



CONSULTANTS / SCOPE / SOURCES/ KEY FACTS AND RECOMMENDED IMPROVEMENTS



KG+D Architects

- Full service firm specializing in education facilities planning and design.
- Designed and constructed over \$700M worth of construction in the past 15 years.
- 32 person team including 9 licensed architects, landscape architect, technical support staff and interior design.
- In 2016, the firm will mark its 22nd year as KG+D, building upon a legacy of more than 70 years of services throughout the region.

Damiano Barile Consulting Engineers

- Currently working with Darien Public Schools on generator projects.
- Have worked with KG+D for over 30 years.
- Have worked with Mike Lynch for 20 years.

KG+D Architects was hired by Darien Public Schools through a competitive bid selection process that weighed fee, experience and proposal.

Building Conditions Report

- Buildings and Grounds comprehensive survey (or physical) that addresses:
- Materials and systems conditions
- Approximate year of replacement
- Priority need
- Cost to replace

Master Plan

- Review of how existing campuses are used
- Listing of issues that need to be addressed
- Potential solutions to improve educational and functional deficiencies
- Cost of improvements

A Series of Meetings with:

- Dr. Daniel Brenner
- Michael Feeney
- Michael Lynch

Review of Materials:

- Demographic studies (Milone & MacBroom)
- Planning & Zoning Board Communication - 5.23.16 (Jeremy Ginsberg, Planning & Zoning Director)
- Existing floor plans and survey studies

Consolidated Informational Meetings Based on Discussions with Central Office:

- Building level administrators and staff
- Community members and leaders
- Board of Education

Key Facts and Recommended Improvements:

- Darien Public Schools - 7 Instructional Buildings + 1 Administration Building = 840K SF of space. All Campuses continue to be appropriately located to serve the needs of the community.
- Average Age of the Facilities = 50 years old / Holmes ES is oldest at 85 years. Darien High School and New Tokeneke School are in superior condition being constructed within the past decade.
- 4 of 5 elementary schools utilize modular classroom buildings. The average age of the 'temporary' structures is over 25 years old. These structures pose both weather and security challenges for the District and users.
- Educational categories needing review and discussion district-wide include: Removal of the modular buildings, Location of early learning/ ELP program, Size/adequacy of educational spaces, and General storage needs.
- Site/Campus categories needing review and discussion district-wide include: Traffic issues at drop-off/ pick-up, Insufficient number of parking spaces, and Building security at the main entrances/lobbies

"We are currently preparing students for jobs that don't yet exist, using technologies that haven't yet been invented, in order to solve problems we don't even know are problems yet."

- Karl Fisch, Educator

This Master Plan for the Darien Public Schools is intended to address both educational and infrastructure issues that have surfaced as a result of interviews with district administrators and survey work at each school campus by architects and engineers. The resulting document provides a consolidated map for planning and procuring funding for future work as well as being an important step in aiding the District in addressing building and campus infrastructure and educational issues that are important to ensuring the continued excellence of Darien Public Schools.

This plan is a template and is scalable and flexible in its ability to be implemented as a whole or in phases over a period of years depending on the priorities and specific funding interests. Ultimately, the goal of this document is to provide a plan that is comprehensive, adjustable and fully addresses the principal issues expressed by the school district and community.

As part of the master Plan, the superintendent, Dr. Daniel Brenner, recommended having the Town undergo a complete Building Conditions Survey (BCS) on all buildings associated with the School District. The survey is intended to be a building 'physical' like a person going to the doctor where building and campus structural materials, finishes, and systems are inspected to determine: 1) their condition and expected life, 2) the cost to replace, and 3) the priority order of replacement. The results of the BCS process focuses only on existing conditions. The full master plan report combines the BCS with the planning concepts as developed between the school administrators, community leadership, and consulting professionals.

Some of the key facts and recommended outcomes of this process include:

- Darien Public Schools has seven instructional buildings and one administration building, totaling approximately 840K SF of space. All buildings and campuses continue to be appropriately located to serve the needs of the community.
- The average age of the facilities is 50 years old with the oldest building (Holmes ES) at 85 years old. The age and quality of the buildings in Darien is consistent with (or better than) other districts in the region as Fairfield County experienced significant population growth post World War II. Obviously, Darien High School and the New Tokeneke School are in superior condition being constructed within the past decade.
- Four out of the five elementary schools utilize modular classroom buildings to accommodate the existing educational program. The average age of the 'temporary' structures is over 25 years old with each having been partially renovated to extend their useful life. These structures are detached which poses both weather and security challenges for the District and users.

- The educational categories that were most commonly listed as needing further review and discussion district-wide include: removal of the modular buildings, location of early learning/ELP program, size/adequacy of educational spaces, and general storage needs.
- The site logistic categories that were most commonly listed as needing further review and discussion district-wide include: traffic issues at drop-off/pick-up, insufficient number of parking spaces, and building security at main entrances/lobbies.

This report addresses both the educational and site logistic issues noted above.

The most notable educational concern is the continued use of modular classrooms at the elementary schools. Modular buildings typically serve to meet temporary needs during construction projects or short-term 'bubbles' in population. As a firm, KG+D avoids including 'modulars' in school district temporary planning as most districts spend significant money installing these short-term buildings and often find other useful ways of utilizing the space once the primary purpose of constructing them have been met. Darien's temporary classrooms on four of the five elementary school campuses have now been on site for approximately 25 years far exceeding their intended timeframe within the District. Their replacement is past due.

Campus security for the students and staff is unfortunately too often in the news today and classroom space not directly connected to the main buildings provides challenges. Review of how each campus and individual buildings are accessed, monitored, and improved to address safety concerns is wide-spread and common at regional conferences to share best practices. Although, there is no fixed solution that works in every situation, there are common practices that have received significant support. One point of entry for all school buildings with key card access to other ingress doorways, secure entry vestibules, appropriately located security/main office, and line of sight design techniques are all commonplace. The elimination of all stand alone modular buildings is an appropriate security measure.

The greatest site improvement need district-wide is vehicular circulation. Each campus has its individual challenges addressing bus and private vehicle traffic patterns within the existing constraints of the neighborhoods and public road systems adjacent to the schools. Providing additional 'queuing' for both buses and cars has been considered within the report. Additional parking has also been reviewed and provided where space is available.

It is often stated that architecture does not make the educational program. However, intelligent design does offer many advantages to improving the environment. For example, there are many studies that address indoor air quality and natural light as critical to improving the academic performance of students. Intelligent planning of buildings also leads to better adjacencies, flexibility, and long term sustainability of the spaces, materials, and systems. Good design also has the ability to inspire and provide community pride in its public facilities. Obviously, the quality education that Darien provides benefits the entire community by maintaining property values and aiding in the development of the next generation of critical thinkers and inspirational leaders.

Darien Public School District
2016 Building Conditions Survey
(BCS)-Five Year Plan



Building Condition Survey Summary

The Educational Buildings and Campus infrastructure of the Darien Public Schools are generally in very good condition. KG+D Architects and our consulting engineers Damiano Barile, have conducted building condition surveys on each campus that included interviews with DPS Facilities staff & visual inspections to create a list of recommended improvements to bring the facilities into excellent condition. Each line item improvement on the following spreadsheets was assigned a unit cost (based on a regularly updated regional construction cost data base) and a priority number.

There is approximately \$25mm worth of recommended improvements listed within this building condition report. To the credit of the District and staff, no individual item has been listed as a Priority 1. The buildings have been well maintained and planned cost expenditures relate to the building systems that are at the end of their 'useful life' and will require phased replacement. By dividing the BCS total of \$25mm into the 840,000sf total of district wide building area, the average cost per square foot is approximately \$30 or a little over \$1/sf per year base on a 25 to 30 year average life. As school districts should plan \$1-3/sf annually to maintain their facilities, the \$25mm of improvements is on the low end of the spectrum and represents that Darien PS and your facilities department does an excellent job maintaining your physical assets.

It is recommended that the District review the survey results and include infrastructure upgrades at the same time as addressing master plan improvements. We recommend that DPS at a minimum address the high priority items (priority 1+2) as part of a capital improvement plan. This report lists \$10mm worth of high priority items. A combined capital improvement project will ensure that both educational and building stewardship goals are met for the future success of Darien Public Schools.

Master Plan Summary

Master plan estimating is a combination of art and science. Developing budgets for construction projects that are not fully designed requires an understanding of current regional construction costs, knowledge of community's expectation regarding building systems, materials & finishes, and clarity on project timeframe in which the District will proceed with the planned work.

The cost estimate, as provided on the previous pages, is intended to aid the Board of Education and Town of Darien community in understanding the area of magnitude costs based on the knowledge at hand. Prior to public vote, the plan will require refinement through a collaborative effort between town/school district administrative staff, community members and a professional team of consultants to refine the master plan into a set of schematic designs that can be more accurately estimated and discussed in public prior to vote.

For the sake of the master plan budget, the design team included the recommended educational & infrastructure improvements at the elementary, middle, high school levels. At the elementary schools the plan includes: 1) removal of the modular buildings, 2) reorganization of the ELP program, 3) review of size/adequacy of classroom spaces, 4) study of building/campus security, and 5) improvement to vehicular/pedestrian circulation on campus. The Middle School and High School have specific building & campus improvements that address over crowding, parking, storage, and circulation. Based on the results of the planning exercise, all campuses have some educational & infrastructure improvements listed with the majority of the capital improvement cost and focus on a building replacement project at Ox Ridge Elementary School.