room 28	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	10	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	10
Rf#-79 Rm - Room 28	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-80 Rm - Library	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	10	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	10
Rf#-81 Rm - Library RR	2x2x 2L rec trf, FB40T12 34w, 2L magnetic ballast	1	RL030/tkit2 - (1) LED 30w 2x2 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	1
Rf#-82 Rm - Library Office	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	2	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	2

W* = wall switch sensor; C* = ceiling sensor; E* = existing sensor

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Arbuckle Elementary - 701 Hall St, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-83 Rm - Library Reading Rm	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	2	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	2
Rf#-84 Rm - Library	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-85 Rm - Room 19	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-86 Rm - Room 19	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-87 Rm - Ext-Bldg Mnt (roofline) Rm 19	HPS 1L flood, slip, HPS 400w, HID ballast	1	NL110/p/s - New LED area light, pole or bldg mount, 100,000-Hr L70 rated life, 110w, onboard dimming OCC sensor oemb	1
Rf#-88 Rm - Room 18	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-89 Rm - Room 18	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-90 Rm - Room 17	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	10	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	10
Rf#-91 Rm - Room 17	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-92 Rm - Room 30	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	10	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	10
Rf#-93 Rm - Room 30 storage	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-94 Rm - Room 30 RR	CF 1L sm fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-95 Rm - Room 30	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1

Building/Area: Wing 12-13

1st Floor

Rf#-102 Rm - Room 12	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-103 Rm - Room 13	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-104 Rm - Teacher's Work Room - Copy Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-105 Rm - Teacher's Work Room - Break Area	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-106 Rm - Teacher's Work Room - Restroom	CF 2L wm sconce, CFS-15w, CF ballast	1	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	1
Rf#-107 Rm - Janitor's Closet	CF 1L sm fxt, CFS-15w, CF ballast	2	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	2
Rf#-108 Rm - Boy's Restroom	CF 1L sm fxt, CFP-15w, CF ballast	2	RL0131/h - (1) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	2
Rf#-109 Rm - Girl's Restroom	CF 1L sm fxt, CFP-15w, CF ballast	2	RL0131/h - (1) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	2
Rf#-110 Rm - Ext-Bldg Mnt (Eves)	CF 1L sm low profile rect, CFP-18w, CF ballast	6	DND - DND: (do not do, fixtures left as is)	6
Rf#-111 Rm - Ext-Bldg Mnt (roofline) B/G RR	HPS 1L flood, slip, HPS 400w, HID ballast	1	NL110/p/s - New LED area light, pole or bldg mount, 100,000-Hr L70 rated life, 110w, onboard dimming OCC sensor oemb	1

Building/Area: Wing 1-4

1st Floor

Rf#-32 Rm - Classroom 1	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-33 Rm - Classroom 2	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-34 Rm - Classroom 3	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-35 Rm - Classroom 4	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-36 Rm - Girl's Restroom	CF 2L sm fxt, CFP-15w, CF ballast	1	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	1
Rf#-37 Rm - Ext-Bldg Mnt (Eves)	CF 1L sm low profile rect, CFP-18w, CF ballast	7	DND - DND: (do not do, fixtures left as is)	7

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Arbuckle Elementary - 701 Hall St, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-38 Rm - Ext-Bldg Mnt (walls)	CF 1L sm low profile rect, CFP-18w, CF ballast	4	DND - DND: (do not do, fixtures left as is)	4

Building/Area: Wing 14-16

1st Floor

Rf#-112 Rm - Room 14	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-113 Rm - Room 15	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-114 Rm - Room 16	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-115 Rm - Ext-Bldg Mnt (walls) Rm 16	HPS 1L wm wall pack FT, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-116 Rm - Ext-Bldg Mnt (Eves)	CF 1L sm low profile rect, CFP-18w, CF ballast	3	DND - DND: (do not do, fixtures left as is)	3

Building/Area: Wing 5-8

1st Floor

Rf#-39 Rm - Classroom 5	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-40 Rm - Classroom 6	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-41 Rm - Classroom 7	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-42 Rm - Classroom 8	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	24
Rf#-43 Rm - Boy's Restroom	CF 2L sm fxt, CFP-15w, CF ballast	1	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	1
Rf#-44 Rm - Janitor's Closet	CF 1L sm fxt, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-45 Rm - Ext-Bldg Mnt (Eves)	CF 1L sm low profile rect, CFP-18w, CF ballast	11	DND - DND: (do not do, fixtures left as is)	11

Building/Area: Wing 9-11

1st Floor

Rf#-96 Rm - Room 9	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-97 Rm - Room 10	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-98 Rm - Room 11	1x8x 2L pm fxt, F32T8 32w, 2L N electronic ballast	9	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	9
Rf#-99 Rm - Ext-Bldg Mnt (eves)	CF 1L sm square, CFS-15w, CF ballast	2	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	2
Rf#-100 Rm - Ext-Bldg Mnt (Eves)	CF 1L sm low profile rect, CFP-18w, CF ballast	4	DND - DND: (do not do, fixtures left as is)	4
Rf#-101 Rm - Ext-Bldg Mnt (wall)	CF 1L sm low profile rect, CFP-18w, CF ballast	2	DND - DND: (do not do, fixtures left as is)	2

Building/Area: Wing K

1st Floor

Rf#-46 Rm - Classroom K	1x4x 2L pm fxt, F32T8 32w, 2L N electronic ballast	14	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	14
Rf#-47 Rm - Classroom K - Storage Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-48 Rm - Classroom K - Restroom	CF 1L sm dome, CFS-15w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-49 Rm - Supply Building	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-50 Rm - Supply Building - Restroom	Inc. 1L sm fxt, Inc. 100w A19, n/a	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-51 Rm - Supply Building - Closet	Inc. 1L sm fxt, Inc. 100w A19, n/a	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-52 Rm - Art Storage	CF 1L sm fxt, CFS-15w, CF ballast	2	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	2



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PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-53 Rm - Ext-Bldg Mnt (Eves)	CF 1L sm low profile rect, CFP-18w, CF ballast	2	DND - DND: (do not do, fixtures left as is)	2
Rf#-54 Rm - Ext-Bldg Mnt (walls)	CF 1L sm low profile rect, CFP-18w, CF ballast	2	DND - DND: (do not do, fixtures left as is)	2

Qty for Arbuckle Elementary :

651

651

Pierce Joint Unified School District - Lighting Detail Report
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Grand Island Elementary - 551 Leven St, Grimes CA 95950

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Barn Bldg

1st Floor

Rf#-32 Rm - Interior space	CF 1L pm china hat, CFS-18w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-33 Rm - Ext-Bldg Mnt (walls)	MV 1L wm barn light, MV 175w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Building/Area: Main Bldgs

1st Floor

Rf#-1 Rm - Front Office	2x4x 2L sm box, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-2 Rm - Office Conference Room	2x4x 2L sm box, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-3 Rm - Teacher's Work Room	2x4x 2L sm box, F32T8 32w, 2L N electronic ballast	5	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	5
Rf#-4 Rm - Staff Restroom	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-5 Rm - Classroom 2	1x4x 2L pm wp, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1HD	6
Rf#-6 Rm - Classroom 2 storage	Inc. 1L pm china hat, Inc. 150w A21, n/a	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-7 Rm - Classroom 1	1x4x 2L pm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1HD	6
Rf#-8 Rm - Classroom 1 storage	CF 1L pm china hat, CFS-18w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-9 Rm - Girl's Restroom	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	3	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-10 Rm - Kitchen	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	4	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-11 Rm - Cafeteria Serving Area	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	7	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	7
Rf#-12 Rm - Auditorium	Inc. 1L deco globe, Inc. 150w A21, n/a	5	RL027/s/gc - (1) LED 27w corn cob style screw in lamp, 120/277, 50,000-Hr rated life, 5K, medium base	5
Rf#-13 Rm - Auditorium Stage	1x8x 2L sm fxt, F96T12 60w, 2L magnetic ballast	3	RLT844bk - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, (1) new electronic ballast/ driver, (1) 8' to 4' coversion kit	3
Rf#-14 Rm - Main Corridor	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	8	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	8
Rf#-15 Rm - Attic	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	11	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	11
Rf#-16 Rm - Janitor's Closet	Inc. 1L pm china hat, Inc. 25w A19, n/a	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-17 Rm - Conference Room	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-18 Rm - Boy's Restroom	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	3	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-19 Rm - Classroom 4	1x4x 2L pm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1HD	6
Rf#-20 Rm - Classroom 4 storage	CF 1L pm china hat, CFS-18w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-21 Rm - Classroom 3	1x4x 2L pm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1HD	6
Rf#-22 Rm - Classroom 3 storage	CF 1L pm china hat, CFS-18w, CF ballast	1	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	1
Rf#-23 Rm - Back Entry 1 & 2	CF 1L sm square, CFS-18w, CF ballast	2	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	2
Rf#-24 Rm - Ext-Bldg Mnt (walls) entry	CF 2L wall sconce, CFS-18w, CF ballast	2	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	2
Rf#-25 Rm - Ext-Bldg Mnt (walls) Rm 4	MV 1L wm barn light, MV 175w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-26 Rm - Ext-Bldg Mnt (walls) Exit by B RR	MV 1L wm barn light, MV 175w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-27 Rm - Ext-Bldg Mnt (walls) MPR Stage	CF 1L wm vandal, CFS-23w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1

W* = wall switch sensor; C* = ceiling sensor; E* = existing sensor

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Grand Island Elementary - 551 Leven St, Grimes CA 95950

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-28 Rm - Ext-Bldg Mnt (walls) MPR	MV 1L wm barn light, MV 175w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-29 Rm - Ext-Bldg Mnt (walls) Exit by G RR	MH 1L wm wall pack, MH 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-30 Rm - Ext-Bldg Mnt (walls) Rm 1	HPS 1L wall pack FT, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-31 Rm - Ext-Bldg Mnt (walls) Rm 1	HPS 1L flood, knuckle, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Qty for Grand Island Elementary :

101

101

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Lloyd G. Johnson Junior High - 938 Wildwood Rd, Arbutle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Admin Wing

1st Floor

Rf#-1 Rm - Admin Office - Open Area	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	8	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	8
Rf#-2 Rm - Admin Office - Open Area	CF 2L rec can, CFP-26w, CF ballast	4	RL013/ckit - (1) LED 6" rec can kit, 4000K, 8.5/13/21w, 120/277, 50,000-Hr L70 rated life	4
Rf#-3 Rm - Nurse	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-4 Rm - Nurse RR	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-5 Rm - Server/Mech Room	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-6 Rm - Principal Office	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-7 Rm - Office to left of above	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-8 Rm - Office to left of above	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-9 Rm - Staff Workroom	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	14	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	14
Rf#-10 Rm - Staff Workroom	Vending Machine (drink), n/a, n/a	1	VM170 - Vending Machine controller with occupancy sensor (Drink)	1
Rf#-11 Rm - Staff RR lobby	CF 2L rec can, CFP-26w, CF ballast	1	RL013/ckit - (1) LED 6" rec can kit, 4000K, 8.5/13/21w, 120/277, 50,000-Hr L70 rated life	1
Rf#-12 Rm - Men's Restroom	1x4x 2L wm vanity, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-13 Rm - Women's Restroom	1x4x 2L wm vanity, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-14 Rm - Library	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	24
Rf#-15 Rm - Library Back Room	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-16 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm dome, HPS 70w, HID ballast	4	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	4
Rf#-17 Rm - Ext-Bldg Mnt (eves)	HPS 1L sm square, HPS 50w, HID ballast	6	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	6
Rf#-18 Rm - Ext-Pole Mnt (Parking Lot)	MH 1L shoe box SqP, Slv, 2DH, MH 400w, HID ballast	4	NL102/p/s - New LED area light, pole or bldg mount, 100,000-Hr L70 rated life, 102w, onboard dimming OCC sensor	4

Building/Area: Maint Bldgs

1st Floor

Rf#-85 Rm - Bus Shed	2x4x 4L pm high bay, F54T5HO 54w, 2L HO electronic ballast	9	RLT544 - (4) 4' LED T5 lamp 24w, 50,000-Hr L70 rated life, re-use existing electronic ballast	9
Rf#-86 Rm - Maintenance Shop	1x8x 2L sm fxt, F96T12 60w, 2L magnetic ballast	5	RLT844bk - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, (1) new electronic ballast/ driver, (1) 8' to 4' coversion kit	5
Rf#-87 Rm - Maintenance Shop	1x4x 2L sm fxt, F40T12 34w, 2L magnetic ballast	1	RLT842b - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, (1) new electronic ballast/ driver	1
Rf#-88 Rm - Ext-Bldg Mnt (walls)	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1

Building/Area: MPR Wing

1st Floor

Rf#-27 Rm - Multi-purpose Room	MH 1L pm high bay, MH 400w, HID ballast	10	NL158/hb/s - New LED area interior high bay, 75,000-Hr L70 rated life, lens, wire guard, 158w, onboard dimming OCC sensor	10
Rf#-28 Rm - teacher dining	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-29 Rm - Staff M RR	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-30 Rm - Staff W RR	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-31 Rm - Kitchen	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	18

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Lloyd G. Johnson Junior High - 938 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-32 Rm - Storage Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-33 Rm - Kitchen Walk-In Cooler	1x4x 2L sm vapor tight, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-34 Rm - Kitchen Walk-In Freezer	1x4x 2L sm vapor tight, F40T12 34w, 2L magnetic ballast	1	RLT842b - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, (1) new electronic ballast/ driver	1
Rf#-35 Rm - Girl's Locker Room	1x4x 3L sm wp, F32T8 32w, 3L N electronic ballast	2	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-36 Rm - Girl's Locker Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-37 Rm - Girl's Locker Room	CF 1L rec can, CFP-15w, CF ballast	2	RL013/ckit - (1) LED 6" rec can kit, 4000K, 8.5/13/21w, 120/277, 50,000-Hr L70 rated life	2
Rf#-38 Rm - Girl's Locker Room - Office	1x4x 3L sm wp, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-39 Rm - Girl's Locker Room - Restroom	1x4x 3L sm wp, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-40 Rm - Boy's Locker Room	1x4x 3L sm wp, F32T8 32w, 3L N electronic ballast	2	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-41 Rm - Boy's Locker Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-42 Rm - Boy's Locker Room	CF 1L rec can, CFP-15w, CF ballast	2	RL013/ckit - (1) LED 6" rec can kit, 4000K, 8.5/13/21w, 120/277, 50,000-Hr L70 rated life	2
Rf#-43 Rm - Boy's Locker Room - Office	1x4x 3L sm wp, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-44 Rm - Boy's Locker Room - Restroom	1x4x 3L sm wp, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-45 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm dome, HPS 70w, HID ballast	14	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	14
Rf#-46 Rm - Ext-Bldg Mnt (walls)	HPS 1L flood, knuckle, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Building/Area: Portables

1st Floor

Rf#-79 Rm - Room 903	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-80 Rm - Room 903	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-81 Rm - Room 902	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-82 Rm - Room 902	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-83 Rm - Room 901	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-84 Rm - Room 901	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1

Building/Area: Wing 200's

1st Floor

Rf#-19 Rm - Classroom 201	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	18
Rf#-20 Rm - Shared Lab - 201 & 202	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-21 Rm - Classroom 202	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	18
Rf#-22 Rm - Classroom 203	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	18
Rf#-23 Rm - Shared lab - 203 & 204	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-24 Rm - Classroom 204	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	18
Rf#-25 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm dome, HPS 70w, HID ballast	4	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	4
Rf#-26 Rm - Ext-Bldg Mnt (eves)	HPS 1L sm square, HPS 50w, HID ballast	6	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	6

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Lloyd G. Johnson Junior High - 938 Wildwood Rd, Arbutle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Wing 3,5 & 800

1st Floor

Rf#-48 Rm - Classroom 501	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-49 Rm - Classroom 501 - Back	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	4	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	4
Rf#-50 Rm - Classroom 501 - Office	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	1	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	1
Rf#-51 Rm - Ext-Bldg Mnt (walls) 501	HPS 1L wm dome, HPS 70w, HID ballast	14	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	14
Rf#-52 Rm - Ext-Bldg Mnt (eves) 501	CF 1L sm vandal, CFS-23w, CF ballast	1	NL017/sq - New LED surface mnt sq, 50,000-Hr L70 rated life, 17w (XT)	1
Rf#-53 Rm - Classroom 301	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-54 Rm - Ext-Bldg Mnt (eves) 301	CF 1L sm vandal, CFS-23w, CF ballast	1	NL017/sq - New LED surface mnt sq, 50,000-Hr L70 rated life, 17w (XT)	1
Rf#-55 Rm - Classroom 800	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	30	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	30
Rf#-56 Rm - Classroom 800 - Storage Room	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-57 Rm - Classroom 800 - Entry	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-58 Rm - Classroom 800 - Office/Computer	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-59 Rm - Ext-Bldg Mnt (eves) 800	CF 1L sm vandal, CFS-23w, CF ballast	1	NL017/sq - New LED surface mnt sq, 50,000-Hr L70 rated life, 17w (XT)	1

Building/Area: Wing 400's

1st Floor

Rf#-70 Rm - Classroom 401	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	40	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	40
Rf#-71 Rm - Shared Office - 401 & 402	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-72 Rm - Shared Prep Area - 401 & 402	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-73 Rm - Classroom 402	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	40	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	40
Rf#-74 Rm - Classroom 405	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	18
Rf#-75 Rm - Shared Lab - 405 & 406	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	3	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-76 Rm - Classroom 406	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	18	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	18
Rf#-77 Rm - Ext-Bldg Mnt (eves)	HPS 1L sm square, HPS 50w, HID ballast	5	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	5
Rf#-78 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm dome, HPS 70w, HID ballast	5	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	5

Building/Area: Wing 600's

1st Floor

Rf#-60 Rm - Classroom 601	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	24
Rf#-61 Rm - Classroom 602	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	24
Rf#-62 Rm - Classroom 603	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	24
Rf#-63 Rm - Classroom 604	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	25	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	25
Rf#-64 Rm - Electrical Storage	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-65 Rm - G RR	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Lloyd G. Johnson Junior High - 938 Wildwood Rd, Arbutle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-66 Rm - Janitor Closet	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-67 Rm - B RR	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-68 Rm - Ext-Bldg Mnt (eves)	HPS 1L sm square, HPS 50w, HID ballast	5	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	5
Rf#-69 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm dome, HPS 70w, HID ballast	7	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	7

Qty for Lloyd G. Johnson Junior High :

639

639

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Pierce High - 960 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty

Building/Area: Admin Wing A

1st Floor

Rf#-1 Rm - Admin Open Office Area	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	6
Rf#-2 Rm - Admin Office	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-3 Rm - Principal's Office	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	4
Rf#-4 Rm - Auditorium (high ceiling)	Inc. 1L pm indirect, Inc. 150w A21, n/a	10	NL037/sq/s - New LED surface mnt sq, 100,000-Hr L70 rated life, 37w (VS), on board occ sensor oemb	10
Rf#-5 Rm - Auditorium (lower ceiling)	Inc. 1L pm indirect, Inc. 60w A19, n/a	6	NL027/sq/s - New LED surface mnt sq, 100,000-Hr L70 rated life, 27w (VS), on board occ sensor oemb	6
Rf#-6 Rm - Auditorium Stage	1x8x 2L sm fxt, F96T12 60w, 2L magnetic ballast	6	RLT844bk - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, (1) new electronic ballast/ driver, (1) 8' to 4' coversion kit	6
Rf#-7 Rm - Auditorium Storage	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-8 Rm - Boy's Restroom	4' 3L sm fxt, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-9 Rm - Girl's Restroom	4' 3L sm fxt, F32T8 32w, 3L N electronic ballast	1	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-10 Rm - Room 8	4' 4L pm fxt, F32T8 32w, 4L N electronic ballast	10	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	10
Rf#-11 Rm - Room 8 office	4'x 4L sm fxt, F32T8 32w, 4L N electronic ballast	1	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-12 Rm - Room 7	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	12
Rf#-13 Rm - Room 6	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	12
Rf#-14 Rm - Room 5	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	12
Rf#-15 Rm - Room 4	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1hd	12
Rf#-16 Rm - Cafeteria (to be remodeled)	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-17 Rm - Cafeteria (to be remodeled)	4' 4L pm fxt, F32T8 32w, 4L N electronic ballast	6	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-18 Rm - Kitchen (to be remodeled)	4' 4L pm fxt, F32T8 32w, 4L N electronic ballast	3	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-19 Rm - Kitchen Storage (to be)	CF 1L sm fxt, CFP-15w, CF ballast	1	DND - DND: (do not do, fixtures left as is)	1
Rf#-20 Rm - Kitchen Office (to be remodeled)	CF 1L sm fxt, CFP-15w, CF ballast	1	DND - DND: (do not do, fixtures left as is)	1
Rf#-21 Rm - Kitchen Storage (to be)	CF 1L sm fxt, CFP-15w, CF ballast	1	DND - DND: (do not do, fixtures left as is)	1
Rf#-22 Rm - Kitchen Exhaust Hood (to be)	Inc. 1L sm fxt, Inc. 100w A19, n/a	3	DND - DND: (do not do, fixtures left as is)	3
Rf#-23 Rm - Classroom 12 (to be remodeled)	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-24 Rm - Library	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	15	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	15
Rf#-25 Rm - Computer Lab	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	8	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	8
Rf#-26 Rm - Library Office	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	2
Rf#-27 Rm - Main Building Corridor	1x8 x1L sm fxt, F96T8 59w, 2L N electronic ballast	41	RL040/skit - (2) 4' LED 20w linear led strip kit, 50,000-Hr L70 rated life, 120/277, 4000K L-D	41
Rf#-28 Rm - Classroom 3B	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	24	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	24
Rf#-29 Rm - Classroom 3A	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	17	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	17
Rf#-30 Rm - Classroom 2	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	21	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	21

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Pierce High - 960 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-31 Rm - Classroom 1	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	30	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	30
Rf#-32 Rm - Staff Workroom	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	7	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast C1	7
Rf#-33 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack large, HPS 150w, HID ballast	6	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	6

Building/Area: Adult Ed Portables

1st Floor

Rf#-47 Rm - Room 1 (used for storage)	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	8	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	8
Rf#-48 Rm - Exterior Room 1 (used for storage)	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-49 Rm - Room 2 (used for storage)	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	12
Rf#-50 Rm - Room 2 RR (used for storage)	2x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-51 Rm - Exterior Room 2 (used for storage)	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-52 Rm - Exterior Room 2 (used for storage)	MV 1L wm barn light, MV 175w, HID ballast	1	NL040/brn - New LED area "barn light", 50,000-Hr L70 rated life, 40w, twist lock photo cell	1
Rf#-53 Rm - Room 3 Adult ED	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-54 Rm - Room 3 Adult ED Office #1	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	2	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	2
Rf#-55 Rm - Room 3 Adult ED Office #2	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	2	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	2
Rf#-56 Rm - Room 3 Adult ED B RR	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	1	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	1
Rf#-57 Rm - Room 3 Adult ED G RR	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	1	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	1
Rf#-58 Rm - Exterior Room 3	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1

Building/Area: Ag Bldg.

1st Floor

Rf#-93 Rm - Classroom	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	20	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	20
Rf#-94 Rm - Storage Room #1	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	3	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-95 Rm - Storage Room #2	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	3	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-96 Rm - B RR	CF 2L rec can hor, CFP-15w, CF ballast	7	RL013/ckit - (1) LED 6" rec can kit, 4000K, 8.5/13/21w, 120/277, 50,000-Hr L70 rated life	7
Rf#-97 Rm - G RR	CF 2L rec can hor, CFP-15w, CF ballast	7	RL013/ckit - (1) LED 6" rec can kit, 4000K, 8.5/13/21w, 120/277, 50,000-Hr L70 rated life	7
Rf#-98 Rm - Atrium lobby	CF 3L sm box, CFP-15w, CF ballast	4	RL0131/h - (1) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	4
Rf#-99 Rm - Atrium lobby	CF 2L wm sconce, CFP-15w, CF ballast	8	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	8
Rf#-100 Rm - Display Case (in above rm)	1x4x 2L sm strip (cove), F40T12 34w, 2L magnetic ballast	4	RLT842b - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, (1) new electronic ballast/ driver	4
Rf#-101 Rm - Engine Shop (6-lamp)	1x4x 3L pm high bay, F32T8 32w, 3L N electronic ballast	40	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	40
Rf#-102 Rm - Office	2x4x 3L sm box, F32T8 32w, 3L N electronic ballast	2	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-103 Rm - Large Engine Shop (6-lamp)	1x4x 3L pm high bay, F32T8 32w, 3L N electronic ballast	60	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	60
Rf#-104 Rm - Ag Mechanics Complex -	1x4x 2L sm strip, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-105 Rm - Storage Room	1x4x 2L sm box, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-106 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack FT, HPS 100w, HID ballast	6	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	6

W* = wall switch sensor; C* = ceiling sensor; E* = existing sensor

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Pierce High - 960 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-107 Rm - Ext-Bldg Mnt (eves)	CF 1L rec sqaure, CFS-15w, CF ballast	3	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	3
Rf#-108 Rm - Ext-Pole Mnt (Drive and Path)	LED Post top pols, LED 50w, n/a	5	DND - DND: (do not do, fixtures left as is)	5

Building/Area: Arbuckle Children Cnt

1st Floor

Rf#-145 Rm - All spaces (not the district)	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0
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Building/Area: IT Bldg Portable

1st Floor

Rf#-136 Rm - Main Open Area	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-137 Rm - IT Bldg Office	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	2	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	2
Rf#-138 Rm - Staff RR	2x2x 2L rec trf, FB31T8 32w, 2L N electronic ballast	1	RL030/tkit2 - (1) LED 30w 2x2 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	1
Rf#-139 Rm - break room	2x2x 2L rec trf, FB31T8 32w, 2L N electronic ballast	1	RL030/tkit2 - (1) LED 30w 2x2 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	1
Rf#-140 Rm - Server Room	2x2x 2L rec trf, FB31T8 32w, 2L N electronic ballast	1	RL030/tkit2 - (1) LED 30w 2x2 rec trf kit w/volumetric lens 70,000-Hr L70 rated life	1
Rf#-141 Rm - IT Room #1	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	3	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	3
Rf#-142 Rm - IT Room #2	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	2	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	2
Rf#-143 Rm - IT Room #3	2x4x 4L rec trf, F32T8 32w, 2L N electronic ballast	3	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	3
Rf#-144 Rm - Ext-Bldt Mnt (walls)	CF 1L wm vandal, CFP-26w, CF ballast	2	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	2

Building/Area: North Gym E

1st Floor

Rf#-34 Rm - North Gymnasium	MH 1L pm high bay, MH 250w, HID ballast	12	NL106/hb/s - New LED area interior high bay, 75,000-Hr L70 rated life, lens, wire guard, 106w, onboard dimming OCC sensor oemb	12
Rf#-35 Rm - North Gymnasium	Vending Machine (drink), n/a, n/a	2	VM170 - Vending Machince controller with occupancy sensor (Drink)	2
Rf#-36 Rm - North Gym Office	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-37 Rm - North Gym Storage	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-38 Rm - North Gym Locker #1 entry	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-39 Rm - North Gym Locker #1 open area	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-40 Rm - North Gym Locker #1 RR	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-41 Rm - North Gym Locker #2 entry	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-42 Rm - North Gym Locker #2 open area	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-43 Rm - North Gym Locker #2 RR	1x4x 2L sm wp, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-44 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack large, HPS 150w, HID ballast	2	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	2
Rf#-45 Rm - Ext-Bldg Mnt (walls)	MV 1L wm barn light, MV 250w, HID ballast	1	NL040/brn - New LED area "barn light", 50,000-Hr L70 rated life, 40w, twist lock photo cell	1
Rf#-46 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack FT, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Building/Area: Pool Area

1st Floor

Rf#-59 Rm - All Interior Space	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0
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Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Pierce High - 960 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-60 Rm - All Exterior Space	DND (do not do, left as is), n/a, n/a		DND - DND: (do not do, fixtures left as is)	0

Building/Area: Portables

1st Floor

Rf#-61 Rm - Room TG	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-62 Rm - Room TG	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-63 Rm - Room TB	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	4	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-D	4
Rf#-64 Rm - Room TB	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-65 Rm - Portable P6	2x4x 4L rec trf, F32T8 32w, 4L N electronic ballast	9	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	9
Rf#-66 Rm - Portable P6	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-67 Rm - Portable P5	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-68 Rm - Portable P5	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-69 Rm - Portable P4	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-70 Rm - Portable P4	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-71 Rm - Portable P3	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-72 Rm - Portable P3	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-73 Rm - Portable P2	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	12	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	12
Rf#-74 Rm - Portable P2	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1
Rf#-75 Rm - Portable P1 Weight Room	2x4x 4L rec trf, F40T12 34w, 2L magnetic ballast	10	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	10
Rf#-76 Rm - Portable P1 Weight Room	CF 1L wm vandal, CFP-26w, CF ballast	1	NL012/wp - New LED wall pack full, 50,000-Hr L70 rated life, 12w, built in photo cell	1

Building/Area: Science D Wing

1st Floor

Rf#-126 Rm - Science Bldg - Lab Room	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	16	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	16
Rf#-127 Rm - Science Bldg - Science A	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	16	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	16
Rf#-128 Rm - Science Bldg - Science B	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	16	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	16
Rf#-129 Rm - Science Bldg - Office	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	5	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	5
Rf#-130 Rm - Science Bldg - Boy's Restroom	CF 2L fxt, CFS-15w, CF ballast	2	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	2
Rf#-131 Rm - Science Bldg - Girl's Restroom	CF 2L fxt, CFS-15w, CF ballast	2	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	2
Rf#-132 Rm - Ext-Bldg Mnt (eves)	CF 1L rec square, CFS-15w, CF ballast	6	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	6
Rf#-133 Rm - Ext-Bldg Mnt (wall)	HPS 1L flood, knuckle, HPS 100w, HID ballast	1	NL019/fld - New LED flood, knuckle mount, 50,000-Hr L70 rated life, 19w	1
Rf#-134 Rm - Ext-Bldg Mnt (wall)	MH 1L wall pack FCO, MH 100w, HID ballast	2	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	2
Rf#-135 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack large, HPS 150w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Building/Area: South Gym B

1st Floor

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Pierce High - 960 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-77 Rm - South Gym - Lobby	1x4x 2L pm ind hood, F32T8 32w, 2L N electronic ballast	12	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	12
Rf#-78 Rm - South Gym - Lobby	1x4x 2L rec trf, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-79 Rm - South Gym - Boy's Restroom	CF 1L rec sqare, CFS-15w, CF ballast	3	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	3
Rf#-80 Rm - South Gym - Girl's Restroom	CF 1L rec sqare, CFS-15w, CF ballast	3	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	3
Rf#-81 Rm - South Gym - Corridor	CF 1L rec sqare, CFS-15w, CF ballast	4	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	4
Rf#-82 Rm - South Gymnasium	1x8x 2L pm ind hood/ wg, F96T12HO 95w, 2L HO electronic ballast	38	NL158/hb/s - New LED area interior high bay, 75,000-Hr L70 rated life, lens, wire guard, 158w, onboard dimming OCC sensor oemb	30
Rf#-83 Rm - South Gymnasium	4' 3L pm fxt, F32T8 32w, 3L N electronic ballast	10	RLT843 - (3) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	10
Rf#-84 Rm - South Gym - Locker Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	16	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	16
Rf#-85 Rm - South Gym - Interior Locker	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	6	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	6
Rf#-86 Rm - South Gym - Office	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	4	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	4
Rf#-87 Rm - South Gym - Storage	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-88 Rm - South Gym - Restroom	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-89 Rm - South Gym - Entry	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-90 Rm - Ext-Bldg Mnt (walls)	Inc. 2L flood, Inc. 95w P38, n/a	3	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	3
Rf#-91 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack FT, HPS 100w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1
Rf#-92 Rm - Ext-Bldg Mnt (eves)	CF 1L rec sqare, CFS-15w, CF ballast	8	RL091/s - (1) LED 8.5w A19 screw in lamp, 4000K	8

Building/Area: Wood Shop C Wing

1st Floor

Rf#-109 Rm - Ag Classroom	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	16	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	16
Rf#-110 Rm - Janitor Closet	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	1	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-111 Rm - Corridor	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-112 Rm - Ag Lab	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	16	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	16
Rf#-113 Rm - Prep Room	4'x 4L sm fxt, F32T8 32w, 4L N electronic ballast	3	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-114 Rm - Office	4'x 4L sm fxt, F32T8 32w, 4L N electronic ballast	3	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-115 Rm - Elec Room	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-116 Rm - Drafting Room	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	16	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	16
Rf#-117 Rm - Storage	4'x 4L sm fxt, F32T8 32w, 4L N electronic ballast	3	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	3
Rf#-118 Rm - Wood Shop Room	2x4x 3L rec trf, F32T8 32w, 3L N electronic ballast	6	RL036/tkit - (1) LED 36w 2x4 rec trf kit w/volumetric lens 70,000-Hr L70 rated life L-DS	6
Rf#-119 Rm - Wood Shop Lockers	1x4x 2L sm fxt, F32T8 32w, 2L N electronic ballast	2	RLT842 - (2) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	2
Rf#-120 Rm - Wood Shop Tools	4'x 4L sm fxt, F32T8 32w, 4L N electronic ballast	1	RLT844 - (4) 4' LED T8 lamp 12w, 50,000-Hr L70 rated life, re-use existing electronic ballast	1
Rf#-121 Rm - Wood Shop	1x4x 2L pm fxt, F54T5HO 54w, 2L HO electronic ballast	16	RLT542 - (2) 4' LED T5 lamp 24w, 50,000-Hr L70 rated life, re-use existing electronic ballast	16
Rf#-122 Rm - Wood Shop B RR	CF 2L sm fxt, CFP-15w, CF ballast	2	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	2

Pierce Joint Unified School District - Lighting Detail Report
(sorted by building, floor, area)



Pierce High - 960 Wildwood Rd, Arbuckle CA 95912

PRE-RETROFIT			POST RETROFIT	
Location	Existing Fixture Description	Qty	Retrofit Code Description (Sensor in RED)	Qty
Rf#-123 Rm - Wood Shop G RR	CF 2L sm fxt, CFP-15w, CF ballast	2	RL0132/h - (2) LED 4 pin lamp, direct wire, 120/277v, 10.5w, 50,000-Hr L70 rated life	2
Rf#-124 Rm - Ext-Bldg Mnt (wall)	MH 1L wall pack FCO, MH 100w, HID ballast	8	RL0181/s - (1) LED 18w A19 style screw in lamp, 120/277, 50,000-Hr rated life	8
Rf#-125 Rm - Ext-Bldg Mnt (walls)	HPS 1L wm wall pack large, HPS 150w, HID ballast	1	NL030/wp/ft - New LED wall pack (FT), 50,000-Hr L70 rated life, 30w	1

Qty for Pierce High : **957**

949

Attachment “C”
Mechanical Equipment Schedule

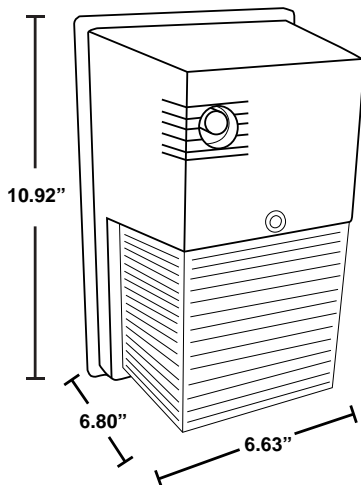
Arbuckle Elementary - HVAC Inventory

Location Served	Equipment	Quantity	Existing Equipment				
			Manuf.	Model No.	Capacity / Size	Year	Like for Like Replacement
Classroom	Packaged Gas / Elec	1	Payne	580AP036	3	1989	✓
Classroom	Packaged Gas / Elec	1	Payne	580AP036	3	1989	✓
Classroom	Packaged Gas / Elec	1	Payne	580AP036	3	1989	✓
Classroom	Packaged Gas / Elec	1	Payne	580AP036	3	1988	✓
Classroom	Packaged Gas / Elec	1	Carrier	48HJD005	4	1993	✓
Classroom	Packaged Gas / Elec	1	Carrier	48HJD005	4	1993	✓
Classroom	Packaged Gas / Elec	1	Carrier	48HJD005	4	1993	✓
Classroom	Packaged Gas / Elec	1	Carrier	48HJD005	4	1993	✓
Classroom	Packaged Gas / Elec	1	Carrier	48HJD005	4	1993	✓
Portable 22	Wall Mount G/E	1	Bard	WAG40C-A5	3.5	1996	✓
Portable 23	Wall Mount G/E	1	Bard	WAG40C-A5	3.5	1996	✓
Portable 24	Wall Mount G/E	1	Bard	WAG40C-A5	3.5	1996	✓
Portable 25	Wall Mount G/E	1	Bard	WAG40C-A5	3.5	1996	✓
Portable 26	Wall Mount G/E	1	Bard	WAG40C-A5	3.5	1996	✓
Portable 18	Wall Mount HP	1	Bard	WH42	3.5	1999	✓

Attachment “D”
Technical Appendix

TRADITIONAL SECURITY LIGHT WITH PHOTOCELL

SEC SERIES



PRODUCT DESCRIPTION:

MaxLite's ENERGY STAR®-qualified 12-watt MaxLED® Security Light Fixture with dusk-to-dawn PhotoCell provides optimal illumination for outdoor commercial and industrial environments. Available in an architectural bronze finish, the fixture saves up to 81% of the energy consumed by incumbent lamps, and is backed by MaxLite's five-year limited warranty.

FEATURES:

- Replaces up to 70-watt high-pressure sodium
- Maintenance free and constructed without any hazardous materials
- Mounts to recessed junction box or directly to a wall
- Conduit holes on back and bottom for mounting and wiring flexibility
- 5 Year limited warranty

CONTROLS:

120VAC/208-277VAC Photocontrol: Photocontrol powers the fixture when light levels reach 20 lux or below, and turn it off at 30 lux or higher. The operating temperature of the photocontrols are -30°F - 120°F. Photocell mounted internally.

MODEL SELECTION (Full list of order codes on pg. 2)

Typical order example: SEC12U50BPC27

SEC	12U	50	B	
FAMILY	NOMINAL WATTAGE, EQUIVALENCY	CCT	FINISH	PHOTOCONTROL
SEC= Security Light	12U= 12W, 70W High Pressure Sodium equivalent	50= 5000K	B= Bronze	PC12= 120V PC27= 208-277V

SPECIFICATIONS:

ITEM	SPECIFICATION	DETAILS	
		SEC12U50BPC12	SEC12U50BPC27
GENERAL PERFORMANCE	Lumens Delivered (lm)	1,300	1,225
	Efficacy (lm/W)	107	97
	CCT	5000K	
	Lumen Maintenance (L70, TM-21 @ 25°C)	135,000 hours	
	Color Rendering Index (CRI)	> 80	
ELECTRICAL	Input Voltage (V)	120V, 60Hz	208-277V, 60Hz
	Power Factor	> 0.99	> 0.90
	Input Power (W)	12	
PHYSICAL	Mounting	Can be mounted to recessed outlet box or directly to walls	
	Operating Temperature	-30°F-115°F	
	Lens	Impact- and UV-resistant polycarbonate	
	Housing	Aluminum and polycarbonate	
APPLICATION	Certification	cETLus, LM-79, LM-80, TM-21	
	Environment	Outdoor wet locations	
	Humidity	20% - 85% RH, non condensing	
	Warranty	5 Years	

ORDERING*:

ORDER CODE	MODEL	OPTIONS	VOLTAGE (V)	NOMINAL POWER (WATTS)	CCT	FINISH
76589	SEC12U50BPC12	Photocontrol	120	12	5000K	Bronze
76700	SEC12U50BPC27	Photocontrol	208-277	12	5000K	Bronze

*Please contact your MaxLite representative to order products that don't have order codes listed here.

CONSTRUCTION:

FIXTURE: The heavy duty die-cast, powder-coat aluminum base, with a one-piece injection molded polycarbonate prismatic lens/housing masked and painted for a seamless cover. The fixture is gasketed and assembled with two screws to produce a sealed fixture that is free of water, dirt and insects.

LENS: Polycarbonate lens with UV stabilizers

LED MODULE: Aluminum components in the LED module act as a heat sink to reduce heat and ensure long life. The module uses directional settings to control the fall of light and the light levels. This fixture is an efficient replacement for metal halide and incandescent fixtures that reduces wattage and extends life.

LED DRIVER: Self contained driver meets UL 1310 UL 48 Class2

FINISH: The bronze base is powder-coat painted, and the housing is masked and painted bronze to match the base.

INSTALLATION: Can mount to recessed J-box or directly to the wall

Project Name	Type
Catalog #	Date

COMPACT SQUARE CANOPY LED



AT A GLANCE

APPLICATION

WALKWAY/CANOPY

REPLACES	INPUT WATTS	LUMENS	LUMENS PER WATT
100W HID	37W	3444	94

FEATURES

- Energy-efficient replacement for up to 100W HID and 3 lamp T5HO fluorescent.
- Low-wattage, high-efficiency, patent-pending LEDLinX® array.
- High Color Rendering Index (CRI).
- Rugged construction.
- Exceptional lumen maintenance.

CONSTRUCTION

- Housing - prepainted white aluminum.
- Finish - RoHS compliant, low VOC. TGIC polyester bronze powder coat. Custom colors available upon request.
- Polycarbonate lens sealed to door frame.

ELECTRICAL

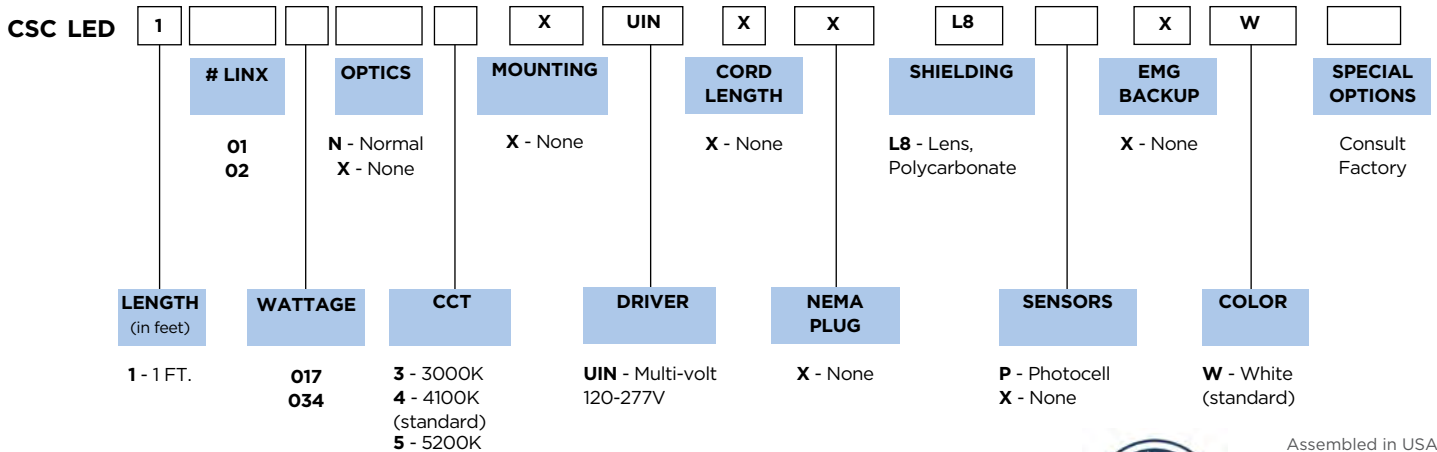
- LED Module - One (1) or Two (2) LEDLinX® Modules.
- Driver - 24VDC electronic power supply, factory calibrated to LED modules.
- Rated Life - >100,000 hours at 70% initial lumens (L₇₀).
- Voltage - 120-277VAC input. Optional 480V.
- Wiring - Quick disconnect allows for ease of maintenance.
- Photocell option.
- Conforms to UL 1598/CSA 22.2. Suitable for wet locations.
- Complies with the Buy American Act.

WARRANTY

- 10 year limited warranty.

ORDER LOGIC

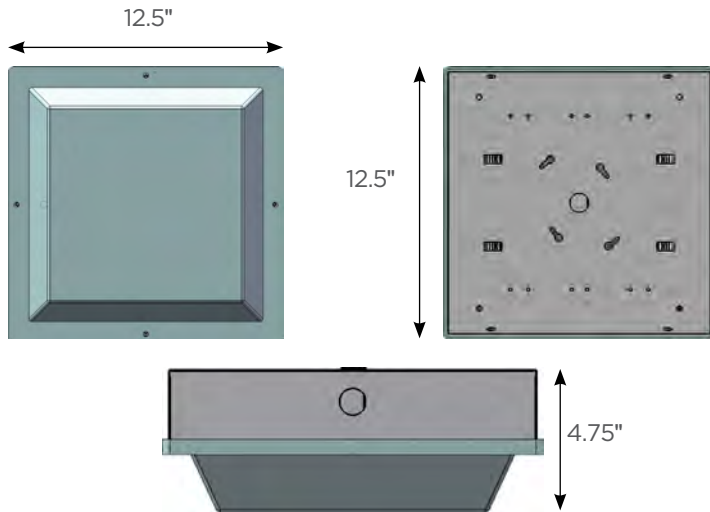
SAMPLE CATALOG NUMBER: CSCLED102034X5XUINXXL8XXW



Assembled in USA



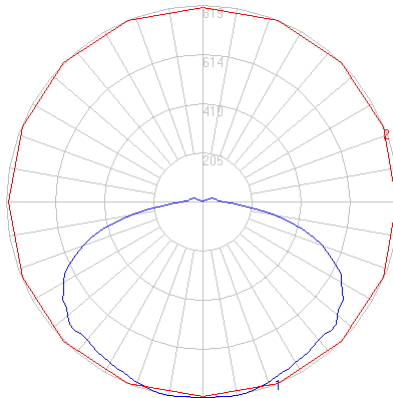
DIMENSIONAL DATA



PHOTOMETRIC DATA

CSC LED 34W

Catalog Number:
CSCLED102034X5XUINXXL8XXW
Report Number: ATAL004723.ies
Issue Date: 5/5/14
Prepared for: XtraLight
Manufacturing, Ltd.
Prepared by: American Testing
and Assessment Laboratories
Lamp: 2 modules w/ sealed lens
Total Input Watts: 36.5
Efficacy: 94 Lm/W
Total Lumens: 3444



CANDELA DISTRIBUTION

	0	22.5	45	67.5	90
0	813	813	813	813	813
5	812	813	815	816	814
15	796	809	814	805	794
25	750	772	785	771	745
35	685	725	766	731	683
45	640	711	758	688	630
55	593	671	714	640	557
65	495	589	611	509	422
75	274	382	431	338	236
85	85	133	168	133	77
90	51	76	86	75	48

NOTE: Data shown is absolute for product shown.



D-Series LED Flood Luminaire, Size 1

Precision Lighting. Unbelievable Savings. The D-Series Size 1 offers a wide variety of optical choices in a sleek, sophisticated design. Next-generation LED technology and precision engineered optics provide enhanced optical control and deliver exceptional on-target distributions with superior energy efficiency.

Quick **FACTS**

- 50-175W MH replacement
- Lumen packages up to 3,675 lumens
- Efficacies of up to 93 lumens per watt
- Multiple optics, covering spot to wide flood distribution
- Available in 3000K, 4000K & 5000K CCT
- 6kV surge protection
- Weight: 7.3 lbs; EPA: 0.60 ft²

Key **FEATURES**

- Energy savings of 80% vs. comparable metal halide luminaires. Saves up to \$74 per luminaire, per year over 175W metal halide
- 30-45% more lumens per watt than comparable LED luminaires
- 20+ years expected service life with high lumen maintenance - L84/100,000 hours
- Adjustable knuckle mount allows for precise aiming



d^oseries
better lighting from every angle™



D-Series LED Flood Luminaire, Size 1

ORDERING INFORMATION

EXAMPLE: DSXF1 LED 2 A530/40K MSP MVOLT THK DDBXD

DSXF1 LED								
Series	Light Engines	Performance Package	Distribution	Voltage	Mounting	Options	Finish (required)	
DSXF1 LED	1 One COB engine	530 mA options: A530/30K 3000K	NSP Narrow spot	MVOLT ¹	THK Knuckle with 1/2" NPS threaded pipe	Shipped installed PE Photocontrol, button style ³ SF Single fuse (120, 277V) ⁴	Shipped separately ² UBV Upper/bottom visor (universal) FV Full visor VG Vandal guard	DDBXD Dark bronze
	2 Two COB engines	A530/40K 4000K A530/50K 5000K	MSP Medium spot MFL Medium flood FL Flood WFL Wide flood WFR Wide flood, rectangular HMF Horizontal flood	120 ¹ 208 ¹ 240 ¹ 277 ¹				Shipped separately ² DSXF1/2TS Tenon slipfitter (2-3/8" O.D. THK required)

Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number
DSXF1 LED 1 A530/40K WFL MVOLT THK DDBXD	DSXF1 LED 1 40K
DSXF1 LED 1 A530/50K WFL MVOLT THK DDBXD	DSXF1 LED 1 50K
DSXF1 LED 2 A530/40K WFL MVOLT THK DDBXD	DSXF1 LED 2 40K
DSXF1 LED 2 A530/50K WFL MVOLT THK DDBXD	DSXF1 LED 2 50K

Accessories

Ordered and shipped separately.

DSXF1/2TS DDBXD U	Slipfitter for 1-1/4" to 2-3/8" OD tenons; mates with 1/2" threaded knuckle (specify finish)
FRWB DDBXD U	Radius wall bracket, 2-3/8" OD tenon (specify finish)
FSPB DDBXD U	Steel square pole bracket, 2-3/8" OD tenon (specify finish)
DSXF1UBV DDBXD U	Upper/bottom visor accessory (specify finish)
DSXF1FV DDBXD U	Full visor accessory (specify finish)
DSXF1VG U	Vandal guard accessory

NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF option) or photocontrol (PE).
- Also available as separate accessories; see Accessories information at left.
- Photocontrol (PE) requires 120, 208, 240 or 277 voltage option.
- Single fuse (SF) requires 120 or 277 voltage option.



WP Series

LED WallPack

Features

- Long life (50k Hrs+)
- moisture resistant enclosure
- Utilizes Osram PrevaLED® boards and Optotronic® drivers
- Wide range of constant current outputs available
- Available in 30W, 50W and 85W Configurations



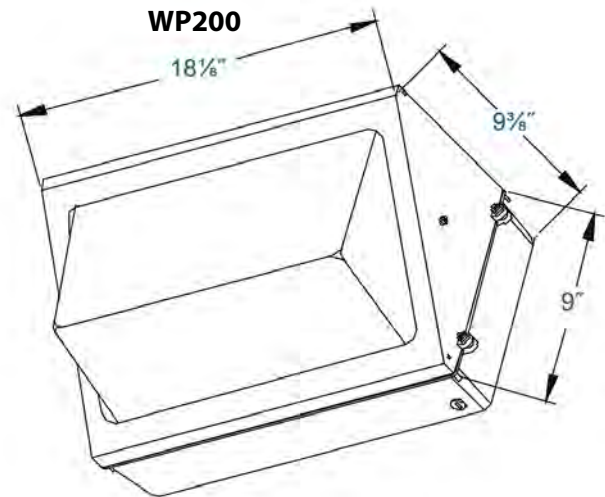
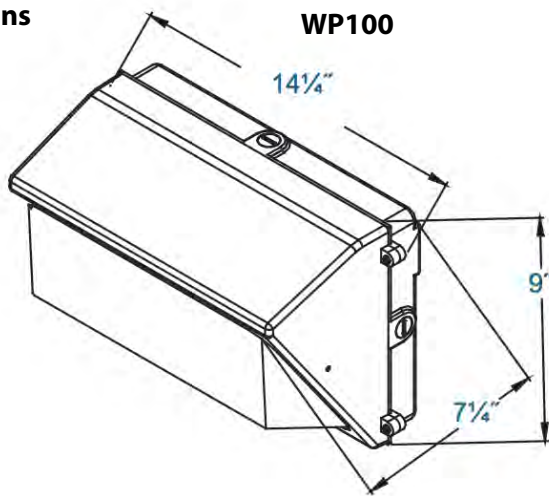
Technical Data

Housing: Die cast aluminum housing & hinged front frame, ½" coin plugs with O-rings for conduit & photocell, textured architectural bronze powdercoat finish over a chromate conversion coating.

Light Engine	Lumens	Replaces
P2H	2848	70-100W
P3H	5001	100-175W
P6H	8504	175-250W

LEDs: OSRAM's PrevaLED linear light engine system combines a 2-inch diameter module using high-efficacy LEDs and on-board active intelligent control.

Dimensions



Ordering Information

Part Number = Style + Size + Light Engine + Color Temp
 Ex. (F-WP100-P2H-40 = Wall pack with 3 modules 40K)

Style	Size	Light Engine	Color Temp.
F - Fixture	*WP100	P2H - 2 Modules - 30W	40K
	WP200	P3H - 3 Modules - 50W	50K
		P6H - 6 Modules - 85W	

*WP100 only available in P2H

DUSK-TO-DAWN DDL MULTIPURPOSE LED LUMINAIRE

Cat.#	
Job	Type



Approvals

SPECIFICATIONS

Intended Use:

Multi-purpose dusk-to-dawn LED luminaire provides general purpose area/security, roadway and landscape lighting. For operation in -35°C - 40°C ambient temperatures.

Construction:

- Rugged die-cast aluminum housing with both 2-3/8" & 1-5/8" OD mast arm mount capability as well as direct wall/surface mounting; Textured gray powder paint provides corrosion resistance and clean finish

LED:

- 9 high power LEDs deliver 3437 lumens with symmetrical lens and 3246 with asymmetrical lens
- 5100 CCT, 67 CRI

Optical/Electrical

- Symmetric LED lens installed standard
- Field rotatable asymmetric LED lens included for pathway/ roadway applications
- 120V operation with integral surge protection, 50/60Hz
- 120V twist-lock style photocontrol included
- Refractor provides enhanced security lighting and LED brightness control
- Zero uplight design for environmentally friendly installations

Installation:

Versatile mounting options include:

- Three 1/4" slots for wall/surface
- 24" (18" projection) aluminum mast arm included
- Mast arm clamp adjusts to 2-3/8" or 1-5/8" OD arms

Listings:

- Meets DesignLights Consortium (DLC) qualifications
- Listed to UL1598 for use in wet locations
- Driver IP66 and RoHS compliant
- EPA = 0.5

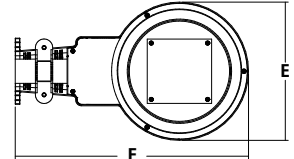
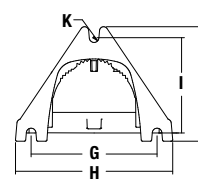
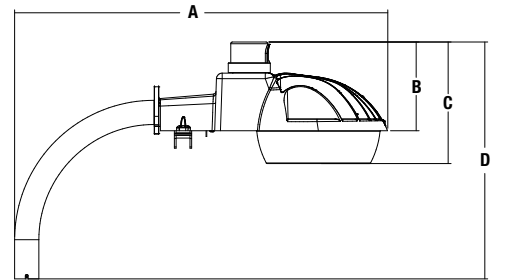
Warranty:

For more information visit:
<http://www.hubbelloutdoor.com/resources/warranty/>

PRODUCT IMAGE(S)



DIMENSIONS



A	B	C	D	E	F
29.72"	6"	8.25"	16.19"	9.45"	16"
754 mm	152 mm	209 mm	411 mm	240 mm	406 mm
G	H	I	J	K	
3.62"	4.52"	2.74"	3.29"	.138"	
92 mm	115 mm	69 mm	84 mm	3.5 mm	

CERTIFICATIONS/LISTINGS



SHIPPING INFORMATION

Catalog Number	G.W(kg)/CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
DDL-9L-1 (Single carton 1pc.)	4.57	17.83"	14.49"	7.68"
DDL-9L-1 (Master carton 2 pcs.)	10.00	18.23"	14.88"	16.34"

Carton dimensions for shipping purposes only - Pallet Quantity 40

ORDERING INFORMATION

Catalog Number	Construction	Mount	Wattage	Drive Current	Voltage	Color Temperature	Lumens	LPW	Weight lbs. (kg)
DDL-9L-1	Die-cast aluminum	Arm/Wall/Surface	40	1280mA	120V	5100K	3437	86	6.8 (3.08)

ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
DDL-DRIVER-120V	Driver for DDL9L - 120V
DDL-LENS2	LED Asymmetric lens for DDL-9L
DDL-LENS5	LED Symmetric lens for DDL-9L
DDL-REFR	Refractor for DDL-9L



Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5100K nominal, 67 CRI)				
				LUMENS	LPW	B	U	G
9	1280mA	40W	Symmetric	3437	86	1	0	1
9	1280mA	40W	Asymmetric	3246	81	1	0	1

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment, application and inherent performance tolerances of the electrical components.

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99
50°C	122°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

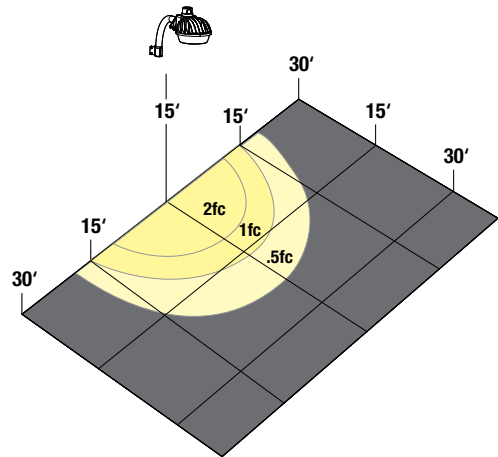
PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	OPERATING HOURS					Calculated L70 (HOURS)
	0	25,000	50,000	¹ TM-21-11 60,000	100,000	
40°C / 104°F	0.99	0.94	0.91	0.89	0.84	>216,000

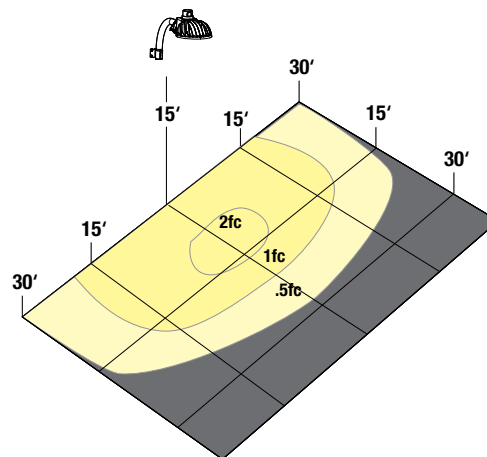
ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (W)
9	1	STD. (1280mA)	120	0.35	40

PHOTOMETRICS For additional photometric information and IES downloads, visit our web site at www.hubbelloutdoor.com

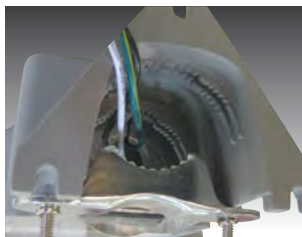


Symmetric LED lens

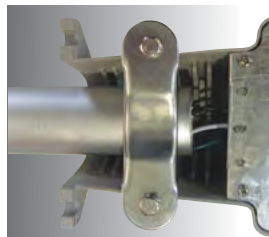


Asymmetric LED lens

MOUNTING OPTIONS



Dual rows of serrated teeth ensure positive grip on mast arm, preventing loosening due to continuous vibration



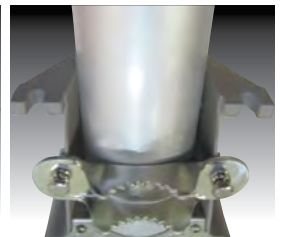
Bottom view of stainless steel mast arm clamp



Stainless steel mast arm clamp is reversible accommodating either 2-3/8" or 1-5/8" OD arms



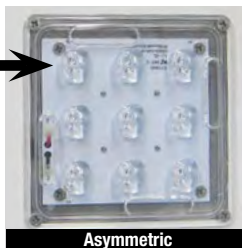
Mast arm clamp easily adjusts to 1-5/8" OD arms with two 3/8" bolts



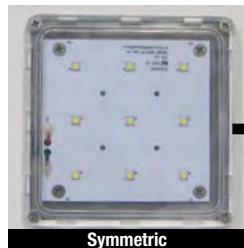
Reversible clamp easily adjusts to 2-3/8" OD arms with two 3/8" bolts



Molded orientation marker for rotatable LED asymmetric lens, align lens with "house" icon for desired light direction



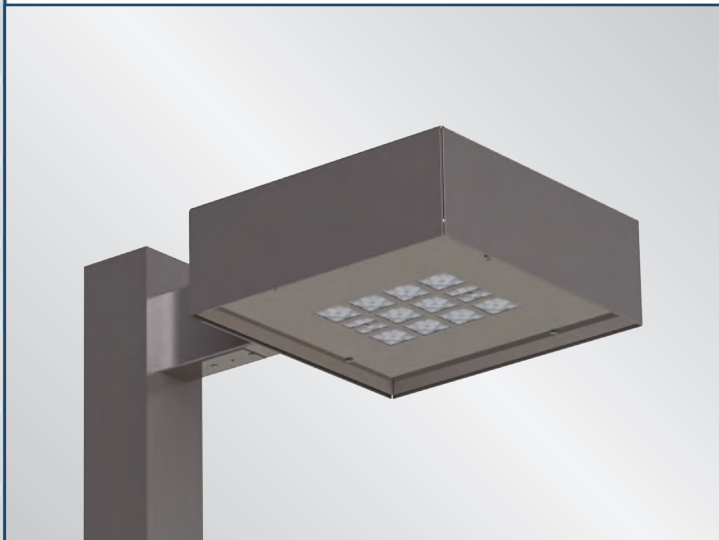
Asymmetric



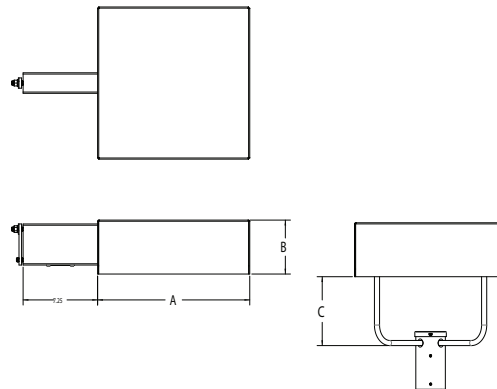
Symmetric



Field rotatable/exchangeable LED lenses included



Dimensional Drawings



Fixture	A	B	C	Max. LEDs	Lbs
PGS	15"	5.25"	7"	48	15

The new PGS LED luminaire from Visionaire combines contemporary design with new LED technology; while maintaining a traditional fixture image. The LEDs Performance and Life are maximized by the unique integral aluminum heat sink. It is an ideal replacement for the high-maintenance fluorescent or HID fixtures of yesterday.

Six optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LED's.

The LED housing is formed aluminum with internal heat sink for maximum heat dissipation; with either 16, 32 or 48 LEDs. The formed aluminum driver compartment allows the driver to operate cooler for long life. Available with a Low Profile Mount, and a Ceiling Mount for surface conduit mounting, Pendant Mounting, Bolt-On Arm or Spider Mount.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The PGS LED series is an exceptional choice for paths and roadways, pedestrian walkways, shopping centers, etc..

Model	Optics	Source	Milliamps	Kelvin	Voltage	Mounting	Finish	Options
PGS-1	Type I (T1) 	# of LEDs 16 (16LC)	mA 350 (3)	3000K *Warm white (3K)	120-277 *Universal voltage (UNV)	Low Profile Mount Ceiling Mount *No Conduit Feed (LPM)	Bronze (BZ)	Photocell & Receptacle *Specify Voltage (PCR120) (PCR208) (PCR240) (PCR277) *Specify BOA or Spider Mount
	Type II (T2) 	32 (32LC)	530 (5)	4000K *Neutral white (4K)	480 (5)	Ceiling Mount (CM)	Black (BK)	Photo & Receptacle with shorting cap (PER) *Specify BOA or Spider Mount
	Type III (T3) 	48 (48LC)	700 (7)	5000K *Cool white (5K)	347 (8)	Pendant Mount 12" (PM12) 24" (PM24) 36" (PM36)	White (WH)	Motion Sensor/Control Watt Stopper FSP-211 22' Distance @ 8' CLG HT Must specify Dimming Driver. *120V-277V Only (WSC)
	Type IV (T4) 	PGS Drill Diagram 				Spider Mount Fits 2 3/8" O.D. (SM)	Graphite (GP)	0-10v Dimming Driver No Controls (DIM)
	Type V (T5) 					Bolt On Arm (BOA)	Grey (GY)	10kV Surge Protector (10KV)
	Type V-W (T5W) 					Wall Mount *Cast wall plate (BAWP) to be ordered separately (WM)	Silver Metallic (SL)	Emergency Battery Pack *120V-277V Only (EBPL)
							Custom Color (CC)	Round Pole Plate Adaptors (RPP) to be ordered separately

For more detailed information on mounting, wiring or installation instructions, please consult factory. If poles are not ordered with fixtures, please specify mounting requirements. This document contains proprietary information of Visionaire Lighting, LLC. Any use of this information requires the written approval of Visionaire Lighting, LLC. In keeping with our TQM policy of continuous improvement, Visionaire reserves the right to change any specifications contained herein without prior notice.

Housing

Heavy duty formed aluminum housing with internal heat sink for maximum heat dissipation. Silicone gasket is used for weather tight operation.

Mounting

A Pre-Attached Aluminum, Bolt-on Arm (BOA), with bottom access, is supplied along with an in-pole nut plate; for fast and easy attachment to the pole.

A Low Profile, hinged, ceiling mount bracket, can be secured directly to a recessed junction box, or to the ceiling. A Ceiling Mount bracket with 3/4" knockouts is available for surface conduit mounting.

The ceiling hangar bracket on both versions allows the fixture to be suspended while making the wiring connections. The housing bracket then attaches to the ceiling bracket via a tamper-proof screw.

3/8" NPT stem and canopy supplied for pendant mount applications.

Thermal Management

The **PGS** series provides excellent thermal management by mounting the LEDs to the substantial heat sink within the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.

Optical System

• The highest lumen output LEDs are utilized. High-performance acrylic optics feature industry leading Type I, II, III, IV, V and V-W optical distributions. Acrylic optics are impact-resistant and rated to 94 percent translucence.

• L70 life of our LEDs is rated over 100,000 hours (for 350 mA), The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution for neighborhood-friendly lighting.

• CRI values are 70.

Quali-Guard Finish

The finish is a Quali-Guard textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400° F to promote

maximum adherence and finish hardness. All finishes are available in standard and custom colors.

Finish is guaranteed for five (5) years.

Electrical Assembly

The **PGS** LED series is supplied with a choice of 350, 530 or 700mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.

Warranty

Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit visionairelighting.com.

Options

- 0-10 Volt Dimming Driver
- Motion Sensor/Control Watt Stopper FSP-211
- 10 kV surge protector
- Emergency Battery Pack
- Photocell & Receptacle
- Photo & Receptacle
- Cast Wall Plate
- Universal Pole Mount Adapter
- Round Pole Plate Adapter

Listings

- PGS is UL listed, suitable for wet locations.
- DLC Listed
- IP65 Rated
- Powder Coated Tough



DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. <http://www.designlights.org/>

Ceiling Mount Detail



Spider Mount Detail



PGS 5000 K Lumen Data

# LEDs	mA	Type 1	Type 2	Type 3	Type 4	Type 5	Type 5 W	Watts
16	350	2,278	2,331	2,401	2,193	2,514	2,361	18
	530	3,273	3,207	3,304	3,018	3,459	3,249	26
	700	4,299	4,213	4,341	3,964	4,544	4,269	37
32	350	4,786	4,691	4,833	4,413	5,059	4,752	35
	530	6,631	6,499	6,696	6,115	7,010	6,584	52
	700	8,318	8,151	8,398	7,670	8,792	8,259	71
48	350	7,188	7,044	7,258	6,628	7,598	7,137	56
	530	9,994	9,794	10,091	9,216	10,565	9,923	80
	700	11,242	11,017	11,352	10,367	11,884	11,163	102

Visit www.VisionaireLighting.com for up-to-the-minute chart information, including types not listed here.

* For 4000K multiply values by 0.95 * For 3000K multiply values by 0.90

19645 Rancho Way Rancho Dominguez, CA 90220
Tel: (310) 512-6480 Fax: (310) 512-6486
www.visionairelighting.com

LEHB LED High Bay Series



The LEHB Series is the lighting solution for a wide variety of applications and mounting heights. Precision designed optics and a choice of lumen outputs and color temperatures make the energy-efficient LEHB the ideal solution for industrial, commercial and other high bay applications. LED technology allows power and light levels to be customized to meet both energy and design needs.

APPLICATIONS

- Warehouse
- Distribution Centers
- Food Processing Plants
- Retail
- Industrial
- Commercial

FEATURES

- Low maintenance
- Energy efficient
- Sensors can be integrated for additional energy savings
- Wireguard, emergency battery back-up and step dimming optional
- UL Compliant and DLC Premium Listed
- Projected L70: 180,000*

* Based on IES TM21 Projection

SPECIFICATIONS

- Die formed 24 gauge cold rolled steel body
- Post painted with high gloss baked white matte powder coat
- Frosted diffuser
- Available in 3 sizes
- Mounting: Chain or Cable Mount Ready (V- Hooks Included) Cord and plug options offered

TECHNICAL INFORMATION

- Light Source: LED Board
- Power Source: LED High Efficiency Power Supply
- Voltage: Universal 120 to 277
- CCT: 40K & 50K
- CRI: 80+
- Driver capable of 0-10V dimming
- Dimensions:
 (2FT/ 106WT) D 3.62" x L 23.8" x W 12.6"
 (2FT/ 158WT) D 3.62" x L 23.8" x W 17.3"
 (4FT/ 214WT) D 3.62" x L 47.5" x W 12.6"



LEHB LED High Bay Series

CATALOG ORDERING EXAMPLE: LEHB-22-106WT-40K-OS

LEHB			
------	--	--	--

FAMILY TYPE	LENGTH IN FEET/ WATTAGE	COLOR TEMPERATURE	OPTIONS
LEHB	22 - 106WT (1x2 Foot 106 Watt/ 13,266 lms)	40K (4000 Kelvin Temp)	OS (Occupancy Sensor)
	22 - 158WT (2x2 Foot 158 Watt/ 19,595 lms)	50K (5000 Kelvin Temp)	SDIM (Step-Dimming)
	24 - 214WT (1x4 Foot 214 Watt/ 27,071 lms)		WG (Wireguard)
			EMR (Emergency Battery)
			PRGOS (Programmable PIR Time Sensor)

Specifications and Dimensions subject to change without notice. Contact factory for updates. (909) 948-8878

SAFETY WARNING

FOR YOUR SAFETY, READ AND FOLLOW ALL INSTRUCTIONS TO PREVENT ELECTRIC SHOCK OR FIRE

- INSTALLATION REQUIRES KNOWLEDGE OF LIGHTING LUMINAIRE ELECTRICAL SYSTEMS**
 Contact qualified electrician prior to installation.
- DISCONNECT POWER BEFORE INSTALLATION**
- DO NOT ALTER PRE-EXISTING HOLES OR DRILL NEW HOLES**
- CHECK FOR INCLOSED WIRING COMPONENTS PRIOR TO DRILLING**
 Luminaire wiring, ballasts, power supplies or other electrical parts may be damaged.
- USE ONLY ON COMPATIBLE LUMINAIRES**
 Installation requires specific dimensions and construction features.
- PROTECT WIRING FROM ABRASION**
 Do not expose wiring to sharp objects or edges of sheet metal.

INSTALLATION INSTRUCTIONS

- Disconnect Power to the circuit supplying power to the fixture
- Removed the existing lamps and fixture
- Disassemble new fixture to allow access to the LED Driver
- Run existing power supply wires into fixture through fixture knock-out or end plug on fixture
- Mount the fixture to surface, or hang fixture with appropriate fixture mounting hardware or install fixture in T-bar Ceiling (*Be sure to follow local building codes for the appropriate fixture installation methods.*)
- Connect power supply wires to supplied wire disconnect to provide power to fixture
- Re-assemble fixture
- Re-connect power and check installation



Revised 4/25/16



GREENCREATIVE

Bringing You the Latest in LED Technology

INNOFIT
SERIES



CDL INNOFIT SERIES

COMMERCIAL DOWNLIGHT PRODUCT FEATURES

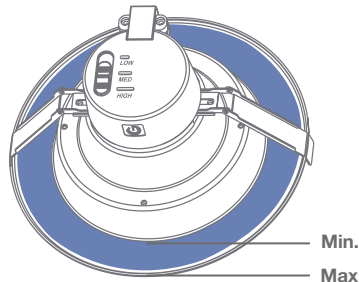
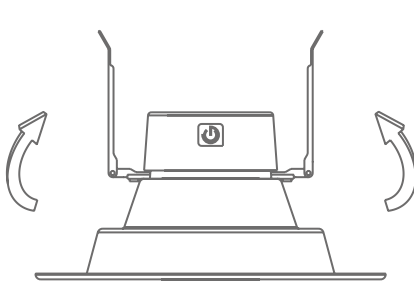
Adjustable Lumen Output

This commercial downlight features adjustable lumen output for three distinct lumen levels equivalent to various CFL lamp combinations. Simply adjust the lamp power to the desired lumen output by sliding the selector switch on top of the fixture.



Easy-Fit Installation

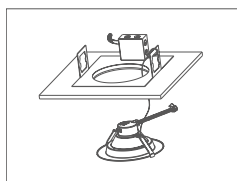
The adjustable housing clips allow for installation in a large range of commercial and architectural housings. These spring-action clips push up easily and fit securely for both retrofit and new construction installations.



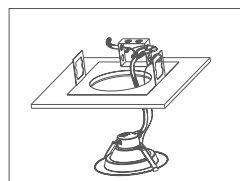
Housing Compatibility		
Model	Aperture Min.	Aperture Max.
9.5"	8.6" (220mm)	10.4" (265mm)
8"	7.6" (195mm)	9.4" (240mm)
6"	6.0" (153mm)	7.4" (190mm)
4"	3.9" (100mm)	5.1" (130mm)

Simple Retrofit or Economical New Construction Installation

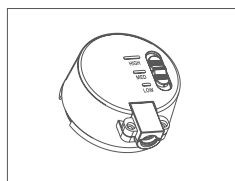
Retrofit Installation



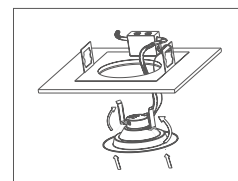
Attach safety clip



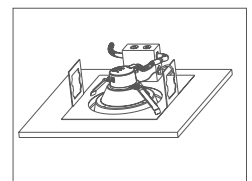
Bypass ballast & wire to j-box



Adjust lumens to desired output

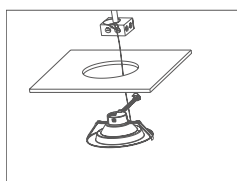


Push clips up & install into fixture

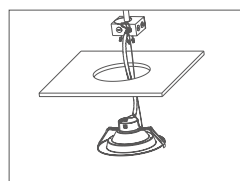


Ensure fixture is flush. Installation is complete

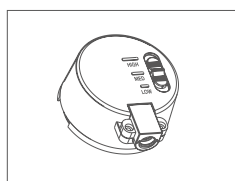
New Construction Installation



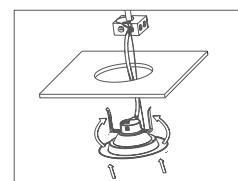
Attach safety clip



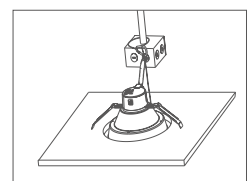
Wire to j-box



Adjust lumens to desired output



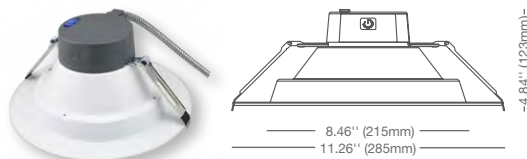
Push clips up & install into opening



Ensure fixture is flush. Installation is complete

CDL INNOFIT SERIES

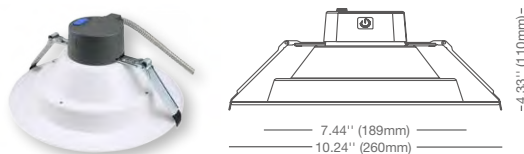
9.5" CDL 45W



- 120-277V Universal voltage
- 23.5W / 32W / 45W
- 2000lm / 2500lm / 3200lm
- 2700K / 3000K / 3500K / 4000K CCT

Fluorescent Equivalence		
Power	Lumens	Equivalent
LOW-23.5W	2000	1X42W / 2X26W
MED-32W	2500	1X57W / 2X32W
HIGH-45W	3200	2X42W

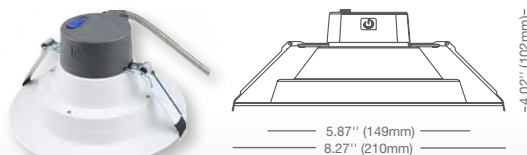
8" CDL 27W



- 120-277V Universal voltage
- 12W / 19W / 27W
- 1000lm / 1500lm / 2000lm
- 2700K / 3000K / 3500K / 4000K CCT

Fluorescent Equivalence		
Power	Lumens	Equivalent
LOW-12W	1000	1X26W / 2X13W
MED-19W	1500	1X32W / 2X18W
HIGH-27W	2000	1X42W / 2X26W

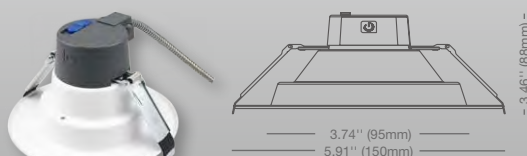
6" CDL 21W



- 120-277V Universal voltage
- 8.5W / 13.5W / 21W
- 700lm / 1000lm / 1500lm
- 2700K / 3000K / 3500K / 4000K CCT

Fluorescent Equivalence		
Power	Lumens	Equivalent
LOW-8.5W	700	1X18W
MED-13.5W	1000	1X26W / 2X13W
HIGH-21W	1500	1X32W / 2X18W

4" CDL 14W



- 120-277V Universal voltage
- 6W / 9W / 14W
- 500lm / 700lm / 1000lm
- 2700K / 3000K / 3500K / 4000K CCT

Fluorescent Equivalence		
Power	Lumens	Equivalent
LOW-6W	500	1X13W
MED-9W	700	1X18W
HIGH-14W	1000	1X26W / 2X13W








LM 79

LM 80

TM 21



SPECIFICATIONS*

	Model	Product	CCT	Power (W)	Lumens (lm)	LPW	Beam Angle	CRI (typ.)	Dim	Life (hrs)	Voltage	
 CDL 9.5\" 45W	45CDLA9.5/827/277V	57878	2700K	23.5/32/45	1860/2325/2975	79/73/66	110°	80	No	40,000	120-277V	Mar.
	45CDLA9.5/830/277V	57879	3000K	23.5/32/45	2000/2500/3200	85/78/71	110°	80	No	40,000	120-277V	Mar.
	45CDLA9.5/835/277V	57880	3500K	23.5/32/45	2000/2500/3200	85/78/71	110°	80	No	40,000	120-277V	Mar.
	45CDLA9.5/840/277V	57881	4000K	23.5/32/45	2000/2500/3200	85/78/71	110°	80	No	40,000	120-277V	Mar.
 CDL 8\" 27W	27CDLA8/827/277V	57873	2700K	12/19/27	930/1400/1860	78/74/69	110°	80	No	40,000	120-277V	✓
	27CDLA8/830/277V	57874	3000K	12/19/27	1000/1500/2000	83/79/74	110°	80	No	40,000	120-277V	✓
	27CDLA8/835/277V	57875	3500K	12/19/27	1000/1500/2000	83/79/74	110°	80	No	40,000	120-277V	✓
	27CDLA8/840/277V	57876	4000K	12/19/27	1000/1500/2000	83/79/74	110°	80	No	40,000	120-277V	✓
 CDL 6\" 21W	21CDLA6/827/277V	57868	2700K	8.5/13.5/21	650/930/1400	76/69/67	110°	80	No	40,000	120-277V	✓
	21CDLA6/830/277V	57869	3000K	8.5/13.5/21	700/1000/1500	82/74/71	110°	80	No	40,000	120-277V	✓
	21CDLA6/835/277V	57870	3500K	8.5/13.5/21	700/1000/1500	82/74/71	110°	80	No	40,000	120-277V	✓
	21CDLA6/840/277V	57871	4000K	8.5/13.5/21	700/1000/1500	82/74/71	110°	80	No	40,000	120-277V	✓
 CDL 4\" 14W	14CDLA4/827/277V	57863	2700K	6/9/14	465/650/930	78/72/66	110°	80	No	40,000	120-277V	Mar.
	14CDLA4/830/277V	57864	3000K	6/9/14	500/700/1000	83/78/71	110°	80	No	40,000	120-277V	Mar.
	14CDLA4/835/277V	57865	3500K	6/9/14	500/700/1000	83/78/71	110°	80	No	40,000	120-277V	Mar.
	14CDLA4/840/277V	57866	4000K	6/9/14	500/700/1000	83/78/71	110°	80	No	40,000	120-277V	Mar.

* Specification data is preliminary and may be subject to change
** Suitable for damp locations



GREEN CREATIVE
1200 Bayhill Drive, Suite 220
San Bruno, CA 94066


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info@greencreative.com
www.greencreative.com

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PL H 10.5W BYP TITANIUM LED SERIES



10.5W REPLACES



**26W
CFL**

60% Energy Savings

PRO



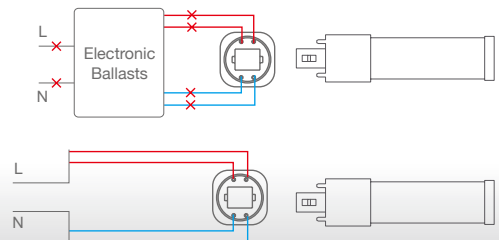
- ⌚ **HYBrid installation - DIrect or BYPass**
- ⌚ **Compatible with magnetic ballasts - DIrect installation**
- ⌚ **Built-in universal voltage driver - Bypass installation**
- ⌚ **Compatible with G24d, GX24d, G24q & GX24q bases**
- ⌚ **Exceptional efficacy 89 LPW**
- ⌚ **Lasts 4 times longer than CFL**



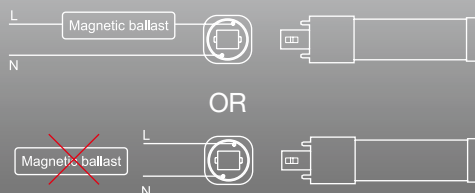
PL PRODUCT FEATURES

BYPass Installation - Electronic Ballasts

This PL H lamp is not compatible with electronic ballasts and requires bypassing the ballast during installation. The lamp runs directly off line voltage to eliminate compatibility problems, incidental power loss, lifetime issues, and maintenance costs associated with ballasts.



HYBrid Installation - DIrect or BYPass - Magnetic Ballasts



When used with a magnetic ballast, the PL H can function as a plug & play lamp and operate with the existing ballast. If the ballast is not compatible, it can be bypassed and the lamp can run directly off line voltage.

APPLICATIONS

Retail



Hospitality

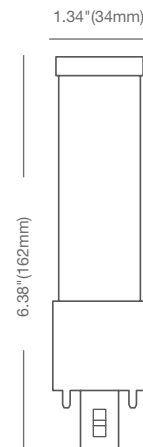


Office



Ref.#: DS155-PLH-10.5W-BYP

- Base:** G24d, GX24d, G24q & GX24q (2/4-pin CFL)
- Voltage:** Magnetic ballast compatible
120-277V
- Dimmable:** No
- PF:** 0.9
- Lifetime:** 50,000 hrs
- Weight:** 0.18lb / 82g



SPECIFICATIONS*

Model	Product	Power (W)	CCT	CRI (typ.)	Lumens	LPW	Beam Angle
10.5PLH/827/BYP	57906	10.5	Soft White 2700K	80	870	83	110°
10.5PLH/830/BYP	57907	10.5	Warm White 3000K	80	920	88	110°
10.5PLH/835/BYP	57908	10.5	Neutral White 3500K	80	920	88	110°
10.5PLH/840/BYP	57909	10.5	Cool White 4000K	80	935	89	110°

* Specification data is preliminary and may be subject to change
 ** Suitable for damp locations. Not for use where directly exposed to weather or water
 *** Not intended for use in enclosed fixtures
 **** Full installation guide and more details available on website



Project	
Notes	
Type	Date
Cat. No.	

LTR™ Series

LED Troffer Retrofit Kit

DESCRIPTION
 The Aleo LTR™ Series Troffer Retrofit Kit delivers industry-leading performance with deep energy savings and continuous dimming. Easy and quick installation reduces labor cost and optimizes ROI. The retrofit kit eliminates the need to replace existing luminaire housing, which reduces install time and disposal/removal costs. The precision-formed diffuser produces comfortable and pleasant illumination, enhancing productive spaces in various applications.



APPLICATIONS
 Provides architectural aesthetics for retail, schools, offices, healthcare, and other various commercial applications.



LTR Series
2x2 18W - 22W
2x4 22W - 44W

Specification Features

Construction
 Simple construction with minimal parts allows for easy handling and installation. Luminaire features matte white durable finish.

Optical System
 Reflector systems features highly reflective coating and delivers balanced, comfortable illuminance for productive spaces. Diffuser lens reduces glare and improves occupant comfort while maintaining high efficiency emission.

Certification
 UL Classified. All components have UL certification. UL Class 2. Driver: SCP, OTP, OVP protection, FCC Part 15 Class B, UL8750 Class 2. DLC Premium

Warranty
 7-year Limited Warranty. See warranty documentation for more information.

Electrical
 Luminaire utilizes high-efficiency LED packages maintained at cool temperatures for long life, high efficacy. Reliable driver features continuous dimming. Universal voltage (120-277V) for convenient installation. Comes equipped with luminaire quick-disconnect.

Installation / Mounting
 Installs in most troffer luminaires. Retrofit kit fits within troffer and ceiling T-bar grid, eliminating need to remove existing fixture housing.

Controls / Dimming
 Continuous dimming (0-10V) comes standard. Suitable for use with dimmers, sensors, daylight harvesting and other control strategies to achieve deeper energy-savings and code compliance.

Rated Life 75,000 hours
Limited Warranty 7-years
Efficacy Up to 127 LPW
Continuous Dimming



Quick Ship
 LTR-22HE-30/840
 LTR-22HE-22/840
 LTR-24LE-44/840
 LTR-24LE-36/840

Ordering Information

Example: LTR-24LE-44/840

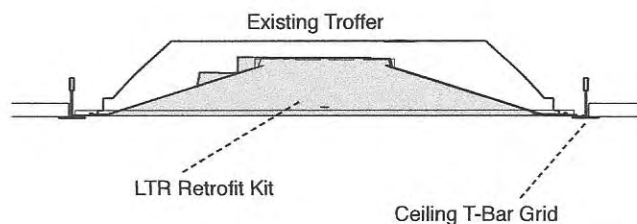
LTR	24	LE	44	8	40	[Blank]	[Blank]	
Series LTR LED Troffer Retrofit Kit	Form Factor 22 2'x2' 24 2'x4'	Lumen Package VLE Very Low Wattage LE Low Wattage HE High Lumen	Rated Wattage 2'x2' 2'x4' 18 18W 22 22W 22 22W 27 27W 24 24W 30 30W 27 27W 36 36W 30 30W 44 44W	CRI 8 83+	Color Temp 30 3000K 35 3500K 40 4000K 50 5000K	Input Voltage Blank 120V-277V	Dimming Blank 0-10V Continuous Dimming	
Options								
				Emergency Backup EM500 500lm EM700 700lm EM1400 1400lm EM2000 2000lm	Controls OS Occupancy Sensor OSDL Occ. Sensor w/ Daylight WA Fixture-integrated high-end trim			

Specifications and Dimensions subject to change without notice.

Performance Summary

Input Voltage	120V-277V
Input Frequency	50/60 Hz
Rated Wattage	See Performance Table
Delivered Lumens	See Performance Table
Efficacy	> 113 LPW (typ.)
CRI	83+, R9 > 0
Available CCT ¹	3000K, 3500K, 4000K, 5000K
Color Consistency ²	5-step MacAdam Ellipse
Rated Life	75,000 hours
L70 ³	> 72,000 hours
Power Factor	> 0.9
THD	< 20%
Dimming	0-10V Continuous (10-100%)

Mounting Information



Performance Data

Form Factor	Catalog No.	Rated Wattage (W)	Tested Wattage (W)	3000K		3500K		4000K		5000K	
				Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)
2' x 2'	LTR-22HE-30	30	30	3480	116	3540	118	3600	120	3660	122
	LTR-22HE-27	27	27	3186	118	3240	120	3294	122	3348	124
	LTR-22HE-22	22	22	2596	118	2684	122	2750	125	2794	127
2' x 4'	LTR-24LE-44	44	43	4988	116	5074	118	5160	120	5246	122
	LTR-24LE-36	36	36	4428	123	4464	124	4500	125	4572	127
	LTR-24VLE-30	30	30	3450	115	3540	118	3600	120	3690	123
	LTR-24VLE-27	27	27	3132	116	3240	120	3321	123	3375	125
	LTR-24VLE-22	22	22	2640	120	2728	124	2794	127	2882	131

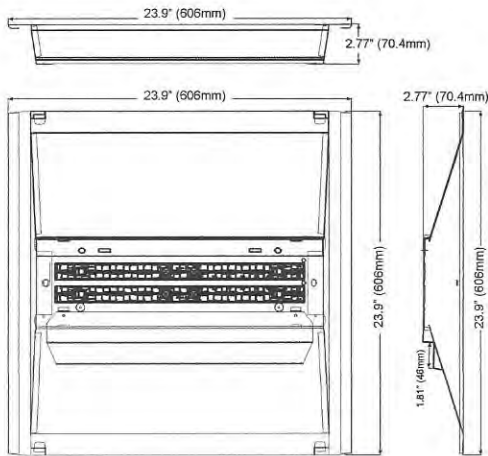
NOTES:

- ¹ Quick ship: 4000K. Other CCTs may require a lead time or be special order
- ² Typical color consistency. May vary or be changed.
- ³ L70 hours calculated based on LED package manufacturer LM80 report and ISTMT report of LED in luminaire. Stated values are for select catalog numbers. Contact manufacturer for detailed information

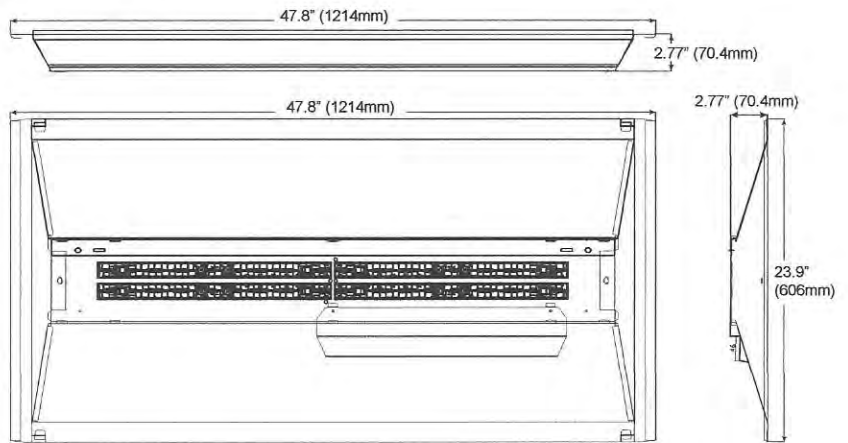
Specifications and Dimensions subject to change without notice.

Product Dimensions

LTR-22



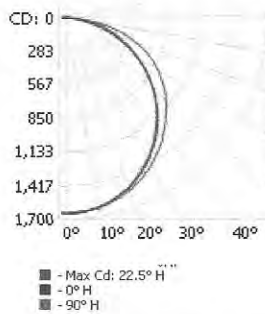
LTR-24



Photometric Data

LTR-24LE-44/830 4979 delivered lumens, tested in accordance to IESNA LM-79

Polar Graph



Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	1,283.0	25.80%
0-40	2,107.3	42%
0-60	3,788.8	76.10%
60-90	1,189.9	23.90%
90-120	0.0	0%
0-90	4,978.6	100%
90-180	0.0	0%
0-180	4,978.7	100%

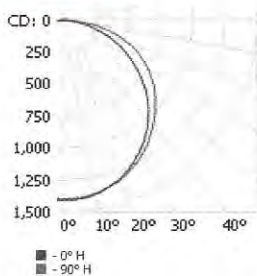
Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%

RCC%	80				70				50	
	70	50	30	0	70	50	30	0	50	30
RW%										
RCR										
0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11
1	1.08	1.03	0.99	0.95	1.05	1.01	0.97	0.84	0.97	0.93
2	0.98	0.89	0.82	0.76	0.95	0.87	0.81	0.69	0.84	0.78
3	0.89	0.78	0.7	0.63	0.87	0.76	0.69	0.59	0.73	0.67
4	0.81	0.69	0.6	0.53	0.79	0.68	0.59	0.5	0.65	0.58
5	0.75	0.61	0.52	0.45	0.73	0.6	0.52	0.43	0.58	0.5
6	0.69	0.55	0.46	0.39	0.67	0.54	0.46	0.38	0.52	0.45
7	0.64	0.5	0.41	0.35	0.62	0.49	0.41	0.34	0.48	0.4
8	0.59	0.46	0.37	0.31	0.58	0.45	0.37	0.3	0.43	0.36
9	0.55	0.42	0.33	0.28	0.54	0.41	0.33	0.27	0.4	0.33
10	0.52	0.39	0.3	0.25	0.51	0.38	0.3	0.25	0.37	0.3

LTR-24LE-36/830 4211 delivered lumens, tested in accordance to IESNA LM-79

Polar Graph



Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	1,090.5	25.90%
0-40	1,789.7	43%
0-60	3,213.1	76.30%
60-90	997.4	23.70%
90-120	0.1	0%
0-90	4,210.5	100%
90-180	0.1	0%
0-180	4,210.6	100%

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%

RCC%	80				70				50	
	70	50	30	0	70	50	30	0	50	30
RW%										
RCR										
0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11
1	1.08	1.03	0.99	0.95	1.06	1.01	0.97	0.84	0.97	0.93
2	0.98	0.89	0.82	0.76	0.95	0.88	0.81	0.7	0.84	0.78
3	0.89	0.78	0.7	0.63	0.87	0.77	0.69	0.59	0.74	0.67
4	0.81	0.69	0.6	0.53	0.79	0.68	0.59	0.5	0.65	0.58
5	0.75	0.62	0.52	0.45	0.73	0.6	0.52	0.43	0.58	0.51
6	0.69	0.55	0.46	0.4	0.67	0.54	0.46	0.38	0.52	0.45
7	0.64	0.5	0.41	0.35	0.62	0.49	0.41	0.34	0.48	0.4
8	0.59	0.46	0.37	0.31	0.58	0.45	0.37	0.3	0.44	0.36
9	0.55	0.42	0.33	0.28	0.54	0.41	0.33	0.27	0.4	0.33
10	0.52	0.39	0.31	0.25	0.51	0.38	0.3	0.25	0.37	0.3



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6080 Center Dr., Suite 600
Los Angeles, CA 90045
Ph: 877-358-8825

A19 8.5W DIM. TITANIUM LED SERIES



PRO

8.5W REPLACES



60W Inc.

80% Energy Savings

\$157 Savings per lamp*

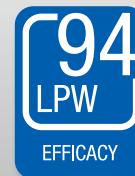
- ⌚ Omnidirectional: 330° beam angle
- ⌚ Exceptional efficacy 94 LPW in Warm White
- ⌚ 40% more energy savings than CFL
- ⌚ Comfortable warm diffused light
- ⌚ Natural A-lamp shape fits all applications
- ⌚ Ideal for lamps with shades



25,000 H



DIMMABLE



94 LPW EFFICACY



3 YR WARRANTY



80 CRI (Ra)



OMNI DIRECTIONAL

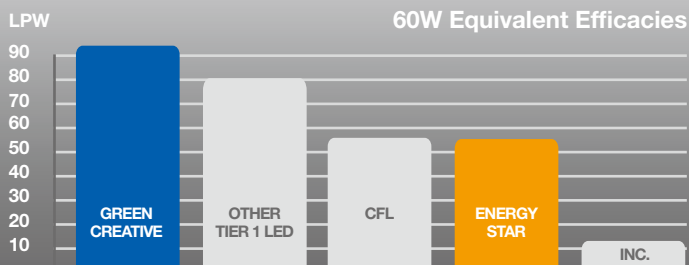


A19 PRODUCT FEATURES

This A19 meets the new ENERGY STAR V1.1 requirements for omnidirectional bulbs by providing 330° of evenly distributed light intensity. In the 135° to 180° zone, this lamp emits 65% more lumens than what is required by ENERGY STAR, providing a fuller light than other LED A-lamps.



Exceptional Efficacy



At 94 LPW, this lamp's efficacy is more than 15% higher than the Tier 1 LED A19 60W replacement industry average and exceeds new ENERGY STAR requirements by upwards of 65%. This energy-saving performance makes this lamp a smart retrofit choice for incandescent and CFL bulbs.

APPLICATIONS

General Lighting



Downlighting



Uplighting



Ref.#: DST18-A19-8.5W

SPECIFICATIONS

Product Model	57856 8.5A19DIM/827	57857 8.5A19DIM/830	57858 8.5A19DIM/840
Type	A19	A19	A19
Base	E26	E26	E26
Power (W)	8.5	8.5	8.5
Voltage - Frequency	120V 60Hz	120V 60Hz	120V 60Hz
Color Temp. (ANSI)	Soft White 2700K	Warm White 3000K	Cool White 4000K
CRI (Ra) (typ.)	80	80	80
Typical lumens (lm)	800	800	850
Efficacy (LPW)	94	94	100
Beam Angle	330°	330°	330°
Dimmable	Yes**	Yes**	Yes**
Power Factor	0.9	0.9	0.9
Rated Lifetime - L70 (hrs.)	25,000	25,000	25,000
Dia. x MOL	2.36"x4.35" (60x110mm)	2.36"x4.35" (60x110mm)	2.36"x4.35" (60x110mm)
Weight (lb. / g)	0.13lb. / 59g	0.13lb. / 59g	0.13lb. / 59g

* Savings per lamp based on \$0.11 / kw energy cost, 12 hrs / day lamp usage, \$2 incandescent with 1000-hr lifetime, \$11 LED with 25,000-hr lifetime

** List of tested dimmer switches available on website

*** Not intended for use in totally enclosed fixtures

**** Suitable for damp locations. Not for use where directly exposed to weather or water

Features & Benefits

- No rewiring needed
- Works with fluorescent electronic ballast (Instant Start and Programmed Start)*
- Long life
- High CRI
- Instant on, no delay
- Convenient and quick installation
- Utilizes existing instant start or rapid start sockets
- No Mercury, No UV
- Compatible with controls and sensors
- Works in cold temperature applications
- Glass tube for superior optical performance
- 5 Year Warranty
- Super Wide View Angle



RetroFlex™ HE

LED T8 LAMP • Simplicity.

Direct Replacement of Fluorescent Commercial Grade LED T8 Lamp



Specification Data

Order Code	Length	Lamp Wattage	System Wattage	CCT	Initial Lumens	CRI	Beam Angle	Lamp Efficacy	Life	DLC LISTED
L48T8/850/12G-EB	48"	12W	14W	5000K	1800	83	325°	135	50,000	Yes
L48T8/840/12G-EB	48"	12W	14W	4000K	1800	83	325°	135	50,000	Yes
L48T8/835/12G-EB	48"	12W	14W	3500K	1800	83	325°	135	50,000	Yes
L36T8/850/10G-EB	36"	10W	13W	5000K	1400	83	325°	135	50,000	
L36T8/840/10G-EB	36"	10W	13W	4000K	1400	83	325°	135	50,000	
L36T8/835/10G-EB	36"	10W	13W	3500K	1400	83	325°	135	50,000	
L24T8/850/8G-EB	24"	8W	11W	5000K	1100	83	325°	135	50,000	Yes
L24T8/840/8G-EB	24"	8W	11W	4000K	1100	83	325°	135	50,000	Yes
L24T8/835/8G-EB	24"	8W	11W	3500K	1100	83	325°	135	50,000	Yes

*Based on Normal Ballast Factor

System performance

Model #: L48T8/8XX/12G-EB

Specification	Low Ballast Factor (0.77)	Normal Ballast Factor (0.88)	High Ballast Factor (1.18)
Lamp Wattage	10W	12W	16W
System Wattage	12W	14W	18W
Lumen Output	1380 lm	1800 lm	2200 lm
Lamp Efficacy (lm/W)	135 lm/W	135 lm/W	135 lm/W

Model #: L24T8/8XX/8G-EB

Specification	Low Ballast Factor (0.77)	Normal Ballast Factor (0.88)	High Ballast Factor (1.18)
Lamp Wattage	7W	8W	10W
System Wattage	10W	11W	13W
Lumen Output	945 lm	1100 lm	1350 lm
Lamp Efficacy (lm/W)	135 lm/W	135 lm/W	135 lm/W

* Please check ballast compatibility list before installation.

Specification data is based on tests performed in a controlled environment and represents relative performance. Actual performance can vary depending on operating conditions. Application and performance data subject to change without notice. All specifications are nominal unless noted otherwise.

Decora Wall Switch Occupancy Sensor

ODS10-ID

APPLICATION

Leviton's Cat. No. ODS10-ID Decora Wall Switch Passive Infrared (PIR) Occupancy Sensor is used to provide automatic lighting control for energy savings and convenience in a variety of commercial applications, including:

- Small offices
- Conference rooms
- Lounges
- Class rooms

The ODS10-ID can be used for automatic switching of incandescent lamps and fluorescent and low-voltage lighting with electronic or magnetic ballasts. The unit also features a manual override switch that can be used to keep lights OFF while an area is occupied, which may be desired in conference rooms and other areas during slide or film presentations. The unit installs in place of a single-pole wall switch and fits in a standard wall box. The unit requires a ground connection.

OPERATION

The ODS10-ID uses passive infrared (PIR) detection technology to monitor a room for occupancy through a segmented Fresnel lens. This specialized lens divides the field of view into sensor zones. When a person passes into or out of a sensor zone, the sensor detects motion and switches the lights ON. The lights will remain ON as long as there is an occupant moving through the sensor zones.

A delayed-OFF time adjustment prevents the lights from switching OFF when the space is occupied. In order to keep the lights ON, a person must pass through a sensor zone at least once during the selected delayed-OFF time interval. An LED indicator blinks each time the unit detects activity in the sensor zones. When the space being monitored by the sensor is unoccupied for the length of time chosen as the delayed-OFF interval, the unit will switch the lights OFF.

To ensure longer service life and compatibility with electronic ballasts, the device carefully times its switching contact opening and closing with the zero crossing point of the AC power curve. This minimizes contact wear caused by in-rush currents from electronic ballasts.

Push-button Manual Override Control

For manual control, the ODS10-ID features a convenient push-button switch. If the lights are OFF, pressing the button will turn lights ON and keep them ON for as long as the room is occupied. The lights will be turned OFF once the room is vacant, after the delayed-OFF time expires. If the lights are ON, pressing the button will turn lights OFF and keep them OFF even if the



Cat. No. ODS10-ID

room is occupied. This feature is particularly useful for media presentations. The lights can be turned back ON by simply pressing the button. The unit will then return to normal operation. If the button is not pressed to turn the lights back ON and the unit does not detect any motion during the delayed-OFF time interval, the lights will remain OFF. The unit then returns to normal operation where the lights will remain OFF until it detects occupancy and automatically switches lights ON.

Manual-ON/Auto-OFF Mode

In this mode, the unit will not turn lights ON automatically when motion is detected. Lights can only be turned ON by manually pressing the push-button. The lights will remain ON as long as the unit detects activity in the sensor zones. The ODS10-ID will shut lights OFF automatically after the space becomes unoccupied and the delayed-OFF time expires. Lights can also be turned OFF manually at any time by pressing the push-button. This mode is ideal for areas where manual ON switching is required but automatic OFF switching is desired for energy savings.

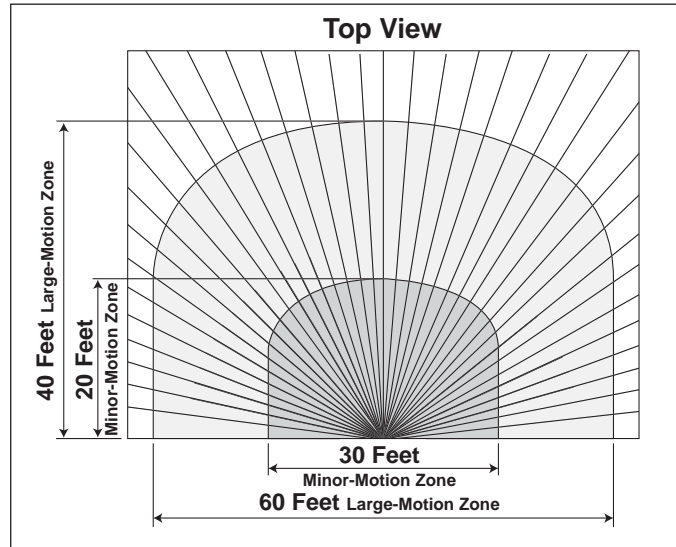
ODS10-ID

SPECIFICATION SUBMITTAL

JOB NAME: <input type="text"/>	CATALOG NUMBERS: <input type="text"/>	
JOB NUMBER: <input type="text"/>	<input type="text"/>	<input type="text"/>

FIELD OF VIEW

The ODS10-ID provides a 180° field of view with a maximum coverage area of approximately 2100 square feet. The maximum sensing distance in front of the sensor is 40 feet, and at each side is 30 feet. A "minor-motion" zone detects relatively small body movements and allows the lights to stay ON even though a person may not be moving or walking around the room. The remainder of the field of view, the "major-motion" zone, exhibits a lesser degree of sensitivity and requires larger movements.



ENHANCED ADJUSTMENT OPTIONS

The ODS10-ID will deliver optimum performance in a wide variety of commercial applications. There are optional adjustments for sensitivity, ambient light override, delayed-OFF time, and field-of-view. These adjustments will customize the performance to meet the needs of a specific installation. To avoid tampering, all adjustments can only be accessed by removing the control panel cover. A small flat-head screwdriver can be used to adjust the control knobs, and the field-of-view blinders are finger-tip operated. Controls are labeled as follows:

Blinders

Integral sliding blinders on each side of the lens may be used to restrict the 180° field of view down to 32°. This will prevent unwanted detection in areas such as hallways.

Time

The delayed-OFF time is preset at 10 minutes. A choice of four delayed-OFF time settings is available: 30-seconds (for walking test purposes only), 10 minutes, 20 minutes, and 30 minutes.

Range

Reducing the coverage range allows the unit to ignore motion at the far end of its range and avoid unnecessarily switching lights ON. The range can be adjusted from 100% to 36% of the total coverage area.

Light

To maximize energy savings in some installations, the ambient light override feature will prevent the sensor from switching lights ON when there is ample natural sunlight, regardless of occupancy. This adjustment should be made when the ambient light is at the level where no artificial light is needed.

The ODS10-ID is factory preset without any ambient light override in effect. This means the unit will switch lights ON when it detects occupancy, regardless of the amount of natural sunlight present.

LEVITON SPECIFICATION SUBMITTAL

JOB NAME: <input type="text"/>	CATALOG NUMBERS: <input type="text"/>	
JOB NUMBER: <input type="text"/>	<input type="text"/>	<input type="text"/>

Decora Wall Switch Occupancy Sensor

ODS10-ID

SPECIFICATIONS:

The device listed herein shall be Leviton Commercial Specification Grade Decora Wall Switch Occupancy Sensor, capable of detecting infrared emissions from human presence and responding by switching incandescent, low-voltage, and fluorescent lighting loads on. If this unit does not detect movement after a present period of time, it will respond by switching its assigned load off. The unit shall switch at the zero crossing point of the AC power curve to ensure maximum relay contact life and compatibility with electronic ballasts.

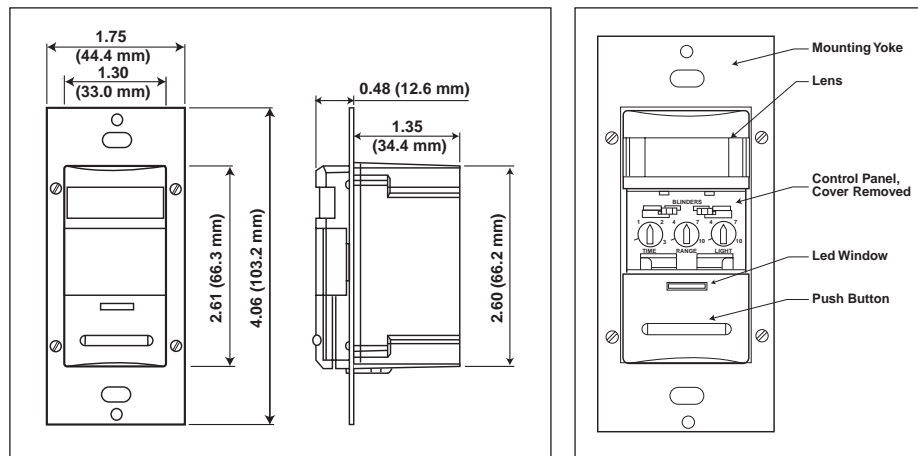
Wall Switch Occupancy Sensor shall be equipped with a push-button to provide manual on/off switching. Leviton Decora Wall Switch Occupancy Sensor shall feature adjustable delayed-OFF time and ambient light override capabilities. Unit shall also provide sensitivity adjustment and integral sliding blinders to customize the horizontal field of view. Unit shall be capable of providing optional manual-on/automatic-off operation.

FEATURES AND BENEFITS

- New, low-profile design eliminates obtrusive "scanning-device" look. Elegant Decora styling complements any interior; uses Decora wallplates and coordinates with Leviton's popular line of Decora wiring devices.
- 180° field-of-view provides approximately 2100 square feet of coverage suitable for small offices, conference rooms, class rooms, lounges and a variety of commercial areas.
- Convenient push-button provides manual ON/OFF light switching at any time.
- Segmented Fresnel lens provides optimum sensitivity and performance. Designed with an extensive "small motion" area where even slight body movements will be detected.

- Horizontal field of view may be adjusted between 180° and 32° of arc by using integral blinders located on either side of the lens.
- Optional manual adjustment for delayed-OFF time settings of 30 seconds (for walking test), 10 minutes, 20 minutes and 30 minutes. Allows customized adjustments to maximize energy savings.
- Adjustable Ambient Light Override ranges from approximately 2 foot-candles (2 lux) to 500+ foot-candles (500+ lux) to prevent lights from turning ON automatically during periods of ample natural light, increasing energy savings.
- Manual-ON/Automatic-OFF mode for installations where manual ON switching is required but automatic OFF switching is still desired for energy savings.
- LED indicator light flashes when sensor detects motion to verify detection is active.
- One unit can be used for either 120V or 277V lighting. Compatible with both electronic and magnetic ballasts.
- Relay switches at the zero crossing point of the AC power curve to ensure maximum contact life and compatibility with electronic ballasts.
- Fits in standard wallbox and replaces single-pole wall switch. Gangable with other units.
- UL Listed and CSA Certified, complies with California Title 24 Energy Code and FCC regulations
- Limited Five-Year Warranty

DIMENSIONAL DIAGRAMS



Cat. No. ODS10-ID

LEVITON SPECIFICATION SUBMITTAL

JOB NAME:	CATALOG NUMBERS:	
<input type="text"/>	<input type="text"/>	<input type="text"/>
JOB NUMBER:	<input type="text"/>	<input type="text"/>

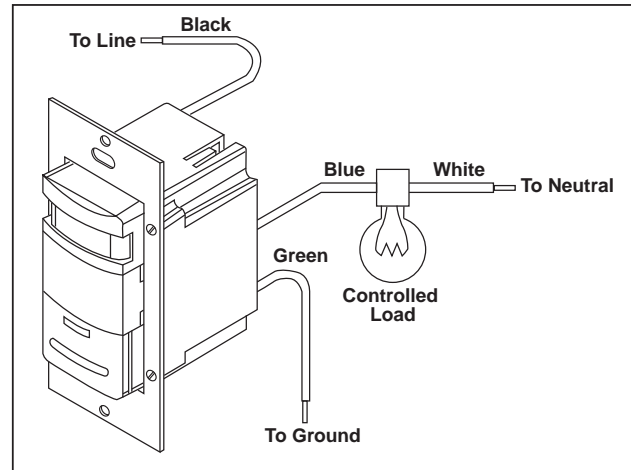
Decora Wall Switch Occupancy Sensor

ODS10-ID

INSTALLATION

The ODS10-ID may replace a single-pole wall switch mounted in a standard wallbox. The unit must be properly grounded in order to operate. The unit's integral blinders may be used to restrict the field of view to prevent unwanted detection of hallway traffic. It should be positioned at least 4 feet away from HVAC registers. Note that whenever the unit is powered up, it will take approximately one minute to begin normal operation.

WIRING DIAGRAM



Cat. No. ODS10-ID

PHYSICAL SPECIFICATIONS

Operating Temperature Range	0°C to 50°C
Storage Temperature Range	-10°C to 85°C
Relative Humidity	20% to 90% non-condensing
Agency Approval	UL Listed/CSA Certified Complies with California Title 24 Energy Code Complies with FCC Regulations

ELECTRICAL REQUIREMENTS

Line Voltage	120/277 VAC
Operational Frequencies	60Hz
Wire Designation	Line—Black Load —Blue Ground—Green
Load Rating	Fluorescent: 1200VA @ 120V 2700VA @ 277V Incandescent: 800W @ 120V Motor: 1/4 HP @ 120V

ORDERING INFORMATION

Cat. No. Ivory	Cat. No. White	Cat. No. Gray	Cat. No. Almond	Description
ODS10-IDI	ODS10-IDW	ODS10-IDG	ODS10-IDA	Decora Wall Switch Occupancy Sensor, 120/277V rating

LEVITON SPECIFICATION SUBMITTAL

JOB NAME: <input type="text"/>	CATALOG NUMBERS: <input type="text"/>	
JOB NUMBER: <input type="text"/>	<input type="text"/>	<input type="text"/>

Multi-Technology Ceiling Occupancy Sensor with Isolated Relay



BASIC OPERATION

Occupancy sensors have two tasks: 1) Keeping the lights ON while the room is occupied, and 2) Saving energy by keeping the lights OFF while the room is unoccupied.

Leviton's OSCxx-RMW sensors combine the benefits of both PIR and U/S technologies for unrivaled performance and reliability. Additionally, the sensor is designed with an isolated relay contact; which enables the sensor to interface with other systems (example: BAS, HVAC or any dry-contact capable device or system).

APPLICATIONS

- Cafeterias
- Computer rooms
- Day care centers
- Workspaces
- Restrooms
- Offices with cubicles
- Classrooms
- Conference rooms
- Stairwells
- Executive, open, and private offices

FEATURES

- Multi-Technology: By using both PIR and U/S signals, the sensor minimizes false triggering for high reliability.
- Isolated Relay: Supports HVAC or other Class 2 low voltage signals
- Supports both 24VAC/VDC power supplies
- Wide Coverage: Units from 500 to 2000 sq. ft. available.
- Self-Adjusting: Internal microprocessor continually analyzes, evaluates and adjusts the sensitivity and time delay. Performance is kept at a maximum and user complaints are eliminated.

- Custom white color matched for most common day-light harvesting architecture
- Uses OSPxx Series Power Pack: Uses Class 2, 24 volt wiring, three wire connection (low voltage). Multiple sensors can control single or multiple power packs.
- Additional mid-range lens assembly included for applications with mounting heights between 12'-20'
- Fast, Simple Installation: Easy ceiling mount, twist-lock sensor attachment for 360° rotation and flexibility.
- Small Motion Sensitivity: The ultrasonic technology provides excellent small motion sensitivity.
- Timer Setting Feature: Automatic - 30sec - 30min. Test mode - 4sec with auto exit programming.
- Non-Volatile Memory: Learned and adjusted settings saved in protected memory are not lost during power outages.
- Walk-Through: Provides increased energy savings by decreasing the time delay to 2.5min when someone momentarily walks through the monitored space.
- Ultrasonic (U/S) Components: One or two U/S transducers and one or two narrow bandwidth receivers each 16mm in diameter. Frequency -- Crystal controlled to ±.005%.
- Device: Rugged, high-impact, injection molded plastic, white. Color coded leads 7" (17.78 cm).

OSCxx-RMW

PRODUCT DATA

HOW THE OSCxx-R AUTOMATICALLY ADAPTS

Condition	Example	Adaptive Reaction
Timer Left In Test Mode - The sensor remains in an 4 sec. test mode.	An installer accidentally leaves the sensor in the 4 sec. timer test mode and the lights may go on or on every 4 sec.	The sensor automatically resets the timer to the preset time delay after 15 minutes of test mode
False-On - The sensor incorrectly turns the lights on.	The sensor detects movement in the corridor or hallway and the room lights turn on.	After an initial movement is sensed, if another movement is not sensed within the timer setting then the delayed on time setting is automatically reduced.
False-O - The sensor incorrectly turns the lights off.	The sensor does not detect movement because an occupant sits virtually motionless at a desk and the lights turn off.	If motion is sensed within a short period after the lights go off, then the current delayed on-time setting is increased.

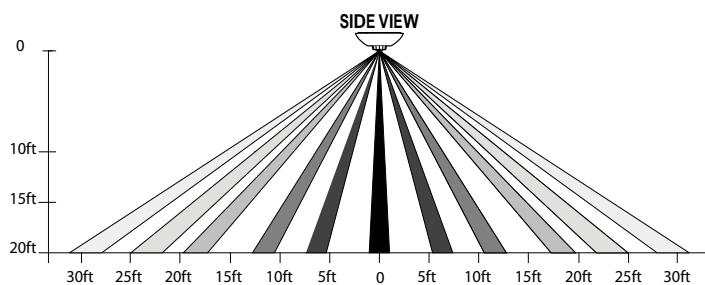
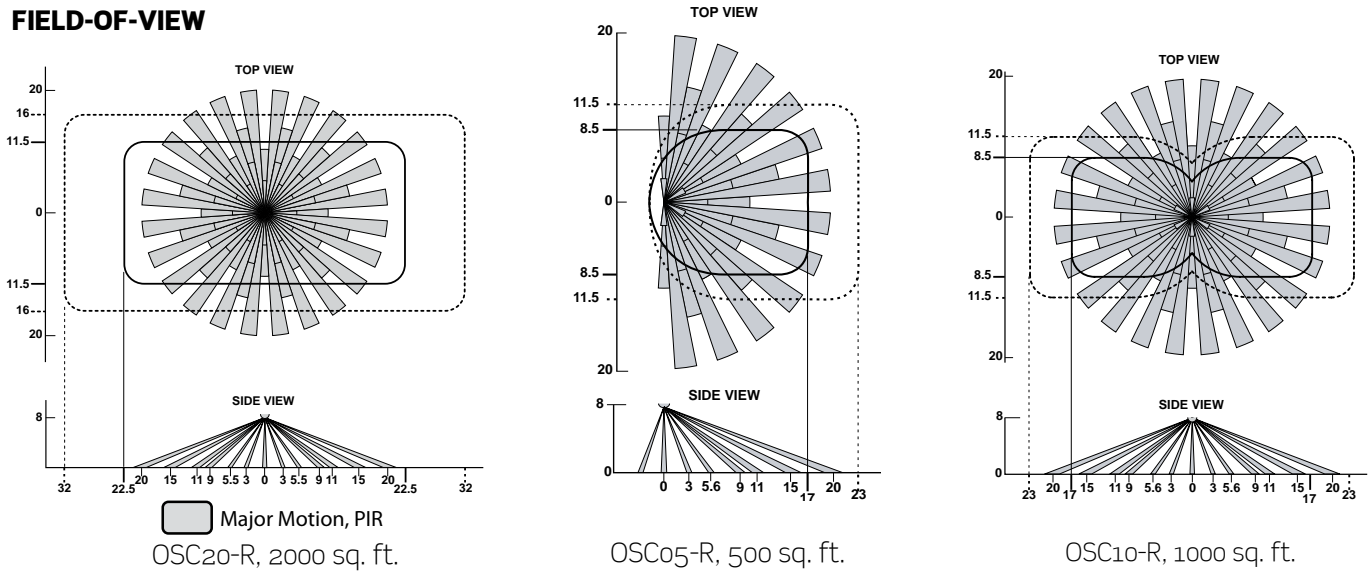
DIP SWITCH SETTINGS

SWITCH	BANK A	SWITCH FUNCTIONS	SWITCH SETTINGS
	BANK A	OFF	ON
A1	Single/Multi-tech	Multi-Tech	Single Tech
A2	PIR/Ultrasonic	PIR**	Ultrasonic
A3	Manual Mode	Auto Adapting Enabled	Auto Adapting Disabled
A4	Walk-Thru Disable	Walk-Thru Enabled	Walk-Thru Disabled
	BANK B		
B1	Override to On	Auto Mode	Lights forced On
B2	Override to Off	Auto Mode	Lights forced Off
B3	Test Mode	OFF'ON'OFF	Enter/Exit Test Mode
B4	LED Disable	LEDs Enabled	LEDs Disabled

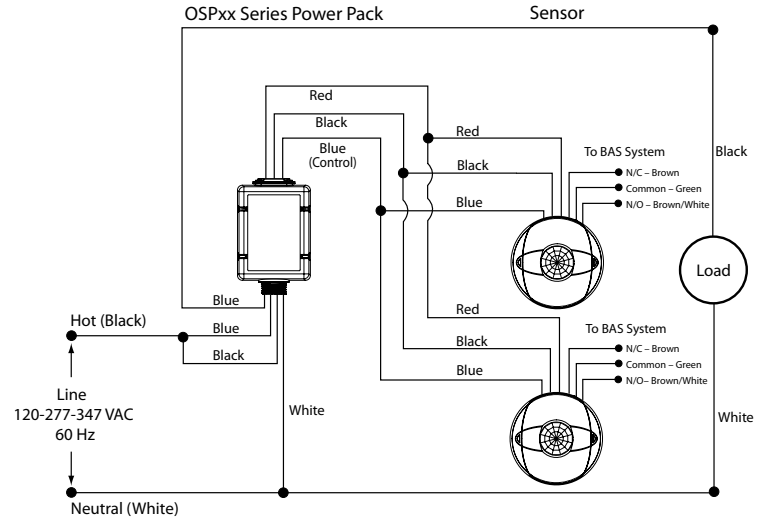
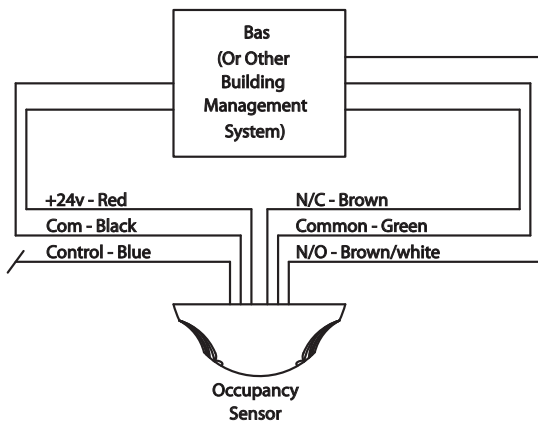
*Bold items are factory defaults

**This setting is only used if the Single Technology Option (Switch A1) is selected

FIELD-OF-VIEW



PHYSICAL WIRING



SPECIFICATIONS

ELECTRICAL	
Power Requirements	15-28 VAC/VDC from OSPxx Power Pack or other Class 2 power supplies
Isolated Relay	1A @ 30VAC/VDC
Power Consumption	DC: OSC05: 25mA, OSC10: 30mA, OSC20: 30mA AC: OSC05: 45mA, OSC10: 50mA, OSC20: 50mA
Output	24 VDC active high logic control signal with short circuit protection
CONTROLS	
Ultrasonic Frequency	OSC05/OSC10: 40kHz OSC20: 32kHz
Ultrasonic Sensitivity	0-100%; green knob (factory setting: 50%)
Infrared Sensitivity	0-100%; red knob; (factory setting: 75%)
Time Delay	30sec-30min; black knob (factory setting: 10min)
INDICATORS	
Green LED	U/S motion technology
Red LED	Infrared motion technology
ENVIRONMENTAL	
Operating Temperature Range	32°F to 104°F (0°C to 40°C)
Relative Humidity	0% to 95% non-condensing, for indoor use only
OTHER	
Mouting Height	Low-range lens (default) 8-12 feet Mid-range lens 12-20 feet
Dimensions	4.2" W x 1.57" D
Listings	CUL/US Certified, meets ASHRAE Standard 90.1 and CEC Title 24 requirements
Warranty	Limited Five-Year Warranty
ORDERING INFORMATION	
CAT NO.	DESCRIPTION
OSC05-RMW	Multi-Technology Ceiling Sensor, 500 sq. feet of coverage
OSC10-RMW	Multi-Technology Ceiling Sensor, 1000 sq. feet of coverage
OSC20-RMW	Multi-Technology Ceiling Sensor, 2000 sq feet of coverage

NAFTA compliant and Made in USA models available

Leviton Mfg. Co., Inc. Lighting Management Systems

20497 SW Teton Avenue, Portland, OR 97062 1-800-736-6682 1-503-444-6004 Fax: 503-404-5594 www.leviton.com/lms
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Leviton Manufacturing Co., Inc. Lighting & Energy Solutions

201 N. Service Rd. Melville, NY 11747-3138 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com/les

Visit our Website at: www.leviton.com/les 302 of 544

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G-8579/E11-cb

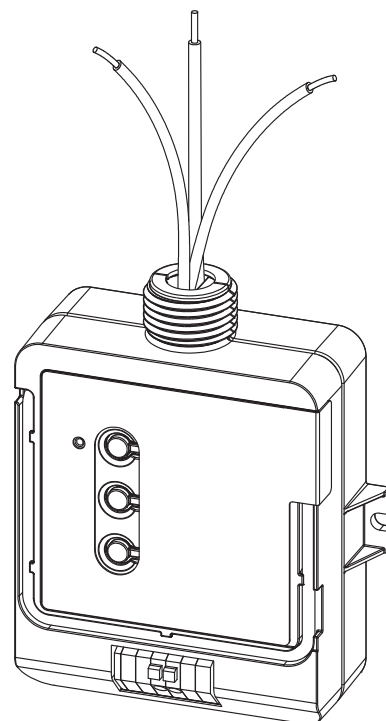
PowPak® Dimming Module with 0–10 V Control

The PowPak® Dimming Module with 0–10 V Control is a radio frequency (RF) control that operates 0–10 V controlled fluorescent ballasts or LED drivers based on input from Pico® wireless controls and Radio Powr Savr™ sensors. The Dimming Module with 0–10 V Control is ideal for small areas (e.g., classrooms, conference rooms, private offices).

Communication with RF input devices (e.g., Pico® wireless controls, Radio Powr Savr™ sensors) is accomplished by using Lutron® Clear Connect® RF Technology.

Features

- Controls up to 60 mA of 0–10 V controlled fixtures together
- Switches up to 5 A total
- 0–10 V control link automatically sources or sinks to the third party fixtures
- Configurable high- and low-end trim
- Various operating voltages available; refer to model number chart below for details on voltage requirements
- Receives input from up to nine Pico® wireless controls, six Radio Powr Savr™ occupancy/vacancy sensors, and one Radio Powr Savr™ daylight sensor
- Utilizes Lutron® Clear Connect® RF Technology; refer to model number chart below for frequency band data



- Mounts to a US-style junction box through a standard-size knockout
- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3) (RMJ- and URMJ-)

Models Available

Model Number	Region	Operating Voltage	Frequency Band
RMJ-5T-DV-B	U.S.A., Canada, Mexico	120/277 V~	431.0–437.0 MHz
URMJ-5T-DV-B	U.S.A. (BAA Compliant)	120/277 V~	431.0–437.0 MHz
RMQ-5T-DV-B	Hong Kong, Macau	110–127/220–240 V~	433.05–434.79 MHz
RMM-5T-DV-B	China, Singapore	220–240 V~	868.125–868.475 MHz
RMK-5T-DV-B	Europe, U.A.E.	220–240 V~	868.125–868.850 MHz
RMN-5T-DV-B	India	220–240 V~	865.5–866.5 MHz
RMP-5T-DV-B	Japan	100–200 V~	313.3–314.8 MHz

NOTE: Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.

Job Name:	Model Numbers:
Job Number:	

Specifications

Regulatory Approvals

RMJ- and URMJ- models only

- UL Listed
- UL 2043 Plenum-Rated
- FCC approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules
- CSA and IC (Canada)
- COFETEL (Mexico)
- NOM (Mexico)

RMN- model

- WPC Type Approved (India)

RMK- model

- CE (European Union)
- TRA Type Approved (United Arab Emirates)

RMP- model

- PSE certified (Japan)

Power

- Operating voltage
 - *RMJ-, URMJ- models:* 120/277 V~ 50/60 Hz
 - *RMQ- model:* 110–127/220–240 V~ 50/60 Hz
 - *RMM- model:* 220–240 V~ 50/60 Hz
 - *RMK- model:* 220–240 V~ 50/60 Hz
 - *RMN- model:* 220–240 V~ 50/60 Hz
 - *RMP- model:* 100–200 V~ 50/60 Hz

Output Ratings

- Switch rating of 5 AX. Rated for resistive or capacitive loads as defined by IEC/EN 60669-2-1
- 0–10 V control link for 60 mA maximum output, source or sink automatically configures

Other Power Specifications

- Standby power:
 - 240–277 V~ 610 mW
 - 120 V~ 550 mW
- BTU/hour when fully loaded: 9

System Communication

- Operates using Clear Connect® RF Technology for reliable wireless communication; refer to model number chart on page 1 for frequency band details
- RF range is 30 ft (9 m)

Environment

- Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C)
- 0% to 90% humidity, non-condensing
- For indoor use only

0–10 V Control Link

- Communicates with up to 60 mA of fixtures
- Control link is IEC SELV/NEC® Class 2
- 0–10 V control can be installed using NEC® Class 1 or Class 2 wiring methods. Alternately, it can be wired to basic or double-insulated devices
- Terminals accept one 18 to 16 AWG (0.75 to 1.5 mm²) solid wire
- Always consult local wiring codes
- Compatible with ANSI E1.3 2001 (R2006), IEC 60929 Annex E

Default Operation

- Associated wireless input devices control all connected fixtures together
- Occupancy Sensors:
 - Occupied: 100%; Unoccupied: 0% (OFF)
- Pico® Wireless Controls:
 - On: 100%; Favorite Level: 50%; Off: 0% (OFF)
- Daylight Sensor: Decreases electric light in response to additional available daylight

Job Name:	Model Numbers:
Job Number:	

Specifications (continued)

Key Design Features

- LED status indicator shows load status and provides programming feedback
- Configurable high-end and low-end trim
- Power failure memory: If power is interrupted, connected loads will return to the previous level prior to interruption
- 0–10 V control miswire protection up to 30 V $\overline{=}$
- Programming lockout can be enabled for public spaces
- 0–10 V control can be programmed to be inverted for 10–0 V control
- Daylight override: Pressing the raise button on an associated Pico® wireless control will temporarily override daylighting for all fixtures wired to the PowPak® Dimming Module with 0–10 V control
 - Daylighting will be re-enabled for all the fixtures wired to the PowPak® Dimming Module with 0–10 V control when one of the following occurs:
 - Two hours have passed since the override.*
 - ON, OFF or Preset button has been pressed on a Pico® wireless device controlling the fixtures wired to the PowPak® Dimming Module with 0–10 V control.
 - All associated Occupancy Sensors have reported unoccupied.

* Each time a daylighting override occurs for any control associated to the PowPak® Dimming Module with 0–10 V control, the two-hour timer is reset.

Advanced Configurations

Pico® Wireless Controls

- Up to nine Pico® wireless controls
- Favorite levels can be set for each Pico® wireless control

Radio Powr Savr™ Daylight Sensor

- The Radio Powr Savr™ daylight sensor will affect all connected ballast and LED drivers equally
- For multiple rows of daylighting, a separate PowPak® Dimming Module with 0–10 V must be used for each daylighting row

Minimum Light Level Setting (optional)

- Certain applications, such as hallways, may require that the lights never turn off. For these areas, select the minimum light level option and the load will lower to programmed low-end level. Default operation lowers to OFF.

High- and Low-End Trim

- High-end and low-end trim affect all connected fixtures equally, and can be configured from the PowPak® Dimming Module or from any associated Pico® wireless control when unit is not in programming lock-out mode
- Adjustable low-end trim (0–45%). Trimmable low-end can ensure a stable light level. Some fixtures will flicker or drop out if trimmed too low.
- The maximum light output of connected fixtures can be decreased down to 55% for energy savings in over-lit spaces

Note: The perceived light output of low-end trim may vary between fixture manufacturers and model numbers. For best results, do not mix different ballasts or drivers on the same 0–10 V circuit.

Radio Powr Savr™ Occupancy Sensors

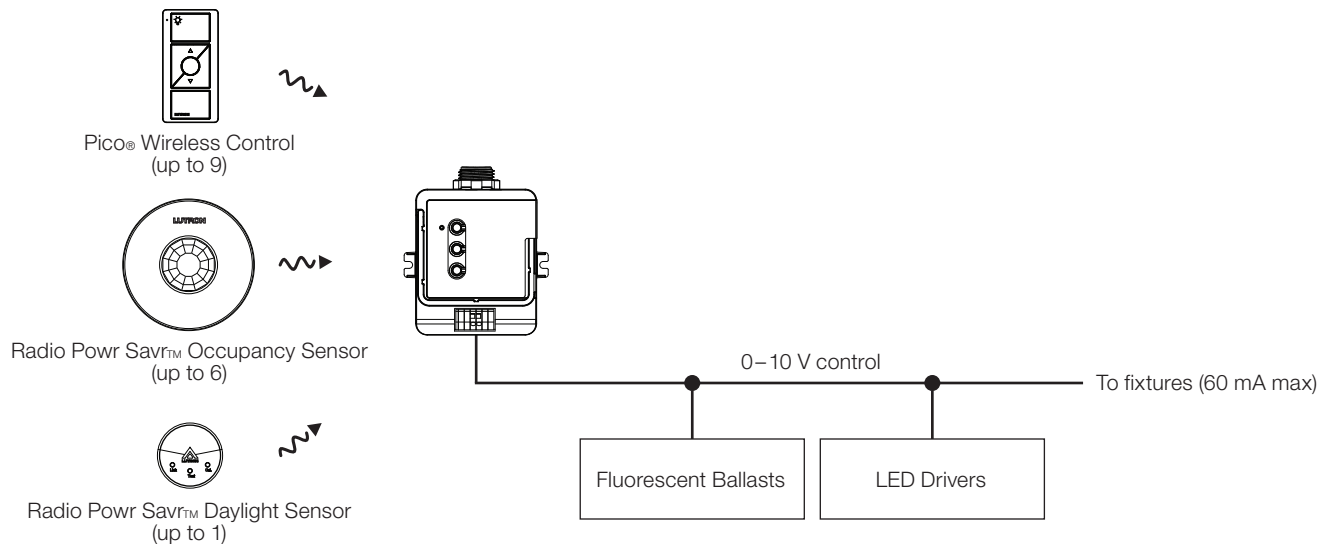
- Radio Powr Savr™ occupancy and vacancy sensors control all connected ballasts or drivers
- Pico® wireless controls can be used to adjust the Occupied levels of fixtures that they control from 1% to 100% (of output signal) or can make them unaffected by Occupancy events
- Vacancy events (area becomes unoccupied) turn all ballasts and driver models off or to minimum light level

Programming Lockout

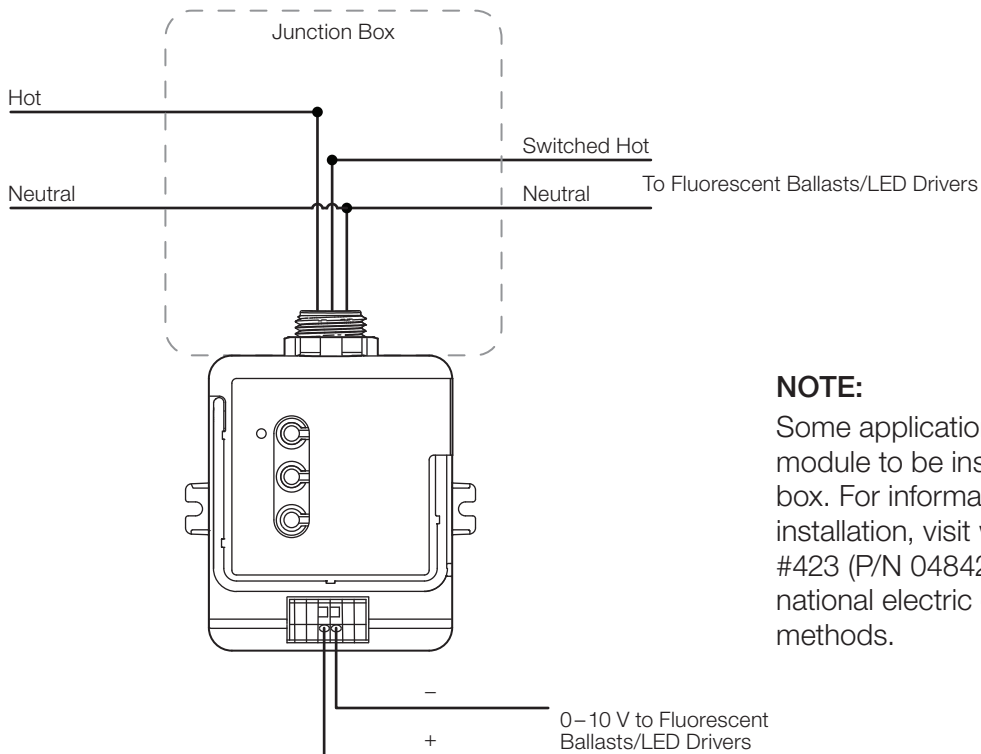
- Once enabled, all Pico® wireless controls can no longer perform programming or set favorite levels
- To change settings, programming lockout must be unlocked by a button combination directly on the PowPak® Dimming Module.

Job Name:	Model Numbers:
Job Number:	

System Diagram (RMJ-, URMJ-, RMQ-, and RMM- models)



Wiring Schematic (RMJ-, URMJ-, RMQ-, and RMM- models)



NOTE:
Some applications (in the USA) require the PowPak® module to be installed inside an additional junction box. For information about how to perform this installation, visit www.lutron.com, Application Note #423 (P/N 048423). Please consult all local and national electric codes for proper installation methods.

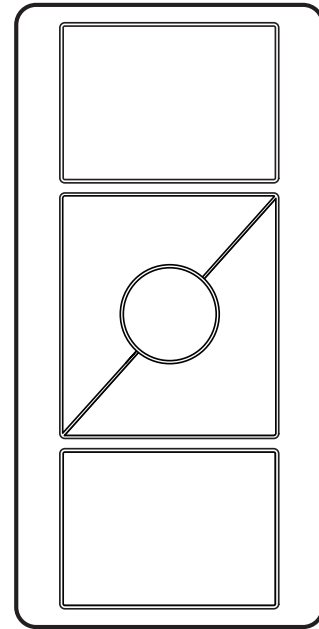
Job Name:	Model Numbers:
Job Number:	

Pico® Wireless Control and Mounting Accessories (for North, Central, and South America)

The Pico® wireless control is a flexible and easy to use device that allows the user to control Lutron® wireless load control devices from anywhere in the space. This battery operated control requires no external power or communication wiring.

Features

- Provides control for the following:
 - Maestro Wireless® controls
 - PowPak™ Modules
 - Sivoia® QS wireless systems
 - Energi Savr Node™ and Quantum® systems, through the use of a QS sensor module (QSM)
 - GRAFIK Eye® QS wireless systems
 - RadioRA® 2 systems
 - HomeWorks® QS wireless systems
- Control available in a variety of button marking options.
- Easy reconfiguration for use as:
 - Handheld remote
 - Wall mount control (with or without faceplate; faceplate adapter kit sold separately)
 - Car visor control (car visor clip sold separately)
 - A table top control (table top pedestal sold separately).
- Battery powered Pico® wireless control requires no wiring.
- 10 year battery life (one CR2032 battery included).
- Can provide control to blinds, curtains or lighting devices within a 30 ft (9 m) range.



Pico® wireless control

Job Name:	Model Numbers:
Job Number:	

Specifications

Regulatory

- Lutron® Quality Systems registered to ISO 9001:2008.
- FCC Certified (U.S.A.)
- IC Certified (Canada)
- COFETEL Certified (Mexico)
- SUTEL Certified (Costa Rica)

Power

- Operating Voltage 3 V \equiv
- (1) CR2032 Battery (included)

System Communication and Capacity

- Pico® wireless controls communicate using Radio Frequency (RF) at 431 - 437 MHz.
- Thousands of system addresses prevent interference between systems.
- Pico® wireless controls can be assigned to control blinds, curtains or lighting devices that are within a 30 ft (9 m) range.
- Can be configured as a scene or zone control in GRAFIK Eye® QS wireless applications.

Mounting Considerations

- Mounting of any RF devices on or in close proximity to a metal surface will drastically reduce the effective range of radio signal transmission or reception.
- All RF devices must be mounted on non-conductive materials to ensure proper performance.
- Coming soon! If you wish to mount your Pico® wireless control to a metal surface, the "Metal Mounter" will be required in order to maintain proper RF performance. Please contact Lutron® Customer Service for availability at 1.888.LUTRON1 (1.888.588.7661).

Environment

- Ambient operating temperature:
32 °F to 140 °F (0 °C to 60 °C)
- Maximum 90% non-condensing relative humidity
- Indoor use only

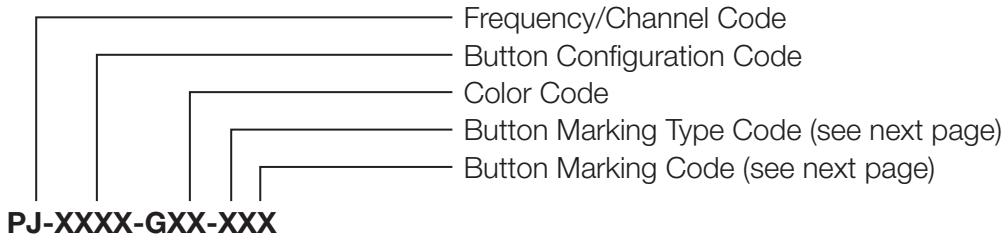
Warranty

- 1 Year Limited Warranty
For additional Warranty information, please visit http://www.lutron.com/TechnicalDocumentLibrary/369-119_Wallbox_Warranty.pdf

Job Name: Job Number:	Model Numbers:
--	-----------------------

Model Number

For order quantities of 96 pieces or greater of the same model number, bulk packaging may be available. Mounting hardware is not available with bulk packaging. Please contact Lutron® Customer Service for availability at 1.888.LUTRON1 (1.888.588.7661).



Frequency/Channel Codes:

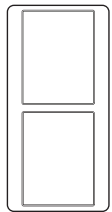
Code

J — 431.0 - 437.0 MHz

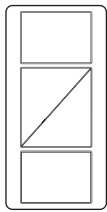
Contact Lutron’s Customer Service at www.lutron.com for frequency/channel code compatibility with your particular geographic region, and for integrating with other Lutron® lighting and shading products.

Button Configuration Codes:

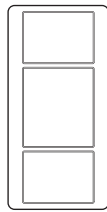
<u>Button Configuration</u>	<u>Code</u>
2 Button	2B
2 Button with Raise/Lower	2BRL
3 Button	3B
3 Button with Raise/Lower	3BRL



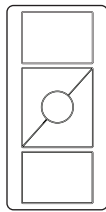
2 Button
(2B)



2 Button with
Raise/Lower
(2BRL)



3 Button
(3B)



3 Button with
Raise/Lower
(3BRL)

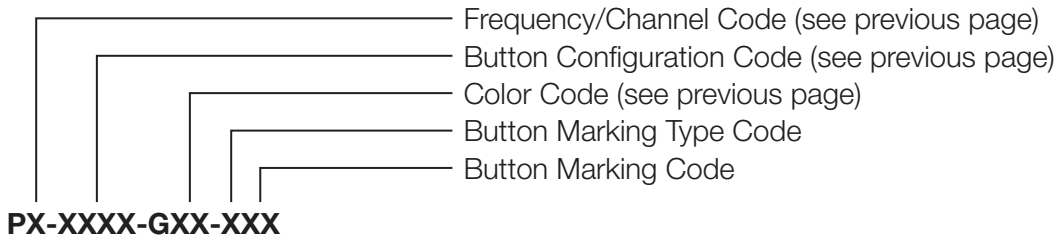
Color Codes:

<u>Gloss Color</u>	<u>Code</u>
White	WH
Black	BL
Ivory	IV
Light Almond	LA
White/Gray	WG (Top and Raise buttons are White; Preset, Lower, and Bottom buttons are Gray)

Continued on next page...

Job Name:	Model Numbers:
Job Number:	

Model Number (continued)



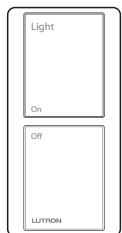
Button Marking Type Codes:

Button Marking Type Options	Code
Text	T
Icons	I

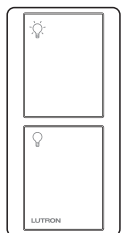
Button Marking Codes:

Button Marking Options	Code	Button Marking Options	Code
Light	01	Drapery	08
Shade	02	Blackout	09
Shade 1	05	Sheer	10
Shade 2	06	Blind	13
Screen	07	Power	14

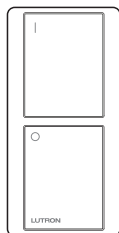
2 Button



Light (text)
(01)



Light (icons)
(01)



Power (icons)
(14)

Continued on next page...

Job Name:	Model Numbers:
Job Number:	

Wireless Wall-Mount Sensor

Lutron® wall-mounted occupancy and vacancy sensors are wireless, battery-powered, passive infrared (PIR) sensors that automatically control lights via RF communication to compatible dimming or switching devices. These sensors detect the heat from people moving within an area to determine when the space is occupied. The sensors then wirelessly transmit the appropriate commands to the associated dimming or switching devices to turn the lights on or off automatically. They combine both convenience and exceptional energy savings along with ease of installation.

Features

- Wireless occupancy/vacancy sensor has 2 settings available: Auto-On/Auto-Off, and Manual-On/Auto-Off
- Vacancy model meets CA Title 24 requirements
- Passive infrared motion detection with exclusive Lutron® XCT™ Technology for fine motion detection
- 180° field of view model:
 - Minor motion = 1500 ft² (139.4 m²)
 - Major motion = 3000 ft² (278.7 m²)
- 90° field of view model:
 - Minor motion = 1225 ft² (113.8 m²)
 - Major motion = 2500 ft² (232.3 m²)
- Hallway model with long, narrow field of view:
 - Major motion = coverage of up to 150 ft (45.7 m)
- Simple and intuitive adjustments available for Timeout, Activity, and Auto-On settings
- Accessible test buttons make setup easy
- Lens illuminates during test mode to verify ideal locations
- Multiple sensors can be added for extended coverage; refer to product specification submittal of receiving device to determine system limits
- 10-year battery life design
- RoHS compliant

Compatible RF Devices

- For use with Lutron® products only
- Communicates to various wireless Lutron® Clear Connect® systems*

* Contact Lutron Customer Service at www.lutron.com for frequency/channel code compatibility with your particular geographic region, and for integrating with other Lutron® lighting and shading products.



Models Available

- LRF - - LB-P-WH
 - Coverage Type
 - Sensor Type
 - Frequency/Channel Code

Example:

LRF2-VHLB-P-WH
(434 MHz White Hallway Vacancy Sensor)

Frequency/Channel Code

- 2 = 431.0 – 437.0 MHz (US, Canada, Mexico, Brazil)*
- 3 = 868.125 – 869.850 MHz (Europe and UAE)
- 4 = 868.125 – 868.475 MHz (China and Singapore)
- 5 = 865.5 – 866.5 MHz (India)
- 7 = 433.0 – 433.7 MHz (Hong Kong)

Sensor Type

- O = Occupancy/Vacancy (Auto-On/Auto-Off)
- V = Vacancy (Manual-On/Auto-Off)**

Coverage Type

- H = Hallway
- K = 90° Corner-Mount
- W = 180° Wall-Mount

* BAA compliant models available for LRF2 configurations. Add a “U” prefix to your chosen model number. Example: **ULRF2-OWLB-P**

** Vacancy sensor type for LRF2 models only

Job Name:	Model Numbers:
Job Number:	

Specifications

Regulatory

- Lutron Quality Systems Registered to ISO 9001:2008

Regulatory Approvals

LRF2-

- cULus listed
- FCC certified
- IC certified
- COFETEL certified
- ANATEL certified
- SUTEL certified
- Meets CA (U.S.A.) Energy Commission Title 24 requirements

LRF3-

- CE marked (European Union)
- TRA type approved (United Arab Emirates)
- CITC type approved (Saudi Arabia)

LRF4-

- SRRC type approved (Mainland China)
- iDA registered (Singapore)

LRF5-

- WPC type approved (India) [expected Q1 2014]

Power/Performance

- Operating voltage: 3 V \equiv
- Operating current: 14 μ A nominal
- Requires one CR 123 lithium battery
- 10-year battery-life design
- Non-volatile memory (saved changes are stored during power loss)

Environment

- Temperature: 32 °F to 104 °F (0 °C to 40 °C)
- For indoor use only

RF Range

- Distance between local load controls and sensor should not exceed 60 ft (18 m) line-of-sight or 30 ft (9 m) through walls.

Sensor Coverage Test

- Dedicated test button
- Lens illuminates orange in response to motion during test mode

Wireless Communication Test

- Dedicated test button
- Turn associated loads on and off

Timeout Options

- 1 minute*
- 5 minutes
- 15 minutes (default setting)
- 30 minutes

Auto-On Options (Occupancy Versions Only)

- *Enabled*: Sensor turns lights ON and OFF automatically (default setting)
- *Disabled***: Lights must be turned ON manually from dimming or switching device. Sensor turns lights OFF automatically

Sensitivity Options

- *Low Activity*: $\frac{\text{p}}{\text{X}}$ (default setting)
- *Medium Activity*: $\frac{\text{X}}{\text{X}}$
- *High Activity*: $\frac{\text{X}}{\text{X}}$

* Intended for use in high-activity, briefly-occupied areas only

** There is a 15-second grace period that begins when the lights are automatically turned off, during which the lights will automatically turn back on in response to motion. This grace period is provided as a safety and convenience feature in the event the lights turn off while the room is still occupied, so that the user does not need to manually turn the lights back on. After 15 seconds, the grace period expires and the lights must be manually turned on.

Job Name:	Model Numbers:
Job Number:	

Installation Overview

Sensor Placement

- The mounting height of the sensor should be between 6 ft and 8 ft (1.6 m and 2.4 m).
- For smaller rooms less than 12 ft × 12 ft (3.7 m × 3.7 m), detection may be improved by mounting the sensor at 6 ft (1.8 m) from the floor.
- The ability to detect motion requires that the sensor have line-of-sight of all room occupants. The sensor must have an unobstructed view of the room. **DO NOT** mount behind or near tall cabinets, shelves, hanging fixtures, etc. The sensor cannot detect occupants through glass objects such as patio- or shower doors.
- Hot objects and moving air currents can affect the performance of the sensor. To ensure proper operation, the sensor should be mounted at least 4 ft (1.2 m) away from light bulbs and HVAC vents.
- The performance of the sensor depends on a temperature differential between the ambient room temperature and that of room occupants. Warmer rooms may reduce the sensor's ability to detect occupants.
- Distance between local load controls and sensor should not exceed 60 ft (18 m) line-of-sight or 30 ft (9 m) through walls.

Job Name:	Model Numbers:
Job Number:	

Mounting

- 180° and hallway sensors mount directly to wall with mounting bracket (included). See Figure A.
- 90° sensors mount directly in corner or on wall offset away from corner with mounting bracket (included). See Figure B.
 - Temporary mounting is recommended to test sensor coverage and wireless communication before permanently installing the sensor.
 - Temporary mounting: A 3M™ Command™ adhesive strip is provided for temporarily mounting and testing the sensor. This strip is designed for easy, damage-free removal and is not reusable.
 - Permanent mounting: Mounting bracket, screws, and anchors are provided to mount sensor.
- The Flexible Mounting Armature, LRF-ARM-WH (purchased separately), allows sensors to be mounted at greater heights on a ceiling, wall, or other flat surface.
 - The ball-and-clamp design expands the coverage area for Lutron® standard wall-, corner-, or hall-mount sensors. See Figure C.
 - Common mounting areas: warehouse aisles, loading docks, long hallways.

Figure A. 180° Wall-Mount Sensor and Hallway Sensor

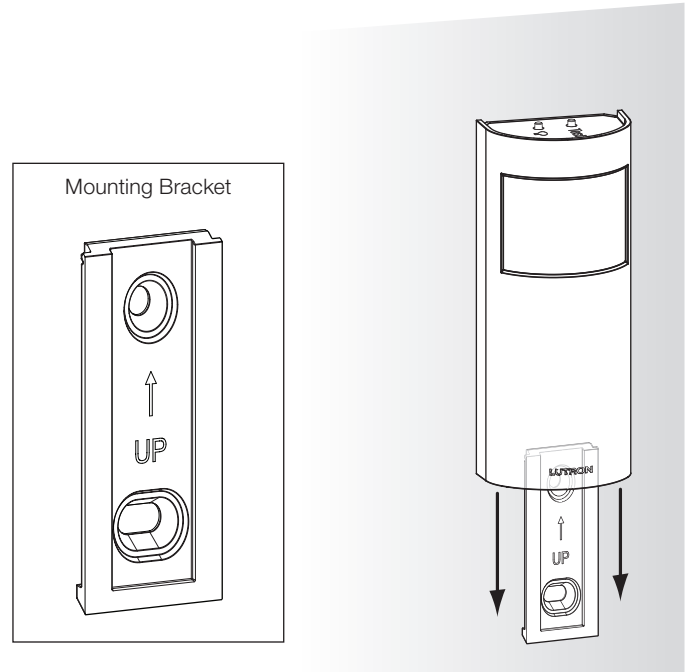


Figure B. 90° Corner-Mount Sensor

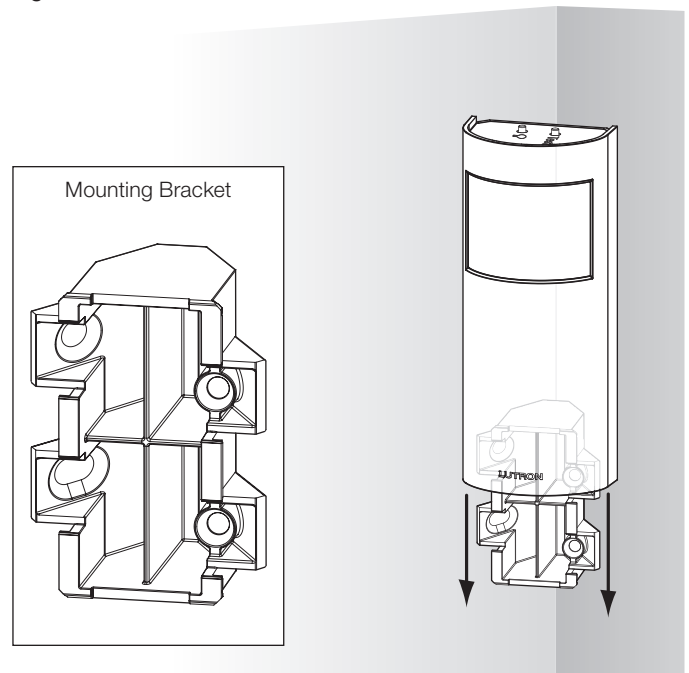
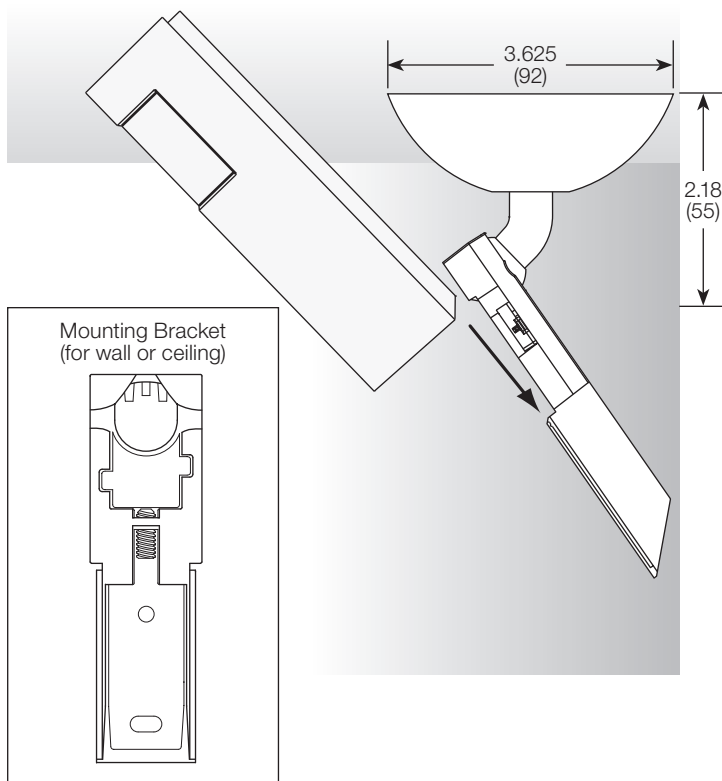


Figure C. Flexible Mounting Armature

Measurements are: in (mm)



3M and Command are trademarks of 3M Company.

Job Name:	Model Numbers:
Job Number:	



FSP-211 Digital High/Low Passive Infrared Fixture Integrated Outdoor Sensor

Fully adjustable high and low dimmed light levels

Designed for LED fixtures; rated for extreme temperatures and up to 200,000 on/off cycles

Hold off setpoint with automatic calibration option for convenience and added energy savings



Adjustable via handheld wireless configuration tool

IP66 rated with choice of lenses for wet and outdoor locations, and mounting heights from 8' to 40'

Adjustable time delay and cut off delay



PROJECT
LOCATION/TYPE

Product Overview

Description

The FSP-211 mounts in an outdoor lighting fixture and provides multi-level control based on motion. The sensor also includes a photocell to measure the ambient light level. It controls 0-10 VDC LED drivers or dimming ballasts, as well as non-dimming ballasts and, with an FSP-Lx Lens, is rated for wet and cold locations. All control parameters are adjustable via a wireless configuration tool capable of storing and transmitting sensor profiles.

Operation

The sensor ramps lighting On to the selected High mode level when motion is first detected and the ambient light level is below the hold off setpoint. After the sensor stops detecting movement and the time delay elapses, lights fade to the Low mode level. If there is no motion during the subsequent cut off time delay, the lights will turn Off. If the sensor detects motion before the lights turn Off, it ramps the light level back to High, unless the daylight contribution is sufficient to hold lighting at Low.

Features

- Provides line voltage On/Off switching and 0-10 VDC dimming control
- Works with ballasts or LED drivers
- High and low modes fully adjustable from 0 to 10V
- Time delay from 5 to 30 minutes
- Optional cut off delay
- Adjustable ramp up and fade down times

Wireless Handheld Configuration Tool

Initial setup and subsequent sensor adjustments are made using a handheld configuration tool (FSIR-100). This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cut off and more. The FSIR-100 is also used to initiate automatic calibration of the FSP-211 ambient light level setpoint. The setpoint is used to hold the controlled lighting off or at low level when there is sufficient daylight. The wireless tool stores up to five sensor parameter profiles to speed configuration of multiple sensors.

Applications

The slim, low-profile FSP-211 is designed for installation inside the bottom of a light fixture body. When fully assembled and installed in an IP66-rated fixture, the sensor and FSP-Lx lenses are IP66 outdoor rated. The sensor is ideal for areas such as parking facilities, gas stations, pedestrian pathways and warehouses. A choice of four lenses ensures complete coverage for mounting heights up to 40'.

- Optional daylighting setpoint features automatic calibration, or permits manual adjustment
- Configuration tool stores five sensor profiles for quick setup and adjustment of multiple sensors
- Polycarbonate construction; flame retardant, UV resistant, impact resistant, recyclable
- UL244A and UL508; IP66 rated (when fully assembled and installed) for use in wet locations

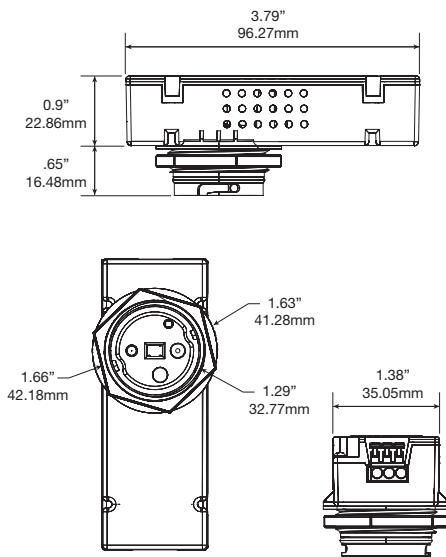


Specifications

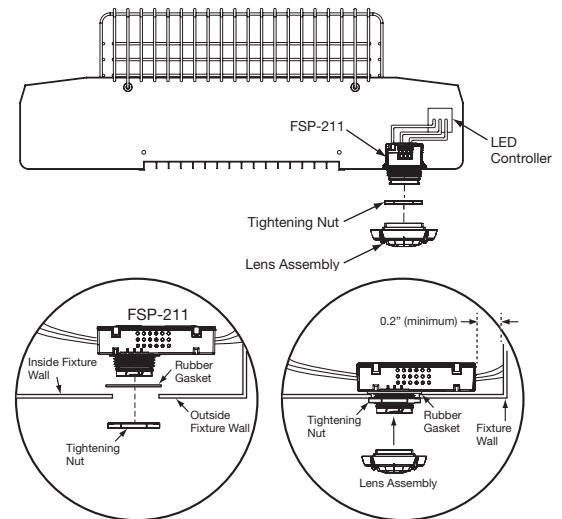
- 120/277 VAC, 50/60Hz
 - Load @120 VAC 0-800W ballast or incandescent
 - Load @277 VAC 0-1200W ballast
- 230 VAC, 50Hz; Load 0-300W ballast
- Relay life rating: 200,000 cycles (120/277 VAC); 50,000 cycles (230 VAC)
- High mode: 0-10 V; default 10 V
- Low mode: Off, 0-9.8 V; default 1 V
- Time delay: 30 sec., 5-30 min.; default 5 min.
- Cut off delay: none, 1-60 min. 1-5 hrs.; default 1 hr.
- Sensitivity: none, low, med, max; default max
- Setpoint: none, 1-250 fc, auto; default 4 fc
- Ramp up time: none, 1-60 sec.; default none
- Fade down time: none, 1-60 sec.; default none
- Operating temperature: -40-167°F (-40-75°C)
- Operating Humidity: 20-90%
- Weight: 2.8 oz (80 grams)
- IP66, CE compliant
- TUV, UL and cUL listed
- Five year warranty

Dimensions & Mounting

Sensor Dimensions



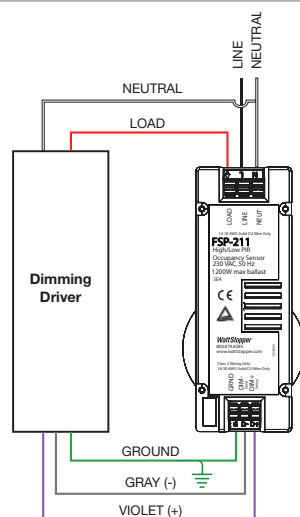
Sensor Mounting



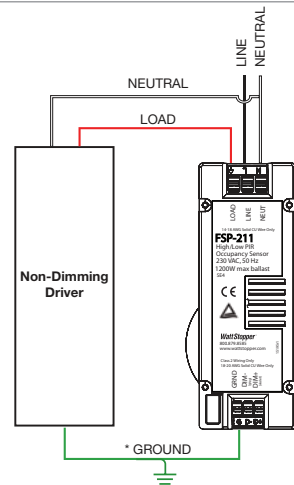
The FSP-211 accommodates fixture wall thickness up to 0.125" (3.18mm).

Wiring

Dimming Wiring Diagram



Non-Dimming Wiring Diagram



*The FSP-211 must be properly grounded.

Ordering Information

Catalog No.	Color	Description	Input Voltage
<input type="checkbox"/> FSP-211	White	Fixture mount, passive infrared motion sensor	120/277V, 50/60Hz or 230V, 50Hz
<input type="checkbox"/> FSIR-100	Black	Remote handheld configuration tool	{3} 1.5V AAA alkaline batteries

48LC WeatherExpert™ Series
Ultra High Efficiency Single Packaged Rooftop and
Single Zone VAV
Gas Heat/Electric Cooling Packaged Rooftop with
Puron® (R- 410A) Refrigerant
Sizes 04- 06
3 to 5 Nominal Tons



Product Data



WeatherExpert™



Shown with optional Economizer

C11536

PERFORMANCE, INNOVATION, RELIABILITY

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48LC



Carrier’s rooftop units (RTU) are designed by customers for customers. These new WeatherExpert™ models are Carrier’s highest efficient models ever produced and not only help reduce energy cost while providing comfort but they also help lower total cost of ownership.

Ultra high efficiency:

With SEER’s up to 17.5, these new WeatherExpert models well exceed both ASHRAE 90.1 and Energy Star levels for operating efficiencies. The models also meet or exceed the latest Consortium for Energy Efficiency (CEE) Tier 2 levels. All help to reduce energy cost and help qualify for rebates and contribute to obtain LEED credits.

Easy to install:

All WeatherExpert units are field-convertible to horizontal air flow, which makes it easy to adjust to unexpected job-site complications. In fact, these new 3-5 ton 48LC rooftops fit on the same Carrier curbs dating back to 1989, making it ideal for replacement without replacing existing curbs or utilizing an adapter curb. Many factory and field installed options are also available that are pre-engineered and tested.

Easy to maintain:

Easy access handles by Carrier provide quick access to all normally serviced components. Our “no-strip” screw system has superior holding power and guides screws into position while preventing the screw from stripping the unit’s metal. Take accurate pressure readings by reading condenser pressure with panels on. Simply remove the black, composite plug, route your gauge line(s) through the hole, and connect them to the refrigeration service valve(s). Now, you can take refrigeration system pressure readings without affecting the condenser airflow.

Easy to use:

The newly designed control box puts all your connections and troubleshooting points in one convenient place. Most low voltage connections are made to the same board and make it easy to find what you’re looking for and easy to access it. Carrier rooftops have high and low pressure switches, a filter drier, and 2- in (51mm) filters standard.



UNIT FEATURES

- Two stage cooling capacity control scroll compressors with crankcase heater
- Belt drive indoor fan and pulley system with Variable Frequency Drive (VFD) motor controller and display or direct drive (multi speed/torque) ECM motor.
- SEER up to 17.5 with direct drive ECM indoor fan motor, up to 16.4 SEER with belt drive/VFD indoor fan motor. VFD includes display standard on electro-mechanical and RTU open models. On ComfortLink models, VFD programs can be accessible through the ComfortLink controls.
- Electro-mechanical controls that provide cooling operation down to 10°F (-12°C)
- Optional ComfortLink Controls that provide cooling operation down to 0°F (-18°C) and:
 - Communications via stand alone thermostat or sensor
 - Scrolling marquee visual display
 - Time schedule capabilities
 - Reverse rotation protection
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE 62 Standard, sloping design; side or center drain
- Gas efficiencies up to 82%
- Induced draft combustion design
- Redundant gas valve, with up to 2 stages of heating
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- TXV refrigerant metering system on each circuit
- Fully insulated with foil faced insulation throughout the entire cabinet
- Exclusive IGC solid-state control for on-board diagnostics with LED error code designation, burner control logic and energy saving indoor fan motor delay
- Dedicated 3-5 ton “Low NOx” models available that meet California Air Quality Management NOx requirement of 40 nanogram/joule or less. Low NOx models include stainless steel heat exchangers
- Cooling operating range up to 125°F (52°C)
- Access panels with easy grip handles
- Innovative , easy starting, no-strip screw feature on unit access panels
- Two-inch disposable return air filters
- Tool-less filter access door
- New terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement
- Field Convertible airflow. Being able to convert a unit from vertical airflow to horizontal makes it easy to overcome job site complications.
- Provisions for thru-the-bottom power entry capability as standard
- Single point gas and electric connections
- Full perimeter base rail with built-in rigging adapters and fork truck slots
- 24-volt control circuit protected with resettable circuit breaker
- Permanently lubricated evaporator-fan motor
- Totally enclosed high efficient ECM outdoor fan motor with permanently lubricated bearings
- Low Pressure switch and high-pressure switch protection
- Exclusive IGC anti-cycle protection for gas heat operation
- Solid-state electronic direct spark ignition system
- Flame roll-out safety protector
- Liquid line filter drier on each circuit
- Factory-installed Humid-MiZer® Adaptive Dehumidification System on all sizes
- Standard Limited Warranty: 10 yr. aluminized heat exchanger, 15 yr. stainless steel heat exchanger, 5 yr. compressor, 3 yr. ComfortLink controller, 1 yr. parts.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
4	8	L	C	D	0	0	6	A	0	A	0	-	0	A	0	A	0

Unit Type

48 = Gas Heat Packaged
Rooftop

Model Series- WeatherExpert

LC = Ultra High Efficiency

Heat Size

D = Low gas heat
E = Medium gas heat
F = High gas heat
L = Low NO_x, low gas heat
M = Low NO_x, medium gas heat
N = Low NO_x, high gas heat
S = Low heat with stainless steel exchanger
R = Med heat with stainless steel exchanger
T = High heat with stainless steel exchanger
(Low No_x models include stainless steel HX)

Refrig. System Options

0 = 2- stage cooling capacity
A = 2- stage cooling capacity with Humidi- MiZ
erSystem (not available with ComfortLink
controls)

Cooling Tons

04 = 3 Ton
05 = 4 Ton
06 = 5 Ton

Sensor Options

A = None
B = RA smoke detector
C = SA smoke detector
D = RA & SA smoke detector
E = CO₂ sensor
F = RA smoke detector & CO₂
G = SA smoke detector & CO₂
H = RA & SA smoke detector & CO₂

Indoor Fan Options

0 = Standard Electric Direct Drive ECM Motor
2 = Medium Static Belt Drive with VFD Controller & Display
3 = High Static Belt Drive with VFD Controller & Display

Brand / Packaging

0 = Standard
1 = LTL

Electrical Options

A = None
B = HACR Breaker
C = Non- fused disconnect
D = Thru the base connections
E = HACR Breaker & thru the base
F = Non- fused & thru the base

Service Options

0 = None
1 = Unpowered convenience outlet
2 = Powered convenience outlet
3 = Hinged panels
4 = Hinged panels, unpwr'd conv outlet
5 = Hinged panels, pwr'd conv outlet

Air Intake / Exhaust Options

A = None
B = Standard Leak Temp econo w/baro
relief
E = Standard Leak Enthalpy econo w/
baro relief
N = Ultra Low Leak temp econo w/baro relief
R = Ultra low leak enthalpy econo w/baro relief

Base Unit Controls

0 = Base Electromechanical Controls
1 = RTU Open Multi Protocol
Direct Digital Controller (DDC)
2 = ComfortLink Controls

Design Rev

- Factory design revision

Voltage

1 = 575/3/60
5 = 208- 230/3/60
6 = 460/3/60

Coil Options (Outdoor- Indoor- Hail Guard)

A = Al/Cu - Al/Cu
B = Pre- coat Al/Cu - Al/Cu
C = E coat Al/Cu - Al/Cu
D = E coat Al/Cu- E coat Al/Cu
E = Cu/Cu- Al/Cu
F = Cu/Cu - Cu/Cu
M = Al/Cu - Al/Cu - Louvered Hail Guard
N = Pre- coat Al/Cu - Al/Cu - Louvered Hail Guard
P = E- coat Al/Cu - Al/Cu - Louvered Hail Guard
Q = E- coat Al/Cu - E- coat Al/Cu - Louvered Hail Guard
R = Cu/Cu- Al/Cu- Louvered Hail Guard
S = Cu/Cu- Cu/Cu- Louvered Hail Guard

Table 1 – FACTORY-INSTALLED OPTIONS AND FIELD-INSTALLED ACCESSORIES

CATEGORY	ITEM	FACTORY INSTALLED OPTION	FIELD INSTALLED ACCESSORY
Cabinet	Thru- the- base electrical or gas- line connections	X	X
	Hinged access panels	X	
Coil Options	Cu/Cu indoor and/or outdoor coils	X	
	Pre- coated outdoor coils	X	
	Premium, E- coated outdoor coils	X	
Humidity Control	Humidi- MiZer® Adaptive Dehumidification System ¹	X	
Condenser Protection	Condenser coil hail guard (louvered design)	X	X
Controls	Thermostats, temperature sensors, and subbases		X
	ComfortLink Controls	X	
	RTU Open Multi- Protocol Direct Digital Controller (DDC)	X	
	Smoke detector (supply and/or return air) ⁸	X	
	Time Guard compressor delay control circuit		X
	Phase Monitor		X
Economizers & Outdoor Air Dampers	EconoMi\$er X for electro- mechanical controls, complies with FDD. (Standard and Ultra Low Leak air damper models) ⁶	X	X
	EconoMi\$er2 for DDC controls, complies with FDD. (Standard and Ultra Low Leak air damper models) ⁷	X	X
	Barometric relief ²	X	X
	Power exhaust		X
Economizer Sensors & IAQ Devices	Single dry bulb temperature sensors ³	X	X
	Differential dry bulb temperature sensors ³		X
	Single enthalpy sensors ³	X	X
	Differential enthalpy sensors ³		X
	Wall or duct mounted CO ₂ sensor ³		X
	Unit mounted CO ₂ sensor ³	X	
Gas Heat	Propane conversion kit		X
	Stainless steel heat exchanger	X	
	High altitude conversion kit		X
	Flue Shield		X
	Flue Discharge Deflector		X
Indoor Motor & Drive	Multiple motor and drive packages	X	
Power Options	Convenience outlet (powered) ⁴	X	
	Convenience outlet (unpowered)	X	
	HACR circuit breaker ⁵	X	
	Non- fused disconnect	X	
Roof Curbs	Roof curb 14- in (356mm)		X
	Roof curb 24- in (610mm)		X

NOTES:

- 1 Not available with ComfortLink controls.
- 2 Included with economizer.
- 3 Sensors used to optimize economizer performance.
- 4 Not available on 460 or 575 volt models.
- 5 On 575V applications, HACR breaker can only be used with WYE power distribution systems. Using on Delta power distribution systems is prohibited.
- 6 FDD - (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.
- 7 Models with RTU Open and ComfortLink DDC controls comply with California Title 24 Fault Detection and Diagnostic (FDD).
- 8 Return Air Smoke Detector not available for horizontal air flow models.

48LC

FACTORY OPTIONS AND/OR ACCESSORIES

Economizer

Economizers save energy, money and improve comfort levels in the conditioned space. They bring in fresh, outside air for ventilation; and provide cool outside air to cool your building. This also is the preferred method of low ambient cooling. When integrated with CO₂ sensors, economizers can provide even more savings by coupling the ventilation air to only that amount required based on space occupancy.

Economizers are available, installed and tested by the factory, with either enthalpy or temperature dry-bulb inputs. There are also models for electromechanical and direct digital controls. Additional sensors are available as accessories to optimize the economizer.

Economizers include gravity controlled barometric relief that helps equalize building pressure and ambient air pressures. This can be a cost effective solution to prevent building pressurization. Economizers are available in Ultra Low Leak and standard low leak versions.

CO₂ Sensor

Improves productivity and saves money by working with the economizer to intake only the correct amount of outside air for ventilation. As occupants fill your building, the CO₂ sensor detects their presence through increasing CO₂ levels, and opens the economizer appropriately.

When the occupants leave, the CO₂ levels decrease, and the sensor appropriately closes the economizer. This intelligent control of the ventilation air, called Demand Control Ventilation (DCV) reduces the overall load on the rooftop, saving money.

Smoke Detectors

Trust the experts. Smoke detectors make your application safer and your job easier. Carrier smoke detectors immediately shut down the rooftop unit when smoke is detected. They are available, installed by the factory, for supply air, return air, or both.

Louvered Hail Guards

Sleek, louvered panels protect the condenser coil from hail damage, foreign objects, and incidental contact.

Convenience Outlet (powered or un-powered)

Reduce service and/or installation costs by including a convenience outlet in your specification. Carrier will install this service feature at our factory. Provides a convenient, 15 amp, 115v GFCI receptacle with “Wet in Use” cover. The “powered” option allows the installer to power the outlet from the line side of the disconnect or load side as required by code. The “unpowered” option is to be powered from a separate 115/120v power source.

NOTE: Powered convenience outlets are not available on 460 and 575 volt units.

Non-fused Disconnect

This OSHA-compliant, factory-installed, safety switch allows a service technician to locally secure power to the rooftop.

Power Exhaust with Barometric Relief

Superior internal building pressure control. This field-installed accessory may eliminate the need for costly, external pressure control fans.

RTU Open, Multi-Protocol Controller

Connect the rooftop to an existing BAS without needing complicated translators or adapter modules using the RTU Open controller. This new controller speaks the 4 most common building automation system languages (Bacnet, Modbus, N2, and Lonworks). Use this controller when you have an existing BAS. Besides the 4 protocols, it also communicates with a Carrier Open system (I-Vu and VVT).

Time Guard II Control Circuit

This accessory protects your compressor by preventing short-cycling in the event of some other failure, prevents the compressor from restarting for 30 seconds after stopping. Not required with RTU Open or authorized commercial thermostats.

Manual OA Damper & Two Position Dampers

Both Manual and Two Position Dampers are not recommended due to the control logic required for the 2-Speed indoor fan system for maintaining proper ventilation requirements. Contact application engineering for more details.

Hinged Access Panels

Allows access to unit's major components with specifically designed hinged access panels. Panels are: filter, control box, fan motor and compressor. Comes with quarter turn latches and lift tabs.

Propane Heating

Convert your gas heat rooftop from standard natural gas operation to Propane using this field-installed kit.

High Altitude Heating

High altitudes have less oxygen, which means heat exchangers need less fuel. The new gas orifices in this field-installed kit make the necessary adjustment for high altitude applications. They restore the optimal fuel to air mixture and maintain healthy combustion at altitudes above 2000 ft (610m). Kits may not be required in all areas.

Flue Discharge Deflector

The flue discharge deflector is a useful accessory when flue gas recirculation is a concern. By venting the flue discharge upwards, the deflector minimizes the chance for a neighboring unit to intake the flue exhaust.

Optional Stainless Steel Heat Exchanger

The stainless steel heat exchanger option provides the tubular heat exchanger be made out of a minimum 20 gauge type 409 stainless steel for applications where the mixed air to the heat exchanger is expected to drop below 45°F (7°C). Stainless steel may be specified on applications where the presence of airborne contaminants require its use (applications such as paper mills) or in area with very high outdoor humidity that may result in severe condensation in the heat exchanger during cooling operation.

FACTORY OPTIONS AND/OR ACCESSORIES (cont.)

Flue Discharge Heat Shield

The flue discharge heat shield keeps people from touching the rooftop unit's potentially hot flue discharge. This is especially useful for ground level applications, where more, untrained people could have access to the unit's exterior.

HACR Breaker

These manual reset devices provide overload and short circuit protection for the unit. Factory wired and mounted with the units with access cover to help provide environment protection.

On 575V applications, HACR breaker can only be used with WYE power distribution systems. Use on Delta power distribution systems is prohibited.

Alternate Motors and Drives

Some applications need larger horsepower motors, some need more airflow, and some need both. Regardless of the case, your Carrier expert has a factory installed combination to meet your application. A wide selection of motors and pulleys (drives) are available, factory installed, to handle nearly any application.

Optional Humidi-MiZer® Adaptive Dehumidification System

Carrier's Humidi-MiZer adaptive dehumidification system is an all-inclusive factory installed option that can be ordered with any WeatherExpert rooftop unit.

This system expands the envelope of operation of Carrier's WeatherExpert rooftop products to provide unprecedented flexibility to meet year round comfort conditions.

The Humidi-MiZer adaptive dehumidification system has the industry's only dual dehumidification mode setting. The Humidi-MiZer system provides greater dehumidification of the occupiable space by two modes of dehumidification operation in addition to its normal design cooling mode.

The 48LC WeatherExpert rooftop coupled with the Humidi-MiZer system is capable of operating in normal design cooling mode, subcooling mode, and hot gas reheat mode. Normal design cooling mode is when the unit will operate under its normal sequence of operation by cycling compressors to maintain comfort conditions.

Subcooling mode will operate to satisfy part load type conditions when the space requires combined sensible and a higher proportion of latent load control. Hot Gas Reheat mode will operate when outdoor temperatures diminish and the need for latent capacity is required for sole humidity control. Hot Gas Reheat mode will provide neutral air for maximum dehumidification operation.

Thru-the-Base Connections

Thru-the-base connections, available as either an accessory or as a factory option, are necessary to ensure proper connection and seal when routing wire and piping through the rooftop's basepan and curb. These couplings eliminate roof penetration and should be considered for gas lines, main power lines, as well as control power.

ComfortLink Controls

Models with the optional Carrier ComfortLink Controls allow added unit diagnostics and operation setup capabilities, as well as controlling logic for single zone Variable Air Volume (VAV) applications.

The ComfortLink control is your link to a world of simple and easy to use rooftop units that offer outstanding performance and value. When used with a space temperature sensor, the ComfortLink control's intelligence maintains control over the economizer and condenser fans. It optimizes the performance of the refrigeration circuits as conditions change, resulting in the following features:

- Better control of temperature and humidity
- Superior reliability
- Automatic redundancy
- Low ambient cooling operation to 0°F
- More accurate diagnostics, at unit or remote

The ComfortLink Scrolling Marquee is very easy to use. The messages are displayed in easy to understand English, no decoding is required. A scrolling readout provides detailed explanations of control information. Only four, large, easy-to-use buttons are required to maneuver through the entire menu. The readout is designed to be visible even in the brightest sunlight. A handheld Navigator accessory or wall-mounted System Pilot™ accessory can be used for added service flexibility.

The ComfortLink control provides unparalleled service diagnostic information. Temperature and pressure can be read directly from the display with no need for separate gauges. Other data, such as compressor cycles, unit run time hours, current alarms, can also be accessed. A history of alarms is also available for viewing.

The service run test can be very helpful when troubleshooting. The user can run test major components to determine the root cause of a problem. The unit can be run-tested before an installation is complete to ensure satisfactory start-up. To ensure reliability, the ComfortLink control prevents reverse compressor rotation. No laptop computers are required for start-up.

Time schedules are built in and the Scrolling Marquee display provides easy access to setpoints. The ComfortLink control accepts input from a CO2 sensor and a smoke detector. Both are available as factory installed options or as field installed accessories.

Table 2 – AHRI COOLING RATING TABLE 2-STAGE COOLING W/DIRECT DRIVE ECM INDOOR MOTOR

48LC	COOLING STAGES	NOM. CAPACITY (TONS)	NET COOLING CAPACITY (MBH)	TOTAL POWER (kW)	SEER	EER
04	2	3	35.6	2.8	17.1	12.8
05	2	4	47.5	3.6	17.5	13.1
06	2	5	58.5	4.6	17.2	12.7

Table 3 – AHRI COOLING RATING TABLE 2-STAGE COOLING WITH BELT DRIVE INDOOR MOTOR

48LC	COOLING STAGES	NOM. CAPACITY (TONS)	NET COOLING CAPACITY (MBH)	TOTAL POWER (kW)	SEER	EER
04	2	3	34.6	2.9	15.5	12.0
05	2	4	46.5	3.7	16.4	12.6
06	2	5	58.0	4.7	16.2	12.3

LEGEND

- - Not Applicable
- AHRI - Air Conditioning, Heating and Refrigeration Institute Test Standard
- ASHRAE - American Society of Heating, Refrigerating and Air Conditioning, Inc.
- EER - Energy Efficiency Ratio
- SEER - Seasonal Energy Efficiency Ratio

NOTES:

- 1 Rated in accordance with AHRI Standards.
- 2 Ratings are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temp and 95°F (35°C) db outdoor air temp.
- 3 All 48LC units comply with ASHRAE 90.1 Energy Standard for minimum SEER and EER requirements.
- 4 48LC units comply with US Energy Policy Act. To evaluate code compliance requirements, refer to state and local codes.

Table 4 – HEATING RATING TABLE - NATURAL GAS & PROPANE

48LC	GAS HEAT	AL/SS HEAT EXCHANGER		TEMP RISE (DEG F)	THERMAL EFFICIENCY (%)
		INPUT / OUTPUT STAGE 1 (MBH)	INPUT / OUTPUT STAGE 2 (MBH)		
04	LOW	50 / 41	72 / 56	25 - 55	82%
	MED	82 / 66	115 / 89	55 - 85	81%
	HIGH	-	-	-	-
05	LOW	50 / 41	72 / 56	25 - 55	82%
	MED	82 / 66	115 / 90	35 - 65	81%
	HIGH	120 / 96	150 / 117	50 - 80	80%
06	LOW	50 / 41	72 / 56	20 - 55	82%
	MED	82 / 66	115 / 90	30 - 65	81%
	HIGH	120 / 96	150 / 117	40 - 80	80%

- Not Applicable

NOTES:

- Heat ratings are for natural gas heat exchangers operated at or below 2000 ft (610 m). For information on Propane or altitudes above 2000 ft (610 m), see the Application Data section of this book. Accessory Propane/High Altitude kits are also available.
- In the USA the input rating for altitudes above 2000 ft (610m) must be derated by 4% for each 1000 ft (305 m) above sea level. In Canada, the input rating must be derated by 10% for altitudes of 2000 ft (610 m) to 4500 ft (1372 m) above sea level.

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Table 5 – HEATING RATING TABLE - LOW NO_x¹

48LC	GAS HEAT	LOW NO _x HEAT EXCHANGER		TEMP RISE (DEG F)	THERMAL EFFICIENCY (%)
		INPUT / OUTPUT STAGE 1 (MBH)	INPUT / OUTPUT STAGE 2 (MBH)		
04	LOW	-	60 / 47	20 - 50	81%
	MED	-	90 / 72	30 - 60	81%
	HIGH	-	-	-	-
05	LOW	-	60 / 47	20 - 50	81%
	MED	-	90 / 72	30 - 60	81%
	HIGH	-	120 / 97	40 - 70	81%
06	LOW	-	60 / 47	15 - 50	81%
	MED	-	90 / 72	25 - 60	80%
	HIGH	-	120 / 97	35 - 70	80%

- Not Applicable

NOTE:

1. Units meet California’s South Coast Air Quality Management District (SCAQMD) Low- NO_x emissions requirement of 40 nanograms per joule or less.

Table 6 – SOUND PERFORMANCE TABLE

48LC	OUTDOOR SOUND (dB) AT 60								
	A- WEIGHTED	63	125	250	500	1000	2000	4000	8000
04	76	78.2	78.0	74.2	73.3	70.6	66.0	62.4	56.9
05	78	84.7	83.6	77.1	74.6	72.3	68.3	64.7	60.9
06	77	87.5	82.5	76.1	73.6	71.3	67.1	64.1	60.0

LEGEND

dB - Decibel

NOTES:

- 1 Outdoor sound data is measure in accordance with AHRI.
- 2 Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
- 3 A- weighted sound ratings filter out very high and very low frequencies, to better approximate the response of “average” human ear. A- weighted measurements for Carrier units are taken in accordance with AHRI.

Table 7 – MINIMUM - MAXIMUM AIRFLOW RATINGS - NATURAL GAS & PROPANE

UNIT	HEAT LEVEL	CFM					
		COOLING		AL HX HEATING		SS HX HEATING	
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
48LC**04	LOW			990	2190	990	2190
	MED	900	1500	1000	1550	1000	1550
	HIGH			-	-	-	-
48LC**05	LOW			990	2190	990	2190
	MED	1200	2000	1330	2460	1330	2460
	HIGH			1390	2220	1390	2220
48LC**06	LOW			990	2730	990	2730
	MED	1500	2500	1330	2880	1330	2880
	HIGH			1390	2780	1390	2780

NOTE: Indoor fan runs at high speed in heating. High speed CFM must be set above minimum CFM per this table.

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Table 8 – PHYSICAL DATA

(COOLING)

3 - 5 TONS

		48/50LC*004	48/50LC*A04	48/50LC*005	48/50LC*A05	48/50LC*006	48/50LC*A06
Refrigeration System							
# Circuits / # Comp. / Type		1 / 1 / Scroll	1 / 1 / Scroll	1 / 1 / Scroll	1 / 1 / Scroll	1 / 1 / Scroll	1 / 1 / Scroll
R- 410a charge A/B (lbs - oz)		9 - 2		9 - 0		11 - 0	
Humidimizer R- 410a charge A/B (lbs - oz)			11 - 8		15 - 10		16 - 5
Metering device		TXV	TXV	TXV	TXV	TXV	TXV
High- press. Trip / Reset (psig)		630 / 505	630 / 505	630 / 505	630 / 505	630 / 505	630 / 505
Low- press. Trip / Reset (psig)		27 / 44	27 / 44	27 / 44	27 / 44	27 / 44	27 / 44
Evap. Coil							
Material		Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al
Coil type		3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF	3/8" RTPF
Rows / FPI		3 / 15	3 / 15	3 / 15	3 / 15	4 / 15	4 / 15
total face area (ft ²)		5.5	5.5	7.3	7.3	7.3	7.3
Condensate drain conn. size		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
HumidMizer Coil							
Material		N/A	Cu/Al	N/A	Cu/Al	N/A	Cu/Al
Coil type		N/A	3/8" RTPF	N/A	3/8" RTPF	N/A	3/8" RTPF
Rows / FPI		N/A	1 / 17	N/A	2/17	N/A	2/17
total face area (ft ²)		N/A	3.9	N/A	5.2	N/A	5.2
Evap. fan and motor							
Standard Static	Motor Qty / Drive type	1 / Direct ECM	1 / Direct ECM	1 / Direct ECM	1 / Direct ECM	1 / Direct ECM	1 / Direct ECM
	Max BHP	1	1	1	1	1	1
	RPM range	600- 1200	600- 1200	600- 1200	600- 1200	600- 1200	600- 1200
	motor frame size	48	48	48	48	48	48
	Fan Qty / Type	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal
	Fan Diameter (in)	10 x 10	10 x 10	10 x 10	10 x 10	11 x 10	11 x 10
Medium Static	Motor Qty / Drive type	1 / Belt	1 / Belt	1 / Belt	1 / Belt	1 / Belt	1 / Belt
	Max BHP	1.7	1.7	1.7	1.7	2.4	2.4
	RPM range	770- 1175	770- 1175	920- 1303	920- 1303	1035- 1466	1035- 1466
	motor frame size	56	56	56	56	56	56
	Fan Qty / Type	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal
	Fan Diameter (in)	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10
High Static	Motor Qty / Drive type	1 / Belt	1 / Belt	1 / Belt	1 / Belt	1 / Belt	1 / Belt
	Max BHP	2.4	2.4	2.9	2.9	2.9	2.9
	RPM range	1035- 1466	1035- 1466	1208- 1639	1208- 1639	1303- 1687	1303- 1687
	motor frame size	56	56	56	56	56	56
	Fan Qty / Type	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal	1 / Centrifugal
	Fan Diameter (in)	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10	10 x 10
Cond. Coil							
Material		Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al	Cu / Al
Coil type		7mm RTPF	7mm RTPF	7mm RTPF	7mm RTPF	7mm RTPF	7mm RTPF
Rows / FPI		2 / 20	2 / 20	2 / 20	2 / 20	2 / 20	2 / 20
total face area (ft ²)		16.4	16.4	21.4	21.4	21.4	21.4
Cond. fan / motor							
Qty / Motor drive type		1 / direct	1 / direct	1 / direct	1 / direct	1 / direct	1 / direct
Motor HP / RPM		1/3 / 1001	1/3 / 1001	1/3 / 1082	1/3 / 1001	1/3 / 1082	1/3 / 1082
Fan diameter (in)		22	22	22	22	22	22
Filters							
RA Filter # / size (in)		2 / 16 x 25 x 2	2 / 16 x 25 x 2	4 / 16 x 16 x 2	4 / 16 x 16 x 2	4 / 16 x 16 x 2	4 / 16 x 16 x 2
OA inlet screen # / size (in)		1 / 20 x 24 x 1	1 / 20 x 24 x 1	1 / 20 x 24 x 1	1 / 20 x 24 x 1	1 / 20 x 24 x 1	1 / 20 x 24 x 1

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Table 9 – PHYSICAL DATA

(HEATING)

3 - 5 TONS

		48LC*004	48LC*005	48LC*006
Gas Connection	# of Gas Valves	1	1	1
	Nat. gas supply line press (in. w.g.) / (PSIG)	4 - 13 / 0.18 - 0.47	4 - 13 / 0.18 - 0.47	4 - 13 / 0.18 - 0.47
	LP supply line press (in. w.g.) / (PSIG)	11 - 13 / 0.40 - 0.47	11 - 13 / 0.40 - 0.47	11 - 13 / 0.40 - 0.47
	Heat Anticipator setting (Amps)			
	1st stage	0.14	0.14	0.14
	2nd stage	0.14	0.14	0.14
Natural Gas Heat				
LOW	# of stages / # of burners (total)	1 or 2 / 2	1 or 2 / 2	1 or 2 / 2
	Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	195 / 115	195 / 115	195 / 115
	Temperature Rise	25 - 55	25 - 55	20 - 55
MED	# of stages / # of burners (total)	1 or 2 / 3	1 or 2 / 3	1 or 2 / 3
	Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	195 / 115	195 / 115	195 / 115
	Temperature Rise	55 - 85	35 - 65	30 - 65
HIGH	# of stages / # of burners (total)	- - -	1 or 2 / 3	1 or 2 / 3
	Connection Size	- - -	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	- - -	195 / 115	195 / 115
	Temperature Rise	- - -	50 - 80	40 - 80
Liquid Propane Heat				
LOW	# of stages / # of burners (total)	1 or 2 / 2	1 or 2 / 2	1 or 2 / 2
	Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	195 / 115	195 / 115	195 / 115
	Temperature Rise	25 - 55	25 - 55	20 - 55
MED	# of stages / # of burners (total)	1 or 2 / 3	1 or 2 / 3	1 or 2 / 3
	Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	195 / 115	195 / 115	195 / 115
	Temperature Rise	55 - 85	35 - 65	30 - 65
HIGH	# of stages / # of burners (total)	- - -	1 or 2 / 3	1 or 2 / 3
	Connection Size	- - -	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	- - -	195 / 115	195 / 115
	Temperature Rise	- - -	50 - 80	40 - 80
Low NOx Gas Heat				
LOW	# of stages / # of burners (total)	1 or 2 / 2	1 or 2 / 2	1 or 2 / 2
	Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	195 / 115	195 / 115	195 / 115
	Temperature Rise	20 - 50	20 - 50	15 - 50
MED	# of stages / # of burners (total)	1 or 2 / 3	1 or 2 / 3	1 or 2 / 3
	Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	195 / 115	195 / 115	195 / 115
	Temperature Rise	30 - 60	30 - 60	25 - 60
HIGH	# of stages / # of burners (total)	- - -	1 or 2 / 3	1 or 2 / 3
	Connection Size	- - -	1/2" NPT	1/2" NPT
	Rollout switch opens / closes	- - -	195 / 115	195 / 115
	Temperature Rise	- - -	40 - 70	35 - 70

- Not Applicable

48LC

CURBS & WEIGHTS DIMENSIONS

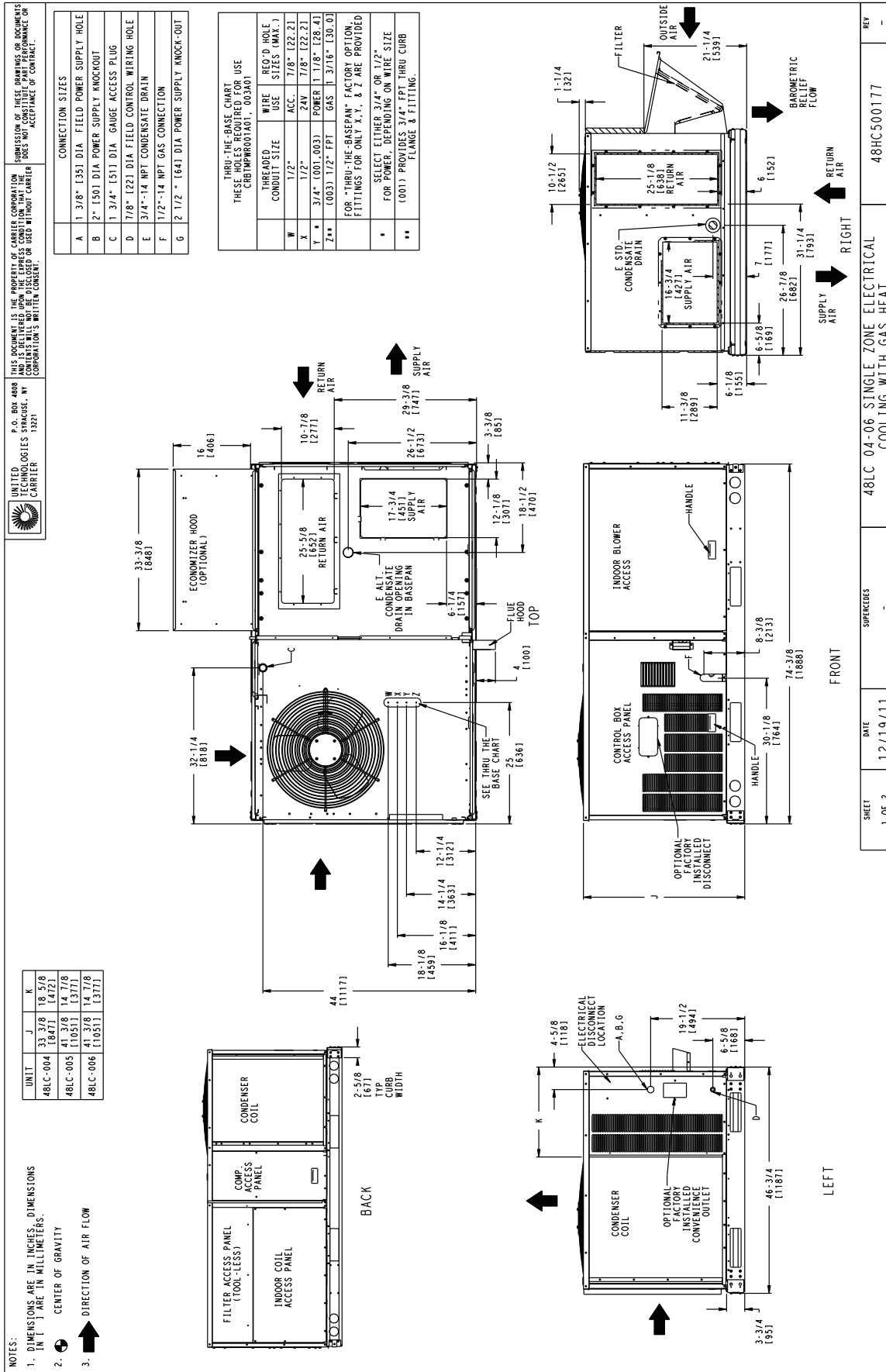


Fig. 1 - Dimensions 48LC 04-06

CURBS & WEIGHTS DIMENSIONS (cont.)

48LC

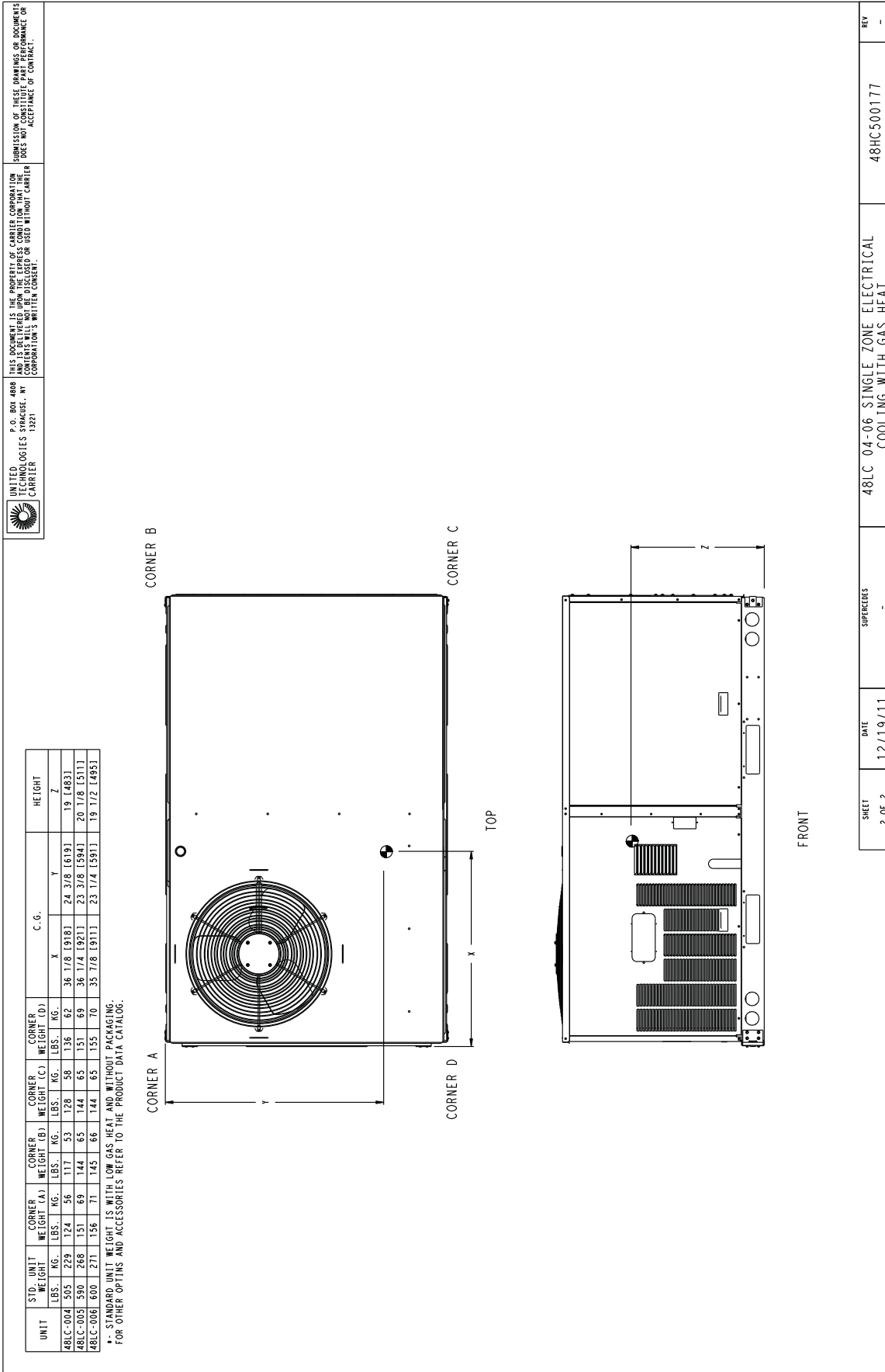
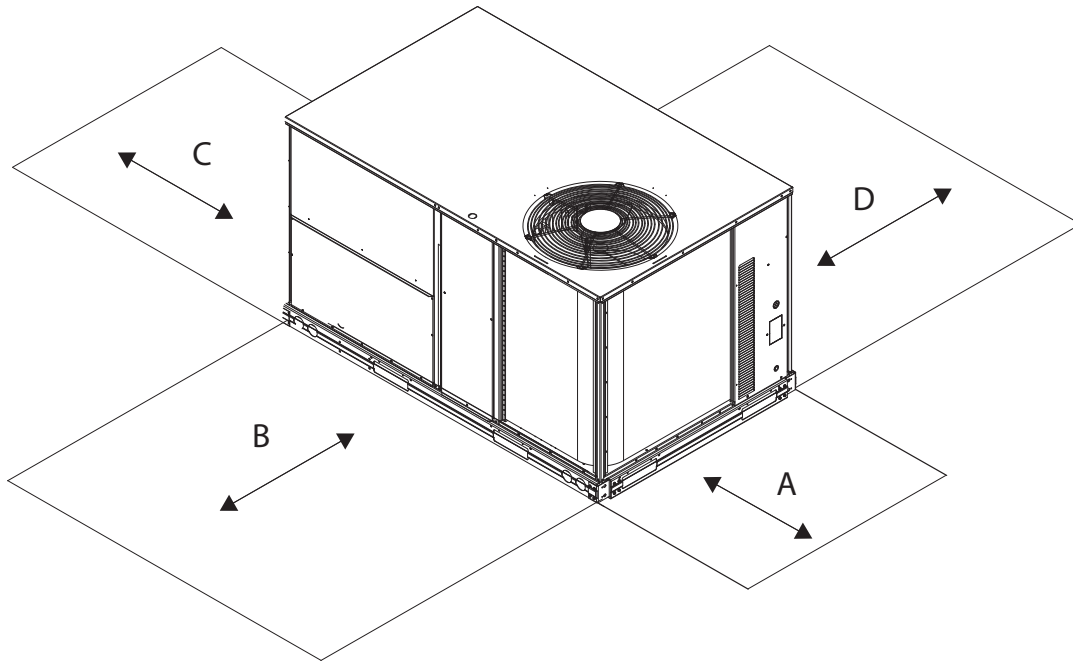


Fig. 2 - Dimensions 48LC 04-06

CURBS & WEIGHTS DIMENSIONS (cont.)



48LC

C08337

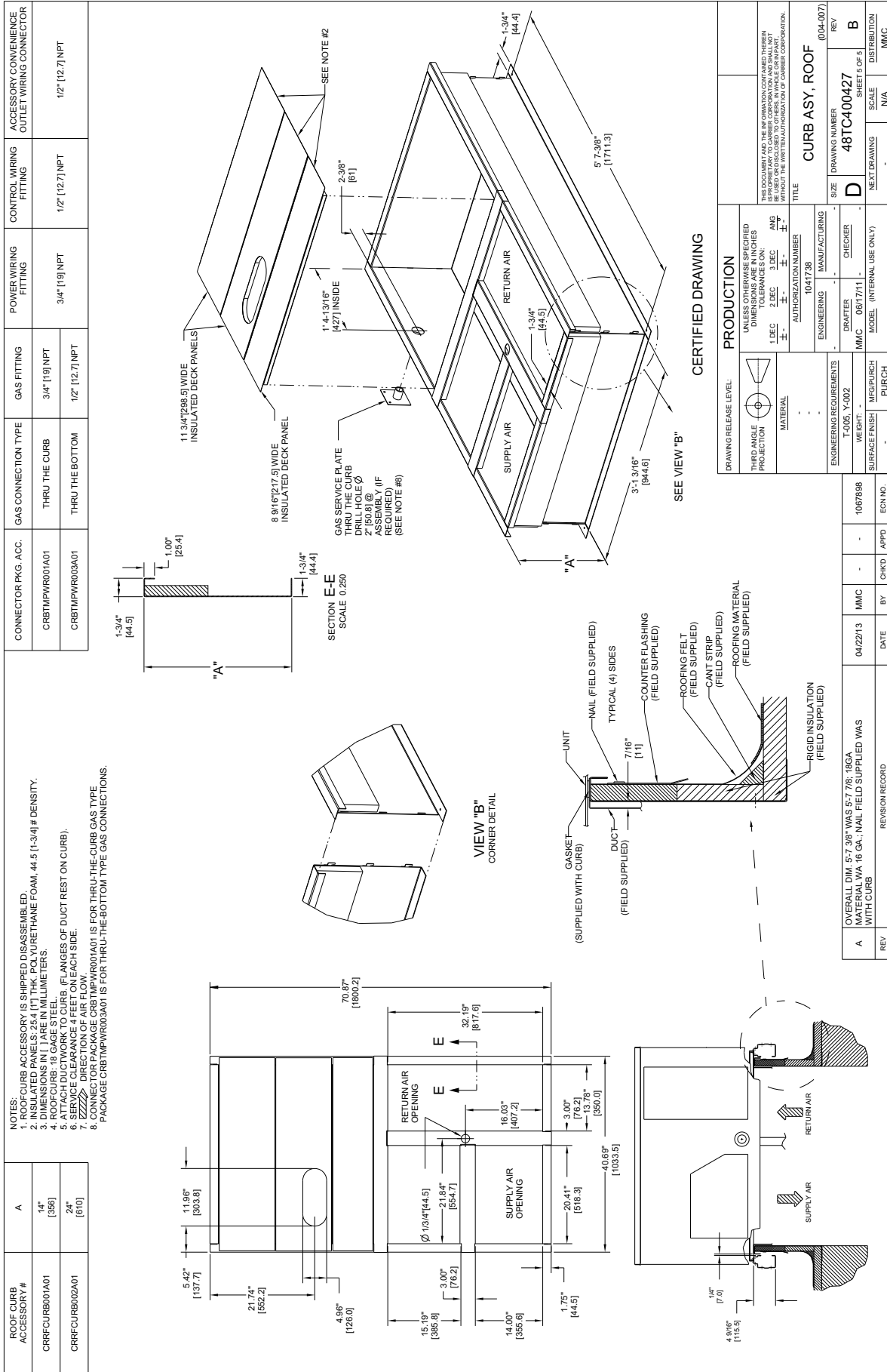
LOCATION	DIMENSION	CONDITION
A	48- in (1219 mm) 18- in (457 mm) 18- in (457 mm) 12- in (305 mm)	Unit disconnect is mounted on panel No disconnect, convenience outlet option Recommended service clearance Minimum clearance
B	40- in (1067 mm) 36- in (914 mm) Special	Surface behind servicer is grounded (e.g., metal, masonry wall) Surface behind servicer is electrically non- conductive (e.g., wood, fiberglass) Check sources of flue products within 10- ft of unit fresh air intake hood
C	36- in (914 mm) 18- in (457 mm)	Side condensate drain is used Minimum clearance
D	48- in (1219 mm) 42- in (1067 mm) 36- in (914 mm) Special	No flue discharge accessory installed, surface is combustible material Surface behind servicer is grounded (e.g., metal, masonry wall, another unit) Surface behind servicer is electrically non- conductive (e.g., wood, fiberglass) Check for adjacent units or building fresh air intakes within 10- ft (3 m) of this unit's flue outlet

NOTE: Unit not designed to have overhead obstruction. Contact Application Engineering for guidance on any application planning overhead obstruction or for vertical clearances.

Fig. 3 - Service Clearance Dimensional Drawing

CURBS & WEIGHTS DIMENSIONS - 48LC 04-06 (cont.)

48LC



OPTIONS & ACCESSORY WEIGHTS

OPTION / ACCESSORY	OPTION / ACCESSORY WEIGHTS					
	04		05		06	
	lb	kg	lb	kg	lb	kg
Humidi- MiZer	50	23	55	25	55	25
Power Exhaust - vertical	50	23	50	23	50	23
Power Exhaust - horizontal	30	14	30	14	30	14
EconoMi\$er (X or 2)	50	23	50	23	50	23
Medium Gas Heat	12	5	9	4	9	4
High Gas Heat	-	-	17	8	17	8
Hail Guard (louvered)	16	7	16	7	16	7
Cu/Cu Condenser Coil	35	16	35	16	35	16
Cu/Cu Condenser and Evaporator Coils	60	27	60	27	90	41
Roof Curb (14- in. curb)	115	43	115	43	115	43
Roof Curb (24- in. curb)	197	74	197	74	197	74
CO ₂ sensor	5	2	5	2	5	2
Flue Discharge Deflector	7	3	7	3	7	3
Optional Indoor Motor/Drive	10	5	10	5	10	5
Motor Master Controller	35	16	35	16	35	16
Return Smoke Detector	5	2	5	2	5	2
Supply Smoke Detector	5	2	5	2	5	2
Fan/Filter Status Switch	2	1	2	1	2	1
Non- Fused Disconnect	15	7	15	7	15	7
Powered Convenience outlet	35	16	35	16	35	16
Non- Powered Convenience outlet	5	2	5	2	5	2
Enthalpy Sensor	2	1	2	1	2	1
Differential Enthalpy Sensor	3	1	3	1	3	1
HACR Breaker	15	7	15	7	15	7

48LC

APPLICATION DATA

Min operating ambient temp (cooling):

In mechanical cooling mode, your Carrier rooftop unit can safely operate down to an outdoor ambient temperature of 10°F (-12°C) and down to 0°F (-18°C) with ComfortLink controls. It is possible to provide cooling at lower outdoor ambient temperatures by using less outside air, economizers, and/or accessory low ambient kits.

Max operating ambient temp (cooling):

The maximum operating ambient temperature for cooling mode is 125°F (52°C). While cooling operation above 125°F (52°C) may be possible, it could cause either a reduction in performance, reliability, or a protective action by the unit's internal safety devices.

Min mixed air temp (heating):

Using the factory settings, the minimum temperatures for the mixed air (the combined temperature of the warm return air and the cold outdoor air) entering the dimpled, gas heat exchangers are:

<u>Aluminized</u>	<u>Stainless Steel</u>
50°F (10°C) continuous	40°F (4°C) continuous
45°F (7°C) intermittent	35°F (2°C) intermittent

Operating at lower mixed-air temperatures may be possible, if a field-supplied, outdoor air thermostat initiates both heat stages when the temperature is less than the minimum temperatures listed above. Please contact your local Carrier representative for assistance.

Min and max airflow (heating and cooling):

To maintain safe and reliable operation of your rooftop, operate within the heating airflow limits during heating mode and cooling airflow limits during cooling mode. Operating above the max may cause blow-off, undesired airflow noise, or airflow related problems with the rooftop unit. Operating below the min may cause problems with coil freeze-up and unsafe heating operation. Heating and cooling limitations differ when evaluating operating CFM, the minimum value is the HIGHER of the cooling and heating minimum CFM values published in Table 7 and the maximum value is the LOWER of the cooling and heating minimum values published in Table 7.

Heating-to-cooling changeover:

Your unit will automatically change from heating to cooling mode when using a thermostat or sensor with an auto-change-over feature.

Airflow:

All units are draw-through in cooling mode and blow-through in heating mode.

Outdoor air application strategies:

Economizers reduce operating expenses and compressor run time by providing a free source of cooling and a means of ventilation to match application changing needs. In fact, they should be considered for most applications. Also, consider the various economizer control methods and their benefits, as well as sensors required to accomplish your application goals. Please contact your local Carrier representative for assistance.

Motor limits, break horsepower (BHP):

Due to internal design of Carrier units, the air path, and specially designed motors, the full horsepower (maximum continuous BHP) band, as listed in Table 8, can be used with the utmost confidence. There is no need for extra safety factors, as Carrier motors are designed and rigorously tested to use the entire, listed BHP range without either nuisance tripping or premature motor failure.

Propane heating:

Propane has different physical qualities than natural gas. As a result, Propane requires different fuel to air mixture. To optimize the fuel/air mixture for Propane, Carrier sells different burner orifices in an easy to install accessory kit. To select the correct burner orifices or determine the heat capacity for an Propane application, use either the selection software, or the unit's service manual.

High altitude heating:

High altitudes have less oxygen, which affects the fuel/air mixture in heat exchangers. In order to maintain a proper fuel/air mixture, heat exchangers operating in altitudes above 2000 ft (610 m) require different orifices. To select the correct burner orifices or determine the heat capacity for a high altitude application, use either the selection software, or the unit's service manual.

High altitudes have less oxygen, which means heat exchangers need less fuel. The new gas orifices in this field-installed kit make the necessary adjustment for high altitude applications. They restore the optimal fuel to air mixture and maintain healthy combustion on altitudes above 2000 ft (610 m).

NOTE: Typical natural gas heating value ranges from 975 to 1050 Btu/ft³ at sea level nationally. The heating value goes down approximately 1.7% per every thousand feet elevation. Standard factory orifices can typically be used up to 2000 ft (610m) elevation without any operational issues.

NOTE: For installations in Canada, the input rating should be derated by 10% for altitudes from 2000 ft (610m) to 4500 ft (1372m) above sea level.

APPLICATION DATA (cont.)

Sizing a rooftop

Bigger isn't necessarily better. While an air conditioner needs to have enough capacity to meet the design loads, it doesn't need excess capacity. In fact, excess capacity typically results in very poor part load performance and humidity control.

Using higher design temperatures than ASHRAE recommends for your location, adding "safety factors" to the calculated load, are all signs of oversizing air conditioners. Oversizing the air conditioner leads to poor humidity control, reduced efficiency, higher utility bills, larger indoor temperature swings, excessive noise, and increased wear and tear on the air conditioner.

Rather than oversizing an air conditioner, engineers should "right-size" or even slightly undersize air conditioners. Correctly sizing an air conditioner controls humidity better; promotes efficiency; reduces utility bills; extends equipment life, and maintains even, comfortable temperatures. Please contact your local Carrier representative for assistance.

Low ambient applications

In low ambient applications where outside air might not be desired (such as contaminated or excessively humid outdoor environments), your Carrier rooftop can operate to ambient temperatures down to 10°F (-12°C) with electrical mechanical controls and down to 0°F (-18°C) with ComfortLink controls.

Table 10 – COOLING CAPACITIES - FIRST STAGE, PART LOAD

3 TONS

04 SIZE				AMBIENT TEMPERATURE																
				85			95			105			115			125				
				EA (dB)			EA (dB)			EA (dB)			EA (dB)			EA (dB)				
				75	80	85	75	80	85	75	80	85	75	80	85	75	80	85		
750 Cfm	EA (wB)	58	THC	24.1	24.1	27.3	22.8	22.8	25.9	21.4	21.4	24.3	19.9	19.9	22.6	18.2	18.2	20.7		
			SHC	20.9	24.1	27.3	19.7	22.8	25.9	18.5	21.4	24.3	17.1	19.9	22.6	15.6	18.2	20.7		
		62	THC	24.8	24.8	27.2	23.2	23.2	26.3	21.5	21.5	25.2	19.9	19.9	23.6	18.2	18.2	21.6		
			SHC	19.4	23.3	27.2	18.5	22.4	26.3	17.5	21.3	25.2	16.2	19.9	23.6	14.7	18.2	21.6		
		67	THC	27.5	27.5	27.5	25.7	25.7	25.7	23.9	23.9	23.9	21.9	21.9	21.9	19.7	19.7	19.8		
			SHC	15.7	19.7	23.7	14.9	18.8	22.8	13.9	17.9	21.8	13.0	16.9	20.9	11.9	15.9	19.8		
		72	THC	30.5	30.5	30.5	28.6	28.6	28.6	26.6	26.6	26.6	24.5	24.5	24.5	22.2	22.2	22.2		
			SHC	12.0	16.0	20.0	11.1	15.1	19.1	10.2	14.2	18.2	9.2	13.2	17.2	8.2	12.2	16.2		
		76	THC	-	33.0	33.0	-	31.0	31.0	-	28.9	28.9	-	26.7	26.7	-	24.2	24.2		
			SHC	-	12.9	17.0	-	12.1	16.1	-	11.2	15.2	-	10.2	14.2	-	9.2	13.2		
		900 Cfm	EA (wB)	58	THC	25.8	25.8	29.2	24.4	24.4	27.6	22.8	22.8	25.9	21.2	21.2	24.1	19.4	19.4	22.1
					SHC	22.4	25.8	29.2	21.1	24.4	27.6	19.7	22.8	25.9	18.3	21.2	24.1	16.7	19.4	22.1
				62	THC	25.8	25.8	30.4	24.4	24.4	28.7	22.9	22.9	27.0	21.2	21.2	25.1	19.4	19.4	23.0
					SHC	21.3	25.8	30.4	20.0	24.4	28.7	18.7	22.9	27.0	17.3	21.2	25.1	15.8	19.4	23.0
67	THC			28.4	28.4	28.4	26.6	26.6	26.6	24.6	24.6	24.6	22.5	22.5	23.6	20.3	20.3	22.5		
	SHC			17.1	21.8	26.5	16.2	20.9	25.6	15.2	19.9	24.6	14.2	18.9	23.6	13.2	17.8	22.5		
72	THC			31.4	31.4	31.4	29.4	29.4	29.4	27.4	27.4	27.4	25.2	25.2	25.2	22.7	22.7	22.7		
	SHC			12.6	17.3	22.1	11.7	16.4	21.2	10.8	15.5	20.2	9.8	14.5	19.2	8.8	13.5	18.2		
76	THC			-	34.0	34.0	-	31.9	31.9	-	29.7	29.7	-	27.4	27.4	-	24.8	24.8		
	SHC			-	13.7	18.5	-	12.8	17.6	-	11.9	16.7	-	10.9	15.7	-	9.9	14.6		
1050 Cfm	EA (wB)			58	THC	27.1	27.1	30.7	25.6	25.6	29.0	24.0	24.0	27.2	22.2	22.2	25.3	20.3	20.3	23.2
					SHC	23.6	27.1	30.7	22.2	25.6	29.0	20.8	24.0	27.2	19.2	22.2	25.3	17.5	20.3	23.2
				62	THC	27.1	27.1	31.9	25.6	25.6	30.2	24.0	24.0	28.3	22.3	22.3	26.3	20.3	20.3	24.1
					SHC	22.4	27.1	31.9	21.1	25.6	30.2	19.7	24.0	28.3	18.2	22.3	26.3	16.6	20.3	24.1
		67	THC	29.1	29.1	29.2	27.2	27.2	28.3	25.2	25.2	27.2	23.0	23.0	26.2	20.7	20.7	25.0		
			SHC	18.4	23.8	29.2	17.4	22.9	28.3	16.5	21.9	27.2	15.4	20.8	26.2	14.3	19.6	25.0		
		72	THC	32.1	32.1	32.1	30.1	30.1	30.1	27.9	27.9	27.9	25.6	25.6	25.6	23.2	23.2	23.2		
			SHC	13.2	18.6	24.1	12.3	17.7	23.1	11.3	16.8	22.2	10.3	15.8	21.2	9.3	14.7	20.1		
		76	THC	-	34.7	34.7	-	32.6	32.6	-	30.3	30.3	-	-	-	-	-	-		
			SHC	-	14.4	19.9	-	13.5	19.0	-	12.6	18.1	-	-	-	-	-	-		
		1200 Cfm	EA (wB)	58	THC	28.2	28.2	31.9	26.6	26.6	30.2	24.9	24.9	28.3	23.1	23.1	26.2	21.1	21.1	24.0
					SHC	24.5	28.2	31.9	23.1	26.6	30.2	21.6	24.9	28.3	20.0	23.1	26.2	18.2	21.1	24.0
				62	THC	28.2	28.2	33.2	26.7	26.7	31.4	24.9	24.9	29.4	23.1	23.1	27.3	21.1	21.1	25.0
					SHC	23.3	28.2	33.2	22.0	26.7	31.4	20.5	24.9	29.4	18.9	23.1	27.3	17.2	21.1	25.0
67	THC			29.6	29.6	31.8	27.7	27.7	30.8	25.6	25.6	29.7	23.5	23.5	28.5	21.2	21.2	27.0		
	SHC			19.6	25.7	31.8	18.6	24.7	30.8	17.6	23.7	29.7	16.5	22.5	28.5	15.3	21.2	27.0		
72	THC			32.6	32.6	32.6	30.6	30.6	30.6	28.4	28.4	28.4	26.0	26.0	26.0	23.5	23.5	23.5		
	SHC			13.7	19.8	26.0	12.8	18.9	25.1	11.8	18.0	24.1	10.8	16.9	23.1	9.8	15.9	22.0		
76	THC			-	35.2	35.2	-	33.1	33.1	-	-	-	-	-	-	-	-	-		
	SHC			-	15.1	21.3	-	14.1	20.3	-	-	-	-	-	-	-	-	-		
1350 Cfm	EA (wB)			58	THC	29.1	29.1	32.9	27.5	27.5	31.1	25.7	25.7	29.2	23.8	23.8	27.0	21.7	21.7	24.7
					SHC	25.3	29.1	32.9	23.9	27.5	31.1	22.3	25.7	29.2	20.6	23.8	27.0	18.7	21.7	24.7
				62	THC	29.2	29.2	34.2	27.5	27.5	32.4	25.8	25.8	30.3	23.8	23.8	28.1	21.8	21.8	25.8
					SHC	24.1	29.2	34.2	22.7	27.5	32.4	21.2	25.8	30.3	19.5	23.8	28.1	17.8	21.8	25.8
		67	THC	30.0	30.0	34.2	28.1	28.1	33.1	26.0	26.0	31.9	23.9	23.9	30.3	21.8	21.8	27.8		
			SHC	20.7	27.4	34.2	19.7	26.4	33.1	18.6	25.3	31.9	17.4	23.9	30.3	15.8	21.8	27.8		
		72	THC	33.0	33.0	33.0	30.9	30.9	30.9	28.7	28.7	28.7	26.3	26.3	26.3	23.7	23.7	23.8		
			SHC	14.2	21.0	27.9	13.2	20.1	26.9	12.3	19.1	26.0	11.3	18.1	24.9	10.2	17.0	23.8		
		76	THC	-	35.7	35.7	-	-	-	-	-	-	-	-	-	-	-	-		
			SHC	-	15.7	22.6	-	-	-	-	-	-	-	-	-	-	-	-		

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT(db) - Entering air temperature (dry bulb)
- EAT(wb) - Entering air temperature (wet bulb)
- SHC - Sensible heat capacity
- TC - Total capacity

Table 11 – COOLING CAPACITIES - SECOND STAGE, FULL LOAD

3 TONS

04 SIZE				AMBIENT TEMPERATURE																
				85			95			105			115			125				
				EA (dB)			EA (dB)			EA (dB)			EA (dB)			EA (dB)				
				75	80	85	75	80	85	75	80	85	75	80	85	75	80	85		
900 Cfm	EA (wB)	58	THC	31.5	31.5	35.8	29.8	29.8	33.9	27.9	27.9	31.9	25.9	25.9	29.7	23.9	23.9	27.4		
			SHC	27.2	31.5	35.8	25.6	29.8	33.9	24	27.9	31.9	22.2	25.9	29.7	20.3	23.9	27.4		
		62	THC	33.4	33.4	34	31.3	31.3	32.7	29	29	31.3	26.6	26.6	29.8	24.1	24.1	28.2		
			SHC	24.6	29.3	34	23.3	28	32.7	21.9	26.6	31.3	20.5	25.1	29.8	19	23.6	28.2		
		67	THC	37.3	37.3	37.3	35	35	35	32.5	32.5	32.5	29.9	29.9	29.9	27.2	27.2	27.2		
			SHC	20.3	25	29.8	19	23.7	28.5	17.7	22.4	27.1	16.3	21	25.7	14.8	19.6	24.3		
		72	THC	41.5	41.5	41.5	39	39	39	36.3	36.3	36.3	33.6	33.6	33.6	30.6	30.6	30.6		
			SHC	15.9	20.7	25.5	14.6	19.4	24.2	13.3	18.1	22.8	11.9	16.7	21.4	10.5	15.2	20		
		76	THC	-	45	45	-	42.4	42.4	-	39.6	39.6	-	36.7	36.7	-	33.5	33.5		
			SHC	-	17.1	22.1	-	15.8	20.8	-	14.5	19.5	-	13.2	18.1	-	11.7	16.6		
		1050 Cfm	EA (wB)	58	THC	33.6	33.6	38.1	31.7	31.7	36	29.7	29.7	33.9	27.6	27.6	31.6	25.4	25.4	29.1
					SHC	29	33.6	38.1	27.4	31.7	36	25.6	29.7	33.9	23.7	27.6	31.6	21.7	25.4	29.1
				62	THC	34.7	34.7	37.5	32.5	32.5	36.1	30.1	30.1	34.6	27.7	27.7	33	25.4	25.4	30.4
					SHC	26.7	32.1	37.5	25.4	30.7	36.1	23.9	29.3	34.6	22.4	27.7	33	20.4	25.4	30.4
67	THC			38.6	38.6	38.6	36.1	36.1	36.1	33.6	33.6	33.6	30.9	30.9	30.9	28	28	28		
	SHC			21.8	27.2	32.7	20.4	25.9	31.4	19.1	24.5	30	17.7	23.1	28.6	16.2	21.6	27.1		
72	THC			42.8	42.8	42.8	40.2	40.2	40.2	37.5	37.5	37.5	34.6	34.6	34.6	31.5	31.5	31.5		
	SHC			16.6	22.1	27.6	15.3	20.8	26.3	14	19.5	24.9	12.6	18	23.5	11.1	16.6	22.1		
76	THC			-	46.4	46.4	-	43.6	43.6	-	40.7	40.7	-	37.7	37.7	-	34.4	34.4		
	SHC			-	18	23.7	-	16.7	22.3	-	15.3	21	-	13.9	19.5	-	12.5	18.1		
1200 Cfm	EA (wB)			58	THC	35.3	35.3	40	33.3	33.3	37.9	31.3	31.3	35.6	29	29	33.2	26.7	26.7	30.6
					SHC	30.6	35.3	40	28.8	33.3	37.9	26.9	31.3	35.6	24.9	29	33.2	22.8	26.7	30.6
				62	THC	35.8	35.8	40.8	33.6	33.6	39.1	31.3	31.3	37.1	29.1	29.1	34.6	26.7	26.7	31.9
					SHC	28.7	34.7	40.8	27.2	33.2	39.1	25.5	31.3	37.1	23.6	29.1	34.6	21.5	26.7	31.9
		67	THC	39.6	39.6	39.6	37	37	37	34.4	34.4	34.4	31.6	31.6	31.6	28.6	28.6	29.7		
			SHC	23.1	29.3	35.5	21.8	27.9	34.1	20.4	26.6	32.7	18.9	25.1	31.3	17.4	23.6	29.7		
		72	THC	43.9	43.9	43.9	41.2	41.2	41.2	38.3	38.3	38.3	35.3	35.3	35.3	32.1	32.1	32.1		
			SHC	17.3	23.5	29.7	15.9	22.2	28.4	14.6	20.8	27	13.1	19.3	25.5	11.7	17.9	24		
		76	THC	-	47.5	47.5	-	44.6	44.6	-	41.6	41.6	-	38.4	38.4	-	35.1	35.1		
			SHC	-	18.8	25.2	-	17.4	23.8	-	16.1	22.4	-	14.7	21	-	13.2	19.5		
		1350 Cfm	EA (wB)	58	THC	36.8	36.8	41.7	34.7	34.7	39.4	32.5	32.5	37	30.2	30.2	34.5	27.8	27.8	31.8
					SHC	31.9	36.8	41.7	30	34.7	39.4	28.1	32.5	37	26	30.2	34.5	23.8	27.8	31.8
				62	THC	36.8	36.8	43.4	34.8	34.8	41	32.6	32.6	38.6	30.3	30.3	36	27.8	27.8	33.2
					SHC	30.3	36.8	43.4	28.5	34.8	41	26.6	32.6	38.6	24.6	30.3	36	22.5	27.8	33.2
67	THC			40.4	40.4	40.4	37.8	37.8	37.8	35	35	35.4	32.2	32.2	33.9	29.2	29.2	32.3		
	SHC			24.4	31.3	38.2	23	29.9	36.8	21.6	28.5	35.4	20.2	27	33.9	18.6	25.4	32.3		
72	THC			44.7	44.7	44.7	41.9	41.9	41.9	39	39	39	35.9	35.9	35.9	32.7	32.7	32.7		
	SHC			17.9	24.8	31.7	16.5	23.4	30.3	15.1	22	28.9	13.7	20.6	27.5	12.2	19.1	26		
76	THC			-	48.3	48.3	-	45.4	45.4	-	42.3	42.3	-	39.1	39.1	-	35.6	35.6		
	SHC			-	19.5	26.6	-	18.1	25.2	-	16.8	23.8	-	15.3	22.3	-	13.8	20.8		
1500 Cfm	EA (wB)			58	THC	38.1	38.1	43.1	35.9	35.9	40.8	33.7	33.7	38.3	31.3	31.3	35.6	28.7	28.7	32.8
					SHC	33	38.1	43.1	31.1	35.9	40.8	29	33.7	38.3	26.9	31.3	35.6	24.6	28.7	32.8
				62	THC	38.1	38.1	44.8	36	36	42.4	33.7	33.7	39.9	31.3	31.3	37.1	28.7	28.7	34.2
					SHC	31.4	38.1	44.8	29.5	36	42.4	27.5	33.7	39.9	25.5	31.3	37.1	23.2	28.7	34.2
		67	THC	41	41	41	38.4	38.4	39.3	35.6	35.6	37.9	32.7	32.7	36.3	29.6	29.6	34.6		
			SHC	25.6	33.2	40.8	24.2	31.8	39.3	22.8	30.3	37.9	21.3	28.8	36.3	19.7	27.2	34.6		
		72	THC	45.4	45.4	45.4	42.5	42.5	42.5	39.5	39.5	39.5	36.4	36.4	36.4	33.1	33.1	33.1		
			SHC	18.4	26	33.6	17	24.6	32.2	15.6	23.2	30.8	14.2	21.8	29.3	12.7	20.2	27.8		
		76	THC	-	49	49	-	46	46	-	42.9	42.9	-	39.6	39.6	-	36	36		
			SHC	-	20.2	27.9	-	18.8	26.5	-	17.4	25.1	-	16	23.6	-	14.5	22.1		

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT(db) - Entering air temperature (dry bulb)
- EAT(wb) - Entering air temperature (wet bulb)
- SHC - Sensible heat capacity
- TC - Total capacity

48LC

Table 12 – COOLING CAPACITIES

3 TONS

48LC

48LC04 (3 TONS) - UNIT WITH HUMIDI- MIZER SYSTEM IN SUBCOOLING MODE										
Temp (F) Air Entering Condenser (Edb)		AIR ENTERING EVAPORATOR - CFM/BF								
		900			1,200			1,500		
		Air Entering Evaporator - Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	41.2	37.0	32.8	45.5	40.8	36.1	49.3	44.1	39.0
	SHC	19.5	22.6	25.6	23.3	26.8	30.2	26.6	30.5	33.7
	kW	1.90	1.88	1.84	1.94	1.90	1.87	1.96	1.90	1.89
85	TC	38.3	34.1	30.0	42.0	37.3	32.6	45.2	40.1	35.0
	SHC	16.1	20.0	23.9	19.4	23.9	28.2	22.4	27.3	31.5
	kW	2.19	2.15	2.11	2.22	2.18	2.14	2.24	2.20	2.16
95	TC	35.4	31.2	27.0	38.4	33.8	29.2	41.1	36.1	31.0
	SHC	12.7	17.4	22.1	15.6	21.0	26.3	18.2	24.2	29.0
	kW	2.47	2.42	2.38	2.50	2.46	2.41	2.53	2.48	2.43
105	TC	32.4	28.3	24.1	34.9	30.3	25.7	37.0	32.0	27.0
	SHC	9.3	14.8	20.4	11.8	18.1	24.1	14.0	21.1	26.5
	kW	2.75	2.70	2.65	2.79	2.73	2.68	2.82	2.76	2.71
115	TC	29.5	25.4	21.2	31.3	26.7	22.2	32.9	28.0	23.0
	SHC	5.9	12.3	18.6	8.0	15.3	21.8	9.8	17.9	22.7
	kW	3.03	2.97	2.91	3.07	3.01	2.95	3.10	3.04	2.98
125	TC	26.5	22.4	18.3	27.7	23.2	18.7	28.8	23.9	19.0
	SHC	2.5	9.7	16.9	4.2	12.4	18.3	5.6	14.8	18.9
	kW	3.31	3.25	3.18	3.36	3.29	3.22	3.39	3.32	3.25

48LC04 (3 TONS) - UNIT WITH HUMIDI- MIZER SYSTEM IN HOT GAS REHEAT MODE										
TEMP (F) AIR ENT CONDENSER (Edb)		AIR ENTERING EVAPORATOR - Ewb (F)								
		75 Dry Bulb 62.5 Wet Bulb (50% Relative)			75 Dry Bulb 64 Wet Bulb (56% Relative)			75 Dry Bulb 65.3 Wet Bulb (60% Relative)		
		Air Entering Evaporator - Cfm								
		900	1,200	1,500	900	1,200	1,500	900	1,200	1,500
80	TC	7.24	7.73	8.15	8.06	8.64	9.13	8.77	9.43	9.98
	SHC	1.47	1.90	2.27	1.65	2.10	2.50	1.80	2.23	2.70
	kW	2.44	2.47	2.49	2.45	2.49	2.52	2.48	2.52	2.54
75	TC	8.82	9.50	10.09	9.64	10.41	11.06	10.35	11.19	11.91
	SHC	2.24	2.76	3.20	2.43	2.97	3.44	2.58	3.16	3.65
	kW	2.33	2.36	2.39	2.34	2.38	2.41	2.37	2.40	2.43
70	TC	10.39	11.27	12.02	11.21	12.17	13.00	11.92	12.95	13.84
	SHC	3.01	3.61	4.14	3.21	3.84	4.39	3.37	4.03	4.60
	kW	2.22	2.25	2.28	2.23	2.27	2.29	2.26	2.29	2.32
60	TC	13.55	14.81	15.88	14.36	15.71	16.85	15.06	16.48	17.69
	SHC	4.55	5.33	5.99	4.77	5.57	6.27	4.95	5.79	6.51
	kW	2.00	2.03	2.05	2.01	2.05	2.07	2.04	2.07	2.09

LEGEND

- Edb - Entering Dry- Bulb
- Ewb - Entering Wet- Bulb
- kW - Compressor Motor Power Input
- ldb - Leaving Dry- Bulb
- lwb - Leaving Wet- Bulb
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

NOTES:

- 1 Direct interpolation is permissible. Do not extrapolate.
- 2 The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

t_{lwb} = Wet- bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

Table 13 – COOLING CAPACITIES - FIRST STAGE PART LOAD

4 TONS

05 SIZE				AMBIENT TEMPERATURE															
				85			95			105			115			125			
				EA (dB)			EA (dB)			EA (dB)			EA (dB)			EA (dB)			
				75	80	85	75	80	85	75	80	85	75	80	85	75	80	85	
1000 Cfm	EA (wB)	58	THC	32.0	32.0	36.3	30.5	30.5	34.6	28.8	28.8	32.7	26.9	26.9	30.6	24.8	24.8	28.3	
			SHC	27.8	32.0	36.3	26.4	30.5	34.6	24.9	28.8	32.7	23.2	26.9	30.6	21.4	24.8	28.3	
		62	THC	33.2	33.2	35.6	31.3	31.3	34.5	29.3	29.3	33.2	27.1	27.1	31.7	24.9	24.9	29.5	
			SHC	25.6	30.6	35.6	24.5	29.5	34.5	23.3	28.2	33.2	21.9	26.8	31.7	20.3	24.9	29.5	
		67	THC	36.9	36.9	36.9	34.8	34.8	34.8	32.6	32.6	32.6	30.1	30.1	30.1	27.4	27.4	27.4	
			SHC	21.0	26.0	31.1	19.9	25.0	30.0	18.8	23.8	28.9	17.6	22.6	27.6	16.3	21.3	26.3	
	72	THC	41.0	41.0	41.0	38.7	38.7	38.7	36.3	36.3	36.3	33.7	33.7	33.7	30.8	30.8	30.8		
		SHC	16.2	21.3	26.4	15.1	20.2	25.3	14.0	19.1	24.2	12.9	17.9	23.0	11.6	16.6	21.7		
	76	THC	-	44.4	44.4	-	42.1	42.1	-	39.5	39.5	-	36.7	36.7	-	33.6	33.6		
		SHC	-	17.4	22.8	-	16.4	21.7	-	15.3	20.6	-	14.1	19.3	-	12.9	18.0		
	1200 Cfm	EA (wB)	58	THC	34.2	34.2	38.7	32.6	32.6	36.9	30.7	30.7	34.8	28.7	28.7	32.6	26.5	26.5	30.1
				SHC	29.7	34.2	38.7	28.2	32.6	36.9	26.6	30.7	34.8	24.8	28.7	32.6	22.8	26.5	30.1
62			THC	34.6	34.6	39.6	32.6	32.6	38.4	30.8	30.8	36.3	28.7	28.7	33.9	26.5	26.5	31.4	
			SHC	28.0	33.8	39.6	26.9	32.6	38.4	25.3	30.8	36.3	23.5	28.7	33.9	21.6	26.5	31.4	
67			THC	38.2	38.2	38.2	36.0	36.0	36.0	33.7	33.7	33.7	31.1	31.1	31.1	28.2	28.2	29.6	
			SHC	22.7	28.6	34.6	21.6	27.5	33.5	20.4	26.4	32.3	19.2	25.1	31.0	17.8	23.7	29.6	
72		THC	42.3	42.3	42.3	40.0	40.0	40.0	37.5	37.5	37.5	34.7	34.7	34.7	31.7	31.7	31.7		
		SHC	17.0	23.0	29.0	15.9	21.9	27.9	14.8	20.7	26.7	13.6	19.5	25.5	12.3	18.2	24.1		
76		THC	-	45.8	45.8	-	43.4	43.4	-	40.7	40.7	-	37.7	37.7	-	34.5	34.5		
		SHC	-	18.4	24.6	-	17.3	23.5	-	16.2	22.3	-	15.0	21.1	-	13.7	19.7		
1400 Cfm		EA (wB)	58	THC	36.0	36.0	40.7	34.2	34.2	38.7	32.3	32.3	36.6	30.1	30.1	34.2	27.8	27.8	31.6
				SHC	31.3	36.0	40.7	29.7	34.2	38.7	28.0	32.3	36.6	26.1	30.1	34.2	24.0	27.8	31.6
	62		THC	36.0	36.0	42.3	34.3	34.3	40.3	32.3	32.3	38.1	30.2	30.2	35.6	27.8	27.8	32.9	
			SHC	29.8	36.0	42.3	28.2	34.3	40.3	26.6	32.3	38.1	24.7	30.2	35.6	22.7	27.8	32.9	
	67		THC	39.1	39.1	39.1	36.9	36.9	36.9	34.5	34.5	35.5	31.8	31.8	34.2	28.9	28.9	32.7	
			SHC	24.2	31.1	37.9	23.1	29.9	36.8	21.9	28.7	35.5	20.7	27.4	34.2	19.3	26.0	32.7	
	72	THC	43.3	43.3	43.3	40.9	40.9	40.9	38.3	38.3	38.3	35.5	35.5	35.5	32.3	32.3	32.3		
		SHC	17.7	24.5	31.4	16.6	23.4	30.3	15.5	22.3	29.1	14.2	21.0	27.8	12.9	19.7	26.4		
	76	THC	-	46.9	46.9	-	44.3	44.3	-	41.5	41.5	-	38.5	38.5	-	35.2	35.2		
		SHC	-	19.3	26.3	-	18.2	25.2	-	17.0	24.0	-	15.8	22.7	-	14.5	21.3		
	1600 Cfm	EA (wB)	58	THC	37.5	37.5	42.3	35.6	35.6	40.3	33.6	33.6	38.0	31.3	31.3	35.5	28.9	28.9	32.8
				SHC	32.6	37.5	42.3	30.9	35.6	40.3	29.1	33.6	38.0	27.1	31.3	35.5	24.9	28.9	32.8
62			THC	37.5	37.5	44.0	35.6	35.6	41.9	33.6	33.6	39.6	31.4	31.4	37.0	28.9	28.9	34.2	
			SHC	31.0	37.5	44.0	29.4	35.6	41.9	27.6	33.6	39.6	25.7	31.4	37.0	23.6	28.9	34.2	
67			THC	39.9	39.9	41.0	37.6	37.6	39.8	35.1	35.1	38.5	32.4	32.4	37.1	29.4	29.4	35.4	
			SHC	25.7	33.4	41.0	24.6	32.2	39.8	23.3	30.9	38.5	22.0	29.5	37.1	20.5	28.0	35.4	
72		THC	44.1	44.1	44.1	41.6	41.6	41.6	39.0	39.0	39.0	36.0	36.0	36.0	32.8	32.8	32.8		
		SHC	18.3	26.0	33.7	17.2	24.9	32.5	16.1	23.7	31.3	14.8	22.4	30.0	13.5	21.1	28.6		
76		THC	-	47.7	47.7	-	45.1	45.1	-	42.2	42.2	-	39.1	39.1	-	35.7	35.7		
		SHC	-	20.1	27.9	-	19.0	26.7	-	17.8	25.5	-	16.5	24.2	-	15.2	22.8		
1800 Cfm		EA (wB)	58	THC	38.7	38.7	43.7	36.8	36.8	41.6	34.7	34.7	39.2	32.3	32.3	36.7	29.8	29.8	33.8
				SHC	33.7	38.7	43.7	31.9	36.8	41.6	30.1	34.7	39.2	28.0	32.3	36.7	25.7	29.8	33.8
	62		THC	38.7	38.7	45.4	36.8	36.8	43.2	34.7	34.7	40.8	32.4	32.4	38.2	29.8	29.8	35.2	
			SHC	32.0	38.7	45.4	30.4	36.8	43.2	28.5	34.7	40.8	26.6	32.4	38.2	24.4	29.8	35.2	
	67		THC	40.5	40.5	44.0	38.1	38.1	42.7	35.6	35.6	41.3	32.9	32.9	39.7	30.0	30.0	37.6	
			SHC	27.1	35.5	44.0	25.9	34.3	42.7	24.6	33.0	41.3	23.2	31.5	39.7	21.6	29.6	37.6	
	72	THC	44.7	44.7	44.7	42.2	42.2	42.2	39.5	39.5	39.5	36.5	36.5	36.5	33.2	33.2	33.2		
		SHC	18.9	27.4	35.9	17.8	26.3	34.8	16.6	25.1	33.5	15.4	23.8	32.2	14.0	22.4	30.8		
	76	THC	-	48.4	48.4	-	45.6	45.6	-	42.7	42.7	-	39.5	39.5	-	36.1	36.1		
		SHC	-	20.8	29.4	-	19.7	28.2	-	18.5	27.0	-	17.2	25.6	-	15.8	24.1		

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT(db) - Entering air temperature (dry bulb)
- EAT(wb) - Entering air temperature (wet bulb)
- SHC - Sensible heat capacity
- TC - Total capacity

48LC

Table 14 – COOLING CAPACITIES - SECOND STAGE FULL LOAD

4 TONS

48LC

05 SIZE				AMBIENT TEMPERATURE															
				85			95			105			115			125			
				EA (dB)			EA (dB)			EA (dB)			EA (dB)			EA (dB)			
				75	80	85	75	80	85	75	80	85	75	80	85	75	80	85	
1200 Cfm	EA (wB)	58	THC	42.0	42.0	47.6	39.8	39.8	45.2	37.5	37.5	42.6	35.0	35.0	39.9	32.5	32.5	37.1	
			SHC	36.4	42.0	47.6	34.4	39.8	45.2	32.3	37.5	42.6	30.1	35.0	39.9	27.8	32.5	37.1	
		62	THC	44.7	44.7	44.7	42.0	42.0	43.1	39.1	39.1	41.4	36.1	36.1	39.6	33.0	33.0	37.7	
			SHC	32.7	38.7	44.7	31.1	37.1	43.1	29.4	35.4	41.4	27.7	33.7	39.6	25.9	31.8	37.7	
		67	THC	49.4	49.4	49.4	46.5	46.5	46.5	43.4	43.4	43.4	40.2	40.2	40.2	36.8	36.8	36.8	
			SHC	27	33.1	39.1	25.5	31.5	37.5	23.8	29.9	35.9	22.2	28.2	34.2	20.4	26.5	32.5	
	72	THC	54.5	54.5	54.5	51.4	51.4	51.4	48.1	48.1	48.1	44.6	44.6	44.6	41.0	41.0	41.0		
		SHC	21.2	27.4	33.5	19.7	25.8	31.9	18.1	24.2	30.3	16.4	22.5	28.6	14.7	20.8	26.9		
	76	THC	-	58.8	58.8	-	55.4	55.4	-	51.9	51.9	-	48.2	48.2	-	44.4	44.4		
		SHC	-	22.7	29.3	-	21.1	27.7	-	19.6	26.1	-	17.9	24.4	-	16.2	22.6		
	1400 Cfm	EA (wB)	58	THC	44.5	44.5	50.4	42.1	42.1	47.8	39.7	39.7	45.1	37.1	37.1	42.2	34.3	34.3	39.2
				SHC	38.6	44.5	50.4	36.5	42.1	47.8	34.3	39.7	45.1	31.9	37.1	42.2	29.5	34.3	39.2
62			THC	46.3	46.3	49.1	43.4	43.4	47.3	40.5	40.5	45.5	37.4	37.4	43.4	34.4	34.4	40.9	
			SHC	35.3	42.2	49.1	33.6	40.5	47.3	31.9	38.7	45.5	30.0	36.7	43.4	27.9	34.4	40.9	
67			THC	51.0	51.0	51.0	48.0	48	48.0	44.7	44.7	44.7	41.4	41.4	41.4	37.8	37.8	37.8	
			SHC	28.8	35.7	42.7	27.2	34.1	41.1	25.5	32.5	39.4	23.8	30.7	37.7	22.1	29.0	35.9	
72		THC	56.2	56.2	56.2	52.9	52.9	52.9	49.4	49.4	49.4	45.8	45.8	45.8	42.0	42.0	42.0		
		SHC	22.1	29.1	36.1	20.5	27.5	34.5	18.9	25.8	32.8	17.2	24.1	31.1	15.5	22.4	29.3		
76		THC	-	60.4	60.4	-	56.9	56.9	-	53.3	53.3	-	49.4	49.4	-	45.4	45.4		
		SHC	-	23.7	31.2	-	22.1	29.5	-	20.5	27.8	-	18.8	26.1	-	17.1	24.3		
1600 Cfm		EA (wB)	58	THC	46.6	46.6	52.7	44.1	44.1	50.0	41.5	41.5	47.2	38.8	38.8	44.1	35.9	35.9	40.9
				SHC	40.4	46.6	52.7	38.2	44.1	50.0	35.9	41.5	47.2	33.4	38.8	44.1	30.8	35.9	40.9
	62		THC	47.6	47.6	53.0	44.7	44.7	51.1	41.6	41.6	49.2	38.8	38.8	46.0	35.9	35.9	42.7	
			SHC	37.7	45.3	53.0	35.9	43.5	51.1	34.1	41.6	49.2	31.7	38.8	46.0	29.2	35.9	42.7	
	67		THC	52.3	52.3	52.3	49.1	49.1	49.1	45.8	45.8	45.8	42.3	42.3	42.3	38.6	38.6	39.1	
			SHC	30.4	38.3	46.1	28.8	36.6	44.4	27.1	34.9	42.7	25.4	33.2	40.9	23.6	31.3	39.1	
	72	THC	57.4	57.4	57.4	54.0	54.0	54.0	50.5	50.5	50.5	46.7	46.7	46.7	42.8	42.8	42.8		
		SHC	22.8	30.7	38.6	21.2	29.1	36.9	19.6	27.4	35.2	17.9	25.7	33.5	16.1	23.9	31.7		
	76	THC	-	61.7	61.7	-	58.1	58.1	-	54.3	54.3	-	50.3	50.3	-	46.2	46.2		
		SHC	-	24.6	32.9	-	23	31.2	-	21.4	29.5	-	19.7	27.7	-	17.9	25.9		
	1800 Cfm	EA (wB)	58	THC	48.4	48.4	54.7	45.8	45.8	51.9	43.1	43.1	48.9	40.2	40.2	45.7	37.2	37.2	42.4
				SHC	42.0	48.4	54.7	39.7	45.8	51.9	37.3	43.1	48.9	34.7	40.2	45.7	32.0	37.2	42.4
62			THC	48.8	48.8	56.4	45.9	45.9	54.0	43.1	43.1	50.9	40.2	40.2	47.6	37.2	37.2	44.2	
			SHC	39.7	48.1	56.4	37.7	45.9	54.0	35.4	43.1	50.9	32.9	40.2	47.6	30.3	37.2	44.2	
67			THC	53.3	53.3	53.3	50.0	50	50.0	46.6	46.6	46.6	43.0	43.0	44.1	39.2	39.2	42.1	
			SHC	32	40.7	49.3	30.3	39.0	47.7	28.6	37.3	45.9	26.8	35.5	44.1	25	33.6	42.1	
72		THC	58.5	58.5	58.5	55.0	55.0	55.0	51.3	51.3	51.3	47.5	47.5	47.5	43.4	43.4	43.4		
		SHC	23.5	32.2	41.0	21.9	30.6	39.3	20.2	28.9	37.6	18.5	27.1	35.8	16.7	25.3	33.9		
76		THC	-	62.8	62.8	-	59.0	59.0	-	55.1	55.1	-	51.1	51.1	-	46.9	46.9		
		SHC	-	25.5	34.5	-	23.8	32.8	-	22.2	31.1	-	20.4	29.3	-	18.6	27.4		
2000 Cfm		EA (wB)	58	THC	49.9	49.9	56.5	47.2	47.2	53.5	44.4	44.4	50.4	41.4	41.4	47.1	38.3	38.3	43.6
				SHC	43.4	49.9	56.5	41.0	47.2	53.5	38.4	44.4	50.4	35.8	41.4	47.1	33.0	38.3	43.6
	62		THC	50.0	50.0	58.7	47.3	47.3	55.7	44.5	44.5	52.4	41.5	41.5	49.0	38.3	38.3	45.5	
			SHC	41.2	50.0	58.7	38.9	47.3	55.7	36.5	44.5	52.4	33.9	41.5	49.0	31.2	38.3	45.5	
	67		THC	54.1	54.1	54.1	50.7	50.7	50.7	47.2	47.2	48.9	43.5	43.5	47.0	39.7	39.7	45.0	
			SHC	33.4	42.9	52.4	31.8	41.2	50.7	30	39.5	48.9	28.2	37.6	47.0	26.3	35.6	45.0	
	72	THC	59.3	59.3	59.3	55.7	55.7	55.7	52.0	52.0	52.0	48.0	48.0	48.0	43.9	43.9	43.9		
		SHC	24.2	33.7	43.2	22.5	32.0	41.5	20.8	30.3	39.8	19.1	28.5	37.9	17.3	26.7	36.0		
	76	THC	-	63.6	63.6	-	59.8	59.8	-	55.8	55.8	-	51.6	51.6	-	47.4	47.4		
		SHC	-	26.3	36.1	-	24.6	34.4	-	22.9	32.6	-	21.1	30.7	-	19.3	28.8		

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT(db) - Entering air temperature (dry bulb)
- EAT(wb) - Entering air temperature (wet bulb)
- SHC - Sensible heat capacity
- TC - Total capacity

48LC05 (4 TONS) - UNIT WITH HUMIDI- MIZER SYSTEM IN SUBCOOLING MODE										
TEMP (F) AIR ENT CON- DENSER (Edb)		AIR ENTERING EVAPORATOR - CFM/BF								
		1,200			1,600			2,000		
		Air Entering Evaporator - - Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	54.6	49.4	44.3	59.4	53.6	47.9	63.5	57.3	51.2
	SHC	23.6	28.3	33.0	28.0	33.5	40.1	31.8	38.1	44.3
	kW	2.39	2.36	2.32	2.41	2.38	2.34	2.43	2.39	2.36
85	TC	50.7	45.6	40.5	54.5	48.9	43.3	57.8	51.8	45.8
	SHC	19.2	25.1	30.9	22.9	29.7	37.5	26.2	33.9	41.2
	kW	2.75	2.71	2.67	2.77	2.73	2.69	2.79	2.75	2.71
95	TC	46.8	41.7	36.7	49.6	44.2	38.7	52.1	46.3	40.4
	SHC	14.8	21.8	28.8	17.8	25.9	34.8	20.5	29.7	37.9
	kW	3.11	3.06	3.01	3.14	3.09	3.04	3.16	3.11	3.07
105	TC	42.8	37.9	32.9	44.7	39.4	34.1	46.4	40.8	35.1
	SHC	10.4	18.6	26.7	12.7	22.2	31.9	14.8	25.5	34.5
	kW	3.47	3.42	3.36	3.50	3.45	3.39	3.53	3.47	3.77
115	TC	38.9	34.0	29.2	39.9	34.7	29.5	40.8	35.2	29.7
	SHC	6.0	15.3	24.6	7.6	18.5	29.0	9.0	21.3	29.3
	kW	3.83	3.77	3.70	3.87	3.80	3.74	3.89	3.83	3.77
125	TC	34.9	30.2	25.5	35.0	29.9	24.9	35.1	29.7	24.3
	SHC	1.6	12.1	22.5	2.5	14.7	24.5	3.3	17.1	24.2
	kW	4.19	4.12	4.05	4.23	4.16	4.09	4.26	4.19	4.12

48LC

48LC05 (4 TONS) - UNIT WITH HUMIDI- MIZER SYSTEM IN HOT GAS REHEAT MODE										
TEMP (F) AIR ENT CONDENSER (Edb)		AIR ENTERING EVAPORATOR - Ewb (F)								
		75 Dry Bulb 62.5 Wet Bulb (50% Relative)			75 Dry Bulb 64 Wet Bulb (56% Relative)			75 Dry Bulb 65.3 Wet Bulb (60% Relative)		
		Air Entering Evaporator - Cfm								
		1,200	1,600	2,000	1,200	1,600	2,000	1,200	1,500	2,000
80	TC	9.51	10.01	10.48	9.94	10.56	11.13	10.32	11.04	11.69
	SHC	2.61	3.30	3.92	2.45	3.11	3.71	2.30	2.95	3.52
	kW	1.92	1.90	1.89	1.93	1.91	1.90	1.94	1.92	1.91
75	TC	10.86	11.70	12.45	11.31	12.27	13.13	11.71	12.76	13.71
	SHC	2.96	3.69	4.36	2.82	3.52	4.15	2.69	3.38	3.99
	kW	1.86	1.84	1.83	1.87	1.85	1.84	1.88	1.86	1.85
70	TC	12.22	13.38	14.43	12.69	13.97	15.13	13.10	14.48	15.73
	SHC	3.31	4.07	4.75	3.18	3.93	4.60	3.08	3.81	4.47
	kW	1.79	1.78	1.76	1.80	1.79	1.77	1.81	1.80	1.78
60	TC	14.93	16.74	18.38	15.45	17.38	19.12	15.89	17.93	19.77
	SHC	3.99	4.84	5.59	3.92	4.75	5.49	3.85	4.68	5.41
	kW	1.66	16.50	1.64	1.68	1.66	1.65	1.69	1.67	1.66

LEGEND

- Edb - Entering Dry- Bulb
- Ewb - Entering Wet- Bulb
- kW - Compressor Motor Power Input
- ldb - Leaving Dry- Bulb
- lwb - Leaving Wet- Bulb
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

NOTES:

- 1 Direct interpolation is permissible. Do not extrapolate.
- 2 The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

t_{lwb} = Wet- bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

Table 16 – COOLING CAPACITIES - FIRST STAGE PART LOAD

5 TONS

48LC

06 SIZE				AMBIENT TEMPERATURE																
				85			95			105			115			125				
				EA (dB)			EA (dB)			EA (dB)			EA (dB)			EA (dB)				
				75	80	85	75	80	85	75	80	85	75	80	85	75	80	85		
1250 Cfm	EA (wB)	58	THC	40.1	40.1	45.4	38.0	38.0	43.1	35.7	35.7	40.6	33.1	33.1	37.8	30.3	30.3	34.7		
			SHC	34.8	40.1	45.4	32.8	38.0	43.1	30.8	35.7	40.6	28.5	33.1	37.8	26.0	30.3	34.7		
		62	THC	40.9	40.9	45.8	38.4	38.4	44.2	35.8	35.8	42.2	33.2	33.2	39.4	30.4	30.4	36.2		
			SHC	32.4	39.1	45.8	30.9	37.5	44.2	29.1	35.6	42.2	27.0	33.2	39.4	24.6	30.4	36.2		
		67	THC	45.4	45.4	45.4	42.6	42.6	42.6	39.6	39.6	39.6	36.3	36.3	36.3	32.8	32.8	33.3		
			SHC	26.2	32.9	39.7	24.8	31.5	38.3	23.2	30.0	36.7	21.6	28.3	35.1	19.9	26.6	33.3		
		72	THC	50.4	50.4	50.4	47.5	47.5	47.5	44.3	44.3	44.3	40.8	40.8	40.8	37.0	37.0	37.0		
			SHC	19.8	26.6	33.4	18.4	25.2	32.0	16.9	23.7	30.5	15.3	22.1	28.9	13.6	20.4	27.2		
		76	THC	-	54.8	54.8	-	51.7	51.7	-	48.3	48.3	-	44.6	44.6	-	40.6	40.6		
			SHC	-	21.5	28.4	-	20.1	27.0	-	18.6	25.4	-	17.0	23.8	-	15.3	22.1		
		1500 Cfm	EA (wB)	58	THC	42.9	42.9	48.6	40.6	40.6	46.1	38.1	38.1	43.3	35.4	35.4	40.3	32.4	32.4	37.0
					SHC	37.2	42.9	48.6	35.2	40.6	46.1	32.9	38.1	43.3	30.5	35.4	40.3	27.8	32.4	37.0
				62	THC	43.0	43.0	50.5	40.7	40.7	48.0	38.2	38.2	45.1	35.4	35.4	42.0	32.5	32.5	38.6
					SHC	35.4	43.0	50.5	33.4	40.7	48.0	31.2	38.2	45.1	28.9	35.4	42.0	26.3	32.5	38.6
67	THC			46.9	46.9	46.9	44.0	44.0	44.0	40.9	40.9	41.6	37.5	37.5	39.9	33.8	33.8	38.0		
	SHC			28.5	36.6	44.6	27.1	35.1	43.1	25.5	33.5	41.6	23.8	31.9	39.9	22.1	30.1	38.0		
72	THC			52.0	52.0	52.0	48.9	48.9	48.9	45.6	45.6	45.6	41.9	41.9	41.9	38.0	38.0	38.0		
	SHC			20.9	29.0	37.1	19.5	27.5	35.6	17.9	26.0	34.1	16.3	24.4	32.4	14.6	22.6	30.7		
76	THC			-	56.5	56.5	-	53.2	53.2	-	49.7	49.7	-	45.8	45.8	-	-	-		
	SHC			-	22.8	31.0	-	21.4	29.5	-	19.9	28.0	-	18.2	26.3	-	-	-		
1750 Cfm	EA (wB)			58	THC	45.2	45.2	51.1	42.7	42.7	48.4	40.1	40.1	45.5	37.2	37.2	42.3	34.1	34.1	38.9
					SHC	39.2	45.2	51.1	37.0	42.7	48.4	34.7	40.1	45.5	32.1	37.2	42.3	29.3	34.1	38.9
				62	THC	45.2	45.2	53.1	42.8	42.8	50.4	40.1	40.1	47.4	37.3	37.3	44.1	34.1	34.1	40.5
					SHC	37.3	45.2	53.1	35.2	42.8	50.4	32.9	40.1	47.4	30.4	37.3	44.1	27.7	34.1	40.5
		67	THC	48.0	48.0	49.4	45.0	45.0	47.8	41.8	41.8	46.2	38.3	38.3	44.4	34.6	34.6	42.4		
			SHC	30.8	40.1	49.4	29.3	38.5	47.8	27.7	36.9	46.2	26.0	35.2	44.4	24.1	33.2	42.4		
		72	THC	53.1	53.1	53.1	50.0	50.0	50.0	46.5	46.5	46.5	42.8	42.8	42.8	38.7	38.7	38.7		
			SHC	21.9	31.2	40.6	20.4	29.7	39.1	18.8	28.2	37.5	17.2	26.5	35.8	15.5	24.8	34.1		
		76	THC	-	57.7	57.7	-	54.3	54.3	-	50.7	50.7	-	-	-	-	-	-		
			SHC	-	24.0	33.4	-	22.6	32.0	-	21.0	30.4	-	-	-	-	-	-		
		2000 Cfm	EA (wB)	58	THC	47.0	47.0	53.2	44.5	44.5	50.4	41.7	41.7	47.3	38.7	38.7	44.0	35.4	35.4	40.3
					SHC	40.8	47.0	53.2	38.6	44.5	50.4	36.1	41.7	47.3	33.4	38.7	44.0	30.5	35.4	40.3
				62	THC	47.0	47.0	55.3	44.5	44.5	52.4	41.7	41.7	49.2	38.7	38.7	45.8	35.4	35.4	42.0
					SHC	38.8	47.0	55.3	36.6	44.5	52.4	34.2	41.7	49.2	31.6	38.7	45.8	28.8	35.4	42.0
67	THC			48.9	48.9	53.8	45.8	45.8	52.2	42.6	42.6	50.4	39.1	39.1	48.4	35.5	35.5	45.4		
	SHC			32.8	43.3	53.8	31.3	41.8	52.2	29.6	40.0	50.4	27.8	38.1	48.4	25.6	35.5	45.4		
72	THC			54.0	54.0	54.0	50.7	50.7	50.7	47.2	47.2	47.2	43.4	43.4	43.4	39.2	39.2	39.2		
	SHC			22.8	33.4	43.9	21.3	31.9	42.4	19.7	30.3	40.8	18.0	28.6	39.1	16.3	26.8	37.3		
76	THC			-	58.6	58.6	-	55.2	55.2	-	-	-	-	-	-	-	-	-		
	SHC			-	25.2	35.8	-	23.7	34.3	-	-	-	-	-	-	-	-	-		
2250 Cfm	EA (wB)			58	THC	48.5	48.5	54.9	45.9	45.9	52.0	43.0	43.0	48.8	39.9	39.9	45.3	36.5	36.5	41.6
					SHC	42.2	48.5	54.9	39.8	45.9	52.0	37.2	43.0	48.8	34.4	39.9	45.3	31.4	36.5	41.6
				62	THC	48.6	48.6	57.0	45.9	45.9	54.0	43.0	43.0	50.8	39.9	39.9	47.2	36.5	36.5	43.3
					SHC	40.1	48.6	57.0	37.8	45.9	54.0	35.3	43.0	50.8	32.7	39.9	47.2	29.8	36.5	43.3
		67	THC	49.6	49.6	58.0	46.5	46.5	56.3	43.3	43.3	54.1	40.0	40.0	50.9	36.6	36.6	46.7		
			SHC	34.8	46.4	58.0	33.2	44.7	56.3	31.4	42.8	54.1	29.1	40.0	50.9	26.4	36.6	46.7		
		72	THC	54.6	54.6	54.6	51.3	51.3	51.3	47.7	47.7	47.7	43.8	43.8	43.8	39.6	39.6	40.5		
			SHC	23.6	35.4	47.2	22.1	33.9	45.7	20.5	32.3	44.1	18.8	30.6	42.3	17.1	28.8	40.5		
		76	THC	-	59.3	59.3	-	-	-	-	-	-	-	-	-	-	-	-		
			SHC	-	26.2	38.0	-	-	-	-	-	-	-	-	-	-	-	-		

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT(db) - Entering air temperature (dry bulb)
- EAT(wb) - Entering air temperature (wet bulb)
- SHC - Sensible heat capacity
- TC - Total capacity

Table 17 – COOLING CAPACITIES - SECOND STAGE FULL LOAD

5 TONS

06 SIZE				AMBIENT TEMPERATURE																
				85			95			105			115			125				
				EA (dB)			EA (dB)			EA (dB)			EA (dB)			EA (dB)				
				75	80	85	75	80	85	75	80	85	75	80	85	75	80	85		
1500 Cfm	EA (wB)	58	THC	54.0	54.0	61.2	51.3	51.3	58.3	48.6	48.6	55.2	47.0	47.0	53.4	44.5	44.5	50.6		
			SHC	46.8	54.0	61.2	44.4	51.3	58.3	41.9	48.6	55.2	40.6	47.0	53.4	38.5	44.5	50.6		
		62	THC	56.5	56.5	58.4	53.3	53.3	56.5	49.9	49.9	54.6	47.8	47.8	53.8	44.8	44.8	52.3		
			SHC	42.3	50.3	58.4	40.4	48.5	56.5	38.5	46.5	54.6	37.8	45.8	53.8	36.4	44.3	52.3		
		67	THC	62.1	62.1	62.1	58.6	58.6	58.6	55.0	55.0	55.0	52.5	52.5	52.5	49.1	49.1	49.1		
			SHC	34.6	42.7	50.8	32.7	40.8	48.9	30.8	38.9	47.0	30.2	38.3	46.4	28.9	37.0	45.0		
		72	THC	68.3	68.3	68.3	64.5	64.5	64.5	60.5	60.5	60.5	57.8	57.8	57.8	54.1	54.1	54.1		
			SHC	26.7	34.8	43.0	24.8	33.0	41.1	22.9	31.1	39.2	22.4	30.5	38.6	21.1	29.2	37.3		
		76	THC	-	73.5	73.5	-	69.5	69.5	-	65.3	65.3	-	62.3	62.3	-	58.4	58.4		
			SHC	-	28.4	36.6	-	26.6	34.8	-	24.7	33	-	24.2	32.4	-	22.9	31.1		
		1750 Cfm	EA (wB)	58	THC	57.1	57.1	64.7	54.3	54.3	61.6	51.3	51.3	58.3	49.5	49.5	56.2	46.9	46.9	53.2
					SHC	49.6	57.1	64.7	47.0	54.3	61.6	44.3	51.3	58.3	42.9	49.5	56.2	40.6	46.9	53.2
				62	THC	58.4	58.4	64.5	55.0	55.0	62.5	51.6	51.6	60.2	49.7	49.7	58.3	46.9	46.9	55.4
					SHC	45.9	55.2	64.5	43.9	53.2	62.5	41.9	51.1	60.2	40.6	49.4	58.3	38.5	46.9	55.4
67	THC			63.9	63.9	63.9	60.2	60.2	60.2	56.4	56.4	56.4	53.8	53.8	53.8	50.3	50.3	50.3		
	SHC			37	46.4	55.8	35.1	44.5	53.9	33.1	42.5	51.9	32.5	41.9	51.3	31.1	40.5	49.8		
72	THC			70.2	70.2	70.2	66.2	66.2	66.2	62.0	62.0	62.0	59.1	59.1	59.1	55.3	55.3	55.3		
	SHC			27.8	37.2	46.7	25.9	35.3	44.8	23.9	33.4	42.8	23.4	32.8	42.2	22	31.4	40.8		
76	THC			-	75.4	75.4	-	71.2	71.2	-	66.9	66.9	-	63.7	63.7	-	59.6	59.6		
	SHC			-	29.8	39.4	-	27.9	37.5	-	26	35.6	-	25.4	35	-	24.1	33.6		
2000 Cfm	EA (wB)			58	THC	59.8	59.8	67.6	56.7	56.7	64.3	53.6	53.6	60.8	51.6	51.6	58.5	48.8	48.8	55.3
					SHC	51.9	59.8	67.6	49.2	56.7	64.3	46.4	53.6	60.8	44.7	51.6	58.5	42.3	48.8	55.3
				62	THC	60.0	60.0	69.9	56.8	56.8	66.9	53.7	53.7	63.3	51.7	51.7	60.9	48.8	48.8	57.6
					SHC	49.1	59.5	69.9	46.7	56.8	66.9	44.0	53.7	63.3	42.5	51.7	60.9	40.1	48.8	57.6
		67	THC	65.3	65.3	65.3	61.5	61.5	61.5	57.5	57.5	57.5	54.8	54.8	55.9	51.1	51.1	54.4		
			SHC	39.2	49.9	60.6	37.3	48.0	58.6	35.3	45.9	56.6	34.6	45.3	55.9	33.2	43.8	54.4		
		72	THC	71.6	71.6	71.6	67.5	67.5	67.5	63.2	63.2	63.2	60.1	60.1	60.1	56.2	56.2	56.2		
			SHC	28.8	39.5	50.2	26.9	37.6	48.3	24.9	35.6	46.3	24.3	35.0	45.7	22.9	33.6	44.3		
		76	THC	-	76.9	76.9	-	72.6	72.6	-	68.1	68.1	-	64.8	64.8	-	60.5	60.5		
			SHC	-	31.0	41.9	-	29.1	40	-	27.2	38	-	26.6	37.3	-	25.2	35.9		
		2250 Cfm	EA (wB)	58	THC	62.0	62.0	70.1	58.8	58.8	66.6	55.5	55.5	62.9	53.4	53.4	60.5	50.4	50.4	57.1
					SHC	53.8	62.0	70.1	51.0	58.8	66.6	48.0	55.5	62.9	46.3	53.4	60.5	43.7	50.4	57.1
				62	THC	62.0	62.0	72.9	58.9	58.9	69.3	55.5	55.5	65.5	53.4	53.4	62.9	50.4	50.4	59.4
					SHC	51.2	62.0	72.9	48.4	58.9	69.3	45.6	55.5	65.5	43.9	53.4	62.9	41.5	50.4	59.4
67	THC			66.4	66.4	66.4	62.5	62.5	63.2	58.4	58.4	61.1	55.6	55.6	60.4	51.9	51.9	58.8		
	SHC			41.4	53.3	65.2	39.4	51.3	63.2	37.4	49.3	61.1	36.7	48.5	60.4	35.2	47.0	58.8		
72	THC			72.6	72.6	72.6	68.4	68.4	68.4	64.1	64.1	64.1	60.9	60.9	60.9	56.8	56.8	56.8		
	SHC			29.6	41.6	53.6	27.7	39.7	51.7	25.8	37.7	49.7	25.1	37.1	49.0	23.8	35.7	47.6		
76	THC			-	78.0	78.0	-	73.6	73.6	-	69.0	69.0	-	65.6	65.6	-	61.2	61.2		
	SHC			-	32.2	44.3	-	30.3	42.3	-	28.3	40.3	-	27.7	39.6	-	26.3	38.1		
2500 Cfm	EA (wB)			58	THC	63.8	63.8	72.2	60.5	60.5	68.6	57.1	57.1	64.7	54.8	54.8	62.1	51.7	51.7	58.6
					SHC	55.5	63.8	72.2	52.5	60.5	68.6	49.4	57.1	64.7	47.6	54.8	62.1	44.8	51.7	58.6
				62	THC	63.9	63.9	75.1	60.6	60.6	71.3	57.1	57.1	67.4	54.9	54.9	64.6	51.8	51.8	60.9
					SHC	52.7	63.9	75.1	49.9	60.6	71.3	46.9	57.1	67.4	45.2	54.9	64.6	42.6	51.8	60.9
		67	THC	67.2	67.2	69.7	63.3	63.3	67.7	59.1	59.1	65.5	56.2	56.2	64.6	52.5	52.5	62.9		
			SHC	43.4	56.6	69.7	41.4	54.6	67.7	39.4	52.4	65.5	38.6	51.6	64.6	37.1	50.0	62.9		
		72	THC	73.5	73.5	73.5	69.2	69.2	69.2	64.7	64.7	64.7	61.5	61.5	61.5	57.4	57.4	57.4		
			SHC	30.5	43.7	56.9	28.6	41.8	55.0	26.6	39.8	53.0	26	39.1	52.3	24.6	37.7	50.8		
		76	THC	-	78.9	78.9	-	74.4	74.4	-	69.7	69.7	-	66.2	66.2	-	61.8	61.8		
			SHC	-	33.3	46.6	-	31.3	44.6	-	29.4	42.6	-	28.7	41.8	-	27.3	40.3		

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT(db) - Entering air temperature (dry bulb)
- EAT(wb) - Entering air temperature (wet bulb)
- SHC - Sensible heat capacity
- TC - Total capacity

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48LC06 (5 TONS) - UNIT WITH HUMIDI- MIZER SYSTEM IN SUBCOOLING MODE										
TEMP (F) AIR ENT CON- DENSER (Edb)		AIR ENTERING EVAPORATOR - CFM/BF								
		1,200			1,600			2,000		
		Air Entering Evaporator - Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	61.3	54.7	48.0	66.8	59.4	52.0	71.5	63.5	55.5
	SHC	27.6	29.2	34.4	32.7	35.7	43.5	37.9	41.6	48.0
	kW	2.98	2.91	2.84	3.02	2.96	2.89	3.06	2.99	2.92
85	TC	56.0	49.4	42.8	60.4	53.1	45.8	64.2	56.3	48.4
	SHC	22.4	24.2	30.8	27.2	30.1	39.6	31.5	35.4	43.5
	kW	3.36	3.28	3.21	3.40	3.33	3.26	3.45	3.37	3.30
95	TC	50.8	44.2	37.6	54.0	46.8	39.6	56.9	49.1	41.3
	SHC	17.3	19.3	27.2	21.6	24.6	35.6	25.6	29.3	38.7
	kW	3.74	3.65	3.57	3.80	3.71	3.63	3.84	3.76	3.67
105	TC	45.5	39.0	32.4	47.7	40.5	33.4	49.6	41.9	34.2
	SHC	12.3	14.3	23.6	16.7	18.9	31.3	20.3	23.1	33.6
	kW	4.11	4.02	3.93	4.18	4.09	3.99	4.23	4.14	4.05
115	TC	40.2	33.7	27.2	41.3	34.2	27.2	42.3	34.7	27.1
	SHC	7.2	9.4	20.1	11.6	13.4	26.8	14.8	16.9	26.7
	kW	4.49	4.39	4.29	4.57	4.50	4.37	4.62	4.50	4.42
125	TC	34.9	28.5	22.0	35.0	28.0	20.9	35.0	27.5	19.9
	SHC	3.1	4.5	16.5	7.4	7.8	20.5	10.2	10.8	19.8
	kW	4.87	4.77	4.66	4.95	4.84	4.73	5.01	4.90	4.79

48LC06 (5 TONS) - UNIT WITH HUMIDI- MIZER SYSTEM IN HOT GAS REHEAT MODE										
TEMP (F) AIR ENT CONDENSER (Edb)		AIR ENTERING EVAPORATOR - Ewb (F)								
		75 Dry Bulb 62.5 Wet Bulb (50% Relative)			75 Dry Bulb 64 Wet Bulb (56% Relative)			75 Dry Bulb 65.3 Wet Bulb (60% Relative)		
		Air Entering Evaporator - Cfm								
		1,500	2,000	2,500	1,500	2,000	2,500	1,500	2,000	2,500
80	TC	15.77	17.98	19.86	15.63	17.83	19.71	15.51	17.70	19.58
	SHC	8.08	11.03	13.66	5.59	8.16	10.45	3.43	5.67	7.66
	kW	1.89	1.84	1.81	1.89	1.88	1.84	1.95	1.90	1.87
75	TC	16.71	18.99	20.94	16.62	18.90	20.85	16.55	18.82	20.77
	SHC	8.55	11.47	14.08	6.23	8.81	11.10	4.23	6.50	8.52
	kW	1.77	1.73	1.70	1.77	1.76	1.73	1.83	1.79	1.76
70	TC	17.64	20.00	22.02	17.61	19.98	21.99	17.58	19.95	21.97
	SHC	9.01	11.91	14.45	6.88	9.45	11.75	5.02	7.32	9.36
	kW	1.66	1.62	1.59	1.66	1.65	1.62	1.71	1.67	1.65
60	TC	19.51	22.02	24.17	19.59	22.12	24.28	19.66	22.20	24.37
	SHC	9.94	12.79	15.33	8.16	10.74	13.04	6.62	8.97	11.06
	kW	1.43	1.39	1.37	1.43	1.42	1.40	1.48	1.45	1.42

LEGEND

- Edb - Entering Dry- Bulb
- Ewb - Entering Wet- Bulb
- kW - Compressor Motor Power Input
- ldb - Leaving Dry- Bulb
- lwb - Leaving Wet- Bulb
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

NOTES:

- 1 Direct interpolation is permissible. Do not extrapolate.
- 2 The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

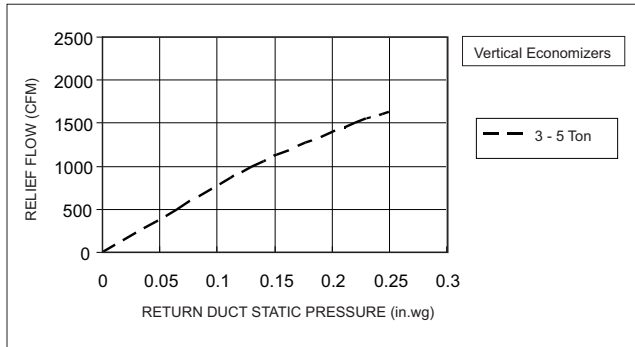
t_{lwb} = Wet- bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

ECONOMIZER, BAROMETRIC RELIEF AND PE PERFORMANCE

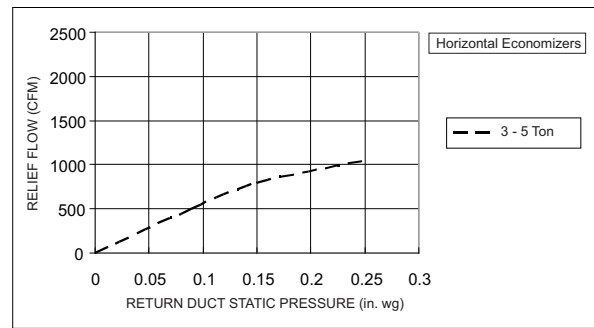
Vertical Application



C11539

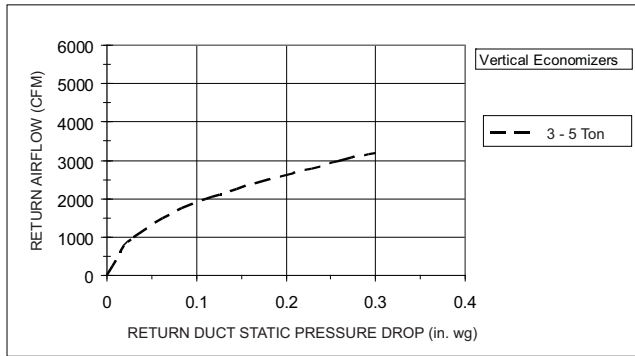
Fig. 5 - Barometric Relief Flow- Vertical 3 - 5 Ton

Horizontal Application



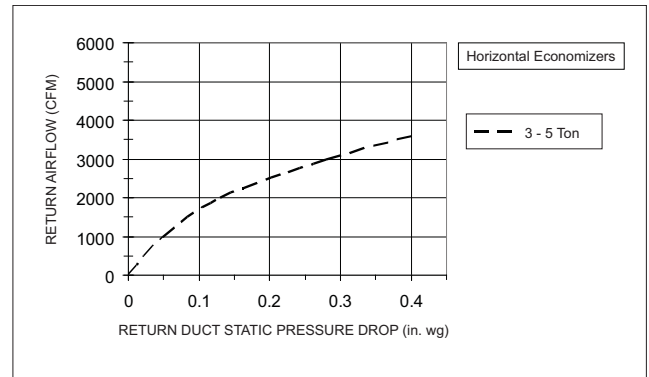
C11542

Fig. 8 - Barometric Relief Flow - Horizontal 3 - 5 Ton



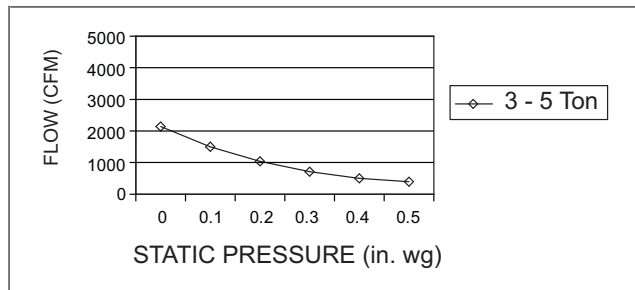
C11541

Fig. 6 - Return Air Pressure Drop- Vertical 3 - 5 Ton



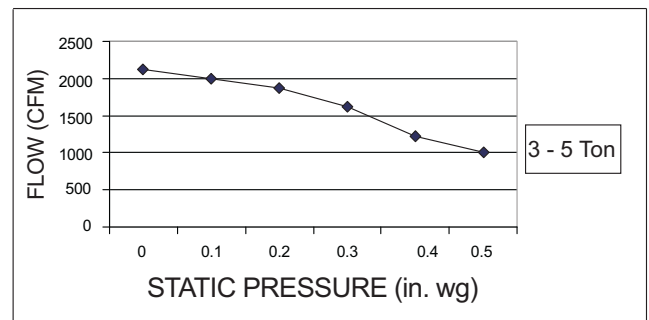
C11543

Fig. 9 - Return Air Pressure Drop - Horizontal 3 - 5 Ton



C11540

Fig. 7 - Vertical Power Exhaust Performance



C12179

Fig. 10 - Horizontal Power Exhaust Performance

Table 19 – STATIC PRESSURE ADDERS (IN. WG) (FACTORY OPTIONS AND/OR ACCESSORIES)

CFM	1000	1250	1500	1750	2000	2250	2500
3 Tons Humidi- MiZer Coil	0.04	0.052	0.07	-	-	-	-
4 Tons Humidi- MiZer Coil	-	0.106	0.138	0.172	0.21	-	-
5 Tons Humidi- MiZer Coil	-	-	0.138	0.172	0.21	0.252	0.30

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GENERAL FAN PERFORMANCE NOTES:

1. Interpolation is permissible. Do not extrapolate.
2. External static pressure is the static pressure difference between the return duct and the supply duct plus the static pressure caused by any FIOPs or accessories.
3. Tabular data accounts for pressure loss due to clean filters, unit casing, and wet coils. Factory options and accessories may add static pressure losses. Selection software is available, through your salesperson, to help you select the best motor/drive combination for your application.
4. The Fan Performance tables offer motor/drive recommendations. In cases when two motor/drive combinations would work, Carrier recommended the lower horsepower option.
5. For information on the electrical properties of Carrier motors, please see the Electrical information section of this book.
6. For more information on the performance limits of Carrier motors, see the application data section of this book.
7. The EPACT (Energy Policy Act) regulates energy requirements for specific types of indoor fan motors. Motors regulated by EPACT include any general purpose, T-frame (three-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT compliant energy-efficient motor. Variable-speed motors are exempt from EPACT compliance requirements.

FAN PERFORMANCE

DIRECT DRIVE - ECM (Multi-Speed) INDOOR FAN MOTOR

Table 20 – 48LC*004 Vertical Unit- Direct Drive

Speed (Torque) Tap	CFM	ESP	BHP
1	750	0.27	0.15
	900	0.07	0.11
	1050	-	-
	1125	-	-
	1200	-	-
	1275	-	-
	1350	-	-
	1425	-	-
1500	-	-	
2	750	0.54	0.21
	900	0.29	0.18
	1050	0.06	0.16
	1125	-	-
	1200	-	-
	1275	-	-
	1350	-	-
	1425	-	-
1500	-	-	
3	750	1.15	0.42
	900	0.96	0.43
	1050	0.70	0.40
	1125	0.55	0.40
	1200	0.41	0.39
	1275	0.27	0.39
	1350	-	-
	1425	-	-
1500	-	-	
4	750	1.19	0.43
	900	1.06	0.46
	1050	0.91	0.50
	1125	0.83	0.53
	1200	0.75	0.55
	1275	0.66	0.56
	1350	0.56	0.57
	1425	-	-
1500	-	-	
5	750	1.21	0.42
	900	1.06	0.46
	1050	0.91	0.50
	1125	0.83	0.52
	1200	0.79	0.55
	1275	0.71	0.57
	1350	0.63	0.59
	1425	0.56	0.62
1500	0.47	0.64	

Table 21 – 48LC*004 Horizontal Unit- Direct Drive

Speed (Torque) Tap	CFM	ESP	BHP
1	750	0.39	0.19
	900	0.18	0.14
	1050	-	-
	1125	-	-
	1200	-	-
	1275	-	-
	1350	-	-
	1425	-	-
1500	-	-	
2	750	0.69	0.26
	900	0.45	0.23
	1050	0.22	0.20
	1125	0.12	0.19
	1200	0.05	0.17
	1275	-	-
	1350	-	-
	1425	-	-
1500	-	-	
3	750	1.28	0.44
	900	1.11	0.46
	1050	0.88	0.45
	1125	0.75	0.44
	1200	0.63	0.44
	1275	0.50	0.44
	1350	0.38	0.41
	1425	0.25	0.39
1500	0.13	0.38	
4	750	1.30	0.45
	900	1.17	0.48
	1050	1.04	0.52
	1125	0.97	0.54
	1200	0.91	0.56
	1275	0.84	0.58
	1350	0.76	0.60
	1425	0.68	0.61
1500	0.60	0.62	
5	750	1.31	0.45
	900	1.18	0.48
	1050	1.04	0.52
	1125	0.97	0.54
	1200	0.92	0.56
	1275	0.86	0.59
	1350	0.80	0.61
	1425	0.74	0.64
1500	0.68	0.66	

NOTE: To convert BHP to watts, use 84% motor efficiency

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FAN PERFORMANCE (cont.)

DIRECT DRIVE - ECM (Multi-Speed) INDOOR FAN MOTOR (cont.)

Table 22 – 48LC*005 Vertical Unit-Direct Drive

Speed (Torque) Tap	CFM	ESP	BHP
1	1000	0.08	0.11
	1200	-	-
	1400	-	-
	1500	-	-
	1600	-	-
	1700	-	-
	1800	-	-
	1900	-	-
	2000	-	-
2	1000	0.79	0.37
	1200	0.49	0.34
	1400	0.20	0.31
	1500	0.05	0.29
	1600	-	-
	1700	-	-
	1800	-	-
	1900	-	-
	2000	-	-
3	1000	1.11	0.50
	1200	0.90	0.57
	1400	0.59	0.62
	1500	0.40	0.59
	1600	0.20	0.52
	1700	-	-
	1800	-	-
	1900	-	-
	2000	-	-
4	1000	1.12	0.50
	1200	0.95	0.57
	1400	0.79	0.63
	1500	0.70	0.67
	1600	0.61	0.70
	1700	0.52	0.73
	1800	0.41	0.75
	1900	0.30	0.77
	2000	-	-
5	1000	1.13	0.51
	1200	0.97	0.58
	1400	0.79	0.65
	1500	0.70	0.68
	1600	0.64	0.72
	1700	0.55	0.75
	1800	0.46	0.79
	1900	0.35	0.82
	2000	0.25	0.89

Table 23 – 48LC*005 Horizontal Unit-Direct Drive

Speed (Torque) Tap	CFM	ESP	BHP
1	1000	0.12	0.14
	1200	0.00	0.21
	1400	-	-
	1500	-	-
	1600	-	-
	1700	-	-
	1800	-	-
	1900	-	-
	2000	-	-
	2	1000	0.89
1200		0.60	0.40
1400		0.30	0.36
1500		0.16	0.34
1600		0.02	0.32
1700		-	-
1800		-	-
1900		-	-
2000		-	-
3		1000	1.14
	1200	0.96	0.59
	1400	0.70	0.65
	1500	0.54	0.64
	1600	0.37	0.61
	1700	0.18	0.61
	1800	0.00	0.55
	1900	-	-
	2000	-	-
	4	1000	1.15
1200		1.01	0.59
1400		0.86	0.65
1500		0.79	0.69
1600		0.72	0.72
1700		0.64	0.75
1800		0.56	0.79
1900		0.47	0.82
2000		0.37	0.84
5		1000	1.15
	1200	1.02	0.60
	1400	0.86	0.67
	1500	0.79	0.70
	1600	0.74	0.74
	1700	0.67	0.78
	1800	0.59	0.82
	1900	0.51	0.86
	2000	0.42	0.92

NOTE: To convert BHP to watts, use 84% motor efficiency

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FAN PERFORMANCE (cont.)

DIRECT DRIVE - ECM (Multi-Speed) INDOOR FAN MOTOR (cont.)

Table 24 – 48LC*006 Vertical Unit-Direct Drive

Speed (Torque) tap	CFM	ESP	BHP
1	1250	0.03	0.16
	1500	-	-
	1750	-	-
	1875	-	-
	2000	-	-
	2125	-	-
	2250	-	-
	2375	-	-
2500	-	-	
2	1250	0.89	0.57
	1500	0.41	0.53
	1750	0.03	0.49
	1875	-	-
	2000	-	-
	2125	-	-
	2250	-	-
	2375	-	-
2500	-	-	
3	1250	1.15	0.72
	1500	0.74	0.72
	1750	0.30	0.68
	1875	0.10	0.65
	2000	0.05	0.61
	2125	-	-
	2250	-	-
	2375	-	-
2500	-	-	
4	1250	-	-
	1500	0.94	0.83
	1750	0.59	0.87
	1875	0.40	0.82
	2000	0.20	0.83
	2125	0.01	0.80
	2250	-	-
	2375	-	-
2500	-	-	
5	1250	1.28	0.78
	1500	1.00	0.87
	1750	0.59	0.95
	1875	0.40	0.98
	2000	0.41	1.01
	2125	0.25	0.88
	2250	0.06	1.01
	2375	-	-
2500	-	-	

Table 25 – 48LC*006 Horizontal Unit-Direct Drive

Speed (Torque) tap	CFM	ESP	BHP
1	1250	0.04	0.18
	1500	-	-
	1750	-	-
	1875	-	-
	2000	-	-
	2125	-	-
	2250	-	-
	2375	-	-
2500	-	-	
2	1250	0.99	0.63
	1500	0.55	0.58
	1750	0.14	0.53
	1875	0.01	0.49
	2000	-	-
	2125	-	-
	2250	-	-
	2375	-	-
2500	-	-	
3	1250	1.24	0.76
	1500	0.88	0.77
	1750	0.44	0.73
	1875	0.24	0.70
	2000	0.07	0.66
	2125	-	-
	2250	-	-
	2375	-	-
2500	-	-	
4	1250	1.33	0.81
	1500	1.07	0.89
	1750	0.74	0.93
	1875	0.56	0.88
	2000	0.36	0.91
	2125	0.15	0.88
	2250	-	-
	2375	-	-
2500	-	-	
5	1250	1.35	0.82
	1500	1.12	0.92
	1750	0.74	1.00
	1875	0.56	1.04
	2000	0.56	1.08
	2125	0.39	0.95
	2250	0.19	1.09
	2375	-	-
2500	-	-	

NOTE: To convert BHP to watts, use 84% motor efficiency

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FAN PERFORMANCE (BELT DRIVE WITH VFD CONTROLLER & DISPLAY)

Table 26 – 48LC*004

3 PHASE

3 TON VERTICAL SUPPLY

CFM	Available External Static Pressure (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	592	0.14	721	0.25	826	0.38	916	0.53	997	0.69
975	616	0.17	744	0.28	847	0.41	936	0.56	1016	0.72
1050	641	0.19	766	0.30	868	0.44	957	0.59	1036	0.76
1125	667	0.22	790	0.33	890	0.47	978	0.63	1056	0.80
1200	693	0.25	813	0.37	913	0.51	999	0.67	1077	0.84
1275	720	0.29	837	0.41	935	0.55	1021	0.71	1098	0.88
1350	747	0.33	862	0.45	958	0.60	1043	0.76	1119	0.94
1425	775	0.37	887	0.50	982	0.65	1066	0.81	1141	0.99
1500	802	0.42	912	0.55	1006	0.70	1088	0.87	1163	1.05

CFM	Available External Static Pressure (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1070	0.88	1137	1.07	1201	1.29	1260	1.51	1317	1.75
975	1089	0.91	1156	1.11	1219	1.32	1279	1.54	1335	1.78
1050	1108	0.94	1175	1.14	1238	1.36	1297	1.58	1353	1.82
1125	1128	0.98	1195	1.18	1257	1.40	1316	1.62	1372	1.86
1200	1148	1.03	1214	1.23	1276	1.44	1335	1.67	1391	1.91
1275	1169	1.07	1235	1.28	1296	1.50	1354	1.72	1410	1.97
1350	1190	1.13	1255	1.33	1316	1.55	1374	1.78	1429	2.03
1425	1211	1.19	1276	1.39	1337	1.61	1394	1.85	1449	2.09
1500	1232	1.25	1297	1.46	1357	1.68	1415	1.91	1469	2.16

NOTE: For more information, see General Fan Performance Notes.

Boldface indicates field - supplied drive is required.

Medium static 770- 1175 RPM, 1.2 BHP max

High static 1035- 1466 RPM, 2.4 BHP max

Table 27 – 48LC*004

3 PHASE

3 TON HORIZONTAL SUPPLY

CFM	Available External Static Pressure (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	582	0.14	715	0.24	825	0.35	921	0.48	1007	0.63
975	606	0.16	735	0.26	843	0.38	938	0.51	1023	0.66
1050	630	0.18	756	0.29	862	0.41	955	0.55	1040	0.70
1125	655	0.21	778	0.32	882	0.45	974	0.58	1057	0.74
1200	681	0.24	800	0.35	902	0.48	992	0.63	1074	0.78
1275	708	0.27	823	0.39	923	0.53	1012	0.67	1093	0.83
1350	735	0.31	847	0.43	945	0.57	1032	0.72	1112	0.88
1425	762	0.35	871	0.48	967	0.62	1053	0.77	1131	0.94
1500	790	0.40	896	0.53	990	0.67	1074	0.83	1151	1.00

CFM	Available External Static Pressure (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1086	0.79	1159	0.96	1228	1.14	1293	1.33	1354	1.53
975	1101	0.82	1174	0.99	1242	1.18	1306	1.37	1367	1.57
1050	1117	0.86	1189	1.03	1256	1.22	1320	1.41	1381	1.62
1125	1133	0.90	1204	1.08	1271	1.26	1335	1.46	1395	1.67
1200	1150	0.95	1221	1.13	1287	1.31	1350	1.51	1410	1.72
1275	1168	1.00	1237	1.18	1303	1.37	1365	1.57	1425	1.78
1350	1186	1.05	1255	1.24	1320	1.43	1382	1.63	1441	1.84
1425	1204	1.11	1272	1.30	1337	1.49	1398	1.70	1457	1.91
1500	1223	1.18	1291	1.36	1355	1.56	1415	1.77	1473	1.99

NOTE: For more information, see General Fan Performance Notes.

Boldface indicates field - supplied drive is required.

Medium static 770- 1175 RPM, 1.2 BHP max

High static 1035- 1466 RPM, 2.4 BHP max

FAN PERFORMANCE (BELT DRIVE WITH VFD CONTROLLER & DISPLAY)

cont.

Table 28 – 48LC*005

3 PHASE

4 TON VERTICAL SUPPLY

CFM	Available External Static Pressure (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	693	0.25	813	0.37	913	0.51	999	0.67	1077	0.84
1300	729	0.30	846	0.42	943	0.57	1028	0.73	1105	0.90
1400	765	0.35	879	0.48	974	0.63	1058	0.79	1134	0.97
1500	802	0.42	912	0.55	1006	0.70	1088	0.87	1163	1.05
1600	840	0.49	947	0.63	1038	0.78	1119	0.95	1193	1.14
1700	878	0.57	982	0.71	1071	0.87	1151	1.05	1224	1.24
1800	917	0.65	1017	0.81	1105	0.97	1183	1.15	1255	1.35
1900	956	0.75	1053	0.91	1139	1.08	1216	1.27	1287	1.47
2000	995	0.86	1090	1.02	1173	1.20	1249	1.39	1319	1.59

CFM	Available External Static Pressure (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	1148	1.03	1214	1.23	1276	1.44	1335	1.67	1391	1.91
1300	1176	1.09	1241	1.30	1303	1.51	1361	1.74	1416	1.98
1400	1204	1.17	1269	1.37	1330	1.59	1388	1.82	1442	2.07
1500	1232	1.25	1297	1.46	1357	1.68	1415	1.91	1469	2.16
1600	1262	1.34	1325	1.55	1385	1.78	1442	2.01	1496	2.26
1700	1291	1.44	1354	1.66	1414	1.89	1470	2.12	1524	2.37
1800	1322	1.55	1384	1.77	1443	2.00	1499	2.25	1552	2.50
1900	1352	1.68	1414	1.90	1472	2.13	1528	2.38	1580	2.63
2000	1384	1.81	1445	2.04	1502	2.27	1557	2.52	1609	2.78

NOTE: For more information, see General Fan Performance Notes.

Boldface indicates field - supplied drive is required.

Medium static 920- 1303 RPM, 1.7 BHP max

High static 1208- 1639 RPM, 2.9 BHP max

Table 29 – 48LC*005

3 PHASE

4 TON HORIZONTAL SUPPLY

CFM	Available External Static Pressure (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	681	0.24	800	0.35	902	0.48	992	0.63	1074	0.78
1300	717	0.29	831	0.41	930	0.54	1019	0.69	1099	0.85
1400	753	0.34	863	0.46	959	0.60	1046	0.75	1125	0.92
1500	790	0.40	896	0.53	990	0.67	1074	0.83	1151	1.00
1600	828	0.46	930	0.60	1021	0.75	1103	0.91	1179	1.09
1700	866	0.54	964	0.68	1053	0.84	1133	1.01	1207	1.18
1800	905	0.62	1000	0.77	1085	0.94	1164	1.11	1236	1.29
1900	944	0.71	1036	0.87	1119	1.04	1195	1.22	1266	1.41
2000	984	0.82	1072	0.98	1153	1.15	1227	1.34	1297	1.53

CFM	Available External Static Pressure (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	1150	0.95	1221	1.13	1287	1.31	1350	1.51	1410	1.72
1300	1173	1.02	1243	1.20	1309	1.39	1371	1.59	1430	1.80
1400	1198	1.09	1266	1.28	1331	1.47	1393	1.68	1451	1.89
1500	1223	1.18	1291	1.36	1355	1.56	1415	1.77	1473	1.99
1600	1249	1.27	1316	1.46	1379	1.66	1439	1.87	1496	2.09
1700	1277	1.37	1342	1.57	1404	1.77	1463	1.99	1520	2.21
1800	1305	1.48	1369	1.68	1430	1.89	1489	2.11	1545	2.34
1900	1333	1.60	1397	1.81	1457	2.02	1514	2.25	1570	2.48
2000	1363	1.73	1425	1.94	1484	2.16	1541	2.39	1596	2.63

NOTE: For more information, see General Fan Performance Notes.

Boldface indicates field - supplied drive is required.

Medium static 920- 1303 RPM, 1.7 BHP max

High static 1208- 1639 RPM, 2.9 BHP max

48LC

FAN PERFORMANCE (BELT DRIVE WITH VFD CONTROLLER & DISPLAY)

cont.

Table 30 – 48LC*006

3 PHASE

5 TON VERTICAL SUPPLY

CFM	Available External Static Pressure (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	847	0.41	966	0.55	1067	0.68	1158	0.81	1240	0.93
1625	896	0.50	1010	0.65	1109	0.79	1198	0.93	1278	1.07
1750	947	0.59	1056	0.76	1152	0.92	1238	1.07	1318	1.22
1875	998	0.70	1103	0.88	1196	1.05	1280	1.22	1358	1.38
2000	1049	0.82	1151	1.02	1241	1.20	1323	1.38	1399	1.56
2125	1102	0.96	1199	1.17	1287	1.37	1367	1.56	1441	1.75
2250	1154	1.11	1248	1.33	1333	1.55	1411	1.75	1484	1.96
2375	1208	1.28	1298	1.52	1381	1.74	1457	1.96	1528	2.18
2500	1261	1.47	1349	1.72	1429	1.96	1503	2.19	1572	2.42

CFM	Available External Static Pressure (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	1316	1.05	1387	1.17	1454	1.28	1517	1.39	1578	1.50
1625	1353	1.20	1423	1.33	1489	1.46	1552	1.58	1611	1.70
1750	1391	1.36	1460	1.51	1525	1.65	1587	1.78	1646	1.91
1875	1430	1.54	1498	1.70	1562	1.85	1623	2.00	1681	2.14
2000	1470	1.73	1537	1.90	1600	2.06	1660	2.23	1718	2.38
2125	1511	1.93	1576	2.12	1639	2.29	1698	2.47	1755	2.64
2250	1552	2.15	1617	2.35	1678	2.54	1737	2.73	1793	2.92
2375	1595	2.39	1658	2.60	1718	2.80	1776	3.01	-	-
2500	1638	2.64	1700	2.87	1760	3.08	-	-	-	-

NOTE: For more information, see General Fan Performance Notes.

Boldface indicates field - supplied drive is required.

Medium static 1035- 1466 RPM, 2.4 BHP max

High static 1303 - 1687 RPM, 2.9 BHP max

Table 31 – 48LC*006

3 PHASE

5 TON HORIZONTAL SUPPLY

CFM	Available External Static Pressure (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	798	0.41	906	0.55	1002	0.71	1088	0.87	1167	1.05
1625	845	0.50	949	0.65	1041	0.81	1125	0.98	1202	1.17
1750	893	0.60	993	0.76	1081	0.93	1163	1.11	1238	1.30
1875	942	0.71	1037	0.88	1123	1.06	1202	1.25	1275	1.44
2000	992	0.84	1083	1.02	1166	1.21	1242	1.40	1313	1.61
2125	1043	0.98	1129	1.17	1209	1.37	1283	1.57	1353	1.79
2250	1093	1.14	1177	1.34	1254	1.55	1325	1.76	1393	1.98
2375	1145	1.32	1225	1.53	1299	1.74	1369	1.97	1434	2.20
2500	1196	1.51	1273	1.73	1345	1.96	1413	2.19	1477	2.43

CFM	Available External Static Pressure (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	1241	1.23	1310	1.42	1375	1.63	1438	1.84	1497	2.06
1625	1274	1.36	1342	1.56	1406	1.77	1467	1.98	1526	2.21
1750	1308	1.50	1375	1.70	1438	1.92	1498	2.14	1555	2.37
1875	1344	1.65	1409	1.86	1471	2.09	1530	2.32	1586	2.55
2000	1380	1.82	1444	2.04	1505	2.27	1563	2.51	1619	2.75
2125	1418	2.01	1481	2.24	1540	2.47	1597	2.72	1652	2.97
2250	1457	2.21	1518	2.45	1576	2.69	1632	2.94	1686	3.20
2375	1497	2.43	1556	2.68	1614	2.93	1669	3.19	-	-
2500	1538	2.68	1596	2.93	1652	3.19	-	-	-	-

NOTE: For more information, see General Fan Performance Notes.

Boldface indicates field - supplied drive is required.

Medium static 1035- 1466 RPM, 2.4 BHP max

High static 1303- 1687 RPM, 2.9 BHP max

FAN PERFORMANCE (cont.)

Table 32 – PULLEY ADJUSTMENT

UNIT	MOTOR/ DRIVE COMBO	MOTOR PULLEY TURNS OPEN (RPM)										
		0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
04	Standard Static	-	-	-	-	-	-	-	-	-	-	-
	Medium Static	1175	1135	1094	1054	1013	973	932	892	851	811	770
	High Static	1466	1423	1380	1337	1294	1251	1207	1164	1121	1078	1035
05	Standard Static	-	-	-	-	-	-	-	-	-	-	-
	Medium Static	1303	1265	1226	1188	1150	1112	1073	1035	997	958	920
	High Static	1639	1596	1553	1510	1467	1424	1380	1337	1294	1251	1208
06	Standard Static	-	-	-	-	-	-	-	-	-	-	-
	Medium Static	1466	1423	1380	1337	1294	1251	1207	1164	1121	1078	1035
	High Static	1687	1649	1610	1572	1533	1495	1457	1418	1380	1341	1303

■ - Factory settings

- Standard static uses direct drive motor

48LC

ELECTRICAL INFORMATION

Table 33 – 48LC*004-006

3-5 TONS

	V-Ph-Hz	VOLTAGE RANGE		COMP 1		OFM (ea)		IFM		
		MIN	MAX	RLA	LRA	WATTS	FLA	TYPE	EFF at Full Load	FLA
48LC*004	208-3-60	187	253	11.6	73	190	3.5	DD-STD	84.0%	5.8
						190	3.5	STD	81.5%	5.8
						190	3.5	MED	81.5%	5.8
						190	3.5	HIGH	80.0%	7.1
	230-3-60	187	253	11.6	73	190	3.5	DD-STD	84.0%	5.8
						190	3.5	STD	81.5%	5.6
						190	3.5	MED	81.5%	5.6
						190	3.5	HIGH	80.0%	6.8
	460-3-60	414	506	5.7	38	190	1.4	DD-STD	84.0%	3.2
						190	1.4	STD	81.5%	2.9
						190	1.4	MED	81.5%	2.9
						190	1.4	HIGH	80.0%	3.8
	575-3-60	518	633	4.0	26	190	1.4	DD-STD	84.0%	3.2
						190	1.4	STD	81.5%	2.8
						190	1.4	MED	81.5%	2.8
						190	1.4	HIGH	80.0%	3.5
48LC*005	208-3-60	187	253	14.0	83	240	3.5	DD-STD	78.0%	7.4
						240	3.5	STD	81.5%	5.8
						240	3.5	MED	81.5%	5.8
						240	3.5	HIGH	84.5%	8.6
	230-3-60	187	253	14.0	83	240	3.5	DD-STD	78.0%	7.4
						240	3.5	STD	81.5%	5.6
						240	3.5	MED	81.5%	5.6
						240	3.5	HIGH	84.5%	7.8
	460-3-60	414	506	6.4	41	220	1.4	DD-STD	78.0%	4
						220	1.4	STD	81.5%	2.9
						220	1.4	MED	81.5%	2.9
						220	1.4	HIGH	84.5%	3.8
	575-3-60	518	633	4.6	33	220	1.4	DD-STD	78.0%	4
						220	1.4	STD	81.5%	2.8
						220	1.4	MED	81.5%	2.8
						220	1.4	HIGH	84.5%	4.5
48LC*006	208-3-60	187	253	16.2	110	240	3.5	DD-STD	78.0%	7.4
						240	3.5	STD	80.0%	7.1
						240	3.5	MED	80.0%	7.1
						240	3.5	HIGH	84.5%	8.6
	230-3-60	187	253	16.2	110	240	3.5	DD-STD	78.0%	7.4
						240	3.5	STD	80.0%	6.8
						240	3.5	MED	80.0%	6.8
						240	3.5	HIGH	84.5%	7.8
	460-3-60	414	506	7.6	52	220	1.4	DD-STD	78.0%	4
						220	1.4	STD	80.0%	3.8
						220	1.4	MED	80.0%	3.8
						220	1.4	HIGH	84.5%	3.8
	575-3-60	518	633	5.3	39	220	1.4	DD-STD	78.0%	4
						220	1.4	STD	80.0%	3.5
						220	1.4	MED	80.0%	3.5
						220	1.4	HIGH	84.5%	4.5

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MCA/MOCP

Table 34 – MCA/MOCP DETERMINATION NO C.O. OR UNPWRD C.O.

3 - 5 TONS

	NOM. V-Ph-Hz	IFM TYPE	NO C.O. or UNPWR C.O.							
			NO PE.				w/ PE. (pwrd fr/unit)			
			MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
		FLA	LRA			FLA	LRA			
48LC*004	208/230-3-60	DD-STD	24	30	24	83	26	30	26	85
		STD	24/24	30/30	24/24	100	26/26	30/30	26/26	102
		MED	24/24	30/30	24/24	100	26/26	30/30	26/26	102
		HIGH	26/26	30/30	26/25	104	27/27	30/30	28/27	106
	460-3-60	DD-STD	12	15	12	42	13	15	13	43
		STD	12	15	12	50	13	15	13	51
		MED	12	15	12	50	13	15	13	51
		HIGH	13	15	13	52	14	15	14	53
	575-3-60	DD-STD	10	15	10	30	12	15	12	32
		STD	10	15	9	36	12	15	12	38
		MED	10	15	9	36	12	15	12	38
		HIGH	10	15	10	40	12	15	12	42
48LC*005	208/230-3-60	DD-STD	29	40	29	94	31	40	31	96
		STD	27/27	40/40	27/27	110	29/29	40/40	29/29	112
		MED	27/27	40/40	27/27	110	29/29	40/40	29/29	112
		HIGH	30/30	40/40	30/29	140	32/32	45/45	32/31	142
	460-3-60	DD-STD	14	20	14	46	15	20	15	47
		STD	13	15	12	53	14	15	13	54
		MED	13	15	12	53	14	15	13	54
		HIGH	14	15	13	69	15	20	14	70
	575-3-60	DD-STD	12	15	12	38	14	15	14	40
		STD	10	15	10	43	12	15	12	45
		MED	10	15	10	43	12	15	12	45
		HIGH	12	15	12	56	14	15	14	58
48LC*006	208/230-3-60	DD-STD	32	45	31	121	34	45	33	123
		STD	31/31	45/45	31/30	141	33/33	45/45	33/33	143
		MED	31/31	45/45	31/30	141	33/33	45/45	33/33	143
		HIGH	33/33	45/45	33/32	167	35/35	50/50	35/34	169
	460-3-60	DD-STD	15	20	15	57	16	20	16	58
		STD	15	20	15	66	16	20	16	67
		MED	15	20	15	66	16	20	16	67
		HIGH	15	20	15	80	16	20	16	81
	575-3-60	DD-STD	12	15	12	44	14	20	14	46
		STD	12	15	12	53	14	15	14	55
		MED	12	15	12	53	14	15	14	55
		HIGH	13	15	13	62	15	20	15	64

48LC

MCA/MOCP

	NOM. V-Ph-Hz	IFM TYPE	w/ PWRD C.O.							
			NO P.E.				w/ P.E. (pwrd fr/unit)			
			MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
		FLA	LRA	FLA	LRA					
48LC*004	208/230-3-60	DD-STD	29	40	30	88	31	40	32	90
		STD	29/29	40/40	30/29	105	31/31	40/40	32/32	107
		MED	29/29	40/40	30/29	105	31/31	40/40	32/32	107
		HIGH	30/30	40/40	31/31	109	32/32	40/40	33/33	111
	460-3-60	DD-STD	-	-	-	-	-	-	-	-
		STD	-	-	-	-	-	-	-	-
		MED	-	-	-	-	-	-	-	-
		HIGH	-	-	-	-	-	-	-	-
	575-3-60	DD-STD	-	-	-	-	-	-	-	-
		STD	-	-	-	-	-	-	-	-
		MED	-	-	-	-	-	-	-	-
		HIGH	-	-	-	-	-	-	-	-
48LC*005	208/230-3-60	DD-STD	34	45	34	99	36	45	36	101
		STD	32/32	45/45	32/32	115	34/34	45/45	35/34	117
		MED	32/32	45/45	32/32	115	34/34	45/45	35/34	117
		HIGH	35/35	45/45	36/35	145	37/37	50/50	38/37	147
	460-3-60	DD-STD	-	-	-	-	-	-	-	-
		STD	-	-	-	-	-	-	-	-
		MED	-	-	-	-	-	-	-	-
		HIGH	-	-	-	-	-	-	-	-
	575-3-60	DD-STD	-	-	-	-	-	-	-	-
		STD	-	-	-	-	-	-	-	-
		MED	-	-	-	-	-	-	-	-
		HIGH	-	-	-	-	-	-	-	-
48LC*006	208/230-3-60	DD-STD	36	50	37	126	38	50	39	128
		STD	36/36	50/50	36/36	146	38/38	50/50	39/38	148
		MED	36/36	50/50	36/36	146	38/38	50/50	39/38	148
		HIGH	38/38	50/50	38/37	172	40/40	50/50	40/39	174
	460-3-60	DD-STD	-	-	-	-	-	-	-	-
		STD	-	-	-	-	-	-	-	-
		MED	-	-	-	-	-	-	-	-
		HIGH	-	-	-	-	-	-	-	-
	575-3-60	DD-STD	-	-	-	-	-	-	-	-
		STD	-	-	-	-	-	-	-	-
		MED	-	-	-	-	-	-	-	-
		HIGH	-	-	-	-	-	-	-	-

Powered Convenience outlet not available on 460 and 575 volt models.

48LC

TYPICAL WIRING DIAGRAMS

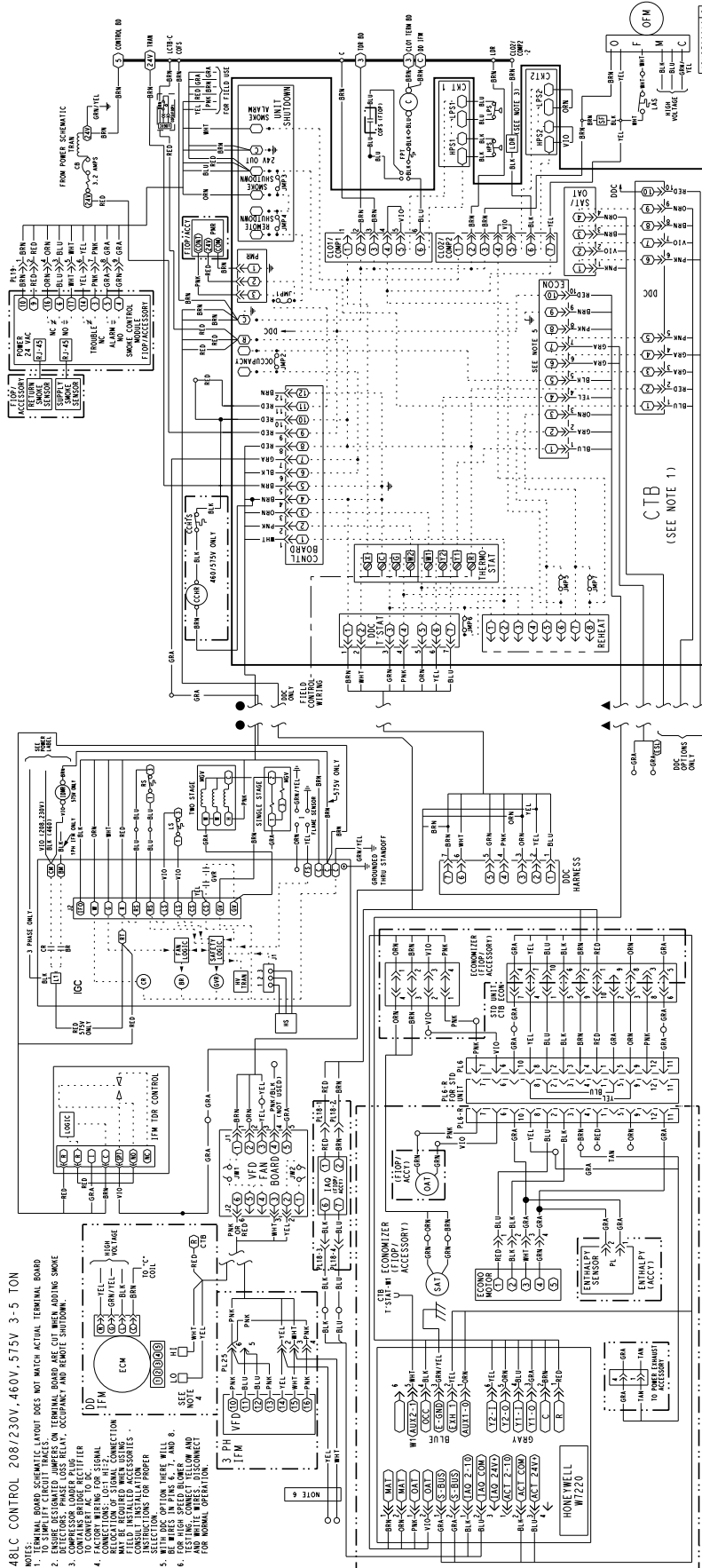


Fig. 11 - 48LC 04-06 Control Wiring Diagram

TYPICAL WIRING DIAGRAMS (CONT.)

48LC

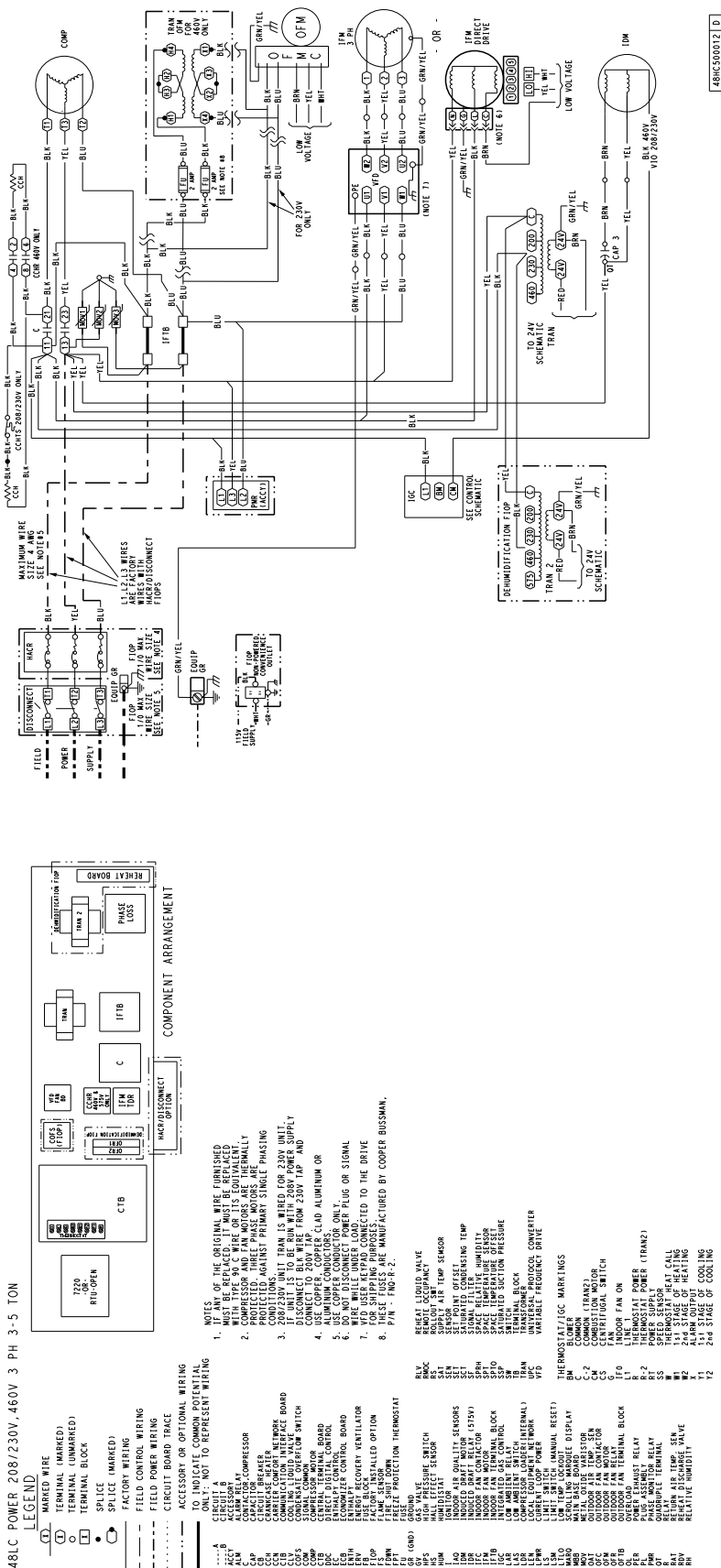


Fig. 12 - 48LC 04-06 Power Wiring Diagram

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SEQUENCE OF OPERATION

General

The sequence below describes the sequence of operation for an electro-mechanical unit with and without a factory installed EconoMi\$er X (called “economizer” in this sequence). For information regarding a direct digital controller, see the start-up, operations, and troubleshooting manual for the applicable controller.

Electro-Mechanical Units

- Without Economizer
- With 2-Speed Indoor Fan Motor (Direct Drive Electronically Commutated Motor (ECM) or Belt Drive Motor with Variable Frequency Drive (VFD) Controller)

Cooling

When Central Terminal Board (CTB) terminal G is energized a 24VAC low speed run signal is sent to the ECM indoor motor or VFD controlled indoor motor through the unit fan board. The indoor fan will operate in low speed setting. High and low speed fan RPM are set by CFM and static pressure requirements for the unit installation. (The ECM and VFD are always energized and only require a 24V low speed or high speed run signal to operate).

When Central Terminal Board (CTB) terminal Y1 is energized (a thermostat call for first stage of cooling), 24VAC power is supplied to compressor contactor C and compressor A1 is energized and runs at part load capacity.

When Central Terminal Board (CTB) terminal Y2 is energized (a thermostat call for second stage of cooling), 24VAC power is supplied to the compressor loader (LDR) and the compressor operates at full load capacity. When Y2 is energized a 24VAC signal is also sent to the fan board and the indoor fan operates at high speed.

Regardless of the number of stages, the outdoor fan motor runs continuously while unit is cooling

At the factory settings during the first stage of cooling operation the ECM indoor motor or VFD controlled indoor motor will adjust the fan motor to provide the CFM required. When a call for the second stage of cooling is required, the ECM indoor motor or VFD controlled indoor motor will run at 100% of the total CFM required for the unit installation.

There is a 75 second indoor fan delay OFF (45 second on the Time Delay Relay (TDR) board and 30 second on the Integrated Gas Controller (IGC)) after the Central Terminal Board (CTB) terminal G is de-energized in the cooling mode

When the outside air temperature falls below 40°F (4°C) the outdoor fan operates at a lower RPM and will allow cooling operation to an outside air temperature of 10°F (-12°C)

Heating

NOTE: WeatherExpert (48LC) units have either 1 or 2 stages of gas heat. When the thermostat calls for heating, power is sent to W on the Integrated Gas Controller (IGC) board. An LED (light-emitting diode) on the IGC board turns on and remains on during normal operation. A check is made to ensure that the rollout switch and limit switch are closed. If the check was successful, the induced draft motor is energized, and when its speed is satisfactory, as proven by the “hall effect” sensor, the ignition activation period begins. The burners will ignite within 5 seconds. If the burners do not light, there is a 22-second delay before another 5 second attempt. This sequence is repeated for 15 minutes or until the burners light. If, after the 15 minutes, the burners still have not lit, heating is locked out. To reset the control, break 24VAC power to the thermostat.

When ignition occurs, the IGC board will continue to monitor the condition of the rollout switch, the limit switches, the “hall effect” sensor, as well as the flame sensor. 45 seconds after ignition occurs, assuming the unit is controlled through a room thermostat set for fan auto, the indoor fan motor will energize and run at full load speed (and the outdoor air dampers will open to their minimum position). If, for some reason, the over temperature limit opens prior to the start of the indoor fan blower, the unit will shorten the 45 second delay to 5 seconds less than the time from initiation of heat to when the limit tripped. Gas will not be interrupted to the burners and heating will continue. Once the fan ON delay has been modified, it will not change back to 45 seconds until power is reset to the control.

On units with 2 stages of heat, when additional heat is required, W2 closes and initiates power to the second stage of the main gas valve. When the thermostat is satisfied, W1 and W2 open and the gas valve closes, interrupting the flow of gas to the main burners. If the call for W1 lasted less than 1 minute, the heating cycle will not terminate until 1 minute after W1 became active. If the unit is controlled through a room thermostat set for fan auto, the indoor fan motor will continue to operate for an additional 45 seconds then stop. If the over temperature limit opens after the indoor motor is stopped, but within 10 minutes of W1 becoming inactive, on the next cycle the time will be extended by 15 seconds. The maximum delay is 3 minutes. Once modified, the fan OFF delay will not change back to 45 seconds unless power is reset to the control. A LED indicator is provided on the IGC to monitor operation

Electro-Mechanical Units

- With Economizer
- With 2-Speed Indoor Fan Motor (Direct Drive Electronically Commutated Motor (ECM) or Belt Drive Motor with Variable Frequency Drive (VFD) Controller)

SEQUENCE OF OPERATION (cont.)

Cooling

When free cooling is not available, the compressors will be controlled by the zone thermostat as described in previous cooling section without economizer.

When free cooling is available, the outdoor air damper is modulated by the EconoMiSer X control to provide a 50°F (10°C) to 55°F (13°C) mixed air temperature into the zone. As the mixed air temperature fluctuates above 55°F (13°C) or below 50°F (10°C) dampers will be modulated (open or close) to bring the mixed air temperature back within control. If mechanical cooling is utilized with free cooling, the outdoor air damper will maintain its current position at the time the compressor is started. If the increase in cooling capacity causes the mixed air temperature to drop below 45°F (7°C), then the outdoor air damper position will be decreased to the minimum position. If the mixed air temperature continues to fall, the outdoor air damper will close. Control returns to normal once the mixed air temperature rises above 48°F (9°C). The power exhaust fans will be energized and de-energized, if installed, as the outdoor air damper opens and closes.

If field installed accessory CO₂ sensors are connected to the EconoMiSer X control, a demand controlled ventilation strategy will begin to operate. As the CO₂ level in the zone increases above the CO₂ set point, the minimum position of the damper will be increased proportionally. As the CO₂ level decreases because of the increase in fresh air, the outdoor air damper will be proportionally closed. For EconoMiSer X operation, there must be a thermostat call for the fan (G). If the unit is occupied and the fan is on, the damper will operate at minimum position. Otherwise, the damper will be closed.

When the EconoMiSer X control is in the occupied mode and a call for cooling exists (Y1 on the thermostat), the control will first check for indoor fan operation. If the fan is not on, then cooling will not be activated. If the fan is on, then the control will open the EconoMiSer X damper to the minimum position.

On the initial power to the EconoMiSer X control, it will take the damper up to 2-1/2 minutes before it begins to position itself. After the initial power-up, further changes in damper position can take up to 30 seconds to initiate. Damper movement from full closed to full open (or vice versa) will take between 1-1/2 and 2-1/2 minutes. If free cooling can be used as determined from the appropriate changeover command (switch, dry bulb, enthalpy curve, differential dry bulb, or differential enthalpy), then the control will modulate the dampers open to maintain the mixed air temperature set point at 50°F (10°C) to 55°F (13°C). If there is a further demand for cooling (cooling second stage -- Y2 is energized), then the control will bring on compressor stage 1 to maintain the mixed air temperature set point. The EconoMiSer X damper will be open at maximum position. EconoMiSer X operation is limited to a single compressor.

2--Speed Note: When operating in ventilation mode only, the indoor fan motor will automatically adjust to part load fan speed set point.

Optional Humidi-MiZer Dehumidification System

Units with the factory equipped Humidi-MiZer option are capable of providing multiple modes of improved dehumidification as a variation of the normal cooling cycle. The Humidi-MiZer option includes additional valves in the liquid line and discharge line of each refrigerant circuit, a small reheat condenser coil downstream of the evaporator. Operation of the revised refrigerant circuit for each mode is described below.

The Humidi-MiZer system provides three sub-modes of operation: Cooling Mode, Subcooling Mode (Reheat1), and Hot Gas Reheat Mode (Reheat2).

Normal Cooling Mode - provides a normal ratio of Sensible and Latent Cooling effect from the evaporator coil.

Subcooling Mode (Reheat1) - provides increased Latent Cooling while slightly reducing the Sensible Cooling effect.

Hot Gas Reheat Mode (Reheat2) - provides normal Latent Cooling but with null or minimum Sensible Cooling effect delivered to the space.

The Subcooling and Hot Gas Reheat modes are available when the unit is not in a Heating mode and when the Low Ambient Lockout switch is closed.

The following diagrams depict piping for Single Stage cooling units.

Heating

The sequence of operation for the heating is the same as an electro-mechanical unit with no economizer. The only difference is how the economizer acts. The economizer will stay at the Economizer Minimum Position while the evaporator fan is operating. The outdoor air damper is closed when the indoor fan is not operating

Advanced Operation with ComfortLink Controls

General

The sequence below appends the sequence of operation for an electromechanical unit with and without a factory installed EconoMiSer. For detailed information regarding direct digital controller operation, see the start-up, operations, and troubleshooting manual.

WeatherExpert (48LC) units ComfortLink controls have multiple fan speeds. Direct drive units have two speeds with an optional third speed. If configured the third speed is used during ventilation operation.

Belt drive VFD units have 5 speeds that the indoor fan will run at based on the running mode and conditioning demand. The 5 speeds are Supply Fan Maximum Speed (100% of balanced airflow), Supply Fan Speed 1, 2, 3, and Supply Fan Speed Ventilation. Supply Fan Speed 2 is pre set to the optimum energy efficiency part load speed. Fan Speed 1 and 3 are pre-set to transition the fan during cooling stage up, and to aid in dehumidification. These 2 speeds can be adjusted in the field to optimize dehumidification, load balancing, or efficiency.

SEQUENCE OF OPERATION (cont.)

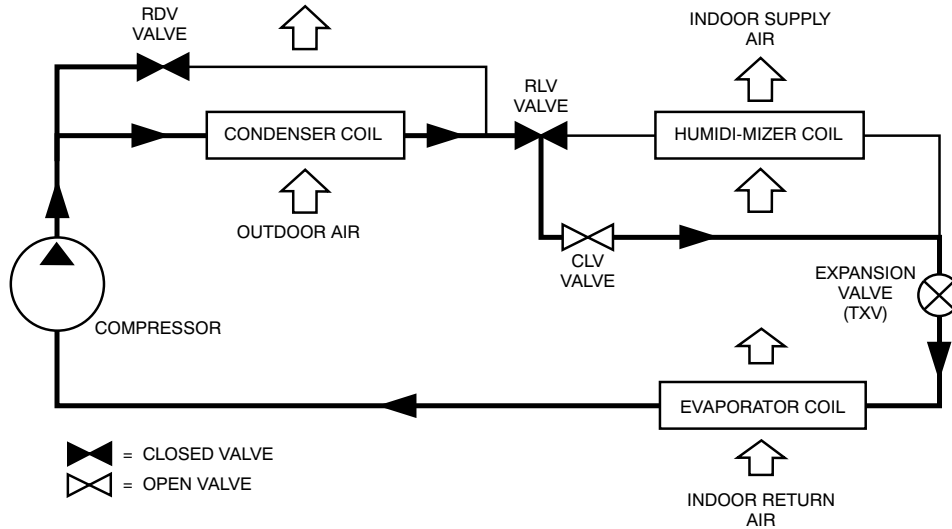


Fig. 13 - 48LC 04-06 Normal Cooling Mode - Humidi-MiZer System

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48LC

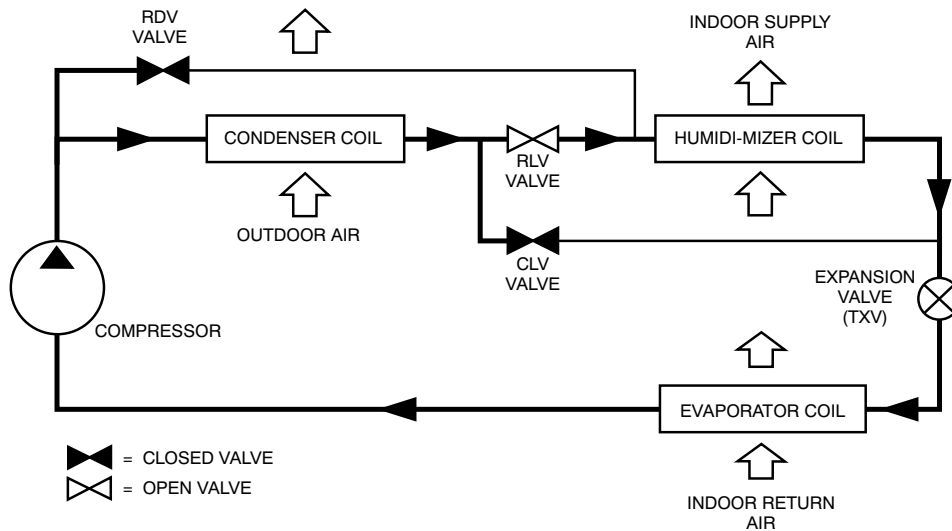


Fig. 14 - 48LC 04-06 Subcooling Mode (Reheat 1) - Humidi-MiZer System

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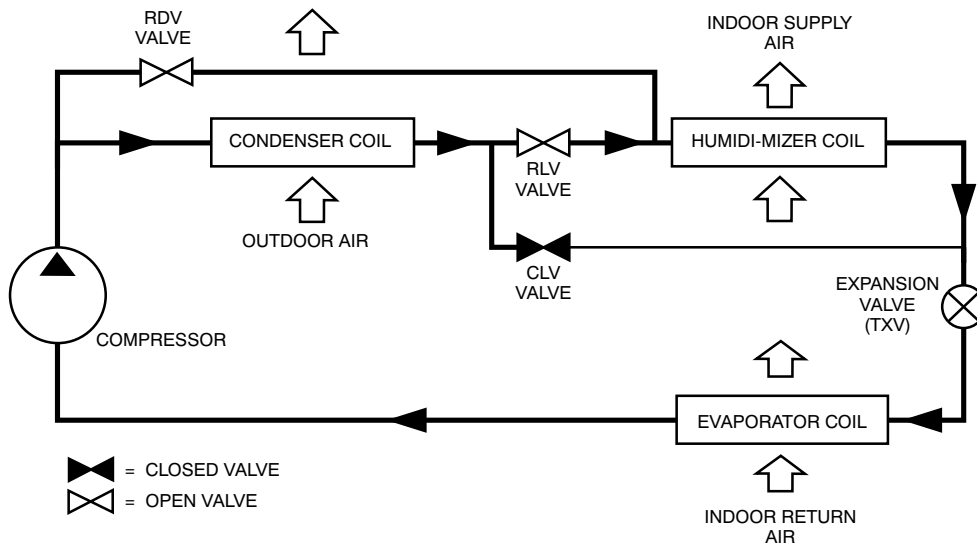


Fig. 15 - 48LC 04-06 Hot Gas Reheat Mode (Reheat2) - Humidi-MiZer System

C14123

GUIDE SPECIFICATIONS - 48LC*004- 06

Note about this specification:

This specification is in the “Masterformat” as published by the Construction Specification Institute. Please feel free to copy this specification directly into your building spec.

Gas Heat/Electric Cooling Packaged Rooftop

HVAC Guide Specifications

Size Range: 3 to 5 Nominal Tons



48LC

<u>Section</u>	<u>Description</u>
----------------	--------------------

23 06 80	Schedules for Decentralized HVAC Equipment
-----------------	---

- | | |
|----------------|---|
| 23 06 80.13 | Decentralized Unitary HVAC Equipment Schedule |
| 23 06 80.13.A. | Rooftop unit schedule |
| 1. | Schedule is per the project specification requirements. |

23 07 16	HVAC Equipment Insulation
-----------------	----------------------------------

- | | |
|----------------|---|
| 23 07 16.13 | Decentralized, Rooftop Units: |
| 23 07 16.13.A. | Evaporator fan compartment: |
| 1. | Interior cabinet surfaces shall be insulated with a minimum 1/2-in. thick, minimum 1 1/2 lb density, flexible fiberglass insulation bonded with a phenolic binder, neoprene coated on the air side. |
| 2. | Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation. |
| 23 07 16.13.B. | Gas heat compartment: |
| 1. | Aluminum foil-faced fiberglass insulation shall be used. |
| 2. | Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation. |

23 09 13	Instrumentation and Control Devices for HVAC
-----------------	---

- | | |
|----------------|---|
| 23 09 13.23 | Sensors and Transmitters |
| 23 09 13.23.A. | Thermostats |
| 1. | Thermostat must |
| a. | energize both “W” and “G” when calling for heat. |
| b. | have capability to energize 2 different stages of cooling, and 2 different stages of heating. |
| c. | include capability for occupancy scheduling. |

23 09 23	Direct-digital Control system for HVAC
-----------------	---

- | | |
|----------------|--|
| 23 09 23.13 | Decentralized, Rooftop Units: |
| 23 09 23.13.A. | ComfortLink Unit Controls shall contain: |
| 1. | Four button detailed English scrolling marquee display. |
| 2. | CCN (Carrier Comfort Network) capable. |
| 3. | Unit control with standard suction pressure transducers and condensing temperature thermistors. |
| 4. | Shall provide a 5°F temperature difference between cooling and heating set points to meet ASHRAE 90.1 Energy Standard. |
| 5. | Shall provide and display a current alarm list and an alarm history list. |
| 6. | Service run test capability. |
| 7. | Shall accept input from a CO ₂ sensor (both indoor and outdoor). |
| 8. | Configurable alarm light shall be provided which activates when certain types of alarms occur. |
| 9. | Compressor minimum run time (3 minutes) and minimum off time (5 minutes) are provided. |
| 10. | Service diagnostic mode. |

- 11. Economizer control (optional).
- 12. Control multi capacity stages
- 13. Unit shall be complete with self-contained low voltage control circuit.
- 14. Unit shall have 0°F low ambient cooling operation.

23 09 23.13.B. Safeties:

- 1. Unit shall incorporate a solid state compressor lockout that provides optional reset capability at the space thermostat, should any of the following safety devices trip and shut off compressor:
 - a. Compressor lockout protection provided for either internal or external overload.
 - b. Low pressure protection.
 - c. Freeze protection (evaporator coil).
 - d. High pressure protection (high pressure switch or internal).
 - e. Compressor reverse rotation protection
 - f. Loss of charge protection.
 - g. Supply air sensor shall be located in the unit and detect both heating and cooling operation

23 09 23.13.B. RTU Open - multi-protocol, direct digital controller:

- 1. Shall be ASHRAE 62-2001 compliant.
- 2. Shall accept 18-30VAC, 50-60Hz, and consumer 15VA or less power.
- 3. Shall have an operating temperature range from -40°F (-40°C) to 130°F (54°C), 10% - 90% RH (non-condensing).
- 4. Shall include built-in protocol for BACNET (MS/TP and PTP modes), Modbus (RTU and ASCII), Johnson N2 and LonWorks. LonWorks Echelon processor required for all Lon applications shall be contained in separate communication board.
- 5. Shall allow access of up to 62 network variables (SNVT). Shall be compatible with all open controllers
- 6. Baud rate Controller shall be selectable using a dipswitch.
- 7. Shall have an LED display independently showing the status of serial communication, running, errors, power, all digital outputs, and all analog inputs.
- 8. Shall accept the following inputs: space temperature, setpoint adjustment, outdoor air temperature, indoor air quality, outdoor air quality, compressor lock-out, fire shutdown, enthalpy switch, and fan status/filter status/humidity/ remote occupancy.
- 9. Shall provide the following outputs: economizer, fan, cooling stage 1, cooling stage 2, heat stage 1, heat stage 2, heat stage 3/ exhaust/ reversing valve.
- 10. Shall have built-in surge protection circuitry through solid state polyswitches. Polyswitches shall be used on incoming power and network connections. Polyswitches will return to normal when the “trip” condition clears.
- 11. Shall have a battery back-up capable of a minimum of 10,000 hours of data and time clock retention during power outages.
- 12. Shall have built-in support for Carrier technician tool.
- 13. Shall include an EIA-485 protocol communication port, an access port for connection of either a computer or a Carrier technician tool, an EIA-485 port for network communication to intelligent space sensors and displays, and a port to connect an optional LonWorks communications card.
- 14. Software upgrades will be accomplished by either local or remote download. No software upgrades through chip replacements are allowed.

23 09 33 Electric and Electronic Control System for HVAC

23 09 33.13 Decentralized, Rooftop Units:

23 09 33.13.A. General:

- 1. Shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-v transformer side. Transformer shall have 75VA capability.
- 2. Shall utilize color-coded wiring.
- 3. Shall include a central control terminal board to conveniently and safely provide connection points for vital control functions such as: smoke detectors, phase monitor, gas controller, economizer, thermostat, DDC control options, and low and high pressure switches.
- 4. The heat exchanger shall be controlled by an integrated gas controller (IGC) microprocessor. See heat exchanger section of this specification.
- 5. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.

23 09 33.23.B. Safeties:

- 1. Compressor over-temperature, over-current. High internal pressure differential.

2. Low-pressure switch.
 - a. Units with 2 compressors shall have different sized connectors for the circuit 1 and circuit 2 low and high pressure switches. They shall physically prevent the cross-wiring of the safety switches between circuits 1 and 2.
 - b. Low pressure switch shall use different color wire than the high pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
3. High-pressure switch.
 - a. Units with 2 compressors shall have different sized connectors for the circuit 1 and circuit 2 low and high pressure switches. They shall physically prevent the cross-wiring of the safety switches between circuits.
 - b. High pressure switch shall use different color wire than the low pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
4. Automatic reset, motor thermal overload protector.
5. Heating section shall be provided with the following minimum protections:
 - a. High-temperature limit switches.
 - b. Induced draft motor speed sensor.
 - c. Flame rollout switch.
 - d. Flame proving controls.

23 09 93 Sequence of Operations for HVAC Controls

23 09 93.13 Decentralized, Rooftop Units:

23 09 93.13 INSERT SEQUENCE OF OPERATION

23 40 13 Panel Air Filters

23 40 13.13 Decentralized, Rooftop Units:

23 40 13.13.A. Standard filter section

1. Shall consist of factory-installed, low velocity, disposable 2-in. thick fiberglass filters of commercially available sizes.
2. Unit shall use only one filter size. Multiple sizes are not acceptable.
3. Filters shall be accessible through an access panel with “no-tool” removal as described in the unit cabinet section of this specification (23 81 19.13.H).

23 81 19 Self-Contained Air Conditioners

23 81 19.13 Small-Capacity Self-Contained Air Conditioners (48LC**04-06)

23 81 19.13.A. General

1. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing a two stage fully hermetic scroll compressor(s) for cooling duty and gas combustion for heating duty.
2. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
3. Unit shall use environmentally sound, Puron® refrigerant.
4. Unit shall be installed in accordance with the manufacturer’s instructions.
5. Unit must be selected and installed in compliance with local, state, and federal codes.

23 81 19.13.B. Quality Assurance

1. Unit meets ASHRAE 90.1 minimum efficiency requirements.
2. Units shall be Energy Star certified.
3. Unit shall be rated in accordance with AHRI Standards 210/240 and 340/360.
4. Unit shall be designed to conform to ASHRAE 15, 2001.
5. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
6. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
7. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
8. Unit shall be designed in accordance with ISO 9001, and shall be manufactured in a facility registered by ISO 9001.
9. Roof curb shall be designed to conform to NRCA Standards.
10. Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory, and must be available upon request.
11. Unit shall be designed in accordance with UL Standard 1995, including tested to withstand rain.

- 12. Unit shall be constructed to prevent intrusion of snow and tested to prevent snow intrusion into the control box up to 40 mph.
- 13. Unit shake tested to assurance level 1, ASTM D4169 to ensure shipping reliability.
- 23 81 19.13.C. Delivery, Storage, and Handling
 - 1. Unit shall be stored and handled per manufacturer’s recommendations.
 - 2. Lifted by crane requires either shipping top panel or spreader bars.
 - 3. Unit shall only be stored or positioned in the upright position.
- 23 81 19.13.E. Project Conditions
 - 1. As specified in the contract.
- 23 81 19.13.F. Operating Characteristics
 - 1. Unit shall be capable of starting and running at 125°F (52°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 210/240 at ± 10% voltage.
 - 2. Compressor with standard electrical mechanical controls shall be capable of operation down to 10°F (- 12°C), ambient outdoor temperatures. Units with ComfortLink controls shall be available if operation below 0°F (- 18°C), is required.
 - 3. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.
 - 4. Unit shall be factory configured for vertical supply & return configurations.
 - 5. Unit shall be field convertible from vertical to horizontal airflow on all models. No special kit required.
 - 6. Unit shall be capable of mixed operation: vertical supply with horizontal return or horizontal supply with vertical return.
- 23 81 19.13.G. Electrical Requirements
 - 1. Main power supply voltage, phase, and frequency must match those required by the manufacturer.
- 23 81 19.13.H. Unit Cabinet
 - 1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre-painted baked enamel finish on all externally exposed surfaces.
 - 2. Unit cabinet exterior paint shall be: film thickness, (dry) 0.003 inches minimum, gloss (per ASTM D523, 60°F / 16°C): 60, Hardness: H- 2H Pencil hardness.
 - 3. Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 210/240 or 340/360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 1/2- in. thick, 1 lb density, flexible aluminum foil faced insulation on all interior air stream panels.
 - 4. Base of unit shall have a minimum of four locations for thru-the-base gas and electrical connections (factory installed or field installed), standard.
 - 5. Base Rail
 - a. Unit shall have base rails on a minimum of 4 sides.
 - b. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
 - c. Holes shall be provided in the base rail for moving the rooftop by fork truck.
 - d. Base rail shall be a minimum of 16 gauge thickness.
 - 6. Condensate pan and connections:
 - a. Shall be an internally sloped condensate drain pan made of a non-corrosive material.
 - b. Shall comply with ASHRAE Standard 62.
 - c. Shall use a 3/4- IN - 14 NPT drain connection, possible either through the bottom or side of the drain pan. Connection shall be made per manufacturer’s recommendations.
 - 7. Top panel:
 - a. Shall be a single piece top panel on all models.
 - 8. Gas Connections:
 - a. All gas piping connecting to unit gas valve shall enter the unit cabinet at a single location on side of unit (horizontal plane).
 - b. Thru- the-base capability
 - (1.) Standard unit shall have a thru- the-base gas- line location using a raised, embossed portion of the unit basepan.
 - (2.) Optional, factory- approved, water- tight connection method must be used for thru- the-base gas connections.
 - (3.) No basepan penetration, other than those authorized by the manufacturer, is permitted.
 - 9. Electrical Connections

- a. All unit power wiring shall enter unit cabinet at a single, factory-prepared, knockout location.
 - b. Thru-the-base capability.
 - (1.) Standard unit shall have a thru-the-base electrical location(s) using a raised, embossed portion of the unit basepan.
 - (2.) Optional, factory-approved, water-tight connection method must be used for thru-the-base electrical connections.
 - (3.) No basepan penetration, other than those authorized by the manufacturer, is permitted.
10. Component access panels (standard)
- a. Cabinet panels shall be easily removable for servicing.
 - b. Unit shall have one factory installed, tool-less, removable, filter access panel.
 - c. Panels covering control box, indoor fan, indoor fan motor, gas components (where applicable), and compressors shall have a molded composite handles.
 - d. Handles shall be UV modified, composite. They shall be permanently attached, and recessed into the panel.
 - e. Screws on the vertical portion of all removable access panel shall engage into heat resistant, molded composite collars.
 - f. Collars shall be removable and easily replaceable using manufacturer recommended parts.

23 81 19.13.I. Gas Heat

1. General
 - a. Heat exchanger shall be an induced draft design. Positive pressure heat exchanger designs shall not be allowed.
 - b. Shall incorporate a direct-spark ignition system and redundant main gas valve.
 - c. Gas supply pressure at the inlet to the rooftop unit gas valve must match that required by the manufacturer.
2. The heat exchanger shall be controlled by an integrated gas controller (IGC) microprocessor.
 - a. IGC board shall notify users of fault using an LED (light-emitting diode).
 - b. The LED shall be visible without removing the control box access panel.
 - c. IGC board shall contain algorithms that modify evaporator-fan operation to prevent future cycling on high temperature limit switch.
 - d. Unit shall be equipped with anti-cycle protection with one short cycle on unit flame rollout switch or 4 continuous short cycles on the high temperature limit switch. Fault indication shall be made using an LED.
3. Standard Heat Exchanger construction
 - a. Heat exchanger shall be of the tubular-section type constructed of a minimum of 20-gauge steel coated with a nominal 1.2 mil aluminum-silicone alloy for corrosion resistance.
 - b. Burners shall be of the in-shot type constructed of aluminum-coated steel.
 - c. Burners shall incorporate orifices for rated heat output up to 2000 ft (610m) elevation. Additional accessory kits may be required for applications above 2000 ft (610m) elevation, depending on local gas supply conditions.
 - d. Each heat exchanger tube shall contain multiple dimples for increased heating effectiveness.
4. Optional Stainless Steel Heat Exchanger construction
 - a. Use energy saving, direct-spark ignition system.
 - b. Use a redundant main gas valve.
 - c. Burners shall be of the in-shot type constructed of aluminum-coated steel.
 - d. All gas piping shall enter the unit cabinet at a single location on side of unit (horizontal plane).
 - e. The optional stainless steel heat exchanger shall be of the tubular-section type, constructed of a minimum of 20-gauge type 409 stainless steel.
 - f. Type 409 stainless steel shall be used in heat exchanger tubes and vestibule plate.
 - g. Complete stainless steel heat exchanger allows for greater application flexibility.
5. Optional Low NO_x Heat Exchanger construction
 - a. Low NO_x reduction shall be provided to reduce nitrous oxide emissions to meet California's Air Quality Management District (SCAQMD) low-NO_x emissions requirement of 40 nanograms per joule or less.
 - b. Primary tubes and vestibule plates on low NO_x units shall be 409 stainless steel. Other components shall be aluminized steel.
6. Induced draft combustion motor and blower
 - a. Shall be a direct-drive, single inlet, forward-curved centrifugal type.
 - b. Shall be made from steel with a corrosion-resistant finish.
 - c. Shall have permanently lubricated sealed bearings.

- d. Shall have inherent thermal overload protection.
- e. Shall have an automatic reset feature.

23 81 19.13.J. Coils

1. Standard Aluminum Fin/Copper Tube Coils:
 - a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.
 - b. Evaporator coils shall be leak tested to 150 psig, pressure tested to 450 psig, and qualified to UL 1995 burst test at 1775 psig.
 - c. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.
2. Optional Pre-coated aluminum-fin condenser coils:
 - a. Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments.
 - b. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.
 - c. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.
3. Optional Copper-fin evaporator and condenser coils:
 - a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.
 - b. Galvanized steel tube sheets shall not be acceptable.
 - c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.
4. Optional E-coated aluminum-fin evaporator and condenser coils:
 - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.
 - b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.
 - c. Color shall be high gloss black with gloss per ASTM D523-89.
 - d. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges.
 - e. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93.
 - f. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93).
 - g. Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92).
 - h. Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90.
5. Optional E-coated aluminum-fin, aluminum tube condenser coils:
 - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil external surface areas without material bridging between fins or louvers.
 - b. Coating process shall ensure complete coil encapsulation, including all exposed fin edges.
 - c. E-coat thickness of 0.8 to 1.2 mil with top coat having a uniform dry film thickness from 1.0 to 2.0 mil on all external coil surface areas, including fin edges, shall be provided.
 - d. Shall have superior hardness characteristics of 2H per ASTM D3363-00 and cross-hatch adhesion of 4B-5B per ASTM D3359-02.
 - e. Shall have superior impact resistance with no cracking, chipping or peeling per NSF/ANSI 51-2002 Method 10.2.

23 81 19.13.K. Refrigerant Components

1. Refrigerant circuit shall include the following control, safety, and maintenance features:
 - a. Thermostatic Expansion Valve (TXV) shall help provide optimum performance across the entire operating range. Shall contain removable power element to allow change out of power element and bulb without removing the valve body.
 - b. Refrigerant filter drier - Solid core design.
 - c. Service gauge connections on suction and discharge lines.
 - d. Pressure gauge access through a specially designed access port in the top panel of the unit.
2. There shall be gauge line access port in the skin of the rooftop, covered by a black, removable plug.
 - a. The plug shall be easy to remove and replace.

- b. When the plug is removed, the gauge access port shall enable maintenance personnel to route their pressure gauge lines.
 - c. This gauge access port shall facilitate correct and accurate condenser pressure readings by enabling the reading with the compressor access panel on.
 - d. The plug shall be made of a leak proof, UV-resistant, composite material.
3. Compressors
- a. Unit shall use fully hermetic, scroll compressor for each independent refrigeration circuit.
 - b. Models shall be available with two stage capacity control.
 - c. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
 - d. Compressors shall be internally protected from high discharge temperature conditions.
 - e. Compressors shall be protected from an over-temperature and over-amperage conditions by an internal, motor overload device.
 - f. Compressor shall be factory mounted on rubber grommets.
 - g. Compressor motors shall have internal line break thermal, current overload and high pressure differential protection.
 - h. Crankcase heaters shall be standard on each compressor.

23 81 19.13.L. Filter Section

- 1. Filters access is specified in the unit cabinet section of this specification.
- 2. Filters shall be held in place by a pivoting filter tray, facilitating easy removal and installation.
- 3. Shall consist of factory-installed, low velocity, throw-away 2-in. thick fiberglass filters.
- 4. Filters shall be standard, commercially available sizes.
- 5. Only one size filter per unit is allowed.

23 81 19.13.M. Evaporator Fan and Motor

- 1. Evaporator fan motor:
 - a. Shall have permanently lubricated bearings.
 - b. Shall have inherent automatic-reset thermal overload protection or circuit breaker.
 - c. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required.
- 2. ECM Direct Drive (Multi-Speed) Evaporator Fan Motor:
 - a. Multi-speed motor with easy quick adjustment settings.
 - b. Blower fan shall be double-inlet type with forward-curved blades.
 - c. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.
 - d. Standard on all all models
- 3. Optional Belt-driven Evaporator Fan with VFD controller and display:
 - a. Belt drive shall include an adjustable-pitch motor pulley.
 - b. Shall use sealed, permanently lubricated ball-bearing type.
 - c. Blower fan shall be double-inlet type with forward-curved blades.
 - d. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.
 - e. Shall come with factory installed Variable Frequency Drive (VFD):
 - (1.) Shall be installed inside the unit cabinet, mounted, wired and tested
 - (2.) Shall contain Electromagnetic Interference (EMI) suppression (also called radio frequency interference or RFI) that may interrupt, obstruct, or otherwise degrade the effective performance of the internal circuit.
 - (3.) Insulated Gate Bi-Polar Transistors (IGBT) used to produce the output pulse width modulated (PWM) waveform, allowing for quiet motor operation.
 - (4.) Be self diagnostics
 - (5.) RS485 capability standard.
 - (6.) Electronic thermal overload protection.
 - (7.) 5% swinging chokes for harmonic reduction and improved power factor.
 - (8.) All printed circuit boards shall be conformal coated

23 81 19.13.N. Condenser Fans and Motors

- 1. Condenser fan motors:
 - a. Shall be a totally enclosed motor.
 - b. Shall use permanently lubricated bearings.

- c. Shall have inherent thermal overload protection with an automatic reset feature.
 - d. Shall use a shaft-down design.
 - e. Shall be ECM design.
2. Condenser Fans:
- a. Shall be a direct-driven propeller type fan.
 - b. Shall have aluminum blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.

23 81 19.13.O. Special Features Options and Accessories

1. Integrated EconoMi\$er2, and EconoMi\$er X standard leak rate models
- a. Integrated, gear driven opposing modulating blade design type capable of simultaneous economizer and compressor operation.
 - b. Independent modules for vertical or horizontal return configuration shall be available. Vertical return modules shall be available as a factory installed option.
 - c. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
 - d. Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.
 - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - f. Standard leak rate models shall be equipped with leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
 - g. Economizer controller on EconoMi\$er X models shall be the Honeywell W7220 that provides:
 - (1.) 2-line LCD interface screen for setup, configuration and troubleshooting
 - (2.) On-board Fault Detection and Diagnostics (FDD) that senses and alerts when the economizer is not operating properly, per California Title 24.
 - (3.) Sensor failure loss of communication identification
 - (4.) Automatic sensor detection
 - (5.) Capabilities for use with multiple-speed indoor fan systems
 - (6.) Utilize digital sensors: Dry bulb and Enthalpy
 - h. Economizer controller on EconoMi\$er2 models with RTU Open models shall be a 4-20mA design controlled directly by the RTU Open controller. RTU Open meets California Title 24 Fault Detection & Diagnostic (FDD) requirements.
 - i. Economizer controller on EconoMi\$er2 models with ComfortLink models shall be controlled directly by the ComfortLink controller. ComfortLink meets California Title 24 Fault Detection & Diagnostic (FDD) requirements.
 - j. Shall be capable of introducing up to 100% outdoor air.
 - k. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air and contain seals that meet ASHRAE 90.1 requirements.
 - l. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor.
 - m. Dry bulb outdoor air temperature sensor shall be provided as standard. Enthalpy sensor is also available on factory installed only. Outdoor air sensor setpoint shall be adjustable and shall range from 40 to 100°F / 4 to 38°C. Additional sensor options shall be available as accessories.
 - n. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 100%, with a range of 0% to 100%.
 - o. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.
 - p. Dampers shall be completely closed when the unit is in the unoccupied mode
 - q. Economizer controller shall accept a 2-10 Vdc CO₂ sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor air damper to provide ventilation based on the sensor input.
 - r. Compressor lockout temperature on W7220 is adjustable from -45 to 80F, set at a factory default of 32°F. Others shall open at 35°F (2C) and closes at 50°F (10°C).
 - s. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - t. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.
2. Integrated EconoMi\$er2, and EconoMi\$er X Ultra Low Leak Models
- a. Integrated, gear driven opposing modulating blade design type capable of simultaneous economizer and compressor operation.

- b. Independent modules for vertical or horizontal return configuration shall be available. Vertical return modules shall be available as a factory installed option.
 - c. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
 - d. Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.
 - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - f. Ultra Low Leak design meets California Title 24 section 140.4 and ASHRAE 90.1 requirements of 4cfm per sq. ft. on the outside dampers and 10cfm per sq. ft. on the return dampers.
 - g. Economizer controller on EconoMiSer X models shall be the Honeywell W7220 that provides:
 - (1.) 2-line LCD interface screen for setup, configuration and troubleshooting
 - (2.) On-board Fault Detection and Diagnostics (FDD) that senses and alerts when the economizer is not operating properly, per California Title 24.
 - (3.) Sensor failure loss of communication identification
 - (4.) Automatic sensor detection
 - (5.) Capabilities for use with multiple-speed indoor fan systems
 - (6.) Utilize digital sensors: Dry bulb and Enthalpy
 - h. Economizer controller on EconoMiSer2 models with RTU Open models shall be a 4-20mA design controlled directly by the RTU Open controller. RTU Open meets California Title 24 Fault Detection & Diagnostic (FDD) requirements.
 - i. Economizer controller on EconoMiSer2 models with ComfortLink models shall be controlled directly by the ComfortLink controller. ComfortLink meets California Title 24 Fault Detection & Diagnostic (FDD) requirements.
 - j. Shall be capable of introducing up to 100% outdoor air.
 - k. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air and contain seals that meet ASHRAE 90.1 requirements.
 - l. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor.
 - m. Dry bulb outdoor air temperature sensor is also available on factory installed only. Outdoor air sensor setpoint shall be adjustable and shall range from 40 to 100°F / 4 to 38°C. Additional sensor options shall be available as accessories.
 - n. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 100%, with a range of 0% to 100%.
 - o. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.
 - p. Dampers shall be completely closed when the unit is in the unoccupied mode.
 - q. Economizer controller shall accept a 2- 10 Vdc CO₂ sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor air damper to provide ventilation based on the sensor input.
 - r. Compressor lockout temperature on W7220 is adjustable from -45 F to 80 F, set at a factory default of 32°F. Others shall open at 35°F (2C) and closes at 50°F (10°C).
 - s. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - t. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.
3. Propane Conversion Kit
 - a. Package shall contain all the necessary hardware and instructions to convert a standard natural gas unit for use with liquefied propane, up to 2000 ft (610m) elevation.
 - b. Additional accessory kits may be required for applications above 2000 ft (610m) elevation.
 4. Flue Shield
 - a. Flue shield shall provide protection from the hot sides of the gas flue hood.
 5. Condenser Coil Hail Guard Assembly:
 - a. Shall protect against damage from hail.
 - b. Shall be of louvered style.
 6. Unit-Mounted, Non-Fused Disconnect Switch:
 - a. Switch shall be factory-installed, internally mounted.
 - b. National Electric Code (NEC) and UL approved non-fused switch shall provide unit power shutoff.
 - c. Shall be accessible from outside the unit.

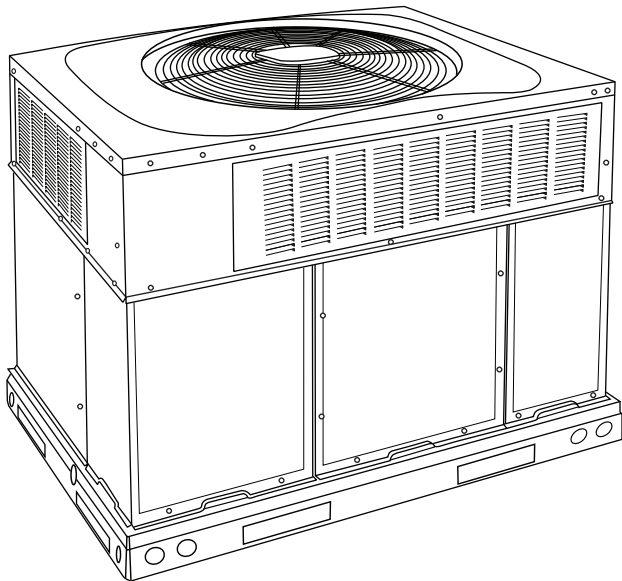
- d. Shall provide local shutdown and lockout capability.
- 7. Convenience Outlet:
 - a. Powered convenience outlet (not available on 575 volt models).
 - (1.) Outlet shall be powered from main line power to the rooftop unit.
 - (2.) Outlet shall be powered from line side or load side of disconnect by installing contractor, as required by code. If outlet is powered from load side of disconnect, unit electrical ratings shall be UL certified and rated for additional outlet amperage.
 - (3.) Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle.
 - (4.) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
 - (5.) Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer.
 - (6.) Outlet shall be accessible from outside the unit.
 - (7.) Outlet shall include a field-installed "Wet in Use" cover.
 - b. Non-Powered convenience outlet.
 - (1.) Outlet shall be powered from a separate 115/120v power source.
 - (2.) A transformer shall not be included.
 - (3.) Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle.
 - (4.) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
 - (5.) Outlet shall be accessible from outside the unit.
 - (6.) Outlet shall include a field-installed "Wet in Use" cover.
- 8. Flue Discharge Deflector:
 - a. Flue discharge deflector shall direct unit exhaust vertically instead of horizontally.
 - b. Deflector shall be defined as a "natural draft" device by the National Fuel and Gas (NFG) code.
- 9. Thru-the-Base Connectors:
 - a. Kits shall provide connectors to permit gas and electrical connections to be brought to the unit through the unit basepan.
 - b. Minimum of four connection locations per unit.
- 10. Propeller Power Exhaust:
 - a. Power exhaust shall be used in conjunction with an integrated economizer.
 - b. Independent modules for vertical or horizontal return configurations shall be available.
 - c. Horizontal power exhaust is shall be mounted in return ductwork.
 - d. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control.
- 11. Roof Curbs (Vertical):
 - a. Full perimeter roof curb with exhaust capability providing separate air streams for energy recovery from the exhaust air without supply air contamination.
 - b. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
 - c. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.
- 12. High Altitude Gas Conversion Kit:
 - a. Package shall contain all the necessary hardware and instructions to convert a standard natural gas unit to operate from 2000-7000 ft (610 to 2134m) elevation with natural gas or from 0-7000 ft (90-2134m) elevation with liquefied propane.
- 13. Outdoor Air Enthalpy Sensor:
 - a. The outdoor air enthalpy sensor shall be used to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the unit will provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.
- 14. Return Air Enthalpy Sensor:
 - a. The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.
- 15. Indoor Air Quality (CO₂) Sensor:
 - a. Shall be able to provide demand ventilation indoor air quality (IAQ) control.
 - b. The IAQ sensor shall be available in duct mount, wall mount, or wall mount with LED display. The setpoint shall have adjustment capability.

16. Smoke detectors (factory-installed only):
 - a. Shall be a Four-Wire Controller and Detector.
 - b. Shall be environmental compensated with differential sensing for reliable, stable, and drift-free sensitivity.
 - c. Shall use magnet-activated test/reset sensor switches.
 - d. Shall have tool-less connection terminal access.
 - e. Shall have a recessed momentary switch for testing and resetting the detector.
 - f. Controller shall include:
 - (1.) One set of normally open alarm initiation contacts for connection to an initiating device circuit on a fire alarm control panel.
 - (2.) Two Form-C auxiliary alarm relays for interface with rooftop unit or other equipment.
 - (3.) One Form-C supervision (trouble) relay to control the operation of the Trouble LED on a remote test/reset station.
 - (4.) Capable of direct connection to two individual detector modules.
 - (5.) Can be wired to up to 14 other duct smoke detectors for multiple fan shutdown applications
17. Time Guard
 - a. Shall prevent compressor short cycling by providing a 5-minute delay (± 2 minutes) before restarting a compressor after shutdown for any reason.
 - b. One device shall be required per compressor.
18. Hinged Access Panels
 - a. Shall provide easy access through integrated quarter turn latches and lift tabs.
 - b. Shall be on major panels of – filter, control box, fan motor and compressor.
19. Humidi-MiZer® Adaptive Dehumidification System (not available with ComfortLink Controls):
 - a. The Humidi-MiZer Adaptive Dehumidification System shall be factory installed, certified and tested to provide greater dehumidification of the occupied space by providing two distinct modes of dehumidification operation in addition to its normal design cooling mode:
 - (1.) Subcooling mode further sub-cools the hot liquid refrigerant leaving the condenser coil as well as re-heat leaving air stream. It can provide both better cooling capacity as well as dehumidification process when both temperature and humidity in the space are not satisfied.
 - (2.) Hot gas reheat mode shall mix a portion of hot gas from the discharge of the compressor with the hot liquid refrigerant leaving the condenser coil to create a two-phase warm refrigerant in the reheat coil which results in a neutral leaving air temperature when only humidity in the space is not satisfied.

**48VG-A and 48VG-B
Performance™ 16 SEER 2-Stage Packaged Air
Conditioner and Gas Furnace System with Puron®
(R-410A) Refrigerant
Single and Three Phase
2 to 5 Nominal Tons (Sizes 24-60)**



Product Data



A09033

Fig. 1 - Unit 48VG-A and 48VG-B

Single-Packaged Products with Energy-Saving Features and Puron® refrigerant.

- 15.0 to 16.0 SEER
- 12.0 - 12.5 EER
- 81% AFUE (Single phase models)
- Meets Energy Star requirements
- Direct Spark Ignition
- Factory-Installed TXV
- Multi-speed ECM Blower Motor-Standard
- Sound Levels as low as 72dBA
- Two Stage Cooling
- Two Stage Heating (208/230 VAC models)
- Dehumidification Feature

FEATURES/BENEFITS

One-piece heating and cooling units with low sound levels, easy installation, low maintenance, and dependable performance.

Puron Refrigerant is Carrier's unique refrigerant designed to help protect the environment. Puron is an HFC refrigerant which does not contain chlorine that can harm the ozone layer. Puron refrigerant is in service in millions of systems proving highly reliable, environmentally sound performance.

Easy Installation

Factory-assembled package is a compact, fully self-contained, combination gas heating/electric cooling unit that is prewired, pre-piped, and pre-charged for minimum installation expense. These units are available in a variety of standard and optional

heating/cooling size combinations with voltage options to meet residential and light commercial requirements. Units are lightweight and install easily on a rooftop or at ground level. The high tech composite base eliminates rust problems associated with ground level applications.

Innovative Unit Base Design

On the inside a high-tech composite material will not rust and incorporates a sloped drain pan which improves drainage and helps inhibit mold, algae and bacterial growth. On the outside metal base rails provide added stability as well as easier handling and rigging.

Convertible duct configuration

Unit is designed for use in either downflow or horizontal applications. Each unit is converted from horizontal to downflow and includes two horizontal duct covers. Downflow operation is provided in the field to allow vertical ductwork connections. The basepan seals on the bottom openings to ensure a positive seal in the vertical airflow mode.

Efficient operation

High-efficiency design offers SEER (Seasonal Energy Efficiency Ratios) of 15.0 to 16.0, 12.0 to 12.5 EER, and AFUE (Annual Fuel Utilization Efficiency) ratings as high as 81%.

Energy-saving, direct spark ignition saves gas by operating only when the room thermostat calls for heating. Standard units are furnished with natural gas controls. A low-cost field installed kit for propane conversion is available for all units.

Low NOx units designed for California installations. These models meet the California maximum oxides of nitrogen (NOx) emissions requirement of 40 nanograms/joule or less as shipped from the factory and **MUST** be installed in California Air Quality Management Districts and wherever a Low NOx rule exists.

Durable, dependable components

Compressors have two stages of cooling and are designed for high efficiency. Each compressor is hermetically sealed against contamination to help promote longer life and dependable operation. Each compressor also has vibration isolation to provide quieter operation. All compressors have internal high pressure and overcurrent protection.

Monoport inshot burners produce precise air-to-gas mixture, which provides for clean and efficient combustion. The large monoport on the inshot (or injection type) burners seldom, if ever, requires cleaning. All gas furnace components are accessible in one compartment.

Turbo-tubular™ heat exchangers are constructed of aluminized steel for corrosion resistance and optimum heat transfer for improved efficiency. The tubular design permits hot gases to make multiple passes across the path of the supply air.

In addition, dimples located on the heat exchanger walls force the hot gases to stay in close contact with the walls, improving heat transfer.

Stainless steel heat exchanger available as factory installed option.

Multi-speed ECM Blower Motor is standard on all models.

High Efficiency 2-Speed Inducer Motor on single phase models. **Direct-drive PSC (Permanent Split Capacitor) condenser-fan motors** are designed to help reduce energy consumption and provide for cooling operation down to 40°F (4.4°C) outdoor temperature. Motormaster® II low ambient kit is available as a field-installed accessory.

Thermostatic Expansion Valve - A hard shutoff, balance port TXV maintains a constant superheat at the evaporator exit (cooling cycle) resulting in higher overall system efficiency.

Refrigerant system is designed to provide dependability. Liquid filter driers are used to promote clean, unrestricted operation. Each unit leaves the factory with a full refrigerant charge. Refrigerant service connections make checking operating pressures easier.

High and Low Pressure Switches provide added reliability for the compressor.

Indoor and Outdoor coils are computer-designed for optimum heat transfer and efficiency. The indoor coil is fabricated from copper tube and aluminum fins and is located inside the unit for protection against damage. The outdoor coil is internally mounted on the top tier of the unit.

Low sound ratings ensure a quiet indoor and outdoor environment with sound ratings as low as 72dBA.

Dehumidification Feature

This unit has independent fan speeds for low stage cooling and high stage cooling. In addition, 208/230 VAC models have the field-selectable capability to run an enhanced dehumidification ('DHUM') speed on high stage cooling (as low as 320CFM per ton). Coupled with the improved dehumidification associated with low stage cooling, the DHUM speed allows for a complete dehumidification solution independent of cooling stage. 208/230 VAC models also have independent fan speeds for low stage gas heating and high stage gas heating. The dehumidification control must open the control circuit on humidity rise above the dehumidification set point.

Heating

- Reliable direct spark ignition system
- Inducer motors with ball bearings
- Low stage heating delivers 65% of high-stage capacity (208/230 VAC models)

Easy to service cabinets provide easy 3-panel accessibility to serviceable components during maintenance and installation. The basepan with integrated drain pan provides easy ground level installation with mounting pad. A nesting feature ensures a positive basepan to roof curb seal when the unit is roof mounted. A convenient 3/4-in. (19.05 mm) wide perimeter flange makes frame mounting on a rooftop easy.

Standard horizontal metal duct covers with insulation come with the unit and cover the horizontal duct openings. These can be left in place if the units are converted to downflow.

Integrated Gas Control (IGC) board provides safe and efficient control of heating and simplifies trouble-shooting through its built-in diagnostic function.

Cabinets are constructed of heavyduty, phosphated, zinc-coated prepainted steel capable of withstanding 500 hours in salt spray. Interior surfaces of the evaporator/heat exchanger compartment are insulated with foil-faced insulation, which keeps the conditioned air from being affected by the outdoor ambient temperature and provides improved indoor air quality. (Conforms to American Society of Heating, Refrigeration and Air Conditioning Engineers 62.2.) The sloped drain pan minimizes standing water in the drain. An external drain is provided.

Louvered grille provides hail and vandalism protection for the coil.

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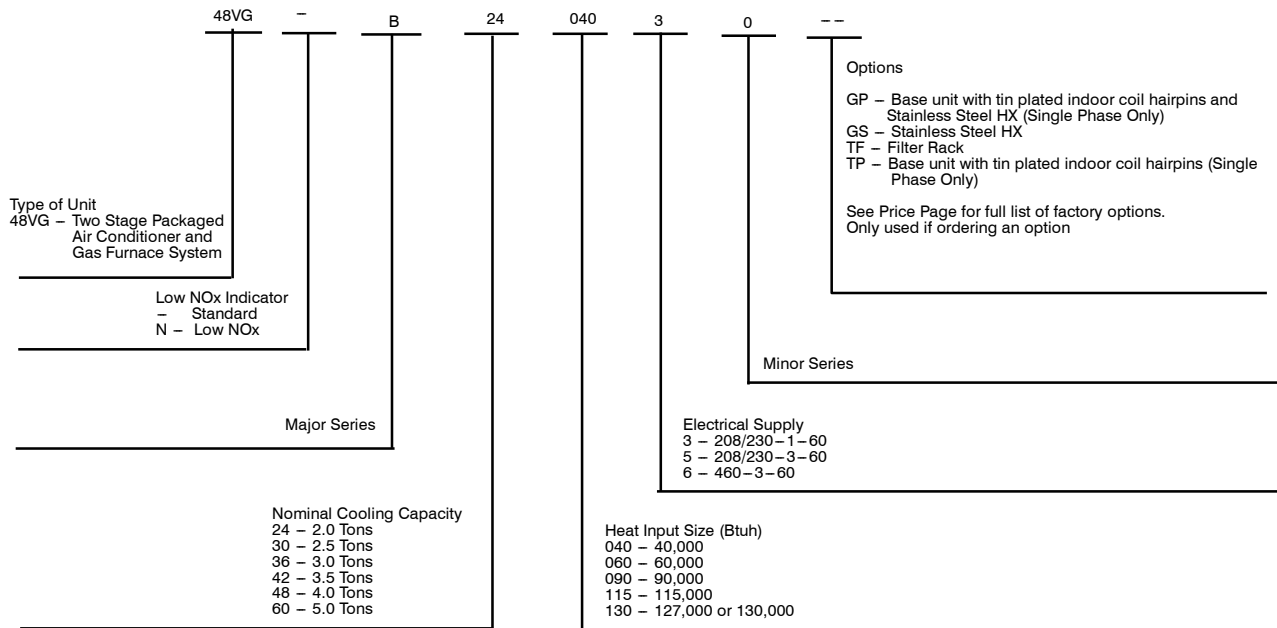
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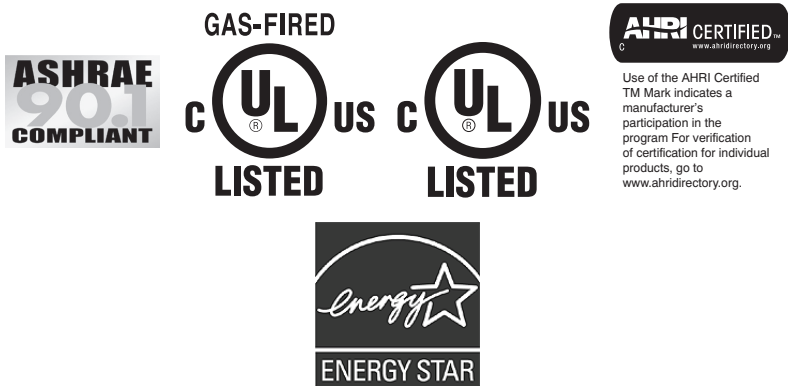
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MODEL NUMBER NOMENCLATURE



48VG



AHRI* CAPACITIES

Cooling Capacities and Efficiencies

Unit Size	Nominal Tons	Standard CFM (High / Low Stage)	Net Cooling Capacities - Btuh (High Stage)	EER @A**	SEER†
24	2	800 / 600	23000	12.0	15.0
30	2-1/2	1000 / 750	29000	12.0	15.0
36	3	1200 / 900	35400	12.5	16.0
42	3-1/2	1400 / 1050	42000	12.5	16.0
48	4	1600 / 1200	47500	12.3	16.0
60	5	1750 / 1200	57000	12.3	16.0

LEGEND

dB—Sound Levels (decibels)
db—Dry Bulb
SEER—Seasonal Energy Efficiency Ratio
wb—Wet Bulb
COP—Coefficient of Performance
 * Air Conditioning, Heating & Refrigeration Institute.
 **At "A" conditions—80°F (26.7°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor db.
 † Rated in accordance with U.S. Government DOE Department of Energy) test procedures and/or AHRI Standards 210/240.

Notes:

1. Ratings are net values, reflecting the effects of circulating fan heat. Ratings are based on:
Cooling Standard: 80°F (26.7°C) db, 67°F wb (19.4°C) indoor entering—air temperature and 95°F db (35°C) outdoor entering—air temperature.
 2. Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

**Heating Capacities and Efficiencies
208/230 VAC Models Single Phase**

UNIT SIZE	HEATING INPUT (BTUH) HIGH/LOW	OUTPUT CAPACITY (BTUH) HIGH / LOW	TEMPERATURE RISE RANGE HIGH °F (°C)	TEMPERATURE RISE RANGE LOW °F (°C)	AFUE (%)
24040 30040	40,000 / 26,000	33,000 / 22,000	25-55 (14-31)	25-55 (14-31)	81.0
24060 30060 36060 42060	60,000 / 39,000	49,000 / 32,000	25-55 (14-31)	25-55 (14-31)	81.0
36090 42090 48090 60090	90,000 / 58,500	74,000 / 48,000	35-65 (19-36)	35-65 (19-36)	81.0
48115 60115	115,000 / 75,000	94,000 / 62,000	30-60 (17-33)	30-60 (17-33)	81.0
48130 60130	127,000 / 84,500	104,000 / 70,000	35-65 (19-36)	35-65 (19-36)	81.0

LEGEND

AFUE – Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

208/230 VAC Models 3-Phase

UNIT SIZE	HEATING INPUT (BTUH) HIGH/LOW	OUTPUT CAPACITY (BTUH) HIGH / LOW	TEMPERATURE RISE RANGE HIGH °F (°C)	TEMPERATURE RISE RANGE LOW °F (°C)	AFUE (%)
24040 30040	40,000 / 26,000	32,000 / 21,000	20-50 (11-28)	15-45 (8-25)	78.0
24060 30060 36060 42060	60,000 / 39,000	49,000 / 31,000	25-55 (14-31)	25-55 (14-31)	78.6
36090 42090 48090 60090	90,000 / 58,500	74,000 / 47,000	35-65 (19-36)	35-65 (19-36)	79.2
48115 60115	115,000 / 75,000	93,000 / 61,000	30-60 (17-33)	30-60 (17-33)	80.1
48130 60130	130,000 / 84,500	103,000 / 68,000	35-65 (19-36)	35-65 (19-36)	80.0

LEGEND

AFUE – Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

460V Models

UNIT SIZE	HEATING INPUT (Btuh)	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE RANGE °F (°C)	AFUE (%)
36060 42060	60,000	47,000 47,000	25-55 (13.9-30.6)	78.5 78.5
36090 42090 48090 60090	90,000	73,000	35-65 (19.4-36.1)	80.4
48115 60115	115,000	93,000	30-60 (16.7-33.3)	80.3
48130 60130	130,000	103,000	35-65 (19.4-36.1)	78.9

LEGEND

AFUE—Annual Fuel Utilization Efficiency

NOTE: Before purchasing this appliance, read important energy cost and efficiency information available from AHRIdirectory.org.

48VCG

A-Weighted Sound Power Level (dBA)

Unit Size	Sound Ratings (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
24	73	60.0	62.5	68.5	68.5	64.0	60.0	53.0
30	77	57.5	67.0	73.5	72.0	67.0	61.0	52.5
36	73	62.5	65.5	67.5	68.0	65.5	60.0	52.5
42	73	60.5	63.5	68.0	68.0	66.0	60.5	53.0
48	72	60.0	63.5	66.0	67.0	63.5	58.5	49.5
60	75	69.0	67.0	69.0	68.0	65.0	61.5	54.0

NOTE: Tested in accordance with AHRI Standard 270–1995 (not listed in AHRI).

PHYSICAL DATA

UNIT SIZE	24040	24060	30040	30060	36060	36090	42060	42090
NOMINAL CAPACITY (ton)	2	2	2–1/2	2–1/2	3	3	3–1/2	3–1/2
SHIPPING WEIGHT** lb.	352	352	359	359	455	455	455	455
SHIPPING WEIGHT** (kg)	160	160	163	163	206	206	206	206
COMPRESSORS	2–Stage Scroll							
Quantity	1							
REFRIGERANT (R–410A)								
Quantity lb.	6.4	6.4	8.3	8.3	8.1	8.1	8.7	8.7
Quantity (kg)	2.9	2.9	3.8	3.8	3.7	3.7	3.9	3.9
REFRIGERANT METERING DEVICE	TXV							
OUTDOOR COIL								
Rows...Fins/in.	1..21	1...21	2...21	2...21	2...21	2...21	2...21	2...21
Face Area (sq ft)	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
OUTDOOR FAN								
Nominal CFM	2500	2500	2700	2700	3000	3000	3000	3000
Diameter in.	24	24	24	24	26	26	26	26
Diameter (mm)	609.6	609.6	609.6	609.6	600.4	600.4	660.4	660.4
Motor Hp (Rpm)	1/10 (810)	1/10 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)
INDOOR COIL								
Rows...Fins/in.	3...17	3...17	3...17	3...17	3...17	3...17	3...17	3...17
Face Area (sq ft)	3.7	3.7	3.7	3.7	4.7	4.7	4.7	4.7
INDOOR BLOWER								
Nominal Low Stage Cooling Airflow (Cfm)	600	600	750	750	900	900	1050	1050
Nominal High Stage Cooling Airflow (Cfm)	800	800	1000	1000	1200	1200	1400	1400
Size in.	10x10	10x10	10x10	10x10	11x10	11x10	11x10	11x10
Size (mm.)	254x254	254x254	254x254	254x254	279.4x254	279.4x254	279.4x254	279.4x254
Motor HP (RPM)	1/2 (1050)	1/2 (1050)	1/2 (1050)	1/2 (1050)	3/4 (1000)	3/4 (1000)	3/4 (1075)	3/4 (1075)
FURNACE SECTION*								
Burner Orifice No. (Qty...Drill Size)	2...44	3...44	2...44	3...44	208/230 VAC Models 3...44	3...38	208/230 VAC Models 3...44	3...38
Natural Gas (Factory Installed)	2...55	3...55	2...55	3...55	3...55	3...53	3...55	3...53
Propane Gas					460 VAC Models 2...38 2...53		460 VAC Models 2...38 2...53	
HIGH-PRESSURE SWITCH (psig) Cut-out Reset (Auto)	650 +/- 15 420 +/- 25							
LOSS-OF-CHARGE / LOW-PRESSURE SWITCH (psig) cut-out Reset (auto)	50 +/- 7 95 +/- 7							
DUCT RETURN–AIR FILTERS†‡								
Throwaway Size in. (mm)	20x20x1 508x508x25	20x24x1 508x610x25			24x30x1 610x762x25			

*Based on altitude of 0 to 2000 ft (0–610 m).

† Required filter sizes shown are based on the larger of the AHRI (Air Conditioning Heating and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/minute for throwaway type. Air filter pressure drop for non–standard filters must not exceed 0.08 IN. W.C.

‡ If using accessory filter rack refer to the filter rack installation instructions for correct filter sizes and quantity.

48VG

PHYSICAL DATA (CONT)

UNIT SIZE	48090	48115	48130	60090	60115	60130
NOMINAL CAPACITY (ton)	4	4	4	5	5	5
SHIPPING WEIGHT lb	500	500	500	520	520	520
SHIPPING WEIGHT kg	227	227	227	236	236	236
COMPRESSORS	2-Stage Scroll					
Quantity	1					
REFRIGERANT (R-410A)						
Quantity lb	10.8	10.8	10.8	12.1	12.1	12.1
Quantity (kg.)	4.9	4.9	4.9	5.5	5.5	5.5
REFRIGERANT METERING DEVICE	TXV					
OUTDOOR COIL						
Rows...Fins/in.	2...21	2...21	2...21	2...21	2...21	2...21
Face Area (sq ft)	19.4	19.4	19.4	21.4	21.4	21.4
OUTDOOR FAN						
Nominal Cfm	3300	3300	3300	3600	3600	3600
Diameter in.	26	26	26	26	26	26
Diameter (mm)	660.4	660.4	660.4	660.4	660.4	660.4
Motor Hp (Rpm)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)	1/5 (810)
INDOOR COIL						
Rows...Fins/in.	3...17	3...17	3...17	3...17	3...17	3...17
Face Area (sq ft)	5.7	5.7	5.7	5.7	5.7	5.7
INDOOR BLOWER						
Nominal Low Stage Cooling Airflow (Cfm)	1200	1200	1200	1200	1200	1200
Nominal High Stage Cooling Airflow (Cfm)	1600	1600	1600	1750	1750	1750
Size in.	11x10	11x10	11x10	11x10	11x10	11x10
Size (mm)	279.4x254	279.4x254	279.4x254	279.4x254	279.4x254	279.4x254
Motor HP (RPM)	1.0 (1075)	1.0 (1075)	1.0 (1075)	1.0 (1075)	1.0 (1075)	1.0 (1075)
FURNACE SECTION*						
Burner Orifice No. (Qty...Drill Size)						
Natural Gas (Factory Installed)	3...38	3...33	3...31	3...38	3...33	3...31
Propane Gas	3...53	3...51	3...49	3...53	3...51	3...49
HIGH-PRESSURE SWITCH (psig) Cut-out Reset (Auto)	650 +/- 15 420 +/- 25					
LOSS-OF-CHARGE / LOW-PRESSURE SWITCH (psig) cut-out Reset (auto)	50 +/- 7 95 +/- 7					
DUCT RETURN-AIR FILTERS Throw-away†‡ in. (mm)	24x36x1 610x914x25					

*Based on altitude of 0 to 2000 ft (0-610 m).

† Required filter sizes shown are based on the larger of the AHRI (Air Conditioning Heating and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/minute for throwaway type. Air filter pressure drop for non-standard filters must not exceed 0.08 IN. W.C.

‡ If using accessory filter rack refer to the filter rack installation instructions for correct filter sizes and quantity.

OPTIONS AND ACCESSORIES

ITEM	DESCRIPTION	FACTORY INSTALLED OPTION	FIELD INSTALLED ACCESSORY
Coil Options	Base unit with tin plated indoor coil hairpins	X	
Compressor Start Kit	Compressor Start Kit assists compressor start-up by providing additional starting torque on single phase units only.		X
Corporate Thermostats	Thermostats provide control for the system heating and cooling functions.		X
Crankcase Heater	Crankcase Heater provides anti-floodback protection for low-load cooling applications.		X*
Economizer	Vertical Economizer with Jade Honeywell W7220 Controller, Honeywell communicating actuator, and dry bulb sensor. (Contact MicroMetl Customer Service at 1-800-662-4822 to order.)		X
	Horizontal Economizer with Jade Honeywell W7220 Controller, Honeywell communicating actuator, and dry bulb sensor. (Contact MicroMetl Customer Service at 1-800-662-4822 to order.)		X
Filter Rack	Filter Rack features easy installation, serviceability, and high-filtering performance for vertical applications. Includes 1-in. filter.	X	X
Flat Roof Curbs	Flat Roof Curbs in both 11-in (279 mm) and 14-in. (356 mm) sizes are available for roof mounted applications.		X
Flue Discharge Deflector	Directs flue gas exhaust 90 degrees upward from current discharge.		X
Heat Exchanger	Stainless Steel Heat Exchanger	X	
High Altitude Propane Conversion Kit	High Altitude Propane Conversion Kit is for use at 2001 to 6000 ft. (611 – 1829 m) above sea level. Kit consists of propane gas orifices that compensate for gas heat operation at high altitude.		X
Low Ambient Kit	Low Ambient Kit (Motormaster II Control) allows the use of mechanical cooling down to outdoor temperatures as low as 0°F (-18°C) when properly installed.		X
Manual Outside Air Damper	Manual Outside Air Damper includes hood and filter rack with adjustable damper blade for up to 25% outdoor air.		X
Natural to Propane Gas Conversion Kit	Natural to Propane Gas Conversion Kit allows for conversion from natural gas to propane gas (0–2000 ft) (0–610 m)		X
Propane to Natural Gas Conversion Kit	Propane to Natural Gas Conversion Kit allows for conversion from propane to natural gas for altitudes of 0–2000 ft (0–610 m)		X
Square-to-Round Duct Transition Kit	Square-to-Round Duct Transition Kit enable 24–48 size units to be fitted to 14 in. (356 mm) round ductwork.		X
Time Guard II	Automatically prevents the compressor from restarting for at least 4 minutes and 45 seconds after shutdown of the compressor. Not required when a corporate programmable thermostat is applied or with a RTU-MP control.		X

*Refer to Price Page for application detail.

48VG

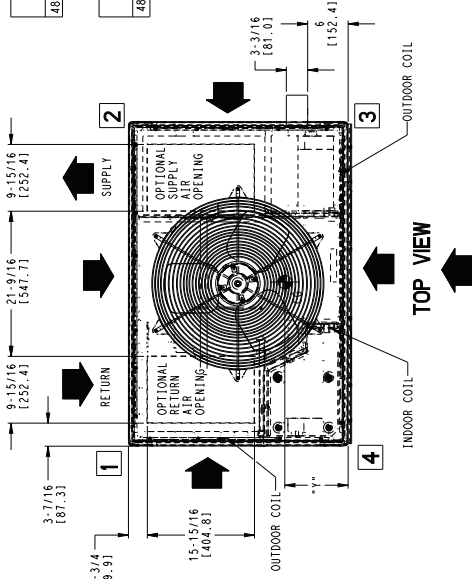
UNIT DIMENSIONS - 48VG-A30

48VG

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT. LB	UNIT HEIGHT IN/MM	X	Y	Z
48VG-/N/A30/040/060/50	Z087230-3-60	351	159.3	44-11/8	1121	22-13/16
				579.4	15-5/16	388.9
				16-7/8	427.3	

UNIT	VOLTAGE	CORNER WEIGHT LB/KG
48VG-/N/A30/040/060/50	208/230	80.7 / 35.8
		85.8 / 38.9
		96.5 / 43.8

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER



REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

	INCHES [MM]
TOP OF UNIT	14 [355.6]
DUCT SIDE OF UNIT	2 [50.8]
SIDE OPPOSITE DUCTS	14 [355.6]
FLUE GAS UNIT	14 [355.6]
FLUE PANEL	36 [914.4]

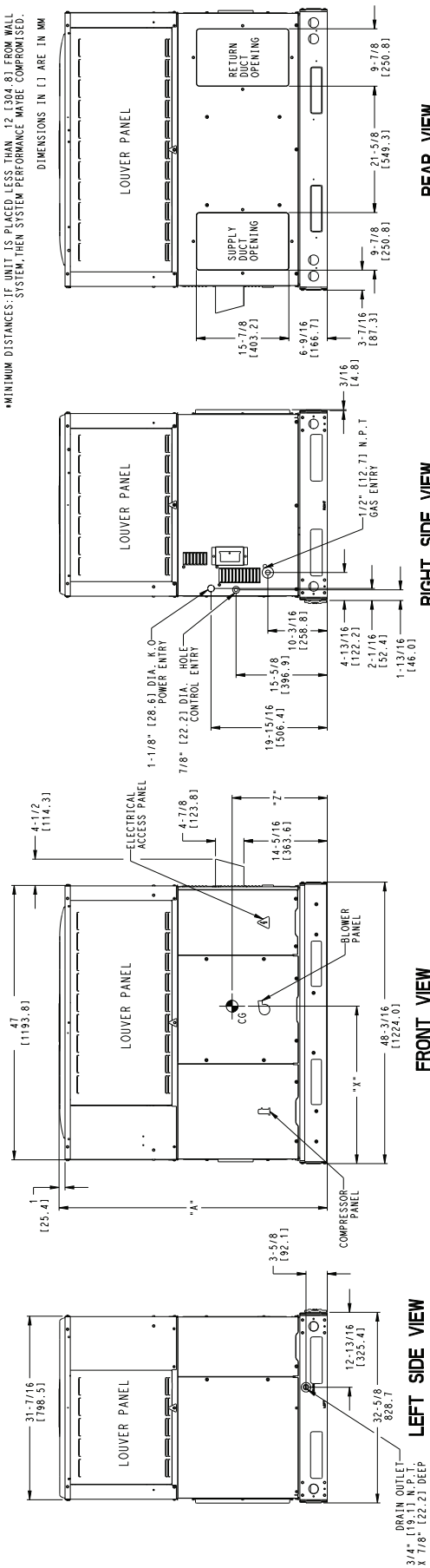
NEC REQUIRED CLEARANCES

	INCHES [MM]
BETWEEN UNITS, POWER ENTRY SIDE	42 [1066.8]
UNIT AND GROUND SURFACES, POWER ENTRY SIDE	36 [914.4]
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE	42 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICES

	INCHES [MM]
EMVP, COIL ACCESS SIDE	36 [914.0]
POWER ENTRY SIDE (EXCEPT FOR NEC REQUIREMENTS)	42 [1066.8]
MINIMUM CLEARANCE TO UNITS	48 [1219.2]
SIDE OPPOSITE DUCTS	36 [914.0]
DUCT PANEL	12 [304.8]

*MINIMUM DISTANCES IF UNIT IS PLACED LESS THAN 19 [484.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAY BE COMPROMISED.



REV	-
48VG500054	

UNIT DIMENSIONS - 48VG-B24-30

UNIT	ELECTRICAL CHARACTERISTICS		UNIT WT.		UNIT HEIGHT		CENTER OF GRAVITY					
	208/230-1-60	208/230-1-60	LB	KG	"A"	"X"	Y	Z				
48VG(-)/N/B24(040/060)30(-)/GP(GS/TF/TP)	208/230-1-60	208/230-1-60	344	156.1	44-1/8	1121	22-13/16	579.4	15-5/16	388.9	15-13/16	401.6
48VG(-)/N/B30(040/060)30(-)/GP(GS/TF/TP)	208/230-1-60	208/230-1-60	351	159.3	44-1/8	1121	22-13/16	579.4	15-5/16	388.9	16-5/8	422.3

UNIT	VOLTAGE		CORNER WEIGHT						
	"1"	"2"	LB/KG	"4"					
48VG(-)/N/B24(040/060)30(-)/GP(GS/TF/TP)	208/230	87.9	38.9	77.6	35.2	84.1	38.2	94.4	42.8
48VG(-)/N/B30(040/060)30(-)/GP(GS/TF/TP)	208/230	89.7	40.7	79.0	35.8	85.8	38.9	96.5	43.8

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER

REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

TOP OF UNIT	DUCT SIDE OF UNIT	SIDE OPPOSITE DUCTS	POURING UNIT	FLUE PANEL
14 [355.6]	2 [50.8]	14 [355.6]	16 [406.4]	16 [406.4]
INCHES [MM]				

NEC REQUIRED CLEARANCES

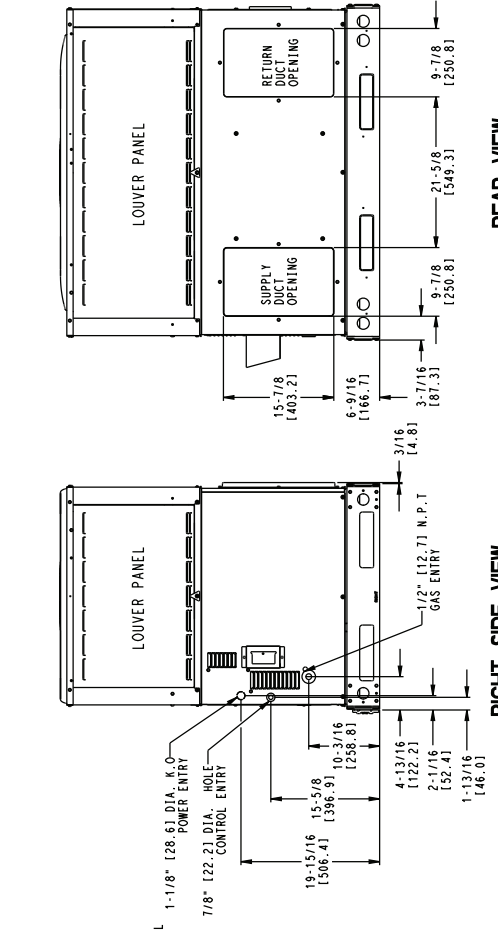
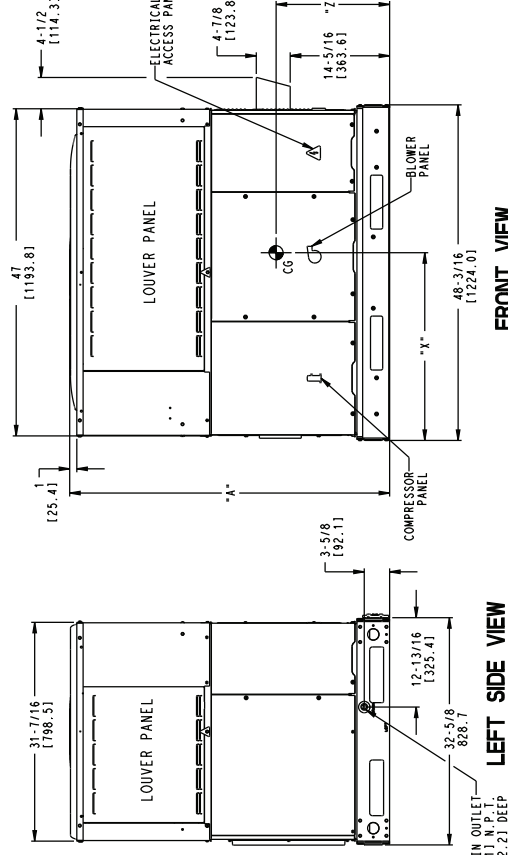
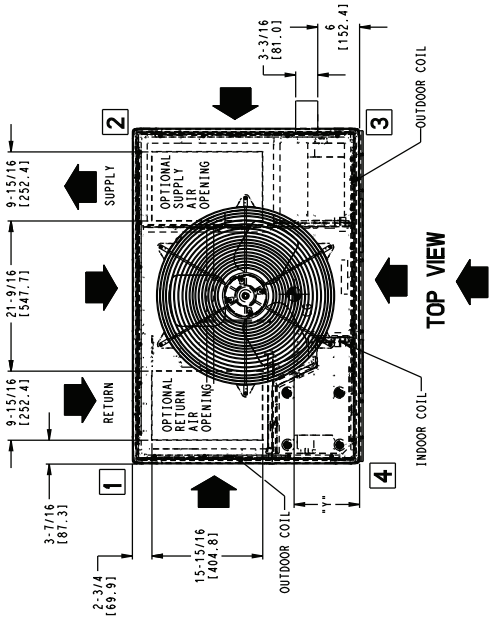
BETWEEN UNITS:	POWER ENTRY SIDE	UNIT AND BLOWER OR CONCRETE WALLS AND OTHER GROUNDED SURFACES:	POWER ENTRY SIDE
	42 [1066.8]	36 [914.0]	42 [1066.8]
	INCHES [MM]		

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

EVAP. COIL ACCESS SIDE	POWER ENTRY SIDE (EXCEPT FOR NEC REQUIREMENTS)	UNIT TOP	SIDE OPPOSITE DUCTS	DUCT PANEL
36 [914.0]	48 [1219.2]	36 [914.0]	36 [914.0]	36 [914.0]
INCHES [MM]				

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAY BE COMPROMISED.

DIMENSIONS IN () ARE IN MM



REV	DESCRIPTION
-	48VG500115

48VG

UNIT DIMENSIONS - 48VG-A36-60

48VG

UNIT	ELECTRICAL CHARACTERISTICS		UNIT WT.		UNIT HEIGHT IN/MM		CENTER OF GRAVITY IN/MM					
	1"	3"	LB	KG	"A"	"B"	X	Y	Z			
48VG(-)/N/A36(060/090/15/610)	208/230/3-60/460-3	208/230/3-60/460-3	447	202.8	44-3/4	1137	22-13/16	579.4	18	457.2	17-1/8	435.0
48VG(-)/N/A42(060/090/15/610)	208/230/3-60/460-3	208/230/3-60/460-3	447	202.8	44-3/4	1137	22-13/16	579.4	18	457.2	17-1/8	435.0
48VG(-)/N/A48(090/115/130/15/610)	208/230/3-60/460-3	208/230/3-60/460-3	492	223.2	50-3/4	1289	22-13/16	579.4	18	457.2	17-3/8	441.3
48VG(-)/N/A60(090/115/130/15/610)	208/230/3-60/460-3	208/230/3-60/460-3	512	232.3	52-3/4	1340	22-13/16	579.4	18	457.2	17-5/8	447.7

UNIT	CORNER WEIGHT LB/KG			
	1"	2"	3"	4"
48VG(-)/N/A36(060/090/15/610)	86.4	139.2	123.9	140.2
48VG(-)/N/A42(060/090/15/610)	86.5	139.2	124.2	139.8
48VG(-)/N/A48(090/115/130/15/610)	107.0	148.5	136.1	153.6
48VG(-)/N/A60(090/115/130/15/610)	110.9	150.3	142.2	160.2

REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

TOP OF UNIT..... 12 (304.8)
 DUCT SIDE OF UNIT..... 2 (50.8)
 SIDE OPPOSITE DUCTS..... 14 (355.6)
 BOTTOM OF UNIT..... 1/2 (12.7)
 FLOOR PANEL..... 36 (914.4)

INCHES (MM)

REQ. REQUIRED CLEARANCES:

BETWEEN UNITS, POWER ENTRY SIDE..... 36 (914.4)
 BETWEEN UNITS, UNGROUND SURFACES, POWER ENTRY SIDE..... 36 (914.4)
 BETWEEN UNITS, UNGROUND SURFACES, POWER ENTRY SIDE..... 36 (914.4)
 UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUND SURFACES, POWER ENTRY SIDE..... 42 (1066.8)

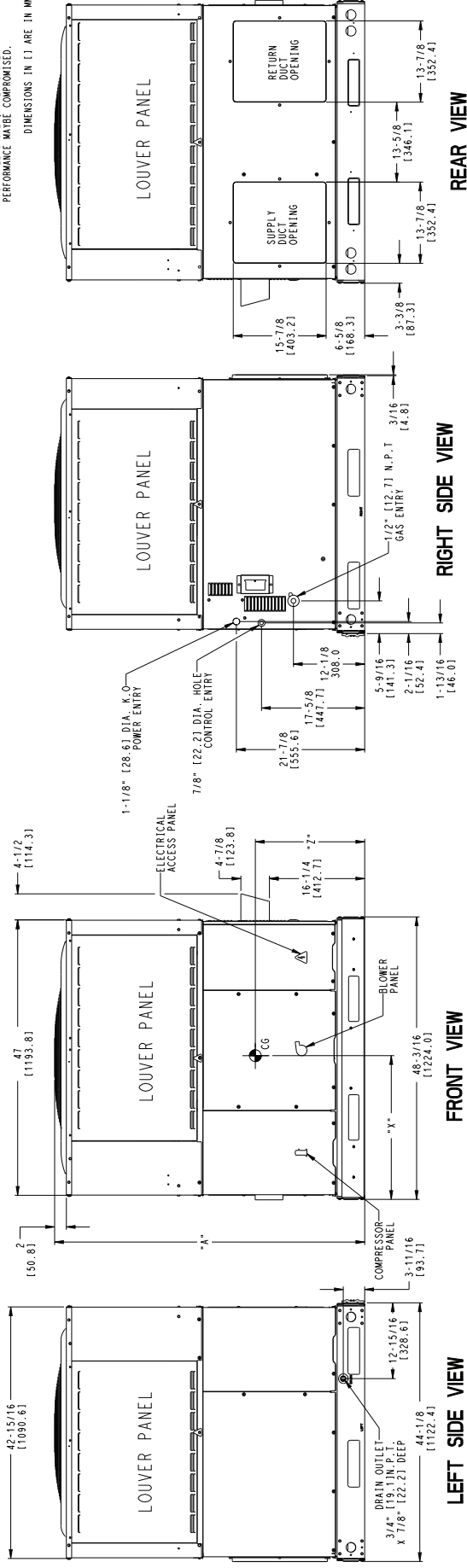
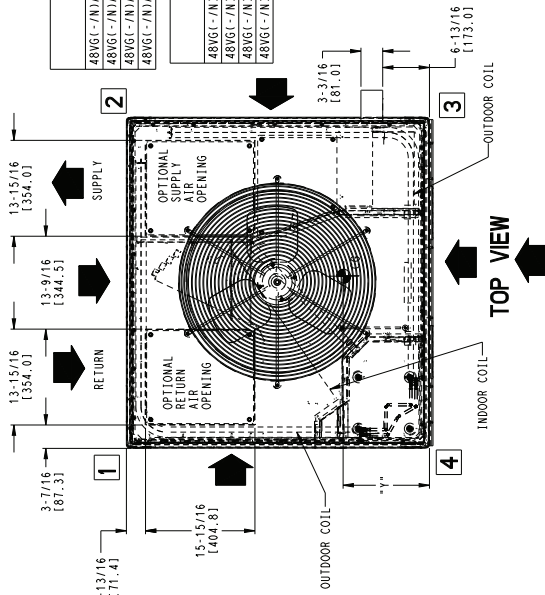
REQUIRED CLEARANCE FOR OPERATION AND SERVICE:

EVAP. COIL ACCESS SIDE..... 36 (914.4)
 POWER ENTRY SIDE..... 42 (1066.8)
 CLEARANCE FOR NEC REQUIREMENTS..... 48 (1219.2)
 UNIT TOP..... 36 (914.4)
 SIDE OPPOSITE DUCTS..... 36 (914.4)
 DUCT PANEL..... 12 (304.8)

INCHES (MM)

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 (304.8) FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAY BE COMPROMISED.

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER



UNIT DIMENSIONS - 48VG-B36-60

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT.		UNIT HEIGHT IN/MM	CENTER OF GRAVITY IN/MM		
		LB	KG		X	Y	Z
48VG(-)/NB36(060/090)30(-)/GP/GS/TF/TP)	208/230-1-60	447	202.8	44-3/4 (1137)	22-13/16 (579.4)	18	457.2 (17-1/8) (435.0)
48VG(-)/NB42(060/090)30(-)/GP/GS/TF/TP)	208/230-1-60	447	202.8	44-3/4 (1137)	22-13/16 (579.4)	18	457.2 (17-1/8) (435.0)
48VG(-)/NB48(090/115)30(-)/GP/GS/TF/TP)	208/230-1-60	492	223.2	50-3/4 (1289)	22-13/16 (579.4)	18	457.2 (17-3/8) (441.3)
48VG(-)/NB60(090/115)30(-)/GP/GS/TF/TP)	208/230-1-60	512	232.2	52-3/4 (1340)	22-13/16 (579.4)	18	457.2 (17-5/8) (447.7)

UNIT	VOLTAGE	CORNER WEIGHT LB/KG		
		1"	2"	4"
48VG(-)/NB36(060/090)30(-)/GP/GS/TF/TP)	208/230	97.5 (44.3)	86.4 (39.2)	123.9 (56.2)
48VG(-)/NB42(060/090)30(-)/GP/GS/TF/TP)	208/230	97.5 (44.3)	86.5 (39.2)	124.2 (56.3)
48VG(-)/NB48(090/115)30(-)/GP/GS/TF/TP)	208/230	107.0 (48.5)	95.3 (43.2)	136.1 (61.8)
48VG(-)/NB60(090/115)30(-)/GP/GS/TF/TP)	208/230	110.9 (50.3)	98.6 (44.7)	142.2 (64.5)

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER

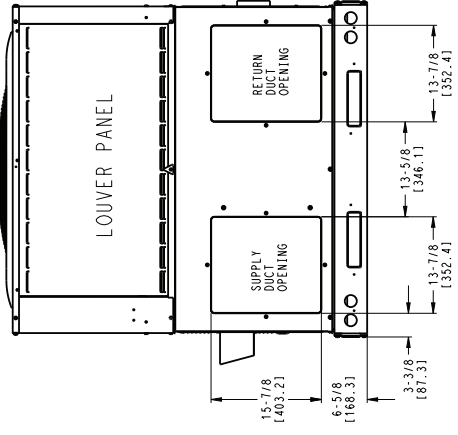
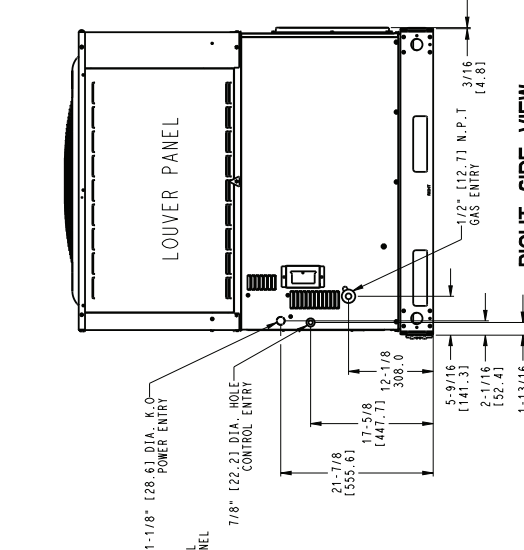
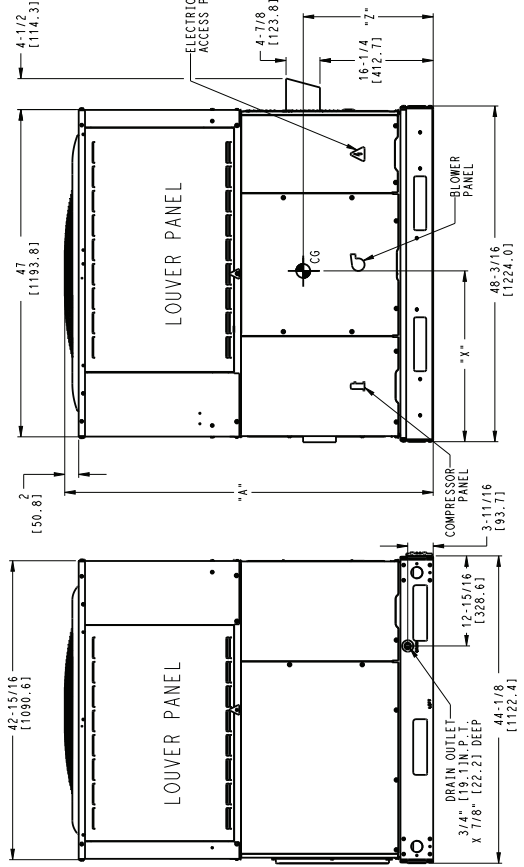
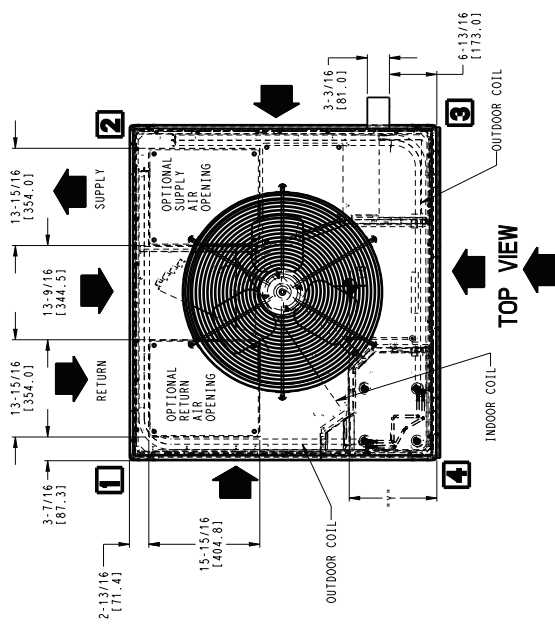
REQUIRED CLEARANCES TO COMBUSTIBLE MATL.		INCHES (MM)	
TOP OF UNIT	2	50.8	
DUCT SIDE OF UNIT	2	50.8	
SIDE OPPOSITE DUCTS	14	355.6	
BOTTOM OF UNIT	1/2	12.7	
FLUE PANEL	3/8	9.5	
FLUE PANEL	3/8	9.5	

NEC. REQUIRED CLEARANCES		INCHES (MM)	
BETWEEN UNITS: POWER ENTRY SIDE	42	1066.8	
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES: POWER ENTRY SIDE	42	1066.8	

REQUIRED CLEARANCE FOR OPERATION AND SERVICING		INCHES (MM)	
EVAP. COIL ACCESS SIDE	36	914.0	
POWER ENTRY SIDE (EXCEPT FOR NEC REQUIREMENTS)	42	1066.8	
DUCT SIDE OPPOSITE DUCTS	48	1219.2	
DUCT PANEL	12	304.8	

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12" (304.8) FROM COMBUSTIBLE MATERIALS, PERFORMANCE MAY BE COMPROMISED.

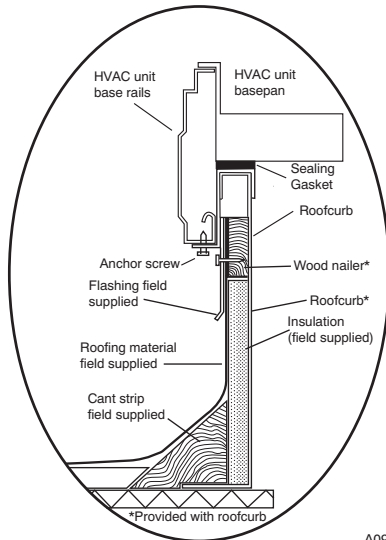
DIMENSIONS IN () ARE IN MM



REV -
48VG500116

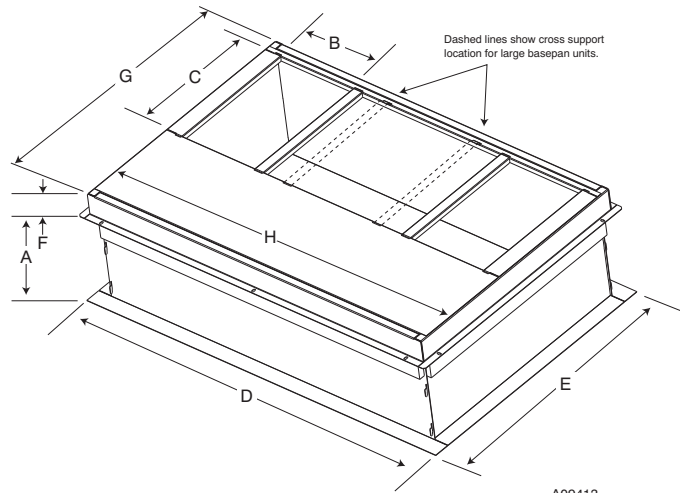
48VG

ACCESSORY DIMENSIONS



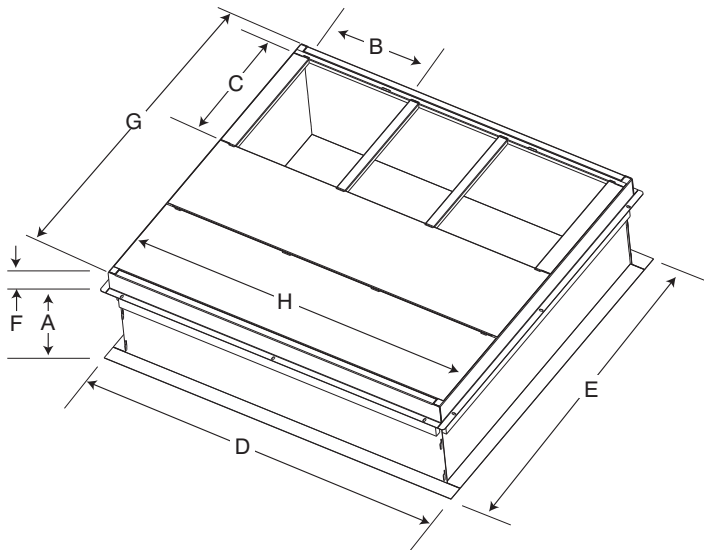
ROOF CURB DETAIL

A09090



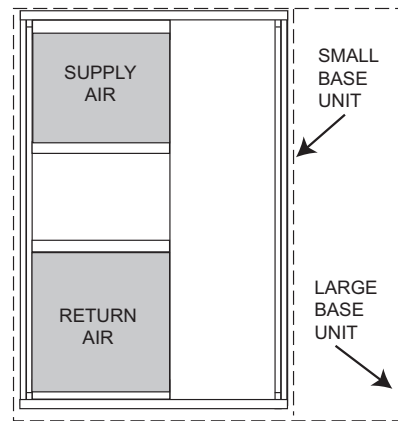
SMALL/COMMON CURB

A09413



LARGE CURB

A09415



UNIT PLACEMENT ON COMMON CURB

A09094

SMALL OR LARGE BASE UNIT

A09414

UNIT SIZE	CATALOG NUMBER	A IN. (mm)	B (small / common base) IN. (mm)*	B (large base) IN. (mm)*	C IN. (mm)	D IN. (mm)	E IN. (mm)	F IN. (mm)	G IN. (mm)	H IN. (mm)	
Small or Large	CPRFCURB010A00	11 (279)	10 (254)	14 (356)	16 (406)	47.8 (1214)	32.4 (822)	2.7 (69)	30.6 (778)	46.1 (1170)	
	CPRFCURB011A00	14 (356)									
Large	CPRFCURB012A00	11 (279)	14 (356)						43.9 (1116)		42.2 (1072)
	CPRFCURB013A00	14 (356)									

* Part Numbers CPRFCURB010A00 and CPRFCURB011A00 can be used on both small and large basepan units. The cross supports must be located based on whether the unit is a small basepan or a large basepan.

NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied, as required, to unit being installed.
3. Roof curb is made of 16-gauge steel.
4. Attach ductwork to curb (flanges of duct rest on curb).
5. Insulated panels: 1-in. (25.4 mm) thick fiberglass 1 lb. density.

SELECTION PROCEDURE (WITH EXAMPLE)

1. Determine cooling and heating requirements at design conditions:

Given:

Required Cooling Capacity (TC) 34,000 Btuh
Sensible Heat Capacity (SHC) 25,000 Btuh
Required Heating Capacity 60,000 Btuh
Condenser Entering Air Temperature 95°F (35°C)
Indoor-Air Temperature . 80°F (26°C)edb 67°F (19°C)ewb
Evaporator Air Quantity 1200 CFM
External Static Pressure 0.100 IN. W.C.
Electrical Characteristics 208-1-60

2. Select unit based on required cooling capacity.

Enter Net Cooling Capacities table at condenser entering temperature of 95°F (35°C). Unit 036 at 1200 cfm and 67°F (19°C) ewb (entering wet bulb) will provide a total capacity of 34,200 Btuh and a SHC of 27,400 Btuh. Calculate SHC correction, if required, using Note 4 under Cooling Capacities tables.

3. Select heating capacity of unit to provide design condition requirement.

In the Heating Capacities and Efficiencies table, note that the unit 036090 (208/230 VAC) will provide 74,000 Btuh with an input of 90,000 Btuh in high stage and will provide 48,000 Btuh of heating in low stage.

4. Determine fan speed and power requirements at design conditions.

Before entering the air delivery tables, calculate the total static pressure required. From the given example, the Wet Coil Pressure Drop Table, and the Filter Pressure Drop Table:

External Static Pressure	0.100 IN. W.C
Filter	0.07 IN. W.C
Wet Coil Pressure Drop	<u>0.180</u> IN. W.C
Total Static Pressure	0.287 IN. W.C

Enter the table for Dry Coil Air Delivery—Horizontal and Downflow Discharge. At .287 IN. W.C. ESP, the closest speed to 1200 CFM is Med-Hi (orange wire), which delivers 1267 CFM at .3 in ESP.

5. Select unit that corresponds to power source available.

The Electrical Data Table shows that the unit is designed to operate at 208-1-60.

PERFORMANCE DATA

024 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																		
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)			
		CFM	EWB °F (°C)	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW		
525	57 (13.8)	17.82	17.82	17.82	1.08	16.44	16.44	1.24	15.06	15.06	1.41	13.67	13.67	1.60	12.27	12.27	1.81	10.86	10.86	2.04
	62 (16.6)	18.21	16.78	16.66	1.07	15.11	15.05	1.24	15.05	15.05	1.41	13.69	13.69	1.60	12.28	12.28	1.81	10.88	10.88	2.04
	63* (17.2)	18.58	13.61	16.98	1.07	12.24	10.90	1.23	10.90	10.90	1.41	9.59	9.59	1.60	8.32	8.32	1.82	7.10	7.10	2.05
	67 (19.4)	19.95	14.13	18.24	1.04	12.71	11.34	1.21	11.34	11.34	1.39	10.00	10.00	1.58	8.69	8.69	1.80	7.44	7.44	2.03
	72 (22.2)	21.87	11.42	20.00	1.01	10.22	9.05	1.18	9.05	9.05	1.36	7.92	7.92	1.56	6.82	6.82	1.78	5.78	5.78	2.01
	57 (13.8)	18.60	18.60	17.14	1.08	17.14	15.68	1.24	15.68	15.68	1.42	14.21	14.21	1.61	12.73	12.73	1.82	11.25	11.25	2.05
600	62 (16.6)	18.65	18.61	17.17	1.08	17.17	15.71	1.24	15.71	15.71	1.42	14.23	14.23	1.61	12.75	12.75	1.82	11.27	11.27	2.05
	63* (17.2)	18.96	14.57	17.31	1.08	13.11	11.69	1.24	11.69	11.69	1.42	10.31	10.31	1.61	8.97	8.97	1.83	7.67	7.67	2.06
	67 (19.4)	20.34	15.15	18.58	1.05	13.66	12.20	1.22	12.20	12.20	1.40	10.77	10.77	1.60	9.39	9.39	1.81	8.05	8.05	2.04
	72 (22.2)	22.29	12.08	20.35	1.02	10.81	9.59	1.19	9.59	9.59	1.37	8.40	8.40	1.57	7.26	7.26	1.79	6.17	6.17	2.02
	57 (13.8)	19.26	19.26	17.73	1.09	17.73	16.20	1.25	16.20	16.20	1.42	14.66	14.66	1.62	13.11	13.11	1.83	11.57	11.57	2.06
	62 (16.6)	19.29	19.29	17.75	1.09	17.75	16.22	1.25	16.22	16.22	1.42	14.68	14.68	1.62	13.13	13.13	1.83	11.59	11.59	2.06
675	63* (17.2)	19.25	15.50	17.56	1.09	13.97	12.47	1.25	12.47	12.47	1.43	11.01	11.01	1.63	9.59	9.59	1.84	8.21	8.21	2.07
	67 (19.4)	20.64	16.16	18.83	1.06	14.58	13.03	1.23	13.03	13.03	1.41	11.53	11.53	1.61	10.06	10.06	1.82	8.65	8.65	2.05
	72 (22.2)	22.59	12.71	20.61	1.03	11.39	10.12	1.20	10.12	10.12	1.39	8.88	8.88	1.58	7.68	7.68	1.80	6.55	6.55	2.03

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

024 High Cool

CFM		CONDENSER ENTERING AIR TEMPERATURES °F (°C)												Total Sys KW		Capacity MBtuh		Total Sys KW		Capacity MBtuh		Total Sys KW							
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)													115 (46.1)			125 (51.7)		
		EWB °F (°C)	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW											Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW
700	57 (13.8)	1.55	23.89	22.22	20.54	1.87	18.86	20.54	18.86	2.05	17.17	20.54	18.86	2.05	17.17	20.54	18.86	2.26	15.50	17.17	2.26	15.50							
	62 (16.6)	1.55	24.55	22.62	20.72	1.87	18.89	19.69	18.89	2.05	17.20	20.72	18.89	2.05	17.20	20.72	18.89	2.26	15.52	17.20	2.26	15.52							
	63* (17.2)	1.56	25.02	23.05	21.08	1.87	19.13	15.86	15.01	2.06	17.19	21.08	15.86	2.06	17.19	21.08	15.86	2.26	15.30	14.15	2.26	15.30							
	67 (19.4)	1.57	26.85	24.72	22.61	1.89	20.50	16.48	15.61	2.07	18.42	22.61	16.48	2.07	18.42	22.61	16.48	2.27	16.39	14.75	2.27	16.39							
	72 (22.2)	1.60	29.38	27.04	24.71	1.92	22.42	13.17	12.38	2.10	20.14	24.71	13.17	2.10	20.14	24.71	13.17	2.30	17.91	11.59	2.30	17.91							
	57 (13.8)	1.57	24.94	23.16	21.38	1.90	19.59	21.38	19.59	2.08	17.81	21.38	19.59	2.08	17.81	21.38	19.59	2.28	16.04	17.81	2.28	16.04							
800	62 (16.6)	1.58	25.14	23.20	21.41	1.90	19.62	21.41	19.62	2.08	17.83	21.41	19.62	2.08	17.83	21.41	19.62	2.28	16.06	17.83	2.28	16.06							
	63* (17.2)	1.58	25.56	23.51	21.48	1.90	19.46	17.00	16.11	2.08	17.46	21.48	17.00	2.08	17.46	21.48	17.00	2.28	15.51	15.22	2.28	15.51							
	67 (19.4)	1.60	27.40	25.19	23.00	1.92	20.83	17.70	16.80	2.10	18.68	23.00	17.70	2.10	18.68	23.00	17.70	2.30	16.60	15.89	2.30	16.60							
	72 (22.2)	1.62	29.94	27.52	25.12	1.95	22.74	13.94	13.12	2.13	20.40	25.12	13.94	2.13	20.40	25.12	13.94	2.33	18.12	12.31	2.33	18.12							
900	57 (13.8)	1.60	25.82	23.95	22.08	1.92	20.20	22.08	20.20	2.11	18.33	22.08	20.20	2.11	18.33	22.08	20.20	2.31	16.48	18.33	2.31	16.48							
	62 (16.6)	1.60	25.86	23.98	22.11	1.92	20.23	22.11	20.23	2.11	18.35	22.11	20.23	2.11	18.35	22.11	20.23	2.31	16.50	18.35	2.31	16.50							
	63* (17.2)	1.60	25.97	23.86	21.77	1.92	19.70	18.11	17.18	2.10	17.66	21.77	18.11	2.10	17.66	21.77	18.11	2.30	15.68	16.25	2.30	15.68							
	67 (19.4)	1.62	27.81	25.54	23.30	1.94	21.07	18.89	17.95	2.12	18.88	23.30	18.89	2.12	18.88	23.30	18.89	2.32	16.76	17.01	2.32	16.76							
	72 (22.2)	1.64	30.37	27.89	25.42	1.97	22.99	14.69	13.85	2.15	20.59	25.42	14.69	2.15	20.59	25.42	14.69	2.35	18.26	13.01	2.35	18.26							
	57 (13.8)	1.60	25.82	23.95	22.08	1.92	20.20	22.08	20.20	2.11	18.33	22.08	20.20	2.11	18.33	22.08	20.20	2.31	16.48	18.33	2.31	16.48							

See Legend and Notes on Page 26.



PERFORMANCE DATA (CONT)

030 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																							
		75 (23.9)				85 (29.4)				95 (35)				105 (40.6)				115 (46.1)				125 (51.7)			
		CFM	EWB °F (°C)	Capacity MBtuh		Total Syst KW	Capacity MBtuh		Total Syst KW	Capacity MBtuh		Total Syst KW	Capacity MBtuh		Total Syst KW	Capacity MBtuh		Total Syst KW	Capacity MBtuh		Total Syst KW				
Total	Sens			Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		
655	57 (13.8)	22.30	22.30	1.43	20.19	20.19	1.49	18.10	18.10	1.53	16.02	16.02	1.57	13.97	13.97	1.59	11.95	11.95	1.60						
	62 (16.6)	22.91	20.51	1.43	20.54	17.72	1.48	18.23	15.01	1.53	16.05	16.05	1.57	13.99	13.99	1.59	11.97	11.97	1.60						
	63* (17.2)	23.36	16.69	1.43	20.94	14.35	1.48	18.55	12.09	1.53	16.21	9.92	1.56	13.91	7.86	1.59	11.68	5.91	1.60						
	67 (19.4)	25.19	17.36	1.41	22.57	14.93	1.46	19.99	12.60	1.51	17.47	10.36	1.55	15.00	8.21	1.58	12.60	6.19	1.59						
	72 (22.2)	27.74	14.14	1.38	24.84	12.08	1.44	22.00	10.11	1.49	19.22	8.24	1.54	16.51	6.47	1.57	13.88	4.82	1.58						
750	57 (13.8)	23.33	23.33	1.45	21.08	21.08	1.50	18.87	18.87	1.54	16.68	16.68	1.58	14.51	14.51	1.60	12.38	12.38	1.61						
	62 (16.6)	23.49	22.18	1.45	21.12	21.12	1.50	18.90	18.90	1.54	16.70	16.70	1.58	14.53	14.53	1.60	12.39	12.39	1.61						
	63* (17.2)	23.87	17.87	1.45	21.36	15.38	1.50	18.90	12.98	1.55	16.48	10.67	1.58	14.12	8.46	1.61	11.84	6.38	1.61						
	67 (19.4)	25.72	18.62	1.43	23.00	16.04	1.48	20.35	13.55	1.53	17.75	11.16	1.57	15.21	8.87	1.59	12.76	6.70	1.60						
	72 (22.2)	28.29	14.94	1.40	25.30	12.78	1.46	22.37	10.72	1.51	19.51	8.75	1.55	16.72	6.88	1.58	14.03	5.14	1.59						
840	57 (13.8)	24.14	24.14	1.47	21.79	21.79	1.52	19.48	19.48	1.56	17.18	17.18	1.59	14.92	14.92	1.61	12.71	12.71	1.62						
	62 (16.6)	24.18	24.18	1.46	21.82	21.82	1.52	19.50	19.50	1.56	17.21	17.21	1.59	14.94	14.94	1.61	12.72	12.72	1.62						
	63* (17.2)	24.24	18.95	1.47	21.66	16.32	1.52	19.15	13.79	1.56	16.68	11.35	1.60	14.28	9.02	1.62	11.96	6.80	1.63						
	67 (19.4)	26.09	19.78	1.45	23.31	17.06	1.50	20.60	14.43	1.55	17.95	11.90	1.59	15.36	9.47	1.61	12.87	7.16	1.62						
	72 (22.2)	28.69	15.67	1.42	25.62	13.42	1.48	22.63	11.27	1.53	19.71	9.21	1.57	16.86	7.26	1.60	14.12	5.44	1.61						

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

030 High Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW		Capacity MBtuh	Total Sys KW	
875	57 (13.8)	30.54	1.97	28.11	2.15	25.68	2.35	23.24	2.57	20.78	2.83	18.33	2.83	18.33	3.12				
	62 (16.6)	31.60	1.98	28.82	2.15	26.06	2.35	23.34	2.57	20.81	2.83	18.36	2.83	18.36	3.12				
	63* (17.2)	32.20	1.98	29.34	2.16	26.51	2.36	23.69	2.58	20.88	2.83	18.12	2.83	18.12	3.11				
	67 (19.4)	34.66	2.01	31.55	2.19	28.49	2.38	25.45	2.60	22.42	2.85	19.45	2.85	19.45	3.13				
	72 (22.2)	38.04	2.05	34.61	2.22	31.23	2.42	27.87	2.64	24.55	2.89	21.31	2.89	21.31	3.16				
1000	57 (13.8)	31.92	2.01	29.32	2.19	26.74	2.39	24.16	2.61	21.55	2.87	18.97	2.87	18.97	3.15				
	62 (16.6)	32.39	2.01	29.52	2.19	26.78	2.39	24.19	2.61	21.58	2.87	18.99	2.87	18.99	3.15				
	63* (17.2)	32.92	2.02	29.95	2.19	27.01	2.39	24.10	2.61	21.21	2.86	18.37	2.86	18.37	3.14				
	67 (19.4)	35.39	2.04	32.18	2.22	29.00	2.42	25.86	2.64	22.74	2.88	19.70	2.88	19.70	3.16				
	72 (22.2)	38.82	2.08	35.26	2.26	31.76	2.46	28.30	2.67	24.87	2.92	21.55	2.92	21.55	3.19				
1125	57 (13.8)	33.07	2.05	30.34	2.23	27.63	2.43	24.91	2.65	22.18	2.90	19.49	2.90	19.49	3.19				
	62 (16.6)	33.13	2.05	30.38	2.23	27.67	2.43	24.94	2.65	22.21	2.90	19.51	2.90	19.51	3.19				
	63* (17.2)	33.47	2.05	30.41	2.23	27.40	2.42	24.41	2.64	21.46	2.89	18.57	2.89	18.57	3.17				
	67 (19.4)	35.96	2.08	32.64	2.25	29.39	2.45	26.17	2.67	21.16	2.91	19.90	2.91	19.90	3.19				
	72 (22.2)	39.41	2.12	35.75	2.29	32.16	2.49	28.60	2.71	25.11	2.95	21.72	2.95	21.72	3.22				

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

036 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB °F (°C)	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW	Capacity MBtuh	Total Syst KW
785	57 (13.8)	25.86	25.86	1.54	23.52	23.52	1.64	21.19	21.19	1.74	18.89	18.89	1.84	16.59	16.59	1.93	14.33	14.33	2.02
	62 (16.6)	26.33	24.60	1.54	23.73	22.02	1.64	21.23	21.23	1.74	18.92	18.92	1.84	16.62	16.62	1.93	14.35	14.35	2.02
	63* (17.2)	26.84	19.92	1.53	24.16	17.75	1.64	21.53	15.63	1.74	18.93	13.59	1.84	16.37	11.61	1.94	13.88	9.71	2.03
	67 (19.4)	28.92	20.73	1.51	26.02	18.48	1.62	23.18	16.30	1.72	20.39	14.19	1.82	17.65	12.15	1.92	14.97	10.19	2.02
	72 (22.2)	31.81	16.77	1.48	28.62	14.85	1.59	25.50	13.00	1.70	22.43	11.22	1.80	19.42	9.51	1.90	16.49	7.89	2.00
	57 (13.8)	27.03	27.03	1.55	24.55	24.55	1.65	22.09	22.09	1.75	19.65	19.65	1.85	17.23	17.23	1.94	14.84	14.84	2.03
900	62 (16.6)	27.07	27.07	1.55	24.59	24.59	1.65	22.12	22.12	1.75	19.68	19.68	1.85	17.25	17.25	1.94	14.86	14.86	2.03
	63* (17.2)	27.41	21.37	1.55	24.64	19.06	1.65	21.93	16.82	1.75	19.25	14.64	1.85	16.63	12.53	1.95	14.08	10.51	2.04
	67 (19.4)	29.51	22.28	1.53	26.52	19.89	1.63	23.59	17.58	1.74	20.72	15.32	1.84	17.90	13.15	1.94	15.16	11.05	2.03
	72 (22.2)	32.43	17.75	1.50	29.14	15.74	1.61	25.92	13.80	1.71	22.76	11.93	1.82	19.67	10.14	1.92	16.67	8.43	2.01
	57 (13.8)	27.98	27.98	1.56	25.37	25.37	1.66	22.80	22.80	1.76	20.25	20.25	1.86	17.72	17.72	1.95	15.24	15.24	2.04
	62 (16.6)	28.02	28.02	1.56	25.41	25.41	1.66	22.83	22.83	1.76	20.28	20.28	1.86	17.75	17.75	1.95	15.25	15.25	2.04
1010	63* (17.2)	27.84	22.71	1.56	24.99	20.28	1.67	22.22	17.92	1.77	19.49	15.62	1.87	16.82	13.38	1.96	14.28	14.28	2.05
	67 (19.4)	29.94	23.73	1.54	26.88	21.21	1.65	23.89	18.76	1.75	20.96	16.38	1.85	18.09	14.07	1.95	15.32	11.82	2.04
	72 (22.2)	32.87	18.66	1.51	29.50	16.57	1.62	26.21	14.55	1.73	22.99	12.60	1.83	19.84	10.73	1.93	16.79	8.94	2.02

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

036 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB °F (°C)	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW		
	57 (13.8)	35.86	33.72	2.29	33.72	33.72	2.51	31.52	31.52	2.76	29.26	29.26	3.03	26.89	26.89	3.34	24.47	24.47	3.69
	62 (16.6)	36.94	34.42	2.30	31.53	29.88	2.52	31.86	29.88	2.76	29.31	29.31	3.03	26.93	26.93	3.34	24.51	24.51	3.69
1050	63* (17.2)	37.62	35.04	2.31	25.57	24.12	2.53	32.41	24.12	2.77	29.71	22.66	3.03	26.94	21.18	3.34	24.13	19.71	3.69
	67 (19.4)	40.43	37.63	2.34	26.55	25.07	2.56	34.79	25.07	2.80	31.86	23.58	3.07	28.87	22.07	3.37	25.86	20.58	3.71
	72 (22.2)	44.31	41.22	2.39	21.45	20.10	2.61	38.07	20.10	2.85	34.86	18.73	3.11	31.58	17.37	3.41	28.28	16.02	3.75
	57 (13.8)	37.44	35.15	2.33	35.15	32.81	2.55	32.81	32.81	2.80	30.39	30.39	3.07	27.88	27.88	3.38	25.31	25.31	3.73
1200	62 (16.6)	37.84	35.28	2.34	35.09	32.85	2.56	32.85	32.85	2.80	30.43	30.43	3.07	27.92	27.92	3.38	25.34	25.34	3.73
	63* (17.2)	38.44	35.75	2.34	27.35	25.83	2.56	33.01	25.83	2.80	30.22	24.30	3.07	27.35	22.75	3.37	24.48	21.21	3.71
	67 (19.4)	41.27	38.37	2.38	28.45	26.90	2.59	35.40	26.90	2.83	32.38	25.34	3.10	29.29	23.77	3.40	26.20	22.20	3.74
	72 (22.2)	45.20	41.98	2.43	22.65	21.25	2.64	38.71	21.25	2.88	35.39	19.85	3.15	32.00	18.44	3.45	28.62	17.05	3.79
1350	57 (13.8)	38.77	36.36	2.37	36.36	33.88	2.59	33.88	33.88	2.84	31.33	31.33	3.11	28.69	28.69	3.42	26.00	26.00	3.76
	62 (16.6)	38.82	36.40	2.37	36.40	33.92	2.59	33.92	33.92	2.84	31.37	31.37	3.11	28.72	28.72	3.42	26.03	26.03	3.76
	63* (17.2)	39.08	36.30	2.38	29.05	27.48	2.59	33.49	27.48	2.83	30.61	25.88	3.10	27.68	24.26	3.40	24.75	22.63	3.74
	67 (19.4)	41.92	38.92	2.41	30.29	28.67	2.63	35.87	28.67	2.86	32.77	27.04	3.13	29.62	25.40	3.43	26.47	23.74	3.77
	72 (22.2)	45.86	42.55	2.46	23.81	22.37	2.68	39.20	22.37	2.92	35.78	20.92	3.18	32.32	19.48	3.48	28.86	18.05	3.81

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

042 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW		Capacity MBtuh	Total Syst KW	
915	EWB °F (°C)	30.96	1.93	28.67	1.98	26.33	2.01	23.93	2.04	21.48	2.05	19.01	2.03	17.22	2.02	14.77	2.00	12.26	1.98
		30.96	1.93	28.67	1.98	26.33	2.01	23.93	2.04	21.48	2.05	19.01	2.03	17.22	2.02	14.77	2.00	12.26	1.98
		31.67	1.93	29.07	1.97	26.44	2.01	23.97	2.04	21.51	2.05	19.03	2.03	17.31	2.02	14.87	2.00	12.36	1.98
		32.30	1.92	29.63	1.97	26.89	2.01	24.12	2.04	21.31	2.05	18.51	2.04	16.63	2.03	14.41	2.01	12.28	2.00
		34.88	1.90	31.98	1.94	29.02	1.98	26.03	2.01	23.01	2.06	20.00	2.04	17.38	2.03	15.09	2.01	12.89	2.00
		38.48	1.87	35.25	1.91	31.99	1.95	28.70	1.98	25.38	1.99	22.08	1.98	13.81	1.99	11.87	1.99	10.03	1.98
1050	EWB °F (°C)	32.40	1.95	29.96	2.00	27.47	2.03	24.92	2.05	22.32	2.06	19.70	2.04	17.45	2.03	15.20	2.01	12.95	1.99
		32.40	1.95	29.96	2.00	27.47	2.03	24.92	2.05	22.32	2.06	19.70	2.04	17.45	2.03	15.20	2.01	12.95	1.99
		32.52	1.95	30.01	1.99	27.51	2.03	24.96	2.05	22.35	2.06	19.73	2.04	17.50	2.03	15.25	2.01	13.00	2.00
		33.02	1.95	30.24	1.99	27.41	2.03	24.54	2.06	21.65	2.07	18.77	2.06	17.91	2.05	15.55	2.03	13.28	2.01
		35.63	1.93	32.61	1.97	29.55	2.01	26.46	2.03	23.35	2.04	20.26	2.03	18.75	2.04	16.31	2.01	13.96	2.00
		39.26	1.89	35.92	1.93	32.54	1.97	29.14	2.00	25.72	2.01	22.33	2.01	14.67	2.01	12.64	2.01	10.70	1.99
1180	EWB °F (°C)	33.57	1.98	31.00	2.01	28.38	2.05	25.70	2.07	22.99	2.07	20.25	2.05	18.24	2.04	16.00	2.02	14.00	2.00
		33.57	1.98	31.00	2.01	28.38	2.05	25.70	2.07	22.99	2.07	20.25	2.05	18.24	2.04	16.00	2.02	14.00	2.00
		33.62	1.98	31.04	2.01	28.42	2.05	25.74	2.07	23.02	2.07	20.27	2.05	18.28	2.04	16.04	2.02	14.04	2.00
		33.55	1.98	30.68	2.02	27.77	2.05	24.85	2.08	21.90	2.09	18.99	2.07	16.60	2.09	14.84	2.07	12.70	2.05
		36.17	1.95	33.07	1.99	29.92	2.03	26.76	2.05	23.60	2.06	20.46	2.05	17.46	2.06	14.94	2.05	12.70	2.05
		39.84	1.92	36.39	1.96	32.92	1.99	29.44	2.02	25.95	2.02	22.49	2.02	13.37	2.02	11.34	2.01	9.80	1.99

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

042 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB °F (°C)	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW	Capacity MBtuh	Total Sys KW		
1225	57 (13.8)	44.10	44.10	2.67	40.87	40.87	2.95	37.59	37.59	3.27	34.28	34.28	3.63	30.95	30.95	4.03	27.68	27.68	4.47
	62 (16.6)	45.47	38.57	2.68	41.76	36.75	2.96	38.02	34.87	3.28	34.34	34.34	3.63	31.00	31.00	4.03	27.72	27.72	4.47
	63* (17.2)	46.30	31.46	2.69	42.48	29.82	2.97	38.64	28.16	3.28	34.81	26.49	3.64	31.02	24.81	4.03	27.34	23.17	4.46
	67 (19.4)	49.63	32.58	2.71	45.48	30.90	3.00	41.33	29.20	3.32	37.21	27.50	3.67	33.12	25.80	4.06	29.18	24.14	4.49
	72 (22.2)	54.17	26.44	2.75	49.61	24.90	3.04	45.06	23.34	3.36	40.53	21.79	3.72	36.05	20.23	4.11	31.74	18.73	4.54
	57 (13.8)	45.98	45.98	2.72	42.52	42.52	3.01	39.03	39.03	3.33	35.52	35.52	3.69	32.01	32.01	4.08	28.56	28.56	4.52
	62 (16.6)	46.52	41.52	2.73	42.71	42.37	3.01	39.08	39.08	3.33	35.57	35.57	3.69	32.04	32.04	4.08	28.59	28.59	4.52
1400	63* (17.2)	47.25	33.56	2.73	43.28	31.84	3.01	39.30	30.11	3.33	35.35	28.36	3.68	31.44	26.61	4.07	27.67	24.89	4.50
	67 (19.4)	50.58	34.83	2.76	46.29	33.07	3.04	42.00	31.30	3.36	37.75	29.52	3.72	33.55	27.75	4.11	29.50	26.00	4.54
	72 (22.2)	55.17	27.86	2.79	50.45	26.26	3.08	45.74	24.65	3.41	41.08	23.05	3.76	36.47	21.45	4.16	32.06	19.90	4.59
	57 (13.8)	47.54	47.54	2.77	43.89	43.89	3.05	40.22	40.22	3.38	36.54	36.54	3.74	32.86	32.86	4.13	29.26	29.26	4.57
	62 (16.6)	47.60	47.60	2.77	43.95	43.95	3.05	40.27	40.27	3.38	36.59	36.59	3.74	32.90	32.90	4.14	29.29	29.29	4.57
1575	63* (17.2)	47.97	35.58	2.77	43.88	33.79	3.05	39.80	31.99	3.37	35.76	30.17	3.72	31.76	28.34	4.12	27.94	26.51	4.55
	67 (19.4)	51.31	37.00	2.80	46.89	35.17	3.08	42.50	33.33	3.40	38.15	31.48	3.76	33.86	29.62	4.15	29.75	27.77	4.58
	72 (22.2)	55.92	29.22	2.84	51.07	27.57	3.12	46.25	25.93	3.45	41.47	24.28	3.81	36.77	22.64	4.20	32.27	21.05	4.63

See Legend and Notes on Page 26.



PERFORMANCE DATA (CONT)

048 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		EWB °F (°C)	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	Capacity MBtuh Total	Syst KW	
1050	57 (13.8)	35.18	2.15	32.65	2.21	30.08	2.26	27.45	2.29	24.76	2.29	22.01	2.29	22.01	2.29	22.01	2.26		
	62 (16.6)	35.89	2.14	32.99	2.21	30.13	2.26	27.49	2.29	24.80	2.29	22.04	2.29	22.04	2.29	22.04	2.25		
	63* (17.2)	36.62	2.14	33.64	2.21	30.61	2.26	27.55	2.29	24.45	2.29	21.33	2.29	21.33	2.29	21.33	2.26		
	67 (19.4)	39.58	2.11	36.35	2.19	33.07	2.24	29.78	2.28	26.42	2.28	23.06	2.28	23.06	2.28	23.06	2.25		
	72 (22.2)	43.68	2.08	40.10	2.16	36.50	2.22	32.85	2.26	29.17	2.26	25.49	2.26	25.49	2.26	25.49	2.24		
	57 (13.8)	36.76	2.18	34.07	2.25	31.32	2.29	28.53	2.32	25.68	2.32	22.77	2.32	22.77	2.32	22.77	2.28		
1200	62 (16.6)	36.82	2.18	34.12	2.25	31.37	2.29	28.58	2.32	25.71	2.32	22.80	2.32	22.80	2.32	22.80	2.28		
	63* (17.2)	37.37	2.18	34.28	2.25	31.15	2.30	27.99	2.32	24.79	2.32	21.59	2.32	21.59	2.32	21.59	2.29		
	67 (19.4)	40.36	2.15	37.01	2.23	33.63	2.28	30.21	2.31	26.77	2.31	23.32	2.31	23.32	2.31	23.32	2.28		
	72 (22.2)	44.51	2.12	40.80	2.20	37.07	2.26	33.30	2.29	29.52	2.29	25.74	2.29	25.74	2.29	25.74	2.26		
	57 (13.8)	37.76	2.21	34.95	2.27	32.10	2.32	29.20	2.34	26.23	2.34	23.23	2.34	23.23	2.34	23.23	2.30		
	62 (16.6)	37.81	2.21	35.00	2.27	32.15	2.32	29.24	2.34	26.27	2.34	23.26	2.34	23.26	2.34	23.26	2.30		
1310	63* (17.2)	37.81	2.21	34.64	2.28	31.45	2.32	28.23	2.35	24.98	2.35	21.76	2.35	21.76	2.35	21.76	2.31		
	67 (19.4)	40.80	2.19	37.39	2.26	33.93	2.31	30.46	2.33	26.96	2.33	23.47	2.33	23.47	2.33	23.47	2.29		
	72 (22.2)	44.98	2.15	41.19	2.23	37.37	2.28	33.55	2.31	29.70	2.31	25.85	2.31	25.85	2.31	25.85	2.28		

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

048 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW
1400	57 (13.8)	48.89	48.89	3.11	45.66	45.66	3.41	42.38	42.38	3.75	39.05	39.05	4.13	35.68	35.68	4.55	32.30	32.30	4.99
	62 (16.6)	50.28	43.47	3.12	46.51	41.71	3.42	42.75	39.90	3.76	39.11	39.11	4.13	35.73	35.73	4.55	32.34	32.34	4.99
	63* (17.2)	51.23	35.39	3.13	47.37	33.80	3.43	43.48	32.17	3.77	39.57	30.53	4.14	35.65	28.86	4.54	31.78	27.20	4.98
	67 (19.4)	55.12	36.75	3.16	50.93	35.12	3.46	46.72	33.47	3.80	42.50	31.80	4.17	38.27	30.11	4.58	34.10	28.42	5.02
	72 (22.2)	60.49	29.87	3.21	55.87	28.34	3.51	51.22	26.80	3.84	46.58	25.25	4.22	41.93	23.68	4.62	37.37	22.12	5.06
	57 (13.8)	51.01	51.01	3.18	47.56	47.56	3.48	44.07	44.07	3.83	40.53	40.53	4.20	36.95	36.95	4.62	33.37	33.37	5.06
	62 (16.6)	51.47	46.83	3.18	47.65	47.65	3.49	44.13	44.13	3.83	40.59	40.59	4.20	37.00	37.00	4.62	33.41	33.41	5.06
1600	63* (17.2)	52.30	37.79	3.19	48.28	36.13	3.49	44.24	34.44	3.83	40.20	32.73	4.20	36.15	30.99	4.60	32.18	29.26	5.04
	67 (19.4)	56.21	39.32	3.23	51.86	37.62	3.53	47.50	35.90	3.86	43.13	34.16	4.23	38.77	32.40	4.64	34.50	30.65	5.07
	72 (22.2)	61.65	31.49	3.27	56.85	29.91	3.57	52.04	28.32	3.91	47.24	26.72	4.28	42.45	25.11	4.68	37.76	23.52	5.11
	57 (13.8)	52.37	52.37	3.23	48.78	48.78	3.54	45.15	45.15	3.88	41.47	41.47	4.25	37.75	37.75	4.66	34.04	34.04	5.11
	62 (16.6)	52.45	52.45	3.23	48.85	48.85	3.54	45.21	45.21	3.88	41.52	41.52	4.26	37.79	37.79	4.66	34.08	34.08	5.11
1750	63* (17.2)	52.92	39.53	3.24	48.81	37.82	3.54	44.68	36.08	3.87	40.56	34.32	4.24	36.44	32.53	4.65	32.42	30.72	5.08
	67 (19.4)	56.86	41.19	3.27	52.41	39.44	3.57	47.95	37.67	3.91	43.50	35.88	4.28	39.06	34.07	4.68	34.73	32.25	5.12
	72 (22.2)	62.33	32.67	3.32	57.41	31.06	3.62	52.50	29.43	3.95	47.61	27.80	4.32	42.73	26.16	4.72	37.97	24.55	5.15

See Legend and Notes on Page 26.



PERFORMANCE DATA (CONT)

060 Low Cool EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB °F (°C)	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	Capacity MBtuh Total	Sens	Total Syst KW	
1200	57 (13.8)	42.50	42.50	41.54	2.61	41.54	41.54	2.64	40.36	40.36	38.87	38.87	2.59	37.03	37.03	2.49	34.82	34.82	2.34
	62 (16.6)	43.53	40.01	38.49	2.61	42.15	38.49	2.64	40.55	40.24	38.94	38.94	2.59	37.09	37.09	2.49	34.87	34.87	2.34
	63* (17.2)	44.37	32.51	31.12	2.61	42.92	31.12	2.63	41.20	29.70	28.21	28.21	2.59	36.69	26.66	2.49	33.85	25.05	2.34
	67 (19.4)	47.96	33.87	32.46	2.59	46.38	32.46	2.62	44.50	31.00	29.49	29.49	2.58	39.65	27.93	2.49	36.60	26.30	2.33
	72 (22.2)	52.94	27.58	26.23	2.56	51.15	26.23	2.60	49.07	24.86	23.45	23.45	2.57	43.75	21.98	2.48	40.44	20.47	2.33
1370	57 (13.8)	44.36	44.36	43.29	2.67	43.29	43.29	2.69	41.98	41.98	40.36	40.36	2.63	38.36	38.36	2.53	35.98	35.98	2.37
	62 (16.6)	44.59	44.18	43.36	2.67	43.36	43.36	2.69	42.05	42.05	40.42	40.42	2.63	38.42	38.42	2.53	36.03	36.03	2.37
	63* (17.2)	45.25	34.73	33.28	2.67	43.69	33.28	2.69	41.88	31.80	30.26	30.26	2.63	37.17	28.64	2.53	34.23	26.95	2.37
	67 (19.4)	48.88	36.25	34.77	2.65	47.18	34.77	2.68	45.19	33.26	31.70	31.70	2.62	40.13	30.07	2.53	36.99	28.37	2.37
	72 (22.2)	53.90	29.08	27.69	2.62	52.00	27.69	2.65	49.80	26.28	24.83	24.83	2.61	44.23	23.32	2.52	40.79	21.77	2.36
1545	57 (13.8)	45.96	45.96	44.78	2.73	44.78	44.78	2.75	43.35	43.35	41.59	41.59	2.67	39.46	39.46	2.57	36.92	36.92	2.40
	62 (16.6)	46.03	46.03	44.84	2.73	44.84	44.84	2.75	43.41	43.41	41.65	41.65	2.67	39.51	39.51	2.57	36.97	36.97	2.40
	63* (17.2)	45.92	36.92	35.42	2.73	44.29	35.42	2.75	42.38	33.88	32.27	32.27	2.68	37.53	30.58	2.57	34.57	34.35	2.41
	67 (19.4)	49.57	38.62	37.08	2.71	47.78	37.08	2.73	45.71	35.51	33.88	33.88	2.67	40.48	32.18	2.57	37.28	30.36	2.40
	72 (22.2)	54.62	30.56	29.14	2.69	52.62	29.14	2.71	50.31	27.69	26.20	26.20	2.66	44.54	24.66	2.56	40.98	23.08	2.39

See Legend and Notes on Page 26.

PERFORMANCE DATA (CONT)

060 High Cool

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																			
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)				
		Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW	Capacity MBtuh	Total Sys KW	Total Sys KW		
1750	57 (13.8)	58.66	58.66	3.81	55.57	55.57	4.17	52.33	52.33	4.58	48.92	48.92	5.04	45.32	45.32	41.58	41.58	5.57	41.58	41.58	6.16
	62 (16.6)	59.85	53.13	3.82	56.20	51.25	4.17	52.25	52.25	4.58	48.99	48.99	5.05	45.37	45.37	41.63	41.63	5.57	41.63	41.63	6.16
	63* (17.2)	60.83	43.11	3.82	57.05	41.43	4.18	53.16	39.70	4.58	49.10	37.91	5.04	44.88	36.06	40.58	34.17	5.56	40.58	34.17	6.13
	67 (19.4)	65.32	44.77	3.86	61.22	43.05	4.22	57.00	41.30	4.63	52.61	39.48	5.10	48.03	37.60	43.40	35.70	5.62	43.40	35.70	6.20
	72 (22.2)	71.52	36.12	3.90	67.01	34.50	4.27	62.34	32.84	4.69	57.48	31.12	5.17	52.44	29.35	47.35	27.57	5.70	47.35	27.57	6.29
	57 (13.8)	60.99	60.99	3.90	57.68	57.68	4.26	54.22	54.22	4.68	50.58	50.58	5.15	46.74	46.74	42.79	42.79	5.68	42.79	42.79	6.27
2000	62 (16.6)	61.23	60.84	3.90	57.75	57.75	4.26	54.29	54.29	4.68	50.64	50.64	5.15	46.80	46.80	42.83	42.83	5.68	42.83	42.83	6.27
	63* (17.2)	61.92	45.99	3.91	57.99	44.25	4.26	53.95	42.45	4.67	49.76	40.60	5.13	45.40	38.65	41.00	36.66	5.65	41.00	36.66	6.22
	67 (19.4)	66.43	47.87	3.94	62.19	46.10	4.30	57.80	44.27	4.72	53.27	42.39	5.19	48.55	40.42	43.81	38.42	5.71	43.81	38.42	6.29
	72 (22.2)	72.71	38.07	3.98	68.00	36.40	4.35	63.17	34.70	4.78	58.16	32.94	5.26	52.95	31.12	47.73	29.31	5.79	47.73	29.31	6.37
	57 (13.8)	62.91	62.91	3.99	59.42	59.42	4.35	55.76	55.76	4.77	51.93	51.93	5.25	47.89	47.89	43.74	43.74	5.78	43.74	43.74	6.37
	62 (16.6)	62.99	62.99	3.99	59.49	59.49	4.36	55.83	55.83	4.77	51.99	51.99	5.25	47.94	47.94	43.79	43.79	5.78	43.79	43.79	6.37
2250	63* (17.2)	62.73	48.75	3.99	58.69	46.95	4.35	54.54	45.08	4.76	50.24	43.14	5.22	45.80	41.08	41.35	38.84	5.73	41.35	38.84	6.30
	67 (19.4)	67.27	50.85	4.02	62.89	49.01	4.39	58.40	47.12	4.80	53.75	45.15	5.27	48.94	43.08	44.15	40.88	5.80	44.15	40.88	6.38
	72 (22.2)	73.56	39.95	4.06	68.73	38.24	4.43	63.76	36.50	4.86	58.61	34.70	5.34	53.29	32.85	47.96	31.01	5.87	47.96	31.01	6.46

See Legend and Notes on Page 26.



PERFORMANCE DATA (CONT)

* At 75°F (24°C) entering dry bulb – Tennessee Valley Authority (TVA) rating conditions; all others at 80°F (27°C) dry bulb.

LEGEND

BF— Bypass Factor
 edb— Entering Dry – Bulb
 Ewb— Entering Wet – Bulb
 kW — Total Unit Power Input
 SHC— Sensible Heat Capacity (1000 Btuh)
 TC — Total Capacity (1000 Btuh) (net)
 rh—Relative Humidity

COOLING NOTES:

1. Ratings are net; they account for the effects of the evaporator—fan motor power and heat.
2. Direct interpolation is permissible. Do not extrapolate.
3. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{Sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$t_{lwb} = \text{Wet-bulb temperature corresponding to enthalpy air leaving evaporator coil } (h_{lwb})$$

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

4. The SHC is based on 805 F (26.6°C) edb temperature of air entering evaporator coil. Below 80°F (26.6°C) edb, subtract (corr factor x cfm) from SHC.

Above 80° F (26.6° C) edb, add (corr factor x cfm) to SHC.

Correction Factor = $1.10 \times (1 + \text{BF}) \times (\text{edb} - 80)$.

5. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA (CONT)

GAS ADJUSTMENT

Natural Gas Orifice Sizes and Manifold Pressure 208/230VAC Models

Nameplate Input, High Stage (Btu/hr)		ALTITUDE OF INSTALLATION (FT. [m] ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 [0 to 610]	2001 to 3000* [610 to 914]	3001 to 4000 [915 to 1219]	4001 to 5000 [1220 to 1524]	5001 to 6000 [1524 to 1829]
40000	Orifice No. (Qty)	44 (2)	45 (2)†	48 (2)†	48 (2)†	48 (2)†
	Manifold Press. High / Low (in. W.C.)	3.2 / 1.4	3.2 / 1.4	3.8 / 1.6	3.5 / 1.5	3.2 / 1.4
60000	Orifice No. (Qty)	44 (3)	45 (3)†	48 (3)†	48 (3)†	48 (3)†
	Manifold Press. High / Low (in. W.C.)	3.2 / 1.4	3.2 / 1.4	3.8 / 1.6	3.5 / 1.5	3.2 / 1.4
90000	Orifice No. (Qty)	38 (3)	41 (3)†	41 (3)†	42 (3)†	42 (3)†
	Manifold Press. High / Low (in. W.C.)	3.6 / 1.6	3.8 / 1.6	3.4 / 1.5	3.4 / 1.5	3.2 / 1.4
115000	Orifice No. (Qty)	33 (3)	36 (3)†	36 (3)†	36 (3)†	38 (3)†
	Manifold Press. High / Low (in. W.C.)	3.8 / 1.7	3.8 / 1.7	3.6 / 1.6	3.3 / 1.4	3.6 / 1.5
127000 (1-Phase)	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. High / Low (in. W.C.)	3.7 / 1.7	3.2 / 1.4	3.5 / 1.6	3.2 / 1.4	3.2 / 1.4
130000 (3-Phase)	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. High / Low (in. W.C.)	3.8 / 1.7	3.2 / 1.4	3.7 / 1.6	3.4 / 1.4	3.3 / 1.4

48V/G

Natural Gas Orifice Sizes and Manifold Pressure 460V

Nameplate Input (Btu/hr)		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 (0-610 m)	2001 to 3000* (611 to 914 m)	3001 to 4000 (915 to 1219 m)	4001 to 5000 (1220 to 1524 m)	5001 to 6000 (1524 to 1829 m)
60000	Orifice No. (Qty)	38 (2)	41 (2)†	41 (2)†	42 (2)†	42 (2)†
	Manifold Press. (in. W.C.)	3.6	3.8	3.4	3.4	3.2
90000	Orifice No. (Qty)	38 (3)	41 (3)†	41 (3)†	42 (3)†	42 (3)†
	Manifold Press. (in. W.C.)	3.6	3.8	3.4	3.4	3.2
115000	Orifice No. (Qty)	33 (3)	36 (3)†	36 (3)†	36 (3)†	38 (3)†
	Manifold Press. (in. W.C.)	3.8	3.8	3.6	3.3	3.6
130000	Orifice No. (Qty)	31 (3)	31 (3)	33 (3)†	33 (3)†	34 (3)†
	Manifold Press. (in. W.C.)	3.8	3.2	3.7	3.4	3.3

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft, use U.S.A. column 2001 to 3000 ft (610 to 914 m).

† Orifices available through your distributor.

NOTE: Orifice sizes and manifold pressure settings are based on natural gas with a heating value of 1025 Btu/ft³ and a specific gravity of .6.

Propane Gas Orifice Sizes and Manifold Pressure 208/230VAC Models

Nameplate Input, High Stage (Btu/hr)		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*†				
		0 to 2000 [0 to 610]	2001 to 3000* [610 to 914]	3001 to 4000 [915 to 1219]	4001 to 5000 [1220 to 1524]	5001 to 6000 [1524 to 1829]
40000	Orifice No. (Qty)	55 (2)	56 (2)	56 (2)	56 (2)	56 (2)
	Manifold Press. High / Low (in. W.C.)	10.0/5.0	11.0/6.0	11.0/5.5	11.0/5.0	10.7/4.8
60000	Orifice No. (Qty)	55 (3)	56 (3)	56 (3)	56 (3)	56 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.0	11.0/6.0	11.0/5.5	11.0/5.0	10.7/4.8
90000	Orifice No. (Qty)	53 (3)	54 (3)	54 (3)	54 (3)	54 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.4	11.0/6.4	11.0/5.9	11.0/5.4	11.0/5.0
115000	Orifice No. (Qty)	51 (3)	52 (3)	52 (3)	53 (3)	53 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.4	11.0/5.0	10.6/4.8	11.0/6.1	11.0/5.5
127000 (1-Phase) or 130000 (3-Phase)	Orifice No. (Qty)	49 (3)	50 (3)	51 (3)	52 (3)	52 (3)
	Manifold Press. High / Low (in. W.C.)	10.0/5.4	11.0/4.8	11.0/4.9	11.0/5.2	11.0/5.0

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft, use U.S.A. column 2001 to 3000 ft (610 to 914 m).

† Use Kit No. CPLPCONV013C00 (0-2000 ft [0-610 m] above sea level). Use Kit No. CPLPCONV014C00 (2001-6000 ft [611-1829 m] above sea level).

PERFORMANCE DATA (CONT)

Propane Gas Orifice Sizes and Manifold Pressure

460V

Nameplate Input (Btu/hr)		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A.*				
		0 to 2000 (0–610 m)	2001 to 3000* (611 to 914 m)	3001 to 4000 (915 to 1219 m)	4001 to 5000 (1220 to 1524 m)	5001 to 6000 (1524 to 1829 m)
60000	Orifice No. (Qty)	53 (2)	54 (2)	54 (2)	54 (2)	54 (2)
	Manifold Press. (IN. W.C.)	10.0	11.0	11.0	11.0	11.0
90000	Orifice No. (Qty)	53 (3)	54 (3)	54 (3)	54 (3)	54 (3)
	Manifold Press. (IN. W.C.)	10.0	11.0	11.0	11.0	11.0
115000	Orifice No. (Qty)	51 (3)	52 (3)	52 (3)	53 (3)	53 (3)
	Manifold Press. (IN. W.C.)	10.0	11.0	10.6	11.0	11.0
130000	Orifice No. (Qty)	49 (3)	50 (3)	51 (3)	52 (3)	52 (3)
	Manifold Press. (IN. W.C.)	10.0	11.0	11.0	11.0	11.0

In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

†Use Kit No. CPLPCONV013(B,C)00 (0–2000 ft [0–610 m] above sea level). Use Kit No. CPLPCONV014(B,C)00 (2001–6000 ft [611–1829 m] above sea level).

High Altitude Compensation: Natural Gas

208/230VAC Models

Nameplate Input, High Stage (Btu/hr)	Rated Heating Input (Btu/hr), Natural Gas at Installation Altitude Above Sea Level, U.S.A.*									
	0 to 2000 ft 0 to 610 m		2001 to 3000 ft* 610 to 914 m		3001 to 4000 ft 915 to 1219 m		4001 to 5000 ft 1220 to 1524 m		5001 to 6000 ft 1524 to 1829 m	
	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage
40000	40000	26000	36000	23400	34400	22300	32800	21300	31200	20300
60000	60000	39000	54000	35100	51600	33500	49200	32000	46800	30400
90000	90000	58500	81000	52700	77400	50300	73800	48000	70200	45600
115000	115000	75000	103500	67500	98900	64500	94300	61500	89700	58500
127000 (1–Phase)	127000	84500	114300	76100	109200	72700	104100	69300	99100	65900
130000 (3–Phase)	130000	84500	117000	76100	111800	72700	106600	69300	101400	65900

High Altitude Compensation, Natural Gas

460V

Nameplate Input (Btu/hr)	Rated Heating Input (Btu/hr), Natural Gas at Installation Altitude Above Sea Level, U.S.A.*				
	0 to 2000 ft (0–610 m)	2001 to 3000 ft* (611 to 914 m)	3001 to 4000 ft (915 to 1219 m)	4001 to 5000 ft (1220 to 1524 m)	5001 to 6000 ft (1524 to 1829 m)
60000	60000	54000	51600	49200	46800
90000	90000	81000	77400	73800	70200
115000	115000	103500	98900	94300	89700
130000	130000	117000	111800	106600	101400

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above Sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

High Altitude Compensation: Propane Gas

208/230VAC Models

Nameplate Input, High Stage (Btu/hr)	Rated Heating Input (Btu/hr), LP Gas at Installation Altitude Above Sea Level, U.S.A.*									
	0 to 2000 ft 0 to 610 m		2001 to 3000 ft* 610 to 914 m		3001 to 4000 ft 915 to 1219 m		4001 to 5000 ft 1220 to 1524 m		5001 to 6000 ft 1524 to 1829 m	
	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage	Low Stage
40000	38000	26000	31700	23400	31700	22300	31700	21300	31200	20300
60000	57000	39000	47500	35100	47500	33500	47500	32000	46800	30400
90000	79000	58500	68900	52700	68900	50300	68600	48000	68600	45600
115000	103000	75000	100400	67500	98900	64500	83000	61500	83000	58500
127000 (1–Phase) or 130000 (3–Phase)	116000	84500	115500	76100	111800	72700	101300	69300	100400	65900

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

High Altitude Compensation, Propane Gas 460V

Nameplate Input (Btu/hr)	Rated Heating Input (Btu/hr), Propane Gas at Installation Altitude Above Sea Level, U.S.A.*				
	0 to 2000 ft (0–610 m)	2001 to 3000 ft* (611 to 914 m)	3001 to 4000 ft (915 to 1219 m)	4001 to 5000 ft (1220 to 1524 m)	5001 to 6000 ft (1524 to 1829 m)
60000	53000	45900	45900	45800	45800
90000	79000	68900	68900	68600	68600
115000	103000	100400	98900	83000	83000
130000	116000	115500	111800	101300	100400

*In the U.S.A., the input rating for altitudes above 2000 ft (610m) must be reduced by 4% for each 1000 ft (305 m) above sea level.

In Canada, the input rating for altitudes from 2001 to 4500 ft (611 to 1372 m) above sea level must be derated by 10% by an authorized gas conversion station or dealer.

For Canadian Installations from 2000 to 4500 ft (610–1372 m), use U.S.A. column 2001 to 3000 ft (611 to 914 m).

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)																	
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1								
24060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	714	525	---	---	---	---	---	---	---	---	---	---	---	---			
				BHP	0.08	0.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
				Low Stage Heat Rise °F (°C)	41 (23)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		CFM	689	597	489	352	---	---	---	---	---	---	---	---	---	---	---	---	---		
		BHP	0.08	0.06	0.06	0.05	---	---	---	---	---	---	---	---	---	---	---	---	---		
		Low Stage Heat Rise °F (°C)	43 (24)	49 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	CFM	921	829	754	663	582	485	371	---	---	---	---	---	---	---	---	---	---			
	BHP	0.14	0.14	0.15	0.16	0.17	0.17	0.18	---	---	---	---	---	---	---	---	---	---			
	Low Stage Heat Rise °F (°C)	32 (18)	36 (20)	39 (22)	44 (25)	51 (28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
	High Stage Heat Rise °F (°C)	49 (27)	55 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
	CFM	1229	1171	1105	1049	980	913	838	775	679	516	---	---	---	---	---	---	---			
	BHP	0.28	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.33	---	---	---	---	---	---	---			
	Low Stage Heat Rise °F (°C)	NA	25 (14)	27 (15)	28 (16)	30 (17)	32 (18)	35 (20)	38 (21)	43 (24)	NA	NA	NA	NA	NA	NA	NA	NA			
	High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA			
CFM	1291	1206	1142	1081	1017	951	888	823	753	668	---	---	---	---	---	---	---				
BHP	0.31	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	---	---	---	---	---	---	---				
Low Stage Heat Rise °F (°C)	NA	NA	26 (14)	27 (15)	29 (16)	31 (17)	33 (18)	36 (20)	39 (22)	44 (24)	---	---	---	---	---	---	---				
High Stage Heat Rise °F (°C)	35 (19)	37 (21)	40 (22)	42 (23)	44 (25)	48 (26)	51 (28)	55 (31)	NA	NA	---	---	---	---	---	---	---				

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)																			
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1										
30060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	714	525	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
				BHP	0.08	0.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
				Low Stage Heat Rise °F (°C)	41 (23)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	831	765	670	586	466	299	---	---	---	---	---	---	---	---	---	---	---	---	---
				BHP	0.11	0.12	0.12	0.13	0.13	0.14	---	---	---	---	---	---	---	---	---	---	---	---	---
	Medium ²	Red	Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	35 (20)	38 (21)	44 (24)	50 (28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
					High Stage Heat Rise °F (°C)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					CFM	1139	1069	1012	937	870	786	724	626	512	381	---	---	---	---	---	---	---	---
					BHP	0.22	0.23	0.24	0.24	0.25	0.26	0.26	0.27	0.27	0.28	---	---	---	---	---	---	---	---
					Low Stage Heat Rise °F (°C)	26 (14)	28 (15)	29 (16)	31 (17)	34 (19)	37 (21)	41 (23)	47 (26)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
					High Stage Heat Rise °F (°C)	40 (22)	42 (23)	45 (25)	48 (27)	52 (29)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Med-High ⁴	Orange	High	Black	CFM	1229	1171	1105	1049	980	913	838	775	679	516	---	---	---	---	---	---			
				BHP	0.28	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.33	0.33	0.33	0.34	0.34	0.34	0.33			
				Low Stage Heat Rise °F (°C)	NA	25 (14)	27 (15)	28 (16)	30 (17)	32 (18)	35 (20)	38 (21)	43 (24)	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	37 (20)	39 (21)	41 (23)	43 (24)	46 (26)	50 (28)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629	---	---	---	---	---	---	---		
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35	---	---	---	---	---	---	---		
High	Black	High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	26 (15)	29 (16)	33 (18)	39 (21)	47 (26)	---	---	---	---				
				High Stage Heat Rise °F (°C)	30 (17)	31 (17)	33 (18)	35 (19)	37 (21)	41 (23)	45 (25)	51 (28)	NA	NA	NA	NA	NA	NA	NA	NA			



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)														
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1					
36060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	694	624	533	460	383	328	---	---	---	---	---	---		
				BHP	0.05	0.05	0.06	0.07	0.07	0.08	---	---	---	---	---	---		
				Low Stage Heat Rise °F (°C)	42 (24)	47 (26)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	934	864	810	745	698	649	571	525	486	428	---	---	---	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	---	---	---	
		Med-Low ¹	Pink	Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	32 (18)	34 (19)	36 (20)	39 (22)	42 (23)	45 (25)	52 (29)	52 (29)	NA	NA	NA	NA
						High Stage Heat Rise °F (°C)	48 (27)	52 (29)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
						CFM	1213	1169	1110	1065	1016	964	923	878	820	777	---	---
						BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25	---	---
						Low Stage Heat Rise °F (°C)	NA	25 (14)	27 (15)	28 (15)	29 (16)	31 (17)	32 (18)	34 (19)	36 (20)	38 (21)	---	---
						High Stage Heat Rise °F (°C)	37 (21)	39 (21)	41 (23)	42 (24)	45 (25)	47 (26)	49 (27)	51 (28)	55 (31)	NA	---	---
Med-High ²	Orange	Med-High ²	Orange	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	---			
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	---			
				Low Stage Heat Rise °F (°C)	NA	25 (14)	26 (14)	27 (15)	28 (15)	29 (16)	30 (17)	32 (18)	33 (18)	35 (19)	---			
				High Stage Heat Rise °F (°C)	36 (20)	38 (21)	39 (22)	41 (23)	42 (24)	44 (25)	47 (26)	49 (27)	51 (28)	54 (30)	---			
				CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106	---			
				BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41	---			
High	Black	High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
				High Stage Heat Rise °F (°C)	31 (17)	32 (18)	33 (18)	34 (19)	35 (19)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)	---			
				CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	---			

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
36090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	882	737	665	608	542	496	437	395	339	288	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
				Low Stage Heat Rise °F (°C)	50 (28)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low ¹	Pink	CFM	934	864	810	745	698	649	571	525	486	428	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
				Low Stage Heat Rise °F (°C)	47 (26)	51 (29)	55 (30)	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Medium ²	Red	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	35 (20)	37 (21)	39 (21)	40 (22)	42 (23)	44 (24)	46 (25)	48 (26)	50 (28)	53 (29)	
				High Stage Heat Rise °F (°C)	54 (30)	57 (31)	59 (33)	61 (34)	64 (35)	NA	NA	NA	NA	NA	
		Med-High ⁴	Orange	CFM	1359	1311	1267	1224	1187	1140	1095	1058	1019	973	
				BHP	0.25	0.26	0.27	0.28	0.29	0.31	0.31	0.33	0.34	0.35	
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	37 (21)	39 (22)	41 (23)	42 (23)	44 (24)	46 (25)	
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	55 (31)	57 (32)	60 (33)	62 (34)	64 (36)	NA	NA	
High	Black	CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106			
		BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41			
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	35 (20)	36 (20)	38 (21)	39 (22)	40 (22)			
		High Stage Heat Rise °F (°C)	46 (26)	48 (26)	49 (27)	51 (28)	52 (29)	54 (30)	56 (31)	57 (32)	59 (33)	61 (34)			

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)												
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
42060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	694	624	533	460	383	328	---	---	---	---	---	---
				BHP	0.05	0.05	0.06	0.07	0.07	0.08	---	---	---	---	---	
				Low Stage Heat Rise °F (°C)	42 (24)	47 (26)	55 (31)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		CFM	1076	1026	972	918	872	827	771	714	666	611				
		BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22				
		Low Stage Heat Rise °F (°C)	27 (15)	29 (16)	30 (17)	32 (18)	34 (19)	36 (20)	38 (21)	41 (23)	44 (25)	48 (27)				
		High Stage Heat Rise °F (°C)	42 (23)	44 (24)	47 (26)	49 (27)	52 (29)	55 (30)	NA	NA	NA	NA				
		CFM	1213	1169	1110	1065	1016	964	923	878	820	777				
		BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25				
		Low Stage Heat Rise °F (°C)	NA	25 (14)	27 (15)	28 (15)	29 (16)	31 (17)	32 (18)	34 (19)	36 (20)	38 (21)				
		High Stage Heat Rise °F (°C)	37 (21)	39 (21)	41 (23)	42 (24)	45 (25)	47 (26)	49 (27)	51 (29)	55 (31)	NA				
		CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094				
		BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39				
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	25 (14)	26 (14)	27 (15)				
		High Stage Heat Rise °F (°C)	31 (17)	32 (18)	33 (18)	34 (19)	35 (20)	36 (20)	37 (21)	39 (22)	40 (22)	41 (23)				
CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303						
BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53						
Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
High Stage Heat Rise °F (°C)	28 (15)	28 (16)	29 (16)	30 (17)	30 (17)	31 (17)	32 (18)	33 (18)	34 (19)	35 (19)						

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
42090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	882	737	665	608	542	496	437	395	339	288	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
				Low Stage Heat Rise °F (°C)	50 (28)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low ¹	Pink	CFM	1076	1026	972	918	872	827	771	714	666	611	
				BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22	
				Low Stage Heat Rise °F (°C)	41 (23)	43 (24)	46 (25)	48 (27)	51 (28)	54 (30)	58 (32)	62 (35)	NA	NA	
				High Stage Heat Rise °F (°C)	62 (35)	65 (36)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ⁴	Red	CFM	1359	1311	1267	1224	1187	1140	1095	1058	1019	973	
				BHP	0.25	0.26	0.27	0.28	0.29	0.31	0.31	0.33	0.34	0.35	
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	37 (21)	39 (22)	41 (23)	42 (23)	44 (24)	46 (25)	
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	55 (31)	57 (32)	60 (33)	62 (34)	64 (36)	NA	NA	
		Med-High ²	Orange	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094	
				BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	36 (20)	37 (20)	38 (21)	39 (22)	41 (23)	
				High Stage Heat Rise °F (°C)	46 (26)	47 (26)	49 (27)	51 (28)	52 (29)	54 (30)	55 (31)	57 (32)	59 (33)	61 (34)	
High	Black	CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303			
		BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53			
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		High Stage Heat Rise °F (°C)	41 (23)	42 (23)	43 (24)	44 (25)	45 (25)	46 (26)	48 (27)	49 (27)	50 (28)	51 (29)			

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	903	820	749	702	645	581	534	468	432	382
				BHP	0.11	0.12	0.12	0.13	0.14	0.14	0.16	0.16	0.17	0.18
				Low Stage Heat Rise °F (°C)	49 (27)	54 (30)	59 (33)	63 (35)	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	43 (24)	46 (25)	47 (26)	50 (28)	
				High Stage Heat Rise °F (°C)	53 (30)	55 (31)	58 (32)	61 (34)	63 (35)	64 (35)	NA	NA	NA	
				CFM	1386	1336	1304	1259	1230	1186	1147	1102	1052	1022
				BHP	0.32	0.33	0.34	0.35	0.36	0.37	0.39	0.39	0.40	0.42
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	36 (20)	37 (21)	39 (21)	40 (22)	42 (23)	43 (24)
				High Stage Heat Rise °F (°C)	49 (27)	51 (28)	52 (29)	54 (30)	55 (31)	57 (32)	59 (33)	62 (34)	64 (36)	NA
Med-High ²	Orange	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356		
		BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55		
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	49 (27)	50 (28)		
		CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
		BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		High Stage Heat Rise °F (°C)	37 (20)	37 (21)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (25)		

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
48115	30 - 60°F Low Stage, 30 - 60°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	45 (25)	46 (26)	48 (27)	51 (28)	53 (30)	55 (31)	58 (32)	60 (33)	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
	30 - 60°F Low Stage, 30 - 60°F High Stage	Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	42 (24)	44 (24)	46 (25)	48 (26)	50 (28)	52 (29)	54 (30)	57 (31)	60 (33)	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	34 (19)	34 (19)	35 (19)	36 (20)	37 (20)	38 (21)	39 (21)	40 (22)	41 (23)	42 (23)
					High Stage Heat Rise °F (°C)	51 (29)	52 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	60 (34)	NA	NA
30 - 60°F Low Stage, 30 - 60°F High Stage	Medium ²	Red	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67		
				Low Stage Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	32 (18)	33 (18)	33 (19)	34 (19)	35 (20)	36 (20)	37 (21)	
				High Stage Heat Rise °F (°C)	47 (26)	47 (26)	49 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (30)	55 (30)	57 (31)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
30 - 60°F Low Stage, 30 - 60°F High Stage	Med-High	Orange	Low Stage Heat Rise °F (°C)	NA	30 (17)	31 (17)	31 (17)	32 (18)	33 (18)	33 (19)	33 (19)	34 (20)	35 (20)		
				High Stage Heat Rise °F (°C)	45 (25)	46 (25)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)		
				CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67		
				Low Stage Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	32 (18)	33 (18)	33 (19)	34 (19)	35 (20)	36 (20)	37 (21)	
				High Stage Heat Rise °F (°C)	47 (26)	47 (26)	49 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (30)	55 (30)	57 (31)	
30 - 60°F Low Stage, 30 - 60°F High Stage	High ⁴	Black	CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70		
				Low Stage Heat Rise °F (°C)	NA	30 (17)	31 (17)	31 (17)	32 (18)	33 (18)	33 (19)	34 (19)	35 (20)	37 (21)	
				High Stage Heat Rise °F (°C)	45 (25)	46 (25)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)		
				CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67		



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48130	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
				Low Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (32)	60 (33)	62 (34)	65 (36)	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
		Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	48 (26)	49 (27)	51 (29)	54 (30)	56 (31)	58 (32)	61 (34)	64 (35)	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
				Low Stage Heat Rise °F (°C)	38 (21)	39 (21)	39 (22)	40 (22)	41 (23)	42 (24)	43 (24)	44 (25)	46 (25)	47 (26)
				High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (34)	64 (35)	65 (36)	NA	NA	NA
Med-High	Red	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
		BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
		Low Stage Heat Rise °F (°C)	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (21)	39 (22)	40 (22)	42 (23)		
		High Stage Heat Rise °F (°C)	52 (29)	52 (29)	54 (30)	54 (30)	56 (31)	56 (31)	58 (32)	59 (33)	61 (34)	63 (35)		
		CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
		BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68		
High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (20)	36 (20)	37 (20)	38 (21)	38 (21)	40 (22)	42 (23)		
		High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)		

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	903	820	749	702	645	581	534	468	432	382
				BHP	0.11	0.12	0.12	0.13	0.14	0.14	0.16	0.16	0.17	0.18
				Low Stage Heat Rise °F (°C)	49 (27)	54 (30)	59 (33)	63 (35)	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	43 (24)	46 (25)	47 (26)	50 (28)	
				High Stage Heat Rise °F (°C)	53 (30)	55 (31)	58 (32)	61 (34)	63 (35)	64 (35)	NA	NA	NA	
				CFM	1386	1336	1304	1259	1230	1186	1147	1102	1052	
				BHP	0.32	0.33	0.34	0.35	0.36	0.37	0.39	0.39	0.40	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	36 (20)	37 (21)	39 (21)	40 (22)	42 (23)	
				High Stage Heat Rise °F (°C)	49 (27)	51 (28)	52 (29)	54 (30)	55 (31)	57 (32)	59 (33)	62 (34)	64 (36)	
Med-High ²	Orange	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
		BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64			
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		High Stage Heat Rise °F (°C)	36 (20)	37 (20)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)			
		CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719			
		BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74			
High	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		High Stage Heat Rise °F (°C)	NA	NA	35 (19)	35 (20)	36 (20)	37 (20)	38 (21)	39 (21)	41 (22)			



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
60115	30 - 60°F Low Stage 30 - 60°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	45 (25)	46 (26)	48 (27)	51 (28)	53 (30)	55 (31)	58 (32)	60 (33)	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
	30 - 60°F Low Stage 30 - 60°F High Stage	Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	42 (24)	44 (24)	46 (25)	48 (26)	50 (28)	52 (29)	54 (30)	57 (31)	60 (33)	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	34 (19)	34 (19)	35 (19)	36 (20)	37 (20)	38 (21)	39 (21)	40 (22)	41 (23)	42 (23)
					High Stage Heat Rise °F (°C)	51 (29)	52 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	60 (34)	NA	NA
30 - 60°F Low Stage 30 - 60°F High Stage	Medium	Red	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Low Stage Heat Rise °F (°C)	30 (17)	31 (17)	31 (17)	32 (18)	33 (18)	33 (19)	34 (19)	35 (20)	36 (20)	37 (21)	
				High Stage Heat Rise °F (°C)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)	55 (31)	57 (31)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
30 - 60°F Low Stage 30 - 60°F High Stage	Med-High ²	Orange	Low Stage Heat Rise °F (°C)	NA	30 (17)	31 (17)	31 (17)	32 (18)	32 (18)	33 (18)	33 (19)	34 (19)	35 (20)		
				High Stage Heat Rise °F (°C)	45 (25)	46 (25)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)		
				CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	
				Low Stage Heat Rise °F (°C)	34 (19)	34 (19)	35 (19)	36 (20)	37 (20)	38 (21)	39 (21)	40 (22)	41 (23)	42 (23)	
				High Stage Heat Rise °F (°C)	51 (29)	52 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	60 (34)	NA	NA	
30 - 60°F Low Stage 30 - 60°F High Stage	High ⁴	Black	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Low Stage Heat Rise °F (°C)	30 (17)	31 (17)	31 (17)	32 (18)	33 (18)	33 (19)	34 (19)	35 (20)	36 (20)	37 (21)	
				High Stage Heat Rise °F (°C)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)	55 (31)	57 (31)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC SINGLE PHASE MODELS (CONT)

UNIT SIZE	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (32)	60 (33)	62 (34)	65 (36)	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
	35 - 65°F Low Stage, 35 - 65°F High Stage	Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	48 (26)	49 (27)	51 (29)	54 (30)	56 (31)	58 (32)	61 (34)	64 (35)	NA	NA	
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	38 (21)	39 (21)	39 (22)	40 (22)	41 (23)	42 (24)	43 (24)	44 (25)	46 (25)	47 (26)
					High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (34)	64 (35)	65 (36)	NA	NA	NA
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	Medium	Red	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Low Stage Heat Rise °F (°C)	NA	35 (19)	35 (20)	36 (20)	37 (20)	38 (21)	39 (21)	39 (22)	41 (23)	42 (23)	
				High Stage Heat Rise °F (°C)	51 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	59 (33)	61 (34)	63 (35)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
	35 - 65°F Low Stage, 35 - 65°F High Stage	Med-High ²	Orange	Low Stage Heat Rise °F (°C)	NA	35 (19)	35 (20)	36 (20)	37 (20)	38 (21)	39 (21)	39 (22)	41 (23)	42 (23)	
					High Stage Heat Rise °F (°C)	51 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	59 (33)	61 (34)	
					CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528
					BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68
					Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (20)	36 (20)	37 (20)	38 (21)	38 (21)	40 (22)	42 (23)
					High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	High ⁴	Black	CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (20)	36 (20)	37 (20)	38 (21)	38 (21)	40 (22)	42 (23)	
				High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	

Notes:

- 1 Factory-shipped low stage cooling speed
 - 2 Factory-shipped high stage cooling speed
 - 3 Factory-shipped low stage gas heating speed
 - 4 Factory-shipped high stage gas heating speed
- Allowable High Stage Enhanced Dehumidification Cooling Speed
- *NA = Not allowed for particular heating speed

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)																			
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1										
24040	15 - 45°F Low Stage, 20 - 50°F High Stage	Low ³	Blue	CFM	714	525	---	---	---	---	---	---	---	---	---	---	---	---	---				
				BHP	0.08	0.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
				Low Stage Heat Rise °F (°C)	26 (15)	36 (20)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	41 (23)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	689	597	489	352	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
				BHP	0.08	0.06	0.06	0.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
		Med-Low ¹	Pink	Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	27 (15)	31 (17)	38 (21)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						High Stage Heat Rise °F (°C)	42 (23)	49 (27)	698	598	519	410	---	---	---	---	---	---	---	---	---	---	
						CFM	877	779	754	663	582	485	371	---	---	---	---	---	---	---	---	---	---
						BHP	0.12	0.12	0.13	0.14	0.15	0.15	0.18	---	---	---	---	---	---	---	---	---	---
						Low Stage Heat Rise °F (°C)	21 (12)	24 (13)	27 (15)	31 (17)	36 (20)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
						High Stage Heat Rise °F (°C)	33 (18)	37 (21)	42 (23)	49 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-High ²	Orange	Med-High ²	Orange	CFM	921	829	754	663	582	485	371	---	---	---	---	---	---	---	---		
						BHP	0.14	0.14	0.15	0.16	0.17	0.17	0.18	---	---	---	---	---	---	---	---	---	
						Low Stage Heat Rise °F (°C)	20 (11)	23 (13)	25 (14)	28 (16)	32 (18)	39 (22)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						High Stage Heat Rise °F (°C)	32 (18)	35 (20)	39 (21)	44 (24)	50 (28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CFM	1291					1206	1142	1081	1017	951	888	823	753	668	---	---	---	---	---	---	---		
BHP	0.31					0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	---	---	---	---	---	---	---		
High	Black	High	Black	Low Stage Heat Rise °F (°C)	15 (8)	16 (9)	16 (9)	17 (10)	18 (10)	20 (11)	21 (12)	23 (13)	25 (14)	28 (16)	---	---	---	---					
				High Stage Heat Rise °F (°C)	23 (13)	24 (14)	25 (14)	27 (15)	29 (16)	31 (17)	33 (18)	35 (20)	39 (21)	44 (24)	---	---	---	---					
				CFM	1515	1400	1330	1270	1210	1150	1090	1030	970	910	850	790	730	670	610	550			
				BHP	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.31	0.30			

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)															
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1						
24060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ¹	Blue	CFM	689	597	489	352	---	---	---	---	---	---	---	---	---			
				BHP	0.08	0.06	0.06	0.05	---	---	---	---	---	---	---	---	---	---	---	
				Low Stage Heat Rise °F (°C)	41 (23)	48 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		CFM	777	692	583	465	318	---	---	---	---	---	---	---	---	---	---	---		
		BHP	0.09	0.10	0.10	0.11	0.12	---	---	---	---	---	---	---	---	---	---	---		
		Low Stage Heat Rise °F (°C)	37 (20)	41 (23)	49 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		CFM	921	829	754	663	582	485	371	---	---	---	---	---	---	---	---	---		
		BHP	0.14	0.14	0.15	0.16	0.17	0.17	0.18	---	---	---	---	---	---	---	---	---		
		Low Stage Heat Rise °F (°C)	31 (17)	34 (19)	38 (21)	43 (24)	49 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	48 (27)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		CFM	1229	1171	1105	1049	980	913	838	775	679	516	---	---	---	---	---	---		
		BHP	0.28	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.34	0.33	---	---	---	---	---	---		
		Low Stage Heat Rise °F (°C)	NA	NA	26 (14)	27 (15)	29 (16)	31 (17)	34 (19)	37 (20)	42 (23)	55 (31)	---	---	---	---	---	---		
		High Stage Heat Rise °F (°C)	36 (20)	38 (21)	40 (22)	42 (24)	45 (25)	49 (27)	53 (29)	59 (34)	67 (39)	81 (47)	---	---	---	---	---	---		
CFM	1291	1206	1142	1081	1017	951	888	823	753	668	---	---	---	---	---	---				
BHP	0.31	0.32	0.33	0.34	0.34	0.35	0.36	0.36	0.37	0.37	---	---	---	---	---	---				
Low Stage Heat Rise °F (°C)	NA	NA	25 (14)	26 (15)	28 (16)	30 (17)	32 (18)	35 (19)	38 (21)	43 (24)	---	---	---	---	---	---				
High Stage Heat Rise °F (°C)	34 (19)	37 (20)	39 (22)	41 (23)	44 (24)	47 (26)	50 (28)	54 (30)	60 (35)	75 (44)	---	---	---	---	---	---				

See notes on page 57.



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)															
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1						
30040	15 - 45°F Low Stage, 20 - 50°F High Stage	Low ³	Blue	CFM	714	525	---	---	---	---	---	---	---	---	---	---	---			
				BHP	0.08	0.07	---	---	---	---	---	---	---	---	---	---	---	---	---	
						Low Stage Heat Rise °F (°C)	26 (15)	36 (20)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						High Stage Heat Rise °F (°C)	41 (23)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
						CFM	831	765	670	586	466	299	---	---	---	---	---	---	---	
						BHP	0.11	0.12	0.12	0.13	0.13	0.14	---	---	---	---	---	---	---	
						Low Stage Heat Rise °F (°C)	23 (13)	25 (14)	28 (16)	32 (18)	40 (22)	NA	NA	NA	NA	NA	NA	NA	NA	
						High Stage Heat Rise °F (°C)	35 (19)	38 (21)	43 (24)	50 (28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						CFM	877	779	698	598	519	410	---	---	---	---	---	---	---	
						BHP	0.12	0.12	0.13	0.14	0.15	0.15	---	---	---	---	---	---	---	
						Low Stage Heat Rise °F (°C)	21 (12)	24 (13)	27 (15)	31 (17)	36 (20)	NA	NA	NA	NA	NA	NA	NA	NA	
						High Stage Heat Rise °F (°C)	33 (18)	37 (21)	42 (23)	49 (27)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						CFM	1139	1069	1012	937	870	786	724	626	512	381	288	228	188	
						BHP	0.22	0.23	0.24	0.24	0.25	0.26	0.26	0.27	0.27	0.28	0.28	0.28	0.28	
						Low Stage Heat Rise °F (°C)	17 (9)	18 (10)	19 (10)	20 (11)	22 (12)	24 (13)	26 (14)	30 (17)	37 (20)	NA	NA	NA	NA	
						High Stage Heat Rise °F (°C)	26 (14)	27 (15)	29 (16)	31 (17)	33 (19)	37 (21)	40 (22)	47 (26)	NA	NA	NA	NA	NA	
				CFM	1531	1460	1382	1301	1209	1114	1003	890	764	629	529	439	369			
				BHP	0.53	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.37	0.35	0.35	0.35	0.35			
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	16 (9)	17 (9)	19 (10)	21 (12)	25 (14)	30 (17)	30	30	30			
				High Stage Heat Rise °F (°C)	NA	20 (11)	21 (12)	22 (12)	24 (13)	26 (15)	29 (16)	33 (18)	38 (21)	46 (26)	46	46	46			

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)										
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
36090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1097	971	823	747	669	636	558	513	456	412
				BHP	0.12	0.11	0.10	0.11	0.12	0.13	0.14	0.15	0.16	
				Low Stage Heat Rise °F (°C)	39 (22)	44 (25)	52 (29)	58 (32)	64 (36)	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	61 (34)	NA	NA	NA	NA	NA	NA	NA	NA	
		Med-Low ¹	Pink	CFM	934	864	810	745	698	649	571	525	486	428
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	
				Low Stage Heat Rise °F (°C)	46 (26)	50 (28)	53 (29)	58 (32)	62 (34)	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Medium ²	Red	CFM	1251	1198	1149	1104	1066	1017	970	932	892	839
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
				Low Stage Heat Rise °F (°C)	NA	36 (20)	37 (21)	39 (22)	40 (22)	42 (23)	44 (25)	46 (26)	48 (27)	
				High Stage Heat Rise °F (°C)	54 (30)	56 (31)	59 (33)	61 (34)	63 (35)	NA	NA	NA	NA	
		Med-High ⁴	Orange	CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094
				BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39
				Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	46 (26)	48 (26)	49 (27)	51 (28)	52 (29)	54 (30)	56 (31)	58 (32)	60 (33)	
High	Black	CFM	1466	1423	1384	1343	1308	1263	1219	1183	1145	1106		
		BHP	0.30	0.31	0.33	0.34	0.35	0.36	0.37	0.38	0.40	0.41		
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	46 (26)	47 (26)	49 (27)	50 (28)	52 (29)	53 (30)	55 (31)	57 (32)	59 (33)			

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)																		
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1									
42060	25 - 55°F Low Stage, 25 - 55°F High Stage	Low ³	Blue	CFM	694	624	533	460	383	328	---	---	---	---	---	---	---	---	---	---		
				BHP	0.05	0.05	0.06	0.07	0.07	0.08	---	---	---	---	---	---	---	---	---	---	---	---
				Low Stage Heat Rise °F (°C)	41 (23)	46 (25)	54 (30)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.20	0.21	0.22	0.23	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
		Low Stage Heat Rise °F (°C)	27 (15)	28 (15)	29 (16)	31 (17)	33 (18)	35 (19)	37 (21)	37 (21)	37 (21)	37 (21)	40 (22)	43 (24)	43 (24)	43 (24)	43 (24)	43 (24)	43 (24)	43 (24)	43 (24)	43 (24)
		High Stage Heat Rise °F (°C)	41 (23)	43 (24)	46 (27)	48 (28)	51 (30)	54 (32)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		CFM	1213	1169	1110	1065	1016	964	923	878	820	777	734	691	648	605	562	519	476	433	390	347
		BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.22	0.23	0.23	0.24	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
		Low Stage Heat Rise °F (°C)	NA	NA	26 (14)	27 (15)	28 (16)	30 (18)	31 (17)	33 (18)	35 (19)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)	37 (21)
		High Stage Heat Rise °F (°C)	37 (20)	38 (21)	40 (22)	42 (23)	44 (24)	46 (26)	48 (27)	48 (27)	48 (27)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)	51 (30)
		CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094	1056	1018	980	942	904	866	828	790	752	714
		BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		High Stage Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	34 (18)	35 (19)	36 (20)	37 (20)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)	38 (21)
		CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303	1265	1227	1189	1151	1113	1075	1037	1000	962	924
BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53		
Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
High Stage Heat Rise °F (°C)	27 (15)	28 (16)	29 (16)	29 (16)	30 (17)	31 (17)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)	32 (18)		

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
42090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1097	971	823	747	669	636	558	513	456	412
				BHP	0.12	0.11	0.10	0.11	0.12	0.13	0.14	0.15	0.16	
				Low Stage Heat Rise °F (°C)	39 (22)	44 (25)	52 (29)	58 (32)	64 (36)	NA	NA	NA	NA	
				High Stage Heat Rise °F (°C)	61 (34)	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1076	1026	972	918	872	827	771	714	666	611
				BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22
				Low Stage Heat Rise °F (°C)	40 (22)	42 (23)	44 (25)	47 (26)	49 (27)	52 (29)	56 (31)	60 (33)	64 (36)	NA
		High Stage Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		CFM	1251	1198	1149	1104	1066	1017	970	932	892	839		
		BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29		
		Low Stage Heat Rise °F (°C)	NA	36 (20)	37 (21)	39 (22)	40 (22)	42 (23)	44 (25)	46 (26)	48 (27)	51 (28)		
		High Stage Heat Rise °F (°C)	54 (30)	56 (31)	59 (33)	61 (34)	63 (35)	NA	NA	NA	NA	NA		
		CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094		
		BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39		
Med-High ²	Orange	Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	35 (20)	37 (21)	38 (22)	
		High Stage Heat Rise °F (°C)	46 (26)	48 (26)	49 (27)	51 (28)	52 (29)	54 (30)	56 (31)	58 (32)	60 (33)	62 (34)		
		CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303		
		BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53		
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
High ⁴	Black	High Stage Heat Rise °F (°C)	41 (23)	42 (24)	43 (24)	44 (25)	45 (25)	47 (26)	48 (27)	49 (28)	50 (28)			
		CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094		

See notes on page 57.



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)											
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
48090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1067	904	703	587	501	449	380	340	---	---	---	
				BHP	0.12	0.10	0.09	0.09	0.09	0.10	0.11	0.12	---	---		
				Low Stage Heat Rise °F (°C)	40 (22)	48 (26)	61 (34)	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	789	742	695	
		BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	
		Low Stage Heat Rise °F (°C)	NA	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	44 (25)	46 (27)	48 (28)	51 (30)	54 (32)	57 (33)	60 (35)	
		High Stage Heat Rise °F (°C)	53 (29)	55 (30)	57 (30)	60 (33)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA
		CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	846	797	748	
		BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	
		Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	38 (21)	39 (22)	41 (23)	43 (24)	45 (25)	48 (27)	51 (30)	54 (32)	57 (33)	
		High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (31)	59 (33)	62 (34)	64 (36)	66 (38)	69 (40)	72 (42)	75 (44)	78 (46)	81 (48)	
		CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	1319	1282	1245	
		BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	0.56	0.57	0.58	
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		High Stage Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	48 (27)	50 (28)	51 (29)	52 (29)	53 (30)	
CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	1485	1438	1391			
BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.69	0.70	0.71	0.72			
Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
High Stage Heat Rise °F (°C)	36 (20)	37 (20)	38 (21)	38 (21)	39 (22)	40 (22)	41 (23)	41 (23)	43 (24)	44 (24)	45 (25)	46 (25)	47 (26)			

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
48115	30 - 60°F Low Stage, 30 - 60°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	44 (24)	45 (25)	47 (26)	50 (28)	52 (29)	54 (30)	57 (32)	59 (33)	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
		Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	42 (23)	43 (24)	45 (25)	47 (26)	49 (27)	51 (28)	53 (30)	56 (31)	59 (33)	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	
				Low Stage Heat Rise °F (°C)	33 (18)	34 (19)	35 (19)	35 (20)	36 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	
				High Stage Heat Rise °F (°C)	52 (29)	53 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	NA	NA	NA	
Med-High	Orange	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532			
		BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67			
		Low Stage Heat Rise °F (°C)	30 (17)	30 (17)	31 (17)	31 (17)	32 (18)	33 (18)	34 (19)	34 (19)	35 (20)	36 (20)			
		High Stage Heat Rise °F (°C)	47 (26)	47 (26)	49 (27)	49 (27)	51 (28)	51 (28)	53 (29)	53 (30)	55 (31)	57 (32)			
		CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528			
		BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68			
High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	30 (17)	31 (17)	31 (17)	31 (17)	32 (18)	33 (18)	34 (19)	35 (19)	37 (20)		
		High Stage Heat Rise °F (°C)	45 (25)	46 (25)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)	57 (32)			

See notes on page 57.



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
48130	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29
				Low Stage Heat Rise °F (°C)	49 (27)	51 (28)	53 (30)	56 (31)	59 (33)	61 (34)	64 (36)	NA	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32
		Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	47 (26)	48 (27)	51 (28)	53 (29)	55 (31)	57 (32)	60 (33)	63 (35)	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
				Low Stage Heat Rise °F (°C)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)
				High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (35)	64 (35)	65 (36)	NA	NA	NA
Med-High	Orange	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
		BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
		Low Stage Heat Rise °F (°C)	NA	NA	35 (20)	35 (20)	36 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)		
		High Stage Heat Rise °F (°C)	52 (29)	52 (29)	54 (30)	54 (30)	56 (31)	56 (31)	58 (32)	59 (33)	61 (34)	63 (35)		
		CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528		
		BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68		
High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	35 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)		
		High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)		

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60090	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ³	Blue	CFM	1067	904	703	587	501	449	380	340	---	---	
				BHP	0.12	0.10	0.09	0.09	0.09	0.10	0.11	0.12	---	---	
		Med-Low ¹	Pink	Low Stage Heat Rise °F (°C)	40 (22)	48 (26)	61 (34)	NA	NA	NA	NA	NA	NA	NA	NA
				High Stage Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Medium ⁴	Red	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	0.29
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31
		Med-High ²	Orange	Low Stage Heat Rise °F (°C)	NA	35 (19)	36 (20)	38 (21)	40 (22)	42 (23)	44 (25)	46 (27)	48 (28)	51 (28)	NA
				High Stage Heat Rise °F (°C)	53 (29)	55 (30)	57 (32)	60 (33)	63 (35)	NA	NA	NA	NA	NA	NA
		High	Black	CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	0.32
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	0.32
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	38 (21)	39 (22)	41 (23)	43 (24)	45 (25)	48 (27)	NA
				High Stage Heat Rise °F (°C)	50 (28)	52 (29)	54 (30)	57 (31)	59 (33)	62 (34)	64 (36)	64 (36)	64 (36)	64 (36)	NA
				CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	0.63
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.61	0.62	0.63
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	36 (20)	37 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	NA		
		CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	0.72		
		BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.71	0.73	0.74	0.72		
		Low Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		CFM	NA	NA	NA	35 (20)	36 (20)	37 (20)	37 (20)	38 (20)	39 (20)	41 (22)	41 (22)		
		BHP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

See notes on page 57.



DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60115	30 - 60°F Low Stage, 30 - 60°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	44 (24)	45 (25)	47 (26)	50 (28)	52 (29)	54 (30)	57 (32)	59 (33)	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
		Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	42 (23)	43 (24)	45 (25)	47 (26)	49 (27)	51 (28)	53 (30)	56 (31)	59 (33)	NA	NA
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	
				Low Stage Heat Rise °F (°C)	33 (18)	34 (19)	35 (19)	35 (20)	36 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	
				High Stage Heat Rise °F (°C)	52 (29)	53 (29)	54 (30)	55 (31)	56 (31)	58 (32)	59 (33)	NA	NA	NA	
Med-High ²	Orange	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532			
		BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63			
		Low Stage Heat Rise °F (°C)	30 (17)	30 (17)	31 (17)	32 (18)	32 (18)	33 (18)	34 (19)	35 (19)	36 (20)	36 (20)			
		High Stage Heat Rise °F (°C)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (29)	53 (29)	54 (30)	55 (31)	57 (32)			
		CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528			
		BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68			
High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	30 (17)	31 (17)	31 (17)	32 (18)	33 (18)	34 (19)	35 (19)	37 (20)			
		High Stage Heat Rise °F (°C)	45 (25)	46 (25)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)	57 (32)			

See notes on page 57.

DRY COIL AIR DELIVERY* - HORIZONTAL AND DOWNFLOW DISCHARGE - 208/230 VAC 3-PHASE MODELS (CONT)

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	EXTERNAL STATIC PRESSURE (IN. W.C.)											
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Low Stage Heat Rise °F (°C)	49 (27)	51 (28)	53 (30)	56 (31)	59 (33)	61 (34)	64 (36)	NA	NA	NA	
				High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1340	1299	1240	1191	1139	1091	1050	1001	952	895	
				BHP	0.22	0.23	0.24	0.25	0.26	0.28	0.29	0.30	0.31	0.32	
	Med-Low ³	Pink	Med-Low ³	Pink	Low Stage Heat Rise °F (°C)	47 (26)	48 (27)	51 (28)	53 (29)	55 (31)	57 (32)	60 (33)	63 (35)	NA	NA
					High Stage Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
					CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356
					BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55
					Low Stage Heat Rise °F (°C)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)
					High Stage Heat Rise °F (°C)	57 (32)	58 (32)	59 (33)	61 (34)	62 (35)	64 (36)	65 (36)	NA	NA	NA
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	Medium	Red	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Low Stage Heat Rise °F (°C)	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (22)	40 (22)	41 (23)	
				High Stage Heat Rise °F (°C)	51 (28)	52 (29)	53 (30)	54 (30)	55 (31)	57 (31)	58 (32)	59 (33)	61 (34)	63 (35)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
	Med-High ²	Orange	Med-High ²	Orange	Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)
					High Stage Heat Rise °F (°C)	51 (28)	52 (29)	53 (30)	54 (30)	55 (31)	57 (31)	58 (32)	59 (33)	61 (34)	63 (35)
					CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528
					BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68
					Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)
					High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)
60130	35 - 65°F Low Stage, 35 - 65°F High Stage	High ⁴	Black	Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)	
				High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)	
				CFM	1934	1900	1855	1815	1778	1737	1695	1656	1606	1528	
				BHP	0.59	0.61	0.62	0.64	0.65	0.67	0.68	0.70	0.70	0.68	
				Low Stage Heat Rise °F (°C)	NA	NA	NA	35 (19)	36 (20)	36 (20)	37 (21)	38 (21)	39 (22)	41 (23)	
				High Stage Heat Rise °F (°C)	50 (28)	50 (28)	52 (29)	53 (29)	54 (30)	55 (31)	57 (31)	58 (32)	60 (33)	63 (35)	

Notes:

- 1 Factory-shipped low stage cooling speed
- 2 Factory-shipped high stage cooling speed
- 3 Factory-shipped low stage gas heating speed
- 4 Factory-shipped high stage gas heating speed
- *Allowable High Stage Enhanced Dehumidification Cooling Speed
- "NA" = Not allowed for particular heating speed

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 460 VAC MODELS

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	Heat Rise °F	EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
36060	25 - 55°F	Low ¹	Blue	CFM	934	864	810	745	698	649	571	525	486	428	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
		Med-Low	Pink	Heat Rise °F (°C)	48 (26)	51 (29)	55 (30)	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1076	1026	972	918	872	827	771	714	666	611	
		Medium ³	Red	Heat Rise °F (°C)	41 (23)	43 (24)	46 (25)	48 (27)	51 (28)	54 (30)	NA	NA	NA	NA	
				CFM	1213	1169	1110	1065	1016	964	923	878	820	777	
		Med-High ²	Orange	Heat Rise °F (°C)	37 (20)	38 (21)	40 (22)	42 (23)	44 (24)	46 (26)	48 (27)	51 (28)	54 (30)	54 (30)	
				CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	
		High	Black	Heat Rise °F (°C)	0.19 (20)	0.21 (21)	0.21 (21)	0.23 (22)	0.24 (23)	0.25 (24)	0.26 (25)	0.27 (26)	0.28 (28)	0.29 (29)	
				CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094	
36090	35 - 65°F	Low ¹	Blue	BHP	0.29	0.30	0.31	0.32	248.5	0.35	0.36	0.37	0.38	0.39	
				Heat Rise °F (°C)	31 (17)	31 (17)	32 (18)	33 (19)	35 (19)	36 (20)	37 (20)	38 (21)	39 (22)	41 (23)	
		Med-Low	Pink	CFM	934	864	810	745	698	649	571	525	486	428	
				BHP	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	
		Medium	Red	Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1076	1026	972	918	872	827	771	714	666	611	
		Med-High ²	Orange	Heat Rise °F (°C)	63 (35)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1213	1169	1110	1065	1016	964	923	878	820	777	
		High ³	Black	Heat Rise °F (°C)	56 (31)	58 (32)	61 (34)	64 (35)	NA	NA	NA	NA	NA	NA	
				CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094	

See notes on page 62.

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 460 VAC MODELS

42060	25 - 55°F	Blue	Low ¹	CFM	1076	1026	972	918	872	827	771	714	666	611	
				BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22	
				Heat Rise °F	41	43	46	48	51	54	54	NA	NA	NA	NA
				(°C)	(23)	(24)	(25)	(27)	(28)	(30)	(30)				
				CFM	1213	1169	1110	1065	1016	964	923	878	820	777	729
				BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25	
				Heat Rise °F	37	38	40	42	44	46	48	51	54	54	NA
				(°C)	(20)	(21)	(22)	(23)	(24)	(26)	(27)	(28)	(30)	(30)	NA
				CFM	1251	1198	1149	1104	1066	1017	970	932	892	839	791
				BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
Heat Rise °F	36	37	39	40	42	44	46	48	50	53					
(°C)	(20)	(21)	(21)	(22)	(23)	(24)	(25)	(26)	(28)	(29)					
CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094					
BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39					
High Stage Heat Rise °F	31	31	32	33	35	36	37	38	39	41					
(°C)	(17)	(17)	(18)	(19)	(19)	(20)	(20)	(21)	(22)	(23)					
CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303					
BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53					
Heat Rise °F	27	28	29	29	30	31	32	32(18)	33	34					
(°C)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)	(18)	(19)					
CFM	1076	1026	972	918	872	827	771	714	666	611					
BHP	0.13	0.14	0.15	0.15	0.17	0.18	0.18	0.20	0.21	0.22					
Heat Rise °F	63	NA	NA	NA	NA	NA	NA	NA	NA	NA					
(°C)	(35)														
CFM	1213	1169	1110	1065	1016	964	923	878	820	777					
BHP	0.16	0.17	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25					
Heat Rise °F	56	58	61	64	NA	NA	NA	NA	NA	NA					
(°C)	(31)	(32)	(34)	(35)											
CFM	1251	1198	1149	1104	1066	1017	970	932	892	839					
BHP	0.19	0.21	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29					
Heat Rise °F	54	57	59	62	64	NA	NA	NA	NA	NA					
(°C)	(30)	(32)	(33)	(34)	(35)										
CFM	1451	1415	1372	1327	1287	1249	1212	1168	1130	1094					
BHP	0.29	0.30	0.31	0.32	0.32	0.35	0.36	0.37	0.38	0.39					
Heat Rise °F	47	48	50	51	53	54	56	58	60	62					
(°C)	(26)	(27)	(28)	(28)	(29)	(30)	(31)	(32)	(33)	(35)					
CFM	1633	1590	1552	1518	1483	1444	1406	1372	1340	1303					
BHP	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.51	0.53					
Heat Rise °F	42	43	44	45	46	47	48	50	51	52					
(°C)	(23)	(23)	(24)	(25)	(25)	(26)	(27)	(28)	(28)	(29)					

See notes on page 62.



DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 460 VAC MODELS

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)											
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1		
48090	35 - 65°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839		
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29		
				Heat Rise °F (°C)	54 (30)	55 (31)	58 (32)	61 (34)	64 (35)	NA	NA	NA	NA	NA	NA	
				CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027	982	935	887
				BHP	0.24	0.26	0.26	0.28	0.29	0.3	0.32	0.33	0.34	0.35	0.36	0.37
				Heat Rise °F (°C)	47 (26)	49 (27)	51 (28)	53 (29)	55 (31)	57 (32)	60 (33)	63 (35)	66 (36)	69 (38)	72 (40)	75 (42)
		Med-Low ³	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	1319	
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	0.56	
				Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	47 (26)	48 (27)	49 (28)	50 (28)	
				CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	1486	1440
				BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	0.67	0.67
				Heat Rise °F (°C)	37 (20)	37 (20)	38 (21)	38 (21)	40 (22)	40 (22)	41 (23)	41 (23)	42 (24)	43 (24)	44 (25)	44 (25)
48115	30 - 60°F	High	Black	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785	1751		
				BHP	0.72	0.74	0.75	0.77	0.79	0.8	0.81	0.81	0.79	0.75	0.71	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	35 (19)	36 (20)	37 (20)	38 (21)	39 (22)	40 (22)	
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	791	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.29	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Low ¹	Blue	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027	982	935	
				BHP	0.24	0.26	0.26	0.28	0.29	0.3	0.32	0.33	0.34	0.35	0.36	
				Heat Rise °F (°C)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356	1319	
				BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55	0.56	
				Heat Rise °F (°C)	51 (28)	52 (29)	53 (30)	55 (30)	56 (31)	57 (32)	59 (33)	60 (33)	61 (33)	62 (34)	63 (34)	
Med-Low	Pink	CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532	1486			
		BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67	0.67			
		Heat Rise °F (°C)	47 (26)	47 (26)	48 (27)	48 (27)	50 (28)	51 (28)	52 (29)	53 (29)	55 (30)	56 (31)	57 (31)			
		CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785	1751	1717			
		BHP	0.72	0.74	0.75	0.77	0.79	0.8	0.81	0.81	0.79	0.75	0.71			
		Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	45 (25)	46 (26)	46 (26)	48 (27)	49 (28)	50 (28)			

See notes on page 62.

DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 460 VAC MODELS

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR		EXTERNAL STATIC PRESSURE (IN. W.C.)													
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1				
48130	35 - 65°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839				
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29				
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027	982				
				BHP	0.24	0.26	0.26	0.28	0.29	0.3	0.32	0.33	0.34	0.35				
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Med-Low	35 - 65°F	Medium ²	Red	CFM	1686	1650	1617	1576	1544	1503	1468	1433	1393	1356		
						BHP	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.53	0.55		
						Heat Rise °F (°C)	57	58	60	61	62	64	64	NA	NA	NA	NA	NA
						CFM	1854	1837	1781	1784	1720	1698	1655	1625	1578	1532		
						BHP	0.56	0.57	0.60	0.59	0.62	0.63	0.64	0.66	0.67	0.67		
						Heat Rise °F (°C)	52	52	54	54	56	57	58	59	61	63		
60090	35 - 65°F	Low ¹	Blue	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785	1751				
				BHP	0.72	0.74	0.75	0.77	0.79	0.8	0.81	0.81	0.79	0.75				
				Heat Rise °F (°C)	45	46	47	48	49	50	51	52	54	55				
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839				
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29				
				Heat Rise °F (°C)	54	55	58	61	64	64	NA	NA	NA	NA	NA	NA		
		Med-Low ³	35 - 65°F	Medium ²	Red	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027	982		
						BHP	0.24	0.26	0.26	0.28	0.29	0.3	0.32	0.33	0.34	0.35		
						Heat Rise °F (°C)	47	49	51	53	55	57	60	63	63	NA	NA	NA
						CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532		
						BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63		
						Heat Rise °F (°C)	36	37	38	39	39	40	41	42	43	44		
Med-High	35 - 65°F	High	Orange	CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643				
				BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74	0.72				
				Heat Rise °F (°C)	NA	NA	35	36	36	37	38	39	40	41				
				CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785	1751				
				BHP	0.72	0.74	0.75	0.77	0.79	0.8	0.81	0.81	0.79	0.75				
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	35	36	37	38	39				

See notes on page 62.



DRY COIL AIR DELIVERY - HORIZONTAL AND DOWNFLOW DISCHARGE - 460 VAC MODELS

UNIT	HEATING RISE RANGE	MOTOR SPEED	WIRE COLOR	Heat Rise °F	EXTERNAL STATIC PRESSURE (IN. W.C.)										
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
60115	30 - 60°F	Low ¹	Blue	CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027	982	
				BHP	0.24	0.26	0.26	0.28	0.29	0.3	0.32	0.33	0.34	0.35	
				Heat Rise °F (°C)	60 (33)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Med-Low	Pink	CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Heat Rise °F (°C)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (30)	55 (31)	56 (31)	
				CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643	
				BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74	0.72	
				Heat Rise °F (°C)	43 (43)	44 (44)	45 (45)	46 (46)	47 (47)	48 (48)	49 (49)	50 (50)	52 (52)	52 (52)	
60130	35 - 65°F	Med-High	Orange	CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785	1751	
				BHP	0.72	0.74	0.75	0.77	0.79	0.8	0.81	0.81	0.79	0.75	
				Heat Rise °F (°C)	40 (22)	41 (23)	42 (23)	43 (24)	44 (24)	44 (25)	46 (25)	46 (26)	48 (27)	49 (27)	
				CFM	1271	1229	1177	1121	1066	1027	974	942	887	839	
				BHP	0.19	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Low ¹	Blue	CFM	1445	1389	1341	1281	1236	1189	1139	1072	1027	982	
				BHP	0.24	0.26	0.26	0.28	0.29	0.3	0.32	0.33	0.34	0.35	
				Heat Rise °F (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
				CFM	1878	1844	1805	1762	1731	1693	1655	1616	1570	1532	
				BHP	0.50	0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.64	0.63	
				Heat Rise °F (°C)	51 (28)	52 (29)	53 (30)	55 (30)	56 (31)	57 (32)	58 (32)	58 (33)	60 (34)	61 (35)	
Med-Low	Pink	CFM	2020	1990	1956	1912	1872	1842	1802	1760	1719	1643			
		BHP	0.62	0.63	0.66	0.67	0.69	0.70	0.71	0.73	0.74	0.72			
		Heat Rise °F (°C)	48 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	53 (29)	55 (30)	56 (31)	59 (33)			
		CFM	2131	2088	2065	2013	1982	1941	1888	1860	1785	1751			
		BHP	0.72	0.74	0.75	0.77	0.79	0.8	0.81	0.81	0.79	0.75			
		Heat Rise °F (°C)	45 (25)	46 (26)	47 (26)	48 (27)	49 (27)	50 (28)	51 (28)	52 (29)	54 (30)	55 (31)			

Notes:

- 1 Factory-shipped low stage cooling speed
 - 2 Factory-shipped high stage cooling speed
 - 3 Factory-shipped low gas heating speed
- "NA" = Not allowed for particular heating speed

Filter Pressure Drop Table (IN. W.C.)

FILTER SIZE IN. (MM)	COOLING TONS	STANDARD CFM (SCFM)																
		600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
600-1400 CFM 12x20x1+12x20x1 (305x508x25+305x508x25)	2.0,	0.03	0.04	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.08	-	-	-	-	-	-	-
	2.5,																	
	3.0	-	-	-	-	0.04	0.05	0.06	0.07	0.08	0.09	0.09	0.10	0.11	0.12	0.12	-	-
	3.5, 4.0																	
1200-1800 CFM 16x24x1+14x24x1 (406x610x25+356x610x25)	5.0	-	-	-	-	-	-	-	-	-	-	0.04	0.06	0.08	0.10	0.11	0.13	0.15

Wet Coil Pressure Drop (IN. W.C.)

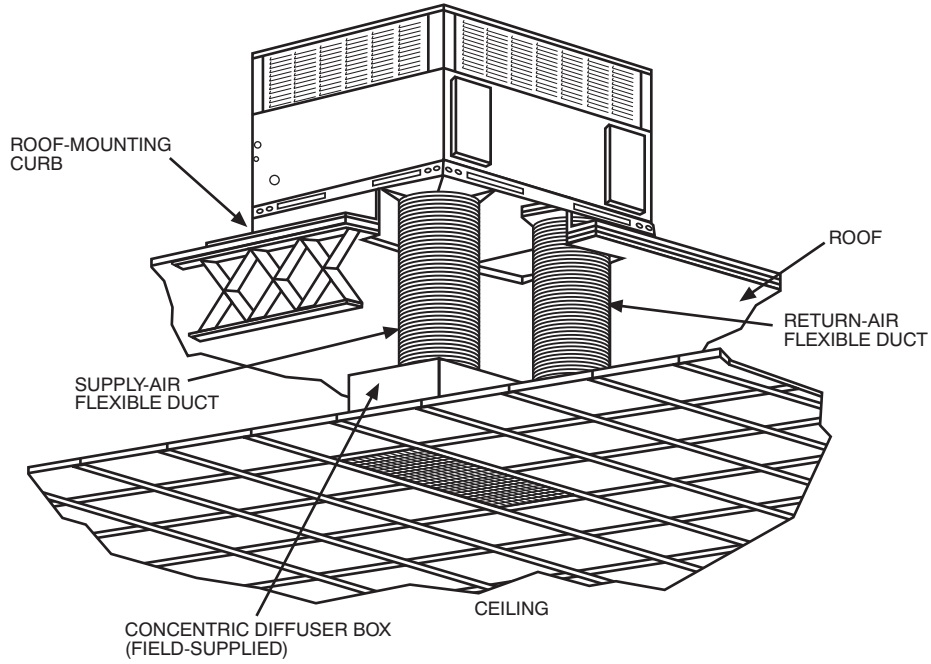
UNIT SIZE	STANDARD CFM (SCFM)																	
	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	
24	0.03	0.04	0.04	0.05	0.06													
30				0.05	0.06	0.07	0.08	0.11										
36				0.06	0.06	0.09	0.10	0.11	0.14									
42					0.05	0.05	0.06	0.07	0.08	0.08	0.09	0.09	0.11					
48							0.04	0.06	0.09	0.10	0.10	0.11	0.12	0.13	0.14			
60										0.06	0.07	0.01	0.08	0.09	0.10	0.12	0.13	0.13

Economizer with 1-in. Filter Pressure Drop (IN. W.C.)

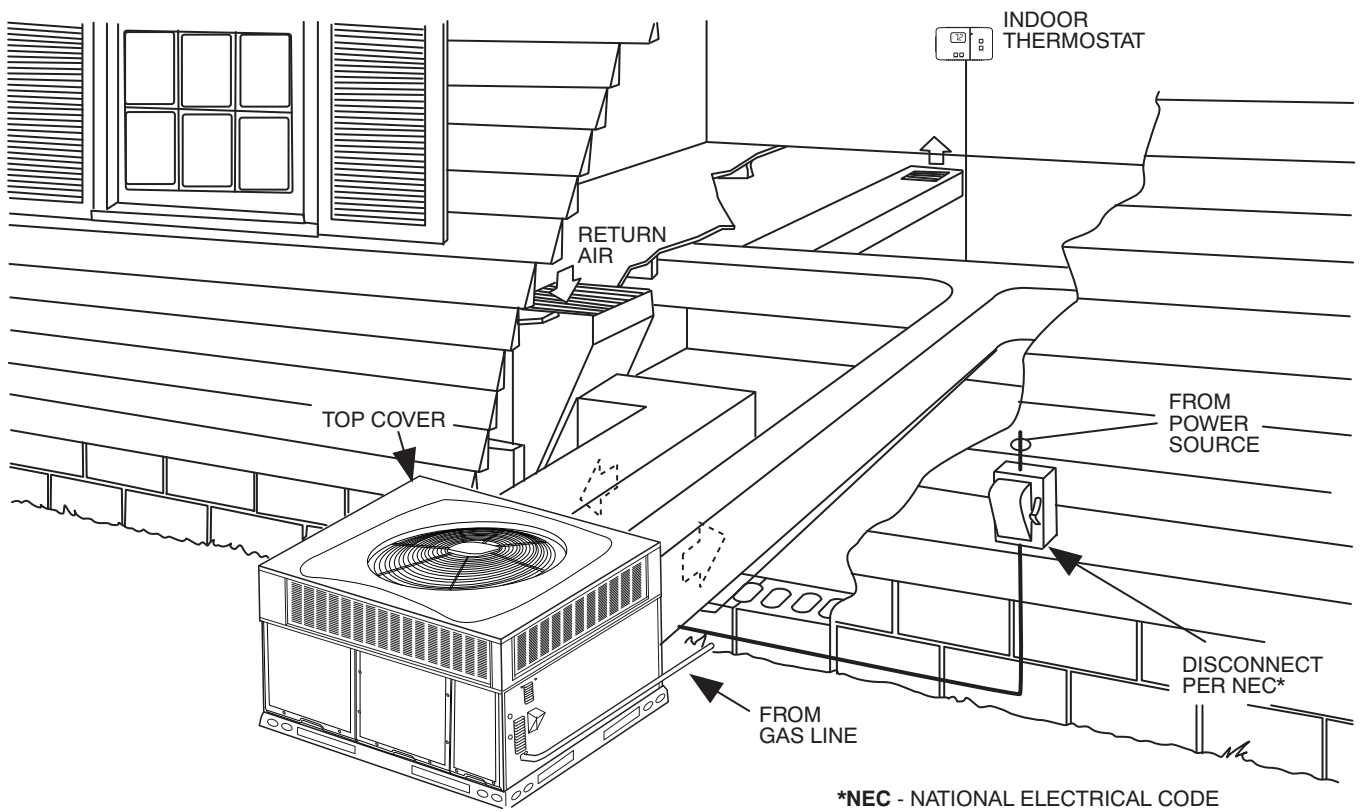
FILTER SIZE IN. (MM)	COOLING TONS	STANDARD CFM (SCFM)																
		600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
600-1400 CFM 12x20x1+12x20x1 (305x508x25+305x508x25)	2.0,	-	-	0.08	0.09	0.10	0.10	0.11	0.13	0.14	-	-	-	-	-	-	-	-
	2.5,																	
	3.0	-	-	-	-	-	0.09	0.09	0.10	0.12	0.13	0.15	0.17	0.17	0.19	0.21	-	-
	3.5, 4.0																	
1200-1800 CFM 16x24x1+14x24x1 (406x610x25+356x610x25)	5.0	-	-	-	-	-	-	-	-	-	-	0.15	0.17	0.18	0.20	0.21	0.22	0.23



TYPICAL PIPING AND WIRING



A09233



*NEC - NATIONAL ELECTRICAL CODE

A09234

48VG

APPLICATION DATA

Condensate trap — A 2-in. (50.8 mm) condensate trap must be field supplied.

Ductwork — Secure downflow discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit with flanges.

To convert a unit to downflow discharge — Units are equipped with factory-installed inserts in the down-flow openings. Removal of the inserts is similar to removing an electrical knock-out. Use the duct cover to seal the horizontal discharge openings in the unit. Units installed in horizontal discharge orientation do not require duct covers.

Airflow — Units are draw-thru in the cooling mode and blow-thru in the heating mode.

Maximum cooling airflow — To minimize the possibility of condensate blow-off from the evaporator, airflow through the units should not exceed 450 cfm per ton.

Minimum cooling airflow — Minimum cooling airflow is 350 cfm per ton.

Minimum ambient cooling operation temperature — All standard units have a minimum ambient operating temperature of 40°F (4°C). With accessory low ambient temperature kit, units can operate at temperatures down to 0°F (-17°C).

Minimum temperature — Air entering the heat exchanger in heating mode must be a minimum of 55°F (13°C) continuous and a maximum of 80°F (27°C) continuous.

ELECTRICAL DATA

48VG

UNIT	NOMINAL	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	IDM	POWER SUPPLY	
		MIN	MAX	RLA	LRA	FLA	FLA	FLA	MCA	MOCp
2404030 2406030	208/230-1-60	197	253	11.7	58.3	0.7	4.1	.27	19.4	30
3004030 3006030	208/230-1-60	197	253	13.1	73.0	1.2	4.1	.27	21.7	30
3004050 3006050	208/230-3-60	197	253	8.7	58.0	1.2	4.1	.21	16.2	20
3606030 3609030	208/230-1-60	197	253	15.3	83.0	1.2	6.0	.27	26.3	40
3606050 3609050	208/230-3-60	197	253	11.6	73.0	1.2	6.0	.21	21.7	30
3606060	460-3-60	414	506	5.7	38.0	0.53	3.2	.65	10.8	15
3609060								.33		
4206030 4209030	208/230-1-60	197	253	17.9	96.0	1.2	6.0	.27	29.6	45
4206050 4209050	208/230-3-60	197	253	14.2	88.0	1.2	6.0	.21	25.0	35
4206060	460-3-60	414	506	6.2	44.0	0.53	3.2	.65	11.5	15
4209060								.33		
4809030	208/230-1-60	197	253	21.2	104.0	1.2	7.6	.27	35.3	50
4811530										
4813030										
4809050	208/230-3-60	197	253	14.0	83.1	1.2	7.6	.21	26.3	40
4811550								.50		
4813050								.50		
4809060	460-3-60	414	506	6.4	41.0	0.53	4.0	.33	12.5	15
4811560								.65		
4813060								.30		
6009030	208/230-1-60	197	253	28.8	152.9	1.2	7.6	.27	44.8	60
6011530										
6013030										
6009050	208/230-3-60	197	253	16.2	110.0	1.2	7.6	.21	29.1	40
6011550								.50		
6013050								.50		
6009060	460-3-60	414	506	7.6	52.0	.053	4.0	.33	14.0	20
6011560								.65		
6013060								.30		

ELECTRICAL DATA (CONT)

LEGEND

- FLA - Full Load Amps
- IDM - Inducer Motor
- IFM - Indoor Fan Motor
- LRA - Locked Rotor Amps
- MCA - Minimum Circuit Amps
- MOCP - Maximum Over Current Protection
- OFM - Outdoor Fan Motor
- RLA - Rated Load Amps

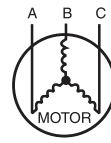
NOTES:

1. In compliance with NEC (National Electrical Code) requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be Power Supply fuse or circuit breaker.
2. Minimum wire size is based on 60 C copper wire. If other than 60 C wire is used, or if length exceeds wire length in table, determine size from NEC.
3. Unbalanced 3-Phase Supply Voltage
Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance

% Voltage imbalance

$$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

EXAMPLE: Supply voltage is 230-3-60.



AB = 228 v
BC = 231 v
AC = 227 v

$$\begin{aligned} \text{Average Voltage} &= \frac{228 + 231 + 227}{3} \\ &= \frac{686}{3} \\ &= 229 \end{aligned}$$

Determine maximum deviation from average voltage.

(AB) 229 - 228 = 1 v
(BC) 231 - 229 = 2 v
(AC) 229 - 227 = 2 v

Maximum deviation is 2 v.

Determine percent of voltage imbalance

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{2}{229} \\ &= 0.8\% \end{aligned}$$

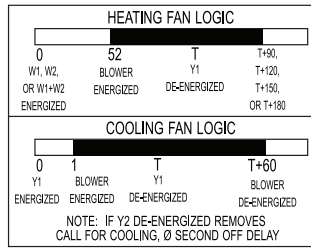
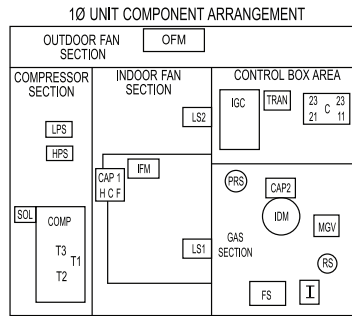
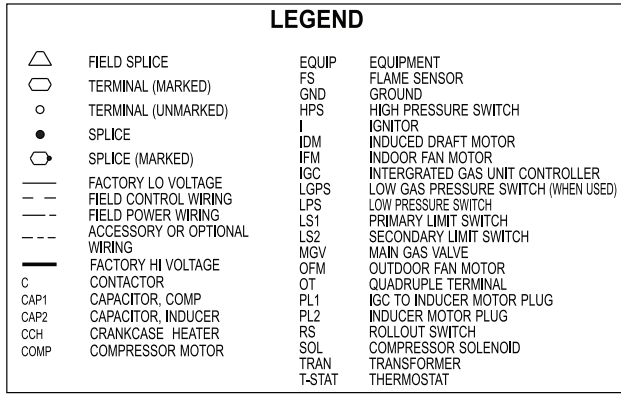
This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

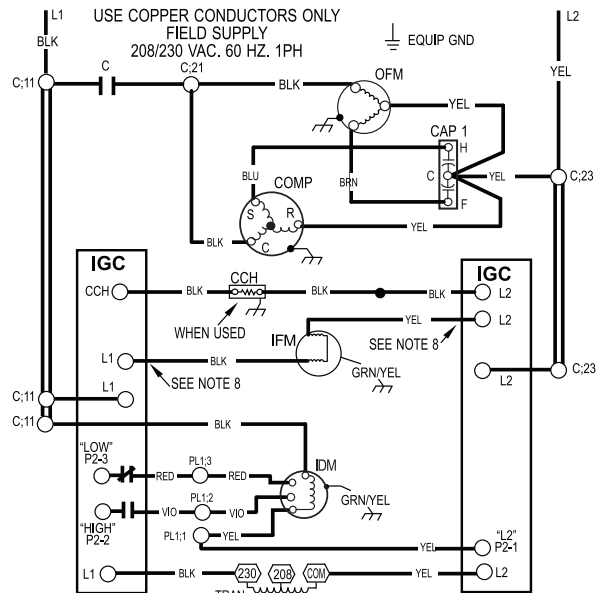
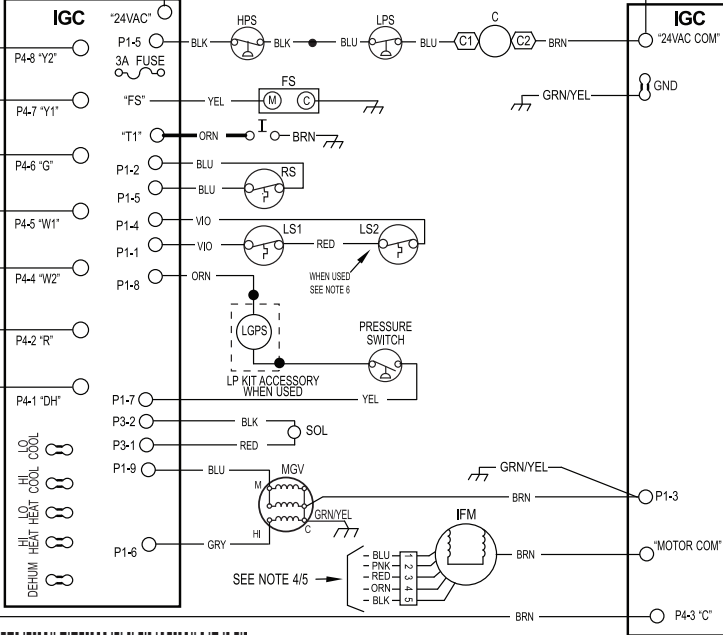
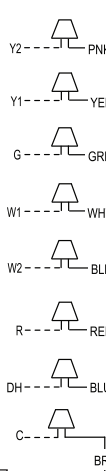
LADDER WIRING SCHEMATIC 208/230-1-60

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



T-STAT



48VG

- ### NOTES:
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
 - SEE PRE-SALE LITERATURE FOR THERMOSTATS.
 - USE 75 DEGREES C COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION FOR IFM.
 - SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
 - ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
 - THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 2570003.
 - DO NOT DISCONNECT PLUG UNDER LOAD.
 - N.E.C. CLASS 2, 24V.



48VG500093 REV. A



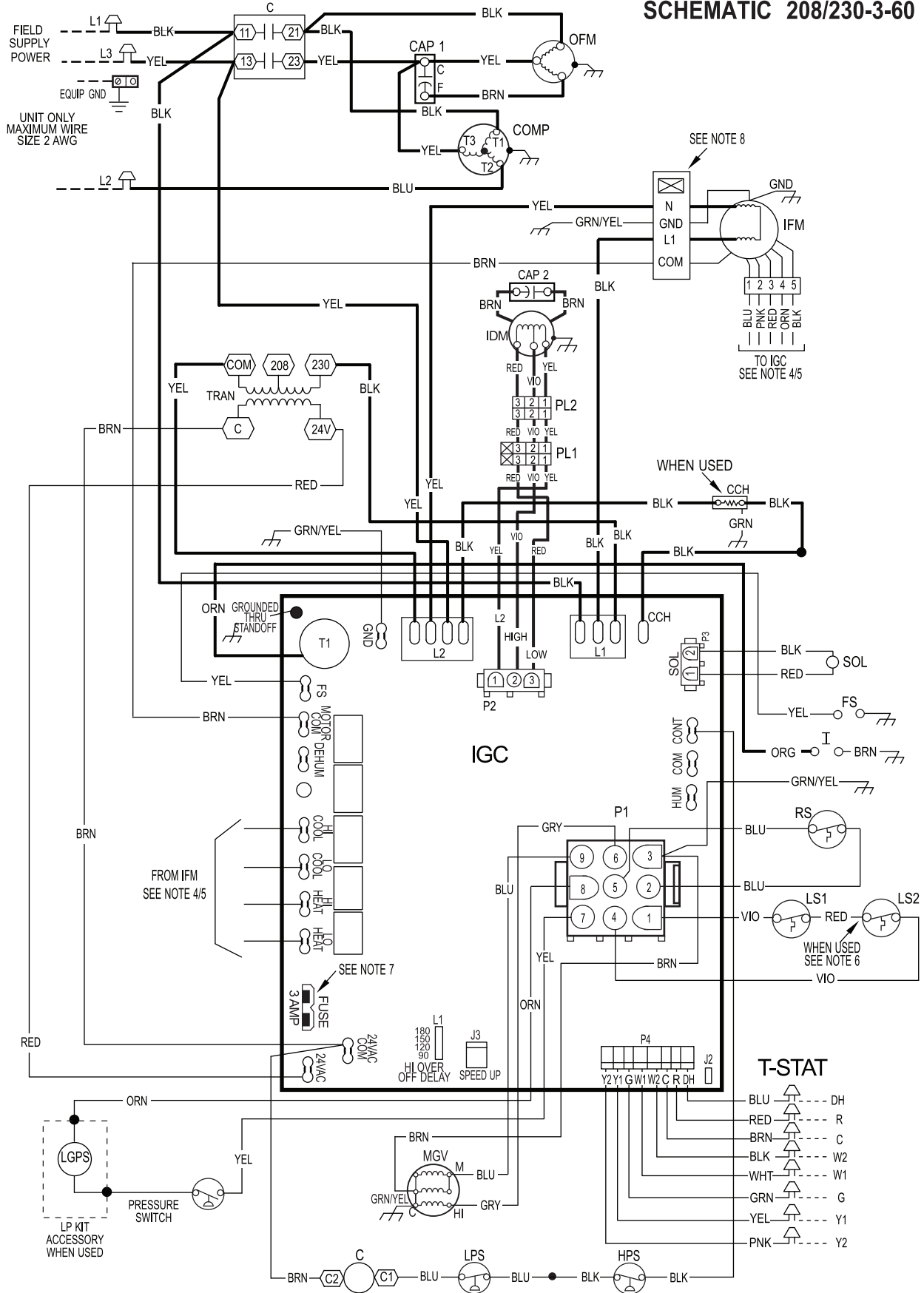
A14594

CONNECTION WIRING SCHEMATIC GAS INPUTS 40, 60, 90 KBTU/HR 208/230-3-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC 208/230-3-60

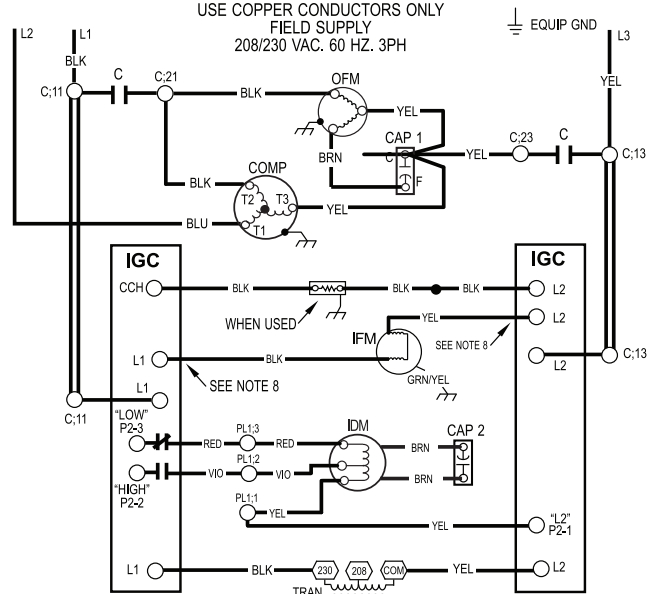
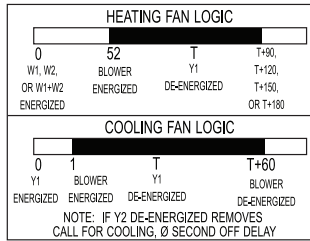
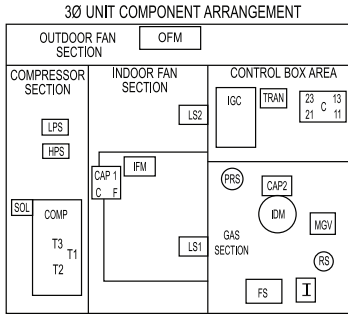
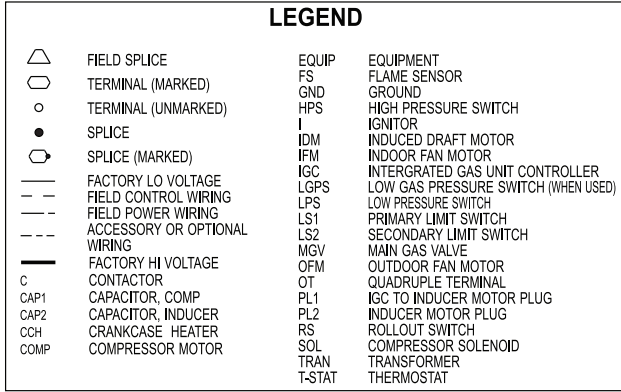


48VG

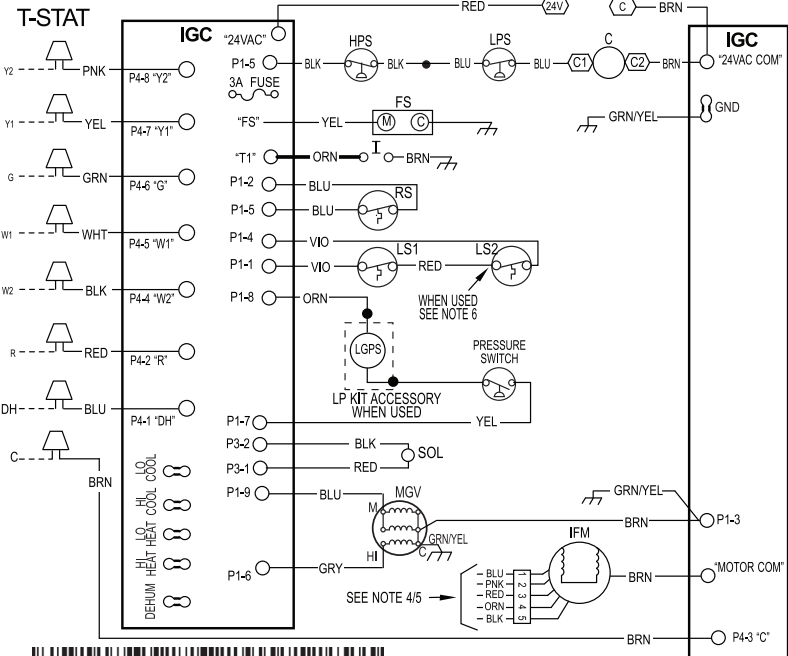
LADDER WIRING SCHEMATIC GAS INPUTS 40, 60, 90 KBTU/HR 208/230-3-60

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



48VG



NOTES:

- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED THEY MUST BE REPLACED WITH THE SAME WIRE OR ITS EQUIVALENT.
- SEE PRE-SALE LITERATURE FOR THERMOSTATS.
- USE 75 DEGREES C COPPER CONDUCTORS FOR FIELD INSTALLATION.
- REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION FOR IFM.
- SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
- ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
- THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 257003.
- DO NOT DISCONNECT PLUG UNDER LOAD.
- N.E.C. CLASS 2, 24V.



48VG500005 REV. D



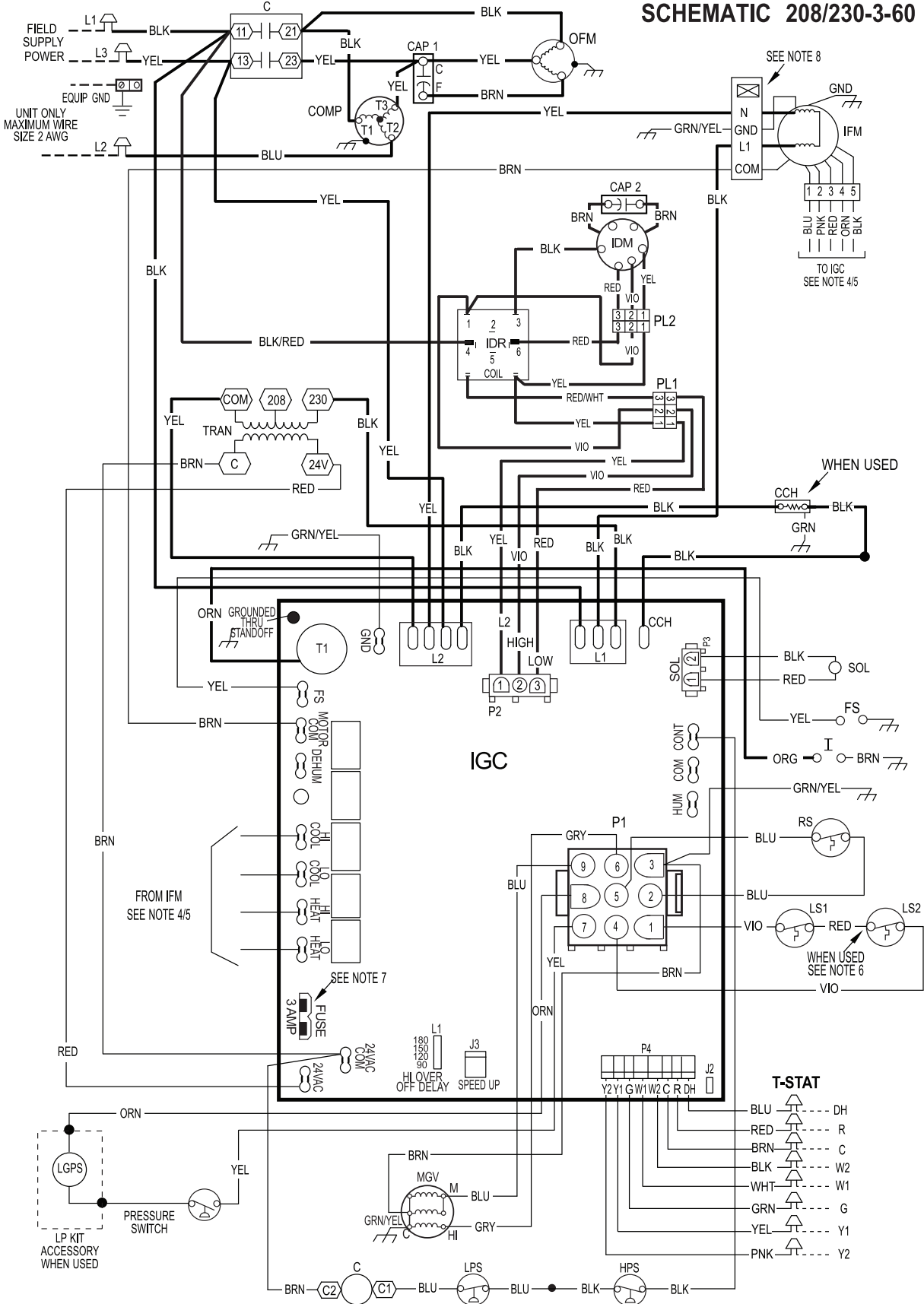
A14616

CONNECTION WIRING SCHEMATIC GAS INPUTS 115, 130 208/230-3-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC 208/230-3-60

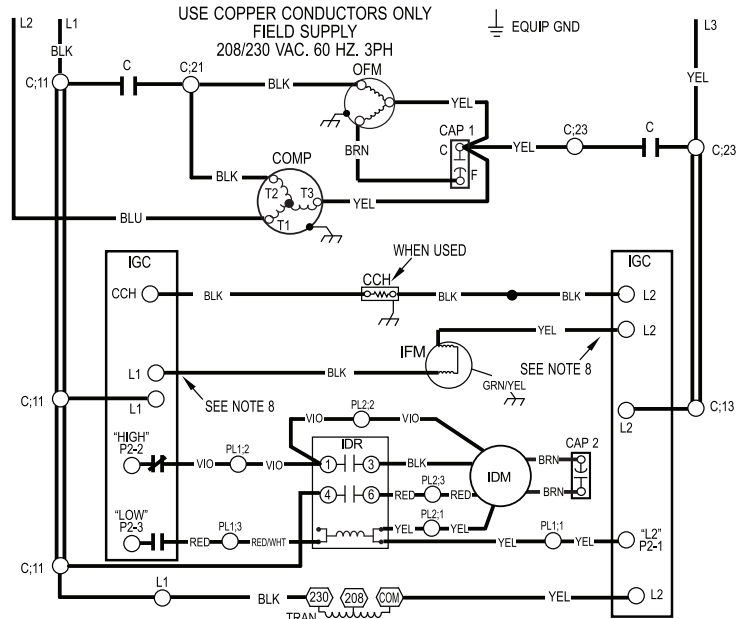
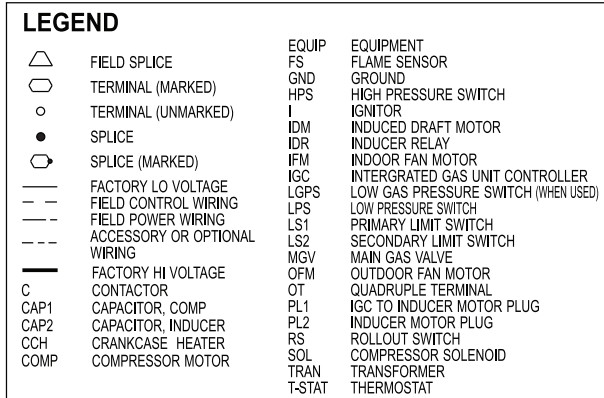


48VG

LADDER WIRING SCHEMATIC GAS INPUTS 115, 130 208/230-3-60

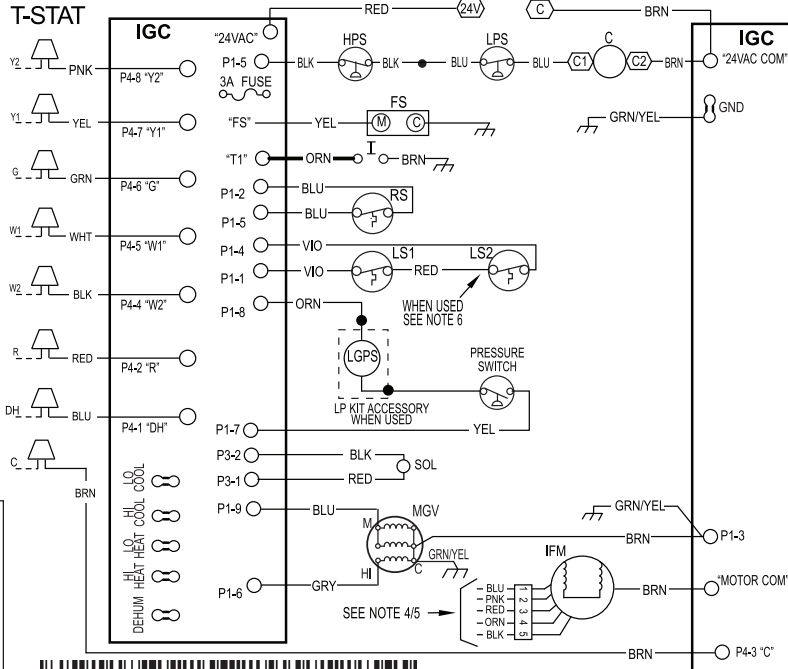
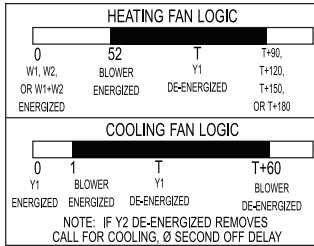
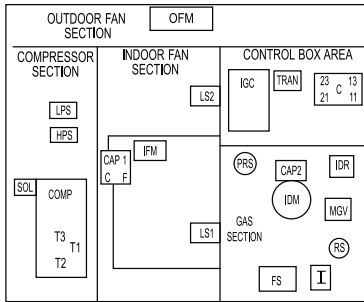
LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



48VG

30 UNIT COMPONENT ARRANGEMENT



- ### NOTES:
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
 - SEE PRE-SALE LITERATURE FOR THERMOSTATS.
 - USE 75 DEGREES C COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION FOR IFM.
 - SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
 - ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
 - THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 257003.
 - DO NOT DISCONNECT PLUG UNDER LOAD.
 - N.E.C. CLASS 2, 24V.



48VG500049 REV. D

48VG500049 REV. D

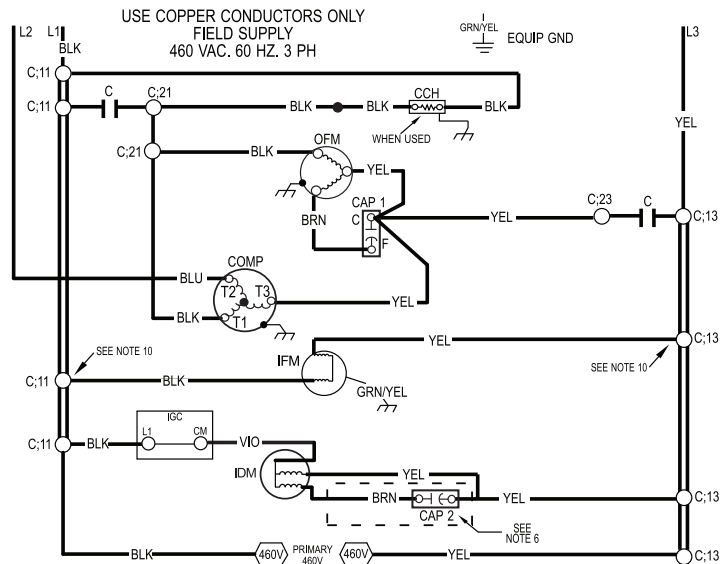


A14617

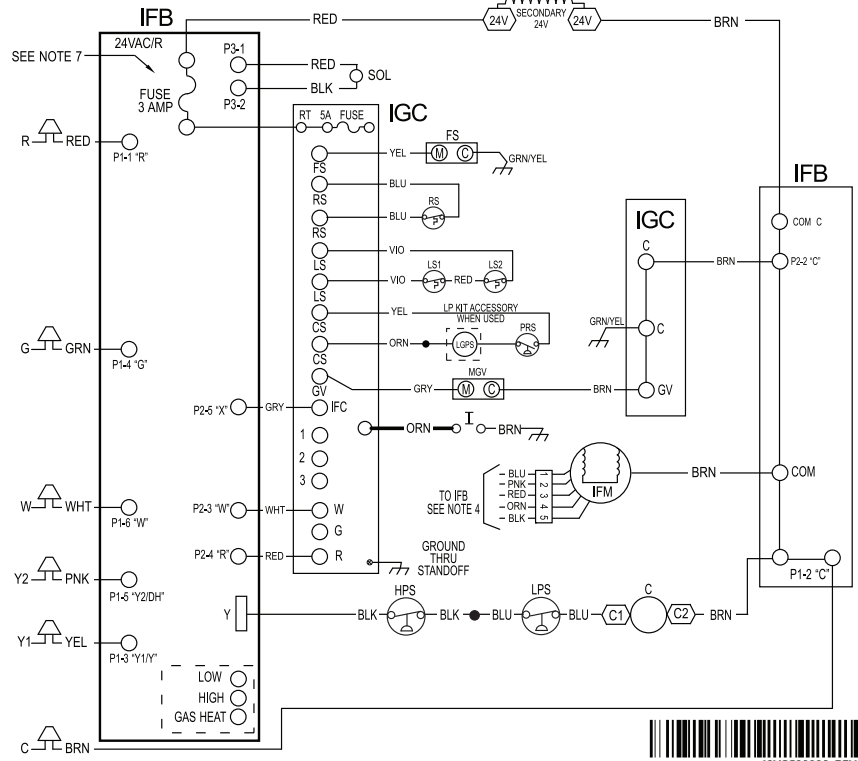
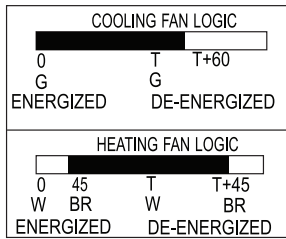
LADDER WIRING DIAGRAM 460-3-60

LADDER WIRING DIAGRAM DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

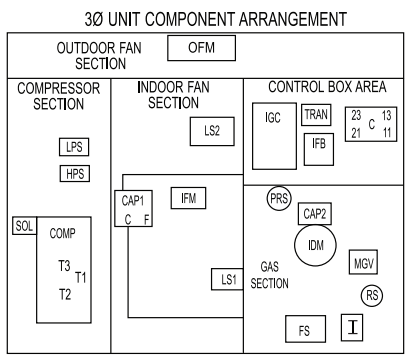
LEGEND			
	FIELD SPICE	FS	FLAME SENSOR
	TERMINAL (MARKED)	GND	GROUND
	TERMINAL (UNMARKED)	HPS	HIGH PRESSURE SWITCH
	SPLICE	I	IGNITOR
	SPLICE (MARKED)	IFB	INDOOR FAN BOARD
	FACTORY LO VOLTAGE	IGC	INTERGRATED GAS UNIT CONTROLLER
	FIELD CONTROL WIRING	IDM	INDUCED DRAFT MOTOR
	FIELD POWER WIRING	IFM	INDOOR FAN MOTOR
	ACCESSORY OR OPTIONAL WIRING	LGPS	LOW GAS PRESSURE SWITCH
	FACTORY HI VOLTAGE	LPS	LOW PRESSURE SWITCH
C	CONTACTOR	LS1	PRIMARY LIMIT SWITCH
CAP 1	CAPACITOR, COMP	LS2	SECONDARY LIMIT SWITCH
CAP 2	CAPACITOR, INDUCER	MGV	MAIN GAS VALVE
COMP	COMPRESSOR MOTOR	OFM	OUTDOOR FAN MOTOR
CCH	CRANK CASE HEATER	PRS	PRESSURE SWITCH
EQUIP	EQUIPMENT	QT	QUADRUPLE TERMINAL
		RS	ROLLOUT SWITCH
		SOL	COMPRESSOR SOLENOID
		TRAN	TRANSFORMER
		T-STAT	THERMOSTAT



48VG



48VG500006 REV. -



NOTES:

1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR IT'S EQUIVALENT.
2. SEE PRE SALE LITERATURE FOR THERMOSTAT.
3. USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
4. SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT.
5. LS2 USED ON SMALL CHASSIS ONLY.
6. INDUCER CAPACITOR AND WIRING ON CERTAIN MODELS ONLY. IF CAP2 IS PRESENT, YELLOW WIRES FROM CONTACTOR AND IDM CONNECT ON SAME SIDE OF CAP2.
7. THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 287003.
8. THIS FUSE IS MANUFACTURED BY LITTLE FUSE, P/N 257005.
9. ON SOME MODELS LS1 AND LS2 ARE WIRED IN SERIES. ON OTHER MODELS ONLY LS1 IS USED.
10. DO NOT DISCONNECT PLUG UNDER LOAD.

CONTROLS

Operating sequence

208/230 VAC Models:

On a call for low stage heating, terminal W1 on the thermostat is energized. On a call for high stage heating both terminals W1 and W2 are energized. Regardless of the stage of the heating call, the induced-draft motor is turned on to high speed for a 15 sec pre-purge time. After the pre-purge, when the pressure switch senses that sufficient combustion air is being moved by the induced-draft motor, the ignition sequence begins. The IGC will energize the sparker and the low stage gas valve solenoid. Upon sensing flame, the IGC will check the heating call. If W2 is not energized, the IGC will drop the induced-draft motor to low speed and maintain the gas valve on low stage. If W2 is energized, the IGC will maintain the induced-draft motor on high speed and energize the high stage gas valve solenoid. Thirty sec after flame is sensed the IGC will turn on the evaporator fan motor. If W2 is not energized, the evaporator fan motor will run on low heat speed. If W2 is energized, the evaporator fan motor will run on high heat speed. After the call for heat is satisfied, the IGC will run the evaporator fan motor an additional field-selectable time of 90, 120, 150, or 180 sec before shutting the evaporator fan motor off.

460 VAC Models:

On a call for heating, terminal W of the thermostat is energized, starting the induced-draft motor. When the pressure switch senses that the induced-draft motor is moving sufficient combustion air, the ignition sequence begins. This function is performed by the integrated gas unit controller (IGC). The indoor (evaporator)-fan motor is energized 45 sec after flame is established. When the thermostat is satisfied and W is de-energized, the burners stop firing and the indoor (evaporator) fan motor shuts off after a 45-sec time-off delay. Please note that the IGC has the capability to automatically reduce the indoor fan motor on delay and increase the indoor fan motor off delay in the event of high duct static and/or partially-clogged filter.

Cooling — When the system thermostat calls for cooling, 24 V is supplied to the “Y1/Y” and “G” terminals of the thermostat. This completes the circuit to the contactor coil (C) and indoor (evaporator) fan relay (IFR). The normally open contacts of energized C close and complete the circuit through compressor motor (COMP) to outdoor (condenser) fan motor (OFM). Both motors start instantly. The set of normally open contacts of energized IFR close and complete the circuit through IFM. The IFM starts instantly.

On the loss of the thermostat call for cooling, 24 V is removed from both the “Y1/Y” and “G” terminals (provided the fan switch is in the “AUTO” position) de-energizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 60-second delay, the IFM shuts off. If the thermostat fan selector switch is in the “ON” position, the IFM will run continuously.

NOTE: On units with a Time Guard® II device: Once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

GUIDE SPECIFICATIONS

Packaged Gas Heating/Electric Cooling Units Constant Volume Application

HVAC Guide Specifications

Size Range: **2 to 5 Tons, Nominal Cooling
40,000 to 130,000 Btuh,
Nominal Heating Input**

SYSTEM DESCRIPTION

Outdoor rooftop or ground mounted air conditioner and gas furnace system utilizing a two-stage scroll compressor for cooling duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings. Outdoor fan/coil section shall have a draw-thru design with vertical discharge for minimum sound levels.

QUALITY ASSURANCE

- A. Unit shall be rated in accordance with AHRI Standards 210/240 and 270-1995.
- B. Unit shall be designed in accordance with UL Standard 1995 and ANSI Z 21.47.
- C. Unit shall be manufactured in a facility registered to ISO 9001 manufacturing quality standard.
- D. Unit shall be UL listed and c-UL certified as a total package for safety requirements.
- E. Roof curb shall be designed to conform to NRCA Standards.
- F. Insulation and adhesives shall meet NFPA 90.1 requirements for flame spread and smoke generation.
- G. Cabinet insulation shall meet ASHRAE Standard 62.2.

DELIVERY, STORAGE AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

Part 2 — Products

EQUIPMENT

A. General:

Factory-assembled, single-piece, heating and cooling unit. Contained within the enclosure shall be all factory wiring, piping, controls, refrigerant charge with R-410A refrigerant, and special features required prior to field start-up.

B. Unit Cabinet:

- 1. Unit cabinet shall be constructed of phosphated, zinc-coated, pre-painted steel capable of with-standing 500 hours in salt spray.
- 2. Normal service shall be through 3 removable cabinet panels.
- 3. The unit shall be constructed on a rust proof unit base that has an externally trapped, integrated sloped drain.
- 4. Evaporator fan compartment top surface shall be insulated with a minimum 1/2-in. (12.7 mm) thick, flexible fiberglass insulation, coated on the air side and retained by adhesive and mechanical means. The evaporator wall sections will be insulated with a minimum semi-rigid foil-faced board capable of being wiped clean. Aluminum foil-faced fiberglass insulation shall be used in the entire indoor air cavity section.
- 5. Unit shall have a field-supplied condensate trap.

C. Fans:

- 1. The evaporator fan shall be a multi-speed, direct-drive, as shown on equipment drawings.
- 2. Fan wheel shall be made from steel, be double-inlet type with forward curved blades with corrosion resistant finish. Fan wheel shall be dynamically balanced.
- 3. Condenser fan shall be direct drive propeller type with aluminum blades riveted to corrosion resistant steel spiders, be dynamically balanced, and discharge air vertically.

D. Compressor:

- 1. Fully hermetic compressors with factory-installed vibration isolation.
- 2. Two-stage scroll compressors shall be standard on all units.

E. Coils:

Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Tube sheet openings shall be belled to prevent tube wear.

F. Heating Section:

- 1. Induced-draft combustion type with energy saving direct spark ignition system and redundant main gas valve.
- 2. Induced-draft motors shall provide adequate airflow for combustion.
- 3. The heat exchangers shall be constructed of aluminized steel for corrosion resistance.
- 4. Burners shall be of the in-shot type constructed of aluminum coated steel.
- 5. All gas piping and electric power shall enter the unit cabinet at a single location.

G. Refrigerant Components:

Refrigerant expansion device shall be of the TXV (thermostatic expansion valve) type.

H. Filters:

Filter section shall consist of field-installed, throwaway, 1-in. (25 mm) thick fiberglass filters of commercially available sizes.

I. Controls and Safeties:

- 1. Unit controls shall be complete with a self-contained low voltage control circuit.
- 2. Compressors shall incorporate a solid-state compressor protector that provides reset capability.

J. Operating Characteristics:

- 1. Unit shall be capable of starting and running at 125°F (51°C) ambient outdoor temperature per maximum load criteria of AHRI Standard 210.
- 2. Compressor with standard controls shall be capable of operation down to 40°F (4°C) ambient outdoor temperature.
- 3. Units shall be provided with fan time delay to prevent cold air delivery before the heat exchanger warms up.
- 4. Unit shall be provided with fan time delay after the thermostat is satisfied.

K. Electrical Requirements:

All unit power wiring shall enter the unit cabinet at a single location.

L. Motors:

- 1. Compressor motors shall be of the refrigerant-cooled type with line-break thermal and current overload protection.
- 2. All fan motors shall have permanently lubricated bearings, and inherent, automatic reset, thermal overload protection.
- 3. Condenser fan motor shall be totally enclosed.
- 4. Evaporator Fan Motor to be multi-speed ECM blower motor.

M. Compressor Protection:

Solid-state control shall protect compressor by preventing "short cycling."

GUIDE SPECIFICATIONS (CONT)

N. Low NO_x:

Shall provide NO_x reduction to values below 40 nanograms/joule to meet California's and other localities' emission requirements as shipped from factory.

O. Special Option/Kits Available:

1. Coil Options

Base unit with tin plated indoor coil hairpins available as a factory installed option.

2. Compressor Start Kit (single phase units only):

Shall provide additional starting torque for single-phase compressors.

3. Corporate Thermostat:

To provide for one-stage heating and cooling in addition manual or automatic changeover and indoor fan control.

4. Crankcase Heater Kit:

Shall provide anti-floodback protection for low-load cooling applications.

5. Economizer for two-stage operation:

(Horizontal and Vertical with Jade Honeywell W7220 controller, Honeywell communicating actuator, and dry bulb sensor. (Contact MicroMetl Customer Service at 1-800-662-4822 to order.)

NOTE: The enhanced dehumidification feature on high stage cooling does not support use of an economizer.

a. Economizer controls capable of providing free cooling using outside air.

b. Equipped with low leakage dampers not to exceed 3% leakage, at 1.0 IN. W.C. pressure differential.

c. Spring return motor shuts off outdoor damper on power failure.

6. Filter Rack Option or Kit:

Shall provide filter mounting for downflow applications. Offered as an accessory or as a factory installed option.

7. Flat Roof Curb Kit:

Curbs shall have seal strip and a wood nailer for flashing and shall be installed per manufacturer's instructions.

8. Flue Discharge Deflector Kit

Directs flue gas exhaust; 90 degrees upward from current discharge.

9. Heat Exchanger Option

Stainless Steel Heat Exchanger available as a factory installed option.

10. High Altitude Propane Conversion Kit:

Shall consist of all required hardware to convert to propane gas heat operation at 2001 to 6000 ft (611 to 1829 m) above sea level.

11. Low Ambient Package Kit:

Shall consist of a solid-state control and condenser coil temperature sensor for controlling condenser-fan motor operation, which shall allow unit to operate down to 0°F (-18°C) outdoor ambient temperature when properly installed.

12. Manual Outdoor Air Damper Kit:

Package shall consist of damper, birdscreen, and rainhood which can be preset to admit outdoor air for year-round ventilation.

13. Natural-to-Propane Conversion Kit:

Shall be complete with all required hardware to convert to propane gas operation at 10.0 IN. W.C. manifold pressure.

14. Propane-to-Natural Conversion Kit

Shall be complete with all hardware to convert to natural gas at standard altitude (0 to 2000 ft [0 to 610 m] above sea level).

15. Square-To-Round Duct Transitions Kit (24-48 models):

Shall have the ability to convert the supply and return openings from rectangular to round.

Attachment “E”

Contractor Certifications

1. Prevailing Wage Certification
2. Workers’ Compensation Certification
3. Fingerprinting / Criminal Background Investigation Certification
4. Drug-Free Workplace / Tobacco-Free Environment Certification
5. Asbestos / Hazardous Materials Certification

**PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION**

I hereby certify that I will conform to the State of California public works contract requirements regarding prevailing wages, benefits, audits, payroll records, and apprentice and trainee employment, or any other requirements that may be applicable for all work on the Project.

Signature: _____

Printed Name: _____

Title: _____

Contractor: _____

Date: _____

WORKERS' COMPENSATION CERTIFICATION

I am aware of the provisions of Labor Code Section 3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Agreement.

Signature: _____

Printed Name: _____

Title: _____

Contractor: _____

Date: _____

(In accordance with Labor Code Section 1861, this certificate must be signed and filed with the awarding body prior to performing any work under this Agreement.)

**FINGERPRINTING / CRIMINAL BACKGROUND
INVESTIGATION CERTIFICATION**

The undersigned does hereby certify to Purchaser’s governing board as follows:

1. I am a representative of Climatec LLC currently under contract with Purchaser; that I am familiar with the facts herein certified, and am authorized and qualified to execute this certificate on behalf Climatec LLC.

2. Climatec LLC certifies that it has taken at least one of the following actions with respect to the Project that is the subject of the Agreement (check all that apply):

_____ Climatec LLC has complied with the fingerprinting requirements of Education Code Section 45125.1 with respect to all employees of Climatec LLC and all its subcontractors’ employees who may have contact Purchaser’s pupils in the course of providing services pursuant to the Agreement, and the California Department of Justice has determined that none of those employees has been convicted of a felony, as that term is defined in Education Code Section 45122.1. A complete and accurate list of Climatec LLC’s employees and of all its subcontractors’ employees who may come in contact with Purchaser’s pupils during the course and scope of the Agreement is attached hereto; and/or

_____ Pursuant to Education Code Section 45125.2, Climatec LLC certifies that all employees will be under the continual supervision of, and monitored by, an employee of Climatec LLC who the California Department of Justice has ascertained has not been convicted of a violent or serious felony. The name and title of the employee who will be supervising Climatec LLC’s employees and its subcontractors’ employees is:

Printed Name: _____

Title: _____

Climatec LLC’s responsibility for background clearance extends to all its employees, subcontractors, and employees of subcontractors coming into contact with Purchaser’s pupils regardless of whether they are designated as employees or acting as independent contractors of Climatec LLC.

Signature: _____

Printed Name: _____

Title: _____

Contractor: _____

Date: _____

DRUG-FREE WORKPLACE CERTIFICATION

This Drug-Free Workplace Certification form is required from Climatec LLC pursuant to Government Code Section 8350 et seq., the Drug-Free Workplace Act of 1990 (the “Act”). The Act requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by completing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

Purchaser is not a “state agency” as defined in the applicable section(s) of the Government Code, but Purchaser is a local agency and public school district under California law and requires all contractors on its projects to comply with the provisions and requirements of Government Code Section 8350 et seq., the Drug-Free Workplace Act of 1990.

Contractor shall certify that it will provide a drug-free workplace by doing all of the following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person’s or organization’s workplace and specifying actions which will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
 - (1) The dangers of drug abuse in the workplace.
 - (2) The person’s or organization’s policy of maintaining a drug-free workplace.
 - (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
 - (4) The penalties that may be imposed upon employees for drug abuse violations.
- c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Agreement be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if Purchaser determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Agreement referenced herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of the Act.

I acknowledge that I am aware of the provisions of Government Code Section 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

Signature: _____
Printed Name: _____
Title: _____
Contractor: _____
Date: _____

ASBESTOS / HAZARDOUS MATERIALS CERTIFICATION

1. Climatec LLC hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations (“New Hazardous Material”) shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Climatec LLC’s Work on the Project for Purchaser.
2. Climatec LLC further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (0.1%) asbestos shall be defined as asbestos-containing material.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the Purchaser’s determination. The costs of any such tests shall be paid by Climatec LLC if the material is found to be New Hazardous Material.
5. All work or materials found to be New Hazardous Material, or work or material installed with equipment containing “New Hazardous Material,” will be immediately rejected and this work will be removed at Climatec LLC’s expense at no additional cost to Purchaser.
6. Climatec LLC has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Signature: _____
Printed Name: _____
Title: _____
Contractor: _____
Date: _____

Attachment “F”
Cost Savings Projections

PIERCE JOINT UNIFIED SCHOOL DISTRICT

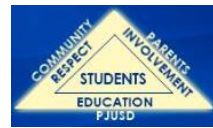
ENERGY CONSERVATION PROGRAM



March 9, 2017

Board Information/ Action Item

PROGRAM GOALS



- * Improve comfort & safety of the learning environment
- * Address District's unfunded facility infrastructure needs
- * Reduce utility bills, maintenance, & repair costs so the District can redirect investments into other education initiatives
- * Maximize Prop 39 impact at school sites



RECOMMENDED SCOPE OF WORK



	LIGHTING			MECHANICAL		BUILDING AUTOMATION SYSTEM (BAS)
	Interior LED Lighting Upgrades	Exterior LED Lighting Upgrades	Install Occupancy Sensors/ LED Dimming Controls	High Efficiency Rooftop Package Units	High Efficiency Wall Mounted Heat Pumps	Advanced Re-Programming of Existing BAS
Arbuckle ES	✓	✓	✓	9	6	✓
Grand Island ES	✓	✓				✓
Lloyd G. Johnson JH	✓	✓	✓			✓
Pierce HS	✓	✓	✓			✓

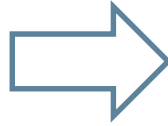


HEATING & COOLING IMPROVEMENTS



- * **Existing Conditions:** The District has aging HVAC systems that are past their useful life and in need of frequent maintenance. Antiquated, inefficient systems compromise the air quality and comfort of the classroom due to humidity control and uneven heating/ cooling; furthermore, they can be disruptive to schools as units fail.
- * **Proposed Solution:** Install 9 high efficiency roof-top units and 6 wall mounted units at Arbuckle Elementary School in addition to advanced re-programming of existing BAS at all sites to offer enhanced zone control and provide additional energy savings.

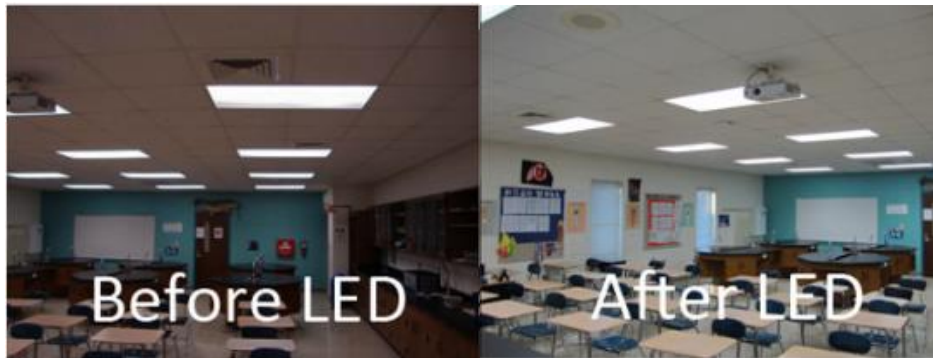
HEATING & COOLING IMPROVEMENTS



LED LIGHTING UPGRADES



- * **Existing Conditions:** The District has a mixture of interior and exterior lighting fixtures that are inefficient and have to be replaced often. Current lighting systems provide mediocre light quality for the student's learning environment.
- * **Proposed Solution:** Upgrade to LED lighting at all sites including occupancy sensors and/or LED dimming capabilities. In addition to substantial energy savings, LED helps reduce maintenance and enhance the learning environment.



FINANCIAL HIGHLIGHTS



Total Infrastructure Improvements \$ 1,096,212

Funding Sources:

- Prop 39 (Years 1– 5) \$ 572,594
- District Contribution \$ 523,618

Net General Fund Relief (Year 1) \$ 62,543

Total New General Fund Relief (15 Years) \$ 1,150,313



ENVIRONMENTAL BENEFITS



The proposed energy project will reduce electric consumption by 194,447 kWh. These reductions translate into the following green equivalencies:

Type of Pollution	Pollutants Reduced (Pounds)
Carbon Dioxide (CO ₂)	322,198
Sulfur Dioxide (SO ₂)	186
Nitric Oxide (NO)	296



Removing 27 cars off the road



Saving 14,664 gallons of gasoline



Preserving 3,889 trees from deforestation



Powering 19 American homes

NEXT STEPS



Competitive Selection Process (Climatec)

Completed

Utility Baseline Development

Completed

Engineering Site Walks

Completed

Develop Scope of Work & Funding Plan w/ Staff

Completed

Post GC 4217 Public Notice

Completed

Board Information/ Action Item

Tonight

Anticipated Project Start

Spring/Summer 2017

Citizens' Bond Oversight Committee Applicants

Committee Member	Active Member of a Business Organization	Active Member of Senior Citizen Group	Active Member of Taxpayer Organization	At-Large Member of the Public	Parent with Child(ren) Currently Enrolled in District	Active Parent Member which is also active in a Parent/Teacher Organization
Charles Wayman				X	X (2 students at AES)	
Ariel Alonso				X	X (2 students at PHS)	X (PHS Parent's Club)
Michael Doherty	X (Grindstone Wines LLC, Chamisal Creek Ranch LLC, Doherty Brothers, Doherty Farms LLC,)			X	X (1 student at PHS)	
Edella Maldonado				X	X (2 students at AES)	
Barbara Scheimer		X (CalRTA)		X		
Ellen Voorhees	X (M and E Farms)			X	X (1 student at JJH)	X (JJH Parent's Club)
Joh Lauwerijssen	X (College City Warehouse)		X (State of Jefferson; Yolo County Taxpayers)	X		

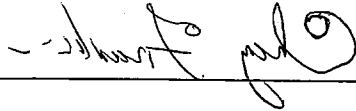
**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
PIERCE JOINT UNIFIED EDUCATORS ASSOCIATION
AND THE
PIERCE JOINT UNIFIED SCHOOL DISTRICT
FOR THE 2016/17 SCHOOL YEAR**

The Pierce Joint Unified School District ("District") and the Pierce Joint Unified Educators Association ("PJUEA") having met and negotiated pursuant to the Educational Employment Relations Act hereby agree to modify the current Collective Bargaining Agreement as follows:

1. The 2015/16 Certificated salary schedule set forth in Appendix A to the current Collective Bargaining Agreement shall be increased by 3%. Payments of increase shall be made retroactive to July 1, 2016.
2. A one-time payment of 3% off of the salary schedule will be paid to certificated employees, this payment is retro to July 1, 2016. This one-time payment will be based on the certificated employees regular contracted annual salary.

PIERCE JOINT UNIFIED EDUCATORS
ASSOCIATION

BY: _____



TITLE: _____

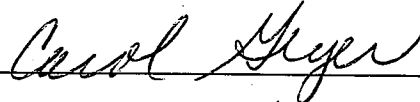
PJUEA president

DATED: _____

2-22-17

PIERCE JOINT UNIFIED SCHOOL
DISTRICT

BY: _____



TITLE: _____

Superintendent

DATED: _____

2/22/17

**Pierce Joint Unified School District
Certificated Salary Schedule
2016-17**

DRAFT

	I	II	III	IV	V
	BA *	BA + 30	BA + 45 or MA	BA + 60 or MA + 15	BA + 75 or MA + 30
1	43,384	50,154	52,357	54,656	57,056
2		51,031	53,272	55,611	58,366
3		51,922	54,202	57,195	59,705
4		52,827	55,149	58,507	61,077
5		53,751	57,333	59,852	62,478
6		54,690	58,648	61,224	63,913
7		57,470	59,995	62,631	65,382
8		58,791	61,373	64,069	66,883
9		60,140	62,783	65,539	68,417
10		61,520	64,223	67,044	69,990
11		62,933	65,698	68,584	71,596
12		64,378	67,207	70,160	73,242
13			68,750	71,770	74,923
14			70,328	73,418	76,644
15				75,104	78,404
18				80,399	83,932
20					86,818
22					89,705
Based on 187 Work Days					

* Teachers that hold less than a Preliminary or Clear Credential.

1. Language Development Certificate - \$100 per step included in salary schedule above
2. \$800 for Masters' degree
3. \$2,000 for Bilingual Credential

Credit for experience:

A maximum of 9 years experience may be granted on the salary schedule.

Salary Related Benefits

Health Care: Plan Year is 10-1-16 to 9-30-17

Employee and dependents health insurance, dental, and vision. Annual premium costs range from \$145.51 to \$1,228.79 monthly, over an 11 month pay period. Employee can choose from 6 medical plans. The district's annual contribution toward health benefits is \$10,288.

Dental Care: (Employee & dependents)

Full dental coverage through Delta Dental Plan is provided.
70% coverage 1st year / 80% 2nd year / 90% 3rd year/ 100% thereafter.

Vision Care: (Employee & dependents)

Plan provides for exams and for the purchase of glasses or contacts, if needed.

Extra Duty Schedule:

PJUSD provides a comprehensive extra-duty schedule.

**MEMORANDUM OF UNDERSTANDING
BETWEEN THE
CALIFORNIA SCHOOL EMPLOYEES ASSOCIATION
PIERCE CHAPTER #97
AND THE
PIERCE JOINT UNIFIED SCHOOL DISTRICT
FOR THE 2016/17 SCHOOL YEAR**

The Pierce Joint Unified School District ("District") and the California School Employees Association Pierce Chapter #97 having met and negotiated pursuant to the Educational Employment Relations Act hereby agree to modify the current Collective Bargaining Agreement as follows:

1. The 2016/17 Classified salary schedule set forth in Exhibit A to the current Collective Bargaining Agreement shall be improved by 3%. Payments of increase shall be made retroactive to July 1, 2016.
2. A one-time payment of 3% off of the salary schedule will be paid to classified employees, this payment is retro to July 1, 2016. This one-time payment will be based on the classified employees regular contracted salary.
3. Change the Classified Salary Schedule as follows:
 - o Move the Technology Support Technician from Classification 9 to Classification 10.
 - o Change step from letter to number on salary schedule.

CALIFORNIA SCHOOL EMPLOYEES
ASSOCIATION PIERCE CHAPTER #97

BY: *Lin Helen Raymond*

TITLE: CSEA President

DATED: 2/23/17

Tim Carter
2/23/17

PIERCE JOINT UNIFIED SCHOOL
DISTRICT

BY: *Carol Meyer*

TITLE: Superintendent

DATED: 2/22/17

From [unclear]
2-23-17

Nicole Mendoza

[Signature]

2/23/2017

Pierce Joint Unified School District

2016/17

Classified Salary Schedule

****DRAFT****

STEP	1	2	3	4	5-10	11-15	16-20	21-25	26-30	31
CLASS										
1	14.44 2,515	14.91 2,597	15.34 2,672	15.90 2,769	16.43 2,862	16.92 2,947	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366
2	14.91 2,597	15.34 2,672	15.90 2,769	16.43 2,862	16.92 2,947	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483
3	15.34 2,672	15.90 2,769	16.43 2,862	16.92 2,947	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608
4	15.90 2,769	16.43 2,862	16.92 2,947	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751
5	16.43 2,862	16.92 2,947	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751	22.25 3,875
6	16.92 2,947	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751	22.25 3,875	23.14 4,030
7	17.48 3,045	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751	22.25 3,875	23.14 4,030	24.04 4,187
8	18.05 3,144	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751	22.25 3,875	23.14 4,030	24.04 4,187	24.90 4,337
9	18.65 3,249	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751	22.25 3,875	23.14 4,030	24.04 4,187	24.90 4,337	25.78 4,489
10	19.33 3,366	20.00 3,483	20.71 3,608	21.54 3,751	22.25 3,875	23.14 4,030	24.04 4,187	24.90 4,337	25.78 4,489	27.07 4,714
11	19.99 3,481	20.98 3,655	22.03 3,837	23.15 4,032	24.29 4,231	26.80 4,667	28.13 4,899	29.53 5,143	31.01 5,401	32.56 5,671

CLASSIFICATIONS
1 - Cashier
Cafeteria Helper
Campus Supervisor
4 - Library Clerk
Paraeducator
Health Clerk
Assistant Cook
Office Assistant I
K-12 Clerical Aide
5 - After School Program-Site Leader
6 - Custodian
College and Career Center Technician
Office Assistant II
Cook
7 - Custodian/Bus Driver
Administrative Assistant
Part-time Driver
Groundswoker
Bus Driver/Groundswoker
Custodian/Groundswoker/Bus Driver
8 -Utility Technician/Bus Driver
9 -
10 - Technology Support Technician
11 - Accounting Technician
Maintenance Tech
District Mechanic/Maintenance

- * Step F is a longevity step granted after ten years experience credit.
- ** Step G is a longevity step granted after fifteen years experience credit.
- *** Step H is a longevity step granted after twenty years experience credit.
- **** Step I is a longevity step granted after twenty-five years experience credit.
- ***** Step J is a longevity step granted after thirty years experience credit.

The monthly salary on the classified employee salary schedule based on 12 months' full time employment. Full time employee salary is based on 2090 hours per yr. Part time employee salary is based on number of days worked + annual leave & classified holidays occurring within the year.

3% increase to salary for passing the District adopted Bilingual Test (both written & oral)
(positions qualified to take the Bilingual Test will be at the discretion of the Superintendent)

Pending Board Approval 3-9-2017

**Pierce Joint Unified School District
2016/17
Administrative Salary Schedule**

DRAFT

STEPS	ELEMENTARY VICE-PRINCIPAL	ELEMENTARY AND JR HIGH PRINCIPAL	HIGH SCHOOL PRINCIPAL	HIGH SCHOOL VICE-PRINCIPAL	COUNSELOR
1	79,380	93,457	102,852	85,713	71,393
2	81,761	96,260	105,423	87,856	73,535
3	84,214	99,148	108,059	90,052	75,741
4	86,741	102,123	110,760	92,303	78,013
5	89,342	105,186	113,529	94,611	80,353
6	92,023	108,342	116,368	96,976	82,764
7	94,783	111,592	119,277	99,400	85,247
10	100,471	117,172	125,241	105,364	89,509
13	106,499	123,030	131,503	111,687	93,985
16	109,694	126,106	134,790	115,037	96,804
19	114,905	129,259	138,160	120,674	99,708
Work Days	200	205	215	200	200

Master's Degree = \$800 Stipend
 Doctorate Degree = \$1,000 Stipend

Medical/Dental/Vision: \$10,288.00 Annual District Contribution; \$935.27 per month (11 months)

Pierce Joint Unified School District
2016/17
Confidential Salary Schedule

DRAFT

	Executive Administrative Assistant
	Payroll/Personnel Technician
STEPS	Fiscal Specialist
1	43,834
2	46,025
3	48,327
4	50,742
5	53,280
6	55,943
7	58,741
10	61,678
13	64,762
16	68,000
19	71,400
DAYS WORKED	261.25

Master's Degree = \$800 Stipend

Medical/Dental/Vision:

\$10,288.00 Annual District Contribution; \$857.33 per month.

Pierce Joint Unified School District
 2016/17
 Classified Management Salary Schedule
****DRAFT****

STEPS	Chief Business Official	Facilities & Transportation Director and Technology Director	Food Services Director
1	79,016	62,783	52,041
2	82,967	65,922	54,643
3	87,116	69,218	57,375
4	91,471	72,679	60,244
5	96,045	76,313	63,256
6	100,847	80,128	66,419
7	105,890	84,135	69,740
10	109,066	86,659	71,832
13	112,338	89,258	73,987
16	115,708	91,936	76,206
19	119,180	94,694	78,493
DAYS WORKED	261.25	261.25	261.25

Bachelor's Degree = \$500 Stipend

Medical/Dental/Vision: \$10,288.00 Annual District Contribution; \$857.33 per month.

Pending Board Approval 3/9/2017

**AMENDMENT TO
EMPLOYMENT CONTRACT
BETWEEN
CAROL GEYER
and the
BOARD OF TRUSTEES OF THE
PIERCE JOINT UNIFIED SCHOOL DISTRICT
OF COLUSA COUNTY, CALIFORNIA**

This amendment alters the existing Employment Contract ("Contract") between Board of Trustees of the Pierce Joint Unified School District, hereafter referred to as ("Board" or "District"), and Carol Geyer, hereinafter referred to as ("Superintendent"), previously ratified by the Board on June 27th, 2016.

WHEREAS, other administrators in the District received a three percent (3%) increase in salary and three percent (3%) off of the salary schedule.

NOW, THEREFORE, the Board and Superintendent hereby agree as follows:

1. Section II. COMPENSATION. Pursuant to Section II., subsection B.1., the Superintendent's annual base salary shall be increased by the same percentage increase that is granted to other administrators in the District. Accordingly, Section II., subsection A. of the Contract is hereby amended, in its entirety, to read as follows:
Commencing on July 1, 2016, District shall pay Superintendent an annual base salary of One Hundred Fifty Six Thousand Nine Hundred and Fifty Nine Dollars (\$156,959). Salary shall be payable on the last day of each month in installments of one-twelfth (1/12) of the annual salary rate for services rendered during the preceding month.
2. Effective Date. This Amendment shall be effective as of July 1, 2016.
3. No Other Modification. Except as amended hereby, all other terms contained in the Contract, and any amendments, extensions or addendums thereto, shall remain the same and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment to the Superintendent's Employment Contract on March 9th, 2017.

For the Board of Trustees OF THE PIERCE JOINT UNIFIED SCHOOL DISTRICT

By: _____
Abel Gomez, Board President

By: _____
John Friel, Board Vice President

By: _____
Nadine High, Board Clerk

By: _____
George Green, Board Member

By: _____
Amy Charter, Board Member

By: _____
Carol Geyer, Superintendent

Summary of Agreement with the Certificated, Classified, and Unrepresented

**Public Disclosure of Proposed Collective Bargaining Agreement
Pierce Joint Unified School District**

To be acted upon by the Governing Board at its meeting on March 9, 2017

TO THE GOVERNING BOARD AND THE COUNTY SUPERINTENDENT OF SCHOOLS: In compliance with the Public Disclosure requirements of AB1200 as well as the Salary Settlement Notification requirements of SB1677 when Salary/Benefits Negotiations are finalized after the final budget is adopted.

Section 1: STATUS OF BARGAINING UNIT AGREEMENTS

Certificated	Settled Agreement	-74-	Employees Represented
Classified	Settled Agreement	-52-	Employees Represented
Unrepresented	Settled Agreement	-15-	Employees Represented

Section 2: PERIOD OF AGREEMENT

The proposed agreement covers the period beginning July 1, 2016 and ending June 30, 2017. A one year agreement.

Section 3: INCREASE IN SALARIES and/or BENEFITS IN PROPOSED AGREEMENT: The proposed agreement includes the following costs in salaries and benefits:

The Certificated, Classified, and Unrepresented Bargaining Units will receive a 3% increase to the salary schedules, payment based on the employees' regular annual salary. They will also receive a one-time 3% off the schedule payment based on their regular contracted salary.

Current Year Salary and Benefit Cost before Settlement	
Based upon YTD Actuals Projected through 6/30/17	\$11,012,912
Current year Salary and Benefit Cost after Settlement	\$11,562,420
Total Cost Increase	\$ 549,508
Percentage Increase on salary schedules:	3%
Cost of 1% for Certificated, Classified, and Unrepresented Bargaining Unit is	\$ 91,585
Includes cost of Statutory Benefit	

Section 4: IMPACT OF PROPOSED AGREEMENT ON THE GENERAL FUND BUDGET IN CURRENT YEAR (Reflects total of both Restricted and Unrestricted Amounts)
See Multiple Year Projection

Section 5: IMPACT OF PROPOSED AGREEMENT IN FUTURE FISCAL YEARS: The following assumptions were used to determine that resources will be available to fund these obligations in future fiscal years:

The cost of this agreement will be built into the 2016-17 budget, the multi-year projection attached includes the increase in costs per this settlement.

Section 6: COMPARISON OF PROPOSED AGREEMENT TO CHANGE IN DISTRICT BASE FUNDING: The District's proposed increase in funding for the Local Control Funding Formula is approximately 6.23%.

CERTIFICATION

The information provided in this document summarizes the financial implications of the proposed agreements in accordance with the requirement of AB1200 and GC 3547.5. I certify the costs incurred by the school district under the agreement can be met by the district during the term of the agreement.

Signed Carol Geyer Date 2/27/17
Carol Geyer, Superintendent

Signed Daena Meras Date 2/27/17
Daena Meras, Chief Business Official

After public disclosure of the major provisions contained in this Summary, the Governing Board, at its meeting on March 9, 2017, took action to approve the proposed Agreements with the Certificated and Unrepresented Bargaining Units.

Signed _____ Date _____
Abel Gomez, President, Board of Trustees

Pierce Joint Unified School District

2016/17

Public Disclosure

Unrestricted/Restricted MULTIPLE YEAR PROJECTION - 3/9/17
--

INCOME	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
8011-8089 LCFF SOURCES	11,572,922	11,898,741	12,613,380
8012 EPA-EDUCATION PROTECTION ACT	2,039,105	1,868,781	1,711,685
8019 PRIOR YEAR ADJUSTMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL REVENUE LIMIT SOURCES</i>	13,612,027	13,767,522	14,325,065
<i>TOTAL FEDERAL REVENUE</i>	430,226	333,995	333,995
STATE REVENUES			
8311 STATE APPORTIONMENT PROGRAMS	0	0	0
8550 MANDATED COSTS	359,736	0	0
8560 LOTTERY	272,582	272,582	272,582
8590 OTHER STATE	<u>980,049</u>	<u>542,320</u>	<u>542,320</u>
<i>TOTAL STATE REVENUE</i>	1,612,367	814,902	814,902
OTHER LOCAL REVENUES			
8650 LEASES AND RENTALS	31,814	31,814	31,814
8660 INTEREST	50,000	55,000	60,500
8677 INTERAGENCY REVENUES	167,567	72,000	0
8699 OTHER LOCAL INCOME	169,894	129,320	132,294
8782 OTHER TRANSFERS FROM COUNTY	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL LOCAL REVENUES</i>	419,275	288,134	224,608
TOTAL REVENUES	16,073,895	15,204,553	15,698,570
8912-8919 INTERFUND TRANSFERS IN	0	0	0
TOTAL REVENUES AND TRANSFERS IN	16,073,895	15,204,553	15,698,570
 EXPENDITURES			
1100 TEACHER'S SALARIES	5,718,183	5,739,579	5,852,350
1200 PUPIL SUPPORT SALARIES	208,486	207,517	211,667
1300 SUPERVISOR/ADMIN. SALARIES	761,971	756,153	771,276
1900 OTHER CERTIFICATED SALARIES	<u>50,470</u>	<u>51,479</u>	<u>52,509</u>
<i>TOTAL CERTIFICATED</i>	6,739,110	6,754,728	6,887,803
2100 INSTRUCTIONAL AIDES	189,980	188,767	192,542
2200 CLASSIFIED SUPPORT	773,616	764,410	779,699
2300 CLASSIFIED ADMINISTRATORS	310,286	305,554	311,665
2400 CLERICAL AND OFFICE	478,648	474,520	484,010
2900 OTHER CLASSIFIED SALARIES	<u>94,178</u>	<u>94,382</u>	<u>96,269</u>
<i>TOTAL CLASSIFIED</i>	1,846,708	1,827,632	1,864,185
<i>TOTAL SALARIES</i>	8,585,818	8,582,360	8,751,988
3100 STRS	1,117,315	1,252,744	1,399,371
3200 PERS	247,910	283,283	318,776
3300 SOCIAL SECURITY/MEDICARE	243,059	241,383	246,211
3400 HEALTH	1,195,750	1,206,038	1,206,038
EXPENDITURES (Continued)	16/17	17/18	18/19
3500 UNEMPLOYMENT INSURANCE	9,455	9,388	9,576

3600 WORKER'S COMPENSATION	163,113	161,947	165,186
3900 OTHER BENEFITS	<u>0</u>	0	0
<i>TOTAL BENEFITS</i>	2,976,602	3,154,784	3,345,158
4100 TEXTBOOKS	855,393	164,063	168,329
4200 OTHER BOOKS	228,200	130,893	134,296
4300 INSTRUCTIONAL SUPPLIES	862,475	272,626	279,714
4400 NON CAPITALIZED EQUIPMENT	<u>890,231</u>	<u>550,517</u>	<u>564,830</u>
<i>TOTAL BOOKS AND SUPPLIES</i>	2,836,299	1,118,099	1,147,170
5200 TRAVEL AND CONFERENCE	73,034	55,444	52,886
5300 DUES AND MEMBERSHIPS	15,839	16,219	16,641
5400 INSURANCE	115,544	118,317	121,393
5500 UTILITIES	352,538	360,999	370,385
5600 CONTRACTS, RENTS, LEASES	155,683	159,419	163,564
5800 OTHER SERV. & OPERATING EXP.	1,899,894	904,274	927,785
5900 COMMUNICATIONS	<u>209,415</u>	<u>214,441</u>	<u>220,016</u>
<i>TOTAL CONTRACTS</i>	2,821,947	1,829,113	1,872,670
6170 LAND IMPROVEMENTS	0	0	0
6200 NEW BLDGS/IMPROVEMENTS	0	0	0
6400 NEW EQUIPMENT	101,905	104,351	42,064
6500 EQUIPMENT REPLACEMENT	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL EQUIPMENT</i>	101,905	104,351	42,064
7142 COMMUNITY SCHOOL/SELPA	810,788	827,004	843,544
7282 ALL OTHER TRANSFERS TO COUNTY	0	0	0
7350 INTERFUND INDIRECT COST	-17,903	-18,368	-18,846
7400 DEBT SERVICE	0	0	0
7600 TRANSFERS TO OTHER FUNDS	0	0	0
7649 OTHER LOAN PAYMENTS	<u>0</u>	<u>0</u>	<u>0</u>
<i>TOTAL 7000 OTHER OUTGO</i>	792,885	808,635	824,698
TOTAL EXPENDITURES & TRANSFERS OUT	18,115,456	15,597,343	15,983,747

MULTIPLE YEAR PROJECTION SUMMARY

2016/17

Public Disclosure

Unrestricted/Restricted			
MULTIPLE YEAR PROJECTION - 3/9/17			

	<u>16/17</u>	<u>17/18</u>	<u>18/19</u>
TOTAL REVENUES & TRANSFERS IN	16,073,895	15,204,553	15,698,570
TOTAL EXPENSES & TRANSFERS OUT	18,115,456	15,597,343	15,983,747
TOTAL REVENUES LESS EXPENDITURES	-2,041,561	-392,790	-285,177
BEGINNING BALANCE	7,081,749	5,040,188	4,647,398
LESS AMOUNT ABOVE REVENUES LESS EXP	-2,041,561	-392,790	-285,177
LESS REVOLVING CASH	<u>-10,000</u>	<u>-10,000</u>	<u>-10,000</u>
UNDISTRIBUTED RESERVE	5,030,188	4,637,398	4,352,222
% UNDISTRIBUTED RESERVE	27.77%	29.73%	27.23%
3% UNDISTRIBUTED RESERVE IS	543,464	467,920	479,512
AMOUNT ABOVE (-BELOW) 3%	4,486,724	4,169,478	3,872,709
5% UNRESTRICTED BOARD RESERVE	709,075	638,010	657,459
AMOUNT ABOVE (-BELOW) 5%	4,321,113	3,999,389	3,694,763

<i>Recommended Reserve: 3% plus one year LCFE Growth</i>			
LCFE Growth over prior year	710,496	517,896	252,499
Plus 3% reserve	<u>543,464</u>	<u>467,920</u>	<u>479,512</u>
Total Recommended Reserve	1,253,960	985,816	732,011
Amount Above (-Below) Recommended Reserve	3,776,228	3,651,582	3,620,210
% Undistributed Reserve	20.85%	23.41%	22.65%

Pierce Joint Unified School District
540-A 6th Street Arbuckle, CA 95912
(530) 476-2892 * FAX (530) 476-2289
Thursday, February 16, 2017 6:00 pm
Pierce Joint Unified School District
Grand Island Elementary
551 Leven Street, Grimes CA 95912
Regular Board Meeting Minutes

Governing Board:

Abel Gomez, President

John Friel, Vice President

Nadine High, Board Clerk

George Green, Member

Amy Charter, Member

1. CALL TO ORDER

President Abel Gomez called the meeting to order at 6:00 p.m.

Members Present: Amy Charter, John Friel, Nadine High,
George Green, and Abel Gomez

Absent: None

Others Present: Carol Geyer, Ron Fisher, Summer Shadley, Nicole Newman, Duffy Bailey, Daena Meras, Jennifer Kessinger, Lisa Kitchen, Barbara Bair, Maria Ayala, Lloyd Green, and Melanie Brackett

Mr. Green led the *Pledge of Allegiance*

A. *Pledge of Allegiance*

A motion was made by Ms. Charter and seconded by Ms. High to add two Overnight Field Trip Requests to the Consent Agenda: Item 15.F.4: Volleyball Camp – Varsity: San Diego CA and Item 15.F.5: Volleyball Camp Varsity/JV: Quincy CA and approve the agenda. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

2. APPROVAL OF AGENDA

No one spoke at this time.

3. HEARING OF THE PUBLIC (Speakers will be given three (3) minutes to speak with a twenty (20) minute limit per topic)

Mrs. Geyer read the following report for the PHS Student Body Representative who was attending an alumni event at PHS.

4. PHS Student Body Representative Report

We had a very successful FFA Field Day Saturday, February 4th, with a great turnout of people. Homecoming themes received were Freshman with Operation, Sophomores with Candy Land, Juniors with Monopoly, and Seniors with Battleship. Students started working on their posters and hallway decorations and also participated in nominating and voting for their class prince and princess! Homecoming week was very busy, as it always is. Lunch games and dress up days took place every day, as well as preparation for the rally and ceremony we had Friday. Senior royalty included Paityn Wayman, Angel Hernandez, Giselle Santana, Sergio Garcia, Gisell Hernandez, and Jarrett Veliz. Junior royalty was Danny Garcia and Esmi Salud. Sophomore royalty was Luis Gutierrez and Madison Winans. And lastly, freshman

royalty included Aiden Carter and Ashley Santana. Seniors placed first in both hallway decorations and poster. Totals were calculated each day on a poster in the hallway. The Varsity basketball boys had their senior night Wednesday, February 8, against Live Oak. We wrapped up our homecoming week with a rally and our royal ceremony on Friday at the boys' basketball game vs. Willows! Jarrett Veliz was crowned king along with Gisell Hernandez as queen. Overall, the total homecoming spirit points for each class was Seniors in 1st with 1,025 points; Juniors in 2nd with 700 points; Sophomores in 3rd with 675 points; and Freshman in 4th with 525 points. FBLA also concluded their chocolate covered pretzel fundraiser on Valentine's Day and profited a little over \$200. Now we will be preparing for Spring festivities such as the blood drive and Every 15 Minutes.

Mrs. Shadley outlined the science STEM rotation at Grand Island Elementary. She explained that the 1st – 5th grade students are on a six week rotation schedule and are taught all together, not by grade level. It allows for the older students to help the younger students. Mrs. Kitchen outlined the Human Body section that Mrs. Tellez teaches. Mrs. Kitchen outlined her section on Eco Systems. Mrs. Kessinger then outlined the section she teaches in the rotation, Rocks and Minerals.

Each principal outlined the Winter 2017 benchmark data for their site. There was discussion regarding math courses at Pierce High School. Mrs. Newman submitted the requested curriculum to Mr. Green. Mr. Friel asked about the banner thanking the volunteers and donors who contributed to the school farm. Mrs. Newman responded that Mrs. Sweet will be checking on the status of the banner tomorrow.

Duffy Bailey reported that on the transportation side the district tries to maintain a fleet of 10 operational busses. In order to maintain a 10 bus fleet the district has been purchasing a new bus every other year so the buses are less than 20 years old. The three major bus suppliers have been asked to submit bids for district review. Everything is running very well transportation wise. On the facility side the district survived the recent storms very well. Work orders are being taken care of. An advertisement went into

5. Grand Island Elementary School Staff Presentation

6. PRINCIPAL'S BENCHMARK REPORTS

- A. Arbuckle Elementary School/Grand Island Elementary School
- B. Lloyd G. Johnson Junior High School
- C. Pierce High School/Arbuckle Alternative High School

7. REPORTS:

- A. Facilities / Transportation Report

the Williams Pioneer for requests for qualifications from architects for the bond projects. There is a facilities meeting next week. Mr. Friel asked about the painting of the high school. Mr. Bailey responded that it is one of the projects that will be discussed at the facility meeting. Mrs. Geyer reported that the schedule was to have the painting done during the summer of 2017. Mr. Bailey briefly outlined the process for obtaining bids for the many projects that the district is looking at.

The minutes of the February 6, 2017 DELAC meeting were submitted to the Board. Mrs. Geyer reported that it is nice to see the DELAC meeting so well attended. The parents came with good questions and are grateful for the opportunity to attend a meeting of this type. There were no questions from the Board.

The minutes of the February 7, 2017 DAC meeting were submitted to the Board. There were no questions from the Board.

Mrs. Geyer gave an update on the most current LCAP data points. She explained the new Data Dashboard that the State is going to release to the public in March. She explained that some of the data being used for the new dashboard is not current data. The State is using some data from the 2014/15 school year which will not reflect current practice of the District. She used the suspension rate as an example. Mr. Green asked if there was any room for adjustments of data between now and the release of the data. Mrs. Geyer reported that she has not heard of any changes to the data deadlines or to the existing data points.

Mrs. Geyer outlined the classes as they are presently and presented possible scenarios for classrooms and teachers at Grand Island Elementary for the 2017/18 school year.

The most recent CELDT results were submitted to the Board. Mrs. Geyer outlined the results by site and by grade. She gave a brief outline on the future of the CELDT test. Kindergarten students and brand new students entering the United States will take the CELDT next year. All other EL student will take the new ELPAC test which will replace the CELDT. The State has chosen schools across California to take the ELPAC to set the standardization and norms for the new test. The entire 2nd grade, English only and English learners, will take the ELPAC in the spring. There was discussion regarding the CELDT test and the new ELPAC test schedule. Mrs. Geyer reported that the EL Coordinator for the district, Melissa Cano has been attending trainings on the new

B. DELAC (District English Language Advisory Committee) Report

C. DAC (District Advisory Committee) Report

D. LCAP Update

E. Grand Island Enrollment Report

F. CELDT Report

ELPAC and is doing a wonderful job of keeping on top of all of the changes.

Mrs. Geyer gave a report on the steps she has taken to obtain applications for the bond committee. She reported that the committee needs to consist of (7) members. So far there have been six (6) applications received. The deadline to submit applications is February 23, 2017. She asked the Board to forward any names of people they think may be interested in submitting an application. The category that is not currently filled is a member affiliated with a tax payer organization. Mrs. Geyer reported that she had emailed the Howard Jarvis Group but had gotten no response.

The 2017 Physical Fitness Test results were submitted to the Board. Mrs. Geyer briefly outlined the results. There were no questions. Mr. Green asked how the data gets entered into the system. Mrs. Geyer and Mrs. Shadley explained the process.

No report was given. Mrs. Geyer stated that the district will meet with PJUEA next Wednesday, February 22.

No report was given. Mrs. Geyer stated that the district will meet with CSEA next Wednesday, February 22.

A motion was made by Ms. Charter and seconded by Mr. Friel to approve March 22, 2017 as the Date for the 2017 Governance and Leadership Team Planning Day. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

Daena Meras gave a brief description of the CARS submission. A motion was made by Ms. High and seconded by Mr. Green to approve the 2016/17 Winter Data Collection - CARS. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

Mrs. Geyer outlined the changes to the District Transportation Safety Plan. There was discussion regarding safety measures taken during a red light escort. A motion was made by Mr. Friel and

G. Measure B Citizen's Bond Oversight
Committee Report

H. Physical Fitness Test Results

8. PJUEA (Pierce Joint Unified
Educators Association

9. CSEA (California School
Employees Association)

10. Consider and approve **Date for 2017
Governance and Leadership Team Planning
Day**

11. Consider and approve **2016/17 Winter Data
Collection - CARS**

12. Consider and approve **Pierce Joint Unified
School District Transportation Safety Plan
Update**

seconded by Ms. High to approve the Pierce Joint Unified School District Transportation Safety Plan Update. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

A motion was made by Ms. Charter and seconded by Ms. High to approve the 2017 CSBA Delegate Assembly Election. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

A motion was made by Mr. Friel and seconded by Mr. Green to approve Resolution #16/17 – 19: Establish Fund 21 – Measure B Bond Fund in County Treasury. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

13. Consider and approve **2017 CSBA Delegate Assembly Election**

14. Consider and approve **Resolution #16/17 – 19: Establish Fund 21 – Measure B Bond Fund in County Treasury**

15. Consider and approve **Consent Agenda:**

- A. Minutes of January 19, 2017 Regular Board Meeting
- B. Warrant List for January 2017
- C. Interdistrict Transfers:
 - 1. Transferring **OUT** for the **2016/17** School Year:
 - a. One (1) Student to Colusa CA (new)
 - b. One (1) Student to Esparto CA (new)
 - c. One (1) Student to Woodland CA (continuing)
 - 2. Transferring **IN** for the **2017/18** School Year:
 - a. One (1) Student from Williams CA (continuing)
- D. Donations:
 - 1. Shady Creek – JJH:
 - a. Gerald Brookins
 - b. Alena Anberg
 - c. AlSCO-Geyer Irrigation Inc.
 - d. The Morning Star Packing Company
 - e. Colusa Casino Resort
- E. Contracts:
 - 1. Alta Proposal to Conduct Johnson Junior High and Pierce High School Circulation Study
 - 2. Agreement between Hornblower Cruises and Events and the Pierce Joint

Unified School District for Senior Trip
Dinner Cruise

- F. Overnight Field Trip Request:
 - 1. REACH – Colusa County Girls Circle:
JH – Richardson Springs, Chico CA
 - 2. REACH – Colusa County Girls Circle:
PHS – Richardson Springs, Chico CA
 - 3. 2017 Tournament of Champions 8th
Grade Boys’ Basketball – Crescent City
CA
 - 4. **Volleyball Camp – Varsity: San
Diego CA**
 - 5. **Volleyball Camp – JV and Varsity:
Quincy CA**

Mrs. Geyer reported that Item #15F3 may require an additional night stay due to the lateness of the last game. A motion was made by Mr. Friel and seconded by Ms. Charter to approve the Consent Agenda. Voting Aye: Mr. Friel, Ms. High, Mr. Green, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: None

- 16. BOARD POLICIES
 - A. FIRST READING:
 - 1. BP/AR 5141.21: Administering
Medication and Monitoring Health
Conditions
 - 2. BP 6146.1: High School Graduation
Requirements

Mrs. Charter asked about the new section in BP/AR 5141.21 regarding Emergency Medication for Opioid Overdose. There was discussion regarding this section of the policy. There was further discussion regarding medical procedures, who has been trained to administer medications, and what happens when students are on school sponsored trips. The District Nurse reviewed this policy before submitting it to the Board. Mrs. Geyer outlined the changes to BP 6146.1. A motion was made by Ms. High and seconded by Ms. Charter to approve the First Reading Board Policies. Voting Aye: Mr. Friel, Ms. High, Ms. Charter, and Mr. Gomez. Voting No: Mr. Green. Absent: None

- 17. Items to be agendized for next
regular meeting:

The next regular meeting is March 9, 2017, the second Thursday of the month due to budgetary deadlines.

Tenure Celebration
2nd Interim Budget Report
Kindergarten Program Presentation
Extended Day Kindergarten Program Resolution
Impanel Citizens’ Bond Oversight Committee
BB 9005 Approval

Mrs. Geyer thanked Melanie Brackett for her work in getting the electronic board meeting packets online. She thanked Daena Meras and Duffy Bailey for the work they have been doing on the many projects going on throughout the district. She reported on the six (6) hour training that she, the principals, Jeff Stuienberg, and Melanie attended on BI (Business Intelligence) Tool. It is a powerful tool that will allow complex forms to be created from the data in Illuminate. She is working on transitioning the LCAP data into the new template. Mrs. Geyer is writing a budget revision for Migrant Education MOU for ten (10) wireless hotspot Wi-Fi connections and ten (10) Chromebooks for Migrant Students who do not have internet connections at home. The District would pilot a program where the students would be able to take the equipment home to utilize online programs such as ST Math. She will be writing the grant for next year which will include funds for this program to be ongoing and for summer school. She will also include the STEM portion of the PIQUE trainings in the grant. She passed out the DRAFT discipline guide that will be discussed at the next District Safety Meeting.

Mr. Gomez thanked Lloyd Green for his attendance at the board meeting.

18. Superintendent’s Report

19. Board President’s Report

20. CLOSED SESSION:

A. PUBLIC EMPLOYMENT: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss employee matters:

Certification	Position	Status
Classified	Custodian	Resignation
Classified	After School Para Educator	Resignation
Certificated	Music Teacher – PHS	Resignation

B. CONFERENCE WITH LABOR

NEGOTIATOR: Pursuant to Government Code sec. 54957.6, the Board will meet in CLOSED SESSION to give direction to Agency Negotiator, Carol Geyer, regarding negotiations with PJUEA (Pierce Joint Unified Educators Association), CSEA (California School Employees Association), and Unrepresented Groups.

- C. PUBLIC EMPLOYEE DISCIPLINE / DISMISSAL / RELEASE: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss public employee discipline / dismissal / release
- D. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Pursuant to Paragraph (2) or (3) of Subdivision (D) of Government Code 54956.9 – One Case
- E. PUBLIC EMPLOYEE PERFORMANCE EVALUATION – Superintendent: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to conduct verbal evaluation and discuss format, goals, and priorities for the Superintendent’s evaluation

The Board went into CLOSED SESSION at 7:35 p.m.

21. OPEN SESSION

- A. Report Action Taken in CLOSED SESSION

The Board reconvened at 8:15 p.m. and reported action taken on the following:

- A. PUBLIC EMPLOYMENT: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss employee matters: **In CLOSED SESSION by unanimous decision, the Board approved the Public Employment**

Certification	Position	Status
Classified	Custodian	Resignation
Classified	After School Para Educator	Resignation
Certificated	Music Teacher – PHS	Resignation

- B. CONFERENCE WITH LABOR NEGOTIATOR: Pursuant to Government Code sec. 54957.6, the Board will meet in CLOSED SESSION to give direction to Agency Negotiator, Carol Geyer, regarding negotiations with PJUEA (Pierce Joint Unified Educators Association), CSEA (California School Employees Association), and Unrepresented Groups: **No ACTION was taken.**

- C. PUBLIC EMPLOYEE DISCIPLINE / DISMISSAL / RELEASE: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to discuss public employee discipline / dismissal / release: **A motion was made by Mr. Friel and seconded by Mr. Green to approve Resolution #16/17 – 18: Non-Reelection of Probationary Certificated Employee**

- D. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION: Pursuant to Paragraph (2) or (3) of Subdivision (D) of Government Code 54956.9 – One Case: **No ACTION was taken.**

- E. PUBLIC EMPLOYEE PERFORMANCE EVALUATION – Superintendent: Pursuant to Government Code sec. 54957, the Board will meet in CLOSED SESSION to conduct verbal evaluation and discuss format, goals, and priorities for the Superintendent’s evaluation: **No ACTION was taken.**

The Board adjourned at 9:01 p.m.

22. ADJOURN

Carol Geyer, Secretary to the Board
of Trustees

Pierce Joint Unified School District
540-A 6th Street Arbuckle, CA 95912
(530) 476-2892 * FAX (530) 476-2289
Monday, February 13, 2017
8:30 a.m.

Pierce Joint Unified School District
Technology Building
940A Wildwood Rd, Arbuckle CA 95912
Special Board Meeting Minutes

Governing Board:

Abel Gomez, President

John Friel, Vice President

Nadine High, Board Clerk

George Green, Member

Amy Charter, Member

1. CALL TO ORDER

President Abel Gomez called the meeting to order at 8:45 a.m.

Members Present: Nadine High, Amy Charter, Abel Gomez, George Green, and John Friel

Absent: None

Others Present: Carol Geyer, Bob Caine, Nicole Newman, Ron Fisher, Summer Shadley, Deanna Fernandes, and Steve Lamb

A. *Pledge of Allegiance*

Ms. Nadine High led the *Pledge of Allegiance*

2. APPROVAL OF AGENDA

A motion was made by Ms. High and seconded by Ms. Charter to approve the agenda. Voting aye: Ms. High, Mr. Friel, Mr. Green, Ms. Charter and Mr. Gomez. Voting no: None. Absent: None

3. HEARING OF THE PUBLIC

No one spoke at this time.

4. 2017 Governance Training

The Board met for Governance Training. Mr. Bob Caine from CSBA facilitated the training. A review of an Effective Governance System took place. The Lighthouse Study results were discussed as well. Research in regards to student achievement was reviewed. Board Bylaw 9005 was discussed and changes proposed. Current issues and challenges were also talked about.

5. ADJOURN

The Board adjourned at 3:10 p.m.

Carol Geyer, Secretary to the Board
of Trustees

Pierce Joint Unified School District
540-A 6th Street Arbuckle, CA 95912
(530) 476-2892 * FAX (530) 476-2289
Thursday, February 23, 2017
1:00 p.m.

Pierce Joint Unified School District
Technology Building
940A Wildwood Rd, Arbuckle CA 95912
Special Board Meeting Minutes

Governing Board:

Abel Gomez, President

John Friel, Vice President

Nadine High, Board Clerk

George Green, Member

Amy Charter, Member

1. CALL TO ORDER

Board Clerk, Nadine High called the meeting to order at 1:00 p.m..

Members Present: Nadine High, Amy Charter, and George Green.

Abel Gomez arrived at 1:08 p.m.

Absent: John Friel

Others Present: Carol Geyer, Nicole Newman, Cathy Marsh, Mike Doherty, Alan Chambers, Trent Sommers, Daena Meras, and Duffy Bailey

Ms. Charter led the *Pledge of Allegiance*

A. *Pledge of Allegiance*

A motion was made by Ms. Charter and seconded by Mr. Green to approve the agenda. Voting aye: Ms. High, Mr. Green, and Ms. Charter. Voting no: None. Absent: Mr. Friel and Mr. Gomez

2. APPROVAL OF AGENDA

No one spoke at this time.

3. HEARING OF THE PUBLIC

A motion was made by Mr. Green and seconded by Ms. Charter to approve the Overnight Field Trip Request: Arbuckle FFA – Merced Field Day, Merced CA. Voting Aye: Mr. Green, Ms. High, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: Mr. Friel.

4. Consider and approve **Overnight Field Trip Request: Arbuckle FFA – Merced Field Day, Merced CA**

A motion was made by Ms. Charter and seconded by Ms. High to approve the Cross Country Team Proposal. Voting Aye: Mr. Green, Ms. High, Ms. Charter, and Mr. Gomez. Voting No: None. Absent: Mr. Friel.

5. Consider and approve **Cross Country Team Proposal**

Carol Geyer acknowledged that both Alan Chambers and Trent Sommers, architects working for the district were in attendance at the meeting. Each talked about the current status of the specific projects they were working on for the district. Discussion for the remainder of the meeting was facilitated by Trent centering around projects that had come about as a result of the District's Facility Master Plan that he had been a part of. A list was

6. Facility Planning Meeting

presented to the committee that showed ‘Current Projects’, ‘Assumed High Priority Projects’, and ‘Remaining Projects to Prioritize’. The next meeting will include Cheryl King presenting to the group on state eligibility funding for modernization and new construction projects and which projects may qualify for these funds.

The Board adjourned at 2:10 p.m.

7. ADJOURN

Carol Geyer, Secretary to the Board
of Trustees

ROATCH 29

APY280 L.00.03

COLUSA COUNTY OFFICE OF EDUCATION
ACCOUNTS PAYABLE SUMMARY BY OBJECT
FOR WARRANTS DATED 02/03/2017

02/02/17 PAGE 10

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 01 GENERAL FUND/COUNTY SCH.SRV.

OBJECT	DESCRIPTION	AMOUNT
4300	MATERIALS AND SUPPLIES	9,506.85
4400	NONCAPITALIZED EQUIPMENT	4,776.36
5200	TRAVEL AND CONFERENCE	2,411.00
5500	OPERATIONS & HOUSEKEEPING SERV	20,014.51
5800	CONSULTING SERV/OPERATING EXP	3,281.58
5900	COMMUNICATIONS	15,654.78
	TOTAL FUND :	55,645.08

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 13

CAFETERIA FUND

OBJECT	DESCRIPTION	AMOUNT
5200	TRAVEL AND CONFERENCE	1,095.00
	TOTAL FUND :	1,095.00

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 95

STUDENT BODY FUND

OBJECT	DESCRIPTION	AMOUNT
4300	MATERIALS AND SUPPLIES	399.65
	TOTAL FUND :	399.65
	TOTAL DISTRICT:	57,139.73

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0029 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant Reference	GOAL	OBJECT	Amount
005159	APPLE INC. PO-000384	PIERCE HIGH SCHOOL	384450	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	40.76 \$40.76 *
005202	BOZ ELECTRIC PV-000843	FLD NOT USED	384451	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	600.00 \$600.00 *
000179	BUSWEST NORTH PV-000834	FLD NOT USED	384452	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	332.58 \$332.58 *
000033	CASBO PO-000332	FLD NOT USED FLD NOT USED	384453	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE TRAVEL AND CONFERENCE	745.00 1,095.00 \$1,840.00 *
003705	CASCADE ATHLETIC SUPPLY PO-000368	PIERCE HIGH SCHOOL	384454	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	1,043.08 \$1,043.08 *
004711	COLLEGE CITY MARKET PV-000821	PIERCE HIGH SCHOOL	384455	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	141.52 \$141.52 *
005221	CREATIVE BUS SALES PV-000839	FLD NOT USED	384456	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	378.18 \$378.18 *
000588	DEMCO INC PO-000329	ARBUCKLE ELEMENTARY SCHOOL	384457	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	200.34 \$200.34 *
000127	FRONTIER PV-000823 PV-000824	FLD NOT USED FLD NOT USED	384458	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	COMMUNICATIONS COMMUNICATIONS	44.70 14,813.98 \$14,858.68 *
005163	GAYNOR TELESYSTEMS INCORP PO-000237 PO-000299	FLD NOT USED FLD NOT USED	384459	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	NONCAPITALIZED EQUIPMENT NONCAPITALIZED EQUIPMENT	2,023.13 2,753.23 \$4,776.36 *
005119	HD SUPPLY FACILITIES MAINT PV-000840 PV-000841	FLD NOT USED FLD NOT USED	384460	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	792.95 94.55 \$887.50 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0029 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
001787	INLAND BUSINESS SYSTEMS PV-000825	FLD NOT USED	384461	REGULAR EDUCATION, K-12 WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	1,356.58 \$1,356.58 *
004371	MACIE PUBLISHING CO PO-000377	ARBUCKLE ELEMENTARY SCHOOL FLD NOT USED	384462	REGULAR EDUCATION, K-12 UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	102.30 399.65 \$501.95 *
002532	MITEL LEASING PV-000819	FLD NOT USED	384463	UNDISTRIBUTED WARRANT TOTAL	COMMUNICATIONS	760.92 \$760.92 *
000094	PACIFIC GAS & ELECTRIC CO PV-000820	FLD NOT USED	384464	UNDISTRIBUTED	GAS AND ELECTRICITY	4,709.71
		FLD NOT USED		UNDISTRIBUTED	GAS AND ELECTRICITY	2,025.07
		FLD NOT USED		UNDISTRIBUTED	GAS AND ELECTRICITY	10,432.43
		FLD NOT USED		UNDISTRIBUTED	GAS AND ELECTRICITY	2,534.19
		FLD NOT USED		UNDISTRIBUTED	GAS AND ELECTRICITY	197.04
		FLD NOT USED		COMMUNITY SERVICES	GAS AND ELECTRICITY	44.51
	PV-000827	FLD NOT USED		UNDISTRIBUTED	GAS AND ELECTRICITY	71.56
				WARRANT TOTAL		\$20,014.51 *
003804	PJUSD PV-000826	DO-AES	384465	REGULAR EDUCATION, K-12 WARRANT TOTAL	TRAVEL AND CONFERENCE	1,666.00 \$1,666.00 *
000682	PLATT ELECTRIC SUPPLY PV-000828	FLD NOT USED	384466	UNDISTRIBUTED	MATERIALS AND SUPPLIES	573.51
	PV-000829	FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	63.61
	PV-000830	FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	231.98
	PV-000831	FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	478.89
	PV-000832	FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	28.93
	PV-000833	FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	238.93
	PV-000844	PIERCE HIGH SCHOOL		VOCATIONAL EDUCATION	MATERIALS AND SUPPLIES	553.27
				WARRANT TOTAL		\$2,169.12 *
003466	SAC-VAL PV-000836	FLD NOT USED	384467	UNDISTRIBUTED	MATERIALS AND SUPPLIES	245.88
	PV-000837	FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	1,987.96
				WARRANT TOTAL		\$2,233.84 *
001125	SHIFFLER EQUIP SALES INC PV-000835	FLD NOT USED	384468	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	581.61 \$581.61 *
002478	SPRINT PV-000822	FLD NOT USED	384469	UNDISTRIBUTED	COMMUNICATIONS	35.18

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0029 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount

				WARRANT TOTAL		\$35.18 *
000536	SUTTER COUNTY SUPT OF SCHLS PV-000842	FLD NOT USED	384470	REGULAR EDUCATION, K-12	CONSULTING SERV/OPERATING EXP	1,325.00
				WARRANT TOTAL		\$1,325.00 *
003178	TRI COUNTY PETROLEUM INC PV-000838	FLD NOT USED FLD NOT USED	384471	UNDISTRIBUTED	FUEL	247.48
				UNDISTRIBUTED	FUEL	1,148.54
				WARRANT TOTAL		\$1,396.02 *
***	BATCH TOTALS ***		TOTAL NUMBER OF WARRANTS:	22	TOTAL AMOUNT OF WARRANTS:	\$57,139.73*
***	DISTRICT TOTALS ***		TOTAL NUMBER OF WARRANTS:	22	TOTAL AMOUNT OF WARRANTS:	\$57,139.73**

BATCH 30

APY280 L.00.03

COLUSA COUNTY OFFICE OF EDUCATION
ACCOUNTS PAYABLE SUMMARY BY OBJECT
FOR WARRANTS DATED 02/10/2017

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DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 01

GENERAL FUND/COUNTY SCH.SRV.

OBJECT	DESCRIPTION	AMOUNT
4200	BOOKS OTHER THAN TEXTBOOKS	2,225.25
4300	MATERIALS AND SUPPLIES	6,774.38
4400	NONCAPITALIZED EQUIPMENT	253.82
5200	TRAVEL AND CONFERENCE	1,389.08
5500	OPERATIONS & HOUSEKEEPING SERV	5,633.65
5600	RENTALS, LEASES AND REPAIRS	5,920.82
5800	CONSULTING SERV/OPERATING EXP	10,546.05
5900	COMMUNICATIONS	939.13
	TOTAL FUND :	33,682.18

COLUSA COUNTY OFFICE OF EDUCATION
ACCOUNTS PAYABLE SUMMARY BY OBJECT
FOR WARRANTS DATED 02/10/2017

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 13

CAFETERIA FUND

OBJECT	DESCRIPTION	AMOUNT
4300	MATERIALS AND SUPPLIES	957.97
4700	FOOD	20,518.23
5800	CONSULTING SERV/OPERATING EXP	43.75
	TOTAL FUND :	21,519.95

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 25

CAPITAL FACILITIES FUND

OBJECT	DESCRIPTION	AMOUNT
5800	CONSULTING SERV/OPERATING EXP	644.62
	TOTAL FUND :	644.62
	TOTAL DISTRICT:	55,846.75

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0030 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference SCHOOL	Warrant	GOAL	OBJECT	Amount
005270	123 OFFICE SOLUTION PO-000385 PIERCE HIGH SCHOOL	384624	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	1,136.85 \$1,136.85 *
001120	A-Z BUS SALES INC PV-000861 FLD NOT USED	384625	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	48.87 \$48.87 *
005437	ADVENTIST HEALTH COLUSA PV-000854 FLD NOT USED	384626	UNDISTRIBUTED WARRANT TOTAL	PHYSICAL EXAMS	319.00 \$319.00 *
005481	ALMOND DIESEL REPAIR INC. PV-000859 FLD NOT USED	384627	UNDISTRIBUTED WARRANT TOTAL	RENTALS, LEASES AND REPAIRS	175.51 \$175.51 *
005196	DANIELLE ALVERNANZ PV-000848 ARBUCKLE ELEMENTARY SCHOOL	384628	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	44.00 \$44.00 *
000141	ARBUCKLE PUBLIC UTILITIES PV-000852 FLD NOT USED	384629	UNDISTRIBUTED WARRANT TOTAL	WATER	42.00 \$42.00 *
000179	BUSWEST NORTH PV-000856 FLD NOT USED PV-000857 FLD NOT USED PV-000858 FLD NOT USED	384630	UNDISTRIBUTED UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	64.13 291.90 128.19 \$484.22 *
000033	CASBO PO-000395 FLD NOT USED PO-000396 FLD NOT USED	384631	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE TRAVEL AND CONFERENCE	305.00 255.00 \$560.00 *
003208	CDW-G COMPUTING SOLUTIONS PO-000381 DO-AES	384632	REGULAR EDUCATION, K-12 WARRANT TOTAL	NONCAPITALIZED EQUIPMENT	253.82 \$253.82 *
000658	CMA OF SACRAMENTO PV-000878 FLD NOT USED	384633	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	88.15 \$88.15 *
000295	COLUSA CO WATER WORKS DIST #1 PV-000864 FLD NOT USED	384634	UNDISTRIBUTED WARRANT TOTAL	WATER	120.00 \$120.00 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0030 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
000044	COLUSA MOTOR SALES PV-000855	FLD NOT USED	384635	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	2,305.08 \$2,305.08 *
000429	CRYSTAL CREAMERY PV-000880	FLD NOT USED	384636	UNDISTRIBUTED WARRANT TOTAL	FOOD	2,952.33 \$2,952.33 *
000428	THE DANIELSEN CO. PV-000881	FLD NOT USED FLD NOT USED FLD NOT USED	384637	UNDISTRIBUTED UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES FOOD	774.58 95.24 5,013.60 \$5,883.42 *
005264	DE LAGE LANDEN PUBLIC FINANCE PV-000874	FLD NOT USED ARBUCKLE ELEMENTARY SCHOOL JOHNSON JR HIGH SCHOOL	384638	UNDISTRIBUTED REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 WARRANT TOTAL	COPY MACHINE MAINTENANCE COPY MACHINE MAINTENANCE COPY MACHINE MAINTENANCE	1,429.08 2,200.08 1,641.51 \$5,270.67 *
000028	DEPT OF JUSTICE PV-000879	FLD NOT USED	384639	UNDISTRIBUTED WARRANT TOTAL	FINGERPRINTING	32.00 \$32.00 *
004973	ANGELA DORANTES PV-000868	FLD NOT USED	384640	UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE	101.52 \$101.52 *
000514	ELFRINK'S INC. PV-000860	FLD NOT USED	384641	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	72.62 \$72.62 *
000127	FRONTIER PV-000850	FLD NOT USED	384642	UNDISTRIBUTED WARRANT TOTAL	COMMUNICATIONS	70.41 \$70.41 *
001651	GOLD STAR FOODS PV-000851	FLD NOT USED	384643	UNDISTRIBUTED WARRANT TOTAL	FOOD	10,734.35 \$10,734.35 *
005246	GREAT AMERICA FINANCIAL SVCS. PV-000853	FLD NOT USED	384644	REGULAR EDUCATION, K-12 WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	3,011.64 \$3,011.64 *
004902	GEORGE GRIFFIN PV-000846	GRAND ISLAND ELEMENTARY SCHOOL	384645	REGULAR EDUCATION, K-12 WARRANT TOTAL	TRAVEL AND CONFERENCE	168.48 \$168.48 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0030 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference SCHOOL	Warrant	GOAL	OBJECT	Amount
005183	AMY HANNON-KORYNTA PV-000867 JOHNSON JR HIGH SCHOOL	384646	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	66.96 \$66.96 *
004976	HARRIS COMPUTER SYSTEMS PV-000877 FLD NOT USED	384647	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	43.75 \$43.75 *
001787	INLAND BUSINESS SYSTEMS PV-000876 GRAND ISLAND ELEMENTARY SCHOOL	384648	REGULAR EDUCATION, K-12 WARRANT TOTAL	COPY MACHINE MAINTENANCE	78.38 \$78.38 *
005502	LEARN BY DOING INC PO-000334 PIERCE HIGH SCHOOL	384649	REGULAR EDUCATION, K-12 WARRANT TOTAL	BOOKS OTHER THAN TEXTBOOKS	750.00 \$750.00 *
003216	MCGRAW-HILL SCHOOL EDUCATION PO-000398 PIERCE HIGH SCHOOL	384650	REGULAR EDUCATION, K-12 WARRANT TOTAL	BOOKS OTHER THAN TEXTBOOKS	762.75 \$762.75 *
003755	MJB WELDING INC PO-000356 PIERCE HIGH SCHOOL	384651	VOCATIONAL EDUCATION WARRANT TOTAL	MATERIALS AND SUPPLIES	1,634.55 \$1,634.55 *
000094	PACIFIC GAS & ELECTRIC CO PV-000865 FLD NOT USED PV-000873 FLD NOT USED	384652	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	GAS AND ELECTRICITY GAS AND ELECTRICITY	509.67 1,742.11 \$2,251.78 *
003005	PITNEY BOWES PV-000872 FLD NOT USED	384653	UNDISTRIBUTED WARRANT TOTAL	COMMUNICATIONS	868.72 \$868.72 *
000233	PJUSD REVOLVING ACCOUNT RC-000005 JOHNSON JR HIGH SCHOOL FLD NOT USED PIERCE HIGH SCHOOL FLD NOT USED	384654	REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 VOCATIONAL EDUCATION REGULAR EDUCATION, K-12 WARRANT TOTAL	CONSULTING SERV/OPERATING EXP CONSULTING SERV/OPERATING EXP TRAVEL AND CONFERENCE CONSULTING SERV/OPERATING EXP	150.00 3,011.64 300.00 88.00 \$3,549.64 *
000682	PLATT ELECTRIC SUPPLY PV-000875 PIERCE HIGH SCHOOL	384655	VOCATIONAL EDUCATION WARRANT TOTAL	MATERIALS AND SUPPLIES	553.27 \$553.27 *
005347	LISA NILSEN RAYMOND PV-000847 FLD NOT USED	384656	UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE	62.64 \$62.64 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0030 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
004206	RECOLOGY BUTTE PV-000863	COLUSA COUNTIES FLD NOT USED	384657	UNDISTRIBUTED WARRANT TOTAL	GARBAGE	3,219.87 \$3,219.87 *
003659	STEFFANY RITCHIE PV-000849	DO-PHS	384658	REGULAR EDUCATION, K-12 WARRANT TOTAL	TRAVEL AND CONFERENCE	22.56 \$22.56 *
001535	ROHRER BROS INC PV-000882	FLD NOT USED	384659	UNDISTRIBUTED WARRANT TOTAL	FOOD	1,817.95 \$1,817.95 *
003486	SCHOLASTIC INC PV-000883	JOHNSON JR HIGH SCHOOL	384660	REGULAR EDUCATION, K-12 WARRANT TOTAL	BOOKS OTHER THAN TEXTBOOKS	712.50 \$712.50 *
000310	SCHOOL SPECIALTY INC CM-000007 CM-000008 PO-000390 PO-000402 PO-000403	ARBUCKLE ELEMENTARY SCHOOL JOHNSON JR HIGH SCHOOL PIERCE HIGH SCHOOL ARBUCKLE ELEMENTARY SCHOOL JOHNSON JR HIGH SCHOOL	384661	REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	28.22- 146.76- 42.88 63.91 118.38 \$50.19 *
005061	SUMMER SHADLEY PV-000845	FLD NOT USED	384662	REGULAR EDUCATION, K-12 WARRANT TOTAL	TRAVEL AND CONFERENCE	106.92 \$106.92 *
005309	SOMMERS ARCHITECTURE PV-000884	FLD NOT USED	384663	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	644.62 \$644.62 *
001953	STAPLES ADVANTAGE PO-000372 PO-000376 PO-000379	FLD NOT USED FLD NOT USED GRAND ISLAND ELEMENTARY SCHOOL	384664	UNDISTRIBUTED UNDISTRIBUTED REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	39.22 73.69 264.86 \$377.77 *
005397	STEVENSON PEST CONTROL PV-000862	FLD NOT USED	384665	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	370.00 \$370.00 *
004205	JEFFREY STUIVENBERG PV-000869	FLD NOT USED FLD NOT USED	384666	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE CONSULTING SERV/OPERATING EXP	66.96 69.99 \$136.95 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0030 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
005392	SYTECH SOLUTIONS		384667			
	PV-000870	FLD NOT USED		UNDISTRIBUTED	CONSULTING SERV/OPERATING EXP	2,100.00
	PV-000871	FLD NOT USED		UNDISTRIBUTED	CONSULTING SERV/OPERATING EXP	1,298.78
				WARRANT TOTAL		\$3,398.78 *
005527	TAGUE BAND INSTRUMENT SERVICE		384668			
	PO-000397	JOHNSON JR HIGH SCHOOL		REGULAR EDUCATION, K-12	RENTALS, LEASES AND REPAIRS	396.26
				WARRANT TOTAL		\$396.26 *
005487	WILLIAMS PIONEER REVIEW		384669			
	PV-000866	FLD NOT USED		UNDISTRIBUTED	NEWSPAPER ADVERTISEMENTS	95.00
				WARRANT TOTAL		\$95.00 *
***	BATCH TOTALS ***		TOTAL NUMBER OF WARRANTS:	46	TOTAL AMOUNT OF WARRANTS:	\$55,846.75*
***	DISTRICT TOTALS ***		TOTAL NUMBER OF WARRANTS:	46	TOTAL AMOUNT OF WARRANTS:	\$55,846.75**

BATCH 3

APY280 L.00.03

COLUSA COUNTY OFFICE OF EDUCATION
ACCOUNTS PAYABLE SUMMARY BY OBJECT
FOR WARRANTS DATED 02/17/2017

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DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 01 GENERAL FUND/COUNTY SCH.SRV.

OBJECT	DESCRIPTION	AMOUNT
3400	HEALTH & WELFARE	15,487.00
4300	MATERIALS AND SUPPLIES	7,635.50
5200	TRAVEL AND CONFERENCE	3,887.11
5600	RENTALS, LEASES AND REPAIRS	1,017.44
5800	CONSULTING SERV/OPERATING EXP	683.90
5900	COMMUNICATIONS	536.79
9130	REVOLVING CASH ACCOUNT	10,000.00
9514	HEALTH/WELFARE LIAB	14,946.00
	TOTAL FUND :	54,193.74

COLUSA COUNTY OFFICE OF EDUCATION
ACCOUNTS PAYABLE SUMMARY BY OBJECT
FOR WARRANTS DATED 02/17/2017

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 13

CAFETERIA FUND

OBJECT	DESCRIPTION	AMOUNT
5200	TRAVEL AND CONFERENCE	255.90
5800	CONSULTING SERV/OPERATING EXP	423.60
	TOTAL FUND :	679.50

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 25

CAPITAL FACILITIES FUND

OBJECT	DESCRIPTION	AMOUNT
5800	CONSULTING SERV/OPERATING EXP	11,044.51
6200	NEW & IMPROVEMENT OF BUILDINGS	6,145.00
	TOTAL FUND :	17,189.51
	TOTAL DISTRICT:	72,062.75

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0031 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
001120	A-Z BUS SALES INC PV-000903	FLD NOT USED	384825	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	30.83 \$30.83 *
005530	AED SUPERSTORE PO-000417	FLD NOT USED	384826	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	510.00 \$510.00 *
002380	ALHAMBRA PV-000911	FLD NOT USED FLD NOT USED FLD NOT USED	384827	UNDISTRIBUTED UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	57.90 21.16 20.15 \$99.21 *
004503	ALSCO-GEYER/ACE PO-000269 PO-000270 PV-000902	HARDWARE PIERCE HIGH SCHOOL PIERCE HIGH SCHOOL FLD NOT USED	384828	VOCATIONAL EDUCATION VOCATIONAL EDUCATION UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	98.56 154.06 763.73 \$1,016.35 *
001951	ANDERSON'S PO-000405	ARBUCKLE ELEMENTARY SCHOOL	384829	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	343.49 \$343.49 *
001828	DWIGHT BAILEY PV-000885	FLD NOT USED FLD NOT USED	384830	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE TRAVEL AND CONFERENCE	102.60 104.76 \$207.36 *
001720	BAUVILLE PO-000406	ARBUCKLE ELEMENTARY SCHOOL	384831	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	690.53 \$690.53 *
000179	BUSWEST NORTH PV-000908	FLD NOT USED	384832	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	396.24 \$396.24 *
004919	CARVALHO'S HEATING & PV-000912	FLD NOT USED	384833	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	339.78 \$339.78 *
005400	CINTAS PV-000893	FLD NOT USED FLD NOT USED FLD NOT USED	384834	UNDISTRIBUTED UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP CONSULTING SERV/OPERATING EXP CONSULTING SERV/OPERATING EXP	338.00 6.12 423.60 \$767.72 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0031 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
000588	DEMCO INC PO-000401	ARBUCKLE ELEMENTARY SCHOOL	384835	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	194.78 \$194.78 *
005520	EAGLE ARCHITECTS PV-000894	FLD NOT USED	384836	UNDISTRIBUTED WARRANT TOTAL	NEW & IMPROVEMENT OF BUILDINGS	6,145.00 \$6,145.00 *
005138	EVERBANK COMMERCIAL FINANCE PV-000892	GRAND ISLAND ELEMENTARY SCHOOL	384837	REGULAR EDUCATION, K-12 WARRANT TOTAL	COPY MACHINE MAINTENANCE	219.06 \$219.06 *
000899	EWING IRRIGATION PROD PV-000905 PV-000906	FLD NOT USED FLD NOT USED	384838	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	493.66 775.31 \$1,268.97 *
002651	FIRST NATIONAL BANK OMAHA PV-000900	FLD NOT USED	384839	UNDISTRIBUTED	TRAVEL AND CONFERENCE	255.90
		DO-AES		REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	883.49
		DO-AES		REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	1,210.16
		DO-PHS		REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	462.28
		PIERCE HIGH SCHOOL		REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	442.54
		FLD NOT USED		UNDISTRIBUTED	TRAVEL AND CONFERENCE	255.90
				WARRANT TOTAL		\$3,510.27 *
004136	GERLINGER STEEL PO-000354	PIERCE HIGH SCHOOL	384840	VOCATIONAL EDUCATION WARRANT TOTAL	MATERIALS AND SUPPLIES	106.43 \$106.43 *
005119	HD SUPPLY FACILITIES MAINT PV-000909 PV-000910	FLD NOT USED FLD NOT USED	384841	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	246.07 172.78 \$418.85 *
001787	INLAND BUSINESS SYSTEMS PV-000895 PV-000901	GRAND ISLAND ELEMENTARY SCHOOL PIERCE HIGH SCHOOL	384842	REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 WARRANT TOTAL	COPY MACHINE MAINTENANCE MATERIALS AND SUPPLIES	78.38 317.40 \$395.78 *
005222	J.M. KING CONSULTING INC. PV-000897	FLD NOT USED	384843	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	11,044.51 \$11,044.51 *
005281	CAROL KEISER PV-000889	PIERCE HIGH SCHOOL	384844	VOCATIONAL EDUCATION WARRANT TOTAL	TRAVEL AND CONFERENCE	74.52 \$74.52 *

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0031 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount
005192	CATHERINE LOPEZ PV-000887	FLD NOT USED	384845	REGULAR EDUCATION, K-12 WARRANT TOTAL	TRAVEL AND CONFERENCE	43.20 \$43.20 *
003999	DAENA MERAS PV-000888	FLD NOT USED	384846	UNDISTRIBUTED WARRANT TOTAL	TRAVEL AND CONFERENCE	157.00 \$157.00 *
000376	NASCO MODESTO PO-000404	JOHNSON JR HIGH SCHOOL	384847	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	166.82 \$166.82 *
005266	PIERCE JOINT UNIFIED SCHOOL PV-000896	FLD NOT USED	384848	UNDISTRIBUTED WARRANT TOTAL	REVOLVING CASH ACCOUNT	10,000.00 \$10,000.00 *
000682	PLATT ELECTRIC SUPPLY PV-000914	FLD NOT USED	384849	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	107.77 \$107.77 *
001861	RON RECTOR PV-000886	FLD NOT USED	384850	REGULAR EDUCATION, K-12 GRAND ISLAND ELEMENTARY SCHOOL WARRANT TOTAL	TRAVEL AND CONFERENCE TRAVEL AND CONFERENCE	129.60 21.06 \$150.66 *
005449	MARY REILLY PV-000891	JOHNSON JR HIGH SCHOOL	384851	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	46.66 \$46.66 *
000817	SANDERS HEAVY TOWING PV-000904	FLD NOT USED	384852	UNDISTRIBUTED WARRANT TOTAL	RENTALS, LEASES AND REPAIRS	720.00 \$720.00 *
003119	SANKEY AUTOMOBILE CO INC PV-000907	FLD NOT USED	384853	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	588.50 \$588.50 *
005532	SNAP-ON TOOLS PV-000915	FLD NOT USED	384854	UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES	439.61 \$439.61 *
005132	SOCCER.COM PO-000380	PIERCE HIGH SCHOOL	384855	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	484.37 \$484.37 *
005513	TIFCO INDUSTRIES INC PV-000913	FLD NOT USED	384856	UNDISTRIBUTED	MATERIALS AND SUPPLIES	338.13

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0031 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference SCHOOL	Warrant	GOAL	OBJECT	Amount

			WARRANT TOTAL		\$338.13 *
000841	TRI-COUNTY SCHOOLS	384857			
	PV-000898 FLD NOT USED		UNDISTRIBUTED	HEALTH & WELFARE-CLASSIFIED	6,865.00
	FLD NOT USED		UNDISTRIBUTED	HEALTH & WELFARE-CLASSIFIED	502.00
	FLD NOT USED		UNDISTRIBUTED	HEALTH & WELFARE-CLASSIFIED	8,120.00
	FLD NOT USED		UNDISTRIBUTED	HEALTH/WELFARE LIAB	14,946.00
			WARRANT TOTAL		\$30,433.00 *
000610	VERIZON WIRELESS	384858			
	PV-000899 FLD NOT USED		UNDISTRIBUTED	COMMUNICATIONS	536.79
			WARRANT TOTAL		\$536.79 *
005533	VILLAGE BISTRO	384859			
	PO-000425 FLD NOT USED		UNDISTRIBUTED	MATERIALS AND SUPPLIES	70.56
			WARRANT TOTAL		\$70.56 *
***	BATCH TOTALS ***	TOTAL NUMBER OF WARRANTS: 35		TOTAL AMOUNT OF WARRANTS:	\$72,062.75*
***	DISTRICT TOTALS ***	TOTAL NUMBER OF WARRANTS: 35		TOTAL AMOUNT OF WARRANTS:	\$72,062.75**

APY280 L.00.03

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

COLUSA COUNTY OFFICE OF EDUCATION
ACCOUNTS PAYABLE SUMMARY BY OBJECT
FOR WARRANTS DATED 02/24/2017

BATCH 32

02/23/17 PAGE 10

FUND : 01 GENERAL FUND/COUNTY SCH.SRV.

OBJECT	DESCRIPTION	AMOUNT
4200	BOOKS OTHER THAN TEXTBOOKS	686.43
4300	MATERIALS AND SUPPLIES	1,404.78
4400	NONCAPITALIZED EQUIPMENT	16,334.25
5200	TRAVEL AND CONFERENCE	615.20
5300	DUES AND MEMBERSHIPS	144.00
5600	RENTALS, LEASES AND REPAIRS	1,088.44
5800	CONSULTING SERV/OPERATING EXP	12,895.45
5900	COMMUNICATIONS	1,000.00
9519	SALES TAX LIABILITY	67.04
	TOTAL FUND :	34,235.59

DISTRICT: 034 PIERCE JT. UNIF. SCH. DIST.

FUND : 13

CAFETERIA FUND

OBJECT	DESCRIPTION	AMOUNT
4300	MATERIALS AND SUPPLIES	925.36
	TOTAL FUND :	925.36
	TOTAL DISTRICT:	35,160.95

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0032 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference SCHOOL	Warrant	GOAL	OBJECT	Amount
005509	BEST BUY FOR EDUCATION PO-000365 PIERCE HIGH SCHOOL	385018	REGULAR EDUCATION, K-12 WARRANT TOTAL	NONCAPITALIZED EQUIPMENT	9,778.06 \$9,778.06 *
004729	BOARD OF EQUALIZATION PV-000924 FLD NOT USED	385019	UNDISTRIBUTED WARRANT TOTAL	SALES TAX LIABILITY	67.04 \$67.04 *
004290	MELANIE BRACKETT PV-000918 FLD NOT USED FLD NOT USED	385020	UNDISTRIBUTED UNDISTRIBUTED WARRANT TOTAL	MATERIALS AND SUPPLIES TRAVEL AND CONFERENCE	6.27 10.80 \$17.07 *
003208	CDW-G COMPUTING SOLUTIONS PO-000218 JOHNSON JR HIGH SCHOOL PO-000382 PIERCE HIGH SCHOOL PO-000383 DO-AES PO-000409 DO-AES PO-000423 FLD NOT USED	385021	REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12 UNDISTRIBUTED WARRANT TOTAL	NONCAPITALIZED EQUIPMENT MATERIALS AND SUPPLIES NONCAPITALIZED EQUIPMENT MATERIALS AND SUPPLIES NONCAPITALIZED EQUIPMENT	3,489.41 12.38 251.47 251.47 2,815.31 \$6,820.04 *
001845	CENTRAL DRUG SYSTEM INC PV-000925 FLD NOT USED	385022	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	26.13 \$26.13 *
000071	CLOSE LUMBER INC PO-000432 PIERCE HIGH SCHOOL	385023	VOCATIONAL EDUCATION WARRANT TOTAL	MATERIALS AND SUPPLIES	468.42 \$468.42 *
002908	COASTAL BUSINESS SYSTEMS PV-000933 JOHNSON JR HIGH SCHOOL	385024	REGULAR EDUCATION, K-12 WARRANT TOTAL	COPY MACHINE MAINTENANCE	303.00 \$303.00 *
005241	COLUSA COUNTY ELECTIONS PV-000936 FLD NOT USED	385025	UNDISTRIBUTED WARRANT TOTAL	ELECTION EXPENSE	10,167.37 \$10,167.37 *
000043	COLUSA COUNTY OFFICE OF ED PV-000932 FLD NOT USED	385026	UNDISTRIBUTED WARRANT TOTAL	CONSULTING SERV/OPERATING EXP	296.95 \$296.95 *
000588	DEMCO INC PO-000416 ARBUCKLE ELEMENTARY SCHOOL	385027	REGULAR EDUCATION, K-12 WARRANT TOTAL	MATERIALS AND SUPPLIES	257.84 \$257.84 *
000574	CAROL GEYER PV-000917 FLD NOT USED	385028	UNDISTRIBUTED	MATERIALS AND SUPPLIES	32.96

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.

BATCH 0032 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount

WARRANT TOTAL						\$32.96 *
004764	MEGAN HALL PV-000920	GRAND ISLAND ELEMENTARY	385029	SCHOOL REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	14.04
WARRANT TOTAL						\$14.04 *
005183	AMY HANNON-KORYNTA PV-000921	JOHNSON JR HIGH SCHOOL JOHNSON JR HIGH SCHOOL	385030	REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	30.96 44.48
WARRANT TOTAL						\$75.44 *
001787	INLAND BUSINESS SYSTEMS PV-000935	PIERCE HIGH SCHOOL	385031	REGULAR EDUCATION, K-12	COPY MACHINE MAINTENANCE	235.44
WARRANT TOTAL						\$235.44 *
000483	BLAKE KITCHEN PV-000919	GRAND ISLAND ELEMENTARY	385032	SCHOOL REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	56.16
WARRANT TOTAL						\$56.16 *
005192	CATHERINE LOPEZ PV-000931	FLD NOT USED	385033	REGULAR EDUCATION, K-12	TRAVEL AND CONFERENCE	20.52
WARRANT TOTAL						\$20.52 *
005316	NORMA MADRIGAL PV-000930	PIERCE HIGH SCHOOL DO-PHS	385034	REGULAR EDUCATION, K-12 REGULAR EDUCATION, K-12	BOOKS OTHER THAN TEXTBOOKS TRAVEL AND CONFERENCE	60.00 103.68
WARRANT TOTAL						\$163.68 *
004794	P&D COMMERCIAL PARTS & SERV PV-000926 PV-000927	FLD NOT USED FLD NOT USED	385035	UNDISTRIBUTED UNDISTRIBUTED	MATERIALS AND SUPPLIES MATERIALS AND SUPPLIES	510.80 414.56
WARRANT TOTAL						\$925.36 *
003820	PURCHASE POWER PV-000929	FLD NOT USED	385036	UNDISTRIBUTED	COMMUNICATIONS	1,000.00
WARRANT TOTAL						\$1,000.00 *
001861	RON RECTOR PV-000916	FLD NOT USED	385037	REGULAR EDUCATION, K-12	DUES AND MEMBERSHIPS	144.00
WARRANT TOTAL						\$144.00 *
002098	SCHOOL SERVICES OF CA INC PO-000302	FLD NOT USED FLD NOT USED	385038	UNDISTRIBUTED UNDISTRIBUTED	TRAVEL AND CONFERENCE TRAVEL AND CONFERENCE	205.00 205.00
WARRANT TOTAL						\$410.00 *
005525	SP CONTROLS INC PO-000394	FLD NOT USED	385039	UNDISTRIBUTED	MATERIALS AND SUPPLIES	300.00

DISTRICT: 34 PIERCE JT. UNIF. SCH. DIST.


BATCH 0032 ACCOUNTS PAYABLE

Vendor#	Vendor name (remit) Reference	SCHOOL	Warrant	GOAL	OBJECT	Amount

WARRANT TOTAL						\$300.00 *
003621	SYNCB/AMAZON		385040			
	PO-000391	PIERCE HIGH SCHOOL		REGULAR EDUCATION, K-12	BOOKS OTHER THAN TEXTBOOKS	94.75
	PO-000392	PIERCE HIGH SCHOOL		REGULAR EDUCATION, K-12	BOOKS OTHER THAN TEXTBOOKS	531.68
WARRANT TOTAL						\$626.43 *
001199	UMPQUA BANK		385041			
	PV-000928	FLD NOT USED		UNDISTRIBUTED	RENTALS, LEASES AND REPAIRS	550.00
WARRANT TOTAL						\$550.00 *
004592	VOLTAGE SPECIALISTS		385042			
	PV-000922	FLD NOT USED		UNDISTRIBUTED	CONSULTING SERV/OPERATING EXP	730.00
	PV-000923	FLD NOT USED		UNDISTRIBUTED	CONSULTING SERV/OPERATING EXP	1,600.00
WARRANT TOTAL						\$2,330.00 *
000905	WILLIAMS JR/SR HIGH SCHOOL		385043			
	PV-000934	JOHNSON JR HIGH SCHOOL		REGULAR EDUCATION, K-12	CONSULTING SERV/OPERATING EXP	75.00
WARRANT TOTAL						\$75.00 *
***	BATCH TOTALS ***		TOTAL NUMBER OF WARRANTS:	26	TOTAL AMOUNT OF WARRANTS:	\$35,160.95*
***	DISTRICT TOTALS ***		TOTAL NUMBER OF WARRANTS:	26	TOTAL AMOUNT OF WARRANTS:	\$35,160.95**

Pierce Joint Unified School District
Overnight Field Trip Request

Date Submitted: February 20, 2017

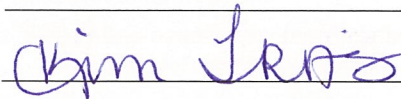
Site Approval: 

Date: 2/22/17

As outlined in the district's administrative regulations, requests for overnight field trips must be submitted thirty days prior to the date of the next regularly scheduled Board meeting. The Board will approve or disapprove the request and notify the teacher at the next regularly scheduled Board meeting after receipt of the request.

Event/Group Title: Varsity Volleyball

Teacher(s) Submitting Request (*Field Trip Supervisor*): Kim Travis



The teacher(s) submitting the request will be designated the *Field Trip Supervisor* and assumes responsibility at all times for supervising student activities and shall assume responsibility for the proper conduct of all participants.

Number of students participating: 12-14 *Number of adult volunteers: 4

List adult volunteers/chaperones: Kim Travis, Morgan Diaz,
Amy Doherty & Mary Ornbaun

Date transportation request submitted: Will Need Van or Suburban

Funding source: Youth Camp & Serve A Thon

*For other than athletic events, there must be one adult for every five students participating.

Departure Date/Time/Location: Thursday Aug 24th after school gets out. Will drive to
Yerington NV. Stay at Yerington Inn 4 N. Main Street, Yerington Nv 775-463-5310

Scheduled Return (include time): Sat. Aug 26th will return to PHS when games are over.

Destination (address required): Games played Fri & Sat at Yerington High School 114 Pearl Street

Contact Phone Number at Destination (required): (775)463-6822 Pat Wulfekuhle

(OVER)

Yerington High School Athletics

Pat Wulfekuhle
Athletic Director
FAX 775-463-6828

114 Pearl Street
Yerington, NV 89447
775-463-6822

01/27/17

To: All ADs and Volleyball Coaches
From: Pat Wulfekuhle/Yerington High School
Subject: Yerington Volleyball Tournament/Entry Fees

Yerington High School will host a 24-Team volleyball tournament on August 25th and 26th. **Because of the tournament's increasing popularity, we will be accepting no more than 24 teams. This will be based on a first come, first serve basis. The fastest 24 teams will get the spots.** The first 24 teams that respond and pay their entry fees will make up the tournament bracket. Please let me know no later than **May 1, 2017** if you want to attend. I will let all teams know of the status of the tournament and send out the brackets by May 25, 2017. **The entry fee is \$350.00 for each team.**

Our coaches feel that it is beneficial for each team to play a lot of games and have strong **competitive** matches. We will have Championship T-shirts for the Gold and Silver bracket winners. **JUST A LOT OF VOLLEYBALL!** Each game will be limited to one regulation referee. Then each coach will be asked to down ref, along with team players line judging and working the scoring tables. Please bring your own volleyballs to use for warm-ups.

Yerington High School looks forward to hosting you and hopes that a good time is had by all. I recommend that you make your reservations as soon as possible.

Motels in the Yerington Area:

Yerington Inn	463-3144	Copper Inn	463-2135
Victorian Rose Inn	463-2164	Greenfield RV Park	463-4912
Pioneer RV Park	463-2426	Best Western Fernley	575-6776
Topaz Lodge	266-3338	Fernley Super 8	575-5555

Name of High School _____

Name of Coach & email address _____

Name of Athletic Director & email address _____

Yes, we will attend _____,

No, we will not attend _____

We are a jump serving team ____ YES, ____ NO

Revised 01/27/17

POLICY GUIDE SHEET
December 2016
Page 1 of 3

Note: Descriptions below identify revisions made in CSBA's sample board policies, administrative regulations, board bylaws, and/or exhibits. Editorial changes have also been made. Districts should review the sample materials and modify their own policies accordingly.

BP/AR 3311 - Bids

(BP/AR revised)

Policy and regulation updated to move some material into new BP/AR 3311.1 - Uniform Public Construction Cost Accounting Procedures, AR 3311.2 - Lease-Leaseback Contracts, AR 3311.3 - Design-Build Contracts, and AR 3311.4 - Procurement of Technological Equipment. Regulation also revises section on "Award of Contract" to expand the exceptions to awarding contracts based on lowest responsible bidder to include lease-leaseback contracts, which are based on "best value" as defined.

AR 3311.2 - Lease-Leaseback Contracts

(AR added)

New regulation includes material formerly in BP/AR 3311 - Bids pertaining to requirements for awarding lease-leaseback contracts. Material significantly revised to reflect **NEW LAW** (AB 2316, 2016) which no longer permits the selection of a lease-leaseback contractor without advertising, and instead requires districts to use a comprehensive "best value" selection process.

CSBA Sample Board Policy

Business and Noninstructional Operations

BP 3311(a)

BIDS

Note: Pursuant to Public Contract Code 20111 and 22002, public contracts for the lease or purchase of equipment, materials, supplies, or services or for "public projects," as defined, are required to be competitively bid when they involve expenditure of specified amounts.

An alternative procedure for public works projects is provided pursuant to the Uniform Public Construction Cost Accounting Act (UPCCAA) (Public Contract Code 2203022000-22045), as described below; see **BP/AR 3311.1 - Uniform Public Construction Cost Accounting Procedures**. Also see **AR 3311.2 - Lease-Leaseback Contracts**, **AR 3311.3 - Design-Build Contracts**, and **AR 3311.4 - Procurement of Technological Equipment for procedures applicable to those contracts**.

The Governing Board is committed to promoting public accountability and ensuring prudent use of public funds. When leasing, purchasing, or contracting for equipment, materials, supplies, or services for the district, including when contracting for public projects involving district facilities, the Board shall explore lawful opportunities to obtain the greatest possible value for its expenditure of public funds. When required by law, or if the Board determines that it is in the best interest of the district, such contracts shall be made using competitive bidding.

(cf. 0410 - Nondiscrimination in District Programs and Activities)

(cf. 3000 - Concepts and Roles)

(cf. 3230 - Federal Grant Funds)

(cf. 3300 - Expenditures and Purchases)

(cf. 3311.1 - Uniform Public Construction Cost Accounting Procedures)

(cf. 3311.2 - Lease-Leaseback Contracts)

(cf. 3311.3 - Design-Build Contracts)

(cf. 3311.4 - Procurement of Technological Equipment)

No work, project, service, or purchase shall be split or separated into smaller work orders or projects for the purpose of evading legal requirements **regarding contracting after for** competitive bidding. (Public Contract Code 20116, 22033)

Note: Requirements for competitive bidding, including notice and advertising, are specified in Public Contract Code 20110-20118.4. See the accompanying administrative regulation.

The Superintendent or designee shall establish comprehensive bidding procedures for the district in accordance with law. The procedures shall include a process for advertising bids, instructions and timelines for submitting and opening bids, and other relevant requirements.

Note: Pursuant to Public Contract Code 20111.5, the district is permitted, but not required, to establish prequalification procedures for any contract for which bids are legally required; see the accompanying administrative regulation. However, pursuant to Public Contract Code 20111.6, a district with average daily attendance of 2,500 or greater is required to prequalify all general contractors and electrical, mechanical, and

BIDS (continued)

plumbing subcontractors for public projects of \$1 million or more awarded on or after January 1, 2014, if School Facilities Program funds (Education Code 17070.10-17079.30) or other future state school bonds are used. In addition, the Governing Board is required to adopt a uniform system of rating bidders based on completed questionnaires and financial statements which must address, at a minimum, the issues covered by the standardized questionnaire and model guidelines developed by the Department of Industrial Relations for such purpose.

For award of contracts which, by law or Board policy, require prequalification, the procedures shall identify a uniform system for rating bidders and shall address the issues covered by the standardized questionnaire and model guidelines developed by the Department of Industrial Relations pursuant to Public Contract Code 20101 on the basis of a completed questionnaire and financial statements.

(cf. 9270 - Conflict of Interest)

Note: Districts should be careful in crafting bid specifications, as a misleading specification that results in a lower bid than might have been made may make the district liable for the extra work done or expenses incurred by the contractor. In *Los Angeles Unified School District v. Great American Insurance Co.*, the California Supreme Court held in favor of a contractor who was misled by the district's nondisclosure of material information that would have affected the contractor's bid.

When calling for bids, the Superintendent or designee shall ensure that the bid specifications clearly describes in appropriate detail the quality, delivery, and service required, and includes all information which the district knows, or has in its possession, that is relevant to the work to be performed or that may impact the cost of performing the work.

Note: Pursuant to Public Contract Code 20111, a contract required to be put out to bid must be awarded to the lowest responsible bidder. As defined in Public Contract Code 1103, a "responsible bidder" is one who possesses the quality, fitness, and capacity, and experience to satisfactorily perform the proposed work. (*City of Inglewood Los Angeles County Civic Center Authority v. Superior Court*)

However, a bid may be awarded to other than the lowest responsible bidder when conditions specified in law exist. For example, a district is permitted to give preference to minorities, women, veterans, and small businesses in accordance with Public Contract Code 2000-2002. In addition, Education Code 17250.10-17250.55, as added by AB 1358 (Ch. 752, Statutes of 2015), authorize the district to award a design-build contract for a public works project in excess of \$1 million on the basis of either low bid or "best value," as defined. See "Award of Contract" section in the accompanying administrative regulation.

Except as authorized by law and specified in the administrative regulation, contracts shall be let to the lowest responsible bidder who shall give such security as the Board requires, or else all bids shall be rejected. (Public Contract Code 20111)

Note: Pursuant to Public Contract Code 20118, districts may be exempt from the bidding requirements and may "piggyback" onto the bid of any public corporation or agency for specific items when the Board determines it is in the best interest of the district. See the accompanying administrative regulation for a list of those items that may be leased or purchased using this procedure.

BIDS (continued)

When the Board has determined that it is in the best interest of the district, the district may piggyback onto the contract of another public agency or corporation to lease or purchase ~~equipment or supplies~~ **any personal property** to the extent authorized by law. (Public Contract Code 20118)

Note: The following **optional** paragraph is for use by districts that have elected to use the alternative contracting procedure for public works pursuant to the UPCCAA (Public Contract Code 22030-22045) and should be deleted by districts that have not elected to use such alternative procedure. Pursuant to Public Contract Code 22030, the district may participate in the UPCCAA only if the Board adopts a resolution requiring the use of the UPCCAA in district contracting and notifies the State Controller of that action. In the event of a conflict with any other provision of law relative to bidding procedures, the UPCCAA shall apply to any district that has adopted a resolution and so notified the Controller. According to the California Uniform Construction Cost Accounting Commission's "Frequently Asked Questions," available on its web site, withdrawal from the UPCCAA requires the Board to file a resolution of the election to withdraw with the State Controller.

In electing to be subject to the UPCCAA, a district thereby agrees to follow the cost accounting procedures set forth in the Cost Accounting Policies and Procedures Manual of the California Uniform Construction Cost Accounting Commission. According to the "Frequently Asked Questions" on the Commission's web site, school districts may use the statewide Standardized Account Code Structure to comply with tracking requirements.

Pursuant to Public Contract Code 22032, projects of \$45,000 or less may be performed by the district's own work force; projects of \$175,000 or less may use a more informal bidding procedure as specified; and projects over \$175,000 require formal bidding procedures. See the accompanying administrative regulation for related requirements.

In circumstances where the informal bidding procedure is authorized, Public Contract Code 22034 allows the Board to delegate the authority to award contracts to an appropriate district administrator. Public Contract Code 22039 allows the Board to delegate the adoption of plans, specifications, and working details for projects subject to formal bidding procedures. The following paragraph may be revised to reflect district practice.

~~For use in contracting for public works projects, the Board has, by resolution, adopted the procedures set forth in the Uniform Public Construction Cost Accounting Act pursuant to Public Contract Code 22030-22045, including the required cost accounting procedures and the informal bidding procedures when allowed by law. The Board delegates to the Superintendent or designee the responsibilities to award any contract eligible for informal bidding procedures and to develop plans, specifications, and working details for all public projects requiring formal bidding procedures. [MOVED TO BP 3111.1 - UNIFORM PUBLIC CONSTRUCTION COST ACCOUNTING PROCEDURES]~~

Legal Reference: (see next page)

BIDS (continued)*Legal Reference:*EDUCATION CODE17070.10-17079.30 *Leroy F. Greene School Facilities Act*17250.10-17250.55 *Design-build contracts*17406 *Lease-leaseback contracts*17595 *Purchase of supplies through Department of General Services*17602 *Purchase of surplus property from federal agencies*38083 *Purchase of perishable foodstuffs and seasonable commodities*38110-38120 *Apparatus and supplies*39802 *Transportation services***BUSINESS AND PROFESSIONS CODE****7056 General engineering contractor****7057 General building contractor**CODE OF CIVIL PROCEDURE446 *Verification of pleadings*GOVERNMENT CODE4217.10-4217.18 *Energy conservation contracts*4330-4334 *Preference for California-made materials*6252 *Definition of public record*53060 *Special services and advice*54201-54205 *Purchase of supplies and equipment by local agencies*PUBLIC CONTRACT CODE1102 *Emergencies***1103 Definition, responsible bidder**2000-2002 *Responsive bidders*3000-3010 *Roofing projects*3400 *Bids, specifications by brand or trade name not permitted*3410 *United States produce and processed foods***4113 Prime contractor; subcontractor**6610 *Bid visits*12200 *Definitions, recycled goods, materials and supplies*20101-20103.7 *Public construction projects, requirements for bidding*20103.8 *Award of contracts*~~20107 Bidder's security~~~~20110-20118.4 Contracting by school districts~~ **Local Agency Public Construction Act; school districts**20189 *Bidder's security, earthquake relief*~~22002 Definition of public project~~~~2203022000-22045 Alternative procedures for public projects (UPCCAA)~~~~22050 Alternative emergency procedures~~22152 *Recycled product procurement*COURT DECISIONS~~McGee v. Balfour Beatty Construction, LLC, et al. (4/12/16, No. B262850)~~~~Davis v. Fresno Unified School District, (2015) 237 Cal.App.4th 261~~*Los Angeles Unified School District v. Great American Insurance Co.*, (2010) 49 Cal.4th 739*Great West Contractors Inc. v. Irvine Unified School District*, (2010) 187 Cal.App.4th 1425*Marshall v. Pasadena Unified School District*, (2004) 119 Cal.App.4th 1241*Konica Business Machines v. Regents of the University of California*, (1988) 206 Cal.App.3d 449*City of Inglewood-Los Angeles County Civic Center Authority v. Superior Court*, (1972) 7 Cal.3d 861ATTORNEY GENERAL OPINIONS89 *Ops.Cal.Atty.Gen. 1* (2006)

BIDS (continued)

Management Resources:

CALIFORNIA UNIFORM CONSTRUCTION COST ACCOUNTING COMMISSION PUBLICATIONS

Cost Accounting Policies and Procedures Manual

Frequently Asked Questions

WEB SITES

CSBA: [http:// www.csba.org](http://www.csba.org)

California Association of School Business Officials: <http://www.casbo.org>

California Department of Education: <http://www.cde.ca.gov>

California Department of General Services: <https://www.dgs.ca.gov>

California Uniform Construction Cost Accounting Commission:

http://www.seo.ca.gov/ard_euecae.html

(8/13 5/16) 12/16

CSBA Sample Administrative Regulation

Business and Noninstructional Operations

AR 3311(a)

BIDS

Note: Pursuant to Government Code 54202, districts are **mandated** to establish bidding procedures governing the purchase of equipment and supplies, ~~as specified in the~~ The following administrative regulation reflects the competitive bidding procedures applicable to these purchases, as well as contracts for certain services, public works projects, and repairs and maintenance, when the contract exceeds the amount specified in law.

An alternative procedure for public works projects is provided pursuant to the Uniform Public Construction Cost Accounting Act (UPCCAA) (Public Contract Code 22000-22045), which allows public projects of \$45,000 or less to be performed by district employees and public projects of \$175,000 or less to be awarded through an informal bidding process. See BP/AR 3311.1 - Uniform Public Construction Cost Accounting Procedures. Districts that have adopted the UPCCAA procedures should modify the following regulation to delete or revise conflicting provisions related to contracts for public works. Also see AR 3311.2 - Lease-Leaseback Contracts, AR 3311.3 - Design-Build Contracts, and AR 3311.4 - Procurement of Technological Equipment for procedures applicable to those contracts.

Advertised/Competitive Bids

The district shall advertise for ~~competitive bids~~ any of the following: (Public Contract Code 20111)

1. ~~when any~~ Except as otherwise allowed and/or specified elsewhere in the AR 3311, a public project contract ~~that~~ involves an expenditure of \$15,000 or more, including a contract for construction, reconstruction, erection, alteration, renovation, improvement, painting, repainting, demolition, or repair work involving a district owned, leased, or operated facility

~~Public project means construction, reconstruction, erection, alteration, renovation, improvement, painting, repainting, demolition, and repair work involving a district owned, leased, or operated facility. (Public Contract Code 20111, 22002)~~

(cf. 3311.1 - Uniform Public Construction Cost Accounting Procedures)

(cf. 3311.2 - Lease-Leaseback Contracts)

(cf. 3311.3 - Design-Build Contracts)

Note: For ~~items #1-3~~ the contracts specified in item #2a-c below, Public Contract Code 20111 requires the Superintendent of Public Instruction (SPI) to annually establish a bid limit that reflects U.S. Department of Commerce data. The following ~~optional~~ paragraph allows the amount to escalate automatically once the SPI has made the annual determination. For 2016, the bid limit is \$87,800.

2. ~~The district shall also advertise for competitive bids when a~~ Except as otherwise allowed and/or specified elsewhere in the AR 3311, a contract ~~that~~ exceeds the amount specified in law, as annually adjusted by the Superintendent of Public Instruction, for any of the following: ~~(Public Contract Code 20111)~~

BIDS (continued)

- 1.a.** The purchase of equipment, materials, or supplies to be furnished, sold, or leased to the district

(cf. 3230 - Federal Grant Funds)

(cf. 3311.4 - Procurement of Technological Equipment)

- 2.b.** Services, not including construction services or special services and advice in accounting, financial, legal, or administrative matters

- 3.c.** Repairs that are not a public project, including maintenance

Maintenance means routine, recurring, and usual work for preserving, protecting, and keeping a district facility operating in a safe, efficient, and continually usable condition for the intended purpose for which it was designed, improved, constructed, altered, or repaired. *Maintenance* includes, but is not limited to, carpentry, electrical, plumbing, glazing, and other craft work designed to preserve the facility, as well as repairs, cleaning, and other operations on machinery and other permanently attached equipment. Maintenance does not include painting, repainting, or decorating other than touchup, or among other types of work, janitorial or custodial services and protection provided by security forces. (Public Contract Code 20115)

Instructions and Procedures for Advertised Bids

The Superintendent or designee shall call for bids by placing a notice at least once a week for two weeks in a local newspaper of general circulation published in the district, or if no such newspaper exists, then in some newspaper of general circulation that is circulated in the county. The Superintendent or designee also may post the notice on the district's web site or through an electronic portal. The notice shall state the work to be done or materials or supplies to be furnished and the time and place and web site where bids will be opened. ~~The district may accept a bid that has been submitted electronically or on paper.~~ (Public Contract Code 20112)

(cf. 1113 - District and School Web Sites)

The notice shall contain the time, date, and location of any mandatory prebid conference, site visit, or meeting and details regarding when and where project documents, including the final plan and specifications, are available. Any such mandatory visit or meeting shall occur not less than five calendar days after the publication of the initial notice. (Public Contract Code 6610)

Bid instructions and specifications shall include the following requirements and information:

BIDS (continued)

1. All bidders shall certify **in writing** the minimum, if not exact, percentage of post-consumer materials in products, materials, goods, or supplies offered or sold. (Public Contract Code 22152)

(cf. 3510 - Green School Operations)

2. All bids for construction work shall be presented under sealed cover. **The district may accept a bid that has been submitted electronically or on paper. (Public Contract Code 20111, 20112)**

The bid and shall be accompanied by one of the following a forms of bidder's security, including either cash, a cashier's check payable to the district, a certified check made payable to the district, or a bidder's bond executed by an admitted surety insurer and made payable to the district.: The security of unsuccessful bidders shall be returned in a reasonable period of time, but in no event later than 60 days after the bid is awarded. (Public Contract Code 20107, 20111, 20112)

a. ~~Cash~~

b. ~~A cashier's check made payable to the district~~

c. ~~A certified check made payable to the district~~

d. ~~A bidder's bond executed by an admitted surety insurer and made payable to the district~~

~~The security of unsuccessful bidders shall be returned in a reasonable period of time, but in no event later than 60 days after the bid is awarded. (Public Contract Code 20111)~~

3. When a standardized proposal form is provided by the district, bids not presented on the standard form shall be disregarded. (Public Contract Code 20111.5)
4. Bids shall not be accepted after the advertised bid opening time, regardless of whether the bids are actually opened at that time. (Public Contract Code 20112)
5. When two or more identical lowest or highest bids are received, the Governing Board may determine by lot which bid shall be accepted. (Public Contract Code 20117)

BIDS (continued)

Note: Public Contract Code 20103.8 specifies that, in those cases when the bid includes items that may be added to or deducted from the scope of the work in the contract, the bid solicitation must specify the method to be used to determine the lowest bid, as detailed below. Districts should consult with legal counsel, as appropriate, **if they have questions regarding as to** the applicability of this law **to school districts and other unclear provisions of this law.**

6. If the district requires that the bid include prices for items that may be added to or deducted from the scope of work in the contract, the bid solicitation shall specify which one of the following methods will be used to determine the lowest bid. In the absence of such a specification, only the method provided in item #6a below shall be used. (Public Contract Code 20103.8)
 - a. The lowest bid shall be the lowest total of the bid prices on the base contract without consideration of the prices on the additive or deductive items.
 - b. The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items that were specifically identified in the bid solicitation as being used for the purpose of determining the lowest bid price.
 - c. The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items that, when taken in order from a specifically identified list of those items in the solicitation, and added to or subtracted from the base contract, are less than or equal to a funding amount publicly disclosed by the district before the first bid is opened.

The lowest bid shall be determined in a manner that prevents any information that would identify any of the bidders or proposed subcontractors or suppliers from being revealed to the district before the ranking of all bidders from lowest to highest has been determined. (Public Contract Code 20103.8)

Note: For a bid to be successful, it must conform to specifications (i.e., it must be "responsive") and the bidder must be determined to be able to perform the work (i.e., he/she must be "responsible" **as defined in Public Contract Code 1103**). **There is no right to a due process hearing when the district has merely found the bid to be nonresponsive. However, A the** district must be careful in making a determination on the "nonresponsiveness" of a bid based on **anything other than the documents submitted.** ~~investigation or information outside of the submitted bid.~~ In addition, when relying on outside investigation or information to disqualify a bidder, the district must follow the hearing procedures applicable for a finding of "non-responsibility." (Great West Contractors Inc. v. Irvine Unified School District) To avoid any confusion, the district should provide clear and comprehensive bid specifications to bidders.

When rejecting the lowest responsive bid on the basis that the bidder is nonresponsive, the district must inform the bidder of the evidence used when making the determination and afford him/her a hearing with the right to present evidence that he/she is responsible. (City of Inglewood-Los Angeles County Civic Center Authority v. Superior Court and Great West Contractors Inc. v. Irvine Unified School District)

BIDS (continued)

7. **In determining the lowest bid, the district shall consider only responsive bids that conform to bid specifications and are submitted by from responsible bidders who have demonstrated trustworthiness, quality, fitness, capacity, and experience to satisfactorily perform the public works contract. in determining the lowest bid.**
- a. **When a bid is disqualified as determined to be nonresponsive based on district investigation or other information not obtained from the submitted bid, the Superintendent or designee shall notify the bidder and give him/her an opportunity to respond to the information determination.**
- b. **When the lowest bidder is determined to be nonresponsible, the Superintendent or designee shall notify the bidder of his/her right to present evidence of his/her responsibility at a hearing before the Board.**
8. **Any subsequent change or alteration of a contract shall be governed by the provisions of Public Contract Code 20118.4.**
- 9.8. After being opened, all submitted bids become public records pursuant to Government Code 6252 and shall be made available for public review pursuant to law, Board policy, and administrative regulation.

(cf. 1340 - Access to District Records)

(cf. 3580 - District Records)

10. **When a bid is disqualified as nonresponsive based on district investigation or other information not obtained from the submitted bid, the Superintendent or designee shall notify the bidder and give him/her an opportunity to respond to the information.**

Prequalification Procedure

Note: The following section is **optional**. Pursuant to Public Contract Code 20111.6, as amended by AB 566 (Ch. 214, Statutes of 2015), a district with average daily attendance (ADA) of 2,500 or greater is required to prequalify all general contractors and electrical, mechanical, and plumbing subcontractors for any public project of \$1 million or more awarded on or after January 1, 2015, when the project uses or is reimbursed from School Facilities Program funds (Education Code 17070.10-17079.30) or other future state school bonds.

Additionally, pursuant to Public Contract Code 20111.5, districts are permitted, but not required, to establish prequalification procedures for other contracts which, by law, require competitive bidding.

When required by law or the Board, the Superintendent or designee shall establish a uniform system for rating bidders on the basis of completed questionnaires and financial statements in order to determine the size of contracts on which each bidder is qualified to bid. For this purpose, the Superintendent or designee shall furnish prospective bidders a standardized

BIDS (continued)

proposal form ~~prequalification questionnaire and financial record~~ which, when completed, shall indicate a bidder's statement of financial ability and experience in performing public works. The bidder's information shall be verified under oath in the manner in which civil law pleadings are verified. The questionnaires and financial statements shall not be public records and shall not be open to public inspection. (Code of Civil Procedure 446; Public Contract Code 20111.5, 20111.6)

Note: Pursuant to Public Contract Code 20111.6, districts' authority to set timelines for bid submittal and opening as specified in the following paragraph apply to contracts awarded on or after January 1, 2015 and will be in effect only until January 1, 2019. In addition, Public Contract Code 20111.6, as amended by AB 566 (Ch. 214, Statutes of 2015), clarifies that the requirement for prequalification applies to projects that will be reimbursed from future state school bonds, not just those that use funds "received" from state construction bonds.

When any public project involves an expenditure of \$1,000,000 or more and is funded or reimbursed wholly or partly by the School Facilities Program funds or other future state school bond, the district shall prequalify prospective bidders either quarterly or annually. The prequalification shall be valid for one year and the following requirements shall apply: (Education Code 17406, 17407; Public Contract Code 20111.6)

1. Prospective bidders, including, but not limited to, prime, general engineering, and general building contractors and electrical, mechanical, and plumbing subcontractors, as defined in **Public Contract Code 4113** or the Business and Professions Code 4113, 7056, or 7057, as applicable, shall submit a standardized questionnaire and financial statement 10 or more business days, as determined by the district, before the date fixed for the public opening of sealed bids.

2. Prospective bidders shall be prequalified by the district five or more business days, as determined by the district, before the date fixed for the public opening of sealed bids.

If the project includes electrical, mechanical, or plumbing components that will be performed by electrical, mechanical, or plumbing contractors, the Superintendent or designee shall make available to all bidders a list of prequalified general contractors and electrical, mechanical, and plumbing subcontractors five or more business days, as determined by the district, before the date fixed for the public opening of sealed bids.

For all other contracts requiring competitive bidding, the district may establish a procedure for prequalifying bidders on a quarterly basis and may authorize that prequalification be considered valid for up to one calendar year following the date of the initial prequalification. Prospective bidders for such contracts shall submit the questionnaire and financial statement at least five days before the date fixed for public opening of sealed bids and shall be prequalified by the district at least one day before the fixed bid opening date. (Public Contract Code 20111.5)

BIDS (continued)**Award of Contract**

Note: The following ~~optional~~ section may be revised to reflect district practice. Pursuant to Public Contract Code 20111, the district is required to award a contract to the lowest responsible bidder except in the circumstances specified in items #1-3 below. In addition, Education Code 17250.15 and 17250.25, as added by AB 1358 (Ch. 752, Statutes of 2015), authorize the district to award a design-build contract for a public works project in excess of \$1 million to either the low bid or best value, as provided in item #4 below.

The district shall award each contract to the lowest responsible bidder, except in the following circumstances:

1. When the contract is for the procurement and/or maintenance of electronic data processing systems and supporting software, in which case the Board may contract with any one of the three lowest responsible bidders (Public Contract Code 20118.1)
2. When the contract is for any transportation service which involves an expenditure of more than \$10,000 and which will be made with any person or corporation other than a common carrier, municipally owned transit system, or a parent/guardian of a student who ~~are is~~ to be transported, in which case the Board may contract with other than the lowest bidder (Education Code 39802)

Note: Pursuant to Public Contract Code 2000-2002, a district is permitted to establish bidding requirements that facilitate the participation of minority, women, disabled veteran, and small business enterprises in contracts. Though minorities and women are included in Public Contract Code 2000, Article 1, Section 31(a) of the California Constitution prohibits the granting of preferences based on race, sex, color, ethnicity, etc., in state employment and contracting. The district should consult legal counsel if there is any question about the granting of preferences to any such business.

3. When the contract is one for which the Board has established goals and requirements relating to participation of disabled veteran or small business enterprises in accordance with Public Contract Code 2000-2002, in which case the Board may contract with the lowest responsible bidder who submits a responsive bid and complies or makes a good faith effort to comply with the goals and requirements (Public Contract Code 2000-2002)
4. **When procuring a lease-leaseback contract, in which case the Board shall award the contract based on objective criteria for determining the best combination of price and qualifications in accordance with Education Code 17400 and 17406**

(cf. 3311.2 - Lease-Leaseback Contracts)

- 4.5. When procuring a design-build contract for a public works project in excess of \$1,000,000 in accordance with ~~the section "Design-Build Contracts" below~~ **Education Code 17250.20**, in which case the Board may award the contract to either

BIDS (continued)

the low bid or the best value to the district, taking into consideration, at a minimum, price, technical design and construction expertise, and life-cycle costs (Education Code 17250.20, 17250.25)

(cf. 3311.3 - Design-Build Contracts)

Protests by Bidders

Note: The law does not specify a procedure for handling protests by bidders. The following **optional** section provides one such procedure and should be modified to reflect district practice.

A bidder may protest a bid award if he/she believes that the award is not in compliance with law, Board policy, or the bid specification. A protest must be filed in writing with the Superintendent or designee within five working days after receipt of notification of the contract award and shall include all documents supporting or justifying the protest. A bidder's failure to file the protest documents in a timely manner shall constitute a waiver of his/her right to protest the award of the contract.

The Superintendent or designee shall review the documents submitted with the bidder's claims and render a decision in writing within 30 working days. The Superintendent or designee may also convene a meeting with the bidder in order to attempt to resolve the problem.

Note: The following paragraph provides a process for appealing a bid award to the Board. Although the law does not specify the notice to be given in this circumstance, CSBA recommends at least three business days which may be modified to reflect district practice.

The bidder may appeal the Superintendent or designee's decision to the Board. The Superintendent or designee shall provide notice to the bidder of the date and time for Board consideration of the protest at least three business days before the Board meeting. The Board's decision shall be final.

~~Alternative Bid Procedures for Technological Supplies and Equipment~~ [SECTION MOVED TO NEW AR 3311.4]

~~Design-Build Contracts~~ [SECTION MOVED TO NEW AR 3311.3]

Limitation on Use of Sole Sourcing

Note: "Sole sourcing" is the practice by which one brand name product is specified, although comparable, competitive products are available. Public Contract Code 3400 allows sole sourcing in limited circumstances and requires that the specification of the designated product be followed by the words "or equal," so that bidders for such a contract are able to base their bids on the use of other products of equal functionality that may result in cost savings for the district. The following section is **optional**.

BIDS (continued)

In any contract for the construction, alteration, or repair of school facilities, the Superintendent or designee shall ensure that the bid specification: (Public Contract Code **3002**, 3400)

1. Does not directly or indirectly limit bidding to any one specific concern
2. Does not call for a designated material, product, thing, or service by a specific brand or trade name, unless the specification is followed by the words "or equal," so that bidders may furnish any equal material, product, thing, or service

In any such case, the bid specification shall provide a time period, before and/or after the award of the contract, for the contractor to submit data substantiating the request for substituting the designated material, product, thing, or service. If no such time period is specified, the contractor may submit the data within 35 days after the award of the contract.

Note: The following **optional** paragraph is for use by districts with ADA of more than 2,500. For the repair or replacement of the roof of a public facility, a material must meet the requirements specified below to be considered "equal" pursuant to Public Contract Code 3000-3010.

~~When the bid is for a roof project, a material, product, thing, or service is considered "equal" to that designated if it is equal in quality, durability, design, and appearance; will perform the intended function equally well; and conforms substantially to the detailed requirements in the bid specification. (Public Contract Code 3002)~~

However, the Superintendent or designee may designate a specific material, product, thing, or service by brand or trade name (sole sourcing) if the Board has made a finding, described in the invitation for bids or **request for proposal (RFP)**, that a particular material, product, thing, or service is designated for any of the following purposes: (Public Contract Code 3400)

1. To conduct a field test or experiment to determine its suitability for future use
2. To match others in use on a particular public improvement that has been completed or is in the course of completion
3. To obtain a necessary item that is only available from one source
4. To respond to the Board's declaration of an emergency, as long as the declaration has been approved by four-fifths of the Board when issuing the invitation for bid or RFP

(cf. 9323.2 - Actions by the Board)

BIDS (continued)**Bids Not Required**

Note: The following paragraph lists those items that may be purchased through a "piggybacked" bid; see the accompanying Board policy. Many districts have used the piggyback procedure to purchase portable and relocatable buildings. The Attorney General has opined (89 Ops.Cal.Atty.Gen. 1, 2006) that a district may not rely on the piggyback exception to contract for the acquisition and installation of factory-built modular building components (i.e., roofs and walls) for installation on a permanent foundation. However, this opinion does not apply to typical portable or relocatable single-classroom buildings, because they lack a permanent foundation and building mobility. Districts considering using the piggyback process for relocatables, portables, modulares, and the like should consult district legal counsel. While Attorney General opinions are not binding, they are often given deference by the court and may also be considered by the State Allocation Board when making funding decisions.

Without advertising for bids and upon a determination that it is in the best interest of the district, the Board may authorize another public corporation or agency, by contract, lease, requisition, or purchase order, to lease data-processing equipment or to purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner that the other public corporation or agency is authorized to make the leases or purchases from a vendor ("piggyback"). Alternatively, if the public corporation or agency has an existing contract with a vendor for the lease or purchase of personal property, the district may authorize the lease or purchase of personal property directly from the vendor and make payments under the same terms that are available to the public corporation or agency under the contract. (Public Contract Code 20118)

(cf. 3300 - Expenditures and Purchases)

(cf. 3512 - Equipment)

Note: The following **optional** paragraph reflects the authority granted to public agencies pursuant to Government Code 4217.10-4217.18 to enter into energy service contracts without competitive bidding when the agency's governing body determines that the contract is in the best interest of the agency based on the "costs-benefits" analysis specified in Government Code 4217.12.

Without advertising for bids, the Board may enter into an energy service contract and any related facility ground lease, when it determines that the terms of the contract and lease are in the best interest of the district **and meet the cost effectiveness requirements specified in Government Code 4217.12**. The Board's determination shall be made at a regularly scheduled public hearing of which notice is given to the public at least two weeks in advance and shall be based on cost **and savings** comparison findings specified in Government Code 4217.12. (Government Code 4217.12)

(cf. 3511 - Energy and Water Management)

(cf. 9320 - Meetings and Notices)

BIDS (continued)

Supplementary textbooks, library books, educational films, audiovisual materials, test materials, workbooks, instructional computer software packages, or periodicals may be purchased in any amount without taking estimates or advertising for bids. (Public Contract Code 20118.3)

(cf. 6161.1 - Selection and Evaluation of Instructional Materials)

(cf. 6161.11 - Supplementary Instructional Materials)

(cf. 6163.1 - Library Media Centers)

Perishable foodstuffs and seasonal commodities needed in the operations of cafeterias may be purchased through bid or on the open market. (Education Code 38083)

(cf. 3551 - Food Service Operations/Cafeteria Fund)

Bids shall not be required for day labor under circumstances specified in Public Contract Code 20114. Day labor shall include the use of maintenance personnel employed on a permanent or temporary basis. (Public Contract Code 20114)

Note: Pursuant to Public Contract Code 20113, a district may award contracts without competitive bidding in emergency situations, as specified below. In Marshall v. Pasadena Unified School District, a court held that the definition of "emergency" in Public Contract Code 1102 is applicable. Public Contract Code 1102 defines "emergency" as a "sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services."

In an emergency when any repairs, alterations, work, or improvement to any school facility is necessary to permit the continuance of existing school classes or to avoid danger to life or property, the Board may, by unanimous vote and with the approval of the County Superintendent of Schools, contract for labor and materials or supplies without advertising for or inviting bids or may authorize the use of day labor or force account for the emergency purpose. (Public Contract Code 1102, 20113)

(cf. 3517 - Facilities Inspection)

The district may purchase any surplus property from the federal government or any of its agencies in any quantity needed for the operation of its schools without taking estimates or advertising for bids. (Education Code 17602)

(10/15 5/16) 12/16

CSBA Sample Administrative Regulation

Business and Noninstructional Operations

AR 3311.2(a)

LEASE-LEASEBACK CONTRACTS

Note: The following ~~optional section~~ administrative regulation addresses construction financing contracts that are commonly described as "lease-leaseback" contracts. **Education Code 17406, as amended by AB 2316 (Ch. 521, Statutes of 2016), no longer permits the selection of a lease-leaseback contractor without advertising, and instead requires districts to use a comprehensive "best value" selection process. Education Code 17406, as amended, mandates that any district choosing to award a lease-leaseback contract adopt and publish procedures and guidelines for evaluating the qualifications of proposers that ensure the fair and impartial selection of the "best value" for the district. In addition, for any project that will involve the use of preconstruction services, the request for sealed proposals must require proposers to include the fee to perform the preconstruction services as part of their sealed proposal to the district. Such procedures and guidelines must include, at a minimum, the provisions specified in Education Code 17406 as reflected in the following regulation.**

~~This construction~~**The lease-leaseback** financing method should only be used in coordination with competent technical consultants and legal counsel to ensure all legal requirements are met. ~~Pursuant to Education Code 17407.5, as added by AB 566 (Ch. 214, Statutes of 2015), the contractor must provide an enforceable commitment to the district that it will use a certain percentage of skilled and trained workers to complete project-related work that is within an "apprenticeable occupation" as defined in Labor Code 3075.~~

~~Upon a determination that it is in the best interest of the district and without advertising for bids, the Board~~ **The district** may lease currently owned district property to any person, firm, or corporation for a minimum of \$1 per year, as long as the lease requires the person, firm, or corporation to construct a building or buildings on the property for the district's use during the lease and the property and building(s) will vest in the district at the expiration of the lease ("lease-leaseback"). **(Education Code 17406)**

(cf. 3280 - Sale or Lease of District-Owned Real Property)

(cf. 3312 - Contracts)

Any lease-leaseback contract shall be awarded through a competitive "best value" procurement process whereby a person, firm, or corporation is selected on the basis of objective criteria for evaluating the qualifications of proposers, with the resulting selection representing the best combination of price and qualifications. To make this determination, the district shall use the following procedures: (Education Code 17400, 17406)

- 1. Request for Sealed Proposals: The Superintendent or designee shall prepare a request for sealed proposals which shall include:**
 - a. An estimate of the project's price**
 - b. A clear, precise description of any preconstruction services that may be required and the facilities to be constructed**

LEASE-LEASEBACK CONTRACTS (continued)

- c. The key elements of the contract to be awarded**
 - d. A description of the format that proposals shall follow and the elements they shall contain**
 - e. The standards the district will use in evaluating proposals**
 - f. The date on which proposals are due**
 - g. The timetable the district will follow in reviewing and evaluating proposals**
- 2. Notice: At least 10 days before the date for receipt of the proposals, the Superintendent or designee shall give notice of the request for sealed proposals using both of the following methods:**
- a. Providing notice at least once a week for two weeks in a local newspaper of general circulation pursuant to Public Contract Code 20112**
 - b. Providing notice in a trade paper of general circulation published in the county where the project is located**

Note: The following paragraph is optional and may be revised to reflect district practice.

The Superintendent or designee also may post the notice on the district's web site or through an electronic portal.

Note: Pursuant to Education Code 17406, the prequalification requirements for contracts that meet the criteria specified in Public Contract Code 20111.6 are also applicable to lease-leaseback contracts. ~~As amended by AB 566 (Ch. 214, Statutes of 2015),~~ Education Code 17406 requires prequalification for such projects irrespective of whether or not they are funded locally or through state sources. ~~and makes the provision applicable to all districts, not just those with ADA of 2,500 or more. See "Prequalification Procedure" section above.~~

- 3. ~~Prequalification: A proposer shall be prequalified in accordance with Public Contract Code 20111.6(b)-(m) in order to submit a proposal. Any electrical, mechanical, and plumbing subcontractors shall be subject to the same prequalification requirements. Although AB 2316 requires all LLB proposers to be pre-qualified in accordance with Public Contracting Code section 20111.6 prior to submitting LLB proposals, District under 2,500 ADA are excluded from this requirement.~~**

(cf. 3311 - Bids)

LEASE-LEASEBACK CONTRACTS (continued)

4. **Evaluation Criteria:** The request for sealed proposals shall identify all criteria that the district will consider in evaluating the proposals and qualifications of the proposers, including relevant experience, safety record, price proposal, and other factors specified by the district. The price proposal shall include, at the district's discretion, either a lump-sum price for the contract to be awarded or the proposer's proposed fee to perform the services requested, including the proposer's proposed fee to perform preconstruction services or any other work related to the facilities to be constructed, as requested by the district.

The request for sealed proposals shall specify whether each criterion will be evaluated on a pass-fail basis or will be scored as part of the "best value" score, and whether proposers must achieve any minimum qualification score for award of the contract. For each scored criterion, the district shall identify the methodology and rating or weighting system that will be used by the district in evaluating the criterion, including the weight assigned to the criterion and any minimum acceptable score.

5. **Evaluation of Proposals:** All proposals received shall be reviewed to determine whether they meet the format requirements and the standards specified in the request for sealed proposals. The district shall evaluate the qualifications of the proposers based solely upon the criteria and evaluation methodology set forth in the request for sealed proposals, and shall assign a best value score to each proposal. Once the evaluation is complete, all responsive proposals shall be ranked from the highest best value to the lowest best value to the district.

6. **Award of Contract:** The award of the contract shall be made by the Governing Board to the responsive proposer whose proposal is determined, in writing by the Board, to be the best value to the district.

If the selected proposer refuses or fails to execute the tendered contract, the Board may award the contract to the proposer with the second highest best value score, if deemed in the best interest of the district. If that proposer then refuses or fails to execute the tendered contract, the Board may award the contract to the proposer with the third highest best value score.

Upon issuance of a contract award, the district shall publicly announce its award, identifying the entity to which the award is made, along with a statement regarding the basis of the award. The statement regarding the contract award and the contract file shall provide sufficient information to satisfy an external audit.

7. **Rejection of Proposals:** At its discretion, the Board may reject all proposals and request new proposals.

LEASE-LEASEBACK CONTRACTS (continued)

Prior to entering into a lease-leaseback agreement, the Superintendent or designee shall have on file the contractor's enforceable commitment that the contractor and its subcontractors at every tier will use a skilled and trained workforce to perform all work on the project or contract that falls within an apprenticeable occupation in the building and construction trades. (Education Code ~~17406~~, 17407.5)

Any lease-leaseback agreement shall be reviewed by the district's legal counsel to ensure that all required terms, including a lease term that provides for the district's occupancy of the building or improved property during the lease and an appropriate financing component, are included in the agreement.

(cf. 9124 - Attorney)

*Legal Reference:*EDUCATION CODE

17400 Definitions

17406 Lease-leaseback contract

17407.5 Use of a skilled and trained workforce

PUBLIC CONTRACT CODE

20111.6 Prequalification procedures

20112 Notices

COURT DECISIONSMcGee v. Balfour Beatty Construction, LLC, et al. (4/12/16, No. B262850)Davis v. Fresno Unified School District, (2015) 237 Cal.App.4th 261*Management Resources:*WEB SITESCSBA: <http://www.csba.org>California Association of School Business Officials: <http://www.casbo.org>

Governance Standards

The Governing Board believes that its primary responsibility is to act in the best interests of every student in the district. The Board also has major commitments to parents/guardians, all members of the community, employees, the state of California, laws pertaining to public education, and established policies of the district. To maximize Board effectiveness and public confidence in district governance, Board members are expected to govern responsibly and hold themselves to the highest standards of ethical conduct.

(cf. 9000 – Role of the Board)
(cf. 9270 – Conflict of Interest)

The Board expects its members to work with each other and the Superintendent to ensure that a high-quality education is provided to each student. Each individual Board member shall:

1. Keep learning and achieving for every student as the primary focus
2. Value, support and advocate for public education

(cf. 9010 – Public Statements)

3. Recognize and respect differences of perspective and style on the Board and among staff, students, parents and the community.
4. Act with dignity and respect, and understand the implications of demeanor and behavior
5. Keep confidential matters confidential

(cf. 9011 – Disclosure of Confidential/Privileged Information)

6. Participate in professional development and commit the time and energy necessary to be an informed and effective leader

(cf. 9240 – Board Development)

7. Understand the distinctions between Board and staff roles and responsibilities and not perform management functions that are the responsibility of the Superintendent and staff

(cf. 2110 – Superintendent Responsibilities and Duties)

8. Understand that authority rests with the Board as a whole and not with individuals

(cf. 9200 – Limits of Board Member Authority)

Board members also shall assume collective responsibility for building unity and creating a positive organizational culture. To operate effectively, the Board shall have a unity of purpose and;

1. Keep the district focused on learning and achievement for every student

2. Communicate a common mission and vision

(cf. 0000 – Vision)

(cf. 0100 – Philosophy)

(cf. 0200 – Goals for the School District)

3. Operate transparently, with trust and integrity

4. Govern in a professional manner, treating everyone with civility and respect

5. Govern within Board-adopted policies and procedures

(cf. 9310 – Board Policies)

6. Take collective responsibility for the Board’s performance

7. Annually evaluate its own effectiveness

(cf. 9400 – Board Self-Evaluation)

8. Ensure opportunities for the diverse range of views in the community to inform Board deliberations

(cf. 1220 – Citizen Advisory Committees)

(cf. 9323 – Meeting Conduct)

Legal Reference:

EDUCATION CODE

35010 Power of governing board to adopt rules for its own governance

35160 Board authority to act in any manner not conflicting with law

35164 Actions by majority vote

GOVERNMENT CODE

1090 Financial interest in contract

1098 Disclosure of confidential information

1125-1129 Incompatible activities

54950-54963 The Ralph M. Brown Act

87300-87313 Conflict of interest code

Management Resources:

CSBA PUBLICATIONS

CSBA Professional Governance Standards, 2000

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WEB SITES

CSBA: <http://www.csba.org>

Bylaw
adopted:

PIERCE JOINT UNIFIED SCHOOL DISTRICT
Arbuckle CA