



CRITIQUE OF THE DULUTH SCHOOL DISTRICT LONG RANGE FACILITIES PLAN

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Introduction

Duluth School District 709 has conducted a Long Range Facilities Planning process. The analysis and process started in April 2006 and was contracted to Johnson Controls, Inc.(JCI). Last spring, the School District recommended that the alternative called the “Red Plan” be implemented. The Red Plan will reduce the number of schools from 19 to 13, it will divest 13 properties, it will purchase other properties, it will build three new schools, and it will remodel 10 schools. Cost of the construction is estimated to be \$293 million. This action, the cost, the associated tax increases, apparent lack of honesty with the public, and lack of voter approval has caused controversy for the citizens of Duluth.

The author has conducted a review of the issues and documents and has concluded that the proposed course of action is not supported by the collected data, the analysis was misleading to the public, the analysis did not have a sufficient range of alternatives, and there are major errors. The author has concluded that implementation of the plan would be fiscally irresponsible and detrimental to the students and community.

This report is broken down into six sections: Central High School, Other Facilities, Critique of the Process, Travel Analysis, Savings, and Conclusions/Recommendations.

Central High School

The Central High School, built in 1971, is the newest of the High Schools and the fourth newest building of the School District. It is situated on 77 acres of land. Its location overlooks the city of Duluth, the world’s busiest inland harbor, and 10% of the world’s freshwater: Lake Superior. This is clearly the most spectacular property in Duluth. The school’s *esprit de corps* and its students’ and faculties’ achievements match the unlimited horizons of this school and its location.

But this school and most of the site will to be sold under the Red Plan. In talking to the Red Plan advocates on the School Board and the District administration, one immediately senses a disdain for the Central High School, and one even hears things like, “This property is too good for a school district...the Duluth Schools don’t deserve such property.” There have been public pronouncements that anyone opposed to the Red Plan is opposed to good schools and “change,” but those who advocate divesting this spectacular property are obviously the ones that are saying that our students and our schools do not deserve something of beauty and that our students do not deserve the best that Duluth has to offer.

Central High School—Facilities Assessment

Advocates of the Red Plan claim that 1600 facility deficiencies totaling \$202 million have been identified, with \$12.7 million just for Central High School. That is the financial justification to get rid of the Central School and sell the property. Advocates of the Red Plan state that why should we spend \$202 million to fix up “old junk” when we can get brand new (or totally remodeled) schools for only \$293 million? They state that the process was “data driven.” So let’s look at the data.

JCI conducted a facilities assessment to come up with the data (see later in this paper for problems in that assessment process) and classified the deficiencies into 12 categories: Deferred maintenance, Beyond Rated Life, Accessibility, Upgrades, etc. These numbers have been misrepresented to the public as being critical defects that would and should be avoided if we just got rid of Central High School (and the other four schools).

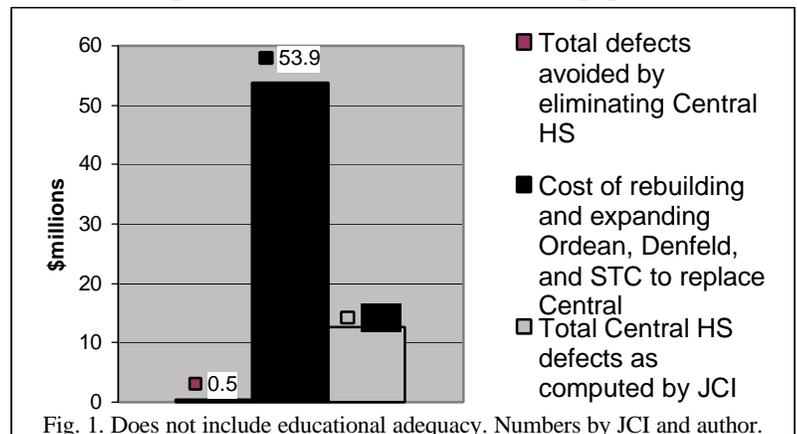


Fig. 1. Does not include educational adequacy. Numbers by JCI and author.

Of the quoted \$12.7 million in “defects” for Central, only \$0.5 million, or 3% of the JCI quote (figures are the author’s) is a result of defects caused by deficiencies in the original design, such as Life Safety, ADA (Americans with Disability Act) compliance, and security that might be avoided by building a new facility. All the remaining \$12 million “defects” are simply building maintenance or upgrades that won’t be avoided by eliminating Central High School.

Identified “defects” such as deferred maintenance (i.e., replacing roofs, repaving parking lots, and replacing sump pumps), beyond rated life (i.e., replace furnaces), appearance (i.e., replace carpeting) are items that all buildings (even the new proposed new ones) require every 30 years. You cannot use such figures in a decision analysis, as all alternatives will have nearly the same costs over time

Identified “defects” such as upgrades (i.e., Smart Boards in all classrooms), capacity (i.e. better roads and parking) will cost the same in any building whether it’s new or old. You cannot use such figures in a decision analysis, as all alternatives will have the same cost when upgrades are installed, whether the buildings are 80 years old or 5 years old.

Tearing down old schools in the guise of removing future maintenance and upgrades is just plain wrong. In 2028, all the new buildings will have the same amount of maintenance and upgrade costs as the existing building do now. To use an analogy, would you sell your home for pennies on the dollar just because the sump pump might quit working next year, or your driveway had cracks? Of course not, you would fix the problem or budget accordingly to fix it in the future.

Central High School Educational Adequacy

Facility Assessment is not the only issue; we must also look at Educational Adequacy. Central High School has many good points and some not so good points as quantified by architect Christopher Gibbs, AIA, and by the author's conversations with occupants. It has adequate space for parking and traffic circulation, lots of room for expansion, excellent outside athletic fields, good gyms, auditorium, and music rooms. But the building has small classrooms and lab space. The Red Plan's answer to the latter defects is to sell off Central and expand to Ordean, Denfeld, and the STC.

JCI put the Central High School educational remedial cost at \$9.2 million. It is not valid to combine the Educational Adequacy and the Facility Assessment and then state, as does the official literature, that the total cost to "fix Central High School is \$21.9 million." The Educational Adequacy report states that its computed costs are not in addition to costs computed in the facilities assessment. If you add the HVAC (Heating Ventilation Air Conditioning), ADA, and Life Safety defects in the classrooms as listed in the Facilities Report you get about \$5.3 million, which is then accounted for again in the Educational Adequacy report. But rebuilding Central High School will also be fixing all the HVAC, ADA, Life Safety, and Security items. The real Facility Assessment cost will be \$12.7 minus 5.3 or \$7.4 million after Central High School would be rebuilt. But keep in mind, even that \$7.4 million, as mentioned in the previous section, cannot be counted against Central High School as these costs are about the same in any building alternative. So the true cost of fixing Central High School's educational inadequacies is \$9.3 million—all the other costs are simply upgrades or maintenance.

Central High School Summary

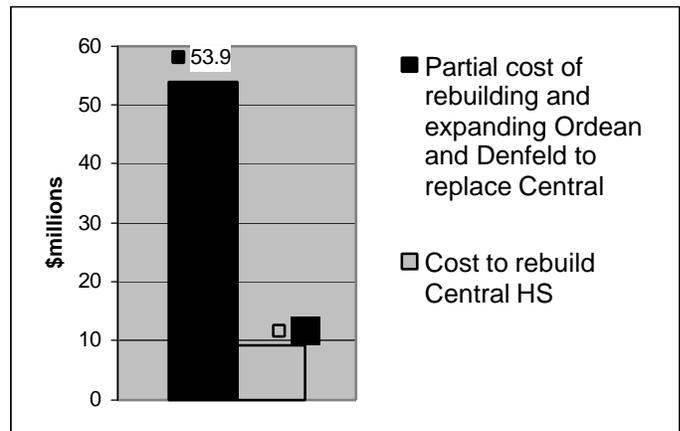
Closing Central High School will cause Denfeld, Ordean, and STC to be expanded and rebuilt at \$18.7 million, \$32.1 million, and \$3.1 million, respectively, for a cost of \$53.9 million (new construction only—the total cost is over \$89 million). Compare this to the \$9.3 million to rebuild Central.

The School District and Board have refused to even consider rebuilding Central High School at a cost of \$9.3 million, and instead advocate the Red Plan at a cost six times higher.

Obviously, repairing Central High

School is much more financially sound than eliminating it—by a whopping \$46.6 million!—even using JCI numbers. Even if you factor in a possible sale of the Central High School property at \$8 million, the cost of rebuilding Central High School is a \$38.6 million saving over getting rid of Central. Why have these numbers never been presented to the public?

Not only would Duluthian be saving \$38.6 million, we would have a state of the arts school. And, for what should be a source of pride for everyone in Duluth, we would



continue owning the most spectacular property in Duluth and still be saving tens of millions of dollars compared to the Red Plan.

Other Facilities

It must be stated that this paper has only looked at Central High School in any detail. This was done because JCI put that facility and education needs at the highest cost for any school; because of the School District's eagerness to sell Central High School; and because Central High School is a spectacular icon for Duluth that has not even been talked about.

Another reason for looking at the Central High School part of the Long Range Facility plan is to look to see if this part of the plan makes sense. The author is not prepared nor is it his role to rewrite and analyze the whole Red Plan with 19 buildings. But a spot check shows that the same methodology was used on all the facilities and that JCI compiled them in the same manner. It is fair to state that the "data driven options" for all the buildings, as presented by JCI, are likely skewed as badly as for Central High School.

All of the other schools that are planned to be closed are excellent, structurally sound buildings that have served their students well and defined their neighborhoods for decades.

Using an analysis as the author did for Central High School, it can be estimated that a proper analysis of all the buildings would show that the Red Plan will cost Duluthians about \$200 million more than simply rebuilding all the existing schools to be state of the art.



Critique of the Process

The alternative analysis was seriously flawed from the start because only three options were looked at: the Red, White, and Blue plans. These three plans were all grandiose plans. There was no middle cost alternatives even looked at. And there was no "do nothing" alternative which all decision processes must use to generate the baseline of data to compare the remaining alternatives. The data that was alluded to as presenting the current state of the schools (the facilities assessment) was misleading and presented out of context (as indicated in the previous section). These misleading presentations could have been ferreted out if the public had been given a real choice of alternatives to look at, but no such alternatives were ever brought forward.

The Red Plan advocates brag about how numerous were the engineers and architects that computed the baseline data (facility assessments and education adequacy). Those advocates assume that the public is awed by such prowess. And to lighten the burden, they even state that "Duluth firms assisted" in the process. Let's take a closer look at the analysis stage:

Facility deficiency tabulation is not rocket science, and it is standard operating procedure for all entities that own facilities.

Didn't the School District's facilities department already have a list of defects? Isn't that what they are hired to do? Aren't they the people that know the buildings best inside and out? Aren't they the experts that should have been used by JCI? But these people were minimally consulted and were not used at all in quantifying defects. To ignore the School District facility experts is a glaring error by JCI.

When JCI submitted their Request For Proposal response to the District in January of 2006, they indicated they would work with A&Es (architect and engineers) within the community. But they have minimally done that. In fact, companies outside Duluth conducted 80% of all the assessment work. Duluth has many full service A&E firms. Why weren't they used? Experience in the local areas is always a criterion in hiring A&E firms. The local Duluth office of JCI was listed as the lead office, but not one JCI Duluth office professional engineer was listed as being used in the assessment. To intentionally bypass local engineering experts is a glaring error by JCI. Such errors will cause continued distrust in the Duluth community, as well as leaving the data open to questions.

The District and JCI repeatedly say they invested 10,000 hours in the facility assessment and that data drove the process. At \$60/hour, a low rate for professional services, those 10,000 hours would cost \$600,000. And this doesn't include the travel cost and per diems for all firms (80% of them) that weren't from Duluth. Who paid for this extravaganza?

JCI also brags about how they used "seventeen firms." Rather than bringing better answers to the table, having seventeen firms resulted in an expensive, disjointed approach. To give several examples:

- there was disparity in how the firms prioritized the deficiencies, as when one firm listed energy misers on pop machines to be a higher priority than Life Safety Code;
- big ticket items like HVAC replacement and controls were duplicated and wrongly coded;
- items in the Educational Report were counted again in the Facilities Assessment,
- hazardous asbestos was counted that has already been removed; and
- items were counted that have already been installed (like CCTV and video systems).

While JCI and the District talk about an open, quality process, they missed the boat by not having the multitude of engineering firms working on the same page. If you want to hire seventeen different firms to do one job, that requires superb contract administration and that did not happen.

Several of the architects and professional engineers that JCI presented and used are not even licensed to practice in Minnesota. Is this not a violation of professional conduct, a violation of MDE regulations, as well as a violation of Minnesota law?

Bureaucratic decision-making involves many diverse community groups and experts. The JCI and the District talk about the “over 100 meetings with organizations and groups,” but these were never documented—we may have 1600 pages of identified facility “defects,” but we don’t have one page about the “months sharing with and receiving information from the community.” What did the people say? Were their comments listened to? Were their comments incorporated into the process? For JCI and the District to have done no content analysis and provide no documentation if it did happen is another glaring omission by the so-called “experts.” This omission will continue to fester distrust in the Duluth community.

Bureaucratic processes are a necessary part of group decision making, but in this case, the process became an end in itself. This was a classic case of a process in search of a problem—and a process with way too much money to spend.

Travel Analysis

Duluth looks at itself as a green city. Outside Magazine rated Duluth as one of the best cities to live in with a close connection to the outdoors. But these attitudes are not reflected by JCI and the School District. Instead of advocating a sustainable community by having schools close to the people and within easy commuting or biking distance, the Red Plan (and the other two alternatives) all include greater and greater centralization, not to mention selling off of the greenest property in Duluth—the Central High School.

A proper engineering analysis would have used GIS modeling to analyze the travel time and cost for school buses, parents (of young children), students (higher grades), city bus routes (to attend school activities), parents attending activities, teachers, adult activities, and facilities personnel. And then applied this to a wide range of alternatives—not just the Red, White, and Blue Plan. Such a modeling of travel is a basic engineering technique that should have been analyzed for all scenarios, but this was never even an item in the decision matrix. This is another glaring omission.

We are living in a digital, computer driven era. Education, particularly the higher grades, adapts very well to appropriate levels of telecommuting and video conferencing. The Duluth High Schools already have a state of the arts videos conferencing system and the broadband to carry it out. These modern systems work, and it is obsolete to say that centralizing our middle and high schools is the only way to provided quality education.

Grade schools need to stay decentralized, small, and neighborhood oriented.

Savings

In addition to using buzz words like “data driven,” JCI and the District justify the plan because the current schools have “28% excess capacity” and that “right sizing means school closings.” They claim they are only being responsible by making necessary steps to match the school sizes to the smaller birthrates of Duluthians and resulting reduced

State Aid. But while they are claiming excess square footage in one sentence, in the next sentence they state the schools are too small and use that as justification for building new schools. Which one is it? And will either bring about any “savings?”

The District stated in the report to the Minnesota Department of Education (MDE) that the Red Plan will reduce the square footage of the Duluth Schools by 500,000 square feet which would lead to a saving of \$5.3 million in annual budget savings. This is broken down to \$2.3 million facility savings and \$3.0 million savings in educational expenses. Let’s look at some of these numbers:

The MDE report states that the current schools have 2.07 million square feet. The MDE report shows that the Red plan proposes 1.75 million square feet. That’s only a 257,000 square foot reduction or half of what the School District has told the MDE and us citizens. This is going to equate into an equivalent reduction in facility savings compared to what is claimed. The likely facility savings will be half of their stated number, or only \$1.15 million.

The other part of the reported savings is \$3.0 million in reduced educational expenses. This is stated as reduced counselors, coaches, PE departments, art departments, music departments, choir, nurses, activities, etc. Are these actual reduced educational expenses or are these just reduced student services being doctored up and being called budgetary saving? Reduction in services is not savings. A proper analysis puts reduction of services as a cost, not a saving.

What costs will be increased? The Red Plan did not even look at increased travel costs, increased travel time, fuel costs, more accidents caused by more travel, decreased community services, less sustainable communities, and reduced services. The life cycle costs of the new buildings are always higher than renovating existing buildings. Energy costs for the new buildings in meeting HVAC code requirements (a good idea) will result in increased energy intensity in the buildings. All these items result in negative savings for the Red Plan.

In total, the budgetary savings might well be negative. As JCI is going to be paid based on these “savings,” such savings must include the negative, be all-inclusive, and pass peer review and auditing. That hasn’t happened.

Any miniscule budget savings that might happen as a result of the Red Plan is an embarrassingly poor return on a \$293 million investment.

Conclusions/Recommendations

The plan’s justification has significant errors. The plan is fiscally irresponsible. The plan violates the trust and good stewardship principles that the community has vested in the School District and the School Board.

Due to the numerous faults in the Red Plan and planning process, the author recommends that the Duluth School District Comprehensive Facilities Plan not be implemented; that bonding be postponed; and that an independent investigation be conducted on the merits of the plan and the process.