

# Ridgeland School District 122

Administrative Center  
6500 West 95<sup>th</sup> Street, Oak Lawn, IL 60453

Thursday November 9, 2017  
6:30 p.m.

## Finance Committee Meeting

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### AGENDA

1. Call to Order \_\_\_\_\_ (time)
2. Members Present \_\_\_\_\_
3. Approval of the Minutes of the October 12, 2017, Finance Committee Meeting
  - Recommended Motion – that the Finance Committee approve the minutes of the October 12, 2017 Finance Committee meeting

\_\_\_\_\_

A \_\_\_\_\_

N \_\_\_\_\_

Abstain \_\_\_\_\_

Absent \_\_\_\_\_

4. Finance
  - 2017 Tax Levy
  - State Payment Update
  - Property Tax Collections Update
  - Local Government Travel Expense Control Act Resolution
  - October Meal Counts from CPE
  - PMA/Forecast5 Financial Forecasting
  - List of Bills (if available)
  - Township Treasurer's Report (if available)
  - Other

5. Human Resources

6. Building and Grounds
  - Harnew Chiller Authorization
  - Water Testing Updates

7. Close Session: Personnel, Contracts, Litigation

8. Public Comments

9. Adjournment \_\_\_\_\_ (time)

- Recommended Motion – that the Finance Committee adjourn the November 9, 2017 Finance Committee meeting

\_\_\_\_\_

A \_\_\_\_\_

N \_\_\_\_\_

Abstain \_\_\_\_\_

Absent \_\_\_\_\_

# Ridgeland School District 122

6500 West 95<sup>th</sup> Street, Oak Lawn, IL 60453  
Phone 708-599-5550 Fax 708-599-5626  
[www.ridgeland122.com](http://www.ridgeland122.com)

## Meeting Minutes

### Finance Committee Meeting

**Date:** October 12, 2017

**Time:** 6:30 PM

**Place:** Administrative Center Board Room

***Challenge! Care! Success!***

**Present:** David Lis, Pat Pulver, Steve Nicefero, Julie Shellberg, Doug Ogarek

Agenda Item	Notes
<b>Call to Order</b>	6:35pm
<b>Finance</b>	
• <b>2017 Estimated Tax Levy</b>	The estimated 2017 tax levy was presented at \$18,345,000. This was less than 5% of 2016 tax extension.
• <b>State Payment Update</b>	The state owes the district \$357,686 for FY18 and \$606,583 for FY17 for various programs vouched as far back as June 2017.
• <b>Property Tax Collections Update</b>	Property tax collections for 2016 levy total \$21,494,084 representing 97% collected.
• <b>Annual Audit</b>	RSM completed their audit of the district's finances and federal program awards. Presented were the following <ul style="list-style-type: none"><li>• Required communications to the Board of Education</li><li>• Bound annual financial report to be uploaded to EMMA</li><li>• ISBE AFR</li><li>• Single Audit</li></ul> There were no findings and the report will be filed with ISBE by October 15th.
• <b>PMA Update</b>	PMA's plan of Finance Options and Market Update was discussed as the district's Debt Service Extension Base is lowered through the payment of bonds.
• <b>Electricity Pricing</b>	Electricity pricing from four providers was considered. Based on current pricing and quoted charges for supply costs and transmission costs, the finance committee opted with the supply only pricing from IEC Nextera for a 12 month term.
• <b>List of Bills (if available)</b>	Will be provided in board packet for board meeting
• <b>Township Treasurer's Report (if available)</b>	Will be provided in board packet for board meeting

<ul style="list-style-type: none"> <li>• Other</li> </ul>	The district is demo'ing a new model copier at Kolb because of recurrent issues.
<b>Human Resources</b>	
<b>Buildings and Grounds</b>	
<ul style="list-style-type: none"> <li>• Simmons Computer Lab Renovations</li> </ul>	Renovations are continuing on as planned. Furniture and fixtures and flooring are currently being selected. The new space is expected to be occupied by January 1st.
<ul style="list-style-type: none"> <li>• Harnew Chiller Update</li> </ul>	The Harnew chiller is currently being evaluated by architect/engineer for repairs/maintenance or replacement.
<ul style="list-style-type: none"> <li>• Water Testing</li> </ul>	Water analysis reports were received on October 10th. Results were shared with IDPH, parents/guardians and staff. Harnew's test results were under 2 ppb. Lieb had 4 areas with test results above 2 ppb. The fixtures were marked and taken out of service. Replacement fixtures and follow-up testing is expected. The district will implement a flushing program at all schools and the remaining schools will be tested.
<b>Closed Session (if needed)</b>	
<ul style="list-style-type: none"> <li>• Personnel, Contracts, Litigation</li> </ul>	
<b>Adjournment</b>	8:05pm

**RESOLUTION 18-007**

**APPROVING 2017 TAX LEVY**

WHEREAS, the Board of Education of Ridgeland School District Number 122, Cook County, Illinois, has determined the amount of money, exclusive of election costs and bond principal and interest levies, that is necessary to be raised by taxation for the year 2017; and

WHEREAS, the Board of Education has heretofore adopted a Budget Resolution for the District for the fiscal year commencing July 1, 2017 and ending June 30, 2018; and

WHEREAS, the Board of Education disclosed at a public meeting its intention to adopt a levy; and

WHEREAS, the Board of Education provided notice of its intent to adopt a levy.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED by the Board of Education of Ridgeland School District Number 122, Cook County, Illinois, as follows:

1. That there shall be and there is hereby levied by the Board the amounts set forth on Exhibit A attached hereto and made a part of this Resolution, which is the Certificate of Tax Levy for the year 2017.

2. That the Board President and Board Secretary are hereby authorized to execute the Certificate of Tax Levy and supporting forms and Certifications and the District Administration is hereby authorized and directed to file the Certificate of Tax Levy and all supporting data and Certifications with the County Clerk of Cook County, Illinois.

A motion was made by \_\_\_\_\_ and seconded by \_\_\_\_\_ that the Resolution Approving 2017 Tax Levy be adopted as presented.

Upon roll call the following members answered:

AYES: \_\_\_\_\_  
\_\_\_\_\_

NAYS: \_\_\_\_\_  
\_\_\_\_\_

ABSENT: \_\_\_\_\_

The President declared the motion carried and the Resolution adopted.

\_\_\_\_\_  
President, Board of Education  
Ridgeland School District Number 122,  
Cook County, Illinois

ATTEST:

\_\_\_\_\_  
Secretary, Board of Education  
Ridgeland School District Number 122,  
Cook County, Illinois

**EXHIBIT A**

Original: ☐  
Amended: ☐

ILLINOIS STATE BOARD OF EDUCATION  
School Business Services Division  
217/785-8779

CERTIFICATE OF TAX LEVY

A copy of this Certificate of Tax Levy shall be filed with the County Clerk of each county in which the school district is located on or before the last Tuesday of December.

District Name RIDGELAND SCHOOL DISTRICT 122	District Number 07-016-1220-02	County COOK
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Amount of Levy

Educational	\$ 14,645,000	Fire Prevention & Safety *	\$
Operations & Maintenance	\$ 1,900,000	Tort Immunity	\$
Transportation	\$ 1,000,000	Special Education	\$
Working Cash	\$ 100,000	Leasing	\$
Municipal Retirement	\$ 250,000	Other	\$
Social Security	\$ 450,000	Other	\$
		Total Levy	\$ 18,345,000

\* Includes Fire Prevention, Safety, Energy Conservation, Disabled Accessibility, School Security, and Specified Repair Purposes.

See explanation on reverse side.

Note: Any district proposing to adopt a levy must comply with the provisions set forth in the Truth in Taxation Law.

We hereby certify that we require:

the sum of 14,645,000 dollars to be levied as a special tax for educational purposes; and  
the sum of 1,900,000 dollars to be levied as a special tax for operations and maintenance purposes; and  
the sum of 1,000,000 dollars to be levied as a special tax for transportation purposes; and  
the sum of 100,000 dollars to be levied as a special tax for a working cash fund; and  
the sum of 250,000 dollars to be levied as a special tax for municipal retirement purposes; and  
the sum of 450,000 dollars to be levied as a special tax for social security purposes; and  
the sum of 0 dollars to be levied as a special tax for fire prevention, safety, energy conservation, disabled accessibility, school security and specified repair purposes; and  
the sum of 0 dollars to be levied as a special tax for tort immunity purposes; and  
the sum of 0 dollars to be levied as a special tax for special education purposes; and  
the sum of 0 dollars to be levied as a special tax for leasing of educational facilities or computer technology or both, and temporary relocation expense purposes; and  
the sum of 0 dollars to be levied as a special tax for \_\_\_\_\_; and  
the sum of 0 dollars to be levied as a special tax for \_\_\_\_\_  
on the taxable property of our school district for the year \_\_\_\_\_.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_. \_\_\_\_\_  
(President)

\_\_\_\_\_  
(Clerk or Secretary of the School Board of Said School District)

When any school is authorized to issue bonds, the school board shall file a certified copy of the resolution in the office of the county clerk of each county in which the district is situated to provide for the issuance of the bonds and to levy a tax to pay for them. The county clerk shall extend the tax for bonds and interest as set forth in the certified copy of the resolution, each year during the life of the bond issue. Therefore to avoid a possible duplication of tax levies, the school board should not include a levy for bonds and interest in the district's annual tax levy.

Number of bond issues of said school district that have not been paid in full \_\_\_\_\_.

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(Detach and Return to School District)

This is to certify that the Certificate of Tax Levy for School District No. \_\_\_\_\_, \_\_\_\_\_ County, Illinois, on the equalized assessed value of all taxable property of said school district for the year \_\_\_\_\_, was filed in the office of the County Clerk of this County on \_\_\_\_\_.

In addition to an extension of taxes authorized by levies made by the Board of Education (Directors), an additional extension(s) will be made, as authorized by resolution(s) on file in this office, to provide funds to retire bonds and pay interest thereon.

The total levy, as provided in the original resolution(s), for said purposes for the year \_\_\_\_\_, is \$ \_\_\_\_\_.

\_\_\_\_\_  
(Signature of County Clerk)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(County)



STATE OF ILLINOIS        )  
                                      ) SS  
COUNTY OF COOK        )

**SECRETARY'S CERTIFICATE**

I DO HEREBY CERTIFY that I am the duly elected and acting Secretary of the Board of Education of Ridgeland School District Number 122, Cook County, Illinois, and as such I am the keeper of the records and minutes of said Board.

I DO FURTHER CERTIFY that attached hereto is a true and correct copy of a Resolution entitled:

**RESOLUTION 18-007**

**APPROVING 2017 TAX LEVY** which Resolution was duly adopted by said Board of Education at a meeting held on the 15<sup>th</sup> day of November, 2017.

I do further certify that a quorum of said Board of Education was present at said meeting, and that the Board complied with all the requirements of the Illinois Open Meetings Act.

IN WITNESS WHEREOF, I have hereunto set my hand this 15<sup>th</sup> day of November, 2017.

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Secretary, Board of Education  
Ridgeland School District Number 122,  
Cook County, Illinois

## **RESOLUTION 18-008**

### **ALLOCATING TAX LEVY TO INDIVIDUAL FUNDS OF THE DISTRICT**

WHEREAS, on November 15<sup>th</sup>, 2017, the Board of Education of Ridgeland School District Number 122, Cook County, Illinois (the “District”) did adopt a certificate of tax levy for the 2017 levy year for filing with the County Clerk of Cook County, Illinois (“County Clerk”); and

WHEREAS, the County Clerk has previously notified each Cook County taxing district which is subject to the Property Tax Extension Limitation Law (“PTELL”) that it may direct the County Clerk, by proper resolution, to make specific and necessary reductions to its tax levy for the 2017 levy year to meet the requirements of the PTELL; and

NOW, THEREFORE, Be it Resolved by the Board of Education of Ridgeland School District Number 122, Cook County, Illinois, as follows:

1. The Board of Education hereby finds and determines as follows regarding appropriate adjustments in the 2017 levy of the District payable in 2018 by virtue of the PTELL:

A. That the following funds of this District are not to be limited:

Building (Operations and Maintenance)  
Transportation  
Working Cash  
IMRF (Municipal Retirement Fund)  
Social Security Levy

B. That the following funds of this District may be limited if required by the PTELL:

Educational

C. The levies for the following funds shall be no less than the amounts indicated as follows:

Educational Fund	\$14,645,000
Operations & Maintenance Fund	\$1,900,000
Transportation Fund	\$1,000,000
Working Cash Fund	\$100,000
Municipal Retirement Fund	\$250,000
Social Security Fund	\$450,000
TOTAL	<u>\$18,345,000</u>

D. In the event that a further reduction must be taken as a result of the PTELL, the County Clerk shall make any such further reduction in the percentage amounts indicated below:

Education Fund	100.0%
Operations & Maintenance Fund	0.0%
Transportation Fund	0.0%
Working Cash Fund	0.0%
Fire Prevention & Safety	0.0%
Municipal Retirement Fund	0.0%
Social Security Fund	0.0%
Tort Immunity Fund	0.0%
Special Education Fund	0.0%
	<i>100.0%</i>

2. That the District Administration be and is hereby authorized to file a certified copy of this Resolution with the County Clerk.
3. That this Resolution shall be in full force and effect from and after its adoption as provided by law.

ADOPTED this 15<sup>th</sup> day of November, 2017.

\_\_\_\_\_  
President, Board of Education  
Ridgeland School District Number 122,  
Cook County, Illinois

ATTEST:

\_\_\_\_\_  
Secretary, Board of Education  
Ridgeland School District Number 122,



STATE OF ILLINOIS        )  
                                      ) SS  
COUNTY OF COOK         )

**SECRETARY'S CERTIFICATE**

I DO HEREBY CERTIFY that I am the duly elected and acting Secretary of the Board of Education of Ridgeland School District Number 122, Cook County, Illinois, and as such I am the keeper of the records and minutes of said Board.

I DO FURTHER CERTIFY that attached hereto is a true and correct copy of a Resolution entitled:

**RESOLUTION 18-008**

**RESOLUTION ALLOCATING TAX LEVY TO INDIVIDUAL FUNDS OF THE DISTRICT** which Resolution was duly adopted by said Board of Education at a meeting held on the 15<sup>th</sup> day of November, 2017.

I do further certify that a quorum of said Board of Education was present at said meeting, and that the Board complied with all the requirements of the Illinois Open Meetings Act.

IN WITNESS WHEREOF, I have hereunto set my hand this 15<sup>th</sup> day of November, 2017.

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Secretary, Board of Education  
Ridgeland School District Number 122,  
Cook County, Illinois

STATE OF ILLINOIS       )  
                                      ) SS  
COUNTY OF COOK       )

**CERTIFICATION OF INAPPLICABILITY OF  
TRUTH IN TAXATION LAW**

I, the undersigned, do hereby certify that I am the duly qualified and acting President of the Board of Education of Ridgeland School District Number 122, Cook County, Illinois.

I do further certify that in adopting the foregoing Certificate of Tax Levy, Sections 18-60 through 18-85 of the Truth In Taxation Law (35 ILCS 200/18-60 through 200/18-85) were inapplicable.

**IN WITNESS WHEREOF**, I hereunto affix my official signature this 15th day of November, 2017.

\_\_\_\_\_  
President, Board of Education

# RIDGELAND SCHOOL DISTRICT 122

Loss Amount (Non-Bonds)	3%	Prior Year Extension x CPI	17,479,716	Prior Year EAV	480,351,595
Loss Amount (Bonds)	5%	Limiting Rate	3.378	New Property	2,000,000
				Prior EAV + New Property	482,351,595
				2017 Estimated EAV at	530,386,755

## LEVY INCREASE 4.95%

Fund	Fund Description	Levy Amount	Loss Amt.	Total Levy	Tax Rate Ceiling	Maximum Allowable Levy	Prelim Rates	PTELL Reduction	Final Levy	Final Tax Rates
IMRF		250,000	7,500	257,500		257,500	0.0485	7,500	250,000	0.0471
SOCIAL SECURITY		450,000	13,500	463,500		463,500	0.0874	13,500	450,000	0.0848
LIABILITY INSURANCE		0	0	0		0	0.0000	0	0	0.0000
TRANSPORTATION		1,000,000	30,000	1,030,000		1,030,000	0.1942	30,000	1,000,000	0.1885
EDUCATION		14,645,000	439,350	15,084,350		15,084,350	2.8440	870,008	14,214,342	2.6800
BUILDING		1,900,000	57,000	1,957,000	0.5500	1,957,000	0.3690	57,000	1,900,000	0.3582
WORKING CASH		100,000	3,000	103,000	0.0500	103,000	0.0194	3,000	100,000	0.0189
LIFE SAFETY		0	0	0	0.1000	0	0.0000	0	0	0.0000
SPECIAL EDUCATION		0	0	0	0.4000	0	0.0000	0	0	0.0000
LEASING		0	0	0	0.1000	0	0.0000	0	0	0.0000
LIMITED BONDS			0	0		0	0.0000		0	0.0000
Total Cap Funds		18,345,000	550,350	18,895,350		18,895,350	3.563	981,008	17,914,342	3.378
Total Non-Cap Funds			0	0		0	0.0000		0	0.0000
Grand Totals		18,345,000	550,350	18,895,350		18,895,350	3.563	981,008	17,914,342	3.378

TO: Cook County - 2017 Tax Levy File

FROM: Doug Ogarek

DATE: November 2, 2017

RE: 217 levy rationale

With the change in law affecting the 2017 tax levy year as it relates to the elimination of the tax rate ceiling for the Education Fund, the district will not levy for Special Education as a separate levy as the School District has done in the past.

- The Special Education levy has been and is currently included in the education fund for school districts.
- With no tax rate ceiling for the Education Fund, there is no threat that the inclusion of the Special Education levy would surpass any tax rate ceiling.

In addition, the school district will not levy in the Liability Insurance (Tort) fund and the Life Safety fund for 2017 levy year. The school district had levied a minimal amount in both funds in the past for the purpose of preserving the right to continue to levy in both funds in the future. According to Tanya Anthofer from the Cook County Clerk's Office who presented at a SSSBO seminar on October 13, 2017, levying in both the Liability Insurance (Tort) fund and the Life Safety fund is not necessary for preserving a school district's right to levy in those funds without going to referendum.



Ridgeland School District 122  
2017 Tax Levy Distribution

2016 Tax Extension - Cap Funds 17,479,716  
Estimated 2017 Extension - Cap Funds 4.95% 18,345,000

School Year Levy Collection	FY16		FY17		FY18		FY19		FY20		FY21	
	2nd 2014	1st 2015 (55% 2014)	2nd 2015	1st 2016 (55% 2015)	2nd 2016	1st 2017 (55% 2016) South Tri	2nd 2017	1st 2018 (55% 2017)	2nd 2018	1st 2019 (55% 2018)	2nd 2019	1st 2020 (55% 2019) South Tri

Estimate expenditures at 5% increase over current year budgeted expenditures.

Subtract current FY non-levy revenue.

Balance is necessary levy payable the following year.

	Ed	O/M	Debt	Trans	IMRF/SS	Cap Proj	W/C	Tort	Life Safety
FY18 Budgeted Expenditures	23,017,296	1,766,242	N/A	1,489,200	655,895	N/A	-	-	-
Estimated FY19 Expenditures	24,169,000	1,855,000	N/A	1,564,000	689,000	N/A	-	-	-
FY19 Non-Levy Revenue (based on FY18)	10,212,788	19,000	N/A	626,000	6,000	N/A	-	-	-
Calculated 2017 Levy Needs for FY19	13,956,212	1,836,000	N/A	938,000	683,000	N/A	-	-	-
Estimated 2017 Levy	14,645,000	1,900,000	N/A	1,000,000	700,000	N/A	100,000	-	-
	Limited by PTELL								

<b>SPED</b>	
<b>Expenditures</b>	
SPED	10-1200 2,660,324
EC	10-1225 266,301
Support-Serve	10-2100 1,071,114
Tuition	10-4120 1,905,000
Transportation	40-2660 920,000
Benefits	60-1200 122,723
Benefits	60-1225 16,400
Benefits	60-2100 82,000
	7,043,862
<b>Revenues</b>	
State-SPED	645,544
State-SPED-Trans	600,000
Federal-SPED-IDEA	460,000
Medicaid	100,000
	1,805,544
Calculated 2017 (FY18) Levy Needs	6,138,308
Estimated 2017 Levy	1,600,000
Limited because Tax Rate Ceiling of 0.4000 Included levy within Ed Fund	

# Ridgeland School District 122

## Fund Balances

Fiscal Year: 2016-2017

Month: June  
Year: 2017  
Fund Type: ☐ Include Cash Balance  
☐ FY End Report

Fund	Description	Beginning Balance	Revenue	Expense	Transfers	Fund Balance
10	EDUCATIONAL	\$18,126,745.93	\$22,287,033.98	(\$21,171,266.34)	\$0.00	\$19,242,513.57
20	OPERATIONS AND MAINTENANCE	\$1,087,923.10	\$1,776,272.39	(\$1,556,000.81)	\$0.00	\$1,308,194.68
30	DEBT SERVICE	\$3,456,619.82	\$5,002,695.78	(\$6,911,830.52)	\$0.00	\$1,547,485.08
40	TRANSPORTATION	\$1,774,661.34	\$1,153,402.22	(\$1,344,210.24)	\$0.00	\$1,583,853.32
50	MUNICIPAL RETIREMENT	\$471,462.07	\$312,642.64	(\$204,957.27)	\$0.00	\$579,147.44
55	SOCIAL SECURITY	\$86,858.64	\$311,460.75	(\$352,766.24)	\$0.00	\$45,553.15
60	CAPITAL PROJECTS	\$677,648.55	\$7,779.32	(\$415,805.10)	\$0.00	\$269,622.77
70	WORKING CASH	\$3,623,912.35	\$134,628.66	(\$604,879.16)	\$0.00	\$3,153,661.85
80	TORT IMMUNITY	\$152,314.82	\$12,063.37	\$0.00	\$0.00	\$164,378.19
90	LIFE SAFETY	\$197,052.53	\$6,408.15	\$0.00	\$0.00	\$203,460.68
Grand Total:		\$29,655,199.15	\$31,004,387.26	(\$32,561,715.68)	\$0.00	\$28,097,870.73

End of Report

**ILLINOIS BOARD OF EDUCATION**  
**VOUCHERS AWAITING PROCESSING BY COMPTROLLER**  
**(General Revenue Fund 001 Only as of 11/2/2017)**

<b>RCDT: 07016122002</b>		<b>Fiscal Year :</b>	<b>2018</b>
<b>Recipient: WORTH TOWNSHIP SCHOOL TREASU</b>			
<b>Program Name</b>	<b>Voucher Number</b>	<b>Voucher Date</b>	<b>Amount</b>
3100 _ Special Ed. - Private Facility Tuition	00013604	09/26/2017	24,033.72
		<b>Sub Total :</b>	<b>\$24,033.72</b>
3360 _ State Free Lunch & Breakfast	00000330	08/02/2017	22.33
	00006093	09/12/2017	191.29
	00015851	10/03/2017	791.80
		<b>Sub Total :</b>	<b>\$1,005.42</b>
3500 _ Transportation - Regular and Vocational	00011532	09/26/2017	1,906.41
3510 _ Transportation - Special Education	00012535	09/26/2017	176,240.31
3705 _ Early Childhood - Block Grant	00001595	08/16/2017	51,500.00
	00001648	08/16/2017	51,500.00
	00005417	09/06/2017	51,500.00
	00022308	10/18/2017	51,500.00
		<b>Sub Total :</b>	<b>\$206,000.00</b>
		<b>GRAND TOTAL :</b>	<b>\$409,185.86</b>

ILLINOIS BOARD OF EDUCATION  
VOUCHERS AWAITING PROCESSING BY COMPTROLLER  
(General Revenue Fund 001 Only as of 11/2/2017)

RCDT: 07016122002                      Fiscal Year :        2017  
Recipient: WORTH TOWNSHIP SCHOOL TREASU

Program Name	Voucher Number	Voucher Date	Amount
3305 - Bilingual Ed. - T.P.I. & T.B.E.	00090602	04/25/2017	39,288.00
	00121784	08/28/2017	73,163.00
	Sub Total :		\$112,451.00
3360 - State Free Lunch & Breakfast	00103724	06/06/2017	539.02
	00120803	08/23/2017	1,308.60
	Sub Total :		\$1,847.62
3999 - Other State Programs	00093485	05/03/2017	10,520.00
	00102037	06/01/2017	10,520.00
	00114815	07/05/2017	10,520.00
	00119205	08/02/2017	10,520.00
	Sub Total :		\$42,080.00
GRAND TOTAL :			\$156,378.62

Office of the Cook County Treasurer  
Agency Collection Distribution Report  
Tax Year 2016  
Through 10/31/2017

11/2/2017

SCHOOL DISTRICT 122  
Agency # 04-0770-000

	Real Estate Collections	Real Estate Refunds	RailRoad Collections	RailRoad Refunds	Total
Taxes Extended	22,130,077.17		14,139.60		22,144,216.77
Gross Taxes Distributed	21,660,581.40		14,139.60		21,674,721.00
General Refunds		(58,732.08)		0.00	(58,732.08)
Illegal Rate Refunds		0.00		0.00	0.00
SP/PTAB Refunds		0.00		0.00	0.00
Total Refunds Recouped		(58,732.08)		0.00	
Net Collections Distributed					21,615,988.92
TIF Rebates					0.00
Interest Earnings					895.03

## **School Board**

### **Exhibit - Resolution to Regulate Expense Reimbursements**

WHEREAS, Section 10-20 of the School Code (105 ILCS 5/10-20) grants school boards other powers that are not inconsistent with their duties;

WHEREAS, Section 10 of the Local Government Travel Expense Control Act (50 ILCS 150/, added by P.A. 99-604, eff. 1-1-17) provides that the School Board shall by resolution regulate the reimbursement of all travel, meal, and lodging expenses of officers and employees, including, but not limited to: (1) the types of official business for which travel, meal, and lodging expenses are allowed; (2) maximum allowable reimbursement for travel, meal, and lodging expenses; and (3) a standardized form for submission of travel, meal, and lodging expenses supported with minimum documentation;

WHEREAS, the Board regulates the types of expenses that are allowed in Board Policies 2:125, *Board Member Compensation; Expenses* and 5:60, *Expenses*;

WHEREAS, based upon the School District's budget and other financial considerations, the Superintendent has recommended to the Board a maximum allowable reimbursement amount of \$400 per day, per Board member or District staff;

WHEREAS, the Board requires submission of appropriate standardized expense forms supported with required written minimum documentation (50 ILCS 150/10 and 20);

WHEREAS, submitted expenses that exceed the Board's maximum allowable reimbursement amount may be approved by a roll call vote at an open meeting of the Board when an emergency or other extraordinary circumstance exists (50 ILCS 150/10 and 15);

WHEREAS, all Board member expenses must be approved by a roll call vote at an open meeting of the Board (50 ILCS 150/15);

THEREFORE, BE IT RESOLVED, that the Board hereby:

1. Defines and sets the types of allowable expenses through Board policy 2:125, *Board Member Compensation; Expenses* and 5:60, *Expenses*.
2. Sets the maximum allowable reimbursement for travel, meal, and lodging expenses to an amount not to exceed \$400 per day, per Board member or District staff, effective on *June 1, 2017*, until the Resolution is rescinded or replaced by the Board.
3. Supersedes its previously adopted *Resolution to Regulate Expense Reimbursements* as of the effective date in paragraph two above.
4. Requires use of Board exhibits 2:125-E1, *Board Member Expense Reimbursement Form*; 2:125-E2, *Board Member Estimated Expense Approval Form*; 5:60-E1, *Employee Expense Reimbursement Form*; and 5:60-E2, *Employee Estimated Expense Approval Form*.
5. May approve expenses that exceed the Board's maximum allowable reimbursement amount by a roll call vote at an open meeting when an emergency or other extraordinary circumstance exists.
6. Must approve its members' expenses by a roll call vote at an open meeting.

Attested by: \_\_\_\_\_, Board President

Attested by: \_\_\_\_\_, Board Secretary

## **School Board**

### **Board Member Compensation; Expenses**

#### **Board Member Compensation Prohibited**

Board of Education members provide volunteer service to the community and may not receive compensation for services, except that a Board member serving as the Board Secretary may be paid an amount up to the statutory limit if the Board so provides.

#### **Roll Call Vote**

All Board member expense requests for travel, meals, and/or lodging must be approved by roll call vote at an open meeting of the Board.

#### **Regulation of School District Expenses**

The Board regulates the reimbursement of all travel, meal, and lodging expenses in the District by resolution. No later than approval of the annual budget and when necessary, the Superintendent will recommend a maximum allowable reimbursement amount for expenses to be included in the resolution. The recommended amount should be based upon the District's budget and other financial considerations.

Money shall not be advanced or reimbursed, or purchase orders issued for: (1) the expenses of any person except the Board member, (2) anyone's personal expenses, or (3) entertainment expenses. Entertainment includes, but is not limited to, shows, amusements, theaters, circuses, sporting events, or any other place of public or private entertainment or amusement, unless the entertainment is ancillary to the purpose of the program or event.

#### **Exceeding the Maximum Allowable Reimbursement Amount(s)**

All requests for expense advancements, reimbursements, and/or purchase orders that exceed the maximum allowable reimbursement amount set by the Board may only be approved by it when:

1. The Board's resolution to regulate expenses allows for such approval;
2. An emergency or other extraordinary circumstance exists; and
3. The request is approved by a roll call vote at an open Board meeting.

#### **Advancements**

The Board may advance to its members actual and necessary expenses to be incurred while attending:

1. Meetings sponsored by the Illinois State Board of Education or by the appropriate Intermediate Service Center.
2. County or regional meetings and the annual meeting sponsored by any school board association complying with Article 23 of the School Code; and
3. Meetings sponsored by a national organization in the field of public school education.

Expense advancement requests must be submitted to the Superintendent or designee on the Board's standardized estimated expense approval form. After spending expense advancements, Board members must use the Board's standardized expense reimbursement form and submit to the Superintendent: (a) the itemized, signed advancement voucher that was issued, and (b) the amount of actual expenses by attaching receipts. A Board member must return to the District any portion of an

expense advancement not used. If an expense advancement is not requested, expense reimbursements may be issued by the Board to its members for the activities listed in numbers one through three, above, along with registration fees or tuition for a course(s) that allowed compliance with the mandatory trainings described in policy 2:120, *Board Member Development* and other professional development opportunities that are encouraged by the School Code, and other training provided by one of the entities described in the above list.(see the **Reimbursements and Purchase Orders** subhead, below). Expense advancements and vouchers shall be presented to the Board in its regular bill process.

#### Reimbursements and Purchase Orders

Expense reimbursement is not guaranteed and, when possible, Board members should seek pre-approval of expenses by providing an estimation of expenses on the Board's standardized estimated expense approval form, except in situations when the expense is diminutive. When pre-approval is not sought, Board members must seek reimbursement on the Board's standardized expense reimbursement form. Expense reimbursements and purchase orders shall be presented to the Board in its regular bill process.

#### Credit and Procurement Cards

Credit and procurement cards shall not be issued to Board members.

#### Standardized Expense Form(s) Required

All requests for expense advancement, reimbursement, and/or purchase orders in the District must be submitted on the appropriate itemized, signed standardized form(s). The form(s) must show the following information:

1. The amount of the estimated or actual expense, with attached receipts for actual incurred expenses.
2. The name and office of the Board member who is requesting the expense advancement or reimbursement. Receipts from group functions must include the names, offices, and job titles of all participants.
3. The date(s) of the official business on which the expense advancement or reimbursement will be or was expended.
4. The nature of the official business conducted when the expense advancement or reimbursement will be or was expended.

#### Types of Official Business for Expense Advancements, Reimbursements, and Purchase Orders

1. Registration. When possible, registration fees will be paid by the District in advance.
2. Travel. The least expensive method of travel will be used, providing that no hardship will be caused to the Board member. Board members will be reimbursed for:
  - a. Air travel at the coach or economy class commercial airline rate. First class or business class air travel will be reimbursed only if emergency circumstances warrant. The emergency circumstances must be explained on the expense form and Board approval of the additional expense is required. Copies of airline tickets must be attached to the expense form.
  - b. Rail or bus travel at actual cost. Rail or bus travel costs may not exceed the cost of coach airfare. Copies of tickets must be attached to the expense form to substantiate amounts.
  - c. Use of personal automobiles at the standard mileage rate approved by the Internal Revenue Service for income tax purposes. The reimbursement may not exceed the cost of



coach airfare. Mileage for use of personal automobiles in trips to and from transportation terminals will also be reimbursed. Toll charges and parking costs will be reimbursed.

- d. Automobile rental costs when the vehicle's use is warranted. The circumstances for such use must be explained on the expense form.
  - e. Taxis, airport limousines, or other local transportation costs.
- 3. Meals. Meals charged to the School District should represent mid-fare selections for the hotel/meeting facility or general area, consistent with the maximum allowable reimbursement amount set by the Board. Tips are included with meal charges. Expense forms must explain the meal charges incurred. Alcoholic beverages will not be reimbursed.
  - 4. Lodging. Board members should request conference rate or mid-fare room accommodations. A single room rate will be reimbursed. Board members should pay personal expenses at checkout. If that is impossible, deductions for the charges should be made on the expense form.
  - 5. Miscellaneous Expenses. Board members may seek reimbursement for other expenses incurred while attending a meeting sponsored by organizations described herein by fully describing the expenses on the expense form, attaching receipts.

LEGAL REF.: 105 ILCS 5/10-20 and 5/10-22.32.  
Local Government Travel Expense Control Act, 50 ILCS 150/.

CROSS REF.: 2:100 (Board Member Conflict of Interest), 2:120 (Board Member Development), 2:240 (Board Policy Development), 4:50 (Payment Procedures), 4:55 (Use of Credit and Procurement Cards), 5:60 (Expenses)

ADOPTED: December 15, 2016

## RIDGELAND SD 122

BREAKFAST COUNTS						
	Kolb	Harnew	Lieb	Columbus Manor	Simmons	Days of School
October 2016	2167	1295	325	410	1472	19
per day	114	68	17	22	77	
October 2017	2747	2156	682	1378	2877	19
per day	145	113	36	73	151	
% increase	27%	66%	110%	236%	95%	

LUNCH COUNTS						
	Kolb	Harnew	Lieb	Columbus Manor	Simmons	Days of School
October 2016	2679	3567	3170	2270	7673	19
per day	141	188	167	119	404	
October 2017	2990	4581	3616	3557	9618	19
per day	157	241	190	187	506	
% increase	12%	28%	14%	57%	25%	



October 30, 2017

**VIA E-MAIL**  
dogarek@ridgeland122.com  
(34) Page(s) Inclusive

Mr. Doug Ogarek  
Assistant Superintendent of Finance and Business Operations  
6500 W. 95<sup>th</sup> Street  
Oak Lawn, IL 60453

Re: Ridgeland School District 122  
Harnew Chiller Review and Recommendation  
Architect's Project Number: 17-050  
**Chiller Report**

Dear Mr. Ogarek

Please see attached recommendation letter from our Mechanical Engineer (Elara) about the existing chiller at Harnew Elementary School.

Sincerely,

**TRIA ARCHITECTURE, INC.**  
Thomas R. Szurgot  
Principal Architect

Attachments: Harnew Chiller Review and Recommendation (Elara), Dated 10/27/17,  
33 Pages

cc: None

File Name: 17050LTR103017.docx

**TRIA ARCHITECTURE**

West Suburban Office: 901 McClintock Drive, Suite 100, Burr Ridge, Illinois 60527  
South Suburban Office: 1820 Ridge Road, Suite 209, Homewood, Illinois 60430  
Company Main: 630.455.4500 Fax: 630.455.4040  
[www.TriaArchitecture.com](http://www.TriaArchitecture.com)



#17353

October 27, 2017

Mr. Thomas R. Szurgot, AIA, LEED AP  
Principal Architect  
Tria Architecture  
1920 Ridge Road, Suite 209  
Homewood, IL 60430

Re: Ridgeland School District 122 Harnew Elementary School - Chiller Review and Recommendation

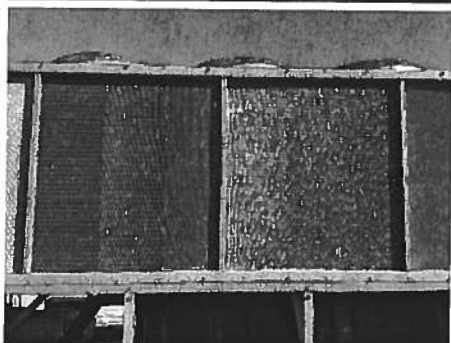
Dear Tom,

Thank you for the opportunity to provide you with this chiller review and recommendation for the existing roof mounted air-cooled chiller serving Harnew Elementary School, part of Ridgeland School District 122. The purpose of this report is to assist the school district in deciding whether to repair or replace the existing chiller for the 2018 cooling season and beyond.

Existing Chiller (pictured top right)

The existing chiller is manufactured by Trane and is rated for a nominal capacity of 200 tons. The chiller is currently 17 years old and is located on the roof towards the north end of the building. The chiller has two original "screw" type compressors and two independent refrigeration circuits allowing 50% of the chillers capacity to operate in case of failure of one circuit. The chiller was manufactured in 2000 to operate on R-22 type refrigerant. R-22 is currently being phased out by the EPA and will no longer be manufactured by the year 2020. Currently circuit 1 remains operational on R-22 refrigerant. Approximately 3 years ago circuit 2 was retrofit to operate on R-407c refrigerant. However, circuit 2 is currently not operational, has had all its R-407c refrigerant removed and a nitrogen holding charge installed to facilitate leak checking of this circuit (pictured second from top right). Furthermore, the compressor of circuit 2 is exhibiting signs of initial internal failure apparent by its unusual operating sound. Repairs to this chiller are reported to have begun three years ago.

Additionally, the existing chiller has hail damage to the condenser coil and deterioration of all elastomeric vibration isolators supporting the chiller (pictured bottom two right).



Enclosed is a report and from the chillers servicing contractor on current condition and recent repair history. The report cites over \$12,000 in 2017 repairs to date with an estimated over \$30,000 in additional required repairs. The estimated \$30,000 in additional repairs excludes a compressor replacement, which is suspected as soon being required for circuit 2. Of note in the report is that circuit 2 no longer holds a vacuum which is indication of a leak within the circuit. The report indicates the leak is suspected of being in the chiller's evaporator heat exchanger. As is typical with required repairs of this significance, the report indicates "...no long term operational guarantees on the work."

Per the American Society of Heating Refrigeration and Air conditioning Engineers (ASHRAE), the estimated useful service life of an air-cooled chiller is 20 years. Therefore, the existing chiller is near the end of its useful service life. Additionally, circuit 1 of the chiller utilizes R-22 refrigerant which will continue to rise in cost and is currently 3 to 4 times the cost of more current refrigerants. Lastly, energy efficiency codes have required the efficiencies of chillers and related equipment to significantly improve since the year 2000 which translates into reduced operating cost for new equipment.

The compressor, evaporator heat exchanger and condenser coil are the three most important components of the chiller. Currently, all three components are either in need of immediate repair, soon will require repair or have experienced damage.

Given the age of the existing chiller, the significant immediate and foreseeable future required repairs, we recommend no further investment in this chiller be made by the school district.

#### New Chiller

The criteria for evaluating the replacement of an air-cooled chiller with a new air-cooled chiller include the following:

1. Chiller cost (equipment only)
2. Construction cost
3. Operating cost/Efficiency
  - a. Utility Incentive (as efficiency increases, incentive increases)
4. Equipment history (i.e. how long has the chiller been in production)
  - a. Reliability
  - b. Maintenance
  - c. Compressor number and type (screw, scroll)
5. Physical dimensions and service clearances
  - a. Are support and/or roofing modifications required?
6. Weight
  - a. Are structural modifications required?
7. Sound and vibration
8. Refrigerant type
9. Redundancy
  - a. What is the remaining capacity in the event of a component failure?
10. Controls
  - a. Are the new chiller controls compatible with the building's control system?
11. Capacity
12. Electrical requirements

Several chiller manufacturers were provided information regarding the existing chiller and were asked to provide their selections (enclosed) for replacement of the existing chiller. Response from Trane, Daikin and Carrier were received and a cursory review of their information is as follows:

1. Trane, Daikin and Carrier have chillers whose physical dimensions allow the chillers to sit on the roof rails supporting the existing chiller. This avoids roofing modifications.
2. Trane offers only screw compressors while Daikin and Carrier offer both screw and scroll compressor chillers.
  - a. The scroll compressor chillers operate on R-410a refrigerant. The screw compressor chillers operate on R-134a. Currently these are the most prevalent commercially available refrigerants. There was a scheduled phase out for these (and R-407c) refrigerants beginning in the year 2024 but that has been stayed by the courts.
  - b. Scroll compressor chillers trend towards lower initial chiller cost and lower sound levels.
3. A onetime utility company incentive for higher than code minimum efficiency chillers ranges from \$7,000 to \$22,000 dollars for this capacity chiller, with more efficient chillers qualifying for the higher amounts. The incentive programs vary each year and amounts are not guaranteed.
4. The chiller cost (equipment only, not installed) ranges from approximately \$80,000-\$120,000 depending on efficiency, accessories, etc...
5. All chillers incorporate an open protocol BACnet communications card. This requires an upgrade to the control wiring between the recently upgraded control system at Harnew elementary and new chiller.

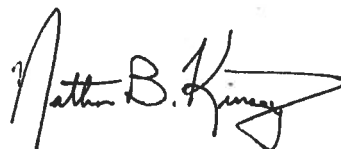
As can be seen from the above review of the manufacturers' responses, the chiller that represents the best long-term value to the school district and Harnew Elementary School requires a thorough engineering analysis.

We suggest the school district budget \$225,000 for this chiller replacement.

The next step would be to prepare the necessary engineering documentation that will allow identification of the chiller that represents the best long-term value and to secure *truly* competitive bids for the chiller purchase and installation. This phase of engineering includes permit assistance, periodic construction inspection, functional testing and many other services which provide a check and balance to the contractor's work.

We look forward to continuing our working with you and the Ridgeland School District 122. Please do not hesitate to call if there are items in this report that need further clarification.

Respectfully Submitted,



Nathan B. Kinsey, PE, LEED AP  
Project Engineer/Team Leader  
Elara Engineering

Enclosures



**Amber Mechanical Contractors, Inc.**  
11950 South Central Avenue, Alsip, IL 60803

Tuesday, October 24, 2017

**Steve Maze, Principal – Elara Engineering**  
30 N WOLF RD, 2ND FLOOR • HILLSIDE, IL 60162  
V: 708-236-0300 x112 • F: 708-236-0330

RE: Harnew Chiller – Ridgeland School District #122

Steve-

Please see attached in regards to the Chiller at Harnew Elementary School.

Existing Chiller s a Trane RTAA215, Serial # 400k04232.

Amber Mechanical has serviced this chiller numerous time, most recently in attempts to get the chiller to operate, we have had to manual add refrigerant and monitor pressures. The Chiller appears to have a leak in the bundle. In order to maintain operation the district has called Amber to Service. The recent invoices are over \$12,000.00.

At this point it would be our assessment that a replacement chiller should be reviewed as an alternative. Otherwise, the direct would be looking a complete chiller recommissioning and rebuild. Similar costs estimate above \$30,000.00 with no long term operational guarantees on the work.

Please let me know if you have any further questions.

Sincerely,

David M Schramm, P.E.  
Engineering Manager/Business Development  
Cell: 708-351-0405

**AMBER MECHANICAL CONTRACTORS, INC.**

11950 S. CENTRAL AVENUE

ALSIP, IL 60803-3402

Phone: (708) 597-9700

Invoice: 0435248

Location: 22248

1

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HARNEW SCHOOL DIST #122

9101 MEADE AVE

OAK LAWN, IL 60453

Page 1 of 1

**AMBER MECHANICAL  
CONTRACTORS, INC.****Bill To: 22249****RIDGELAND SCHOOL DIST #122****6500 W 95TH ST****OAK LAWN, IL 60453**

Invoice Date: 03/31/2017

Serviced: 03/27/2017

**Invoice Memos**

PER TONY CALLING IN, HE WOULD LIKE US TO CLEAN HIS COIL IN HIS CHILLER.

AWARE OF \$60 SVC + \$140/HR PORT TO PORT.

CALL TONY WHEN WE'RE ON OUR WAY.

THEY GET IN AT 7AM.

TONY - MAINTENANCE DIRECT# 708-599-5550; CELL #708-548-1528. 2017

**Invoice Details**

Product ID/Tech ID	Description	Unit Price	Quantity	U/M	Extended Price
350	OLIVA, JAIME	140.00	8.00		1,120.00
350	OLIVA, JAIME	140.00	0.10		14.00
350	SERVICE TRUCK CHARGE				60.00

THANKS FOR CHOOSING AMBER!!!

**Total Due: 1,194.00**



**TRACTORS, INC.**  
SERVICE WORK ORDER  
DATE 3-27-17 435248  
Model

STREET		CITY		STATE		ZIP		TYPE	SYSTEM
MAKE		MODEL		MAKE		MODEL		REFRIG. _____	QTY. _____
MAKE		MODEL		MAKE		MODEL		RECOVERED? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	RECYCLED? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____
MAKE		MODEL		MAKE		MODEL		RECLAIMED? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	RETURNED TO THIS SYSTEM? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____
MAKE		MODEL		MAKE		MODEL		NON USEABLE? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	DISPOSAL _____
DATE		DESCRIPTION OF WORK PERFORMED		DATE		DESCRIPTION OF WORK PERFORMED		OWNER'S INITIALS	

STREET		CITY		STATE		ZIP	
MAKE	MODEL	SERIAL NUMBER	MAKE	MODEL	SERIAL NUMBER	TYPE	SYSTEM
Trane	RTAA2154YTO1A3D1B1N		Trane	RTAA2154YTO1A3D1B1N		REFRIG. _____	QTY. _____
DATE	DESCRIPTION OF WORK PERFORMED					RECOVERED? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	
3/17	Pressure washed Air cooled chiller coils on condenser washed from inside out very little debris was extracted from coil, coil appeared very clean. Condenser coil had minor fin damage prior to washing coil.					RECYCLED? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	
						RECLAIMED? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	
						RETURNED TO THIS SYSTEM? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	
						NON USEABLE? <input type="checkbox"/> YES <input type="checkbox"/> NO QTY. _____	
						DISPOSAL _____	
						OWNER'S INITIALS _____	

RATE		PERIODIC TIME	<input type="checkbox"/> OVERTIME	<input type="checkbox"/> DOUBLE TIME	<input type="checkbox"/> QUOTE	<input type="checkbox"/> INTERNAL	<input type="checkbox"/> INSTALLATION
TYPE OF CALL	<input checked="" type="radio"/> REGULAR	<input type="checkbox"/> WARRANTY	<input type="checkbox"/> SERVICE AGREEMENT	<input type="checkbox"/> CALL BACK	<input type="checkbox"/> JOB # _____		
SHEET TIME	START	AGREE	FINISH				
	7-12		3-18				

**90 DAY GUARANTEE**

Ambler Mechanical Contractors, Inc warrants all parts and material to be free of manufacturing defects, and agrees to replace such parts without charge for a period of 90 days after installation, and will assist in obtaining the benefits of manufacturers warranties on parts and materials for any longer period for which they may be applicable.

**EXCLUDED**

Fibers, fuses, nozzles, humidifier pads, thermocouples, and refrigerant will not be guaranteed as those are consumed parts.

**LABOR ONLY**

In the event that labor only is sold, a thirty (30) day guarantee will be given from date service is performed, except failure of customer's part furnished by us will be.

SERVICE GUARANTEE

ITEM			AMOUNT
MATERIALS			
LABOR HOURS			
TRUCK CHARGE			
PARTS PICK UP DELIVERY			
REFRIGERANT RECOVERY			

E AMOUNT			
----------	--	--	--

\$\_\_\_\_ NET DUE UNDER CONTRACT

ADDRESS FILE

**Service Work Order Invoice****AMBER MECHANICAL CONTRACTORS, INC.**

11950 S. CENTRAL AVENUE

ALSIP, IL 60803-3402

Phone: (708) 597-9700



Invoice: 0437803

Location: 22248

1

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Page 1 of 1

HARNEW SCHOOL DIST #122  
9101 MEADE AVE  
OAK LAWN, IL 60453**Bill To: 22249****RIDGELAND SCHOOL DIST #122****6500 W 95TH ST****OAK LAWN, IL 60453**

Invoice Date: 09/30/2017

Serviced: 09/22/2017

**Invoice Memos**

PER JOE CALLING IN, THE TRANE CHILLER IS NOT COOLING. IT WILL RUN FOR 30 SECONDS AND SHUTS OFF.

JOE'S CELL# 708-541-0600.

PER TONY CALLING IN, THEY WERE APPROVED TO PAY OVERTIME RATES, BUT NEEDED A CHILLER GUY OUT.

\*\* TONY IS IN AT 6AM. THE EARLIER, THE BETTER. \*\*

TONY'S CELL# 708-548-1528.

**Invoice Details**

Product ID/Tech ID	Description	Unit Price	Quantity	U/M	Extended Price
347	ESCUE, CHRISTOPHER W	140.00	0.70		98.00
347	ESCUE, CHRISTOPHER W	210.00	1.80		378.00
348	BAYLES, BRYAN J	140.00	4.10		574.00
347	SERVICE TRUCK CHARGE				80.00

THANKS FOR CHOOSING AMBER!!!

**Total Due: 1,110.00**

# AMBER MECHANICAL CONTRACTORS, INC.

11950 S. CENTRAL AVE

ALSI, IL

60803-3402

708-597-9700

www.amberhvac.com

## SERVICE WORK ORDER

DATE 7/22/14 37903

FA



22248

BILL TO

FA

UNLESS	597	THRU 12/12	UNIT NO.	2211
PERSON CALLING	9101 MEND	PHONE NO.		
CALL BEFORE	<input type="checkbox"/> A.M. WORK TO BE PERFORMED			
UNIT NO.				

QUANTITY	ITEM NUMBER & DESCRIPTION	AMOUNT
----------	---------------------------	--------

NAME	STREET	STATE	ZIP
PHONE	P.O. #		
MAKE	MODEL	SERIAL NUMBER	
MAKE	MODEL	SERIAL NUMBER	
DATE	DESCRIPTION OF WORK PERFORMED		

CHECKED CHILIE AHAMS, CYCLED CHILIE  
MULTIPLE TIMES TO OBSERVE WITH THE  
MISCELLANEOUS DEVICES ARE DROPPED, WILL RETURN  
TO RAN EXHIBIT THEN TEST MODE, and  
CHECK oil level on Cile A

MISCELLANEOUS MATERIAL

TOTAL MATERIALS

☐ RECOMMENDATIONS ☐ BACKORDERS ☐ JOB COMPLETED

TRAVEL TIME

START TIME

ARRIVAL TIME

PAID HOURS

CUSTOMER SIGNATURE  
ALL SERVICE WORK C.O.D.

90 DAY GUARANTEE

SERVICE GUARANTEE

Amber Mechanical Contractors, Inc. warrants all parts and material to be free of manufacturing and installation defects, and agrees to replace such parts without charge for a period of 90 days after installation, and will assist in obtaining the benefits of manufacturers warranties on parts and materials for any longer period for which they may be applicable.

EXCLUDED: Filters, fuses, nozzles, humidifier pads, thermocouples, and refrigerant will not be guaranteed as these are consumed parts.

LABOR ONLY

In the event that labor only is sold, a thirty (30) day guarantee will be given from the date of installation, except failure of customer's part installed by us will be the responsibility of the customer.

DATE 7/22/14 37903 347

ITEM	AMOUNT	ITEM	AMOUNT
LABOR		MATERIALS	
TRUCK			
CHARGE			
PARTS, PICK UP			
DELIVERY			
REFRIGERANT			
RECOVERY			
INVOICE AMOUNT			
TERMS: NET DUE UPON COMPLETION			

ADDRESS FILE

**Service Work Order Invoice****AMBER MECHANICAL CONTRACTORS, INC.**

11950 S. CENTRAL AVENUE

ALSIP, IL 60803-3402

Phone: (708) 697-9700



Invoice: 0437904

Location: 22248

1

1

Page 1 of 1

HARNEW ELEMENTARY SCHOOL  
9101 S MEADE AVE  
OAK LAWN, IL 60453**Bill To: 22249****RIDGELAND SCHOOL DIST #122****6500 W 95TH ST****OAK LAWN, IL 60453**

Invoice Date: 09/30/2017

Serviced: 09/27/2017

**Invoice Memos****PERFORM CHILLER REPAIRS.****Invoice Details**

Product ID/Tech ID	Description	Unit Price	Quantity	U/M	Extended Price
M	OIL TEST KIT	231.87	1.00	EA	231.87
SA-12FM	SITE GLASS 1/4" FLARE-SPORLA	52.67	1.00	EA	52.67
M	RECLAIMER USAGE	100.00	1.00	EA	100.00
M	OIL DESPOSAL	100.00	1.00	EA	100.00
MISC	MISCELLANEOUS MATERIALS & SU	2.90	50.00	EA	145.00
347	ESCUE, CHRISTOPHER W	140.00	8.00		1,120.00
347	ESCUE, CHRISTOPHER W	140.00	3.20		448.00
290	ALDERDEN, JAMES R	140.00	5.80		812.00
290	ALDERDEN, JAMES R	140.00	2.70		378.00
347	ESCUE, CHRISTOPHER W	140.00	4.70		658.00
290	ALDERDEN, JAMES R	140.00	6.50		910.00
347	ESCUE, CHRISTOPHER W	140.00	3.20		448.00
290	ALDERDEN, JAMES R	140.00	7.50		1,050.00
347	SERVICE TRUCK CHARGE				60.00

THANKS FOR CHOOSING AMBER!!!

**Total Due: 6,513.54**

# AMBER MECHANICAL CONTRACTORS, INC.

11950 S. CENTRAL AVE

ALSI, IL

60803-3402

708-597-9700

www.amberhvach.com

## SERVICE WORK ORDER

DATE 9/25/12 437904

9/26/12



22248

TEL TC

PHONE

EPA REFRIGERANT REQUIREMENTS

TYPE SYSTEM

REFRIG. QTY

RECOVERED? YES NO QTY

RECYCLED? YES NO QTY

RECLAIMED? YES NO QTY

RETURNED TO THIS SYSTEM? YES NO QTY

NON USEABLE? YES NO QTY

DISPOSAL OWNERS INITIALS

DATE

DESCRIPTION OF WORK PERFORMED

MAKE MODEL SERIAL NUMBER

MAKE MODEL SERIAL NUMBER

MAKE MODEL SERIAL NUMBER

MAKE MODEL SERIAL NUMBER

MAKE MODEL SERIAL NUMBER

MAKE MODEL SERIAL NUMBER

MAKE MODEL SERIAL NUMBER

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# Service Work Order Invoice

AMBER MECHANICAL CONTRACTORS, INC.

11950 S. CENTRAL AVENUE

ALSIP, IL 60803-3402

Phone: (708) 597-9700



Invoice: 0437913

Location: 22248

1

1

Page 1 of 1

HARNEW ELEMENTARY SCHOOL  
9101 S MEADE AVE  
OAK LAWN, IL 60453

Bill To: 22249

RIDGELAND SCHOOL DIST #122

6500 W 95TH ST

OAK LAWN, IL 60453

Invoice Date: 10/11/2017

Serviced: 10/04/2017

## Invoice Memos

CONTINUE CHILLER REPAIRS.

## Invoice Details

Product ID/Tech ID	Description	Unit Price	Quantity	U/M	Extended Price
09-1191	VACUUM PUMP OIL QUART	30.00	2.00	QT	60.00
N	NITROGEN / CUBIC FOOT (EXCHA	0.85	120.00	CUF	102.00
347	ESCUE, CHRISTOPHER W	140.00	2.60		364.00
347	ESCUE, CHRISTOPHER W	210.00	2.90		609.00
290	ALDERDEN, JAMES R	140.00	2.60		364.00
290	ALDERDEN, JAMES R	210.00	2.90		609.00
347	ESCUE, CHRISTOPHER W	140.00	3.50		490.00
290	ALDERDEN, JAMES R	140.00	3.50		490.00
347	ESCUE, CHRISTOPHER W	140.00	2.60		364.00
347	ESCUE, CHRISTOPHER W	210.00	2.20		462.00
290	ALDERDEN, JAMES R	140.00	0.50		70.00
290	ALDERDEN, JAMES R	210.00	2.70		567.00

THANKS FOR CHOOSING AMBER!!!

Total Due: 4,551.00



AMBER MECHANICAL CONTRACTORS, INC.

11950 S. CENTRAL AVE  
ALSIP, IL  
60803-3402  
708-597-9700  
www.amberhvac.com

SERVICE WORK ORDER  
DATE 10/2/17 437913  
10/3/17 10/4/17



VILLAGE 347  
ENDING AUTHORIZED BY HIGHWAY  
16787 PERSON CALLING CITY 1101 MERIDE UNIT NO. 0411  
START CALL BEFORE 10/7/60 AM WORK TO BE PERFORMED PHONE NO.  
TOTAL MILES UNIT NO.

QUANTITY ITEM NUMBER & DESCRIPTION AMOUNT

2 09-11/91  
Vacuum Pump Oil  
120 11/10/60

DATE	JOB NAME OR NUMBER	EMP NO.	OPER	HOURS	RATE	AMOUNT
10/4	437913	347		4.8	2.6 RT	
10/4	437913	290		3.2	2.1 RT	

MISCELLANEOUS MATERIAL  
TOTAL MATERIALS

RECOMMENDATIONS BACKORDERS JOB COMPLETED

TRAVEL TIME  
START TIME  
ARRIVAL TIME

JOB NAME OR NUMBER	EMP NO.	OPER	HOURS	RATE	AMOUNT
13 437913	290		3.5 RT		
13 437913	347		3.5 RT		

NAME 22248  
STREET  
CITY  
STATE  
ZIP  
MAKE  
MODEL  
SERIAL NUMBER  
TRADE  
MAKE  
MODEL  
SERIAL NUMBER

DESCRIPTION OF WORK PERFORMED

Continued Putting Back Recovered R-22  
Back in System A, and Also Recovered  
R407c From circuit B. Tried Evacuating  
System. Unit did not Pull Down in 48hrs  
Added Nitrogen to Pressure Test. Will  
Have to check in a few days.

DATE 10/2  
JOB NAME OR NUMBER 437913  
EMP NO. 290  
OPER  
HOURS 5.5  
RATE 2.6 RT  
AMOUNT 4

SERVICE GUARANTEE

90 DAY GUARANTEE  
Amber Mechanical Contractors, Inc. warrants all parts and material to be free of  
manufacturing and installation defects, and agrees to replace such parts without  
charge for a period of 90 days after installation, and will assist in planning the  
benefit of the warranty. This warranty is void if the unit is not properly installed  
for which may be voided.

JOB NAME OR NUMBER	EMP NO.	OPER	HOURS	RATE	AMOUNT
10/2 437913	290		5.5	2.6 RT	
10/2 437913	347		5.5	2.6 RT	

EPA REFRIGERANT REQUIREMENTS

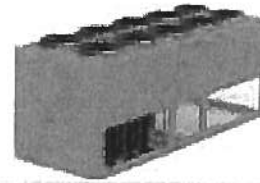
TYPE SYSTEM  
REFRIG. QTY.  
RECOVERED? YES NO QTY.  
RECYCLED? YES NO QTY.  
RECLAIMED? YES NO QTY.  
RETURNED TO THIS SYSTEM? YES NO QTY.  
NON USEABLE? YES NO QTY.  
DISPOSAL OWNER'S INITIALS

ITEM	AMOUNT
MATERIALS	
LABOR	
TRUCK CHARGE	
PARTS, PICK UP DELIVERY	
REFRIGERANT RECOVERY	
INVOICE AMOUNT	

TERMS: NET DUE UPON COMPLETION

# Technical Data Sheet for 195 Ton Std Eff

Job Information		Technical Data Sheet
Job Name	Air Cooled Budget	
Date	10/24/2017	
Submitted By	Michael Murray	
Software Version	08.00	
Unit Tag	195 Ton Std Eff	



Unit Overview						
Model Number	Capacity ton	IPLV, IP* EER Btu/W.h	Voltage	Unit Starter Type	ASHRAE 90.1	LEED EA Credit 4
AGZ211E	195.3	16.13	460 V / 60.0 Hz / 3 Ph	Across the Line	'07, '10, '13/'16	Pass

\* IPLV reflects AHRI standard rating conditions and does not change with user defined conditions.

Unit						
Unit Type				Platform		Unit Revision
Air-Cooled Scroll Compressor Chiller				Packaged		00
Head Pressure				Tubing		
Fantrol Only (32°F Min)				Replaceable Filter Dryer with Discharge & Liquid Valves, no HGBP		
Unit Controls				Display		
Electronic Expansion Valve				On Controller only		
Refrigerant Type				Refrigerant Weight		
R410A				182 lb (per unit)		
Pump Controls						
Dual Evaporator Pumps - Dual Control Output						
Approval						
ETL/cETL, AHRI & ASHRAE 90.1						
Evaporator						
Water Volume:	18.0 gal					
Connection Hand:	Universal Connection - Facing out back					
Connection Size:	6.0 in					
Insulation:	Single Layer Insulation to Suction at each Compressor					
Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Fluid Flow	Fluid Flow Min / Max	Pressure Drop	Fouling Factor
54.00 °F	44.00°F	Water	466.6 gpm	187.2/ 780.2 gpm	10.9 ft H <sub>2</sub> O	0.000100 °F.ft².h/Btu
Condenser						
Coil Fins:	MicroChannel					
Guards:	Condenser Coil Louvers & Base Frame Wire Grilles					
Design Ambient Air Temperature	Altitude	Fan Diameter		Nominal Fan Motor Horsepower	Minimum Design Ambient Temperature	
95.0 °F	0.000 ft	30.0 in		2.0 hp	32.0 °F	



# Technical Data Sheet for 195 Ton Std Eff

Unit Performance										
Design										
Capacity			Input Power		Efficiency (EER)			IPLV/IP* (EER)		
195.3 ton			229.9 kW		10.19 Btu/W.h			16.13 Btu/W.h		
Performance Points rated at AHRI Ambient Relief										
Point #	% Load	Unit			Evaporator				Condenser	
		Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	Fluid Flow gpm	Pressure Drop ft H <sub>2</sub> O	Entering Fluid Temperature °F	Leaving Fluid Temperature °F	Ambient Air Temperature °F	Altitude ft
1	100.0	195.3	229.9	10.19	466.6	10.9	54.00	44.00	95.0	0.000
2	75.0	146.5	125.9	13.96	466.6	10.9	51.50	44.00	80.0	0.000
3	50.0	97.66	67.87	17.27	466.6	10.9	49.00	44.00	65.0	0.000
4	25.0	48.83	29.72	19.72	466.6	10.9	46.50	44.00	55.0	0.000
* IPLV reflects AHRI standard rating conditions and does not change with user defined conditions										

\* IPLV reflects AHRI standard rating conditions and does not change with user defined conditions

Sound (without insulation)											
Sound Pressure (at 30 feet)											
63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
70	71	70	67	66	62	62	58	71	70	68	67
Sound Power											
63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
97	98	97	94	94	90	89	85	99	98	96	95

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical				
Unit				
Length*	Height	Width*	Shipping Weight*	Operating Weight*
283 in	99 in	88 in	9229 lb	9379 lb

\*Shipping and Operating Weights include the below Option weights only and do not include the weights of any Accessories. Contact Chiller Applications for additional information.

Option Weights	
Louvers:	560 lb
Total:	560 lb

## Technical Data Sheet for 195 Ton Std Eff

### Electrical

Unit Electrical Data						
Voltage	Starter Type	Fan Motor Quantity		LRA Fan Motor (each)	FLA Fan Motors (each)	
460 v / 60.0 Hz / 3 Ph	Across the Line	12		18A	3.6A	
Power Connection Type:	High Short Circuit Current Rating with Single Point Disconnect Switch and Circuit Protection					
Short Circuit Current Rating:	65 kA					
Single Point Power Connection						
MCA:	443.1 A					
Fuse Size (recommended):	500 A					
Fuse Size (maximum):	500 A					
Connector Wire Range:	(2) 3/0-500MCM					
Compressor Electrical Data						
Compressor Type		Compressor Quantity			Starter Type	
Scroll		6			Across the Line	
Circuit #:	1			2		
Compressor #:	1	3	5	2	4	6
RLA:	57.2 A	76 A	57.2 A	57.2 A	76 A	57.2 A
Inrush Current:	310 A	408 A	310 A	310 A	408 A	310 A
Note: Power wiring connections to the chiller may be done with either copper or aluminum wiring. Wire should be sized per NEC and/or local codes. Wire sizing and wire count must fit in the power connection lug sizing listed in latest installation manual. Please contact your local sales office for more information.						

### Options

Basic Unit	
Control Box Ambient:	High Ambient with Exhaust Fans (125°F maximum)
Suction Shut-off Valve:	Included
Control	
Communication:	BACnet MS/TP
Electrical	
Water Flow Indicator:	Thermal Dispersion Type

### Warranty

Unit Startup	Domestic
Standard Warranty:	1st Year Entire Unit Parts & Labor
Extended Compressor Warranty:	Compressor Only; extended 4 years parts only

### AHRI Certification



Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Using Vapor Compression Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org)

### Accessories

Optional	
Part Number	Description
332320108	Spring Isolator Kit; AGZ: Packaged, AI Fin 190D, 190E/191E/210E/211E, 180E Dual Pmp

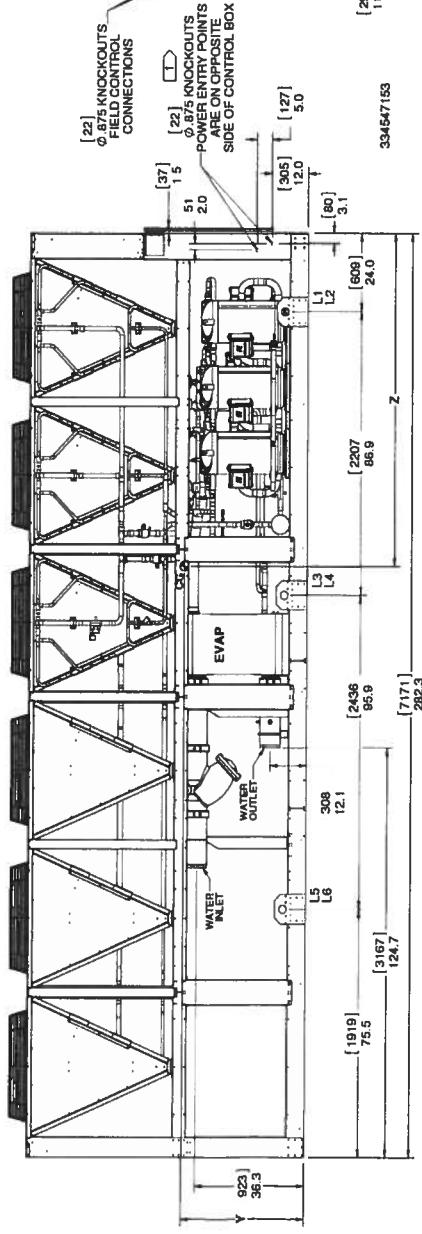
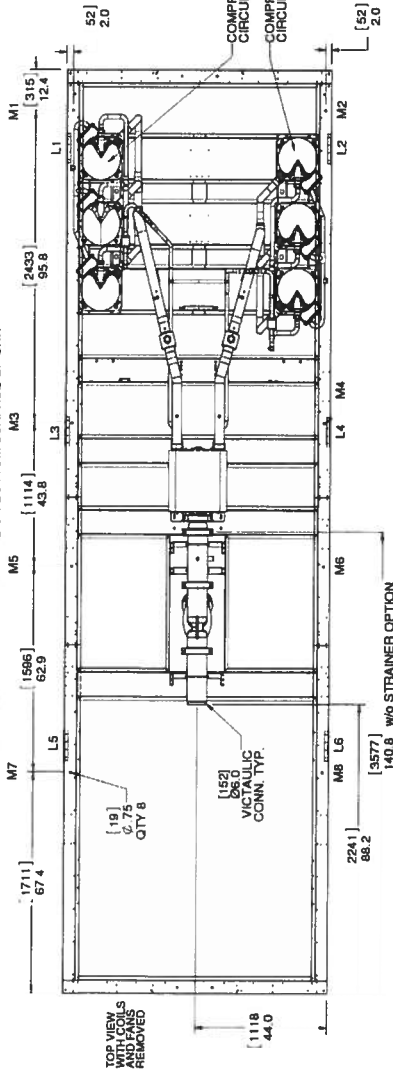
# AGZ211E Packaged (Microchannel Condenser)

00

## Unit Dimensions

Unit Weight Data																	
Units	Weight		Lifting Weight				Mounting Weight										
	Shipping	Operating	L1	L2	L3	L4	L5	L6	M1	M2	M3	M4	M5	M6	M7	M8	
lb	8669	8819	1766	1753	1461	1450	1124	1116	1585	1573	1166	1158	975	968	700	695	
kg	3932	4000	801	795	663	658	510	506	719	713	529	525	442	439	318	315	

ISOLATOR MOUNTING HOLE LOCATIONS ARE ON BOTTOM SURFACE OF UNIT



Unit and Center of Gravity Dimensions				
Units	Connection Size (Victaulic)	Center of Gravity		
		X	Y	Z
in	6.0	43.8	40.5	100.4
mm	152	1113	1029	2550

**NOTE**  
A water strainer must be installed at the inlet of the evaporator to protect it from damage. Please refer to the IOM for additional details. It is recommended that the side locations be used for power entry wire sizes larger than 350 mcm.

22.0 KNOCKOUTS  
POWER ENTRY POINTS  
FRONT & RIGHT SIDE

22.0 KNOCKOUTS  
FIELD CONTROL  
CONNECTIONS

22.0 KNOCKOUTS  
POWER ENTRY POINTS  
ARE ON OPPOSITE  
SIDE OF CONTROL BOX

DIMENSION DOES NOT  
INCLUDE LIFTING BRACKETS

**NOTE**  
IT IS RECOMMENDED THAT THE SIDE LOCATIONS BE USED  
FOR POWER ENTRY WIRE SIZES LARGER THAN 350 MCM

## Product Drawing

Product: Air-Cooled Scroll Chiller

Model: AGZ211E

Unit Tag: 195 Ton Std Eff

Project Name: Air Cooled Budget

Oct. 24, 2017 Ver/Rev:

Sales Office: Thermosystems, Inc. (Chicago)

Sales Engineer: Michael Murray

Scale: NTS Tolerance: +/- 1.0" Dwg Units: in [mm]

**DAIKIN**  
13500 Industrial Park Blvd. Minneapolis, MN 55441  
www.DaikinApplied.com Software Version: 08.00

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.

# Technical Data Sheet for 195 Tons High Eff

Job Information		Technical Data Sheet
Job Name	Air Cooled Budget	
Date	10/24/2017	
Submitted By	Michael Murray	
Software Version	08.00	
Unit Tag	195 Tons High Eff	



Unit Overview						
Model Number	Capacity ton	IPLV, IP* EER Btu/W.h	Voltage	Unit Starter Type	ASHRAE 90.1	LEED EA Credit 4
AGZ211E	195.3	17.02	460 V / 60.0 Hz / 3 Ph	Across the Line	'07, '10, '13/'16	Pass

\* IPLV reflects AHRI standard rating conditions and does not change with user defined conditions.

Unit						
Unit Type			Platform		Unit Revision	
Air-Cooled Scroll Compressor Chiller			High Efficiency Packaged		00	
Head Pressure			Tubing			
VFD's w/o Line Reactors [High Efficiency]			Replaceable Filter Dryer with Discharge & Liquid Valves, no HGBP			
Unit Controls			Display			
Electronic Expansion Valve			On Controller only			
Refrigerant Type			Refrigerant Weight			
R410A			182 lb (per unit)			
Pump Controls						
Dual Evaporator Pumps - Dual Control Output						
Approval						
ETL/cETL, AHRI & ASHRAE 90.1						
Evaporator						
Water Volume:		18.0 gal				
Connection Hand:		Universal Connection - Facing out back				
Connection Size:		6.0 in				
Insulation:		Single Layer Insulation to Suction at each Compressor				
Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Fluid Flow	Fluid Flow Min / Max	Pressure Drop	Fouling Factor
54.00 °F	44.00°F	Water	466.6 gpm	187.2/ 780.2 gpm	10.9 ft H <sub>2</sub> O	0.000100 °F.ft <sup>2</sup> .h/Btu
Condenser						
Coil Fins:		MicroChannel				
Guards:		Condenser Coil Louvers & Base Frame Wire Grilles				
Design Ambient Air Temperature	Altitude	Fan Diameter	Nominal Fan Motor Horsepower	Minimum Design Ambient Temperature		
95.0 °F	0.000 ft	30.0 in	2.0 hp	32.0 °F		

# Technical Data Sheet for 195 Tons High Eff

Unit Performance										
Design										
Capacity		Input Power			Efficiency (EER)			IPLV/IP* (EER)		
195.3 ton		230.7 kW			10.16 Btu/W.h			17.02 Btu/W.h		
Performance Points rated at AHRI Ambient Relief										
Point #	% Load	Unit			Evaporator				Condenser	
		Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	Fluid Flow gpm	Pressure Drop ft H <sub>2</sub> O	Entering Fluid Temperature °F	Leaving Fluid Temperature °F	Ambient Air Temperature °F	Altitude ft
1	100.0	195.3	230.7	10.16	466.6	10.9	54.00	44.00	95.0	0.000
2	75.0	146.5	124.2	14.15	466.6	10.9	51.50	44.00	80.0	0.000
3	50.0	97.66	62.57	18.73	466.6	10.9	49.00	44.00	65.0	0.000
4	25.0	48.83	27.24	21.51	466.6	10.9	46.50	44.00	55.0	0.000

\* IPLV reflects AHRI standard rating conditions and does not change with user defined conditions

Sound (without insulation)											
Sound Pressure (at 30 feet)											
63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
70	71	70	67	66	62	62	58	71	70	68	67
Sound Power											
63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
97	98	97	94	94	90	89	85	99	98	96	95

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical				
Unit				
Length*	Height	Width*	Shipping Weight*	Operating Weight*
283 in	99 in	88 in	9229 lb	9379 lb
*Shipping and Operating Weights include the below Option weights only and do not include the weights of any Accessories. Contact Chiller Applications for additional information.				
Option Weights				
Louvers:	560 lb			
Total:	560 lb			



## Technical Data Sheet for 195 Tons High Eff

Electrical						
Unit Electrical Data						
Voltage	Starter Type	Fan Motor Quantity		LRA Fan Motor (each)	FLA Fan Motors (each)	
460 V / 60.0 Hz / 3 Ph	Across the Line	12		18A	3.6A	
Power Connection Type:	High Short Circuit Current Rating with Single Point Disconnect Switch and Circuit Protection					
Short Circuit Current Rating:	65 kA					
Single Point Power Connection						
MCA:	443.1 A					
Fuse Size (recommended):	500 A					
Fuse Size (maximum):	500 A					
Connector Wire Range:	(2) 3/0-500MCM					
Compressor Electrical Data						
Compressor Type		Compressor Quantity			Starter Type	
Scroll		6			Across the Line	
Circuit #:	1			2		
Compressor #:	1	3	5	2	4	6
RLA:	57.2 A	76 A	57.2 A	57.2 A	76 A	57.2 A
Inrush Current:	310 A	408 A	310 A	310 A	408 A	310 A
Note: Power wiring connections to the chiller may be done with either copper or aluminum wiring. Wire should be sized per NEC and/or local codes. Wire sizing and wire count must fit in the power connection lug sizing listed in latest installation manual. Please contact your local sales office for more information.						

Options	
Basic Unit	
Control Box Ambient:	High Ambient with Exhaust Fans (125°F maximum)
Suction Shut-off Valve:	Included
Control	
Communication:	BACnet MS/TP
Electrical	
Water Flow Indicator:	Thermal Dispersion Type

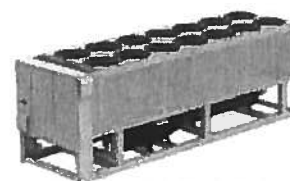
Warranty	
Unit Startup:	Domestic
Standard Warranty:	1st Year Entire Unit Parts & Labor
Extended Compressor Warranty:	Compressor Only; extended 4 years parts only

AHRI Certification	
	Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Using Vapor Compression Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at <a href="http://www.ahridirectory.org">www.ahridirectory.org</a>

Accessories	
Optional	
Part Number	Description
332320108	Spring Isolator Kit; AGZ: Packaged, Al Fin 190D, 190E/191E/210E/211E, 180E Dual Pmp

# Technical Data Sheet for 195 Ton Screw

Job Information		Technical Data Sheet
Job Name	Air Cooled Budget	
Date	10/24/2017	
Submitted By	Michael Murray	
Software Version	08.00	
Unit Tag	195 Ton Screw	



Unit Overview						
Model Number	Capacity ton	IPLV, IP* EER Btu/W.h	Voltage	Unit Starter Type	ASHRAE 90.1	LEED EA Credit 4
AWV014A	195.0	20.15	460 V / 60.0 Hz / 3 Ph	VFD	'07, '10, '13/'16	Pass

\* IPLV reflects AHRI standard rating conditions and may change with user defined conditions due to AWV product optimized configurability.

Unit						
Unit Type			Platform		Unit Revision	
Air-Cooled Screw Compressor Chiller			Packaged		00	
Head Pressure			Tubing			
DC Fan Motors / All Fan VFD			With Suction Shut-off Valves Only			
Display						
On Controller only						
Compressor			Economizer			
JFN			None			
Refrigerant Type			Refrigerant Weight			
R134a			295 lb (per unit)			
Approval						
ETL/cETL, AHRI & ASHRAE 90.1						
Evaporator						
Evaporator Model::		EV4027A1107				
Water Volume:		66.1 gal				
Connection Hand:		Grooved / Left Hand				
Connection Size:		6.0 in				
Insulation:		Single Layer Insulation on Evaporator				
Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Fluid Flow	Fluid Flow Min / Max	Pressure Drop	Fouling Factor
54.00 °F	44.00°F	Water	465.5 gpm	188.0/ 748.0 gpm	10.8 ft H <sub>2</sub> O	0.000100 °F.ft².h/Btu
Condenser						
Number of Fans:		14				
Coil Fins:		MicroChannel				
Guards:		Condenser Coil Louvers & Base Frame Wire Grilles				
Design Ambient Air Temperature	Altitude	Fan Diameter	Nominal Fan Motor Horsepower		Minimum Design Ambient Temperature	
95.0 °F	0.000 ft	31.5 in	1.4 hp		32.0 °F	

# Technical Data Sheet for 195 Ton Screw

Unit Performance												
Design												
Capacity			Input Power				Efficiency (EER)			IPLV/IP* (EER)		
195.0 ton			226.4 kW				10.34 Btu/W.h			20.15 Btu/W.h		
Performance Points rated at AHRI Ambient Relief												
		Unit					Evaporator				Condenser	
Point #	% Load	Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	Economizer Status #1; #2	Compressor RPS #1; #2	Fluid Flow gpm	Pressure Drop ft H <sub>2</sub> O	Entering Fluid Temperature °F	Leaving Fluid Temperature °F	Ambient Air Temperature °F	Altitude ft
1	100.0	195.0	226.4	10.34	N/A	75; 55	465.5	10.8	54.00	44.00	95.0	0.000
2	75.0	146.3	112.8	15.56	N/A	46; 36	465.5	10.8	51.50	44.00	80.0	0.000
3	50.0	97.50	51.90	22.54	N/A	30; 24	465.5	10.8	49.00	44.00	65.0	0.000
4	25.0	48.75	20.85	28.06	N/A	26	465.5	10.8	46.50	44.00	55.0	0.000
* IPLV reflects AHRI standard rating conditions and may change with user defined conditions due to AWW product optimized configurability.												

\* IPLV reflects AHRI standard rating conditions and may change with user defined conditions due to AWV product optimized configurability.

Sound Data (Internal Discharge Compressor Muffler with Sound Wrap on Discharge Line)																								
Sound Pressure (at 30 feet)																								
% Load		63 Hz db		125 Hz db		250 Hz db		500 Hz db		1 kHz db		2 kHz db		4 kHz db		8 kHz db		Overall dBA						
100		77		74		71		70		66		58		52		44		71						
75		76		72		68		65		61		54		49		42		67						
50		73		69		61		60		55		45		40		34		61						
25		70		65		56		55		50		40		35		28		56						
Sound Power																								
% Load		63 Hz db		125 Hz db		250 Hz db		500 Hz db		1 kHz db		2 kHz db		4 kHz db		8 kHz db		Overall dBA						
100		104		101		98		97		93		85		79		72		98						
75		103		99		95		92		88		81		76		69		94						
50		100		96		88		87		82		72		67		61		88						
25		97		92		83		82		77		67		62		55		83						
One-third Octave Band Sound Power																								
% Load	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
100	101	100	98	96	96	95	91	92	95	94	92	88	90	86	88	82	79	78	75	74	73	71	63	57
75	99	98	97	95	95	93	90	92	88	88	88	84	84	82	84	78	76	74	72	70	70	68	61	55
50	96	96	94	92	92	86	83	84	83	83	83	79	79	75	76	69	67	66	64	62	62	60	53	47
25	92	92	91	88	88	79	78	79	78	78	75	75	69	72	63	61	60	58	57	56	54	47	42	
Octave band is non 'A' weighted and overall readinas are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.																								

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical				
			Unit	
Length*	Height	Width*	Shipping Weight*	Operating Weight*
296 in	100 in	88 in	15627 lb	16188 lb
<i>*Shipping and Operating Weights include the below Option weights only and do not include the weights of any Accessories. Contact Chiller Applications for additional information.</i>				
Option Weights				
Louvers:		980 lb		
Total:		980 lb		




## Technical Data Sheet for 195 Ton Screw

Electrical				
Unit Electrical Data				
Voltage	Starter Type	Fan Motor Quantity	LRA Fan Motor (each)	FLA Fan Motors (each)
460 V / 60.0 Hz / 3 Ph	VFD	14	4A	2.6A
Power Connection Type:	High Short Circuit Current Rating with Single Point Disconnect Switch and Circuit Protection			
Short Circuit Current Rating:	65 kA			
Drive Type(#1;#2):	CIMR-AU4A0208;CIMR-AU4A0208			
Phase Voltage:	Phase & Under/Over Voltage Protection with LED			
Single Point Power Connection				
MCA:	375 A			
Fuse Size (recommended):	450 A			
Fuse Size (maximum):	500 A			
Connector Wire Range:	(2) 3/0-250MCM			
Compressor Electrical Data				
Compressor Type	Compressor Quantity		Starter Type	
Screw	2		VFD	
Compressor #				
	1		2	
RLA:	162 A		126 A	
Inrush Current:	162 A		126 A	
Note: Power wiring connections to the chiller may be done with either copper or aluminum wiring. Wire should be sized per NEC and/or local codes. Wire sizing and wire count must fit in the power connection lug sizing listed in latest installation manual. Please contact your local sales office for more information.				

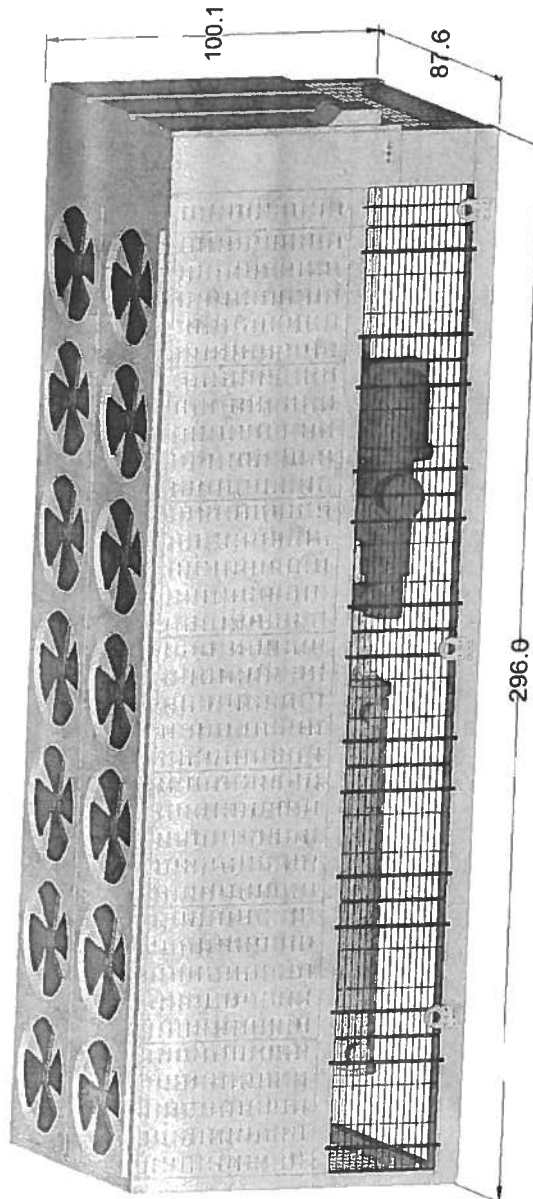
Options	
Control	
Communication:	BACnet MS/TP
Electrical	
Water Flow Indicator:	Thermal Dispersion Type

Warranty	
Unit Startup	Domestic
Standard Warranty:	1st Year Entire Unit Parts & Labor
Extended Compressor Warranty:	Compressor Only; extended 4 years parts only


AHRI Certification	
	Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Using Vapor Compression Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at <a href="http://www.ahridirectory.org">www.ahridirectory.org</a>

Accessories	
Optional	
Part Number	Description
332946408	Spring Isolator Kit; AWW: (8) 2 SPNG WHITE

# Drawings Unit Profile for 195 Ton Screw



NOTE: A water strainer must be installed at the inlet of the evaporator to protect it from damage. Please refer to the IOM for additional details.

<b>Product Drawing</b> Product: Model: AWW014A	Unit Tag: 195 Ton Screw		Sales Office: Thermosystems, Inc. (Chicago)		 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 08.00
	Project Name: Air Cooled Budget		Sales Engineer:		
	Oct. 24, 2017	Ver/Rev:	Scale: NTS	Tolerance: +/- 0.25"	
	Sheet: 1 of 1		Dwg Units: (In)		
	No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.				

# Air-Cooled Series R(TM)

## Job Information



Elara - SD 122 Harnew ES  
Chicago Main Office  
(B87)Laura Michel

Tag	CH-1	Unit nominal tonnage	200
Model Number	RTAC2004	Unit type	High efficiency
Quantity	1	Refrigeration capacity	206.2 tons
TOPSS version number	205		

## Unit Information

Cooling efficiency	10.51 EER	Shipping weight	14454.0 lb
COP	3.082 COP	Operating weight	14721.0 lb
Refrig (HFC-134a) - ckt 1	225.0 lb	Length	268.000 in
Refrig (HFC-134a) - ckt 2	225.0 lb	Width	89.000 in
Oil charge - ckt 1	1.90 gal	Height	93.000 in
Oil charge - ckt 2	1.90 gal	A-weighted sound pressure	70 dBA
Compressor sound package	Sound enhancement	A-weighted sound power	98 dBA
Agency listing	C/UL listing		

## Evaporator Information

Evap application	Std temp	Evap fluid type	Water
Leaving fluid evap	44.00 F	Evap fluid concentration	0.00 %
Entering fluid evap	54.00 F	Evap fluid freeze point	32.00 F
Flow evap	492.8 gpm	Min flow evap	217.0 gpm
Fluid pressure drop evap	16.5 ft H2O	Fluid pressure drop min flow evap	3.79 ft H2O
Evap fouling factor	0.000100 hr-sq ft-deg F/Btu	Max flow evap	796.0 gpm
		Fluid pressure drop max flow evap	41.1 ft H2O
Evap configuration	2pass 1.25 insulation	Saturated evap temp - ckt 1	40.5 F
		Saturated evap temp - ckt 2	41.4 F

## Condenser Information

Ambient air temp	95.0 F	Cond ambient range	Standard ambient
Elevation	0.000 ft	Saturated cond temp - ckt 1	129.8 F
Cond fin material	Aluminum slit fins	Saturated cond temp - ckt 2	130.3 F
		Cond fan/motor config	Low noise fans

## Electrical Information

Unit voltage	460.0v/60.0hz/3ph	LRA - compressor A	346.00 A
Total power	235.4 kW	LRA - compressor B	346.00 A
Compressor power	214.7 kW	LRA - compressor C	
Fan power	20.36 kW	LRA - compressor D	
Number of condenser fans	14.00 Each	Incoming power line connection	Single point
Compressor starter type	Wye-delta	Single point power MCA	410.00 A

10/16/2017 TOPSS version numk 205

Data generation date 10/16/2017

## Air-Cooled Series R(TM)

### Job Information



Elara - SD 122 Harnew ES  
Chicago Main Office  
(B87)Laura Michel

Tag	CH-1	Unit nominal tonnage	200
Model Number	RTAC2004	Unit type	High efficiency
Quantity	1	Refrigeration capacity	206.2 tons
TOPSS version number	205		

RLA - condenser fan (each)	2.70 A	Single point power MOP	500.00 A
RLA - compressor A	162.00 A	Dual point power MCA - ckt 1	
RLA - compressor B	162.00 A	Dual point power MCA - ckt 2	
RLA - compressor C		Dual point power MOP - ckt 1	
RLA - compressor D		Dual point power MOP - ckt 2	
Short circuit	Default	Short circuit current rating	5000.00 A

This unit complies with the efficiency requirements of all versions of ASHRAE Standard 90.1 and CANS/CSA C743.

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org).



### Information for LEED Projects

ASHRAE 90.1/CSA compliance	All versions to 2016	IPLV/IP	14.29 EER
Refrig (HFC-134a) - ckt 1	225.0 lb	Rated refrigeration capacity (AHRI)	206.2 tons
Refrig (HFC-134a) - ckt 2	225.0 lb	Rated cooling efficiency (AHRI)	10.51 EER

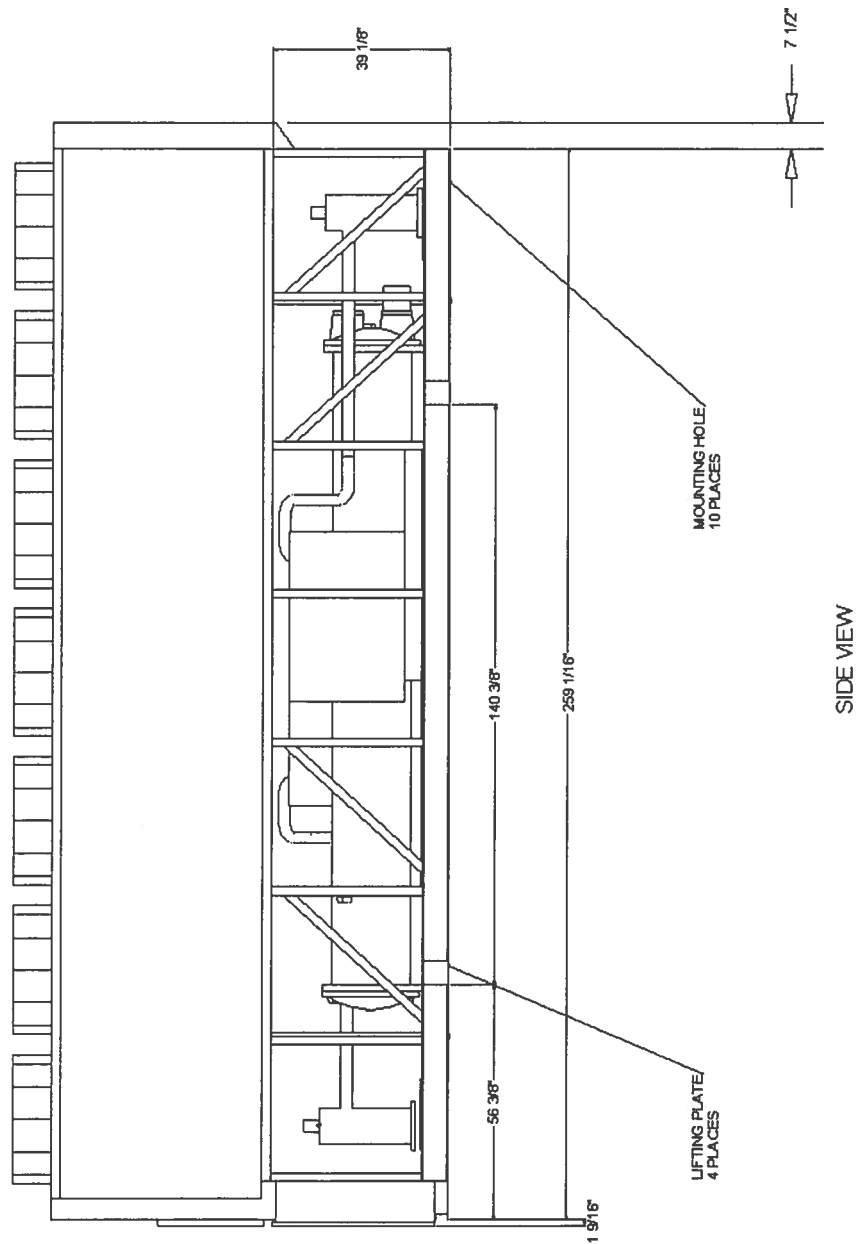
**Note:** This product meets the minimum efficiency requirements of ASHRAE Standard 90.1 and CANS/CSA C743 for all versions (which are based on AHRI standard rating conditions) and, therefore, also meets the LEED "Minimum Energy Performance" prerequisite in the Energy and Atmosphere section.

The LEED Green Building Rating System™, developed by the U.S. Green Building Council, provides independent, third-party verification that a building project meets green building and performance measures.



Elara - SD 122 Harnew ES

Air-Cooled Series R(TM) RTAC  
Items: CH-1  
Qty: 1 Tags: CH-1  
10/16/2017 10:46:39 AM

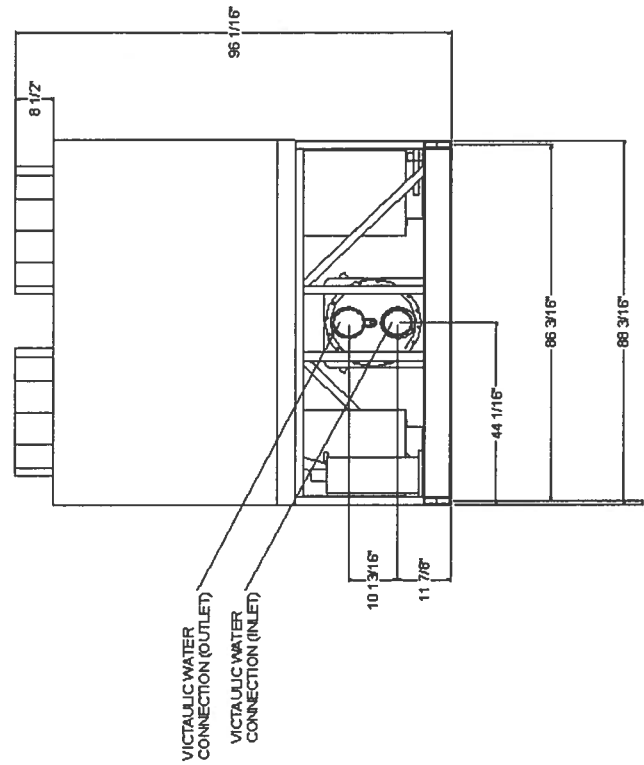




Elara - SD 122 Harnaw ES

Air-Cooled Series R(TM) RTAC  
Items: CH-1  
Qty: 1 Tags: CH-1  
10/16/2017 10:46:43 AM

Note: Add 2" (51mm) to overall width for louvered panels and coil protection.



END VIEW

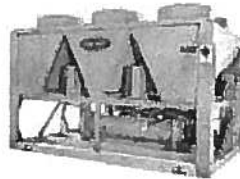
# Summary Performance Report For Option 1: 30RB - 210 Tons

Project: 17353 Steve Maze  
Prepared By: Danny Paice

10/26/2017  
02:41PM



## 30RB with Greenspeed®Intelligence



### Unit Information

Tag Name: Option 1: 30RB - 210 Tons  
Model Number: 30RB210  
Quantity: 1  
Manufacturing Source: Charlotte, NC USA  
ASHRAE 90.1: 2013/2016, 2010, 2007  
Refrigerant: R-410A  
Independent Refrigerant Circuits: 3  
Shipping Weight: 12056 lb  
Operating Weight: 12772 lb  
Unit Length: 283 in  
Unit Width: 89 in  
Unit Height: 90 in  
Chiller Pressure Drop: 11.5 ft H2O

### Evaporator Information

Fluid Type: Fresh Water  
Fouling Factor: 0.000100 (hr-sqft-F)/BTU  
Leaving Temperature: 44.00 °F  
Entering Temperature: 53.99 °F  
Fluid Flow: 468.0 gpm

### Condenser Information

Altitude: 0.000 ft  
Number of Fans: 12  
Total Condenser Fan Air Flow: 148,800 CFM  
Entering Air Temperature: 95.0 °F

### Integrated Pump Information

No Pump Selected

### Performance Information

Cooling Capacity: 195.5 Tons  
Total Compressor Power: 208.3 kW  
Total Fan Motor Power: 30.96 kW  
Total Unit Power (without pump): 239.3 kW  
Efficiency (without pump) (EER): 9.803 BTU/Wh  
IPLV: 16.31 BTU/Wh

### Accessories and Installed Options

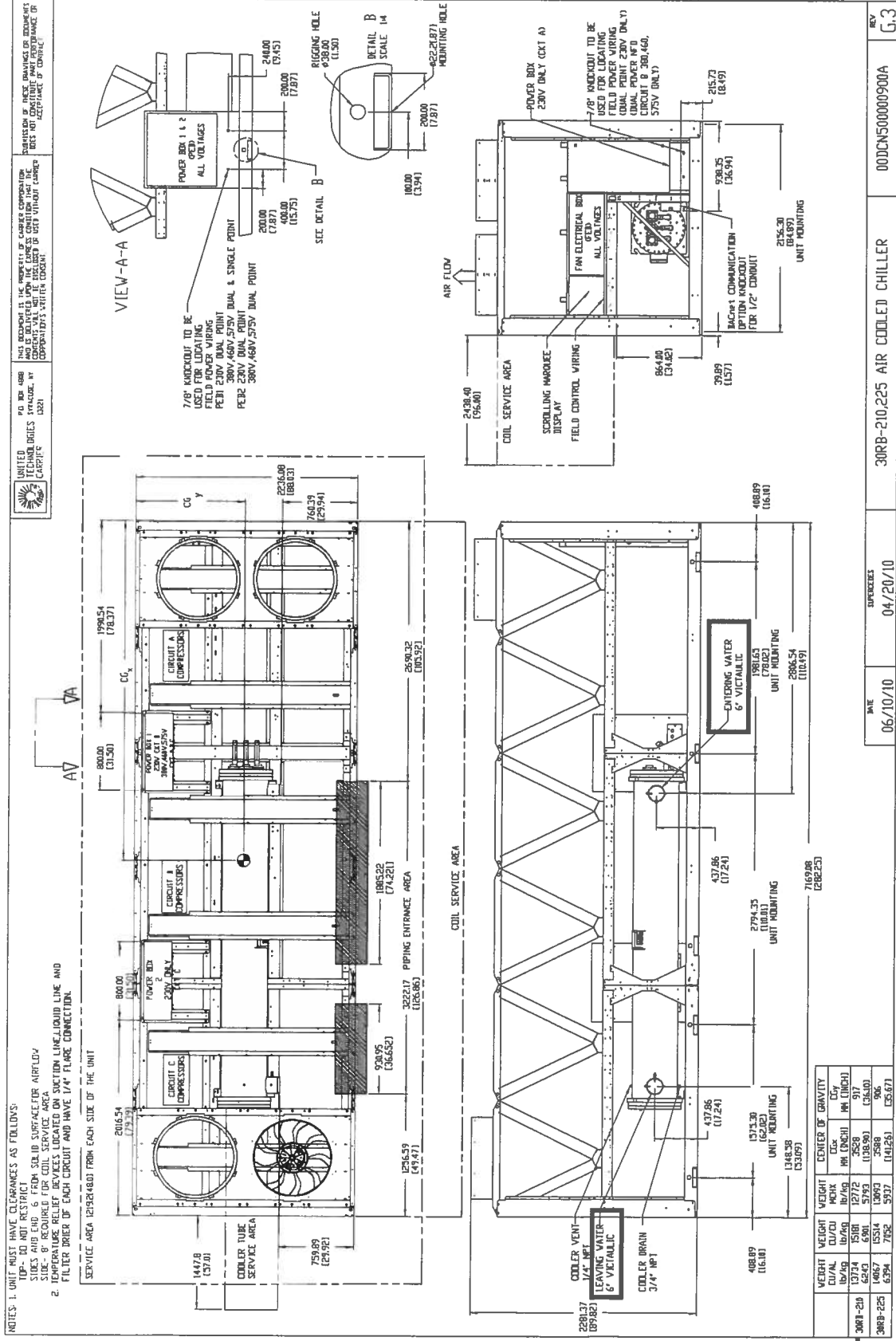
Freeze Protection  
Suction Line Insulation  
Suction Service Valves  
Non-Fused Disconnect  
Micro Channel  
Ultra Low Sound Option  
Single Point  
BACnet Translator Control  
Coil Trim Panels, Grilles, Upper Hail Guards  
Greenspeed Intelligence: High-Efficiency Variable Condenser Fans

### Electrical Information

Unit Voltage: 460-3-60 V-Ph-Hz  
Connection Type: Single Point  
Minimum Voltage: 414 Volts  
Maximum Voltage: 506 Volts

Amps	Electrical Circuit 1	Electrical Circuit 2
MCA	422.9	---
MOCP	450.0	---
ICF	630.9	---
Rec Fuse Size	450.0	---

An uncoated Novation condenser coil was selected for this product. This is based on an installed location with postal code 60654 and a non-corrosive localized environment.





## Detailed Performance Summary For Option 2: 30XV - Std Tier - 200 Tons

Project: 17353 Steve Maze  
Prepared By: Danny Paice

10/26/2017  
02:41PM

### Unit Information

Tag Name: **Option 2: 30XV - Std Tier - 200 Tons**  
Model Number: **30XV200S**  
Condenser Type: **Air Cooled**  
Compressor Type: **VFD Screw**  
Nameplate Voltage: **460-3-60** V-Ph-Hz  
Quantity: **1**  
Manufacturing Source: **Charlotte, NC USA**  
ASHRAE 90.1: **2013/2016, 2010, 2007**  
Refrigerant: **R-134a**  
Minimum Capacity: **15.00** %  
Shipping Weight: **13250** lb  
Operating Weight: **13476** lb  
Unit Length: **255** in  
Unit Width: **88** in  
Unit Height: **99** in  
Minimum Outdoor Operating Temp: **-20.0** °F  
Chiller Pressure Drop: **20.5** ft H2O

### Performance Information

Cooling Capacity: **195.2** Tons  
Total Compressor Power: **212.5** kW  
Total Fan Motor Power: **13.60** kW  
Total Unit Power (without pump): **229.8** kW  
Efficiency (without pump) (EER): **10.19** BTU/Wh

### Evaporator Information

Fluid Type: **Fresh Water**  
Fouling Factor: **0.000100** (hr-sqft-F)/BTU  
Leaving Temperature: **44.00** °F  
Entering Temperature: **53.98** °F  
Fluid Flow: **468.0** gpm  
Fluid Flow Min: **236.4** gpm  
Fluid Flow Max: **945.6** gpm

### Condenser Information

Altitude: **0.000** ft  
Number of Fans: **10**  
Total Condenser Fan Air Flow: **145,000** CFM  
Entering Air Temperature: **95.0** °F

### Integrated Pump Information

No Pump Selected

### Accessories and Installed Options

Isolation Valve(s)  
Suction Line Insulation  
Control Transformer  
Non-Fused Disconnect  
Flooded Evaporator, 2 pass, with heater  
Low Sound Kit  
Variable Speed Condenser Fans  
BACnet / Modbus Translator  
Coil Trim Panels + Security Grills (Sides) + Hail Guards (End)  
Low Ambient Head Pressure Control  
Standard Tier

### Electrical Information

Unit Voltage: **460-3-60** V-Ph-Hz  
Connection Type: **Single Point**  
Minimum Voltage: **414** Volts  
Maximum Voltage: **506** Volts

Amps	Electrical Circuit 1	Electrical Circuit 2
MCA	408.9	---
MOCP	500.0	---
Rec Fuse Size	450.0	---



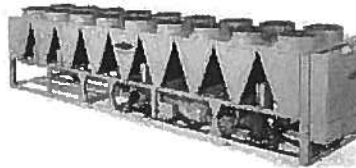
# Summary Performance Report For Option 3: 30XV - Mid Tier - 200 Tons

Project: 17353 Steve Maze  
Prepared By: Danny Paice

10/26/2017  
02:41PM



## AquaForce™ Air-Cooled Variable Speed Screw Chiller



### Unit Information

Tag Name: Option 3: 30XV - Mid Tier - 200 Tons  
Model Number: 30XV200M  
Quantity: 1  
Manufacturing Source: Charlotte, NC USA  
ASHRAE 90.1: 2013/2016, 2010, 2007  
Refrigerant: R-134a  
Independent Refrigerant Circuits: 2  
Shipping Weight: 14400 lb  
Operating Weight: 14656 lb  
Unit Length: 302 in  
Unit Width: 88 in  
Unit Height: 99 in  
Chiller Pressure Drop: 15.7 ft H<sub>2</sub>O

### Evaporator Information

Fluid Type: Fresh Water  
Cooling Factor: 0.000100 (hr-sqft-F)/BTU  
Leaving Temperature: 44.00 °F  
Entering Temperature: 54.14 °F  
Fluid Flow: 468.0 gpm

### Condenser Information

Altitude: 0.000 ft  
Number of Fans: 12  
Total Condenser Fan Air Flow: 174,000 CFM  
Entering Air Temperature: 95.0 °F

### Integrated Pump Information

No Pump Selected

### Performance Information

Cooling Capacity: 198.5 Tons  
Total Compressor Power: 205.8 kW  
Total Fan Motor Power: 12.81 kW  
Total Unit Power (without pump): 222.2 kW  
Efficiency (without pump) (EER): 10.72 BTU/Wh  
IPL COP: 20.01 BTU/Wh

### Accessories and Installed Options

Isolation Valve(s)  
Suction Line Insulation  
Control Transformer  
Non-Fused Disconnect  
Flooded Evaporator, 2 pass, with heater  
Low Sound Kit  
BACnet / Modbus Translator  
Coil Trim Panels + Security Grills (Sides) + Hail Guards (End)  
Low Ambient Head Pressure Control  
Medium Tier

### Electrical Information

Unit Voltage: 460-3-60 V-Ph-Hz  
Connection Type: Single Point  
Minimum Voltage: 414 Volts  
Maximum Voltage: 506 Volts

Amps	Electrical Circuit 1	Electrical Circuit 2
MCA	390.1	---
MOCP	500.0	---
Rec Fuse Size	450.0	---

An installed Novation condenser coil was selected for this product. This is based on an installed location with postal code 60654 and a non-corrosive localized environment.

