

**MARK KIKER:** Well, we're going to start in a couple of minutes. But I wanted to ask you a couple questions to see where you're at. How many for you folks is this your first time to AU-- first-timers? Welcome. You survived this far. You're almost time. You could store yourself back into the plane to fly home and collapse then.

So a little feedback-- anybody want to share with them what their best class was so far? Raise your hand if you want to share what's your best class, best class you've been to so far? Yeah? And what was it? Do you remember?

**AUDIENCE:** Handrail Hacks.

**MARK KIKER:** What's that?

**AUDIENCE:** Handrail Hacks.

**MARK KIKER:** Handrail Hacks. I saw that one. Yeah. It's like, we're getting down to the nitty-gritty. It's like, this is exactly spot-on. How many tricks and tips did you take away from there?

**AUDIENCE:** 15.

**MARK KIKER:** 15? Wow, that's good. Any others-- best class so far?

**AUDIENCE:** [INAUDIBLE]

**MARK KIKER:** Yeah?

**AUDIENCE:** Save Money with CAD Management and Impress Your Boss.

**MARK KIKER:** Save Money with CAD Management and Impress Your Boss, really?

**AUDIENCE:** [INAUDIBLE]

**MARK KIKER:** Oh, Robert Green. Well, he's always good.

**AUDIENCE:** [INAUDIBLE]

**MARK KIKER:** Yeah. That's pretty good. So anything that he brought up that just was, like, well, I never thought of that before?

**AUDIENCE:** Yeah. It's [INAUDIBLE] of stuff that you forget-- you got to remind yourself. And so it makes sense. So I like it [INAUDIBLE]

**MARK KIKER:** Remind yourself. It's reminders. That's what a lot of this stuff is-- is things you-- in the back of your head like, oh, yeah, I remember reading something about that. That sounds pretty cool. I'm going to go back and try that myself. Oh, I remember somebody told me that they knew that trick or that tip. I'm going to go back and try that. And there's a lot of times when you can get the stuff going on where have feedback or troubles?

**AUDIENCE:** Oh, yeah-- just got the [INAUDIBLE]. Don't worry about me. Keep going.

**MARK KIKER:** OK. You're invisible. So other than that, anybody care to share a class that they left early on? It's a negative side. If it was one of my classes, don't tell me.

[LAUGHTER]

Yeah, it's always an option. If the class doesn't fit, well, you know what you're looking for. You can always get up and leave and go to another class. That's OK. It's not a problem. Most of the speakers understand that they're not going to hit everybody with the same level of interest they had.

I need a volunteer, somebody in the first three rows-- not the first row, but one of the first three or four rows. It's not going to be embarrassing. You don't have to stand up. You don't have to say anything. You don't have to do anything. I'm not going to call you with a question. It's not going to be a challenge. I just need a little volunteer. Come on. I'm going to pick somebody, but I don't see a volunteer.

**AUDIENCE:** I'll volunteer.

**MARK KIKER:** There he goes. Who volunteered? Here's what you're going to do. You're going to be my time keeper. See that little ball right there? You're going to throw that at me when there's 10 minutes left for class. So I'm going to give you a trial run. So go ahead and throw it at me now. Try and hit me right in the middle of the chest.

[LAUGHTER]

**MARK KIKER:** No, this is good. I'll give you a couple tries. You got to know the weight and the trajectory. So she was pretty good. That would have hit me, it would have hurt. Go ahead. Try again. You've

got to adjust the sight. If this was a rifle, you'd adjust the sight. One more try. Come on. There you go. She hit the mic. That was good.

But I'm going to be a moving target. Sorry. I'm going to be a moving target when this starts. Where'd it go? There you go. Pass it back. See, I can't even throw. So when there's 10 minutes left to the class, throw it at me. That'll remind me that I'm almost done. And if I'm standing this way and it goes behind me, you may have to say, hey, I threw it.

That's good. Thank you for volunteering. What was your name?

**AUDIENCE:** Jamie.

**MARK KIKER:** Jamie. Thanks, Jamie. So how many of you have the word "manager" in your title? You'll be tech manager, BIM manager, CAD manager, design manager. What is the most creative title? Does anybody got what they think is a really creative title that you have, anybody?

You've not creative companies you work for? Nobody's got "senior design dude," "manager of tech and superpowers," nothing like that?

**AUDIENCE:** Corporate CAD development.

**MARK KIKER:** Corporate CAD development? So how many of you have a long title? How many have more than three words in your title-- than four words? This gentleman that's right here, what's your title?

**AUDIENCE:** I've got four words in mine.

**MARK KIKER:** What is it?

**AUDIENCE:** Oh, five words. Real estate project design supervisor.

**MARK KIKER:** Real estate project design supervisor? Anybody got any more than that, five words? That's a good one. He's got extra long card. So it'll fit on there. The bottom of his email goes off the side of the page when he prints.

Still got two minutes. So I realized what I should do because I'm a-- I think there's two kind of people in the world, sooners and laterers. So you're either a sooner or later. I'm a sooner. We're going to see in about two minutes the laterers, who arrive late, which is not a problem. So sooners and laterers-- so I'm a sooner. So I should realize that I should prepare something to

do, like, 15 minutes before the class starts because a lot of people in here, it just gives some, like, *Jeopardy* or questions, Q&A, top 10 reasons why CAD is the worst thing that ever happened in your entire life kind of thing just to kind of keep things going and keep it fresh so you can move forward in that direction.

So I've got some challenges ahead of me. Yesterday, I had the projector go out totally. So about 10 minutes of my presentation, I had no slides, nothing. I was doing the Vanna White with nothing on the screen. Today, I've got a clicker that has a laser pointer that never turns off. So they taped over it so it wouldn't blind anybody by mistake. That's why I have no laser pointer. So the technical challenges are there.

Hang on. I'm still getting feedback, probably, from the music that I'm going to kill. There. Is that better? I realized it was still playing.

**AUDIENCE:** [INAUDIBLE] in the presentation.

**MARK KIKER:** No more audio, no.

**AUDIENCE:** [INAUDIBLE]

**MARK KIKER:** Sorry. Let's get started. My name is Mark Kiker. I am currently IT Director for a public charter high school, not for profit. We teach CAD. And we help high school dropouts plug back in and get their diplomas and go on to the military, good jobs, or onto higher education.

So I've been doing that for a few years now. But we also teach CAD, mostly AutoCAD. I'm trying to get them into Revit and get them into Inventor and train the students for that kind of stuff. We have a graduation rate that encourages us because we have students come back to us that have had second or third chances of getting through school and we plug them in for computer-based curriculum, plug them back in, get them completing their high school diploma and then on to better things in life.

So I also run CADManager.com and BIMManager.com, two websites that have a wealth of information on them. You can go there and visit those and see what's going on there. How many of you are members of AUGI? Come on, AUGI members. Good. The percentages are going up. That's great.

Been associated with AUGI for quite a long time. So I encourage you, if you're not a member of AUGI, find out what it is. Is the show floor now closed? Can you go back to the--

**AUDIENCE:** [INAUDIBLE]

**MARK KIKER:** Is it totally closed now or is it still open? Go Lunch? Yeah. You can go back and you can sign up at the AUGI booth if you want to-- just see if my clicker works.

Where do you live? You live right here, in the fact that you wear three hats. And it's not object of changing one hat to another-- taking one hat off and putting another hat on. You actually wear three hats at the same time. And those three hats are a technical side, a management side, and a leadership side. And those technical side and management side and leadership side-- you're changing constantly between them.

So one of the critical success factors is knowing when to use what talent at what time. So the way that you do that is knowing what the situation you're in and how you get to the next step and which processes and which perspectives you take to get there.

So when you advance in your career, if you're on the tech staff side-- I have no pointers-- so tech staff usually have higher tech skills and then you become a tech manager and you add on those management skills in the beginning and you become, finally, a tech leader. And your technical skills as you move on in your career may diminish a little bit, but the leadership skills and the management skills take over.

I actually want to change this slide because I realized that the uniqueness about the environment that you folks live in is the fact that your technical skills typically do not diminish that much. You can't allow them to diminish that much. You always have to hone your technical capabilities because you're going to be called on at any and all given times to provide a technical answer or a technical input, a hands-on fix.

How many of you are still hands-on? You may have a management title, but you're still hands-on. You're doing things. You're the person that's got to go to. That's why I need to change this slide, because the technical skills never go away. You add onto the management skills and leadership skills to make your career and your firm advance more.

The technical side of things that you're basing it on are the ones that keep you going there. Other management positions-- typically when you move on from a line staff to a manager to a supervisor manager to a leader to a director to a anything with a C in the title, whatever, your proficiency and skills in the trade you came from diminish. You're not as much hands-on. That's not true with the world we live in.

That's why your job is so tough. Your job is harder than any other manager or a senior person at your firm because you still have to have all those basic technical skills in your back pocket at all times. You have to know what's going on. You need to know what technology's coming down the road. And you have to keep things up and sharpen skill and running. That's why it's so difficult. If you wonder why you're exhausted, that's why. You are a unique beast in this field of technology because we are technology-based.

So at any given time, you're going to use your tech skills and your management skills and move between these. So some of the examples of some of the technical skills are customizing, researching, testing, standardization. Management skills are interacting with vendors, project responsibilities, process management, change management. And then leadership skills come in with great networking capabilities, collaboration, your motivational skills, your leadership development, helping others move along in that path, great communication skills.

This is where you live every day. And you move between these. So your tech skills, your management skills, and your leadership skills build, and build your blend of the way you lead. The way you lead is different than anyone else.

I have taught at AU for a long time on leadership and management skills. And I've taught several different ways of doing it. And I realize that nobody is the same. Everybody who comes and learns about management or leadership takes away some little bit or piece and adds it to their arsenal of weapons they can use to get their job done.

By doing this, you make a customized, blended kind of management skill that you're going to approach a situation differently than anyone else would. The other class I taught at AU this year is called-- was on mindset. And it's the way you approach things. It's the mindset that you have and the perspectives you take when you approach any kind of management or leadership or even technical challenge. And it's that special blend you have.

So some of the stuff I'm going to say today may apply. Some of it may be like, not going to do that. Some of that's not going to fit. It's not my style, not the way I do things. That's OK. You're going to pick and choose and select and blend together your own unique style of leadership and management.

So tech smarts, management, and leadership are not equal. So you configure the software, you manage the processes, and you lead people. So all these things blend together that

you're going to put on a different hat and do a different thing at any given time and not take off all the other ones that keep going in the same way.

So tech skills without management will get software working, but it'll be used incorrectly. If you just get the software working and hand it to somebody and don't tell them anything about how to manage the project, how to manage their workflow, then that technology you're giving them is going to be chaotically used, or if they don't pay attention or don't listen.

And if you're just stuck in the technical side, you get really annoyed when people don't use things or understand what's going on. You realize you've got the tech hat that you put on-- has been on your head too long when you get frustrated and annoyed with end users who just don't get it. You're going to have those all the time. If I stop right now and said, I want you to think of the worst user you have at your organization, you could instantly name probably three or four or five, maybe more-- instantly have those names.

They're frustrating. It's annoying. They don't get it. You tell them again and again. That's the technical side saying, what is wrong with you? But you're also not the hiring and firing manager. So you can't get rid of them. You got to work with them. So on goes the management skill hat and the leadership skill hat. And you cajole them and work with them, tolerate them, allow them to stay there and keep working to get ahead.

Management skills without leadership get you trapped in the rules because management is also about a structured and consistent patterns of the way of doing things, a process, a consistent workflow. That's what management is-- developing a consistent workflow and approach to things. So if you get too tied to management, you're all of a sudden going to be throwing rules out there and getting frustrated because you're trapped in the rules because if you can't get around a rule and you can't make progress unless somebody follows a specific rule that may or may not apply to the situation they're in, that gets you frustrated. And you get mired in the details. And you soon settle into with management skills-- if you stay there too long, you settle into repeated, old habits that are there.

How many of you have ever heard the definition of best practices is yesterday's practice, because if it becomes hardened into a best practice, guess what? You probably started it three years ago and it's outdated now. By the time it becomes a rock-hard best practice, it's kind of old school, kind of doing it the way you did it yesterday, and is not moving forward-- can't get trapped too much in a management style that just works from the rules that you've

defined.

And then leadership without management or tech skills ends up being just wishful thinking. You're painting this gigantic picture of where CAD could be and where BIM's going to go and where your firm's going to get with technology, but you have no management skills to help people get there. They have no technical skills that knows really what mix of software and hardware you need to put together to achieve that.

And you're just painting this rosy picture of tomorrow. And soon, people will realize you're not going to get there. And you won't have any credibility. I was talking about the technical skills that we have to maintain. If you jettison those, you will soon have no credibility with the line staff that's doing the work, the guys on the front lines, the gals that are out there getting the things into the systems the way you need them to be.

They're realizing you don't know what you're talking about and they'll stop listening to you. That's why you need to keep your skills sharp. And that's why you probably came to AU. So congratulations on being here. congratulations to your organizations that sent you here.

The first-timers, hopefully you come back next year and bring more people with you. How many of you have been here to AU more than five times? That's a good chunk. Anybody more than 10? Yeah, that's good. See, you get these repeat people who keep coming because they realize what you learned last year, that's last year's news.

You got to go every year. So it's your job to help convince your management that you need to keep going and you need to bring somebody else with you because you can multiply what you can learn and have more people being exposed to the technology that's coming from Autodesk.

So you have a foot in three worlds. You cannot live in just one. So again, here's the tech focus, a management focus, and leadership focus. And the bottom here-- tech focus gets the software working. Management focus gets the projects working. And then leadership focus gets the whole firm working.

So you can see the expansion you have of becoming a hands-on, front-side, project-driven, design-driven person who's individually working on a project-- is getting this software working, getting that project done. Then you expand and you get more projects done. So you start working with more projects. And eventually, you get your whole firm working in one direction.

So as you add onto your technical skills, your management prowess and then your leadership skills-- you keep expanding your focus and expanding your impact with that firm and moving them forward.

So what does that look like and how does that work in any given situation? So let's take a-- system is failing is a situation. System is failing to produce consistent plots. And a project deadline is looming-- typical thing. Plotter's not working. Your output's not going to go there.

So which hat do you put on? You put on every one of them. And as you can see by reading through these kind of things, you see which hat you need to put on. You diagnose the problem. So the first, you start off with your tech skills. Diagnose the problem to find the workflow, find the root cause, fix the problem and get the project plots corrected. You finally got that, the technical side.

Then you need to tell the entire team, here's what you need to do to get your plots out and figured out why it's failing. Here's what you do fix it. You got to tell everybody. That's a management skill.

And you make sure the other projects are not affected. So you tell other people on other projects. And then you let all the project managers know that the problem is fixed. That's a leadership skill. That's a communication and leadership skill.

Then you jump out to informing executive managements, hey, we got it under control. We're back on track. Projects work OK. No need to panic. We're back on the rails again.

And then you jump back into your tech skills because you realize that you can't have everybody fixing this one at a time. You want to fix it on a global scale. So you have your tech skills coming back to fix the problem that's there. And then you notify everyone with the leadership and management skills. So you can see all those hats you wear at any given time. And this is how your difficulty of your management style, your leadership style is impacting everything and using every one of those.

Everybody see that that's where you live? Everybody can see it's like, this is why my job is so tough? It took me a long time to work through this, thinking as you work and move in one level, you should be able to leave the other one behind. It's not in our environment. Our environment is unique. There's not too many places out there that you're going to see the same mix of all three of these to the level that you have to have and the consistent demand for you to keep

your technical skills sharp.

That's why you come here. But I'm here to talk not so much about the technical side, but about the management and the leadership side. So let's look at the critical success factors of a CAD manager. We're going to take a look at these things and talk about them in a global, quick kind of fashion, but slowing down and drilling down into some of them and then taking a higher look on some of those that are broader.

If you've read or seen or heard me present, I talk about the five T's of tech oversight, the five T's of management, the five T's of whatever. It includes Tools, Talent, Technology, Training, and Time.

Tools are the unique blend of software that you actually have. The tools are the software programs that you put in place. How many of you are satisfied that you have a complete portfolio of software that you don't need anything else?

Look around. No one's hand is up. Everybody knows that there's another piece of software you can add in-- a utility, a little patch, a little fix, a little add-on program that'll help get things done. It should be in your budget and you should be talking to management about getting it. You should be testing it out, putting it into a pilot or a proof of concept, and seeing if you can get that into your system-- so the best piece of software that can improve your situation now, maybe one you don't even own. And when you come back next year, you should own that and you should have applied it and expanded it through your entire organization.

Talent is the people. So your technology is rock-solid. The talent is the people, the people who use the stuff. It's the way that you train them. It's the knowledge that they have. It's the mix of best practices, quick fixes, tips, and tricks of-- it's the people. So the talent is that.

So we got to get these five areas in control. First is the software and the tools. Second is the people. Third is the technology. It may sound redundant, but technology, for me, it was a good T word. I had to come up with a T word.

It talks about the mix and the approach you use to get your technology to do what you want. Every organization is going to have a different approach to using the same exact technology. There may be 50% of a tool being used or 15% of a tool being used or 75% of a tool being used. But that mix is going to be different at each organization.

Some are going to use more heavy on this side and lighter on this side where you can say,

how can you live without that? Is it critical for you? So it's an approach to technology and defining that.

Training is the one that helps you get everyone on board on the same way, going in the same direction. Hopefully you're getting some tips on the training efforts. Training is always the first thing to go when budget gets tight. There's no training time. Training is always the last thing you add in.

A show of hands. How many of you have actually taken an off-site training class other than AU in the last year? Good. That's good. That's better than in the past. The past, there hasn't been a lot. You need to get off site, even possibly out of your industry.

So if you're in architecture, go to a manufacturing little presentation at software vendors. It can be that. I mean, it's anything you want to get more knowledge about what you're doing. But in off-site training, get you away from the office, away from the day-to-day, and doing that. I think it's fantastic that you have AU to come to. And that's the best place to go because you get so much in such a short time. But the whole rest of the year is there.

And then time. The last one is time, which is just give it time. Give it all time to mix. You got to get the right software with the right people with the right approach and the right training. And it just takes time to get all that done.

How many of you are new to your firms within the last two years? OK, so it takes time. You know that. Your approach is going to be there.

You come in, you have some new ideas, some new ways of doing things, some improvements you see it's going to take some time to get there. If you're new on the staff list, you may need to get your impact increased, your influence increased by knowing the right people to get the right things done in the right way. So it's going to take time. So just give it time. Anything you're rolling out, just give it time.

So next what I want to talk about is shared principles. You're going to have to have shared principles. I need to pull up a doc here, so hold on. Shared principles are the approach you take. And we're going to talk about some of these specifically.

The approach you take for tech principals. What it is is I have tech principals that I have in mind. When I come into an organization, they need to know, what is my approach?

When I come into a technology situation where I want to come in, I want to have them modify or take an approach that is there. If I have existing staff that I am working with, I need to show them what I'm talking about and they need to know. The organization needs to know what my approach is. They need to know what my principles are of how I approach things and get things done.

So this basically is a list. I came up with 17. Next year it might be 18, might be 19. I just keep adding to it when I come across something I need to let people know.

So what I've done is I've put together a good list of these things and I write them down and I post them on my wall. I teach them to my staff. I tell them to anybody. I weave these concepts into anything at any time I get to communicate with my organization as a whole.

And what this is is it takes me time. If you went to my mindset class, one of the first things that I talked about was thinking, just stopping, pondering, thinking. So as I go through my day and I go through my week and my months, I think about, what have I seen? What approach do I need to get across to help people understand why?

A lot of stuff that I write and I teach about is to tell people not only the what that you want them to do in your CAD standards, but why? Why do we use these layers? Why do we use this level of detail? Why are we approaching it this way? Why? Why? Why?

Tell them why. Because, if they understand the why, and they buy into the why, then the what becomes easier. It becomes easier for them to comply because they understand why you're doing this.

It may sound like a really dumb, stupid rule for the mechanical engineers to put this into their drawing. But you realize that the HVAC and the information they're passing on to the architects and structural is critical because they're going to get clearances right and everything else. So it's all this stuff that somebody else is doing. And I tell them the why. So my tech principles and approach is the why of why I'm doing things.

So I want to read a few of these to you. And these are written down, I believe, in communication. So I talk and I tell. And you'll hear about that more.

So I'll start with principle number one. We support the business. Here's what I've written down. Principal number one-- this is written. I handed it to my upper management, to my CEO.

Everyone's got a copy of this, all my staff does. I weave this into conversations when I can. I tell them why.

So my approach is we support the business. So IT CAD, BEM, whatever you're doing, the technology supports the business. Here's what I've written. We will align technology initiatives with design and business initiatives. Technology will be used to achieve business goals efficiently, respond to design trends, and remain agile in the CAD/BEM marketplace.

So that's my approach. They know that I'm there to support the business. I'm not there to be the gatekeeper. I'm not there to be the IT crunch guy.

Get out of my office. Don't tell me what your problem is. I don't care. I gave you three of these. You don't need five. How come you want that? I don't think you need that. You're not going to get that.

That's not my approach. My approach is, I'm here to serve you to help you get technology that works for you, OK? So I write these things down. I tell people because a lot of times I'd say, people outside of IT have a negative attitude about IT, right? Either you're the king and you can fix anything and the go-to person, which they do.

But then, on the flip side, you're also the gatekeeper and you're throwing me into a tech dungeon by limiting me on what I want to do. You're limiting my creativity. So it's a positive/negative, the devil and the angel kind of thing. So you want to convince them that you're an angel on their side. So a lot of these are pretty self-explanatory.

Principle number two, I want to read you that one. Create a common staff experience. We will strive to implement technology solutions that foster a unified experience for design development and project delivery.

Platform and design work should be unified for every person, every project, every platform, every office, every day. OK, so what I'm looking for is, when I sit someone down in front of a computer and they're going to do XYZ job, that job is going to be functioning on that computer the exact same way it does on the next one and the next one and the next one. Everybody across the board is given the same platform.

You may have a little bit older machine but it really functions well. I'm going to replace it as we go through a cycle of doing this. I tell them why we cycle computers in and out. I tell them why their job function may not need the demands of the highest, best machine in the company but

this other person does who's doing 3D automatically-generated renderings and something else. They need a better machine.

So there's levels as to what we provide. But I'm looking for a consistent machine pattern. Because, in the offices that I've worked at, especially in the architectural engineering arena, they move people from project to project, from office to office. They loan people out.

And when someone goes from one office to another and sits down in front of a machine, they get the exact same thing. Everything's there that they need. Everything's there that they want. It works the same way. The approach is the same.

That's not a lock and key chain. I'm not handcuffing them. But I am providing them with a consistent platform to get things done. So number five is the same thing, promote a consistent platform. Any questions, comments?

OK, let's look at another chunk. Utilize industry standards. Use it, buy it, build it. Manage IT like a portfolio. Apply project management tools to IT initiatives and make measured progress.

The one I want to zero in on, this one, is number seven. And the approach that I take to software implementation is I first use it, buy it, build it. So here's what it says.

When appropriate, we will reinforce the use of currently-deployed technology. We will maximize our use of existing tools. If what we already own does the job, we will use it. If it does not, we will buy an appropriately-scaled tool that is commercially-available and complies with industry standards. When no tool is available, we will consider building our own.

How many of you have custom designed programs and utilities you've built internally to get the job done because nobody is doing this and they don't sell them, or the ones they sell just don't really do what you want to do? And so you do that. But I don't start with that.

A lot of people say, we can build a new one. I can build this myself. I can do this in Excel. I can do this with Axis. I can do this with XYZ programming.

I look and say, no. Is that capability in the products we already own? In other words, if we're only using 50%, if we move up to 75% of use in that specific tool, will that add to the thing?

It's not that you need some separate tool. It's a you need to know how to use the one you've got in a way that gets your job done. Then if it really doesn't do it, let's go look and see if

somebody's selling something out there that we can buy. And if there is, buy it. If there's nothing out there, then we move to phase three, which is we build our own.

So that's just my approach. So I'm going to take that approach any time anybody talks to me about something they don't have that they need. So by telling them ahead of time, that's where I'm at, they know that, well, I got to exhaust my research.

And when they come to me and say, I can't find anything I can do, they usually know that they can't. They've looked and they see that they can't. So use it, buy it, build it.

Manage IT like a portfolio. I'm constantly looking for areas in my technology spread as far as software is concerned that are lacking, that are slowing things down. See if I can bolster that up.

So I balance my portfolio, just like stocks, right? You don't want to buy just all health care stocks. Because if health care tanks, boof, there you go. No, you don't want to buy all automobile stocks. Because if that tanks, there you go.

You want to buy a little of this, a little of that, a little of that. So I manage IT like a portfolio. I've got a little bit of everything to make sure I can get all the things done that I need to get done.

OK, next group. Like I said, I have 17 of these. I'm not going to belabor every one of them.

Enhance technology knowledge, that's just training, everybody. Data integrity and security, that's rock-solid integrity of security backups, everything else. Offloading the technology burden. And if you want, actually, this document, if you email me, I'll send you this document. I'll send you a copy of this. You can have it.

You know what? I live by this stuff. And if you can look at it, take two or three off for you, fine. Do it. I'll give it to you for free. It doesn't cost you anything. I'll send it to you in an email.

Offload the technology burden, number 13. We will seek to release the staff from the burden of technology access and maintenance. We will make things easy to use, easy to understand, and easy to access.

We will increase our burden, IT and CAD burden, on technology management in order to lighten the staff's burden. I don't want my staff that are supposed to be doing design worrying about how to fix and get the CAD and BEM and technology stuff and manufacturing tools to

work. That's my job, to get them to work. It's their job to apply them to design areas.

So I work constantly to offload that burden to me. If somebody says, well, I can do it. It's like, well, no. You need to do design. We'll come in and do that if you're doing it consistently. So we offload the technology burden off of the design staff onto the IT and CAD support staff.

Open source is not the answer. So we don't buy a lot of open source, if any, software because it's just not something we can support.

Project calendars rule, number 16. Technology research, piloting, purchasing, and deployment will strive to align with the organizational and project calendars. This means that new technology advances will blend into the natural flow of the project delivery and not impact it in a negative way.

I'm not going to change horses in midstream. We're not going to roll out new software right when you're four weeks away from a deadline. You or your team or your project may stay behind and others may move, but you will not move until your project, your office, your department, is ready to go, that there's a break.

Now, I'll push because, if I wait for you to have a pause, some organizations never have a pause. And I've got to get this stuff out there. It's like, OK, we're choking it down.

You're going home on Friday. We're going to do it over the weekend. And you come in Monday, you're going to have new stuff. We're going to be right there with you. We'll help you through the thing. We'll convert your project and we'll go.

So those are the 17 principles that we live by with IT and CAD and BEM and approach design and so on. So others, I talked about this, ever-expanding skills, you're called on to do programming, customization, staff management, project management, financial skills, prioritizing, troubleshooting, and you have a constant thirst for change. You're a change agent.

You have to be the one that forces or encourages or controls or drags or kicks and screams to get these people to move forward and to do it in such a way that they hopefully will enjoy doing it. You'll have your 20% who love to be out in front of everybody and they're going to run ahead and they go too fast. You'll have your 20% that are just dead set on never changing anything.

I'm happy with where I am now. I don't want to learn anything new. I don't want to learn

anything new. They're the ones that are there. But that 60% in the middle is the ones where you move and go.

So you wait for that tipping point to move. And then that last 20% just, OK, sorry. But we're going to change it. I'm pulling away and I'm giving you the new. So you're a change agent.

Also, how many of you have financial skills? Every year, whether they want it or not, I provide my organizations with a budget. I come up with a technology budget. Here's where I'm going to go-- you'll hear it later-- strategic plan which drives my finances which drives my budget which drives my management of technology which drives my management of the money which is based on my strategic plan and budget.

So I'm constantly working things from a financial business perspective on how I can do and improve my financial skills. If you've never developed a budget, you need to develop one. You could be totally wrong. I don't care.

My budget changes all the time. I'll things are in my budget and things aren't. We wanted to get into the virtual reality a while back, the virtual reality headsets, the Vive or the Oculus things, the headsets.

So I went online and looked. I was like, OK, the budget's got to be done. It's got to be done tomorrow. I want to get that in there because not so much that I got a buy it now, but I know I'm going to buy it within the next year. So I went and put some money in there for that. I put money in for the headsets. OK, I'm good.

And then I did some more research after my budget was submitted and approved and realized I don't have a machine good enough to drive this. I have to buy a better machine. So every office, every division, had money in it for the headset but not for the PC that drove it. So I got to buy a better graphics card, a better machine to run that and drive that. And that was not in my budget.

So I'm OK with changing things. And I told them. I go, I blew it. I put it in there for the headset, thinking I was good. I was on the cusp of doing my research, didn't realize how much gusto you needed in the machine to drive that thing.

And now I'm slowly adjusting my budget so I can cover that. So when I pay that two grand for a desktop that's going to drive this, I can shave off a little over here so it works my financial perspective in such a way that my budget balance is there. So keep improving your skills. If

you haven't added financial skills to your strengths, you need to do that.

And you need to know your strengths. There's a concept that talent plus knowledge plus skill plus practice equals a strength. And if you operate inside your strengths and move from your strengths and use your strengths as your lead card, you get a lot more done than if you just worry about your areas that are a weakness.

So if you go around worrying about your weakness-- well, I don't want to go down that road. Because, if they bring this up and want to talk about that, I don't know a lot about it. So I'm not going to go that road. No, lead with what you do know.

I know 90% of this. The 10% I don't know about, I'm going to find out about. So you don't really stumble over your weakness. You lead from your strength.

So a lot of us have an idea of what a strength is and what a strength might be. You can get that from feedback from your peers, family, managers. Families might know what your weaknesses are but also know what some of your strengths are.

There's personality tests, things that you do, ones called strength finders. Belbin, WorkUno, Myers-Briggs, anybody done any of these things, strength finders, Myers-Briggs? Some of this is like horoscope, tells you that I'm really good at everything. It's like, yeah, thanks. But there's some value in it.

So I did the strength finder one. This is the categories they have, relating, influencing, executing, and thinking. The ones that are heavier-- that's not realtor. I'm not good at real estate, the gentleman with the real estate and his business cards. That's relating. I can relate to people.

The ones in a heavy, bolder text are the ones that I came up with. They give you five. They're not saying that any of these are failing. These are your top five.

So the heavier, bolder ones are my top five. I lean way over on the thinking and executing side than I do on the influencing and relating side. So you can see that.

So what you do is you take this. It costs 15 bucks. You get it done. They give you a little printout of what it is. They give you an action plan on what you need to do to improve these things.

It'll cost \$15 dollars. Takes about an hour and a half, maybe, max, maybe not even that long to get it done. It's interesting. It gives you some of the stuff.

It told me what I already knew. But it does reinforce the strength that I need to play in this area. If I'm great at basketball, I don't need to be trying to play field hockey. If I'm great at football, I may not be that good at baseball, that kind of thing. So it just tells you to lean toward your strength.

There are some that are free. WorkUno is a free one. They give you a much more limited printout of what they do. But there are some ways of doing it.

The reason for doing that is working from your strengths encourages you to work in your sweet spot. It's like, where am I? And if you haven't really had a chance to look at these, some of these may surprise you as one of the ones that they come up with that you have a strength in. So then you wrap it all in the right perspective.

So critical success factor for a tech CAD/BEM manager is that they have the best perspective they have. They have the best mindset, like it talked about, or world view or approach to things. So let's talk about some of those real quick.

I think they need to believe in a shared workload, helping other team members. So it's not being a team leader, it's being a team member. There are differences. There are differences of being a team member than being a team leader.

You need to have both skills as a technology manager, being able to be on a team and help others and not be in the spotlight or the lead. Be an adviser to someone else but not the leader. And you also need to be a team leader who takes the reins and move things forward and keeps things going.

Shared knowledge, I'm always about this. Tell what you know. Tell it to somebody else. Don't keep it. The value of staff in my organization to the company is in how much they share knowledge, not how much they know. If they hoard it, I will hate it.

You need to pass it on. In fact, if I get to my last slide, the last slide's always share with somebody else. If you learn something here, tell somebody else what you learned. Share knowledge, don't hoard it. A desire to improve, you always have that. You already do. Standardizing, you probably do that, too.

Supporting documentation, the job is not done until it's documented. This is the hardest part. How many of us love doing this? They don't. It's done. I gotta move on. There's other things I need to do. I don't want to write it down. But you have to. You need to. I'm not good at this. I'm good in some areas, but not good in others.

And then the final one is reporting. The job is not done until other people know about it. Unless you tell somebody that something's fixed, they may never know. We went through that scenario about plotting. If I didn't tell everybody on the project that the plotter was working now and the files are correct and they could plot, they would still be waiting to make their plots.

I've had a lot of people work underneath me who I've given tasks to. And they'll go away and do it and I'll come back the next day and go, did you ever get to this? He goes, yeah, I did that yesterday morning. Well, you didn't tell me.

It's like, I have three people waiting to use this technology that you fixed yesterday and we're waiting until lunchtime today to do it? You need to tell me that you're done. And that's all it is.

Just say, hey, I'm done. That's all I want. I'm not going to demand all the documentation. I just want to know, is it fixed? Can we move forward?

Foundational work, doing what needs to be done, even mundane tasks. All of us have mundane tasks we have to do. And they have to be done consistently all the time.

Hopefully all of you know that you have consistent backups and you check them and you test them and they're working and you trust them. But you don't take them for granted. These are things that have to be rock-solid in the technology environment.

Redundancy, multiple people know how to do a critical task. One organization I joined, everything was done. Everything that was critical that needed to be done was managed by someone. But if the person was on vacation, no one knew how to do it.

Oh, the wireless went down. How do we fix that? Well, Bob does that. Well, who else can do it? Nobody, Bob.

It's like, where's Bob? He's on vacation. It's like, so we have to wait until he gets back? Yeah, we typically do. It's like, no, we don't. Not anymore. I want you to figure out how to fix the wireless.

And so we have a process in place now that makes sure that everybody has a redundancy. Hopefully you have a redundant person knows how to do it and they never do it unless they need to, the other person is gone. So two people for critical tasks all the time.

Ownership, taking responsibility and full possession of an area of oversight, that you are the owner of this area someone gives you. If you're the owner of wireless, you make sure not only that you know how to fix it but somebody else can do it if you're not around.

Trust and verify, engender trust but verify results. I verify things a lot of times. It's like, are you calling me a liar? I get that. Are you calling me a liar? Do you think I'm telling you a lie?

It's like, no, I just want to verify that you're telling me the truth. I think you're telling me the truth. Can I see something that proves it? Because the more I do that, the more I'll trust you and the more I'll stop asking.

But, in the beginning, I'm going to ask for a lot verification because, how do you know? It's working 100%. How do you know? When was the last time you tried it? Did you do this?

I go through this with my staff a lot, is 100%. I want things done 100%. It's done. All of it? Including this? And this? And that?

Well, no, I didn't do that. Then It's not 100%. Go do that and come back and tell me when that's done and it'll be done 100%. And then testing. Make sure everything's tested and working before you pass it on to somebody else.

Say it, write it, share it. It's just my mantra. I say it and I say it again. How many have picked up the AUGI magazine, that free magazine, the hardcopy magazine? I have an article in there that says, at the risk of repeating myself, let me repeat that. Because I do that all the time.

**AUDIENCE:** Which copy magazine?

**PRESENTER:** It's AUGIWorld Magazine at the AUGI booth. You can go get it. It's a hardcopy magazine. So I repeat myself again and again. I tell people the same thing a lot of times because we know that it takes six or seven times of saying something before somebody gets it.

How often do you need to tell your kids to clean their room before you force them to do it, right? You heard me, right? Yeah, I heard you. You know you need to do it. Yeah, I know. So you repeat yourself again and again.

And then I document it. Whatever I say, if it's important, I write it down And I share it with others. I send a status report to my supervisor, the person who oversees my area, every two weeks.

I send him a status report in everything in IT. Here's what's going on with these areas. Here's what the status is. Here's what we're working on now. And I just give it to him.

And I don't know if he reads it or not. And I don't care if he reads it or not. I've documented it. I've given it to him. I tell him. We have a face-to-face, then I follow it up with documentation. And then I follow it up with sharing it with others.

So I did this for about a year or so. And then I asked somebody else, do you want to-- other people knew what I was doing and say, can I see your report? Sure. So I tossed it to them. And then another person. Can I see that report? I need to know.

And so now I'm reporting out the same report that I gave to my boss one-to-one. I'm now sharing it with about 10 to 12 senior managers at our organization so they know what's going on. Now it's four pages long. It's a bulleted list and I highlight the new stuff in yellow.

So it's like I want to make this as quick and easy to read as I can. But one person in this area may only look for these two little bullet points and wants to know, what's the status of this? OK, good. Oh, I didn't know you were working on that or they see some area.

So everybody knows where I'm going. And everybody knows what's going on. So I communicate, communicate, communicate as much as I can, redundantly, over and over again.

CAD manager and a BEM manager, technical manager, needs to have awesome management skills. Tactical planning, boundary management, project management, execution. Tactical planning is the day-to-day stuff. What are we going to do today? How are we going to get that done? Who's going to do it? Who's going to do what by when?

That's the tactical planning. What are you going to do today? What are you going to work on? Where are you going, or this week?

I tell my team that if they tell me what's going on on a regular basis, I will not have to ask them. If they don't tell me, I'm going to ask them. So if you want to know why am I asking you so much for updates, because you're not telling me what's going on. It's a quick hallway

conversation.

Hey, I'm working on this. It's taking a little longer than I thought. I'm not going to be done by lunch. I'll probably get done with it by the end of the day. Boom, done, gone.

I know what's going on or this is finished. I can take it out of my head, take it off of my checklist and get it off of my head and no longer worry about it. So that's tactical planning.

Boundary management. How many you heard of or know what boundary management is?  
Boundary management is setting the boundaries.

We work in creative environments. We work in design areas. We work in technology areas where people need and want to be creative. So what I do with boundary management is I often look to set boundaries.

Well, here's what I need done. So I need this. So when you're done with that file, I need it to look like this. I need this because I have to pass it on to someone else who's going to use that file.

We heard in one of the keynotes of the construction side, moving from a design intent architectural file to a buildable file. How do they move it if they're not the same thing. I can't build from that. I understand what you want. But I can't build that.

So boundary management says, when you're done, I need it to look like this. But I don't constrain them on how they get there. On a basic AutoCAD level, I say, when you're done, I want all this stuff to be on these layers. If you take 25 extra layers to get there, I don't care while you're working. But when you pass it on to me, squish them up, combine them, get them done, and give it to me like this because that's the way I want it.

So I just define the target and the end of the process rather than defining the actual steps of doing it. That doesn't mean I don't have a standard. I do. And it's very consistently produced there. But there's a lot of times that I'll use boundary management and just find the outside parameters and not how to get there.

Project management skills. If you work in an area where design processes work, you'll know that. But I apply project management expertise and processes to IT initiatives.

So I sit down, I define requirements, have a requirements document, I have a scope of work, I

have a definition and timeline, I have a budget. All these things are defined in my larger initiatives, not the ones that are just small but the larger ones.

I take a project manager approach, I define all these things, I have people define things and break it out into a work breakdown structure that's broken out to the level we need for the details so I can plan it. I then develop a Gantt chart that shows me the flow and dependencies. I'm project managing IT stuff.

And when I get done with that-- and then I get, OK, are we all on the same page? It's more of a discussion document. Are we all on the same page? We all know where we're going? OK, I'm going to check this thing every once in a while. But I'm not going to do it every day.

Then I turn to the tactical side. OK, the tactical side is, what are you supposed to be doing today? Because, if you don't do that today, she can't do that tomorrow. And if she doesn't do that tomorrow, then they can't do that next week. So it's all that stuff on tactical. And then execution is just making it happen. Execution is just making it all happen.

Having leadership that people follow is defined by character. I'm sorry, but character still matters. We've been through a brutal US election process where character got slashed and diced and trampled on and everything else. But character still matters.

People want to know who you are if they're going to follow you. And it may be bottom line. Here's what I'm looking for to follow. You can have all this stuff up here that I don't care about. But these are the core things. I'm going to follow that.

So your character and your core and your perspectives and approach and demeanor, I don't know how to say it any other way, it's who you are. People will follow who you are. They'll follow what you know because we're in a tactical environment. But they also follow who you are and where you are going.

So you bring focus and clarity by comparing and contrasting. You can see things in a different way. You have the ability to look back and take a large picture view of things.

You categorize things. You make sure that these are not mixed with those and this is working in the way it should. And you can prioritize and group things and come away with a greater focus and clarity so people can follow. You have leadership skills that allow people to easily follow you.

I talked about strategic planning. I really boil things down to really easy processes. I talked at other events about what I call simple strategic planning. And this is it. It's not that hard. It's really easy to do. And you're probably doing it already, you just haven't written it down.

You start by looking at the past. Where have you been? What have you got? Where are we? How did we get here? A good understanding of where the organization is now.

And then you look at right now in even greater depth. Its, where are we right now? This is all the back history. This is why we did things, why we didn't do things. This is how we grew. This is how we contracted. But where are we right now? We have this much stuff, this much information, this many tasks, this many technologies, this much software.

And then we look to the future. Now, that's where you start dreaming. What do you want? I ask people, what do you want? Give me your wish list. Tell me what you think you might have.

And I may not get it this year. I mean, I'll get it next year. But if it's really worth doing, I'm going to get it on my three-year plan and we're going to get there. So I can prepare for it. So I look toward the future, dream a little bit about where we could be a year or two from now and I work that way.

I have, like I said, a strategic plan that defines my budget and my tactical plan on my project approach. Well, that also means that what I'm thinking about today may not be executed today. But I'm building today for the stuff that I want to do tomorrow. And that's what's in my strategic plan.

Then I define my goals. So I tell people, I wrote it down, I define what I'm going to do. Here's what I'm going to do. I've talked to everybody, got all this input. Here's what I'm hearing. Here's your complaints, here's your concerns, here's your dreams and desires.

I coalesce all that into four or five different things that I think we're going to be doing. This is the direction we're going. I put it back out to everybody saying, did I get it right? And I shave off the edges a little bit.

And then identify objectives. And then I say, OK, we're on the same page. Here's how we're going to get there. By this time, we're going to spend this much money and we're going to get that done.

And when I finish this, I develop my strategic plan. I write it down. It's typically, about with a lot

of fluff, blah, blah, blah, 10 pages. But they're paragraphs of stuff. It's really easy to read. It's 10 pages long but it's not boring. It's just bulleted paragraphs with information about what I'm going to do.

I provide an executive summary at the top. So the executives, if you don't want to read the whole 10 pages, one or two paragraphs at the top. Here's what we're doing. We're going to go in this area. We're going to do that. We're going to fix this problem. We're going to achieve this goal. So that's what we do.

So when I get done with my strategic plan, I share it with upper management and I share it with the middle managers and I give to everybody who wants it. I tell everybody it's here. You want a copy? Come and get it. And some people will come back and want to read it. And others couldn't care less.

But I can't be accused of not telling people where I'm going. You knew I was going here. I told you where I was going. I reminded you where I was going. And so when I move in that direction, don't act like you're surprised.

I told you I was going here. Now, why don't you want me to go there? OK, things changed. That's a good point. That market is closed? We're not going in that direction? OK, Now I'm going to shift and go in a different direction.

I review my strategic plan about once every three months. Typically, I plan for about 18 months worth of stuff, review it every three months, and change it as I need. And I refresh it usually every two years. It's an 18-month plan, so usually that will push on into 24 months or whatever to get everything done.

I'll refresh it either every year or every other year. And, when I do, I look in there and see, what did I not get done? And why did I not get it done? Is it still important?

And if I don't pass those, it's gone. I thought we were going that direction. We're not. The industry's changed. Our market's changed. Our competition has changed. We're not going that direction anymore, and I'll take it out.

So I seek alignment. So I seek alignment with the goals of the business. How many of you have seen your organization's strategic plan, if they have one and you've actually seen it and read it?

There are ways you can align your technology goals with their goals. If they want to go into a new market or open a new office or reach a new client, you can say, in order to do that, I'm going to give you this technology that will get us into this market which will help us get to that client. So that's how I align my technology goals with the organization's goals.

Then they can say, OK, cool. That's good. You're supporting us. And they like that. And it really makes sense to do that. So make sure it aligns with everything you're doing, the organization's doing.

People skills. Get that book. Read that book. It's a great book. This is only a portion of what that book talks about.

Oh, you're close. Thank you. We have about 10 minutes. I'm sort of on track, a little bit behind.

It talks about communication skills, being an effective team member, influencing others above and around you. The extraordinary leader. It's a bit old now, maybe 10 years, maybe even longer. But it's a great thing.

It has the analogy of a leadership tent. And the higher you raise the tent poles, the greater influence you can have and the larger a tent you can build. And people skills is one of those tent poles.

It talks about every one of them. It's really easy to read, really great. It's one of the best books I've read on leadership, ever. I really like the way the guys write. So I encourage you to get that.

But it talks about building positive relationships with others and other things. It talks about teaching others, helping others understand, building other people's self-esteem, handling stress well, realizing that your approach to dilemmas, to crisis, will impact everybody. Typically, when stress level goes up, my calmness comes right in. As everybody else starts panicking, I get more calm.

That's just my natural bent. I just calm down. When everybody's freaking out, I just get calmer and calmer. And they look at me. It's like, no, we're going to get through this. We've gone through it before. We're going to get through it again.

Yeah, this is a pretty big hurdle. But all else will not fail. I've got a plan B. I've got a plan C. I've got a plan D, you know? And we'll get through it. So I bring calm to a situation.

There's also critical conversations you have to have. One of the key things you need to know as a manager and leader in the area of technology with CAD, BEM, whatever, is you have got to talk about things that other people are not talking about. You've got to address crucial areas before they get out of hand. You've got to go in and mend fences before they totally break down.

It's your job to stick your nose in. People may not like it. You may need to get better at how you do it. But you need to have those things. So I call these critical conversations, the ones you want to have those conversations with. And you typically will have them with the people that may not want to discuss them.

How often do you find out about something that's broken that's been broken for a month? It's like, you never told me. Why didn't you tell me? It's like, we can fix that so easily. I figured out a work-around. It's like, you didn't need to. You just need to tell me.

So the people on the production side will see the issues. Leadership may not see them. You really don't want the client pointing them out.

I sat in a conversation with a client one time that was looking at a set of construction hardcopies. The first thing he did was flip through with his thumb, flip through the title block. He didn't even look at the design. He just took his thumb and flipped through and looked at the title block.

And he said, I see different fonts. I see things not lined up. I see the wrong name. You've got the wrong address. He goes, I'm not even looking at it. Come back when you have a decent set.

Why? Because that said a lot about our standardization, our consistency, our level of quality. And, within a minute, this client just set the project manager reeling back on his feet. And guess who got chewed on? I did. OK, we got to fix that. Yeah, you're right.

So out from that came a standard approach to standardizing title blocks, fonts, checking them, making sure they're done, having someone look at it, and make sure everything's there. Anybody ever been there, where the client sees something that shows low-quality? You don't want them to see that. So the way to do that is you keep your eyes open and you have those critical conversations.

And the way it works is you typically address something when you hear about it, when you see it, when you sense it. You've got spider senses like spider-man, you know? You have spidey senses. You tingle when you see something that's not right. You see it once and you cringe a little. Yeah, OK.

You heard something in a conversation that you were passing in the hallway and you hear something. You have to pay attention and have to make comments on that. So you notice a pattern or you notice people talking about an annoyance or frustration. You hear it. Don't ignore it.

This is the warning signs. This is the smoke signals coming up to let you something's going wrong. Pay attention.

I have been bitten so many times by the things that I knew were coming and I failed to address. That's how I learned these lessons, is through the difficult times of having it happen. So paying attention, I notice something and I bring it up. So I identify a concern. And that's the way I said it, I have a concern.

This is the process I'll go through. I noticed that, you , you're not using the proper processes we have defined for getting your design into review. Are you frustrated with that? Is it annoying you? What's going on?

So I come up with I noticed something. I come up with a frustration or something I've noticed or heard about. So I noticed something.

If it goes beyond notice, It'll go to concern. I'm concerned. I'm concerned because I see you consistently not having your projects or designs put through the processes that we have in place. You're not doing what we should be doing. So I go from I'm noticing something to identifying concern, then defining an issue. We have an issue, OK? It's an issue. There's a real problem here.

And then it becomes to avoiding a failure. We have got to fix this or we're going to the whole thing. And I'm encouraging you to address it at the noticing side, that you have to keep your ears open.

There's so many times when I've sat in a design area, which I do from time to time. I'll sit-in the production area. I'll just hang there, sit there, and listen. And I'll sit down so people don't I'm sitting there and I'll do some other stuff and I'll listen to the conversations.

All of a sudden, ba, ba, ba, ba, ba, ba. Oh, wait. What? What are you doing? What didn't work? How long has that been going on? Really? Anybody else have that problem?

And, all of a sudden, something I noticed I can address because I heard it. So pay attention. Put on your hat, put on your giant ears and listen to what's going on.

So putting it all together. You need to build your tech skills because we've talked about those. Cannot diminish in the fact that when I was viewing this class, I'm realizing, you what? I had the tech skills going down. They don't go down. They actually got to keep increasing forever in a technology field. After that, your management prowess and expand your leadership impact.

So I encourage you, identify your critical success areas and act upon them now. I encourage you by paying attention, by realizing what are your critical areas, what are a concern to your firm, your organization, your department, your office, paying attention to what they are, addressing them, not ignoring the things that you notice. And, by making progress, you can have these critical success factors in your back pocket and make progress so much more. And I encourage you to do that now and as you go forward from here. So thank you very much.