

# Communication PRinciples for Principals

NOVEMBER 2012

## BUILDING 21<sup>ST</sup> CENTURY SCHOOLS

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### 21<sup>st</sup> Century Schools

Defining, refining, and developing the term “21st Century Teaching and Learning” is a process that has been underway for a while now in Department of Defense Education Activity (DoDEA) schools. While this concept continues to evolve academically in our curriculum, instruction, and assessment practices, it is also a concept that will be incorporated into every aspect of the look, feel, and functionality of our school buildings and classrooms.

DoDEA is in the midst of a major construction and renovation program that will eventually result in the replacement or renovation of more than 70% of our 194 schools. We have been fortunate to receive support from the Department of Defense and Congress in resourcing a nearly \$3.7 billion increase to our construction program over the next five years.

It is imperative that we make the most effective and efficient use of these resources and look toward the future of teaching and learning to determine how our school buildings and classrooms can facilitate the technology, innovation, and change that will occur in the classrooms we build now. The schools we expect to build over the next several years will have an average lifespan of 50 years. As you know, a LOT can change in 50 years!



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### Where does the principal fit in?

As your school’s leader, you may be thinking – “I’m a principal, not an engineer – where do I fit in this 21st Century schools plan?” In addition to your obvious role as the instructional leader at your school, it’s important for you to know and understand how your classrooms and schools can support 21st Century Teaching and Learning.

### Starting Point – Military Construction (MILCON) Program

The Military Construction (MILCON) Program is the starting point for construction and major renovations for DoDEA schools. In School Year 2010-2011 DoDEA launched a major facilities renovation and new construction initiative that will eventually result in the modernization of 134 schools worldwide.

The initiative started in October 2010 and is scheduled to span the next several fiscal years through Fiscal Year 2018. Close collaboration and cooperation between DoDEA, The Under Secretary of Defense for Personnel and Readiness, the Military Services, the Department of Defense Comptroller, and the Deputy Under Secretary of Defense for Installations and Environment resulted in a plan to execute \$3.7 billion in Military Construction (MILCON) funds in support of DoDEA facilities.

The multi-year MILCON funding program will bring all DoDEA school facilities to the Department of Defense's (DoD's) acceptable quality standard of Q2 or better. The multi-year MILCON funding program will bring all DoDEA school facilities to the Department of Defense's (DoD's) acceptable quality standard of Q2 or better. The DoD Quality Rating ("Q-Rating") system is a 4-level system which describes the condition of a DoD facility, to include DoDEA schools. The DoD has set a target of acceptable performance at Q2 and a useful life duration for school facilities of 45 years.

Q-Ratings are defined as followed:

- » Q-1 New or well maintained (Good)
- » Q-2 Satisfactorily maintained (Fair)
- » Q-3 Under-maintained (Poor)
- » Q-4 Considered for replacement (Failing – facility is still safe, but more cost effective to replace than maintain)

DoDEA's goal is to provide safe, secure, and well-managed environments that focus on student achievement. All DoDEA facilities receive special focus in four areas:

- » Safety and security: All facilities undergo two safety inspections per year and are required to meet the Anti-Terrorism/Force Protection regulations.
- » Education: DoDEA has developed design standards and education specifications based on best-industry practices for school facilities.
- » Technology: All schools have local area network cabling infrastructure.
- » Condition Quality: Schools are assessed every three years. Most schools do not currently meet DoD's expected quality level. The MILCON program will change that for the better.

School facilities require a significant time and resource investment before they are ready for students and staff members. Major MILCON projects, to include school and administrative buildings, normally require 5 years from start to finish, which encompasses the steps of project proposal, approval, funding, planning, design, and construction.



## IDEA

DoDEA has a well-defined school construction process that includes a well-defined construction estimation process. As DoDEA embarks on a major military construction program over the next several years, these processes will play integral roles in the completion of 21st Century Educational Facilities for DoDEA students.

## Moving forward – 21st Century Schools

Shortly after DoDEA's major MILCON initiative was underway, it became clear that designs for new and renovated schools would have to meet a threshold of a new teaching and learning style that best fits and adapts the way our students will learn in the 21st Century and beyond.

## Developing 21st Century Facility Standards – A collaborative approach

Before 21st Century schools can be constructed, standards for the facilities – and for 21st Century teaching and learning had to be identified. DoDEA constructed several symposiums to build a 21st Century Teaching, Learning and Facilities construct.



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- » A first symposium where multiple internal and external experts were brought together from education, educational facilities, and industry. This group identified that a 21st century education needed to provide differentiated learning, multidisciplinary teaching, multiple teaching modalities, and real-world skills all of which is encompassed in a student-centered education.
- » A second symposium that included outreach to affected stakeholders. Input was requested from students, parents, teachers, administrators, and military partners. This outreach reinforced the themes of the first symposium as well as the need for better student assessment, for curriculum to be real-world relevant, and the need for teacher professional development.
- » Utilizing the findings of the first two symposiums, the third symposium included leading architects in school design with experience in design of facilities supporting a 21st Century education. This symposium provided the foundation for development of the new Facility Education Specifications.
- » The final phase culminated in production of the 21st Century Ed Specs.

## 21st Century Educational Facilities – Construction Considerations

Any multi-year project can be affected by changes over time. Costs of supplies, labor, and design requirements can affect the bottom line of the total cost of a project. Factors that are continually considered during design of 21st Century Education facilities are trends in construction and the savings that might be generated in the design process through adjusting the type of construction. Four factors that figure prominently in the construction of DoDEA's 21st Century Education Facilities are:

1. Department of Defense-mandated energy efficiency goals.
2. Sustainability requirements to meet LEED Silver certification standards and environmental compliance requirements.
3. Geographic location.
4. Site constraints.

In addition to these considerations, DoDEA also has to be concerned with meeting construction requirements that come with building facilities in foreign countries.



### IDEA

DoDEA is transitioning to a 21st Century Teaching and Learning model that is more than just facility design. DoDEA is adopting this teaching model in all schools. DoDEA's current schools do not prevent this transition from happening, but new facilities will significantly simplify and compliment the change in focus from teacher-centered to student-centered education.

## Benefits of 21st Century Educational Facilities

- » Instructional aide - the building becomes a teaching tool with systems and building components exposed to provide real-world relevance and examples to reinforce STEM curriculums.
- » Provide student-centered facilities
- » Provide flexibility and adaptability in school facility spaces to accommodate multiple learning modalities and allow future changes as programs evolve and grow.
- » Development of 21 Century Skills and Habits – the school is designed for a student-centered education with functional spaces that allows students to develop skills and habits needed for success in the 21st Century.
- » Increased energy efficiency with teaching models of renewable energy production to reinforce what can be done for greater energy independence.

## Take Aways

Now that you've had the windshield tour of school construction – especially 21st Century Education facilities, what are the some of the important things you should take away from this discussion?

1. DoDEA has a well-defined school construction process that includes a well-defined construction estimation process. As DoDEA embarks on a major military construction program over the next several years, these processes will play integral roles in the completion of 21st Century Educational Facilities for DoDEA students. The facility designs and standards are guided by prudent, fiscally responsible thought processes that will result in flexible, adaptable, student-centered and technology infused learning environments that will have an anticipated lifespan of nearly 50 years.

2. DoDEA is transitioning to a 21st Century Teaching and Learning model that is more than just facility design. DoDEA is adopting this teaching model in all schools. DoDEA's current schools do not prevent this transition from happening, but new facilities will significantly simplify and compliment the change in focus from teacher-centered to student-centered education.

### **For more information**

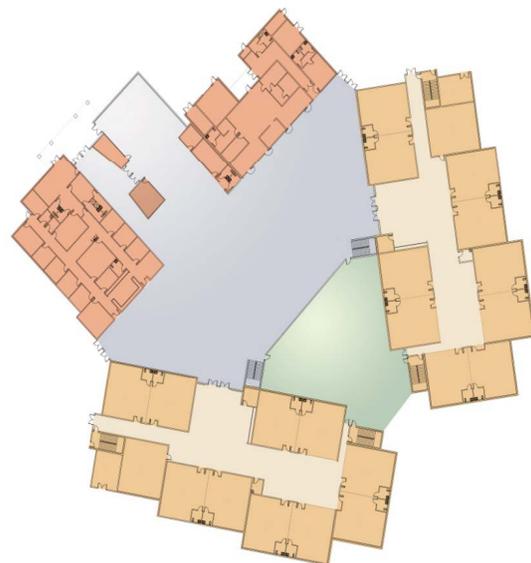
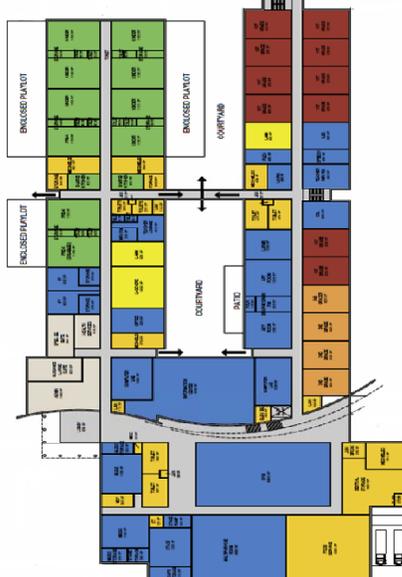
- » Visit our website at [www.dodea.edu](http://www.dodea.edu) for more information on 21<sup>st</sup> Century School designs.
- » Facility engineers are located in all area offices and can answer questions about our MILCON programs.

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## Department of Defense Education Activity (DoDEA) Program

In December 2009, DoDEA received a \$3.7B increase to their anticipated 5 year program to replace or renovation over 100 schools based on age or failing conditions. DoDEA's program will unfold around the world, will incorporate 21<sup>st</sup> century teaching and learning concepts. DoDEA's vision to align 21<sup>st</sup> Century instruction with construction, as well as, maximizing energy and sustainability features, will be realized.

	North America	Europe	Asia Pacific
2011	7	3	0
2012	6	7	2
2013	1	4	6
2014	12	8	3
2015	7	9	5
2016	5	4	2
2017	6	7	6
2018	5	6	0



- Corridor Circulation
- Linear Classroom Arrangement
- Grade Based/Departmental Organization
- De-centralized Assembly Spaces
- Minimal shared spaces

- Circulation incorporated within Learning Areas
- Instructional Spaces grouped into Neighborhoods
- Neighborhoods clustered around Central Commons
- Multi-use Shared Spaces throughout
- Higher Space Utilization for Learning
- Indoor-Outdoor Connection for Extended Learning