

Planning for Excellent School Facilities

Part 1

TAMMIE KNIGHTS:

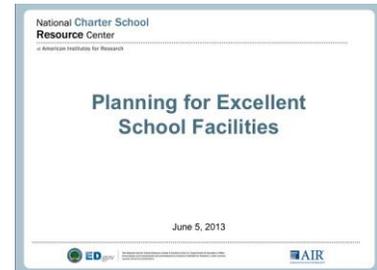
Good afternoon, everyone, and welcome to the webinar. My name is Tammie Knights from the National Charter School Resource Center, and I'm pleased to welcome you to the webinar "Planning for Excellent School Facilities."

The resource center is funded by the Department of Education's Charter Schools Program and served with the National Center to provide resources, information, and technical assistance to support the successful planning, authorizing, implementation, and sustainability of high-quality charter schools; to share evaluations on the effects of charter schools; and to disseminate information about successful practices in charter schools.

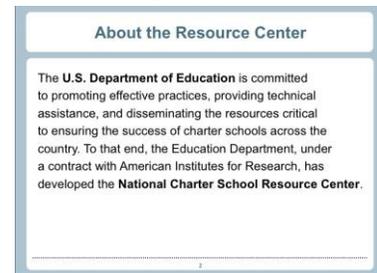
I want to quickly remind you about our webinar platform. You can listen to the audio portion either through your computer or over the phone. If you do join by phone, please mute your computer speakers to prevent an echo effect. If you are not prompted to enter your phone number, please dial the number that is listed in the chat.

For any questions you have, please enter them in the chat throughout the webinar. We will try to address specific questions throughout the webinar, but we'll definitely get to the majority of them during our Q&A session. You will also find the PowerPoint to today's presentation in the file share directly below the chat.

As a reminder, the webinar is being recorded, so to ensure audio quality, I have muted all of the participants, so please use the chat as your way of engaging with the presenters.



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With that said, I'm going to turn it over to Josh Kern, who is going to introduce our panel and tell you more about this series of webinars.

JOSH KERN:

Great. Thank you, Tammie. My name is Josh Kern. I'm a principal at TenSquare. TenSquare is a [Washington,] D.C.-based firm that [inaudible] charter schools nationally with their facility needs. Let me introduce the panel, and then I'll tell you about the series. And we'll go to Kathy.



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KATHY PADIAN:

[Inaudible]

JOSH KERN:

Yes, please.

KATHY PADIAN:

Hi, this is Kathy Padian, and I am currently the deputy superintendent of the New Orleans Parish School Board, which is the original district in New Orleans. My background is to the [inaudible] building code, which is the Charter School Facility Financing Foundation, and [inaudible] I've been in this position for about 20, 21 years.

JOSH KERN:

Great.

DAVID KRIEGEL:

David Kriegel, principal of [GranKriegel Associates](#), architects in New York City with a focus on school design.

JOSH KERN:

Great.

FAYE PREMER:

Faye Premer. I am a product manager for [Civic Builders](#). We are a nonprofit charter school real-estate developer.

MILTON SHINBERG:

Milton Shinberg. I'm an architect with [Shinberg Levinas Architects](#), and we've designed charter schools now for about 15 years.

JOSH KERN:

This is the second webinar of a four-part webinar series. Last Wednesday, we talked about great spaces. Today's webinar is about facility planning. Next week, we're going to get into facility financing, and the last of the four webinars is going to focus on the predevelopment and construction management process.

TAMMIE KNIGHTS:

Before we get started, we want to know a little bit more about everyone who is on the line, so I'm going to ask you a series of questions. If you could just [pause] answer them, please. [pause] Great—still going.

So our presenters know, we have about 32 percent that are school staff members; about 13, about 13 folks that are with a charter school management company; about three folks who are part of an authorizer, actually, about 7 percent now; and about 13 people who are board members. So thank you for that. [pause]

Next question: [pause] "How would you characterize yourself in terms of your experience with facilities?" [pause] Great. We've got about 16 folks who are saying that they're pretty new to this world, about eight folks who are experienced but looking to learn about the work of others nationwide, and about five who are saying that they are experts but are always looking to learn more.

Next question is to talk a little bit about your school facility right now. [pause] Great, thank you. We've got about 13 to 14 (or about 32 percent) who are in a stand-alone private space, 11 (or 25 percent) of you who are on a stand-alone public school space, 4 (or 9 percent) of you in a shared space, and 15 (or about 34 percent) of you in a new space development.

And one last question for you. [pause] If you could tell us about your school and where you are in terms of your planning process. [pause] Great. So it looks like we have about five or six (a little above 13 percent) who are in a new school in the planning phase; about six (or 13.6 percent) of you in a new school in an incubation space; about 20 of you (or 44 percent) are not new, but you're looking for new and/or improved space; and 13 (or about 29 percent) who are in the middle of a construction project or building acquisition process.

Right now, we have about 90 attendees. So thank you for that. As we get started, it helps us gear our presentation to you a little bit more. And please, again, enter your questions in the chat.

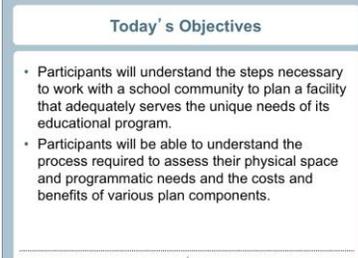
JOSH KERN:

Okay. We have two primary objectives for today's webinar:

1. Participants will understand the steps necessary to plan a facility that meets the needs of your educational program.
2. You'll understand the process to assess your space needs as well as the cost and benefits of various components.

FAYE PREMER:

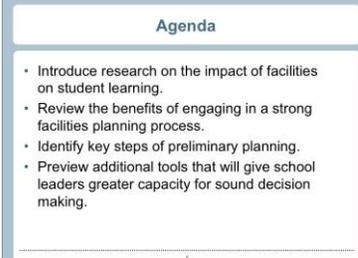
Today's agenda is pretty straightforward. We're going to begin by introducing research on the impact of facilities on student learning. We're going to review the benefits of engaging in a strong facilities planning process, identify key steps of preliminary planning, and preview additional tools that will give school leaders greater capacity for sound decision making. [pause]



Today's Objectives

- Participants will understand the steps necessary to work with a school community to plan a facility that adequately serves the unique needs of its educational program.
- Participants will be able to understand the process required to assess their physical space and programmatic needs and the costs and benefits of various plan components.

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Agenda

- Introduce research on the impact of facilities on student learning.
- Review the benefits of engaging in a strong facilities planning process.
- Identify key steps of preliminary planning.
- Preview additional tools that will give school leaders greater capacity for sound decision making.

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Why facilities matter—that’s a big question. I’m sure all of you can relate to this. Why they matter—we all recognize the space in which we spend our time on a daily impact—a daily basis—impacts our mood, our physical well-being, and our desire to return to that space, and, most importantly, our performance within that space.

This same rationale, believe it or not, holds true for our children. From air quality to successful classroom acoustics, current research supports that the quality of our kids’ educational space does impact their ability to learn.

Facilities can and should be designed to support the needs of both their students and their educational team. School values, educational philosophy, safety, technological needs, and comfort are just a few of the ways project teams work to and have improved students’ success. The bottom line is [that] facilities and educational outcome are undeniably linked.

MILTON SHINBERG:

Most of you have experience with planning in one setting or more than one, and we’re starting with the general points about planning, and then other speakers will narrow them to planning for charter school facilities, more specifically.

Here are some big points. Good planning in general is a structured way of recognizing limited resources and applying those resources strategically to achieve goals. So it starts with goal setting.

You have to know with crystal clarity what you’re trying to achieve for your school; it’s not as easy as it sounds. Good planning requires in-depth investigation of all the constituent parts of the problem and establishing a hierarchy of what’s most important and what’s most critical to you.

You’re creating an integrated planning approach, including how to be nimble when things don’t go just right—don’t go

Research Studies Prove That Facilities Matter

- Teachers are more likely to stay in schools with a high-quality facility.
- Better facilities correlate to improved student attendance, reduced suspension and dropout rates, and fewer behavioral incidents.
- Students in high-quality facilities outperform their peers in low-quality facilities by 3 percent to 7 percent on standardized tests.

Adapted from 21st Century School Fund. (2009). Research on the impact of school facilities on students and teachers: A summary of studies since 2000. Washington, DC: Author. Retrieved from <http://www.21stcenturyschoolfund.org/research/impactofschools2009.pdf>

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What Are the Benefits of Educational Facility Planning?

- Help secure a high-quality facility.
- Help manage enrollment growth or change.
- Ensure facility funds are cost effective.
- Enable access to real estate opportunities and facility funding.



Photo courtesy of the author. Thank You!

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as planned because they almost never do. For schools, the goals are high and the resources of time, particularly your time, and your money and attention are usually pretty limited. That calls for a higher level of planning wisdom and planning detail.

The quality of the results from planning is directly proportional to the amount of time invested. If you don't have the time and you are busy people, you will need to engage people who will take the time and apply their experience on your behalf. That's the best money you'll spend up front because planning takes considerable time. Because some of the most important decisions come much sooner than you might expect, it's important to start early. I don't think anyone on this panel would say that they ever started too early.

Unfortunately, all of us can cite examples of starting too late and the consequences of starting too late. It's worth mentioning just a few of those consequences.

Loss of options: Not being prepared to move aggressively can mean that the best site or a great funding opportunity has passed the team by, or the opposite, making a legal commitment to a space, whether a letter of intent or a lease, without fully investigating—a full investigation of needs and regulations. All of us have seen the consequences, and they can be very, very serious.

And then there's loss of time. Underestimating the time it takes to do critical tasks can endanger the entire process.

There are critical paths with critical consequences. Schools cannot open late. A one-month delay for any number of reasons will sink opening day. There's also the loss of your time spent on crisis containment with your professional team. With good planning, you can spend more time on your primary responsibilities.

You will still spend time on facilities planning, but it will be less, and it will be much more productive. Then there's loss

of money. It usually becomes obvious before construction that there's a time problem, but there's not much that can be done to speed up except through the construction process—that phase of the work.

Making up the lost time in construction, which is called acceleration, always costs more and steals resources from other buckets. Mostly, it's a loss of control over the process. To succeed, you have to be able to control as much as you can—to maximize the good results and minimize the bad ones.

Our team today will use this time in the webinar—the time we have worked together to plan—to put some light on aspects that will help you succeed through planning; it is achievable. Charter schools succeed all the time, but none succeed without solid planning.

There are lots of moving pieces, and our purpose today is to break things down into the kinds of parts that need to be managed and are manageable and have established ways of being accomplished. You don't have to reinvent the wheel to have great facilities—quite the opposite.

So here's the batting order; it's up on screen right now.

- Build an in-house planning team.
- Understand the process.
- Articulate a vision for the facility.
- Engage experienced help.
- Prepare educational specifications [ed specs].
- Assess facility requirements and conditions.
- Prepare a feasibility analysis.

Preliminary Facility Planning Process

- Step 1: Build an in-house planning team.
- Step 2: Understand the process.
- Step 3: Articulate a vision for the facility.
- Step 4: Engage experienced help.
- Step 5: Prepare educational specifications.
- Step 6: Assess facility requirements and conditions.
- Step 7: Prepare a feasibility analysis.

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KATHY PADIAN:

Okay, great. Thanks for all the information, Milton.

Step one is build an in-house planning team. For some of you, you may have financial capacity to hire someone right off the bat; but most charter schools, as we know, do not have that ability. So you're going to start with the people that you have in-house.

In anticipation of planning a new facility or a major renovation, you probably want to recruit new board members if you don't have the right people on your board at the beginning. You'll need people who can give you advice, such as architects, real-estate developers, [and] financial experts. It would be really great for everyone to have those people on board already and involved in the process when you get started.

Your in-house team should include representation from your board; from your school leadership team, and that includes both your academic leaders as well as your operational and financial leaders; teachers; parents; students, depending on the age of the students you're serving; and even the community, which can mean a lot of different things in a lot of different areas of the country. The community can be neighbors from your current site or it can be neighbors from the future site where you plan to open.

You should establish a review and approval process so that everybody knows who's making decisions when they need to be made, and you should really think about whether the school leader is the right person to lead this in-house planning team. A lot of school leaders are busy—really busy people—and have a lot to do on a day-to-day basis; so in preparation, they'll need to either delegate some of their responsibility to other people, maybe hire someone new to help out, or pass off the leadership of the in-house planning team to someone else who might have a little more experience in this area and more time.

Step 1: Build an In-House Planning Team

- Designate the leader and provide adequate planning time.
- Secure broad participation among all of the participants.
- Ensure that the leader and the school community have sufficient time for their responsibilities.



Photo: ian.jacobson/istock.com

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Step two is understanding the process. I can't emphasize enough about organization here. You need someone who is super organized. You're going to need to plan a calendar that's one, two, or maybe even three years out.

You'll need to know how much money you need. You'll need to know when you're going to be able to access that funding. You're going to need to get approval by various city [and/or] state agencies. You're going to need to talk to your authorizer about expansion of your grades or maybe into another site.

You need to really, again, be super organized. Financing, in particular, is a really complex process. So, if you're counting on loans from other entities or issuing a bond, you need a lot of lead time. So understanding the process is really key.

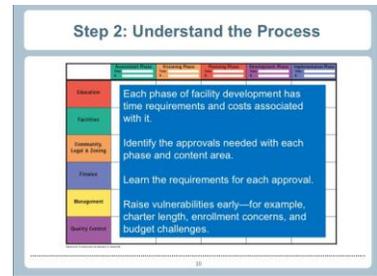
You can see on the screen, we say, "Raise your vulnerabilities early." Again, this is about what Milton referenced earlier about—planning helps you in the long run. It's really going to save you a lot of money if you plan ahead.

MILTON SHINBERG:

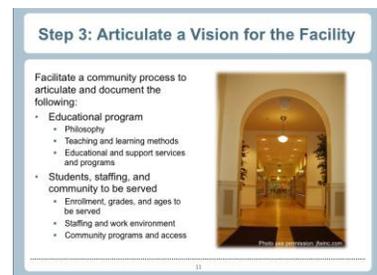
Vision, obviously, is critical. The charter school facilities require more than just matching square footage requirements in a charter to the room shapes that are on [the] plan. That should be achievable in the normal course of problem solving, but this is actually about much more than numbers.

Great charter school architecture makes educational philosophy and character and mission and tone into part of the environment that all students, all teachers, staff, parents, and community will experience. That should be achievable when a strong planning process has been established.

Charter schools are required to articulate vision and all that supports it as part of the process that actually creates the



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charter in the application. Those are great sources of materials for those of us who design schools to see into the soul of each school and define the ideas that can help you achieve facilities that are functional and also reinforcing and inspiring—all within your budget, of course.

An underlying principle is respect. A respectful environment shaped by the special qualities of that school engages in a dialogue with the special qualities of the students—the qualities that your school is designed to nurture.

That reinforcement adds to the quality of every moment your students and your collaborators spend in the environment that is most of your working day and the setting for all of your hard work to bring quality education to those students. The facilities programming process is structured to help draw out concepts and needs in a way that supports translation into effective physical facilities.

The process will yield a written vision document to guide your team in all the work that follows. For example, you might investigate this. What are the core qualities you want the building to communicate? Probably those will include a welcoming and a nurturing place, an exciting place to share learning, and perhaps a resource center as a symbol.

The relevance of those examples and which ones you choose depends entirely on your vision; each charter school is different. You can establish other priorities that are in some cases pragmatic but in some cases symbolic.

It might be important to you as a core value that your facilities be designed, built, and operated to be environmentally sustainable and economical to operate and possibly, you might say, even located near public transportation.

The factors in your hierarchy of issues will vary. Whatever your hierarchy, they should drive the design. It's usually important to get the board of directors of your school to sign off before going down the road too far.

KATHY PADIAN:

And on to step four. You've built an in-house planning team; you understand the process. It now is definitely time to engage some experienced help. This is not always free help. This means you're going to have to hire someone or some firm to help you out.

The number one issue here, I think, is to do your research: to talk with other school leaders, talk with other board members, talk with as many people as you can, quite frankly, to get information about groups that they've used and how it went. Just because someone has built a school or designed a school doesn't mean that they're going to be the best to design your school.

I can give you personal anecdote from New Orleans where we engaged the process starting in 2007 following Hurricane Katrina. And since we hadn't built a lot of schools in New Orleans for 50 years, I think maybe three had been built in the last 50 years, there weren't a lot of firms doing public school building. We were in the midst of changing, really, the face of public education and having charter schools become the majority, but no one was really thinking about that. We didn't have anyone, really, that had built a single charter school in probably the state of Louisiana.

We really needed to expand the definition of who [are] the best groups and firms to come in and help us in that endeavor to build all our new schools with thinking about charter schools as tenants.

Firms who have worked with school districts are not exactly the same as firms who work with charter schools. Charter schools are really budget driven, budget conscious, and were, I think, mostly about getting money into the classrooms after the classrooms are built.

So just things to keep in mind when you're interviewing your firms and your individuals, use your board members. Use people who have done this before. We can't emphasize

Step 4: Engage Experienced Help

- Talk to public and private school leaders about individuals and firms that provide facility expertise.
- Prepare a scope of work for educational specifications and a feasibility study.
- Interview individuals and firms.
- Engage a consultant or firm.

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enough planning and research, and you're going to save money and time in the long run by doing that.

DAVID KRIEGEL:

Okay. By the time you've gotten to this far in the planning process, you probably, as Milton said, have a good idea of what the vision of your school is. You'll have a sense of your enrollment. You'll understand what your curriculum is like and what kinds of programs you'll be offering in the school.

But before we get into the details of the real programming process, there are a couple of concepts that are worth pointing out. No matter how rigorous your planning and design process, change is really inevitable in the programming of school spaces as you go on year to year, so keep your design [and] your building as flexible as possible.

The more purpose-filled the space is, such as a science classroom, the more expensive it'll be to adapt in the future. The phrase I always hear when I'm going through tours of schools is, "Well, this room used to be used for something, and now we use it as a library." It's hard for us to really anticipate that.

The space has changed over time, and some become obsolete. We work in a lot of old schools, and at the turn of the century, they used to build cloak rooms, and, thanks to Gore-Tex, we're now not storing cloaks. We're stuffing clothes in lockers, so we have rooms to convert into media labs or telecommunications closets in ways we never anticipated. We have closets for laptop charging. So things are always changing; it's good to keep that in mind.

The other constant in design process in school, as you all know, probably, is the chronic shortage of space and back-of-house storage. So do not underestimate it. Books, furniture, janitorial supplies, student files, secure test storage, growing IT [information technology]

Step 5: Prepare Educational Specifications

- The educational specifications document will be used by real estate and building professionals to find and develop the educational spaces you need at a cost you can afford.
- Key elements in the educational specifications:
 - Vision and philosophy
 - Current and planned enrollment
 - Description of programs and services
 - Current and planned services—administrative, teaching, operational, and student support

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requirements—it’s really an endless list—all compete for space. In classrooms, it seems there can never be enough bookshelves, supply closets, or space for projects. Evaluating these needs [is] part of the programming process you’ll undertake with your design professional in the planning process.

What you see here is a condensed version of what can be a lengthy and complex document, which we call either a program or an educational specification, the product of a design dialogue between the entire planning team of designers, educators, administrators, and sometimes students.

The document quantifies the ultimate size of your school, and it’s a critical tool in planning, designing, and finding funding sources, and then searching for real estate. It will be accomplished through a series of planning meetings and program questionnaires distilled by your designer into a hopefully coherent document for review.

We’re showing two examples here. The first is really an ideal school, with unlimited space and maybe buckets of money, and a condensed program, which is probably more typical of urban sites with tight budgets typical in charter schools.

The chart shows types of spaces in the program. This will, of course, vary depending on the specialty of your school. A generous, well-funded program includes large gathering spaces, such as an auditorium and gymnasium; [the] cafeteria; special spaces for science, music, art, dance—an endless list.

This type of program that’s seen here can exceed 160 square feet per student. A more condensed program will double up on functions, combining, say, a gym and an auditorium or a cafeteria. Pressures of space and budget may make this strategy inevitable.

Step 5: Prepare Educational Specifications Tool: Space Planning Chart

The educational specifications will establish how much space is needed to support your vision, program, and enrollment. Here’s an example:

- Student capacity: 478
- Gross square feet (GSF) per student: 160
- Include outdoor requirements:
 - School yard
 - Parking
 - Trash
 - Bus turnarounds

Summary From Detailed Analysis	Net Sq. Ft.
Academic core spaces	26,100
General education spaces	3,324
Administrative spaces	2,385
Media center spaces	2,073
Visual arts spaces	1,278
Music spaces	1,260
Physical education spaces	5,000
Student dining spaces	3,300
Food service spaces	1,350
Counselor spaces	600
Total programmed space	48,630
Building services (based on estimated net to GSF ratio of 30%)	16,210
Facility cost	69,840
Construction factor (10% multiplied by the facility cost)	6,984
TOTAL GSF	76,824

Note: Adapted from Bruce-McCormac Elementary School (2008, September). Retrieved from http://www.nctc.edu/education/Detail_PlanFile_Schools_Appeal.pdf

Step 5: Prepare Educational Specifications Tool: Space Planning Chart

Alternate example for educational specifications with tighter space constraints:

- Student capacity: 650
- 19 Classrooms for 34 students
- Gross square foot (GSF) per student: 76

Summary From Detailed Analysis	Net Sq. Ft.
Academic core spaces	16,610
General Classrooms	3,600
Administrative spaces / Medical	2,450
Facilities Learning Labs	2,800
Media Center	2,000
Storage	1,500
Student dining spaces	3,000
Food service spaces	1,000
Counselor spaces	1,000
Total programmed space	39,970
Building services (based on estimated net to GSF ratio of 30%)	11,810
Facility cost	44,880
Construction factor (10% multiplied by the facility cost)	4,488
TOTAL GSF	49,368

Slides 14 and 15

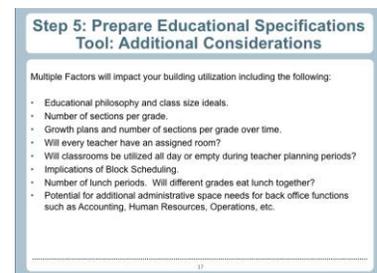
Think through your program. Of course, you have to tie everything back to the budget and make sure that it's going to work out financially. Just because someone tells you, you know, you're required to have 33 kids and a teacher in a room, it doesn't mean that's what you need to build.

In New Orleans, after Katrina, we had no educational specifications. Nothing had been done in more than 30 years, so we started using ed specs that had been done in other parts of the country. I know we looked at Baltimore. We looked at other parishes in Louisiana and started building buildings that way. And, quite frankly, it didn't work out very well.

The first set of buildings ever built [followed] sort of an old traditional: this idea of 33 kids in the classroom. When you're taking kids who are five, six, seven, even eight years behind and trying to get them onto grade level in two or three years, you're probably having much smaller classes. You're probably having anywhere from 20 to 25, depending on the grades. Think about that and just keep it in mind when you're planning the size and spaces for your building.

I think this is the last slide on educational specifications. Some more, you'll see a list on your screen, a few more things to think about, particularly with high schools. The scheduling: Whether you're doing a lot of scheduling where teachers are going to stay in a classroom for sometimes 90 minutes. I've even seen two hours at a time, maybe three times a week versus periods that are 50 minutes long and it's every single day. Again, details, lots of things to think about, try to plan as much as you possibly can on the front end.

I'll point you to the [Council of Educational Facility Planners International](#) (CEFPI). I know they have a website—I don't know exactly what it is—but there's a lot of great tools that are out there and available for you to use.



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We had a great facility planner in New Orleans that worked with a group of leaders on developing a model that would work and be flexible. Public school systems don't want to invest a lot of money in specializing things for charter schools, who could potentially lose their charter.

So we had to come up with a model that worked for a bunch of different models, but you could make certain spaces specialized to your program over time and when you had money to do that.

Again, and the last one on charter schools using buildings is that you typically need a lot more office space. Compared to public school buildings, which you might be inheriting, a charter school will need a space for your accounting, your human resources, operations, things like that, so more offices and more conference rooms than a typical public school probably would have, where those functions are in the central office.

FAYE PREMER:

Great. Kathy, I'm going to interrupt for just a minute. Someone asked could you repeat the organization and the website that they can Google?

KATHY PADIAN:

I didn't—yeah, they could Google. It's the Council of Educational Facility Planners International (CEFPI).

FAYE PREMER:

Great, thank you. And I will take that [inaudible], also, in the chat. And, Kathy, we also have a question in asking about the...a ballpark price per square foot [that] they're looking at for new construction in New Orleans.

KATHY PADIAN:

Uh-huh.

FAYE PREMER:

I might be reading the question wrong. It might be space allocation per student: “How many square feet per student [were] you allocating?”

KATHY PADIAN:

Well, that, yeah. In general, I mean, I think it’s tough to say because we planned again. We planned on K–8 buildings with three sections per grade, which was sort of a typical number we could use. And so a building ends up now at 850 students; it’s about 95,000 square feet. And that includes a media center and a gymnasium and a separate cafeteria, which is fantastic. It’s like tons of bells and whistles and it’s great. We had to cut down a lot on big atrium spaces that were difficult to heat and cool. So, I don’t know what that math works out to, but at the end of the day, it’s really...each charter school is different. And there’s some...we’ll have 650 kids in that space, and some will go to the 850; it all depends.

High schools: We’ve started out building your monolithic 200,000 square-foot high schools and no one came. So we’ve changed...we’ve changed that model. I mean it’s just [inaudible].

I mean the price per square foot has also drastically increased. We started out at a pretty good [rate]. I mean we had some schools being built at \$168, \$175 a square foot, and we’re now well over \$200, \$230, \$270. And historic renovations, we’ve had one that was, I think, as much as \$400 a square foot for a historic renovation, yeah. That was a tough one.

JOSH KERN:

Later on in the presentation, there are some slides that have some national averages for pricing and square [footage], you know, amount of space per student. But one thing that I just want to reiterate that Kathy just said is that this is...real estate is local. We can give you national averages, and we can talk about what’s happening [in] New

Orleans or New York or D.C., but—and we'll talk about national averages later on in the presentation—but please keep in mind that I think it's really important that folks become aware of what's happening in their municipality.

MILTON SHINBERG:

Okay. Assessing facility requirements and conditions is a very big subject, and there's going to be a lot to say about it. I'll talk about some general points, and then Dave will talk about a lot more specifics that go with that.

So the batting order here is [as follows:]

- Location
- Condition
- Design
- Utilization

Location may be topic one, and it demands very early attention. It can take much longer than you think to find a suitable site. And we're talking about sites that we'll consider as candidate sites; you should be looking at multiple ones.

Like other aspects of planning, start much earlier than you think you need to. Some other considerations, if you're enlarging your school by moving to another facility,

- Will you lose students?
- Are there noncharter schools nearby? That can obviously involve some political consideration.
- Is the environment safe?
- Is it heavily commercial or residential?
- Is the location legal for a school under zoning?
- What about the condition?

There can be an enormous range in the condition of an available building, just like buying a house. A careful and a



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detailed inspection is critical to learn much more than just the first impression. Sometimes, and this is not unusual, the first impression is inaccurate because the building looks worse than it really is. Professionals with experience can help you to get past that. Or there can be the opposite. A building that looks good but really isn't and has hidden hazards.

There may be environmental problems, like asbestos or mold, and those need investigation. Who will pay for that remediation if those conditions are present?

Is the structure in good shape? How about the roof? It may have five more years of life or zero or 20, and that will influence building, budget, and strategy.

The same goes for mechanical equipment. Your team should have experts to take a good look.

So a few design issues. When location and condition are factored together, they'll push the design in a direction. But, hopefully, it'll push it less than your functional and your values-based programming will—your mission-based programming. That is the real goal. But there will definitely be an impact on design, and definitely there will be an impact on cost. Addressing conditions and seeing how the ed specs drive the design will be the big moose that determines budget.

The nonnumeric aspects that develop during programming, such as consideration of mission and values, should also be brought into your thinking about how to best use your opportunities.

Take the results of your programming. It should give you the information about space sizes and adjacencies and classroom design, specialty spaces, administrative offices, and common areas as Kathy was talking about. Your architect will test your facilities and the square-foot program against the available space. It may be it's adequate; maybe

an addition is needed. It may even be configured well for you already or perhaps not.

All this can be determined relatively simply and quickly and then can be repeated for a series of candidate sites before you make a final decision. Do this well, and you have a strong base for moving forward.

Now utilization. How space and site are utilized depends on a comparison between what you need and what's available. As an important part of this, getting your big picture teaching agenda into this assessment is critical.

Perhaps a charter school is organized so that 100 percent of the learning takes place in the classroom with no need for additional resource centers or teamwork areas or places to share the work. If the classroom is not just the primary element, but the only teaching environment, then the traditional classroom building works pretty well. It has a center corridor with classrooms on two sides, which is referred to as a double-loaded corridor. On the other hand, and much more likely for a charter school particularly, is success depends on more cross-contact and more collaboration and more changes of scene, different scales of learning space, and the like. Then you need a different approach. And there are many approaches.

Of course, every school environment needs to be age-appropriate just as the curriculum does. And that can affect the strategic utilization of the building overall.

The overall examination of requirements and conditions should lead to the development of a clear strategy for the site or the building that you select. The assessment, the results, and the preliminary design that evolves from it, should be ready at this point to present to your board.

DAVID KRIEGEL:

This reiterates a lot of the things that Milton just mentioned, but to begin your search, you probably have a program established; you know how big a space you're looking for. And most of these comments relate to adaptive reuse of buildings that were probably built not as schools, but as—it could have been anything: It could have been a courthouse; it could have been an industrial building. And the critical things that you look at—one wasn't mentioned earlier, is site and whether the site you're contemplating is going to draw the students who are the target for your school. It's very important to find that location and within your district, depending on the part of the country you're in.

So the critical factors we'll look at could be the size of the building, daylight. Floor-to-floor heights are very important. And they all have an impact on the cost of construction.

Some of the site factors we'll look at specifically are the local zoning. Is the school permitted use? Will the building be accessible? Of course, access by people with physical handicaps is required, so buildings with the first-floor elevation substantially above the sidewalk level are going to require some serious modification to ensure that the entrance is accessible. This also requires an addition of an elevator, which can be a large cost if it's a multistory school. If you're considering reusing an existing toilet room, stairways, all of the accessibility requirements will have to be measured, and there's a cost associated with compliance.

Outdoor spaces is a great luxury in parts of the country—it's the norm. [But] in urban areas, it may be more difficult. Finding a play space on the roof for the school is not unusual because that's the only space there is. Depending on the playground equipment, it drives the size of the space.

[The] condition of the building will be a strong driver in construction cost. So a thorough analysis is, as we've



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discussed a little bit, is really essential, and it's important to get below the surface of the building to understand its condition.

Environmental analysis is usually done in two phases, known as Phase I and Phase II. In the first, we'll look at historic data, not do any testing but understand that the building is a likely candidate for having hazardous materials. And if it is, we'll do a Phase II and actually do the testing, and then...and the question of who's responsible for remediation; that's going to be a big one. We usually assume 10 percent of the cost of construction simply for abatement in some projects.

We'll review the overall building condition and put in the exterior envelope, roof, parapets, walls, windows, doors, [and] foundation. There's a real cost associated with this. And in our mission as educators, we'd like to focus the resources on the interior of the school where possible.

But it's very important to understand what you're getting into. Of course, the building systems are typically going to be replaced in their entirety if it's an older building not designed for a school. Schools have very specific requirements, particularly for fresh air. And most buildings will not accommodate that or haven't originally accommodated that.

We'll also have to review the egress requirements for the school, particularly spaces like gymnasium and auditoriums have very large egress needs. The existing stairs may or may not have the capacity and will have to be increased in size. So the layouts are usually going to be completely redone.

Classroom planning: The classroom is the smallest building block. Really, it's the kernel of the school, so we have to understand what the existing column grid is and whether that works with the idea of the classroom size, which, it's interesting to note, has changed very little, at least in New

York City, since [Charles B. Snyder](#). And if you don't know about him, you should look him up. He was the superintendent and chief architect of schools in New York City starting from about 1890 and is responsible for really a revolution in school design in terms of light and air.

In the model I've presented, the idea is about 700 square foot classrooms for 30 kids, [or] 25 square feet per student. It's been used consistently. It may vary a little bit, but that's probably a pretty good starting place.

In terms of overall building dimensions, as Milton said, double-loaded corridors are the norm in an urban area, though may not yield the best educational space. In fact, in Europe, it's very unusual to see that because the corridors do tend to be dark.

But overall, a 70-foot depth works very well for a double-loaded [corridor]; single loaded if you go down to 35 or 40 feet. Of course, the special spaces require anything outside of that, meaning the gymnasium and the auditorium where we need a clear span, and those are typically done in schools for adapted reuse either on the rooftop or as an addition. So the large spaces will be a factor when you're looking at a building to see if it's possible to fit in a gymnasium where you can need 50 to 60 feet of clear span.

Daylight is also a very important factor in choosing a building. We like to choose 60 percent glass area, which is not typical in most buildings, but it's perfect in a school. So we need to look at that carefully. If it's in a storage building, that may be difficult to achieve.

And, lastly, ceiling heights, as I mentioned, it's very important. A lot of older buildings were not designed for air-conditioning. When we start coordinating ductwork and sprinklers and lighting, it drives the ceiling down very quickly, and we'd like to end up with a 10-foot finished ceiling, which means roughly 13-foot floor-to-floor height is really ideal. I would say 12'6" is probably a minimum in any

We mentioned gathering space, play equipment, also. Very interesting: play equipment is really changing and evolving in what it looks like and what it feels like and what ages it's appropriate for.

Seating: Do you want invite the neighborhood to sit in front of your school or not? All of these are the type of things that you think about with outdoor space. And the project team will need to understand and craft the matrix that's important for your school.

MILTON SHINBERG:

There's a sense of confusion sometimes in this process because it is so complex—it has so many moving parts. So, there's a point where it's important to take all the factors and put them together and to make a document that everyone can refer to.

And in just the creation of that document, some things happen. So using the results of all the steps up this point, you and your team will have what's needed to assemble the right information and put it into a form that helps propel good decisions, and that's the point of the planning process. The analysis often makes comparisons between options that will take you along different paths, sometimes small differences but sometimes decisions of much bigger dimensions.

Each member of your team will have a contribution to make, and before they do, it's usually helpful for the team to assemble in person to share ideas, solutions, and paths to success. It's a great opportunity for collaboration, and it's terrifically valuable; this is where creativity builds on objective facts. The issues around total project time will also be a very big part of this discussion, and the feasibility analysis itself is [inaudible].

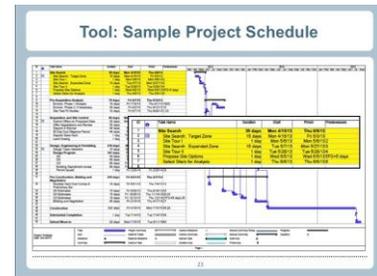
Step 7: Prepare a Feasibility Analysis

- Use the space requirements to identify options for school locations.
- Review all options in relation to space requirements, and estimate the scope of work and cost for each option.
- Identify a schedule associated with each option.
- Bring space, scope, cost, and schedule for options to school decision makers.

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FAYE PREMER:

All right. For this slide—overwhelming. So one of the most complicated tools for lay people to understand—or even read to be completely honest—is the project schedule. However, for those of us who are familiar with the development process, it is essential. It allows us to keep a project moving, to communicate to each other, and to communicate when a project, more importantly, is not moving and what those milestones are.



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That said, what I would think most people on this call should know about the project schedule [is] (1) ask for your project team to create one. That's the most important thing; know it exists. (2) Ask for them to pull out for you a high-level milestone schedule from that, something you can read. Don't be embarrassed to say, "I can't read this" because, let me tell you, most people can't. And from there, the other thing to note is that your project or most typical projects will have four phases. Each of the phases have multiple subphases, but I want to touch on those quickly.

The first phase is predevelopment. What's been typically thought of in predevelopment is understanding site acquisition, site due diligence, and project team selection. That could cover all the environmental work needed to select a site, all the site selection process that we've been talking about, all that is really considered predevelopment, including your professional team and your in-house team selection.

Next is design. It follows typically a pretty basic process:

- Programming or educational specifications
- Schematic design
- Design development
- Construction document

Again, kind of more technical or design terms. Once you're in the process, you'll get what they are. But it's the different phases of actualizing a building.

The next phase is bidding an award. That’s exactly what it sounds like; you find a contractor. Sometimes these lines are blurred between design and bidding an award, but in general, finish the drawings. You bid them out. You’ll work with your contractor.

And the last, probably most exciting phase, is construction on ending the substantial completion and occupancy.

This all sounds simple, but the one thing that is not in this schedule that is key is financing. It’s the money picture, and it will weave itself into all of these phases. (1) You can’t cash-flow a project without dollars, and (2) to actually—if you need to finance the project, which most people do, be it through funding resources, traditional financing, new markets, tax credit—all of those have drivers that push and pull on the schedule. And it’s essential that your project team leadership understands...

Part 2

JOSH KERN:

We’re close to wrapping up here. We just have a couple of more slides and then we’ll be able to get to the Q&A part of the webinar. And we wanted to share this slide with you, which shows national averages for school size and also for construction costs.

Please keep in mind that folks on this webinar are from around the country, so we are sharing national averages. Again, I can’t emphasize enough that you have to really look at the cost in your local area; they vary widely from region to region. Costs—acquisition costs and renovation costs—in places like Washington, D.C., and New York are very different from more suburban and rural areas. But here you can see on this screen some of the national averages, and then there are...there should be tools available, and we can make them available for more regional costs as well. [pause]

National Averages for School Size and Construction Cost

PROFILE OF NEW SCHOOLS COMPLETED IN 2011						
Elementary School	% of Total	Sq. Ft. School	Per Student	% of Total	Building Cost	Building Cost
Elementary School	61.0%	124,200	1,104	7%	\$6,000	\$24,000
Middle School	19.8%	228,150	1,075	8%	\$28,000	\$224,000
High School	15.2%	518,850	1,015	15%	\$140,000	\$2,100,000
Low-Cost Schools						
Elementary School	% of Total	Sq. Ft. School	Per Student	% of Total	Building Cost	Building Cost
Elementary School	23.8%	103,875	1,015	6%	\$1,700	\$17,000
Middle School	16.0%	185,700	1,015	6%	\$6,000	\$36,000
High School	12.2%	412,650	1,015	7%	\$110,000	\$1,320,000
High-Cost Schools						
Elementary School	% of Total	Sq. Ft. School	Per Student	% of Total	Building Cost	Building Cost
Elementary School	17.4%	132,270	1,015	8%	\$10,000	\$20,700
Middle School	12.8%	142,200	1,015	7%	\$44,000	\$56,000
High School	12.8%	544,440	1,015	10%	\$210,000	\$2,100,000

Source: School Planning and Management, (2012, February). 2012 annual school construction report. Columbus, OH. Author. Retrieved from <http://www.peters.com/reports/2012SchoolConstructionReport2012.pdf>

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Great. So there's one more tool that we wanted to share with you this afternoon, and that is a financial feasibility tool. Really, the most important thing here to look at is the first line, which is your enrollment and enrollment projections.

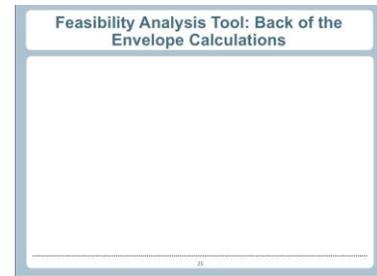
Your enrollment is a major driver of what you can afford. And oftentimes when you're doing a facility project, you have to project out a number of years, and so you see here a five-year projection. This is typical of what we might see in a start-up charter school where you have perhaps one grade in your first year and then growing in Years 2, 3, and 4, and then hitting kind of a steady state of full enrollment in Year 5. Oftentimes in charter schools, we see that schools don't hit a steady state of really full enrollment until far beyond Year 5. But this is just a simple model, and I think [it] can teach a couple of important lessons.

So the first is enrollment and how important your enrollment projections are to understanding what you can afford.

As we go down the rows, another thing that pertains to a lot of charter schools is space. So you're going to probably lock into a set number—a set amount of space for the foreseeable future. In the early years if you're growing, that'll be too much space. So here we have a 40,000-square foot building, and, of course, a 40,000-square foot building for 100 students is far too much.

But then in Years 4 and 5 when you have 400 students, that space may feel very tight. And this is, you know, we see this a lot with schools. In the early years, they have too much space, and then in the later years, they wish they had more space. And that's, unfortunately, I think, just a reality of charter schools.

Kind of going further down the rows, there's a row that outlines operating cost. I wanted to highlight this because this is something that I think schools often overlook. Operating facilities can be very expensive, and it's important to try to get good estimates for your operating



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costs. If you're not in a new building, if you're in a building that's been in existence, you may be able to get historical information for the cost of operating the building. And if you can get that, I would encourage you to do so so you can have more realistic projections on your operating costs.

And then the last point I wanted to make here is about the amount of time you're amortizing your renovation and acquisition costs over. We've talked a little bit about kind of affordability in this webinar, and one of the major drivers of affordability, besides your enrollment, is how long you're going to be in this space.

If you have, let's say in this case, you know, a million two [\$1,200,000] of renovation costs, that's a very different affordability picture if you're amortizing that cost over five years versus, let's say, 30 years. Depending on the time, the amount of time you have in this space, your lease term, and also the useful life of the renovations that you're making will all factor into your amortization cost.

This is a tool, again, that we can share. And the truth is that, you know, you should have a model that's more complex than this one, but it's just, I think for starters, can illustrate some important ideas.

So, I think with that we're wrapping up here and we're moving into the Q&A section of our webinar. I hope that the takeaway from your participating in this webinar is twofold: (1) that high-quality educational facility planning really gets you a better school, not just a better building. I was a school leader for 10 years—before working at TenSquare—and I can say from experience that that's definitely true. And [2], also, good planning ensures that your dollars and time are spent where they will have the greatest educational payoff.

The Payoff

- High-quality educational facility planning gets you a better school, not just a better building.
- It ensures that your dollars and time are spent where they will have the greatest educational payoff.

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So thank you so much for listening to this first part of the webinar. Now we're going to move into the Q&A. I know we have a lot of questions already keyed up through the chat, and so we'll start with those.



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FEMALE SPEAKER:

Great. Thank you all so much for taking your questions into the chat. So we'll continue to take questions as they arise.

One question that came up a couple of times, and that was also raised before the webinars began, is the idea of temporary space or incubation space for schools that are growing. And the question today was around how people can plan effectively to use their incubation space well now, knowing that they're going to be moving out in the next couple of years.

MILTON SHINBERG:

[everybody laughs] There are so many answers to that question; that's not a simple question. I think the main thing is that you don't want to spend your time focusing on feasibility in your first couple of years; you have much more to do educationally. So the real trick about an incubator space is that somebody else creates it. You get to use it, and you don't have to concentrate on it.

Utilization in that case can be as you move from your first or second year, and most incubator spaces are a couple of years to one, two, or three, is to realize you will be more crowded in Year 2. You're going to get to a breakpoint where you have to move. Take advantage of that time to do the planning process, [don't] wait until two months before you have to be done to address that. This is really kind of a luxurious time to be able to focus on that aspect of it.

KATHY PADIAN:

And the other thing I would add with incubation space is really try to keep your costs to a minimum...

MILTON SHINBERG:

Yeah.

KATHY PADIAN:

...in that space. It'll allow you not only to learn from the space what doesn't work for you and what works for you, but then also to take, hopefully, some financial resources you've been able to accumulate, hopefully, and roll that into a permanent facility that meets those needs that you're learning that you have.

MILTON SHINBERG:

That's bankrolling. You can...

KATHY PADIAN:

Bankrolling, bankroll, exactly.

FEMALE SPEAKER:

And, also, I had questions about schools that are developing new space. "Is it better or preferable to use an existing school building or to build a new school building, to renovate an old building versus building a new building?" And people have mentioned how expensive it is to renovate, but which is more preferable in your opinion—Kathy, maybe?

KATHY PADIAN:

Yeah, I mean when I was in D.C., I was really focused on trying to gain access to public school buildings because obviously with really a[n] expensive real-estate market here and probably other urban areas, if you get a public school building, although expensive, perhaps, to renovate, you're getting more space. You are getting more flexibility to like grow your program over time. You're getting the outdoor space. Yeah, bringing it up to code and dealing with asbestos or lead [inaudible] in a building that hasn't been

treated. Sometimes you can work with a school district if they're reasonable.

I don't know where everybody is from on the webinar—some better than others—but these are community investments. Tax dollars went into building them, and tax dollars hopefully have gone into maintaining them, at least somewhat. And keeping that, you know, communities feel very attached to their school buildings. Charter schools want to be good community partners, and so any chance that you have to use a school building with a reasonable renovation cost, I think, is preferable. I mean they were built for buses to come in and out, so even if you're doing parent carpool instead of buses, you have space for that. Most charter schools can't afford [such spaces]. Those are the extras that you never end up getting if you're starting from scratch quite frankly.

So that's me, but others may have different opinions.

DAVID KRIEGEL:

The other aspect is the acquisition cost may indeed be much lower if there's some transition from a public agency, you know, to a charter school. But essentially, you know, it really depends on the age and condition of the building and the suitability for the program you're proposing.

KATHY PADIAN:

Right.

DAVID KRIEGEL:

It'll probably have a gym, and it's very difficult to carve a gym out of a nonschool building.

FEMALE SPEAKER:

Just a follow-up question on that degree. It may be for David. We had a question that came in from a participant from a rural area where they are. With the economy as it is, there are a lot of vacant buildings, old shopping malls, and things like that. Can you talk about any advice you might

give to people who are looking at nonschool spaces for [a school]?

DAVID KRIEGEL:

Find a creative architect to begin with. I always wonder about shopping centers and the future of strip centers which were purpose built and don't lend themselves to anything else.

That usually, you know, the daylight is always an issue in schools. In fact, a project we did together, we had to resort to skylights in some of the classrooms, and top lighting is great. It's simply because there was no opportunity for windows on this side of the classrooms. Generally, we'd like to have windows in classrooms.

Buildings built for retail tend to have very high ceilings, which would be terrific for schools, but, again, you have to look at each project specifically.

MILTON SHINBERG:

A couple of points, though, just to build on what David was saying. We both talk about double-loaded corridors. And one of the reasons for that is that traditional school buildings tend to have them.

New buildings do have much more flexibility, and you can do what you really want to do to reflect your program. As far as adaptive reuse is concerned, I think everybody at this table has been involved in nontraditional school buildings as well. And that's where you have to watch out in two cases. One of them is that they will look bad at the beginning. A lot of these warehouses look horrible, and you just can't envision using them. And sometimes they're relatively easy to fix up.

But the other factor is that they are very deep. The daylighting situation that David was talking about I'll amplify a little bit. Because of the depth of the building, the distance to the center, you get a belt of classrooms around the

outside. What do you do with the middle? Well, you can put the community spaces in there and skylight the ones if they're on the upper floor. So those can be atrium spaces or cafeteria spaces, et cetera. It takes a lot of strategic planning not to waste space and to make it all not just habitable but exciting to make that into something that's really good.

DAVID KRIEGEL:

I really like the idea of just cutting a hole...

MILTON SHINBERG:

Right.

KATHY PADIAN:

Uh-huh.

DAVID KRIEGEL:

...and making a courtyard in the center of the—what had been a shopping center.

KATHY PADIAN:

Uh-huh.

FEMALE SPEAKER:

We just had a question that just came in, but it also came in prior to the webinars, and it comes up often. If you can talk about the advantages of leasing versus owning a building and if you have any advice.

FAYE PREMIER:

I think the big thing here, I'll jump in, because we do a little bit of both at Civic. It's really tied to how much of a...how great the improvements are that you need to do to the space because it's all financially driven and how long of a lease you could secure.

If you can get a 99-year lease, that's as good as ownership. If you can only get a five-year lease and you have to put a lot of money into improving the space, that's not such a

good investment. So this, again, goes to building a team who can help you crunch the financial numbers. And it really does boil down to what you can get financed, which a short-term lease you usually can't if you need financing, or what you can fundraise for. Right? It's harder to sell people on a five-year lease than it is on a 30-year lease.

But ownership also can be very tricky. Right? So that would be—I think financial—

DAVID KRIEDEL:

And there's also...in the lease, there's an issue of an exit strategy if the charter...

KATHY PADIAN:

Yes.

DAVID KRIEDEL:

...isn't renewed, and the lease is longer than the charter.

KATHY PADIAN:

Yeah.

MILTON SHINBERG:

We've seen a lot of schools get burned on putting too much money into short-term space.

KATHY PADIAN:

Yeah.

MILTON SHINBERG:

It's a problem that some new schools have. They really want their—and rightly so and very understandable—they want their first space to reflect the quality of the education that they're providing. And so they've put a lot of money into renovating their first home, even though they only have three or five years of security in that space. And then when the lease is up, they find that they're not in a financial position to really be able to afford what they want in their long-term home, so I think Faye talked about this earlier,

but it's really important, I think, when you're in a short-term space to manage the cost.

KATHY PADIAN:

Uh-huh.

FEMALE SPEAKER:

Great. In a similar vein, a question has come in from schools and school leaders in rural, urban, and suburban areas when they're really trying to watch their budget, but they wanted to offer their children as much as possible, how they can use space in multiple ways. So can you talk about some creative solutions you have for multipurpose space? And one of the questions is specifically about libraries. "Are we building schools with libraries anymore and can you talk about multipurpose space with an eye toward libraries?"

KATHY PADIAN:

Yeah, I mean I'll just...when we moved from the hope of like these gigantic buildings to the reality of what it costs to operate a school building, and knowing we didn't want things to fall into the deferred maintenance [category], what they have been, you know, I think in most urban areas, but definitely in New Orleans, we decided to try to build in flexibility. And media centers was a huge area for this. We took the size of a typical classroom and multiplied it by three and said, "We're going to build it like a media center. It'll be built up that way, and it'll be furnished that way."

But to any particular charter school, you could very easily convert this to three classrooms or make it the size of two plus an extra classroom. I think the...I don't know, blended learning and the use of technology and the size of the classrooms of what I heard, you know, from 700 square feet, I know it went to 1,000 square feet in a lot of places because of the ring of computers that were supposed to be around the classroom. Those are now gone and everything is in the cloud, and we're using handheld devices, so that ebbs and flows.

Flexibility is really, really key. So, as much as, you know, again, it comes back to like a really, I think, great and experienced architect, to help you think through how to be, you know, how to build flexible spaces.

FAYE PREMER:

Go ahead.

DAVID KRIEGEL:

But, you know, the most obvious thing for combining use are gymnasium and auditorium.

FAYE PREMER:

Uh-huh.

KATHY PADIAN:

Uh-huh.

DAVID KRIEGEL:

We've done a lot, whether it's a portable stage or a fixed stage at one end. The seating can be an issue, depending if you have bleachers and which side they are and where you put the stage. But that's kind of an easy one. They're both—would be clear-spend spaces.

Another thing that we've talked about, I guess, to really accomplish, is to bring the function to the classroom on a cart, as opposed to a purpose-built expensive classroom, less the art projects [that] get wheeled in. It's a little hard because teachers are, at times, proprietary about their classrooms.

KATHY PADIAN:

Our teachers hate that. We're [inaudible].

DAVID KRIEGEL:

[Inaudible].

KATHY PADIAN:

Yeah.

DAVID KRIEGEL:

But I think, you know, just like the future of the workspace, and I think that's maybe the future of the schools as well.

KATHY PADIAN:

The only other thing I would add, kind of going back to the library a little bit, is one thing to think about when you're planning your facility, we run up against library a lot because although everyone thinks the school and thinks about library as being an essential piece, a lot of schools don't have it in their budget to have a librarian.

So if you can't have a librarian, what I have—the feedback I have been given over the last 10 years—was without a librarian, you do not have a library. And so you need to be honest with yourself about what your program can afford as far as staff, which will help, also, spell out the spaces that you're going to have within your building.

Library, it can also be a tutoring center, community use; there's lots of things we see that space evolve to that doesn't need a staff librarian, but still a space for congregating.

JOSH KERN:

I think because of that, I mean one of the things that we have talked a lot about during the presentation part of the webinar is the education specifications.

KATHY PADIAN:

Uh-huh.

JOSH KERN:

And the master schedule. I mean I can't emphasize enough how important that is. You have—that's the foundation for your design. And a lot of the tools that we talked about and shared during the webinar, I really encourage everyone to use as they think about what building is the best building and how they should be renovating.

MILTON SHINBERG:

One of the factors is just the square footage. Square footage is what generates cost, whether it's renovation or new construction or operations. So multiuse obviously is a way to reduce square footage. But one of the things we've found in a couple of projects recently is that if you add up all the spaces that everybody wants, but you don't look at schedule, you can end up with a building that's 15 percent bigger in classroom area than it has to be. So schedule actually solves square footage.

KATHY PADIAN:

It's huge.

MILTON SHINBERG:

Another factor is that when you combine everything together, they sometimes...we call it the smell of cafetorium. Well, the smell of cafetorium, that's a great way to, again, overlap views, but it only works for the shorter students, because they can actually use those kinds of spaces in a more flexible way.

DAVID KRIEGEL:

Can I do...I want to put in a plug for traditional libraries. [everyone laughs] You know, there's so much about media centers now. The way you access information on a computer is very specific. You have to look for something. You can't—at least I haven't seen it—replicate the experience of walking down through the stacks and finding something you didn't even know you were looking for, which, as a kid, and even now, is a beautiful experience. And it doesn't happen at a computer terminal in the same way.

FAYE PREMIER:

Right. And there's an opportunity to partner with your community and build your public library adjacent to or even inside of your public school building. I don't think a lot of the charters schools are doing that, but it's an opportunity, I think.

KATHY PADIAN:

We recently completed a school that converted—or I don't know if they converted—they designed their lobby as their library.

MILTON SHINBERG:

Wow.

KATHY PADIAN:

So it's lovely. You walk in and you're surrounded by books, and there's people sitting. It's kind of like Barnes and Noble does lobby. And it really is a special space and really speaks to the culture of the school.

So thinking outside of the box about library and still getting that walking by the stacks and the books around you, it's a...it was really well done.

FAYE PREMIER:

And it can be your teacher meeting room.

KATHY PADIAN:

Absolutely.

FEMALE SPEAKER:

Yeah, it's multiuses. Thank you. Can we briefly also talk about multiuse for music, art, dance, and any creative solutions that you've encountered?

KATHY PADIAN:

Yeah, I know David said the stage in the gymnasium, which has been a model. We found...I personally also believe like that's not always the best solution, mainly because at the end of the day when you're doing things in New Orleans, I think you know, we're very, very, very big on music. Music programs are huge. And so to tell a school, "You're not going to get an auditorium," like a performance space that is separate, was really tough. But we said, "Just high schools for auditoriums."

If you put the stage or, you know, whether it's built in or movable, I guess movable is better, in the gymnasium, then you're sacrificing athletics at the end of the day.

FAYE PREMER:

Uh-huh, uh-huh.

KATHY PADIAN:

So, if you want to do both every day after school and on weekends and have athletics in one space, what we've been doing is building in some type of a stage area, promontory, into the cafeteria in the K–8 building.

MILTON SHINBERG:

Uh-huh.

FAY PREMER:

Uh-huh.

KATHY PADIAN:

And building some kind of sound system, you know, having it there, and it's really dedicated. Principals love it during lunch because they get to be on stage and make announcements to everybody and...

FAYE PREMER:

Yeah.

KATHY PADIAN:

...you know, it changes that experience as well, but...

DAVID KRIEGEL:

There are specifics to certain areas. A dance studio needs a very specific kind of floor to prevent injury. Rooms for music have very specific acoustic requirements in terms of keeping quiet and also having the right reverberation time within the classroom. So it's a little hard to double up, you know, universally.

FAYE PREMER:

I think one thing, too, is to think about your students and what music means to your students. [For] some students, music's recorders; others, it's a full-on string ensemble. So communicating that to your design team, again, going back to your educational specs, is really key. But I do think, for one thing, I try to always encourage people to think outside the box on is the cafeteria. Right now, most of the schools I've worked with provide breakfast and lunch. But that still leaves several—when you're talking only three turns at lunch—several hours of the day that you have a very large space that might be unprogrammed. And that's where I like to try to encourage the idea of performance or dance, meaning not necessarily bring in floor dance, but be it...that stomp or something along those lines.

I have yet to see it where I really feel that was accomplished. But it's something I want to keep pushing at. I think cafeteria has potential for program schedule use.

MILTON SHINBERG:

And Faye just mentioned the ed spec again.

FAYE PREMER:

Uh-huh.

MILTON SHINBERG:

And sometimes people think of the ed spec as a generalization; it's not. So when we're talking about these issues right now, envision how you want to use the space. Envision how your program will land in the school. Think about every hour of the day, and as you do, your ed spec will be refined. And now you know what it is you need to do.

KATHY PADIAN:

Yeah.

MILTON SHINBERG:

Envision it and be there.

FEMALE SPEAKER:

Great. I have just one follow-up question on the temporary space question for Josh. Maybe if you can take this one, please?

JOSH KERN:

Sure.

FEMALE SPEAKER:

It's specifically about a school where they don't feel in their area they have a renovation opportunity available. So they're opening in modulars in trailers. And...

KATHY PADIAN:

I've actually seen this question come up a few times.

MILTON SHINBERG:

Right.

FEMALE SPEAKER:

...and it's somewhat universal. I think it happens urban, rural—all across the country. If you have specifically for schools that are opening in trailers and modules.

MILTON SHINBERG:

Uh-huh.

JOSH KERN:

Well one—yeah, yeah, this—we see this a lot. We see schools that open in trailers or modules. We also see schools that are...find themselves out of space and have addition or expansions through using modules.

And I'd say, one thing that immediately comes to mind is that people oftentimes don't fully appreciate the cost of setting up the modular unit. So there is a fairly significant expense in getting power, water, if necessary, to those units.

So, it may strike folks initially that this is kind of a cheap alternative, but if you're only going to use those units for a short period of time, similar to when we were talking about amortization issues for more traditional space, you may find that after you run the numbers, it's actually a more expensive option than you would have otherwise thought.

Just like with everything other kind of space that we're talking about, I would encourage people to really run the numbers on the modular units, factoring in all the costs to see if that's really the most cost-effective strategy.

FEMALE SPEAKER:

Right, thank you.

DAVID KRIEGEL:

They also have a way of becoming permanent.

KATHY PADIAN:

Uh-huh, yes, they do.

DAVID KRIEGEL:

I think in part because you look at how much money you invested.

FAYE PREMIER:

Yeah, I think that's right.

MILTON SHINBERG:

And sometimes people think that modulars can skip the zoning and the building code process because they're temporary.

KATHY PADIAN:

No, right.

MILTON SHINBERG:

I haven't met a jurisdiction yet who won't consider it was a building.

FAYE PREMIER:

Right, right.

MILTON SHINBERG:

You know, all the things apply that would apply to a conventional building.

FEMALE SPEAKER:

We're shifting gears a little bit. We had some questions about the planning team and how you bring together a group of experts. So first of all, "What types of experts can help us in the planning stage," and then the follow-up question is, "How do you engage them"...

MILTON SHINBERG:

Yeah.

FEMALE SPEAKER:

... "and, when possible, how do you get them to volunteer?" [everybody laughs] I've seen that question a few times.

JOSH KERN:

That's a great question; I'm glad it was asked.

KATHY PADIAN:

Uh-huh.

JOSH KERN:

Well, let me—I'm not going to—I'm going to actually state something before we directly answer the question. I have a suspicion we're going to spend a lot of time answering this. But I think that even before you engage a team, the school needs to make a decision in-house on who their in-house person is that's going to manage this process.

FAYE PREMIER:

Yep.

JOSH KERN:

And not just make a decision about who that person is, but then free up that person's time. So everyone at the school is already overwhelmed with—especially, you know, teachers, administrators—but, you know, it's to say that it's your head of school. Your head of school is already doing more than he or she can probably do. And then to layer on a multifaceted facility project on that person without freeing up their time is a recipe for disaster.

So, I think before we make a decision about, you know, how we go find the first person on our external team, the school needs to make some decisions and maneuvering internally.

MILTON SHINBERG:

Something that I think a lot of schools are afraid to do is to bring in professionals early because they're concerned about the cost, and they don't understand the scope of it, and they think they're getting into an unlimited expenditure.

I'm a big believer in steep learning curve consultation with experts. You might need the zoning attorney for one hour, and you will quadruple your understanding of land usage issues that will help you figure out what the candidate's advice will do for you.

The same thing is true of architects. The same thing is true of bringing in a contractor early on who may be willing for no charge to start to talk in general terms about how a building can be improved or what its condition is in.

Don't be afraid to bring in people extremely early, much earlier than you might think is desirable. It really makes a huge difference.

KATHY PADIAN:

And I would also just add to that. I think Milton's absolutely right, but to the extent you bring people in, don't be afraid to say, "This isn't working either."

MILTON SHINBERG:

Uh-huh.

KATHY PADIAN:

We see some schools that get tied in with somebody, that at the end of the day, doesn't understand who they are. And so in that instance, just say, "Thank you very much" and part ways and find the right person because you've got to build the right team.

DAVID KRIEGEL:

Absolutely.

MILTON SHINBERG:

So you can start with an informal acquisition.

KATHY PADIAN:

Yes, exactly.

MILTON SHINBERG:

And then go to a formal procurement after some period of time.

KATHY PADIAN:

Absolutely, and just make that clear from the beginning.

MILTON SHINBERG:

Yeah.

JOSH KERN:

Or just even to fall upon those two [inaudible], I totally agree with them. Even with the informal, I would say perhaps short term. So really make sure when you, you know, when you first engage folk, you can engage them on a kind of short-term, very explicit, deliverable. Like you can hire an architect just to help you with your education specifications.

KATHY PADIAN:

Uh-huh.

JOSH KERN:

And with a fixed dollar amount, and if that architect ends up working out for you, then you can engage them for the next phase of work, or if you have a very good contractor, which is very important, then you can say, “You know, this didn’t work out. Thank you very much.” You spend very little, you know, roughly speaking, a very little amount of money, and you can then shop for the next person.

KATHY PADIAN:

Uh-huh.

DAVID KRIEGEL:

Can I say something on the flipside, which is there’s nothing wrong with being loyal to the professionals who have probably, at a loss, invested in the beginning of your project.

FAYE PREMER:

That’s true.

DAVID KRIEGEL:

And I think it goes a long way.

MILTON SHINBERG:

I agree with that.

KATHY PADIAN:

I agree with it.

DAVID KRIEGEL:

It’s not a particularly profitable profession to begin with. You know, so when we as architects invest in helping fledgling institutions, it’s not necessarily with the understanding, but it’s certainly with strong hope, that we’re going to go on to the meaty part of the project.

MILTON SHINBERG:

Yeah.

KATHY PADIAN:

Yeah.

JOSH KERN:

Well, that brings me to another point I wanted to make, which is I know—I ran a school for 10 years, so I appreciate that. And there's a huge financial constraint on schools, especially stand-alone schools. But as a general rule, you kind of get what you pay for. And you could put architects and project managers and bankers on your board, and that's great, and you should do that.

KATHY PADIAN:

Uh-huh.

JOSH KERN:

But it is not a supplement or there's not—I'm sorry. It does not supplant paying someone for their professional service. So I think a lot of schools actually spend too much time and energy trying to find free advice. You are entering into the most important business decision you're going to make as a school and as a school leader. And you can't do that on the back of free and volunteer advice.

KATHY PADIAN:

I couldn't agree more. I mean we always try to encourage people to realize and recognize that you get better product and you take it more seriously yourself...

JOSH KERN:

Right.

KATHY PADIAN:

...if you're paying for it. So that's the two key things. You don't go down a process that isn't going to materialize if you're actually paying for it versus not.

JOSH KERN:

Right. The volunteers can serve as an advisory council either on your board or as an additional group of people

who can help vet how the process is going. But the people who are really leading the effort, I think that they have to be paid.

FEMALE SPEAKER:

Do you feel it's necessary or required to have folks who are experts in school construction and planning and design on your board as well as off, even if they're not running the process, but do you think that expertise is...

KATHY PADIAN:

I do. I think it's critical.

DAVID KRIEDEL:

If they're available.

KATHY PADIAN:

I think it's critical that you get one or two members on a team, on kind of an ad hoc committee, whatever it is. I guess, and the other thing I was going to say is that we're assuming, maybe because everyone here knows each other now, but people...there are companies out there that will deliver a turnkey facility to you. One is on our panel, but there are others. I don't want to give out one or two names, because you can—maybe the Resource Center can help direct you. But there are, you know, and now we're, you know, 15, 20—I don't know what the right number is—years into the charter movement. Some people have developed some real expertise around the country on the facility side, and avail yourself of them as well.

Talk to real-estate agents. Talk to as many people as you can who—they may know that a school is going to be vacating or your authorizer may know a school is going to be vacating a space. If you haven't heard about it yet, try to take advantage of spaces that have already been developed as schools, even if they weren't schools originally. I think we waste, like Josh mentioned earlier, a lot of money walking away from sites that we've developed for five years and then outgrew, but a new school may come in

and take it over. And that happens sometimes just naturally because people talk. But talk to the centralized people, like the authorizers.

MILTON SHINBERG:

Yeah. One other precaution on the turnkey process can be [everybody laughs]—all exceptions—is that you have to have a very detailed educational specification before you really engage in that process...

KATHY PADIAN:

Uh-huh.

MILTON SHINBERG:

...because sometimes the turnkey builders have a different agenda or have different interests. Their job is not to run a school, but it's to have a business process that involves a lot of different aspects.

If they have an architect in-house, then I think it's important that you recognize that they're not working for you. They're working for the turnkey construction company. But it's still possible, and we've seen it and we've been involved in them, to engage the architect, to engage all the members of the team intimately in a way that makes sure that you have a high degree of trust and confidence that what you're getting is in your interest. So it depends really on the personalities and the structure.

KATHY PADIAN:

Yeah, I think that's absolutely right.

FAYE PREMIER

The one thing I was going to jump in on this idea of like building of board and now to do—and how to grab people in to be volunteers, you know, I get the opportunity to work with all different kinds of schools. And they have each set up things differently. But some have, and I've seen it work very well, is they do this ad hoc, or let's call it a task force. The question is how do they sucker in these people that are

fabulous? I've worked with some task force people that, I'm like, I can learn so much from them, right?

DAVID KRIEGEL:

They don't use the word "suckered." [everybody laughs]

FAYE PREMER:

But no, you know, it's through networking, really. And you would be surprised; architects especially, myself being one, they like the greater good.

MILTON SHINBERG:

Uh-huh.

FAYE PREMER:

Right? It really is. There are a lot of people who really I would just never ask, and I know that sounds hard to believe, but even, you know, I think of—I grew up in a rural community. There were still people that were real-estate brokers selling homes. You know what? That's a useful person to have on a task force because they understand how to negotiate contracts.

So, I think everything from legal because lawyers are great to have, especially those with—although you need to pay for services, someone who does have a little bend that's on pro bono hours is helpful on your board, plus the more real-estate experience they have is great.

I do think find a design professional, super helpful. And then, you know, if you could get a broker, I honestly feel like there's real-estate professionals out there that are...bring knowledge to the table that's useful. And those people will help bring others into the fold that's really useful. That'd be my suggestion.

DAVID KRIEGEL:

You know, the other expert that's necessary is someone to build the financial model.

FAYE PREMER:

Yes.

DAVID KRIEGEL:

To understand that cash flow and what the sources of funding are, and cost per student if you started to do the [inaudible]. And that's a critical team member.

MILTON SHINBERG:

Yeah.

DAVID KRIEGEL:

To bring on early.

JOSH KERN:

And we have a webinar two Wednesdays from today that deals with predevelopment and construction management where we get kind of more in-depth discussion about the financial model.

FAYE PREMER:

And I would say understanding, which is not really necessarily what we're talking about here, but it will be coming up—understanding what you can afford is essential.

DAVID KRIEGEL:

Right.

KATHY PADIAN:

So you don't go chasing and spending lots of time that you need to be focused on other things chasing it.

DAVID KRIEGEL:

Absolutely.

KATHY PADIAN:

That's important.

FEMALE SPEAKER:

Shifting gears a little bit, we wanted to ask about green buildings and LEED [Leadership in Energy and

Environmental Design] certification. And if you could talk through [it] a little bit. Is it important? Is there payoff and your experience in these fields?

DAVID KRIEDEL:

I'll say a few things about it. It's important whether it's LEED or whether it's simply designing an energy-efficient school, you know. A huge part of your budget will go towards lighting and heat. And designing a school that maximizes daylight and doesn't waste money on heat and air-conditioning is very important.

Having a healthy indoor environment in terms of materials is critical. Whether you actually follow LEED and register the project, I think, is probably less important. And you can do a minimal sort of a LEED silver level.

At this point, there's no increase in construction cost. I mean most materials on the mass...most commodity materials now have a very high recycling content, don't have VOCs [volatile organic compounds] and coatings and adhesives. It's pretty easy to achieve, and there's no reason not to.

MILTON SHINBERG:

The big tension in projects like this is between first cost and long-term costs.

KATHY PADIAN:

Uh-huh.

MILTON SHINBERG:

So in the LEED process, there's sustainability to achieve what you need to be green involves spending more on mechanical systems, for example, and the amount of window area that you have, and systems that bring more fresh air in as David's talking about.

How do you pay those off? Well, it becomes an amortization issue, but you win on cost reductions in your operations

very substantially over time. So there's a financial side to this that is part of [the] life-cycle costs and which we haven't talked about. But to look at from the day you begin the project until the day you're finished with that building, that's the whole picture. And that's what you need to look at to understand sustainability.

FEMALE SPEAKER:

Thanks. We have a little chatter here. I have sort of the sweet spot for student enrollment for charter schools, especially given that most schools phase in over time and grow their enrollment. And, Josh, maybe if you can...

JOSH KERN:

Yeah.

FEMALE SPEAKER:

...verify a school size that's too small?

JOSH KERN:

Yeah.

KATHY PADIAN:

Yeah, uh-huh.

FEMALE SPEAKER:

And [inaudible] and if there is.

JOSH KERN:

Yeah. I don't know that there's a magic number, and it's, you know, it kind of differs depending on your funding formula and your jurisdiction, but it varies on whether you're in elementary or middle or high school and what your program is. But there definitely is, you know, the number that's too small is the number that doesn't allow you to offer your full program. So you have a program in mind. You have a schedule of class offerings, what you want your kids to learn. And you will find that unless you hit a certain enrollment target, you won't have the efficiencies, you won't have the funding necessary to provide that full suite of academic programs.

So, it's, you know, I don't know; maybe someone else on the panel could say. If it's under 200, you can't do it. It's been my experience that there is no kind of hard and fast number. But there's absolutely a point under which you're not operating the program that you had set up to operate.

KATHY PADIAN:

Yeah, I mean, I think the goals should be operating within your means, too, I mean, knowing what your per pupil amount is going to be and trying to project that over time and then obviously marrying that to what your enrollment is. If you're counting on fundraising every single year to balance your budget, you're going to be in trouble.

Because the economy gets bad, and you just can't count on that. A foundation that supported you for, you know, five...your first five years may decide to move on to another school.

I have not seen a high school around the country operate with less than 450 kids successfully, financially successfully. I think high school in particular is really tough. I mean there are lots of courses that kids want. There is...we were talking earlier about football teams and fans and all of the things that, to be competitive, quite frankly, and to attract students, you need to have. But they all cost money.

I mean I think a high school at 600 students might be a good range to head for, you know. But that's, again, you know, my experience with a couple of different cities.

I just think it's tough. I think it's really—high school with all your electives and everything you want to do is really difficult, K–8 may be a little bit different.

JOSH KERN:

Yeah.

FAYE PREMIER:

We also see, I mean, it's key that a school understands what it costs to operate their school with their students

because what we find is [that] some schools attract a different level of students with special needs. And those programs cost more money to run, right? The more educators and professionals you need cost your program more money. And again, knowing that before you go into plan a facility helps you understand what we can afford in facility costs.

DAVID KRIEGEL:

Absolutely.

FEMALE SPEAKER:

And that leads us to, I think, our last topic, which everyone has questions about financing school construction and renovation and how we pay for it.

JOSH KERN:

Yeah.

FEMALE SPEAKER:

We have our webinar next week is devoted entirely to charter school financing, so I'd encourage you all to join us next week. But for this panel, in terms of planning and going through the planning process, can you talk about the finance angle in all of this and funding for charter schools?

JOSH KERN:

I mean it's, you know, it's hard, it's hard, yeah. We have about four minutes left, and it's hard. I mean, it's very hard in four minutes to state something meaningful about financing your facility project.

I mean we did by design devote a full 90 minutes in a webinar to this next Wednesday. So folks who have questions about this, we really have a great panel of people who are experts in this area [on] Wednesday at 3:00. So, I mean, honestly, my answer is tune in next Wednesday.

KATHY PADIAN:

Yeah, if you're looking for like simple, I'm sure you can give a few facts [inaudible]. But maybe people are busy. [everybody laughs] But I think we've all seen, you know, 20 percent of your budget typically is going to be dedicated to whether it's a lease or financing, and then, you know, your maintenance and whatnot, at least 20 percent.

I mean, again, it varies around the country, but if you need to be thinking in those terms, that you can't spend every dollar that you get for a student on the program. So you we need to set aside for your facility.

FAYE PREMIER:

Yeah, and I think the only other thing, again, a teaser for next week, is really understanding how you do get those dollars to build the capital project, and that is very difficult and very time consuming. So hopefully next week, which I'm sure they will, we'll go through some strategies.

But being very realistic about a project cost, and I will throw this in, because I do kind of think this is our purview. A project is just not construction cost. It's a whole cost of your time, soft cost, which is your design professionals, furniture, equipment. There's a whole...when you think project budget, don't just think, "Oh, it's going to be a \$100 a square foot or \$500 a square foot to build construction cost." You've got to figure in at least 20, maybe even 30, percent for financing costs and soft costs on the project, so that I will throw in—think total, total project budget.

MILTON SHINBERG:

And then you take all the things that you could list and all the things that you...

KATHY PADIAN:

And you add them.

MILTON SHINBERG:

...And you keep coming back and adding to the list, and you're not done.

KATHY PADIAN:

You're not done.

MILTON SHINBERG:

Because you haven't added the contingency.

KATHY PADIAN:

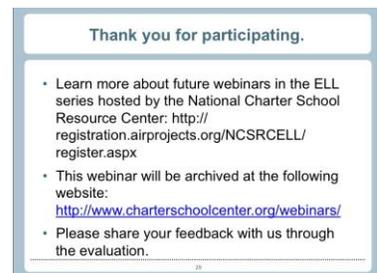
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TAMMIE KNIGHTS:

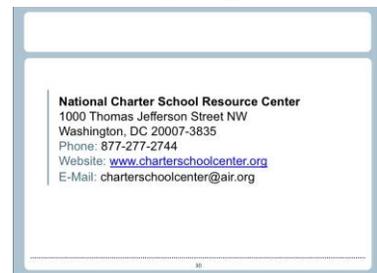
[We have a survey that will pop up on your screen, so if you could take just a minute more to complete that survey. Thank you again everyone for joining us, and we hope that you'll be joining us again soon.]



Slide 28



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