



RIVER
FOREST
PUBLIC
SCHOOLS

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MEMO

To: Board of Education

From: Anthony Cozzi AC

RE: Lincoln/Willard HVAC Analysis

Date: December 13, 2016

Attached please find the HVAC analysis the cooling of the large spaces (gymnasium and auditorium) at Lincoln and Willard as well as preliminary cost estimates to make modifications. The District architect, Sven Dahlquist prepared a summary letter comparing the scope and costs of the project to the HVAC project performed last summer for Roosevelt's auditorium. He has also supplied diagrams for each building illustrating the proposed location of each buildings' system.

As shown, the preliminary cost estimates are summarized as follows (rounded):

	<u>Lincoln</u>	<u>Willard</u>
Mechanical upgrades	\$597,000	\$622,000
Electrical, architectural and environmental upgrades	<u>198,000</u>	<u>188,000</u>
Total	<u>\$795,000</u>	<u>\$810,000</u>

If you have any questions, please do not hesitate to contact me.



Anthony Cozzi
School District 90
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Glenview, Illinois
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30 Nov 16
Re: 2016 Willard and Lincoln Auditorium and Gym AC Estimate

Dear Anthony Cozzi,

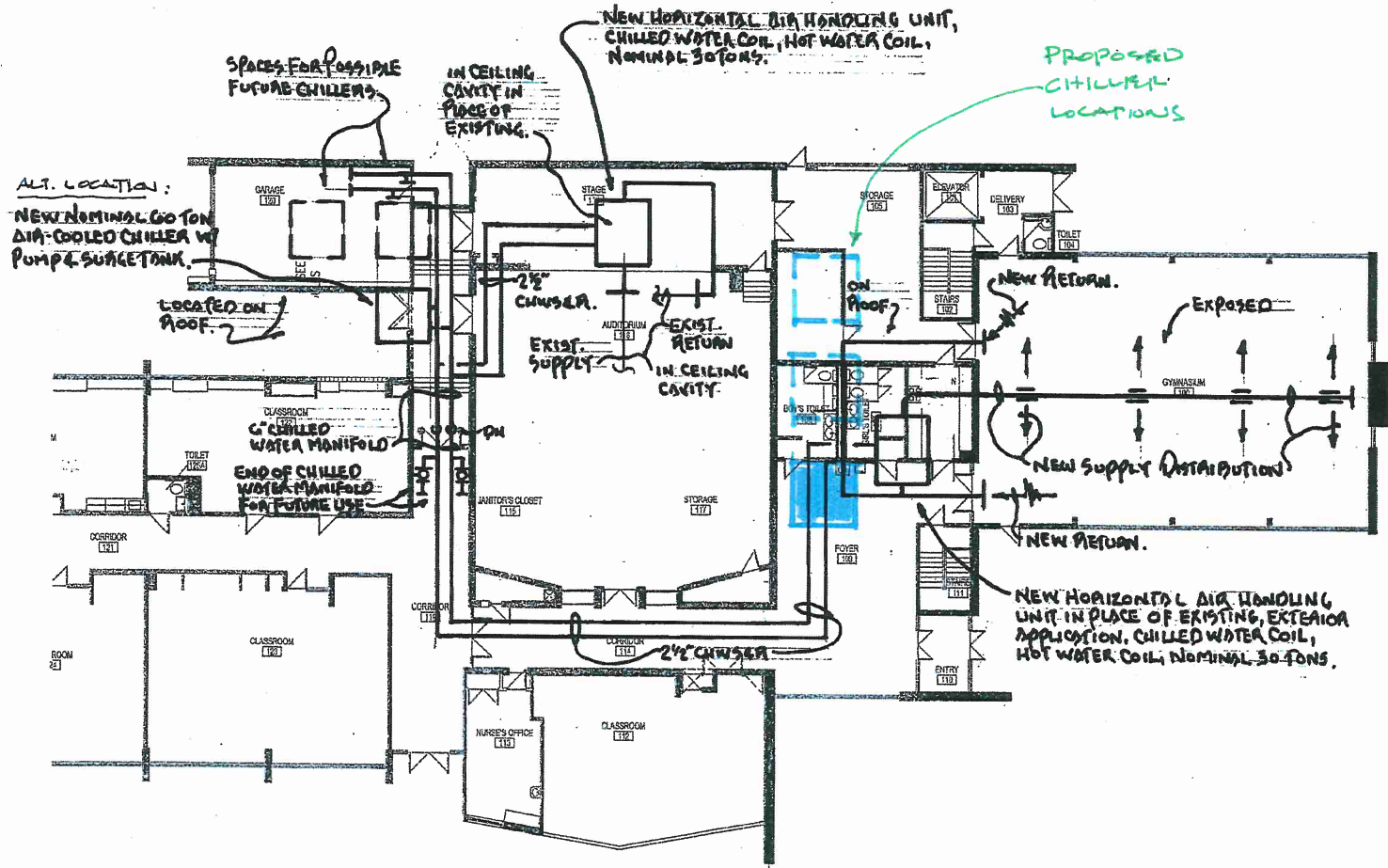
Please find the enclosed explanations of the attached cost estimates for the Lincoln and Willard Elementary Schools. In General, this letter not only looks at the cost breakdown of each school, but compares the scope of work for these schools with the Auditorium AC Install project completed this past summer.


Both schools have a similar design approach, install a new chiller to fit the capacity of the two spaces, replace the existing Air Handling Units to have AC capabilities and extend the necessary piping and ductwork. Last summer's AC installation for the Roosevelt Auditorium was similar in design concept with a smaller scope and cost \$250,000. As you can see on the cost estimate sheets attached, the prices for these two schools are considerably higher (\$810,000 for Willard and \$795,000 for Lincoln). The notable differences between last summer's work and the proposed work at these two schools are:

- Chillers need to be twice the size (for both an Auditorium and Gym at each School) - estimated cost is \$350,000
- 2 New Air Handling Units (AHU) at each school. Roosevelt had an AC ready AHU (space for the cooling coil) from the work we performed in 2012. Lincoln and Willard do not have such units and therefore need to be replaced. The ductwork is also not sufficient for AC (AC requires more airflow than heat) and additional ductwork will need to be added (we will try to re-use the existing as well) - Estimate cost \$300,000 (\$150k each, includes ductwork, piping and rigging/structural)
- 2 New Electric Services - Both schools are at electrical capacity for their current usage and need additional capacity to add the new AC, necessitating the addition of a new 800A. 480V. Service with new transformers at each school. Roosevelt had the additional capacity - Estimated cost - \$100,000
- Miscellaneous Architectural Work - The additional ductwork will need soffits and/or detailing and landscaping/fencing shall be required around the transformer locations - Estimated Cost \$50,000

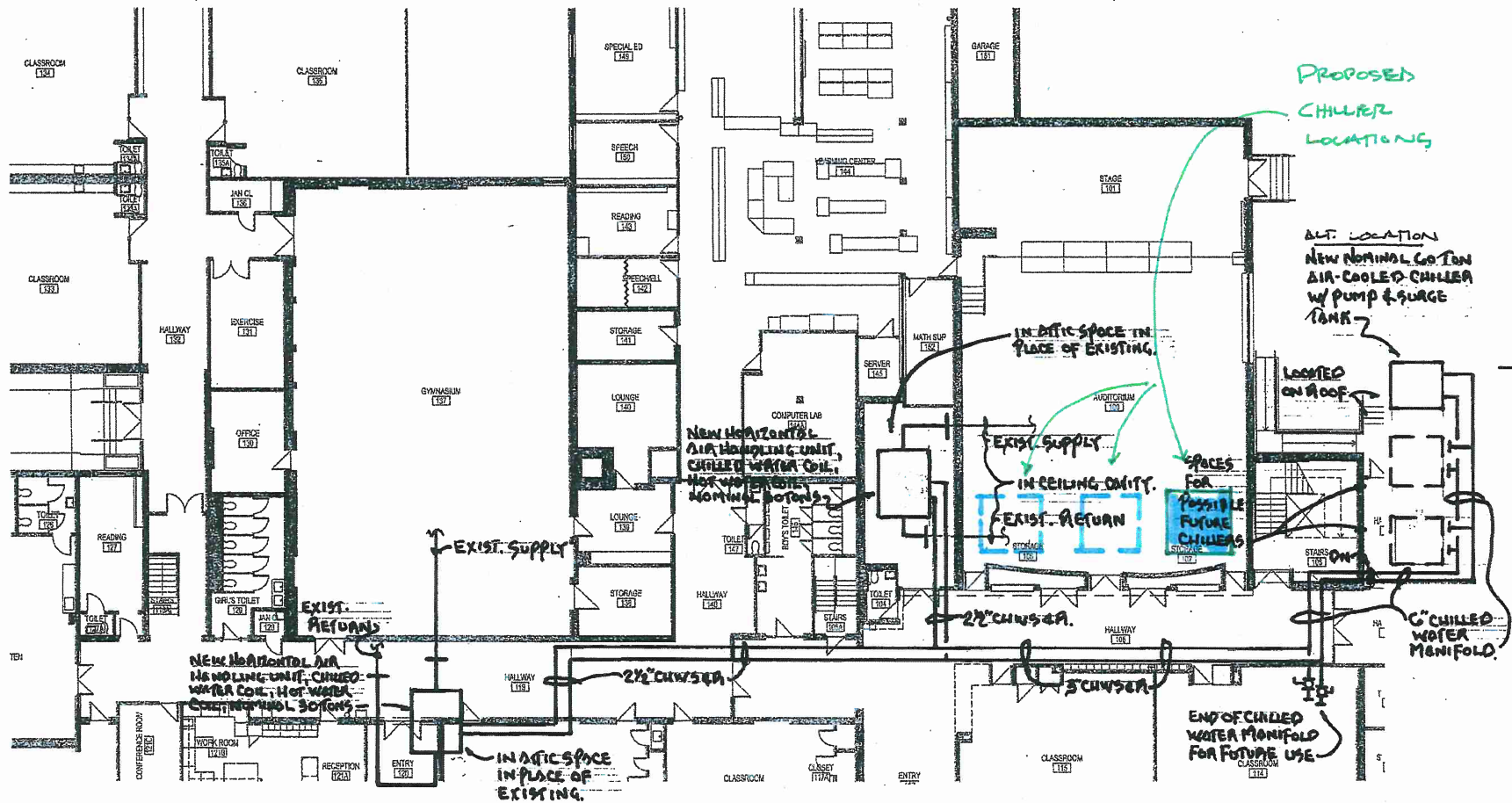
If you have any additional questions, please feel free to give me a call.


Sincerely,




FIRST FLOOR PLAN - GYMNASIUM & AUDITORIUM AREAS - MECHANICAL
 0 25 50 100 150 200
NOT TO SCALE

PROPOSED NEW MECHANICAL SYSTEMS:
LINCOLN SCHOOL
NOV. 2016




FIRST FLOOR PLAN - GYMNASIUM & AUDITORIUM AREAS - MECHANICAL
 0 50 100 150 200
 NOT TO SCALE

PROPOSED NEW MECHANICAL SYSTEMS
WILLARD SCHOOL
NOV. / 2016