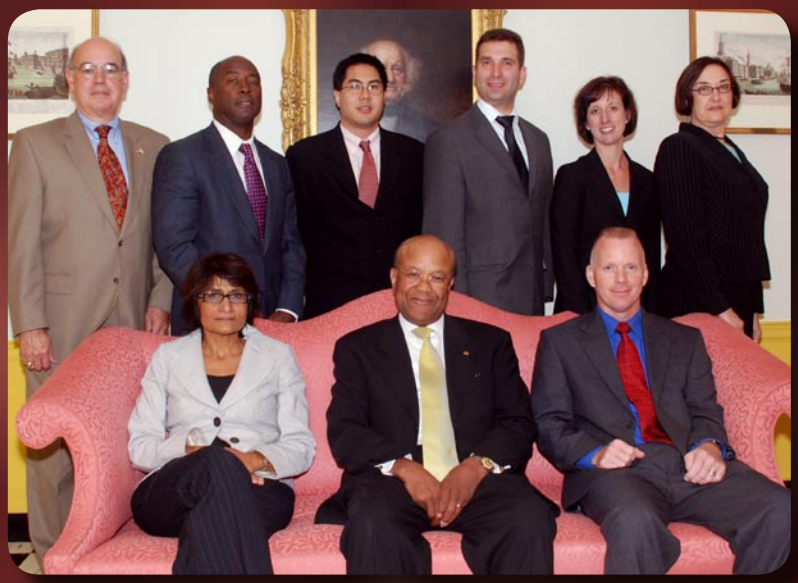
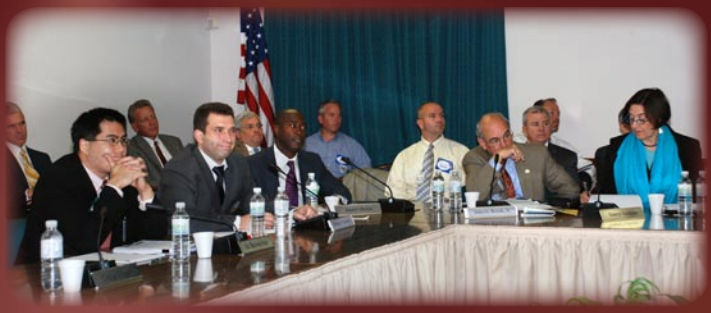
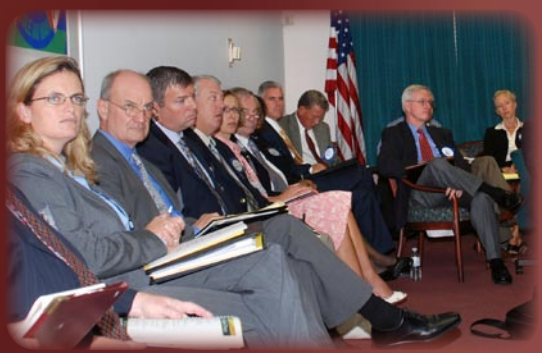
United States Department of State
Overseas Buildings Operations

Industry Advisory Panel

September 20, 2007

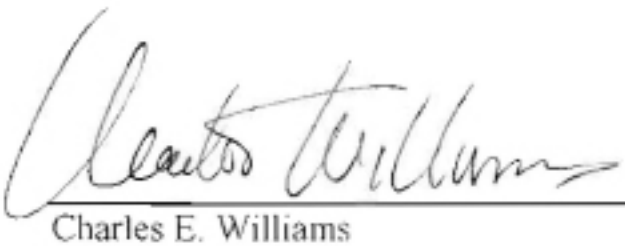






I, Charles E. Williams, certify that this is the true and correct version of the Minutes of the September 20, 2007 Meeting of the Industry Advisory Panel.

Signed:



Charles E. Williams
Director/Chief Operating Officer
Overseas Buildings Operations
U.S. Department of State

October 4, 2007

UNITED STATES DEPARTMENT OF STATE

OVERSEAS BUILDINGS OPERATIONS

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INDUSTRY ADVISORY PANEL

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September 20, 2007
9:00 a.m.

Department of State
2201 C Street, N.W.
Room 1107
Washington, D.C.

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Director/Chief Operating Officer
Overseas Building Operations

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I-N-D-E-X

I-N-D-E-X (cont.)

P-R-O-C-E-E-D-I-N-G-S

(9:00 a.m.)

GENERAL WILLIAMS: Good morning.

First I would like to welcome you back, those who have been here before, and particularly our loyal visitors who come almost each time. This is our Fall Industry Advisory Panel. We're running just a tad bit late this time, in terms of the time that we are hosting this, but nevertheless, we are here and we are assembled.

And first of all, after the welcome, I would just like to point out that we have several new panel members which I would like to officially welcome. First of all, we have one of our former panel members, Craig Unger, who is substituting for Bill Flemming and, Craig, delighted to have you back.

MR. UNGER: Thank you.

GENERAL WILLIAMS: We told you when you left that this would probably happen over the course of the time that your colleague was serving.

We want to welcome Clare Archer. Clare, if you would just wave your hand so that others can get to know you. Clare is our new member representing the AGC, and this is her first opportunity to

participate on our panel. Welcome.

Also, Greg and you say your last name.

MR. KNOOP: Knoop.

GENERAL WILLIAMS: Knoop. Okay.

Greg is representing our SAVE International and Valley Value Engineering side of the house, come to us with excellent resume and we are just delighted to have Greg as a part of us.

And then Regan McDonald from Society of American Military Engineers is also a new member. And we are delighted to have you as well. I know that you were in attendance last time, just to see if you liked this. And so apparently you did. You came back.

And John Woods. Okay, John is representing American Council of Engineering Companies. And John, welcome to the panel.

MR. WOODS: Thank you.

GENERAL WILLIAMS: Those are the new members. And of course, we are delighted to see you back with us, Nancy, again. And of course, Darryl, delighted to have you as well. And Suman, we are delighted to have you.

And one of our panel members is a little bit delayed, but will be joining us shortly.

Are there any administrative matters, Michael, that we should discuss?

MR. SPRAGUE: Just remember to speak into the microphone when you're there.

GENERAL WILLIAMS: Okay.

MR. SPRAGUE: Turn the light on, so Tim can hear you and get all your words down.

GENERAL WILLIAMS: Okay, good.

MR. SPRAGUE: And we'll probably make some short announcement right before lunch.

GENERAL WILLIAMS: Right. I think each of you know that because of the way we're chartered, we have a pretty accurate account of what we do here at the panel meeting. And obviously this is not to discourage anyone, because we just want transparency and a full disclosure, and that's what Tom does for us, and he does it quite well.

Okay. We're going to get started this morning with an overview of the state of the organization. We do this each time, so that you have a clear understanding of where we are today. And you can help pass the word along and be informed of what we are doing.

This first slide that I am going to present, if you would, focus now to your left and

right front of the room you will see the PowerPoint, it sort of gives the mandate of what our organization is about. We have to put in place very carefully facilities that serves as the platform for spread and diplomacy.

This next slide gives you some facts. You've seen these before, but we are emphasizing them because it is important to know where we are. In 2000, the Department was essentially delivering a facility a year. And of course, you see the track record that has occurred since that time, 15 last year, and we own a glide path for 16 this year.

And I'm a little scratchy in the throat because we just left a wonderful ceremony yesterday in Panama. And actually, it was the day before but we flew all day getting back yesterday. But now that facility is open. It's one of the largest facilities that we have opened in Panama and it's a wonderful new addition.

The operation and focus of the organization listed here, basically is just straightforward. It's about performance, accountability, discipline, and credibility. I was speaking at an organization earlier in the week and someone commented that well, that's the way the private sector works. Well, we

didn't exactly have that in mind when we set this out, but we just simply wanted to put the focus around what we thought was important at the end of the day. And these four guiding principles are what we base the organization's focus around. And it's about communication and transparency.

This next slide is new for you and it just gives you a notion about the dozen means we have for communication that we offer our people and those who are associated with us. There are 12 separate entry points into our organization where you can speak to us, you can interact with us, whatever. It talks about some that are clearly for the OBO family and right down through all of the meetings and et cetera, in addition to this panel. So there's a dozen plus one opportunities and avenues to interact with our organization.

This next slide speaks to something that we have been working on pretty hard over the last year and a half. It's a new way to think, new way to build, and it speaks about what we are basing this on and the shifting thinking around our business.

And that gave rise to the 20 management concepts that we introduced about a year and a half ago and they are listed on the next slide. I'm not

going to go through them. Everyone, I think at this point, are generally familiar with the Williams 20. They are listed on both of these slides.

Then of course, moving on to another process introduction that you have not seen before, but I want you to be aware of it together with the communication side. We have a 14-step acquisition process of obtaining a new facility. And I'm sure that many people external to our organization doesn't quite understand that. We select sites and we have a protocol for that. A very defined protocol. We purchase a site through a defined process. And our sites are approved by the Congress. So when there is some discussion about a site, then we're all in this one together because, before we move forward, Congress has to approve the site and also the purchase.

Project planning is done the same way on every single project. Acquisition of the design build team is another bureau's responsibility, the A Bureau's responsibility. OBO does not select contractors, consultants or anything in procurement. OBO does not.

The certification process is a process that we must go through because it's associated with the

security side of our house. But just so that you know, and Suman and some of the others are very familiar with this process who work with us, that we cannot move forward to build, to construct, to do anything, to spend any money on that portion of the project, until this certification is approved and sent to the congress. I'm just letting you know the number of hands and entities that are involved in our business.

So now you see two things. We cannot purchase a site or move forward on one without congressional approval, and we cannot build in any city with a classified component without the approval of the drawings and the certification of the Congress.

The on-site supervision team is put in place and we have protocols about that. It's always led by an American. And that individual is selected and he or she has a team of other Americans and some qualified third country nationals or host country.

The notice to proceed for the design build team or the construction team, if it's a design build bill, is a methodical process. We have a protocol that allows that to take place. And then the project about somewhere between 97 and 98

percent for the builders in the room, we reach what we call substantial completion. That's the major work done. Not all things are prettied up. We have not cleaned up. We haven't done our final inspections. We haven't done the commission. We haven't done any of that. We reach substantial completion with the major pieces of construction, to the point that we can say that we are about there. Everyone knows who has built anything, even it it's been minor repairs in your home, you know that the last three or four percent is the toughest part.

So, the next part of this is an accreditation process that many of you may not have known. But before the project can be advanced to the certificate of occupancy level, it goes through a full accreditation and final inspections on functionality.

So, that's the process for every new project and most of the other projects that have, even if it's a rehab that has a high dollar value. But I'm speaking now for the new information.

And then of course, once all that's done, the certification is done, then the issuance of a certificate of occupancy. And sometime between accreditation or at the tail end of accreditation, I

personally make a visit to each one of the sites. If I am unable to go, Joe will go for me and we walk the entire site from the standpoint of just making certain that everybody who is going to live and work there are comfortable. We don't get involved in the accreditation processes or any of that. We just walk the site and make certain that yes, it is in fact here and everybody's comfortable. Generally, the furnishings and that type of thing is all in place by that time.

And then a certificate of occupancy, if it's not already been issued, is issued and then the post may move in. Now the accreditation process is generally, the allocated time, is about 60 days between substantial completion until we reach that point.

Our contractors work along with us. We're dealing with punch lists during that period of time. We're tidying things up. We're getting things right. Sometimes we have to do a few things over and correct those things. Nothing unusual about that. Anybody who has been around construction for about 15 minutes knows that. So it's not an issue.

And then of course, there is a formal turnover process where we literally take the project

director and the facilities manager and we transfer the documents. There will normally be a punch list, even at formal opening, because these are huge facilities and there is a little something that needs to be tidied up. We talk about warranties and all of that business during this transfer arrangement and they actually sign pieces of paper. I'm releasing it and you've got it.

And then at that point, the building part of this is taken care of. And then the contractor is finally released of responsibilities, once all the punch list items are taken care of. That is the process, a very methodical process been in place for at least, at this level, for six years that I know of. And I'm sure before my time, they were something on this order.

Okay. What we have completed since we last met, we had substantial completion in Algiers, Managua, Panama City, and Rangoon.

Okay, Sofia, Bulgaria is listed here next because we are very happy that we have, and you saw some of the publication outside, we've really been into greening ourselves as much as we can. We recognize that this is an area where we want to be involved. We have some very good people. Donna

McIntire sort of heads this up for us, together with others in the organization. But we're very serious about becoming green in a lot of different ways. This just happened to be our lead certification for a big embassy compound on a ten-acre site in Sofia, Bulgaria.

Now, this list shows what the stewardship has been about. You see 52 new facilities that have been put in place for our people over the last six and a half years. This is 52 facilities that our people did not have six and a half years ago. And obviously, we are very proud of that.

Sixteen of those are in Africa. Ten are in Europe, the Europe region, and ten are in the western hemisphere. That would either be pretty much the Caribbeans and south. So you can see what we've been doing.

But the important thing is that this chart here is the most prominent of all that we will present, with the exception of one more at the end. We have taken almost 15,000 people out of harm's way. They are now in facilities that we consider to be safe and secure and they were no in facilities there were safe and secure six and a half years ago. So you, as a taxpayer, you should know that, and if

you every have to give a small speech of about two or three seconds, that's the speech to give, they have done 52. Because let me tell you, nothing else in the grand scheme of things, we are about getting people out of harm's way. Remember our mandate from the very beginning. And the real question is, have you done that? And so that's where we are with that.

And you can see the projections even through 2008 where we expect to be. We will be close to 16,000 at the end of '08.

Now, in addition to the 52 that we have done and in the process of passing the last two or three over to post, we have 29 that are under construction, design or construction. And you can see the value there. It's slightly over three billion dollars. We have other projects, as I mentioned, some rehabs, you see the number there, and so on. I'm not going to go through all of these.

But you also see that there are 76 new projects, just like we have just talked about, that are in our plan going forward. So, you can see, we still have work to do. We have done about 42 percent of the identified problem. When we arrived

in 2001, and Joe and others who were here before, know somewhere around, between '98 and 2000, our diplomatic security did a survey. They led a survey that identified over 195 buildings then that our people were using. These were embassy consulates, et cetera, that did not meet security standards. So you can see the dent that we have made in them with 52 done and another 29 being worked on. Quick math gets us to about 81 and that can be easily netted out of 195, and you can see where we are.

We awarded these facilities in 2006, just for your information. We planned to make awards and there will be some announcements in the next few days regarding these locations, and more to come on these awards.

I can say this, that we still have good competition with our projects around the world. We're in very difficult locations, but we have been encouraged, quite frankly, where we are with that. And things still look viable for us.

I'm going to skip over the next chart. I'll come back to it at the very end. So just assume that you didn't see it, but I'll be back.

The new embassy construction is what I want to show you now because you know a lot of discussion

takes place, but you have to realize that you have to attend a meeting like this and see for yourself exactly what is taking place.

So this is our standard embassy design. This design did not cause the water-cooled chillers to create problems for us. Design had nothing to do with that. Obviously, that's a mechanical problem and our set design did not have anything to do with that. But this is the master plan of what our design looks like. We generally want ten acres of property so that we can do what we must do. We have some expansion space. We put a wreck package in place. The landscaping is beautiful, as you will see later on. But that's the complex we try to deliver the customer versus one building or so under the previous construct. Okay?

Now, so, let's go through. I'm going to go fast. This is Dohar in the Emirates on your left, Kampala, Uganda on the right, lower left. We have four on this slide. Bogotá, USAID Tunis new embassy compound lower left, Darussalam and USAID on the upper right and lower.

This has twelve. I'm sorry, six. Abu Dhabi in the Emirates, Zagreb in Balkans, Istanbul, Turkey, big consulate Nairobi in Kenya, Sao Paulo,

Brazil, and Lima, Peru.

And Michael, what happened to Lima? You're in trouble when I can look at them and tell what they are. Oh, it's up there. It just didn't show on my chart. Okay.

Okay, interim facilities in Baghdad, interim in Kabul, Sofia, Bulgaria, which is now green, and Dili in East Timor. Abidjan and Côte d'Ivoire, Kabul NEC. And let me say something about Abidjan because it's got a little bit of attention of late. I think everyone knows that we went through two wars. We had, we call them wars because they were ordered departures, people were shooting and all of this. So whatever it was, it closed down our activity. Our contractor hung in there with us, 285 Ivorians who were working with us. And incidentally, ladies and gentlemen, we have foreign workers on every single job we have. There is nothing unique about foreign workers. Foreign workers was not just invented a couple of years ago. They have been around a long time, and that's a good host country lash-up for us. And it allows our contractors to get work done that can be done by non-Americans. And then, of course, Kabul, Cape Town, and Frankfurt.

We have, this chart shows another six, Luanda in Angola, Phnom Penh, Tashkent in Uzbekistan, Tbilisi, Georgia, which is near Russia, Yaoundé in West Africa, Yerevan in Eastern Europe.

This next one shows Astana in Kazakhstan in Eastern Europe, and then of course Bamako in Mali. And Bamako has been an area, I mean been a location that has gotten some attention of late around chillers. We'll get back to that a little bit later on.

Belmopan. I'll tell you a little something about Belmopan. We just had a horrific storm that you know went through. One of the reasons for moving this particular embassy site 50 miles to a higher location was because the coastal area was consistently flooded and hit by storms. So, quite frankly, the post gained two things here. Number one, getting out of the wet area and number two, getting into a new facility. It comes with housing.

At the time that we broke ground, there was not any concept for housing. And a couple of entrepreneurs attended the groundbreaking and they were interested in maybe trying to help in this respect. We discussed this with all needed to be involved and decided to try to advance a build to

lease concept for housing. Fortunately, through a lot of hard work and pushing and et cetera, we were able to get housing at the same time, including a chief-of-missions residence at the same time we completed the construction. So we thought this was an excellent piece of government.

Then of course, Bridgetown, which was a white elephant when I arrived. We got that ongoing. It's up on and running. It's been delivered.

These are four slides here that covers Conakry, Guinea, Dushanbe in Tajikistan, and of course, you can see the USAID, then Freetown in Sierra Leone.

This is another four here. You can see the follow-on work in Kabul, Kingston, Jamaica, Kampala, USAID now in Lomé, Togo.

This next one shows the Nairobi USAID facility, one of the largest in Africa, Phnom Penh, and the Tirana annex.

And then, of course, Athens, Greece. We did a little green in there. It was just recently opened. This is an annex to the existing complex.

Accra, Ghana was opened a few months past. A beautiful facility, it has a USAID component as well. And you can see some of the shots of the

interior.

Bogotá in Colombia, a very large annex in place. Kathmandu in Nepal opened a couple of months ago, and we've been able to see that facility as well. And this is the annex that is part of that.

This next project shows Managua in Nicaragua. We're in the final walkthrough turnover stage there for this NEC. It's obviously at substantial completion. It's had its accreditation, and we are punching and doing some final testing and commissioning.

This is a USAID facility. This is a facility in Panama, which I told you we just opened two days ago. This photograph here was taken a few, maybe a month ahead. This is a real, real, beautiful site on the side of a hill. Everything fits well, looks nice.

So, Rangoon in Burma, we were out about three weeks ago in Burma to open this facility. And that was number 50th. Notice you see that at the bottom. And of course, that place, you know, with all the issues that are going on there, they were quite proud to do this.

I made a comment the other day to staff that after opening these 50 plus facilities, I've

seen more people cry than smile. So, it's all relative to who is being affected by this. But this 50th completion was quite a celebration for host country people, who were seeing for the first time something that represented a new way of life. So, that we were very proud of.

Algiers, as I mentioned, is done and we're working through the final testing, and punch list, and tidying some things up.

This shows the 29 are under construction that we mentioned as well. You can read the list so you can see generally where we are. And here they are, this is Kigali in Rwanda, and this should be a January, maybe Christmas completion.

Berlin will be around Easter next year. You know we're in very tight quarters there working through that. Berlin will be a few months late.

Port-au-Prince, you know that we worked through some very tough goings there. This should be late spring next year, maybe a little earlier. It will be also several months late because of the stoppage and start for the installation. But nevertheless, we are pressing along.

Quito in Ecuador would be a late summer. Next. Ciudad Juarez would be fall of next year.

And Khartoum in Sudan. I don't know if you've been following the activities in Sudan, but this is a very, very tough situation for us. We have an absolutely fantastic contractor who is working with us, but all of us will run out of wherewithal if we do not get some additional help from the host country. We're having some big difficulty getting what we need through the various logistical channels and it's laced with politics that we just have not been able to work through. So we're very concerned about that and so is our contractor, but we're doing the best we can because we have people there. And the real shining light here is that once Khartoum is done, we have places like Darfur, Juba that we also need to attend to, because we have issues with our support there as well.

Skopje in Macedonia, this project is running late, and it's at 24 percent complete. We've got a good planned recovery, but I need to let you know that it is not on schedule. Mumbai in India in a similar way, we had some water issues upfront and some host country problems as well, in terms of allowing the logistical linkage to work. So this one is challenging as well.

So, Rabat, very late sluggish start there.

But we are trying to get this one back in order. These are very difficult areas, ladies and gentlemen to work in and you really have to be hitting on all cylinders and have a good day and it's not raining to make everything work.

Beijing, you know we've been on the clock here almost four years. We're getting close to 70 percent complete, 69 and a bit. You can see in the lower right-hand corner, things are beginning to look like a building and a complex. And that is our ten-acre site.

In Baghdad, we have not images, for obvious reasons, but I just need to tell you a couple things. That the project is substantially complete. We have no budget issues with that. The accreditation process is ongoing and I might point out that our protocol accreditation process is 60 days. We are working and trying to shorten this period as much as possible, but there is 65 acres versus 10. There is 26 buildings versus three or seven. So it's a mammoth undertaking. I want to mortify this somewhat. We anticipate opening in October at a date yet to be certain and that is, once the accreditation process is finished. It's a self-contained compound and we are working through

all of the issues associated with accreditation and a punch list and ensuring that everything operates the way it should operate. And we're working through that process as we speak.

Now, it's a tough road ahead with Karachi leading the list. This is where we got some really tough projects. Harare is on hold, that's Zimbabwe, because we got some governmental issues there that we cannot work through. We have to have assurances that our contractors can in fact do business in the country. That's a pretty fundamental one. And the ambassador, he and I have met, and he is trying to work through that. But right now, Harare is on hold until such time as we can get through those strictures.

Okay, a little bit of clarification for everyone. We have a program called BMIS. It is a Building Management Information System. It's our first cut at trying to get a data manipulating apparatus so that we can all see the same data, same time, retrieve it and work with it. The first phase of that is coming to an end. It was about a three million dollar undertaking that we took on. We got some products from that, which tells us that there is great capability. Phase two will be further

expansion down to include the post. And there may be a phase three and so on until we work through it. But it's a way of moving our data around, producing some products that we know have been drawn from a common database.

Travel, I've made 197 visits. I travel with my chief of staff and myself. Incidentally, this is Jonathan Blyth. Bob Castro made a speech, sort of a valedictorian speech last time when he was here. And he's now joined his lovely wife in Monterey. So, Jonathan, who had been my Congressional Affairs Special Assistant, is now with us. So that's our traveling party, he and I. We've had some renovations that have been ongoing in an out building which we do not own. It's a lease property that is managed by our bureau that manages domestic properties. We've had renovation ongoing from the bottom floor all the way up since the mid-90s, about seven or eight years before I arrived. We finally finished on the thirteenth floor. But that's the renovation story. It's run and monitored and controlled by GSA, not OBO.

Chillers, we've had some growing pain with our water-cooled chillers, to the extent that we've written a white paper. We've interacted with our

vendor, who have been involved with that on it. And together we have come to conclusions about how we want to proceed. We're going to hear a lot about that today, as we walk through.

I want to just point out if you are just building coolers, I mean chillers, building in Atlanta, Georgia, or Chicago, or Los Angeles, you can work with the climatical conditions that are associated with that. But if you are all over the world at 260 locations, it's just kind of hard to figure out how the water source is going to be in Bamako versus Tajikistan, or some other place. So all of this got into that problem plus the fact there is a maintenance training situation as well. You know, these are very sophisticated pieces of equipment. So we will be making, have made some new path forwards in a way we're going to look at our cooling apparatuses going forward and our team will speak to that.

I've talked about the set design having nothing to do with chillers. Rome, there was a little issue. Let me tell you something about Rome. If you've ever been there before, you know it is a beautiful chancery. Next to that chancery was an insurance building, the INA insurance apparatus.

That building was purchased to add some additional space to the embassy about two or three years ago, maybe three years ago, maybe longer than that. It could be three and a half. I can't recall. And we are in the process with joining its people with a series of renovations and rehabs going on.

So there was a small fire that occurred in a fan coil, which was just a subcontractor mistake and that was just what it was. And no injuries to people, no destruction of any property and it is just a matter of making that correction. So, if you heard anything about a Rome story, that's what it was about.

Contracting and procurement is not, underscore not, done by OBO, it's independently by another bureau. Iraq procurement is done not by OBO, but by another independent bureau. The Belmopan build to lease, I just mentioned that and how it got to be a build to lease because there was no housing and the embassy was relocated, a decision made many years ago, inward, in order to get them out of the wet area.

And the name change to OBO, which was announced I guess three or four days into Secretary Powell's tenure, was a decision that he made. He

wanted to drop the word "foreign" and add "overseas" to that. And that cost the government about $400,000 to do the reconfiguration of that.

Okay, now this is OBO's recognition that has occurred. It's 16 key recognitions that the organization has received. We're very proud of them. I'm not going to read them. You can look at them, digest them and whatever, but it's been from pretty much every corner of the government.

The one that I'm very proud of is Veterans' Affairs, down at the bottom. We have done a lot for Veterans and tried to help it out in a lot of different ways, to include those small firms that have tried to come together and help. Our Society of American Military Engineers has been there a couple of times, and ABC, and so on.

Okay. Now we are going to come back to that one slide that I skipped over and I know you were wondering well what about that. So, when we reach the 50th point, the staff said to me that we should just pause and do a little reflecting. The staff said to me we should pause and do some reflecting, which we did. And we looked at the BMIS situation that I just explained and kind of made some assessments about that and what it meant to us.

We looked at FISMA, which is the Federal Information Security Management Act and sort of pull out well how are we doing? And you can see we are anywhere from 97 to 98 percent on that.

We were very proud of the support that we received from our Congress, almost three billion dollars of support for these 50 compounds over this six and a half year period. Congress has been absolutely superb with the support and we thank them for it.

Then, we've earned an effective rating. That's a rating by OMB for our new construction program. I think it was 97 percent was the level and was told that it was one of the highest scores in our government at the time that we received it.

And then of course, if you look at the stats on the 50 projects that we had done at the time that we took the snapshot, because you know we had 52 now, they were constructed on 41 separate sites, 677 acres and then you can see some of the sites had been previously owned, others were. But the long and short of it, it was just a lot that was out there. We acquired 27 new sites since 1998, et cetera, et cetera.

On this next slide, it tells you that we

were also able to do the other half of the OMB requirement to us and that is, we must dispose of 11 properties. So, when a property is sold, it's not something that anyone in OBO would like to see sold, it's because we are mandated by those who over-watch and control our program to dispose of properties that we have made a justification that did not work for us.

For example, if we are in an old building. We had nine separate locations in Ghana, for an example. When we asked for the funding for Ghana, we made the case, business and also presence case, that the nine buildings would not work. So what is expected from our stewardship is that the nine would be disposed of. And many people don't understand that, but that's the way the process works.

A representative sampling of the thirteen projects that we put in place, you see some artwork statistics there, which is a part of our program. The total man-hours, which we are very proud of that we worked, we had 77 accidents, but look at the number of man-hours. The lost time rate is a 0.14 and we are overseas. We had 186 design reviews and the total number of contractors who worked with us during this period of time was 21. These are

generals. Now, you know, you add the subs to that and this would put you at 100. The total concrete placed in cubic meters, you can see the number there, and so on and so on.

So this is what we garnered by taking time out. You look like you want to interrupt.

MR. TOUSSAINT: I want to interrupt, General.

GENERAL WILLIAMS: Okay.

MR. TOUSSAINT: Because you're not going to say this. The General makes all his slides except this one, the last two you saw. And the other thing is the General doesn't like surprises.

I saw this at a meeting earlier this week, sir, and I saw that you had changed the format. You took out the introductory remarks of this.

GENERAL WILLIAMS: Uh-huh.

MR. TOUSSAINT: What you see here is what staff came up with. This was not a tasking to staff. This was staff looked and said you know, we've done 50 buildings, 50 facilities in the last six years. And I think it's time that we surprise the General with an award. He's always giving out the awards, but it's time for us to turn the tables.

So when you came into the Monday staff

meeting, because I was on travel, my colleagues said, Joe, you can be the Master of Ceremonies. So I got to do the honors of surprising the General with an award.

So, if you go to OBO now, you will see an award in our case on the lobby floor that is to Charles E. Williams in recognition of the leadership that he gave the organization to achieve these incredible results. And as you can see, it was not just an execution issue. It involved everybody across the board in OBO, numbers of passports, numbers of personnel actions, the numbers of visas, and on and on and on.

So we were very proud of this achievement and we really wanted to recognize General Williams. So we got two awards, you have one, sir. I trust you have, you're keeping yours?

GENERAL WILLIAMS: I have, it, yes.

MR. TOUSSAINT: And the one we will put in our case downstairs to mark this milestone. But I wanted to correct that.

(Applause.)

GENERAL WILLIAMS: I appreciate that, Joe. And I appreciate the initiative that the staff decided to do. And if you don't take anything else

away, it was not a task. You got it though?

(Laughter.)

GENERAL WILLIAMS: Okay. Are there any questions on anything that we covered this morning in the overview? It was a little longer, because I wanted you to have some behind the scenes operations and so you get a good feel for what the operation is about. We have a big challenging responsibility. We are delighted that our panel and those who have served for the last five years on these panels, many of them come back. I see Mary here and some of the others. We appreciate your loyal support and coming in to support the program.

We believe that this is one of the best pieces of government that I have been associated with. It's a very challenging program. We have very difficult places to work. We have a very good, supportive staff. All of the managing directors and I are on the same page. We don't have issues and arguments, but we have a very challenging job.

And we're not perfect. We're human like everybody else. I'm still waiting to see my perfect something and my perfect person. So we realize that some days we have to work harder, but the bottom line is, for your taxpayers dollars, there's 52 that

we didn't have, and there are 15,000 people who were concerned about their safety and their health six and a half years ago that are, hopefully, not at this time.

Okay. Let's move now into our topics for discussion. And we're going to alter just a little bit. We're going to do the HVAC Systems first. And then we're going to try to do one more before lunchtime and that will be the environmental and sustainability one. We're going to switch just a little bit.

So, why don't we have the champions for the HVAC system make the necessary presentations?

MR. LANGFITT: Good morning, General --

GENERAL WILLIAMS: Good morning.

MR. LANGFITT: -- ladies, and gentlemen. My name is David Langfitt. I'm a mechanical engineer with the State Department and I've been tasked with the presentation of the majority of this. George is a little bit under the weather, so I picked up a couple pieces that I wasn't really planning on earlier.

On this first slide, everybody here knows embassy construction is very challenging. It's challenging enough to do what we do if we were doing

in the United States. To be able to do this overseas, especially the heating, ventilation, and air conditioning portion, is extremely challenging. So our goals are as you see. Make it simple, cost efficient, smaller, trying to conserve floor space within our buildings, maximize reliability, maintain security, and be environmentally responsive.

To that end, we've implemented several ongoing initiatives. This is one that I actually just witnessed. The two pictures here actually involve the picture of a methodology that we're trying to encourage our contractors, our general contractors to do. It's a skid mounting of equipment. Skid mounting means that you take major pieces and components and organizations of equipment, put it onto some sort of a framework that can then be shipped as a whole overseas.

So actually let's talk about the bottom picture first. This is a 3-D view of the upper system. During the initial review, this information was transmitted to the contractor. They recognized some challenges. They knew this was going to right up against a wall so they said, oh gee, the piping here in it turns out to be the bottom left-hand corner, you see two pipes sticking straight up, they

said we don't need these going into a wall when we immediately have to make them go up anyway. So the 3-D view made this a very easy item to recognize. They said, why don't we take this and instead of elbowing this out, we're just going to go straight up. It was an easy change to recognize because of the 3-D model.

It was an easy change to implement because this was all built in Cincinnati. So we actually went out there, saw this system, we tested it. We were able to go through all the failure modes for all the building automation system that was included as part of this. They recognized some challenges. A transformer, you know, George and I were walking and said gee, this is really hot. They identified it as a problem. They replaced it before they sent this. So this is an advantage that we're hoping the general contractors will take advantage of.

They can implement this. They do all the quality testing here. You know what you're getting overseas. The initial cost is a little more, but the mechanical engineer, the mechanical contractor's time on site would be significantly reduced. And if you're stick building something in Ouagadougou and you are short a transformer, they would have

probably gone, oh, it's probably okay, as opposed to what they did here. They got us a bigger transformer. So there are significant advantages do doing what we've done or what this one contractor has now done and we are encouraging.

The bottom picture, as I said, it is actually an implementation of the BIM, the Building Information Management methodology. The mechanical portion of that, OBO is trying to embrace the Autodesk products at this point. We're approaching the use of Revit. It turns out Revit is primarily a structural and architectural version of the Autodesk programs. When we went to this particular location, we asked them what they are using. It is actually an Autodesk product, but it is called Inventor. And they were very adamant about making sure you use the right tool for the right job. You can't, it said you really do not want to do mechanical systems using Revit. You do not want to do building systems using Autodesk Inventor. You need to use the right tool for the right job.

So they were very -- and I asked the specific question how fast are you at doing this? The young man that was doing most of their product line at this point says I am approaching the same

speed of doing this in 3-D as I was able to do in 2-D before. So, after we can get our contractors up to speed, this will be a great thing.

The General mentioned a couple times about the use of water-cooled chillers versus air-cooled chillers. Just a brief note, we are going to air-cooled chillers. It is now the standard equipment. The water-cooled chillers create multiple problems. You have to buy the water. You have to treat the water. You're using a huge amount of water, which varies by the size of the system. One note here, we have implemented an air-cooled chiller system in Tokyo, 720 tons. It was using a little over four million gallons of water a year that we are now not having to use. We're just discharging all this heat into the air.

So we're saving four million gallons of water a year in one location. The typical building, the standard embassy design that we do is about three hundred tons of cooling, which is still a million tons per post per year that we're going to be able to save just by using air-cooled across the board.

The lower picture here on the left-hand side is a high efficiency compressor. This little

guy is a simulator. It shows a magnetic bearing. What they have done is they have taken this concept, it is a centrifugal chiller, a centrifugal vein. It sits in bearings, never touches anything. You don't have any oil, you don't have to change it. You don't have any friction. It should never wear out.

This entire compressor weighs 220 pounds. It's a scroll or a different type of compressor. It's screw equivalent, weighs about 1700 pounds. This fits through a door. Well, this obviously fits through the door. The compressor fits through a door, can run up on an elevator. The whole thing makes wonderful sense as a retrofit possibility for us to use.

Oh, yes, I forgot to say. We also have several places we've committed in the most recent State magazine, which is here by the door, we have a going green or great green. We have made the installation of this particular compressor, this one on the bottom left here. These systems have been installed in Tokyo. It's a very good story to tell.

MR. GLAVIS: I'm going to jump in here just a little bit, bear with my cold, please. As David said, smaller, quieter, simpler to install. He really picked up on some of the things that we've

been struggling with in the industry when people were telling us well gee whiz you've got to go water cooled because it's more efficient. That's because some of the people weren't adding up all the parts of the equation. And they were also ignoring the cost of water and precious resources that we have overseas as General Williams very nicely pointed out. We don't want to be environmentally unfriendly. We want to conserve where we can and so we're taking giant steps.

And by the way, we're finding out that some of the people here not too far from our building right now are analyzing air versus water for large installations going air, because of the cost of water. And as you know, we're not going to look at any decreases in those kind of costs in the near future and we're building these buildings to last.

So, the lifecycle cost clearly points to go simpler, smaller, an easier to maintain system that is going to give us a lot of payback.

The other part, I think that needs to be pointed out when we start looking at the flexible loads, we're finding that special loads that used to be a very small percentage of a building are now a significant size of the building loads. And as we

see those coming and going, shrinking and swelling, according to different threats around the world, we have to adapt. And the monitoring concept is easily adaptable to the increased loads, rather than throwing out a whole chiller and starting over. So those are the kind of specialty issues that we're looking at in addition to payback is, if you don't have the surge occurrence of these big machines with all that other ancillary equipment, you don't have to oversize your generators. So the payback is even further. And it's really significant when you look at some of these generators being double the size, just in order to carry the surge occurrence on the startup of our former very large equipment.

So a lot of that lends itself to reevaluating the total picture, and thus far, we seem to be finding that the monitor approach conserves space as well. We're finding out that we can pack an awful lot in a very small space, to the point where we can get about 300 tons in one building bay. That was unheard of before. We're able now to, shall we say, put these things in a container and move on. Marvin's going to talk a little bit more about some of that features.

And so as we drive down the costs and drive

up the quality, guess what? The warranties come up. So we're looking at some firms out there today that are giving us warranties such as you get with your refrigerators and your air conditioning systems at home. A five-year warranty, just like you have on your car. You buy something like that, you expect it to last and those people should stand behind those kind of warranties, and some of these firms do.

When we start looking at a percentage of the building, we're building our percentage way down from what was industry standards down to about five percent of the total gross building space for all of our HVAC. This is significant because we are looking at small, medium, and large embassies and the very specialty smaller embassies. And we're still getting these things down to five percent of gross space. And that's the total HVAC.

When you look at the enhanced security for protecting against chemicals, biological and radiological threats, those portions of this are about a half a percent of the building in space, less than one percent in cost. We're still looking at some of the, shall we say, significant features of the cost drivers, we're saying, okay, let's get a

little smarter, perhaps some of these things we could do GFE, rather than paying a lot of markup up front, so General Williams, we're coming to you with a decision memo and see if we can't cut those costs down even further.

So it all is a moving target and what is new today is what we see, but God knows what we're going to have tomorrow. When you start looking at this sort of thing, there's no oil. It's kind of like driving your car and not having to worry about the oil light going on. That's kind of neat. When you look at some of the other parts, we had certain functional space limitations which are removed now when you don't have this oil, which allows you to have longer refrigerant lines, et cetera.

It's conceivable that we would have such things like this integrated into the air handlers itself and even drive the sizes down even better, to the point where you're actually plugging in electrical and a very limited amount of piping and plumbing that now is a spaghetti mess, if we start looking at these buildings overseas and trying to pull all those pieces of spaghetti. And David alluded to that.

Finally, the NRC just came out very

recently with a report that is the National Research Council or the National Academies of Science and Engineering, after a year-long study of protection against biological and chemical threats. They indicated when they brief us that they were very impressed with the passive protection systems that we have. They actually gave us kudos they couldn't turn around and say it's the best or anything like that, but they said they learned an awful lot from us and they were quite impressed with the systems that we have in place.

Naturally, there is some interest in sensors. Some of that is ongoing. As we look at that, we see the ideal combination for critical and high threat areas, if you can distinguish those, and so far, our DS folks haven't been able to, where added sensors might compliment the passive protection enhanced filtration systems that we have here.

In addition, you're going to see the medical profession is now starting to look very seriously at this. And when they start looking at the dehydration of the bugs, whether it be the things that give you a common cold like I have or whether it does you a lot more harm, they can

survive with this enhanced filtration system that we have.

So those things are ongoing. And I'm going to stop because there are a lot of other things that Marvin and Darryl would like to say. Thank you.

GENERAL WILLIAMS: Okay. Thank you, George.

MR. LANGFITT: So to finish up, one, we do have show and tell filters out front. You can actually see an example of what George was just discussing.

On the next slide, early this year, the January, February timeframe, the energy policy act of 2005 when the President's Executive Order came into effect, we are doing a variety of things to try to meet that. The picture is actually a picture of a dedicated heat recovery chiller. What this allows you to do is any building that requires cooling and heating at the same time, on your home air conditioning unit, you that when that thing, when your unit outside is running, you're taking heat and throwing it away. Well, a dedicated heat recovery chiller would actually take that heat and use it to heat either domestic water use for your kitchen or will use the variable air volume reheat for your air

conditioning system. So it's like getting half of your requirement for free. It's designed so that it's working all year long in the wintertime, when we're making more heat than we need, you're taking the air conditioning and using it for those pieces of the buildings that would otherwise we would have to run a chiller for.

Targeting highest efficiency for maximum operating hours, again as George mentioned, we have two gentlemen over here who are going to discuss several pieces of this, so we'll kind of go quickly.

Minimizing use of proprietary systems, we have an ongoing effort to do that. Again, because we are not local to D.C., we're not local to Cincinnati, some of this stuff is really hard to get where we work and live. So we're trying to make sure a commercial off-the-shelf is available. The same with our building automation systems.

We are working with facilities to improve the training that goes on for these. Actually, trying to get some of our contractor or our vendors to supply us with visual training so that it's an ongoing available thing. If they're getting ready to go work on a chiller, they pop the CD into the thing and go oh, that's how I do that, instead of

trying to read it out of a book. CDs are way easier than they used to be. It's a good way to go.

Finally, the secure internet communications. I don't know that we'll ever control our equipment from here, but we should certainly be able to monitor it. We're doing so in some of our posts. We probably should have that capability throughout. So that's one of the things that we think we're going to approach.

GENERAL WILLIAMS: Okay, before we go into the other side of this, are there any quick questions for George or David, before we get into the other presentations? Yes, Suman?

MS. SORG: George, was that five percent you talked about include the pent house?

MR. GLAVIS: It includes the fan coil --

MS. SORG: Penthouse space, the whole square footage?

MR. GLAVIS: Yes, there is a lot of contentious discussion on which process. The penthouse essentially is gone. We're talking about actual building space. And, quite frankly, you'll see different reports where they commingle a lot of other things into "mechanical space" and when you drill down, there is a lot of electrical areas that

are considered mechanical. They used to co-locate with the older HVAC systems. There has been a trend to have everybody have their own little turf. So you have a lot of mechanical electrical rooms. You have separate wires closets for telecommunications. You have separate ones for data, and then you have separate ones for classified. And when you add them all up, they are well over the five percent. I'm talking about heating, ventilation, and air conditioning five percent. That's based on the BOMA standards. Okay?

GENERAL WILLIAMS: Okay, as we roll into our panel side of it, I heard a central theme out of our presentation, which talked about reduced cost, reduced space, simpler to operate, and efficient. So that's what we're going into the other side with.

Darryl?

MR. HORNE: Good morning.

GENERAL WILLIAMS: Good morning.

MR. HORNE: Marvin and I had the task of the other side and thought this morning we'd go through, we'll start with minimizing HVAC issues after move-in. And that begins with, I think, a very basic business tenant that is really understanding the integrity of the equipment

manufacturer's upfront costs, its maintenance costs and its warranty cost right up front.

I'm not going to read these slides, but what we're seeing in the industry is really talked about a bit here. Custom design of HVAC systems for the type of building, the size of the building, and the geographic location, which is the issue of the moment here for OBO.

We're seeing quite a bit of building automation systems that are able to provide the increased occupancy comfort with the flexibility of controlling heating and ventilation and we talked a little bit about that already.

We're seeing a lot of innovation of innovative features around protecting the equipment once it has been installed. And we can talk about some of the high-pressure switches to low pressure switches. Crank case here is to protect the compressor after the refrigerant migration.

So those are some of the things we're looking at here from minimizing the HVAC issues after move-in, protecting the equipment.

The next one. Maintaining security. We're seeing that a lot of new technology is under development. I had mentioned here that the Pentagon

has put in a Novatron bioprotective air sterilizing system. That's the system they went to after 9/11. There is quite a bit of new technology being looked at right now. But the big thing here is what we're looking at here from a building automation system. That's the big nugget here. We're getting quite a bit efficient and effective equipment. Let's look at how we talk to that equipment. How do we get information out of that that equipment? How do we help that information help the people in the facilities?

Next one, please. Being environmentally responsible. We're seeing quite a bit of effect coming from the Energy Policy Act of 2005. This next one, which is really not relevant in blast-proof buildings or dedicated outside air systems, but what I would like to highlight here is some of the environmentally friendly refrigerants.

There is the R-410A refrigerant. And the EPA has pretty much recognized it as a chlorine-free refrigerant and we're seeing that the cost from an environmental standpoint is pretty significant. So we're seeing quite a bit of things here that we can look at from an environmental standpoint.

And lastly, we wanted to highlight how we

monitor critical infrastructure in the status of remote trouble shooting. George just talked about that quite a bit. But what we're seeing in industry is that there is quite a bit of building automation that we should be looking at. And it's getting more improved as time goes by. The issues around security are being overcome, because a lot of this technology is able to really fix itself with the type of typology that is being used today, a lot of web applications online. And I just have to mention that we're seeing a lot of innovation out of folks at Siemens Building Technologies and a lot of what you're seeing here is what they are doing in industry and some of the industry best practices that are coming out of their software packages.

Marvin, I'm going to turn the rest to you.

GENERAL WILLIAMS: Okay, thanks, Darryl.

MR. HORNE: Sure.

GENERAL WILLIAMS: We want to come back to some of your points. Marvin?

DR. OEY: Thank you, General. It was interesting when I got the topic. I, myself, have limited knowledge on HVAC and so I kind of started doing some interviews as some homework, talking to some mechanical contractors and various people. And

I got a lot of things I didn't quite understand. And so George graciously invited me over to the office to talk a little bit about what they were looking for. And what I found, as I started discussing the topic with them was a general theme that I saw that the mechanical group was going towards and that was modularization and prefabrication.

And this is a trend that was going on and my background is primarily in heavy industrial, a lot of chemical plant, and there is a lot of piping and a lot of mechanical equipment that goes on in the design and building of these plants. And so I wanted to talk a little bit about some of the advantages of where the engineering program is, or the mechanical program is going in terms of what the heavy industrial calls prefabrication, preassembly, modularization and then offsite type of manufacturing.

Next slide. Obviously, a lot of this stuff has been mentioned, you go this route, you get some significant reduction in project durations. You improve productivity because things are being built here and then shipped overseas so you've eliminated some concerns and foreign workers working on a lot

of this mechanical equipment is what I see as very highly secure. You've got air-handling systems that you don't want to be open to security issues. And so, you know, having this built here and then putting it on a skid, as they had mentioned, and being shipped off, is a huge advantage.

Next slide. Just some simple statistics on what is going on in industry. For the past several years, the PPMOF usage or prepackaging modularization has increased 90 percent in the heavy industrial area. This concept cannot just be used in just mechanical. It's being used in almost every discipline. You've got structural systems now that are being prefabricated and shipped in pieces. You've also got the mechanical systems and even, you know, you can see some of these homes that are being built. You know, half of it is being built, shipped to a site, and then put together. You know, a lot of that was done in the Hurricane Katrina redevelopment efforts.

And just some major areas, you know, you've got the equipment, the piping, and structural assemblies that I had mentioned.

In addition to the advantages, there are of course, impediments to prefabrication and some of

this modularization. You've got definitely increased engineering requirements, transportation considerations. Going in and out of some of these countries can be a significant issue that I've seen with Dow Chemical, you know, working with the government and even some of contractors on these issues. You've got a decreased flexibility of scope. When you have something prepackaged, there is not a lot of room when you start getting into project execution to change some of the technologies. And obviously site constraints.

And then what I'm going to talk a little bit about later on is the coordination, communication, and organizational requirements that I've seen after talking to George and Dave that OBO is already implementing some of these that industry has already been doing for several years.

Just some of the issues that come with prepackaging can be broken into two basically main topics. And one is vendor data issues and the other I will get into after this slide. But you've got communication problems with vendor data and what we found in several studies with some of these chemical plants was if you develop a standard preprinted form for these vendors to eliminate, some of the problems

were vendor data wasn't getting their information or enough information to the engineering teams. And by this, I mean, the engineering teams assumed that vendors knew what to give to the engineers. And that wasn't the case.

So what you resulted in was a lot of uncertainties in the form of missing data, late data, things of that sort. And one of the solutions that industry found was developing a standard preprinted form that was used in a meeting to sort of kick off the vendor/engineer team relationships.

Coordination problems was also a common issue that was found and what they suggested was, of course, vendor data coordination meetings, which I'm sure the mechanical program was already doing. But it's just kind of a reiteration of what they found. A lot of people were already doing this, but it's a reiteration on the importance of these coordination meetings, because you've got so many disciplines that review this information and what they were finding was the civil department would have some comments, mechanical would have comments, and the vendor would receive those and wasn't sure which comments were common to everything.

And then I'm not sure if this applies to

OBO, as I just learned today with your discussion about the contractors, I'm not sure who handles all that, but there are the vendor selection issues that the chemical industry faces. And what they found was this process or the vendor selection process held up a lot of the design process. So, a lot of drawings were being held up because the vendors weren't being, you know, the process was long and tedious.

Next slide. The other issue or the other main topic or area was the prepackaged issues and it kind of overlaps. And there was some of the main issue was insufficient packaged unit vendor engineering staff. What we found in a trend is many of these firms are downsizing or in the past. I'm not sure if it's -- this was a study that was done several years now, but it may have changed now or turned around, but a lot of people are going lean. They're trying to streamline their operations and so you get a lot of firms when they sell prepackaged products, it's prepackaged and they don't have the staff to maybe customize a product that they have and so that becomes a big issue on the owner's side to coordinate those.

As technology improves, you've more complex

packaged units, as we've seen in some of these products that are coming out. So there's more understanding of that. And then there is, of course, the inexperienced packaged unit sub-vendors. There is a lot of how do you select those, who is the most experienced and who have issues with, especially with overseas, you know, shipping those out. And then there's the lack of input from O and M personnel that was prevalent within the chemical industry and then of course, unrealistic promises by packaged unit sales.

Next slide. Some of the recommendations that came out of that were, you know, the prequalification program. I'm sure there's something like that within OBO. Customized specification meeting. And this is where you take a vendor's product, take a detailed look at it to see what are some of the customization needs. As David mentioned, there is, you know, a piece of equipment to be up against a wall. What are some changes that need to be made so those processes are in place? And then of course, the packaged units coordinator and that's similar to the vendor data coordinator, where there is someone within OBO that coordinates between all the disciplines and the different vendor

packages and equipment.

And with that I --

GENERAL WILLIAMS: Okay, thank you, Darryl and Marvin.

What we have just witnessed through the presentations and hopefully the interaction and the conversation will be stimulated by this, as I said, the government team is looking at a new path. We've made some fundamental decisions in respect to our HVAC approach and I've talked about those. And now industry is coming back, giving us some wonderful nuggets for thinking through this. The O and M side of this, as Darryl pointed out, must be considered and how all of that lashes up with modern technology moving forward, that can help us with managing the system.

And then of course, Marvin's presentation spoke to once again, still another way of looking at heavy equipment, industrial type equipment, and particularly as it relates to us, the HVAC side of it through a prefabrication and marginalization way to go. So, through all of this, we have seen different approaches. And I'm just interested now in any dialogue from any panel members about what has been presented.

MS. SORG: I had a question of Marvin. You know, the prepackaged systems that you are talking about, and we're talking now about a carbon footprint in building design. And I was curious if there has been any study, you know, doing this kind of packaging because transportation is a big issue and embodied energy is a big issue in carbon footprint, whether or not there has been any analysis of that kind of thing if you do this kind of prepackaging and shipping.

DR. OEY: I'm not too familiar with any studies, but I have seen in the chemical industries that the prepackaging but I'm not sure of the carbon footprints, sort of the error and omissions type of things.

A lot of the newer technologies that are coming out are being sold or marketed as prepackaged systems on skids. Now, in industry, in the chemical industries, the three different things that I talked about, the PP, the prefabrication, it actually goes in different levels, where you've got different sizes. They are actually shipping parts of plants now that are sizes of buildings that you connect. It's essentially rolled out to a site. And that tends to be a lot of complexities in it. But some

of the studies have shown that in the beginning, the learning curve or the cost for that was significant. So a lot of times they would just revert back to traditional systems. However, they are still looking at the cost benefits to using these types of systems.

And a lot of times what is seen is the redundancy. Because of the regulational legislation, if a system was to go down, a plant typically suffers some pretty serious fines and loss of credit. And so having these redundant systems in place has helped out, or has been an advantage for some of these plants. I'm not sure if that answered your question.

MS. SORG: Well you know, we'll probably later discuss the sustainable you know, and lamina design, but I was also curious if, George, the prepackaged units that you talked about, the skid --

MR. GLAVIS: Right.

MS. SORG: -- mounted.

MR. GLAVIS: Yes.

MS. SORG: This is just because I am an architect.

MR. GLAVIS: Oh, let's do it.

MS. SORG: And pardon my ignorance.

MR. GLAVIS: No, let's tie it together.

MS. SORG: But would they work a green power like wind power or other fuel sources that use thermal or anything like that? Does it affect that?

MR. GLAVIS: Interesting that you asked that. If we had the ideal composition of the ground, shall we say, coordination of contracts, and we wanted to go ground source heat pump, that would be an ideal opportunity to extract free energy, if you will. We've looked at the photovoltaics. They are still evolving technology, they're not advanced yet. The types of wind turbines that are being, shall we say, pursued with the large utility companies, are not conducive to our types of sites. We are looking at some other types of, shall we say, early developments in wind.

I see those coming together. I don't see them today and I don't see them right away tomorrow. But I think not too long down the road, we're going to look at photovoltaics with increased efficiencies, using our existing, shall we say, architectural facades. We also can integrate the wind, if we looked at some of these more novel approaches. If you would think of a horizontal revolving equipment right over your solar cells and

it's not going to destroy the photovoltaics as well, maybe the two contractors, maybe one contractor can put them both in. And when you start looking at the cost of our facilities overseas, a lot of it is driven by the specialty contractors. So, if one contractor can do both, that cuts the cost considerably.

With regard to the other question you asked, I believe we are already seeing one firm doing NECs with this concept. They are looking at shipping these things over in containers. Nothing free floating on the ocean anymore where you're going to drop something down. It doesn't work anymore. We're looking at really a conventional restrictive size based on container sizes. Because if we can do it in a container, then I don't worry about it getting dropped at customs or someplace like that.

Does that help?

MS. SORG: Yes, thank you.

MR. LANGFITT: If I could, one additional piece to that. From a carbon footprint point of view for our equipment, almost all the mechanical equipment comes from the United States anyway. So we're just trading the transportation from a

packaged unit to sticks, you know, pieces of pipe. So I don't think the quantity is significantly increased by doing it here and shipping it there.

One item on this prepackaging concept that I forget to mention, I made myself a note and then missed it, one of the things that I found to be extremely interesting is the prepackaging subcontractor in the case of this particular unit has all the accountability for all the piece parts. So we have one person to go back to from a warranty point of view. And the general contractor made that point. He says, oh, yes, he bought it. So we know who bought it, we know who installed it. So that made a strong impression on me and I missed it.

GENERAL WILLIAMS: All right. Do other panel members have any inquires of those who made the presentation along this subject?

MR. HORNE: Just to add a real quick note also on the prepackaging, from the sustainability standpoint, there has been, I forgot about this, one study. The ASCE has a committee on sustainability and prepackaging and been found to reduce or minimize waste during construction. So, that's been a big huge kind of push on the civil side in minimizing waste on the site, recycling. And by

having these prepackaged units, you've got more control in quality in manufacturing some of these components.

GENERAL WILLIAMS: What about the air-cooled versus water-cooled? I'm just interested in anybody's view on it, panel.

MR. HORNE: I don't have much knowledge of, I hope I'm not talking too much, but --

GENERAL WILLIAMS: No, you've got the show today. Your colleagues are letting you have it.

MR. HORNE: On the HVACs from a civil standpoint, I didn't quite understand the differences between the air, I mean, there is the air and the water and they both have their advantages and disadvantages. From a civil standpoint of the water cooled with the issues that are faced in these overseas projects is, what do you do with the water? And from a civil standpoint, you've got to treat it at one point, and that requires a significant amount of space or area on any site.

So you've already got large, you know, just acquiring this real estate in another country is an issue and it just seems to make sense to me that an air-cooled type of system that reduces that water

usage or water handling maintenance type of problem is an advantage to air-cooled systems.

GENERAL WILLIAMS: Okay. Greg?

MR. KNOOP: Well, a key interest is a building is a living organism and it's going to go on for many years. So are we seeing that this has a lifecycle benefit from its maintainability? Is it easy to educate the persons who have to operate and maintain it? That's where we'd want to see the benefit because once we get past the first purchase, it's the post who owns the responsibility to keep that thing running.

MR. GLAVIS: Absolutely. Excellent question, Greg. I came out of the maintenance side here and moved over to design. So I relate directly to what you are worried about. If we can simplify it, keep it smaller, eliminate all the extra ancillary functions such as water treatment, that sort of thing, you're not scaling up your system. You're not trying to run things incorrectly.

The modular approach has one distinct advantage. If I can look at one, shall we say small component, and I can master that, then stacking them in line is easy and anybody can look at that and understand from one modular and the others just

follow in line.

The only, shall we say, challenge, is the interconnection. And that gets into the electronics. We found rather than getting an awful lot of, shall we say, specialty wiring, simplify circuit packs so that you essentially have the same types of circuit packs all the way down and then you have a couple of spare circuit packs. And it doesn't take long before you can figure out where your problem is, whereas, if you have a unique massive piece of machinery, you don't know where to go when the darn thing doesn't start. And it could be a pump in another room.

And of course, those are the interconnection conflicts that the O and M folks are constantly driven with, especially overseas, where some of the people maintaining this equipment speak a different language. So anything we can do to simplify it, you've got my vote.

GENERAL WILLIAMS: Yes, go ahead, Greg.

MR. KNOOP: And how much reaction are you getting from the market? You've just adopted a system. Are you getting reaction from the market to treat you as a preferred customer because of the large purchasing program that you will be

undertaking for these systems, better value at the bid?

MR. GLAVIS: Well, I think it's important to look at our desire to stay competitive. There has always been a question of do you want to have three or four or five names on an RFP or do you want to leave the sheet blank, let the best man win and write a performance to spec? That's the way we're leading is a performance spec. Tighter and higher efficiencies because, quite frankly, if I pick, let's say General Motors, I can get a Chevy or I can get a Cadillac. Okay? And unfortunately, we're finding that problem exists today.

So, keeping the sheet clean and not showing any favoritism or any discrimination, but tightening up the performance spec, that's where we're headed.

GENERAL WILLIAMS: And that is very significant from the standpoint of OBO's position. Performance spec tweaking and enhancement and not paying any attention to the rest of it because that's left for the procuring world to connect to this performance spec.

Yes, Nancy.

MS. GOSHOW: You had asked about which might be better, air-cooled or water-cooled.

MR. GLAVIS: Yes.

MS. GOSHOW: This is a question I have for you. Does water-cooled require more energy than air-cooled or are they both, do they require both about the same amount of energy?

MR. GLAVIS: We went to the different manufacturers and we were looking at this for the last five years very intently. As long as you put the total equation together and you start looking at the piping and you start looking at the cost of running these things for X number of years, the ancillary equipment for water cooled is more expensive. It's also more expensive if you add up all the first costs.

So, then I started looking at sizes. Industry finally acknowledged that anything under let's say 400 tons, 500 tons, depending on which manufacturer you are talking to, air-cooled is best. Air-cooled is more efficient. That doesn't include the cost of water.

MS. GOSHOW: Right.

MR. GLAVIS: And of course, as soon as I put the cost of water in, I'm finding out that some of these major manufacturers right around here are going air-cooled because the cost of water is

offsetting the advantages of a water cooled.

MS. GOSHOW: And just two other things. One is water is a valuable resource in the places where OBO builds buildings.

MR. GLAVIS: Right.

MS. GOSHOW: And so in terms of sustainable, resource conservation is important. So, air-cooled would be better there. And also, are there not fewer connections and one less trade because now you don't have the plumbing piece?

MR. GLAVIS: Oh, yes, absolutely.

MS. GOSHOW: So it's less cost in terms of installation as well.

MR. GLAVIS: In my opinion, yes, absolutely.

GENERAL WILLIAMS: Two very significant points that Nancy just made from the environmental point of view, because we are in areas where water is precious. In fact, there is one location, we're having difficulty in Freetown, for example, getting the necessary water. So, it's precious, it's expensive and so that's very important. And I was wondering if anyone wanted to come in on the maintainability side of this by having ancillary equipment, more plumbing, extra trades, and this

type of thing. Do you see any savings there as well? Any advantage of the air-cooled approach?

MS. SORG: General Williams, we do a lot of condominium buildings, which is the highest rate of litigation in the building industry and a lot of those are going to air-cooled because of that issue. Fewer parts, fewer things go wrong.

GENERAL WILLIAMS: Okay. Yes, Greg?

MR. KNOOP: We also have resource responsibility and what is our message out to the host countries? Are we energy hogs, are we resource hogs, or are we the representatives of something, a higher ideal? And I think it's important that the post get the message of what kind of green buildings, are energy efficient buildings out there to the host country and to the people who visit our post.

So, I think there is a powerful impact, a powerful message, not just the economics, but the diplomatic support that our buildings provide to the diplomats.

GENERAL WILLIAMS: Yes, that's very good. Another very interesting point because we do have to be concerned about the host country, regardless of how underdeveloped it may be. We still are guests

and we have to pay attention to that. And I think your two comments about which, we don't want to be viewed as a hog, I think is important.

So, George, or maybe anyone have a rough idea in terms of percentage of sort of total cost reduction this new approach might make, if we do it right?

MR. GLAVIS: Are we looking at first costs or are we looking a lifecycle costs?

GENERAL WILLIAMS: Well, try to give me both.

MR. GLAVIS: Okay. The first cost is wash until you start running the length of the line going all the way out to the utility building and then the cost of the utility building equipment and pouring concrete. Those get lost in the equation, typically.

As far as the operating costs, as soon as you start lightening off those various very expensive pumps, try and pump all that water all the way across a ten acre compound and trying to keep it cool, by the time you have got your water to the source, or to the load, you've lost an awful lot of your efficiencies.

And the maintenance issues, if I can jump

in on the maintenance side, it's a killer. You have heard about the sickness associated with plumes of water. So if I get that water equipment close to the embassy, I'm worried about bringing that in to my intakes and doing my people in. So, the logical approach from, shall we say a designer, is put it out in the south forty somewhere on the ten acre compound, and I've got all those problems in addition to the pumping losses. I've got the maintenance of the cooling towers. I have to shut them down as soon as I found out that there is some biocide problems. I've got issues on cleaning the tubes. It goes down and down and down.

The issue that I think comes to mind immediately on the quality of the water, because you're pulling the physical, and I'm going back to my Navy days, too on the steam boilers, et cetera. Somewhere along the line, you've got to get rid of all that crud that sits in your system. So you've got a constantly blow down effect and you're constantly throwing that water down the drain, as well as evaporating in the sky. So anybody who has driven around some of these buildings and seen white plumes going in the sky, that's your water going in the air.

And then you turn around and you add all that water that's going down a drain because of the chemical treatments and you just mentioned about the chemical treatment areas in the wastewater treatment, it's compounded. I can't give you a number. I would be afraid to, but I would say definitely significantly higher operating costs, all the way around.

GENERAL WILLIAMS: And George, I was not expecting you to be precise with a number. You gave me the explanation that I wanted and that is the fact that we feel fairly confident that this approach, at the end of the day, combining both initial and long-term, that the ultimate burden on the taxpayers will be reduced.

MR. GLAVIS: Yes, sir.

GENERAL WILLIAMS: Okay. Are there any panel objection to this new approach?

MR. WOODS: Not an objection, really another question. I'm the structural engineer who has a difficult time operating the new thermostat with all the gee-whiz stuff in my home. And David, you mentioned the increased training.

A lot of multi-tenant buildings in this country, we have a difficult time with them

maintaining the comfort level for all of the inhabitants. And apart of it is because the people who operate the systems and the control systems don't know how to do it. And I'm real interested in what you've done to improve that capability, particularly in developing countries, where you are trying to use local personnel.

MR. LANGFITT: It's extremely challenging. We're in many cases putting in equipment that these people have never even seen. You know, the biggest equipment they've seen is something the size of what you would put on your house. So for us to say here is a new chiller that could cool 300 houses, they're going oh my goodness what is this?

The building automation systems, we are trying to simplify the interface so that the facility staff that has been challenged to maintain it can operate it properly. The thermostats have a limited range of adjustability in most cases, so that you in your office can adjust it up or down two or three degrees, but they won't let you run it all the way down, which might starve the office next door.

So we're trying to implement pieces that work together, so that it's less liable to go belly

up on us. It is a challenging solution, because a lot of these people have not seen anything like what we're putting in. You know, the embassy staff is probably as good as it gets in the country. So, we're trying to implement additional training.

The chillers themselves, the controls on the chillers are now so smart, they're pretty much self-maintaining. There's not a whole lot of effort involved in keeping the chiller running at its designed requirements. The hard part is getting the people to understand that just because I've added the up button, doesn't mean that it's cooler now. It will be cooler you know, an hour from now. You know, you go home into your house and it's 4:00 in the afternoon in the middle of August and you're going, it's really hot. You push that button, it stays hot for three or four hours while the building catches up. You know, we have big buildings.

So it's an ongoing challenge.

MR. GLAVIS: One more in that regard. We are adjusting our building, shall we say, operation based on occupancy, where we used to just say gee whiz, run it all the time and then shut it off during the weekends. That didn't work. That just created lots of mold problems.

So with our pressurization, we have an opportunity to, as long as we commission it right up front, we get all the necessary information into the building management system and hopefully, as we are moving this challenge, if you will, to a simpler design, we're getting the essential feedback information to our post, one, and also hopefully soon, to our people back here. And the important part is that way, I constantly compare actual versus design conditions. I can see trend analysis. If something is not right on the second floor, I know because of the information coming back, the usage data went up. And if the usage went up, it's time to get in there and look at it before something went wrong. So that's where we're headed.

GENERAL WILLIAMS: Okay, go ahead, Greg.

MR. KNOOP: That's a key element, keeping a record. We've got to know and be honest with ourselves whether we're actually meeting those success measures and keep trying to innovate, to challenge yourselves to meet those success measures.

MR. GLAVIS: I thank you for bringing it up. In the past, thanks to Joe Williams, we looked at some of these buildings. We didn't know exactly how to predict the consumption. He said standardize

these designs. We now have a chance to predict some of the conceptions. Now the answer is coming back on each one of these facilities, how are we actually operating? Are they operated, shall we say, disconnects from what we figured it should be during the predictive analysis during the design? And we are actually looking at that on a case-by-case, year-by-year basis, working very heavily with the facilities folks on that.

GENERAL WILLIAMS: George, David, Marvin, and Darryl, thank you. I know that this is a very interested topic. We could spend a day on it. But I know you've done some heavy research for us and we appreciate all the information that has been provided.

We are turning, making the right turn and we're going in that direction, that is the air-cooled route. We're thankful for all of the new emerging concepts and information that you have brought forth and we'll be looking at those and further educating ourselves about the utility of them, as we move forward. So, thank you very much.

And we'll switch now and move to value engineering. I'm sorry, to the new in sustainable and environmental design, which shows champions of

Donna and Nancy, Suman, and Craig Unger. And Bill Miner.

MR. MINER: I slipped in here, General.

GENERAL WILLIAMS: Okay.

MR. MINER: Everyone in DE gets sick at the same time. It's a point about togetherness.

So I'm going to hand it off to our experts very quickly, but I did want to just introduce the subject. We had a wonderful talk about the mechanical systems and the mechanical strategies in our building. I think it's important to note that the mechanical, the electrical, and the security components for our buildings are what we consider our most critical systems. When those systems go down, we're out of business. There are other things that we have some ability to resolve over time, but those are absolutely essential to the continued operation of our critical mission overseas.

The mechanical subject that we just went through is a part of a larger opportunity and environmental and sustainability program that we have in place. We had a question similar to this a few years ago, what are we doing in the area of sustainability and energy conservation? And I reported to the panel, at that time, that we had

worked very closely with U.S. Green Building Council and we were some of the first members in the 1990s and have always been aware of and supportive and, in fact, used the lead method of rating our buildings. But we ran into some real difficulties in getting that whole methodology in alignment with our aggressive building program.

We have happily reported this morning that Sofia had received a lead certification. That certification came two years after the building was completed. So if the lead process takes twice as long as it takes to build the building, there is a disconnect there.

And there are some other issues, some procedural alignments that were a challenge to us. There were some costs that were involved. It did not align very easily with the design build delivery and the lead certification was single building focused, while we are campus focused. And we continue to work with USGBC on those elements.

In the early years, we were an organization, an agency that were self-certifying. And there are other agencies that we're doing that for all the reasons that I mentioned. And we're happy that we know can become a little more

legitimate, mainline with USGB strategies, and in fact are pushing to have a silver certificate on all of our buildings. In fact, we build into the standard embassy design what we believe are sufficient points to at least get bronze or the base level. And we encourage our designers to try to strive for silver. And I think we'll be doing that very, very shortly.

But I want to get back to a comment that Suman made early on when she asked George how does what you're proposing here tie into all of the other things that are going on in this area? And that's been the real challenge for me. There's a little big of green hysteria going on now. And that's a good thing. We're getting cables from posts every day. We have thought about things that we can do to save energy, to improve performance, and we wanted to set up an environment that encouraged that and responded to that in a real positive way.

So we developed something, you might go to our first slide, Mike. Yes, why don't you pull out the whole thing?

In order to sort of get all of the energy focused in one direction, I decided at least in my small world to establish something that I call a

Green Team. And this was an attempt to recognize that there are not just the critical systems that we need to worry about and where there are opportunities, but there are also side issues. There are water issues. There are material issues. There are indoor air quality issues.

And there is an awful lot of work that we need to tap into and that we can contribute to in terms of research and development. And I asked Donna McIntire, with some assistance from Melanie Burkmeyer (ph.), both project architects in my division, to get together an internal council of multi-discipline folks to structure themselves roughly around the major components that are part of the lead scoring system and to focus in their areas, but also in a collegial way, find ways to integrate their findings in a larger hole. And that's what Donna is going to talk to you more about now. How those individual's teams are working and what kinds of initiatives they've come up with in the last few years.

MS. McINTIRE: Great. Thank, Bill.

GENERAL WILLIAMS: Thanks, Bill.

MS. McINTIRE: Hi. Donna McIntire. And I wanted to thank first our panel members, Suman Sorg,

Craig Unger, and Nancy Goshow for their guidance in this subject. Thanks very much. And thanks to the directors for teeing up this piece of presentation and opportunity to speak with you about the subject matter.

Yes, Bill's support has been paramount for the program, obviously. And the way we're organized, I think, is very aligned with industry and the fact that lead rating system revolves around these five categories of concern. You'll see those in the smaller bubbles there where we have specific working groups on site, water, energy, indoor environment materials, and then we also added the research and development group. So we have specialties and skill sets from the Department all working together.

If you could, just back up one slide. I just wanted to, our panel wanted to definitely focus on one of the biggest drivers in the industry right now is the discussion of carbon. Carbon foot printing, carbon trading, and can you get carbon neutral. And so I wanted to tee that up for all of us to discuss a little bit and first wanted to just let you know that there is really a three-pronged approach or three-step approach when you're talking

about getting carbon neutral. And we're talking about carbon emissions and how that affects greenhouse gases and global warming.

But there is three ways of getting carbon neutral. One is reducing your energy or getting more energy efficient. The second would be leaning more towards renewables and then the final would be actually offsetting your carbon by doing other things, such as planting trees, subsidizing green powers and stuff like that.

The backing for these, number one the backing for the energy efficiency really comes from the Executive Order, the new one that President Bush signed this year, 13423, which is strengthening the federal government in the areas of environment, energy and transportation. And that Executive Order asks us to reach a 30 percent reduction in energy consumption by 2015, across the board.

Then the next one, renewable resources is also backed by that same Executive Order, which asked us to have 50 percent of our energy coming from renewable sources. And that's today. So that's a hard one to tackle.

And then the final discussion piece is carbon offsetting is really more of a new topic, I

think, for the industry and I think some of the panelists are going to discuss it a bit further. But there is a bill circulating in Congress right now called the carbon offset bill, and Jonathan actually helped me pull that out from Congressman Waxman is heading up that bill. And there is a couple of points that are really interesting within that bill. It's asking us to become carbon neutral by 2030, so that's a big challenge, for buildings over 40,000 square feet or with an operating cost of $75,000 a year or more.

It also asks us to meet lead silver, as Bill was talking about, or lead gold, if we could incorporate some more renewables and justify them with payback.

And then finally, it asks us to involve the Energy Star program and their portfolio managers, so that government can start to tally up and know what exactly they are doing in all areas and public disclosure.

Okay, so now we can move to the next could of slides, because I'm going to talk a little bit about what the Green Team is doing. If you could, go to the next slide.

One of the things we started two years ago,

we did a lighting study of how could we become more efficient in our lighting in our buildings. So we had Nancy Clinton involved, and Archie Cal (ph.) did this great study for us and came up with the fact that if we did a few things like, rather than recessed lighting, if we did use the direct indirect method, which is hanging the fixture below the ceiling and using the ceiling as the light fixture. These types of things could help us reduce our lighting load and our energy cost load by about 11 percent annually, which is about a quarter of a million dollars over the 24 lifecycle.

Next slide, please. Then we also incorporated or initiated a wind study. Where in the world can OBO build wind turbines and harness wind power in a feasible manner? And we have found, through the study, that it's more difficult than you might think. Wind mapping is not done by most of the countries. We only have 34 percent of the countries actually mapping their winds. And then the high resolution wind maps are only by these 30 countries here, on this chart. So, we don't have wind data on a lot of the areas where we're building.

Next slide. But we are completing the

study, which is going to point to a few areas like Tbilisi, Valletta, Monrovia, Managua, and Freetown are good opportunities, we think for wind power.

We're looking at 100-kilowatt turbine, which you can see on the scale chart, about the size of the turbine we are looking for. We need about two acres on the site or some site that we own and operate to have onsite power. This has about a five-year payback, so it's a good resource for supplementing our power sources and reducing our peak load.

Next slide, please. We're also looking at photovoltaics. We've done a study comprehensively of all of our locations and the power rates in those different locations will tell us where photovoltaics is most cost effective, of course, combined with the availability of sunshine. But you can see, we're looking at two to four to ten year paybacks in many, many of our countries. So we really could harness those. It does have an upfront cost, but the cost is well justified in the lifecycle of the building.

We're looking at, right now we're doing Geneva, Abidjan, Munich, and Athens. We're all looking at, we've already put it in place in Geneva, but the other ones, we are in development.

Go ahead. We're also looking at vegetative roofs. And that is similar to the wind in a little bit of way that you know, it's not applicable everywhere. You have to have a certain amount of climate conditions to make it really feasible. You don't want to just build it anywhere. It does have an energy savings of about 90 cents per square meter. So it's a good energy saver. It's good in terms of reducing our storm water infrastructure costs. It has a lot of benefit, including increasing the lifecycle or the life of the roof itself. By taking the sun off of the roof, you actually maintain your membrane longer.

These are extensive roofs, rather than intensive roofs. It used to be in the 70s we would put two feet of roof on top of the roof and plant trees and all kinds of stuff. Now it's really down to three, four, six inches, you know, of soil. It's very similar to the ballasted roofs that we do nowadays. The system is very much the same.

Okay, next. The last slide, yes, we've done this matrix and the vegetative roof study is complete now and we're starting to apply it. We have a couple small green roofs, but Oslo, which is coming up, we will definitely have a green roof on

that, because it's part of the way we got a little extra square footage on the site, requiring a green roof.

Go ahead. The last section here is the water resources. This is something we just funded this year, this fiscal year, is a water study. A comprehensive study of all of our systems to see where we had inconsistencies maybe or we might find some synergies between systems where we can save water, increase our efficiencies. These are areas like reusing our wastewater, when we have a wastewater treatment plant. Right now, we just flush it down the storm sewer, we're done with it. But we treated it. It's nearly to a potable water. You know, nobody's going to drink it again, but we could use it again onsite for irrigation and that type of thing, increasing our efficiency in the landscaping and other areas of the building.

So that was the topic areas that I wanted to tee up and I turn it over to the panel.

GENERAL WILLIAMS: Okay. Why don't we just go right into the industry team and then we will ask questions.

MS. SORG: You know, I like the topic. We said, "What is new in sustainable and environmental

design?" So basically, what's new is, frankly, it's getting old in the sense that, thank heavens it is getting old, because it is becoming mainstream. And no longer is it an interesting experiment. It's really mainstream. It's not an exotic thing anymore. It's becoming normal. Even in our own practice, which you know, there's a bit of a generation gap in this industry.

You know, those of us older practitioners, I'll say, think that they were always designing green and what's new about it? But now, we find that things are coming around full circle in the sense that we used to talk about ecology, if anybody remembers that word from the 60s and we talked about all of this back then, but now we are back to making all that very normal.

And I think the push really is coming from, next slide, you know, government. What is happening is that most people, and government is taking a lead here, most people think, and there's a survey done by the AIA, and by the way, I represent the AIA on this panel who is an early and enthusiastic partner of the USGBC in green building design for quite a while now, and has done a recent survey on this issue and found that most people, 75 percent of the

population believes that government should take a lead on reducing global warming, really. And that all over, including the District of Columbia, laws are being passed where private and public sector buildings have to meet certain lead design criteria. And taxpayers willing to pay for these, which is another thing that is really encouraging. Even in counties, even in capital projects in our local counties, we see, you know, in Montgomery County, a lot of funding coming in for green building design.

And OBO, of course, has special challenges, but with the new Sofia, Bulgaria building, I think it can be a great model for your other buildings.

Next slide. The latest of course, is carbon neutral goals. And there are a number of large organizations, you know, probably comparable to OBO, like Yahoo and Google. I think Google is the first that is going to be carbon neutral by 2007, MIT and Harvard by 2010. And I think these are very aggressive goals, but there are big challenges to your program in becoming carbon neutral because of --

I guess another thing I don't understand very much, but I guess the Buy American Act makes it not possible to buy things locally and put them in

the embassy or there might be also security issues about buying things locally and not having huge transportation, you know, carbon usage, in terms of security. In other words, how do you inspect what you are buying locally and how do you install it? So there are some issues.

We talked a little bit about green power. We are seeing locally here, in the Washington area, a lot more buildings going partially fueled by geothermal. And I don't know if OBO is looking at geothermal, but that's becoming even common in private sector buildings where, even if you have a two-acre site, we are seeing people wanting to do geothermal.

Energy consumption, you know, Donna just talked about. And emissions, I think the emissions thing is, you know, also perhaps a challenge for OBO, because one of the ways to reduce energy consumption and hence reduce emissions is to use natural ventilation, which is not possible with security windows. But perhaps there is a way of looking at the SED again and incorporating some of these things.

So I think, you know, there were wonderful articles in the New York Times Magazine about two or

three months ago and you know, it's like anything else, it's almost worrisome that green may become a fad and not a fact. And I think that that -- but I don't think that that's going to happen. But OBO actually definitely has a great opportunity to be greener than green, because of you're building in many, many different climates, many, many different cultures. And I think it would be great to see how even an increase in the greenness of embassies could be a huge impact in all of these places.

GENERAL WILLIAMS: Thank you. Is there another presenter? Okay, go.

MS. GOSHOW: If you could go back to the first slide that we had. I think it's kind of a summary slide of everything that OBO is already doing. And Donna had asked me to look into carbon offsets. And what I'm trying to do is trying to present a complete picture in very simple terms so everyone can understand.

We all studied in high school or junior high biology that plants eat carbon dioxide and they give off oxygen. And that's a great thing because we need oxygen and we give off carbon dioxide. It's a very cool thing, right? Very balanced. And so the idea with offsets is as we are destroying the

plants on this planet, we are reducing the amount of oxygen producing organisms that we need to live. So the concept with carbon offsets is that if our buildings are going to give off carbon dioxide, which they do, shortened to carbon, then we have to offset that somehow.

But there are three ways to do it. Offsets is only one part. As everything in life, everything is interrelated. So there are really three ways that Donna mentioned. I just want to repeat this again. There is energy efficiency, there is emission offsets and there is renewable energy. Now OBO is currently doing things on energy efficiency. You are studying your interior lighting systems. That's going to reduce energy use. You're reducing the amount of energy wasted in your buildings by looking at your heating and your cooling and also building insulation. And with these high efficiency systems, that's all helpful.

In terms of emission offsets, planting trees, reforestation, I believe green roofs can sometimes be considered for carbon sequestration, which is what an offset is. You take the carbon, you sink it into a carbon sink and these plants just keep sucking it in. And that's just kind of the

concept. You begin to think about that there may be opportunities to apply that. And then of course the renewable energy, which is using power onsite that you have solar, photovoltaics, wind. There is also passive solar, in terms of how we design these buildings, how we site them on the building, in terms of where the sun travels, the climate, things like that.

Hydroelectric power, maybe. But I believe in most of the locations where OBO builds, water is an issue. It's a every important issue that is missing as one of the components. So hydroelectric is probably not an option.

Biofuels are an alternative fuel, but they still produce carbon. Geothermal is an option, but it's expensive to dig these very, very deep wells, and my understanding is they are oftentimes dug with carbon dioxides. So there are emissions that occur when you dig these wells.

And so renewable energy in terms of the three you're looking at, solar, photovoltaic, and wind, would probably be the three best options to look at. But the most important thing, I think, for OBO is to look for a baseline of the emissions you are currently putting out and look for a way to

reduce that. Without having that baseline of what you're giving out, it's very difficult to see if you are achieving reduction, because reduction has to do with what are you currently doing?

And as Donna mentioned, by 2015, 30 percent reduction, this is with this new bill, the lead is 40 percent reduction and a lead is going to go to 50 percent reduction by 2030.

One other new thing I wanted to mention is there is a new standard that is being developed, I don't know if anyone else here knows about it, called a living building. And I don't want to go into it yet, because maybe we can talk about it another time, but it's a whole new standard and something that OBO needs to be thinking about because it will be here.

And so looking again for this baseline of emissions will help you understand how OBO can become carbon neutral with zero emissions.

That's it.

GENERAL WILLIAMS: Okay. Thank you. Questions? Yes, Craig?

MR. UNGER: I'll add some commentary here, as opposed to a presentation. But I would like to offer, you'll think I never left, as if I won't be

advocating for the Design-Built Institute of America I'm sitting here representing. But what a natural fit for, again, it's a collaborative relationship. It's taking the interdisciplinary functions, cross-pollinating, integrating the process with not only the designers, and contractors, subs, and suppliers, manufacturers and unleashing them will surprise you.

I recently had an opportunity to work with the National Renewable Energy Labs in Denver building a new headquarters, going for platinum and very, very focused on the performance requirements and wondering what type of interest they would get. And it currently, in the design criteria stage, getting a tremendous interest for design builders teaming up wanting to try to obtain that platinum status.

And I will say again, from, and I'm not sure I understood Bill's comment earlier about some of the issues you had with US Green Building Council, but again, taking advantage. And what I see some agencies don't do is in that two-phase negotiation Design-Build project delivery gives you, particularly in this area, or BIM, Building Information Modeling, or lean construction, it's the only, that I know of, project delivery that allows

you to interact with industry live, legally throughout that procurement. This is a perfect area to take it beyond basic certification and bronze, if not looking for silver and beyond.

And I've heard several of a the studies I've had a chance to work with the Corps of Engineers, whom you may know mandates lead silver on all the MILCON transformation. And a lot of the design-builders in the room will tell you, get me involved upfront with my team, I can get you lead in even bronze, and sometimes silver, depending, with not a lot. And if you want gold and platinum, you're going to spend some money on that. But getting this team engaged early on, they may surprise with what you may be able to obtain.

And my final comment, we focused a lot on the financials and the environmental friendly. There is that third section that you may want to take credit for. You may be doing a great job here in your 50 plus new embassies that you've opened, General, and that is the social side of lead sustainable buildings. We know natural lighting and thermal and acoustical, but even views and having a very user-friendly worker environment with productivity goals. If this were the private

sector, we would measure productivity quite well, but the other is sick leave. And at least in my agency, we measured sick leave pretty easy. I would be curious at what your sick leave usage has went down in some of the facilities that you have brought online because of that safe secure environment. Because even, you know, most of us know in the lifecycle cost of the building, its operations and maintenance and labor are your major cost factor expenses. And even a two percent change would be huge, a contribution that you've made that you may not be tracking, or you may be, that I'm unaware of.

But, thank you.

GENERAL WILLIAMS: Excellent. Excellent across the board. Now, other panel members who might want to speak to any of that? Yes, Clare.

MS. ARCHER: I've got a question. I know from the building industry perspective, we've embraced green building and most of our peers have all been very active in building buildings that have gotten lead certification. We recognize that there is, and you probably do too, that there is some kind of cost premium that is associated with that, though we're seeing that, you know, at least from a first cost perspective, going down significantly as green

becomes more mainstream, products are more readily available. The design industry is more well versed in how to most efficiently meet the lead score card requirements.

But I'm curious. What kind of first cost premiums have you seen and are you seeing a reduction in those costs like we are, outside of the OBO environment?

GENERAL WILLIAMS: Bill? All right, Donna?

MS. McINTIRE: I can speak to that. We did a study early on, maybe five, almost five years ago maybe, where we studied where we are because lead always, how much lead costs depends on where you are as a program. If you start and you already have commissioning in your program, then it's not an increased cost for you to achieve lead because you have to do that.

So, initially, there was about a $200,000 cost, initially, to add those types of things that we weren't doing that we would have to do in order to achieve lead certification, which is just the 26 points. But now what we're seeing is that a lot of these ideas and requirements have been integrated into the said documents, into the requirements of the specification. So what we're seeing now is that

there really is not an increased cost, at this time, to get lead certification. The only cost is the actual fee to the OSGBC, which varies according to the square footage of the building, which is the neighborhood of about $3,000. So right now, we are already asking our design-build teams to register the project, to collect all the documentation online. We just have not asked them to push that final button and do the certification. And that would be a small increase in cost.

Now the issue with that, of course, is that it's a third party certification and therefore, you are asking the contractor to be obliged to this third party for the actual certification. So that's a bit of a barrier and we don't want to bog the contractor down with getting that final piece.

GENERAL WILLIAMS: Okay, thank you. Yes, Greg?

MR. KNOOP: You know, I really was sensitive to the comment that it could be just a fashion and really what should be an economic juggernaut. You have a tremendous sized building program and you can shape the market with that building program. You've done that through the things like you have a standard spec for FEBR

windows. And essentially, it's a no tolerance. You meet this standard or you don't put your window product in our building.

Kaiser Permanente has a two to three billion dollar building program a year. They took that program and said we will not tolerate any vinyl in our carpet. We want a vinyl-free carpet. And they shaped the market, calling to Collins and Aikman responded to it. It was very competitive. You know, hundreds of millions of dollars of carpet are being put into their buildings. So they shaped the market.

I think OBO has the opportunity, as do other federal agencies, to establish a no tolerance level. We have a responsibility to do it right. And there are economics that will benefit us, but we can also shape the economics by using our simple buying power to motivate the market to change and to provide us the types of products and the types of systems that will meet the need and make lead. I mean, lead should be something that we, we use it sort of as a word, and the lead stamp goes on here, but as someone said earlier, it used to be, once upon a time before energy was free, you know, and before energy was cheap, basically, we had to build

that way.

Look at your federal buildings that were built in the 1920s in double-loaded corridors and windows that could open. They were done like that for a purpose. We didn't have air conditioning. So we have to look at changing the market and our responsibility to do that. And I think we have the power to do it because we are empowered with such a large volume of construction dollars and construction square footage. I don't know, how we would be able to attempt to do that, I guess would be the form of a question.

MS. McINTIRE: We do shape the market in some ways. We had a waterless urinal program this year where we replaced so many urinals across the board that we're saving eight million gallons of water with that program. So that's huge. And we gave them a list of different manufacturers that would meet our performance criteria and I got a couple calls saying, oh my gosh, there's a run on waterless urinals, what's going on at OBO? So that was a good thing.

I mean, that's a small token, but I think you know, you're right, the energy systems, the mechanical systems. You're right when we were

talking about the air system versus the water system. That could drive the market, that type of thing.

MR. KNOOP: Yes, you've empowered the market, too. The people who responded to that are now in a driving position to push their product. They've taken a leap forward. It's been the tipping point for them. So that's an important thing to recognize. We're buying American, let the American market respond to our buying power and our influence.

GENERAL WILLIAMS: Excellent. Darryl, your light is on.

MR. HORNE: My light is on, yes, sir. I want to follow up here because I do think there is a significant opportunity for OBO in this regard. I think that US Fish and Wildlife reports that over the next 30 years, some 70 percent of all buildings will be either modernized, replaced, or will be new. And they are focused on making sure that the things that you are doing here today are happening in these buildings, if we are going to do anything about this carbon footprint.

I would like to get back to what Nancy said, though, because I think she said it all, in

the fact that we're talking about a carbon footprint, I think the opportunity for OBO is to absolutely be able to measure its carbon footprint over these facilities across the world.

Interesting, that we're looking at a time right now where the U.S. is not participating in the Kyoto Protocol and where the rest of the world, where most of your opportunities are, already have some type of regulatory or compliance scheme in place for climate change. And so we're looking at it here from a perspective that our congress right now is still talking about. Right now we have a voluntary program but most of the rest of the world has programs that are already regulated.

So the opportunity, I think is really, I think what you're going to find if you go out and actually do your footprinting, you're not going to have as big of a footprint, as most of the industrialized world is going to have. You basically have ten-acre site across all of your facilities.

We're working with companies in private industry right now and here's what is happening. They are racing to be the first to set the standard for where climate change is going, particularly in

respect to carbon. The largest producer of carbon today, the American electric and power can monitor every time there is a panel of carbon that goes in the air, they know it. Every panel. And this is the largest producer, so I'm thinking that, and what's happening right now, they're monitoring this using a lot of the web-based remote monitoring systems that are available to industry today. So getting that carbon footprint I think is the opportunity to really setting the standard for all federal agencies. Because you're doing it and you're making a significant impact to the climate conversation that's going on right now. You are doing it already in the things that you're already doing.

So I don't think you're going to find that your carbon is going to be as high as most industry and that the offsets are going to be minimal.

GENERAL WILLIAMS: Well thank you. Yes, Nancy wants to say something. You see, when we get started we just forget about lunch?

Okay, go ahead.

MS. GOSHOW: Okay, I'm an entrepreneur. So I think OBO, and this is a way out idea, so bear with me. I think OBO is sitting on a future

economic development opportunity. And I recently was in Paris at the embassy in Paris and part of transformational diplomacy, and actually part of the diplomatic mission in Paris, is economic development for United States companies developing businesses in foreign lands and vice versa.

So, if carbon offsets are things that can be traded, and they are being traded, and it is very new, but it is occurring, and if OBO can become a producer of carbon offsets, there are several things that could go on here. Number one, in terms of transformational diplomacy, the Department of State could become a generator of teaching other countries how to create carbon offsets, so that it becomes a business opportunity, an economic development. There would be incentives for people in these countries to embrace this because we are bringing something to improve the quality of their lives. And also, I think then it's a respectful way to be in a host country.

I'm sorry for the crazy way out idea, but I thought I should just point it out.

GENERAL WILLIAMS: I think that is excellent. It's a good idea. And since we have some freedom on the topics that we discuss and

obviously sustainable platforms and the like is center stage to what we do, so, we will have a topic at the next IAP that speaks around, we'll frame it, but how we can use our sustainable design and environmental approach to assist with transformation diplomacy.

And that connects to the larger mandate. It also helps with everything else that we are doing. As you said, it's the softer side of things. And quite frankly, it might be what some places we work with just like to hear about.

So, we are very serious about this. We wish we had a whole day on it. We're going to give it another round next time. So if this panel that is in place would just stay in place and continue to work on that topic, we will pick it up again with a little different spin with sort of the social environmental transformation diplomacy spin on the whole issue. Okay?

Now, Michael, tell us what we must do here.

MR. SPRAGUE: Well first of all, I wanted to let the panel members know that they will be going to lunch with the managing directors in the dining room on the seventh floor.

GENERAL WILLIAMS: You're not going to let

me go?

MR. SPRAGUE: We'll let you, of course. I mean, we would have to -- that would go without saying.

GENERAL WILLIAMS: Right.

MR. SPRAGUE: All the other guests, when you are at the --

GENERAL WILLIAMS: So you make people think that I have a separate elevator.

(Laughter.)

MR. SPRAGUE: We know better.

GENERAL WILLIAMS: I'm surprised at you.

MR. SPRAGUE: Okay. The other guests will need to be escorted to and from the cafeteria. If you look you will notice all the OBO staff have red badges and they will be more than happy to escort small groups of you to and from the cafeteria.

And, General, what time should reconvene?

GENERAL WILLIAMS: Let's come back at 1:15.

MR. SPRAGUE: 1:15, all right.

(Whereas, a lunch recess was taken.)

A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N

(1:15 p.m.)

GENERAL WILLIAMS: Can I have your attention, please?

You know, this has gone from a very solemn, quiet --

(Laughter.)

GENERAL WILLIAMS: -- serious operation to a sort of a mini party. But this is good. It shows that the interaction is working well and if we can help to make someone's day, we're real pleased about that.

So we'll pick up now from where we stopped before lunchtime. It was a very spirited discussion on a very, very significant topic. We didn't give it enough treatment. We will be back and revisit it, as we have done several of these topics we felt had long, long tales to them.

So now we will proceed now with value engineering. Kathy Bethany is going to lead that with her industry team and I will let her introduce the subject for our discussion.

MS. BETHANY: Thank you, sir. I get to be the leadoff after lunch. So I know that things are going to get a little bit tired and that kind of

thing. And for those of you were here last session, I was doing costs at that time. I still am doing cost, but value engineering is in planning now as Directive Williams number seven and value engineering is within the cost management division.

So before I get started on my remarks, I know several of you in the room, I've seen faces before, but I wanted everyone to get a sense of the room. How many of you have actually ever sat in on any kind of VE presentation or study at the Department of State? I know there are several.

(Show of hands.)

MS. BETHANY: Great, thank you. I want to thank you for your efforts on that process, because it is one of our critical processes that we do to try to bring projects into the best function they can be. So that was excellent.

I also want introduce, I'm sorry, I almost forgot, Angela Collins. She is leading the value engineering program right now and is working for me in the cost management branch. So if you have questions on value engineering and you can't find me, she's the one to go to.

So the first slide, just to give a quick refresher, value can mean many things. If you look

at this definition, it's a user's initial impressions versus satisfaction and use. Well, if I were to ask around the room, each one of you, what does that mean to you? I'm going to get different answers from every person. So the challenge within value engineering is defining what that value is to the organization and just determining how we can measure that. So, the other thing I wanted to point out is that value engineering is not cost cutting, because if you look at the definition of cost cutting, it's basically looking at just first costs. Value engineering, just like we were talking about sustainable design earlier, looks at lifecycle costs. And we try to look at the whole picture.

So the next slide. This takes the definition of value and puts it into what is value engineering? It is a process that is function oriented, systematic. It's a team approach, very similar to what we're doing in this room, talking about ideas, applying creativity. And it concentrates on lowering lifecycle costs, improving quality, performance, and yes, there is an initial cost reduction element to it.

So our program requirements at OBO, which are also dictated by Section 36 of the Federal

Procurement Policy Act, it's Public Law 106104 is that all projects over a million dollars with problems over budget or with potential for improvement, must have a VE study in place or a waiver. We do have a waiver program that is pretty strict. We don't necessarily grant them every time. But it must be in place before they reach the 35 percent design stage.

Next slide. So how does value engineering benefit OBO? We want to get the most functional facility that is worth its cost by giving us the biggest bang for the buck, and the buck doesn't mean just the initial cost, but worth the total cost.

Next slide. This slide is a little bit hard to read but it tells the story really well as to why we have moved value engineering into the planning stage.

As you can see, there are three columns. One is planning, one is design development, and the other is construction stage. These are when we have had VE studies performed. And measuring the actual results from the study, how much was saved and comparing it to the cost of the value engineering program, the return on investment on the design-build projects, which is the dark blue line, for 38

studies is well over $140 to $1, when we do the VE study during the planning stage. And as you know, we do most of our projects design-build. If we're doing them during design bid build, it's still during planning is the best time to do the VE study. We're getting over $81 to $1 in return on investment. That's not to say that we shouldn't do it during design because sometimes things change or there are some issues that need to be resolved and even during design, on design-build projects, which is, this is after the award of the design-build contract, we're still getting $20 to $1 return on investment when we do them at that stage. And we don't do them all the time.

So, how do we do this? It feels a lot like this a lot of time. You know, and yes, when I saw this slide and I think it's a picture of me in there sometimes.

The components of our VE program are we have a very strong value engineering study program, so we do studies during the planning and design. We have construction initiated, value engineering change proposals. This is during project execution if the design-build contractor, I know somebody was mentioning working together, I think Craig, who is

not here, working together with the industry to come up with ideas to make better value for our projects. We do that as well.

And we also have an analysis on lessons learned component to our program. And this is where I start to get into what is new in value engineering. We do something called a VE assessment trip and we also have a database of every VE alternative that has ever been made during our program. So we can analyze trends and get into lessons learned or into the said change request program, ways of improving our designs for future. What I'm hoping for with the program is to bring the return on investment down, especially if we're building similar buildings. We shouldn't be seeing a trend upwards, we should be seeing a trend downward as we improve on our process.

The next slide is the typical overview of our VE study schedule. I know I think that some of you may have seen this before, but we follow the same thing that SAVE International recommends in terms of how we do value engineering. A little bit different is our post-study in our approval implementation and database of alternatives and results. That's slightly different than what SAVE

is recommending, but that's because of the nature of what we're trying to do is to define trends and analysis over the life of the program.

So this next slide is kind of focusing on that process. The way it used to work was we'd give the team the VE report after the VE study was done and by team I mean the OBO, in-house team that is putting together the project. In a lot of cases it's the planning team with design and engineering participation, along with cc. They get to review the report and then they'll make a determination which recommendations get implemented. Then coming back to me as a value engineer or to Angela now is the memo that says what the team is putting forward for acceptance of VE recommendations.

Any delays or cost increases on initial costs go to the General with a decision memo to implement, especially if it's something that is going to save lifecycle costs.

And now this is my opportunity for me to make a comment about the sustainable design. During the VE study, we will have sustainable design experts. I know Greg has been on teams before and he's got the background in sustainable design. Those are recommendations that do get forwarded, but

I do have to take a little bit of exception with an answer that was given earlier about the cost of sustainable design. In some cases, some of the recommendations or the new technologies that we are putting in do cost more money. They cost more initially. Putting a green roof on, because the technology is new, can cost more money up front. But we are looking at ways of reducing that cost and reducing the impact and incorporating it into our standards. Yes, it's being built into our costs. We know that, but we're also trying to save O and M costs for the future and for what our tenants are going to be having to pay.

So the new part is the verification. We've started this program last year, maybe 18 months ago or so to conduct site assessment trips. The problem I was having was I was getting these memos back that said these are what we planned to implement, but I didn't have a sense of what actually was implemented over time. And because this is a congressionally mandated program and we have to report to the OMB every year what results we actually had, I could see, if I put myself as an auditor and go out and look at some of these projects, would I actually see that the value engineering recommendations that were

put forward were implemented or not. So we started this program of going out and looking at it.

We're validating implementation. We're also gathering lessons learned. The team that went out would be myself or Angela, somebody from the VE office. We would always take somebody from the VE team that did the study and maybe one or two other people to go out and help look at the project during construction before it was all buttoned up so that we can make sure that we could see. If there was a recommendation on a mechanical system, you could actually see whether or not it had taken place.

The interesting thing on this was that we visited 15 sites, which incorporated 22 VE studies. Now, you might ask the question why 22 versus 15. Well, sometimes we did two studies on a project, or there may have been a study on the annex building that followed study that was done on the embassy compound proper.

If you were just to stop after the VE study came in, there was 712 proposed alternatives on those 22 studies. And I got a memo, or we got memos back from the teams that said they were accepting 184. That's all well and good, but I didn't have a strong fuzzy on how many were actually accepted.

When we went out to the site, we found out that actually 290 had been implemented. So, it was kind of interesting to go through and see. Oh, this is interesting and, in some cases, it was an idea that came in later that it just happened to be the same as what had been in a VE report earlier from a contractor or maybe through a changes clause, still trying to find out whether or not this is going to continue. We're continuing this program to go out and look at this, but it is bringing back some lessons learned.

Yes, in some cases, if a project had a problem with budget, they started going back and looking at, well what did we leave on the table? Is there something else we can do to improve the project? Maybe during the early stages of planning or design they were like, oh, no, no, no, we need to leave this, but then when they actually started building it and said no, we can't afford a function if we don't find something else to take money, they would go back and do this.

So it was kind of an interesting process. And I'm sure Greg can talk to it. He was one of the people that went with me on one of the trips to look at the site. And it was invaluable, I believe, for

the team members as well, because they were learning why their recommendations, when you look at 712 alternatives, why some of them weren't able to be implemented. So it's going to make future value engineering reports better because it should help to bring good recommendations in that can be constructed. So it brings in the constructability aspect of the recommendations.

So next slide. So what have we accomplished when you talk about the program summary? The value engineering program in total from 2000 to 2007, the cost of the program was about nine million dollars. We did 157 studies. We saved 514 million dollars. That includes almost a hundred million in O and M savings. The return on investment from that, just those years, is $57 to $1. And as I said before, I'm hoping that that number will drop because was want to start seeing the improvements take hold. We implemented 2,030 recommendations.

So the next slide talks about 2007 and you have to understand we don't' have all the implementation memos in yet, but right now we have exceeded our goals of a 29 percent proposed savings by the VE team. This is where I do my performance

measure on the VE teams. I go back and make sure that they are making recommendations that are implementable. Accepted VE recommendations right now, four percent and our return on investment right now, and this is with about half of the studies not having the implementation memos in, it's running at $38 to $1.

So again, the goal of the OBO program is a functional facility that is worth its cost in both initials costs and lifecycle savings. So with that, I would like to turn it over to my colleagues, Greg and John, who will be talking from their perspective.

GENERAL WILLIAMS: Thank you, Kathy. Okay.

MR. KNOOP: General Williams, panel members, Kathy and colleagues.

Performance, accountability, discipline and credibility. Those are all key elements that can be supported by a powerful value engineering program. Value engineering is a tool to support the pursuit, in your case, of a successful building program. You all know the old saying, measure twice, cut once. Value engineering gives you a chance to make measurement again of the task you are undertaking and study the priorities, the methodology, the

quality that you are pursuing so that the costs are the right costs and you get true value.

We're going to discuss a few value engineering trends that we're seeing out in the market and things that we think will help your program. The VE concept should start very early in the process. A couple of thoughts are at inception and then somewhere in the implementation process, and then at the conclusion. One idea that has been used is to bring in a value engineer as a facilitator to do a workshop, a design workshop to set the priorities and set the value measures for the project right from the inception, because all projects aren't the same. We might have a program like the SED program, but it's a program, not a template.

We want to establish the goals that are appropriate to the project and use those as measures, as we proceed forward in our implementation of the project. Next slide.

We talked about the SED. A value engineering workshop can help decide how we are best using the SED. Remember, the SED, is it a template or standard? Which one? Is it a kit of parts or a cookie cutter design? We're not cookie cutter

people out there. The United States is represented by people of all cultures and all backgrounds. So our embassies should use the kit of parts, the rules, but establish creativity as the norm, as the measure that we want to pursue. Next slide.

Lifecycle costs. We heard actually a presentation this morning that talked about how we are seeing beneficial effects from a lifecycle analysis. I know that that measure has come up in our studies before and it's nice to see that good changes are happening with OBO. You can't look at just simply what the savings are today. That's deplorable. We're better than that. We have to look at the future. We are the stewards of the future every time we take on a project.

So, we have to look at the measurements. Is the shell the same as the interior? Is the site the same as the shell? There is not one answer for lifecycle measurements. I think you have to look at the shell that is built like the pyramid, it's going to last forever. But you're a business. You're in the business of diplomacy and you change every four years, every ten years. Are we seeing churn, are we measuring lifecycle in the interiors of these buildings to respond to the appropriateness of churn

in the business operation of diplomacy?

O and M data is extremely important. We have to understand how people take care of these buildings. We talked about lead buildings. It's like buying a puppy. If you're not willing to take care of it, then you had better not buy a puppy because day one, you're going to find out what a pain having that puppy is. It's no longer cute. It has to go.

So buildings are the same thing. You're undertaking owning a building. You're undertaking operating a building. And what is that building for? It's for diplomats. We don't want the building to get in the way of the diplomats. They have an important job out there.

O and M data and O and M processes are very essential and should be analyzed by a VE team. The post habits, management and procedures. We should have a GSO come and sit in on some of our workshops, so that they can say well, that's great, but this is how I operated your facility, once I got a hold of it. We want to hear the user's impact on the building. Next slide.

And John, did you have any comments on that?

MR. WOODS: One of the things that I have seen in my experience over the years is how OBO has evolved, I would say in the 80s and the 90s. You would call it an evolution. General Williams had brought about a revolution in his time.

I don't have an answer for this, but I ask the question, are the buildings that are being designed and planned, are they considering how this organization OBO is going to be operating five years, ten years from now? I recognize that a lot of this is driven by security, but the question comes down, how do you redo a building in 15 or 20 years? And we see this in the private sector about every five to ten years, of basically redoing the entire HVAC system, the electrical, particularly the technology. So, it is as much a question of what are you planning in the five to ten year arena?

MR. KNOOP: The world changes. Your buildings have to be living organisms that are able to accept to change. So be careful where you establish permanence, because it could be painting you into a corner.

Let's talk about risk elements. And this goes into what John, the risk elements are going to change. Right now, security is your main concern.

It's a serious driver. But there can be other elements that will come into play in risk.

The insurance industry is establishing whether bidders will go after your project and be interested in doing business with OBO. There is political risk, security risk. Cost is a risk. You deal with these ideas early, get a VE team in, analyzing these elements early and the effect. We can narrow the negative effect in the latter part of a project. Schedule is also a risk element.

We talked before about involving an advisory group of users and post representatives. Again, we want to see how the customer is using your product, the relationship between the building and post to help ensure that you are still providing a valuable product. And who is your customer? And that can sometimes be a serious issue. Is it the post? Is it main State? Is it we the people? We have to be able to prioritize who we are pleasing and serving as our customer.

Next slide. We need to look at constructability and multi-disciplinary teams. We need to get the contractors involved in the VE studies because we need to know how they procure products, how they schedule bringing product and

construction out to the site. Designers will sit around and talk about some of the esoterics about how this is a great design and we will run calculations. But anyone who has worked with the superintendent on a project knows that that's the guy who really knows how the project goes together. We need those people involved in the process of value engineering, because they can educate us on how to do a better job in design to facilitate good construction.

John?

MR. WOODS: The negative of this is something that I have seen doing the security work. My colleague over here from M. C. Dean is a good example, where they would rather not do the design because they would rather do the construction. But you would like to have contractors on a VE team who have been there, done that and done it. So this to me is a terrific idea, but the implementation of it with the conflict of interest potential is not easy.

MR. KNOOP: Excellent. This is where we're getting involved a lot with the Army Corps of Engineers. The Navy is at the RFP process. The value engineering teams analyzing the RFPs how you represent your project to the marketplace. Are you

encouraging the best out of the bidders? And we're seeing a number of responses to that issue. In some cases, changing from a one-step to a two-step process, going for a best value process versus a bid on price process.

By looking at the RFP, we can look at whether we're going to encourage more bidders to the project, whether the costs are reasonable and whether there is a large cost risk, the schedule, the attitude of how we are representing ourselves to the marketplace. And hopefully that will lead to change order mitigation, which is something we all, change order, nobody likes that.

Next slide. Now, value engineering, we often think of it in this context as we're just looking at some buildings, looking at some designs. Well actually, industry has looked at management practices and brought in business managers to analyze how you do business as a company. Look at how your funding procedures work, your procurement, your IT and information exchange, the common process, reviews, use of the AE, use of the contractor, internal government communications. Again, a VE team with the right team member can help you do business in a more efficient fashion and

pursue excellence in a better way.

The next slide. Used after you've had a look at the RFPs, you can have the value engineering team look at what the response is. And I think that's very important. We talked earlier about the two-step process, one qualifying a group of bidders, phase two, having a smaller group of bidders on a funded bidding exercise go for a best value type of approach.

In this case, you tell them what the price is, what the schedule is, what the design parameters are, and what the program is. And you let them provide you with a design, that's why it's funded, that shows the best value response to your bid. The Navy is using this process and so is the Army Corps of Engineer and what they're doing I they're taking a risk element out, the unknown. How will the costs come in when we bid this thing? Well, fix the costs. Tell them no more no less. There's no reward for going less, just stay with the costs and give me the most for my money. And that's been a successful program for those two groups.

Every project isn't the same. Use of VE team to analyze what is the best procurement method for your project. For the SED program, great, it's

design-build all the way. But for a renovation project, for the smaller renovation projects, is design-build the best method? You need the VE team to be giving you feedback early in the process to tell you we advise you to go this way to avoid unknowns. To avoid change orders, to avoid bickering in the project. Bickering is not productive. So look at some of the, look for the VE team to help advise you on those issues.

The VE team, the next slide, can help you in project programming and prioritization. It helps establish quality measures and priorities and ways to measure them. The program for a project is not just the square foot. It's a living document. It tells you the rules on how to build your building. It's setting forth the priorities for a project. It's not simply square footage. Next slide.

Now, we talked about lead and I would say that the VE team can be a very strong partner to look for successfully incorporating lead principles into a project. First of all, we need to fully adopt that we are doing sustainable buildings. It's not just a little lead here and a little lead there. It's actually we're taking on environmental stewardship and energy stewardship and doing a full

lead program for our projects. This will help shape the market.

We can involve people of different backgrounds. Get the old schools, new school. Get people from different types of experience to look at how we make environmentally sustainable buildings possible. We don't want this just to become a checklist we go through. We want this to become sustainable building practices and the VE team during the creative phase can look at even ways to encourage things that aren't shown in the design.

We've looked at green roofs. This goes back to your lifecycle costing. We did green roofs and we were using measures of ten-year payback. Well, if the building is going to go for 50 years, 100 years, why are we looking at a short payback period? We should be looking at a payback period that is reflective of the true lifecycle of that building. Next slide.

Pick the right team for the task. So it's not just an architect, an engineer. Pick a team to answer the question that you're looking to have answered, whether it be a technical review analyzing your processes, looking at the program level searching for design excellence. Why should the VE

team just think of cost as the true only value measure that they are striving for? What about design excellence as being one of those?

The contracting methodology and evaluation of multiple projects to see what the lessons learned trends are and how we can set new standards to enforce excellence in your design practices and construction practices. Next slide.

The BIM system, it's really cool. Nice exotic system. We've been using it at my office for a couple of projects. A little more difficult than it looks like on the package. You've got to decide what you're buying in the BIM system. Use a VE team to bring computer experts from AutoCAD, MicroStation and any consultants into the process and have them analyze how you can use that system correctly and effectively.

It is cool. It is the wave of the future, but a tool misused can turn into a disaster. Let the VE team show you how to get the most value out of that product, out of that process, so that you can succeed when you're using it. Make sure it serves you, not you serve the product.

Finally, we need to look at, next slide, how does OBO Incorporated operate in the

marketplace? Use the VE team to look at your market position to advise you on how you can be a stronger market player, what practices you do in how you represent projects to the marketplace. We talked about several things, green buildings. Well, we need to make sure that the public at large, that the host countries know that those are green buildings. We need to let the contracting community know that we have changed our mode of business, that we are practicing in a way that they want to be a part of. And we have to have a VE team with a business advisor could look at how we do business and what our role is in the marketplace.

John, did you have any additional comments?

MR. WOODS: A couple of comments. One, actually OBO has done value engineering studies of your management process. I participated on the team in 1995 with Greg's father, Stuart Knoop, Bill Miner was involved in it, Fred Koom (ph.). And in that study, one of the -- there were a number of things that came out of that. One is the AE guidelines now are a part of the, are an amendment to the standard building code. At the time they started, OBO had 100 different design manuals or publications that they used to design a building. So we talked, at

that time, about some recommendations for how better to use the AE, how better to utilize the personnel at OBO.

Over the years, I have had any number of people at OBO worry about outsourcing things and taking, in essence, costing people their jobs. My sense is OBO has always had to have the people in place to implement the policy. The contractors and the AEs are the tools. We don't make the decisions. The people at OBO have to make those decisions.

Relative to how value engineering studies are done in other agencies, I have had a fair amount of experience with the Corps of Engineers and they use the shared savings approach, where the owner and the contractor split a portion of what they say.

Skipping to the BIM, speaking to it from the ACEC position where 85 percent of our members are small businesses, Greg referred to it and it is, it's the gee-whiz thing. We happen to have Revit in our office. It's not the cost of the software, it's the cost of the implementation. The amount of training that goes into it is really quite unbelievable. There is a major liability issue.

David talked this morning about Autodesk having Inventor. One of the problems has been that

the architectural and the structural could not coordinate very well with the mechanical. The other issue gets into something where the government typically owns our documents, but what are you going to do with the documentation once you have it? Because we design every project, even if it is an SED, as a standalone project for a specific site.

So we have that concern with the liability. Those of us that are small businesses, we know, just like CAD, this is coming. But if the government really thinks this is a great idea, we actually think that the government ought to be willing to step forward and help pay for the implementation of this.

MR. KNOOP: Well, and just to follow on that. You're going to get a bunch of files on a bunch of discs. Now, can you use them? You are also participating in this BIM process. So we need to make sure that when we take on something new like that, that we are working together in a partnership across the industry. And the value engineering exercise would be perfect to analyze how we can make that work together and establish a standard, communication standard, for that in the protocol.

GENERAL WILLIAMS: Okay, thank you Kathy

and Greg and John.

I just wanted to make certain that everybody had an opportunity to make their presentation because it's important that this subject be heard in its collective framework.

As you were going through the presentation, I picked up a few things. And then of course, the rest of the panel may respond.

A standard versus a template in respect to our said design, I think maybe we might need some clarification to industry and everything else. If you are raising this now, what this is and what it may not be, that can have some indication on how people will perceive and use it. So that's a do out we will be getting back to industry on for clarification.

The other one is the threaded throughout the presentation was the, what I call a balancing act. Yes, today and for the last six years, our business has been laced and concerns about security. And with the tilt of the world today and no predictable turn, today and probably tomorrow morning, we still have to be concerned about security. And then I would say, even after the world shifts, because of the 20 plus activities

other than State that participate in our facilities, security will never go away. It may have a different view about it, but we are going to have to be concerned about security.

In our said approach, we have tried to take advantage of that. First of all, we went from a corner on Main Street to ten acres of property away. Sort of balancing and going against the grain of being close, upfront and close to other activities, we just simply couldn't plan for the future on Main Street because Main Street can only accommodate so much.

Have you noticed we have been taking some creeps to make certain that OBO was not locked into just the framework around security? We have stepped out in the sustainable and the environmental world or trying to go green. That connects to something else which is totally foreign from security.

And you presented some good ideas today because we want to try to put a spin on it that the good suggestion that Nancy suggested before lunch, on this sustainable and environmental piece.

We have deliberately in our preambles and in our way of doing business elected not to call what we are building an embassy or consulate. Now,

I know that might get me in harm's way with things, but the point is what we're trying to say here that this is a platform. It's a U.S. government platform from which the U.S. government can project its democracy and diplomacy buildings.

So the whole idea of saying platform had some futuristic thing about it because sitting on a platform is, at the base of the platform is ten acres and open. And we made some provisions in this ten acres for expansion, dealing with the future, in case we wanted to do something further about openness and diplomacy.

And we kind of referred to this ten acres as a complex. Well, we started this way. A compound, complex, and you heard Bill Miner, my chief designer saying campus. So we've gone a long way from an embassy through a compound, to a complex to a campus.

So I think we're situated pretty good anyway you look at it for the future, and we can kind of shift, but I want you to know that I believe, and I could be wrong, that we are going to be having to talk about security for a long time. Maybe not from the context of wars or whatever, but the fact that we accommodate in our building

activities.

Okay, that's sort of my response to the balance. The other one has to do a very good word attitude. And I would like to hear more about that because attitude sometime get printed around. So we want to make certain we know what attitude is about.

Then of course the other one you put out is the most for my money. And I was sitting here trying to think, how would that work? Most sometime might come in the eyes of the beholder and when you start taking about going to Ouagadougou and can't figure out how to get through Customs, that might get to be a problem. I understand what you're saying, but I'm just, I want you to kind of understand the environment we have to deal with.

Now, another excellent idea struck me as you were going through your presentation and that was, does the host country really know that we are interested in more things than just building this diplomatic facility? I don't know whether it's sinking in in the fabric like it should. And you raised a good point. And I'm thinking now about a task for our people that would say at the initial planning survey time, that we have a pamphlet. A little take away that we can hand to the individual

in the host country that we are trying to get zoning from and approval to do things and say look, we want to come to your country to build a platform to do these kind of things. And have it all related to green and this type of thing and deemphasize the fact that the main purpose is to do an embassy. It just may be a softer touch and it clearly won't hurt anything and it won't alter anything, but it might help us get a pass, go a little quicker. So stay tuned for the task.

Okay, that's what I picked up from the presentation and we are open now for any other panel interaction. Yes?

UNIDENTIFIED SPEAKER: Just a comment on the value engineering process and how it has evolved. I think, in my experience, I have seen a lot of scrutiny on things that are now, as Suman said, becoming not a fad anymore, but kind of an accepted practice of being attacked in a value engineering process in terms of sustainability and it's kind of, you know, somebody's signature item on a project that doesn't need to be there.

But I don't know, in oversight you mentioned that you are mandated to do to the program, but I don't know if there is oversight on

the actual technical elements of what is accomplished under that.

MS. BETHANY: Just for clarification, you're asking on the technical, what's accomplished on the VE team --

UNIDENTIFIED SPEAKER: Right.

MS. BETHANY: -- the fact that they may attack a sustainable design feature. I provide that oversight that nothing, you know, all new ideas are good and we also when we set up the VE study during the information stage, we're telling them what we're looking for. And one of the goals is to be a friendly neighbor, green sustainability. And I again, I will put on the team a sustainable design expert, just to make sure that we don't circumvent the process. And we do look at life cycle. We're not looking at just initial cost because, as I said earlier, yes, some of these items, to go green, do cost us a little more initially. Some of them don't, but some of them do.

Okay, if it's costing us more initially, the VE team might be able to come up with a way of doing the photovoltaic for a slightly cheaper way of doing it. Maybe use a slightly different technology to get to that, or oh, why didn't you think about

wind turbine here because it might work here --

UNIDENTIFIED SPEAKER: Sure.

MS. BETHANY: -- where you know, we're in the middle of planning the project. We're trying to get the project out the door in two to three months and didn't get a chance to think about that.

So bringing in the idea to say wait a minute, take a step back and throw in a wind turbine. And it's not just the sustainable, it's other items.

UNIDENTIFIED SPEAKER: That's great. Getting to that point, something that struck me as we talked about this, a way to look at the program in a comprehensive way might be to show savings through value engineering and invest those into technologies that do cost more. And in the net sum, you can show how you have invested dollars saved into things that are sustainable, which would be a clever way to communicate.

GENERAL WILLIAMS: Excellent. That's an excellent idea.

MS. SORG: Actually, you are going to a living example of that. But my question is, you know, especially on the repair and alteration projects that you are going through, there is a

budget.

MS. BETHANY: Yes.

MS. SORG: And the budget is say twelve million dollars for Hong Kong, I'm just picking this out of the sky, but for in that twelve million, post wants everything done. They want everything that was wrong for the last whatever ten years that we looked at that site and fix it.

MS. BETHANY: Yes.

MS. SORG: So how do you push that, push these ideas of sustainability. And you know, how do you really sell that, and you know, I think this is something again, how do you bring those people on with you by saying, you know, even though your toilets are leaking, I think you ought to put window shades. You know, I mean --

MS. BETHANY: Well it gets back to the definition of the value. It does take a selling case, especially on the sustainable design. But if you have the right, what Rick was talking about, having the right people on the team, that's the hard part, because you sometimes you might not have the right person there to help address it.

But another critical element isn't just having the right person on the team when it's an

independent team, it's getting the right people in the room at the beginning of the VE study to frame what is the project, what are the functional requirements, what may be things that didn't make it because the budget was set at a certain limit, and say well maybe we can move this one up if we give up this other thing and help to frame the conversation around what are the values, and bringing in somebody from the bureau or post that is going to be an end user.

Some of the more successful VE studies had them come in from post during the IPR or the integrated planning review to sit in at the VE study at the beginning, sometimes in the middle, going and listening to the ideas the VE team was coming up with, and then at the end to listen to why they came up with recommendations they did. And the VE team will, when they develop their idea, they will give you both pros and cons, what happened, why would you think about doing it. They are not designing it. I mean, when you give them a week, they can't do the design, as you know, but they can come up with the ideas to help.

MS. SORG: On that same track and I think this is, again, going back to a spin, not a spin so

much as looking at the not clearly evident positives, you know, and so reaching out for the sort of hidden positives. And perhaps you are really limiting yourself by calling yourself a value engineering team. It's more like a holistic look at a building. You know, because whenever you know, we think of value engineering, we think about oh, cheaper ways of doing things.

MS. BETHANY: I know. That's a problem with the industry.

MS. SORG: Maybe a name change or sort of, if your mission is bigger than that, then I think maybe you might think about --

MS. BETHANY: And if I put on my other hat, you probably saw it on the slide, I am the Executive Vice President of SAVE International. That is a topic that I am sure Greg can talk to too. It's the subject of debate of every meeting of value engineers. What do we call ourselves?

When the law was written, it said value engineering, but there are some that will call themselves value analysis, some will call value management. You know, what do you call what we do? You're right, it is a holistic review but it is -- I got very excited when I first took over the job of

value engineering when I saw what happened on a project like yours where it was a renovation, building a small annex onto one of our embassy compounds, and the VE team came up with the idea, why are you doing this? It does not make sense. For the amount of money you are spending on this annex that you are putting on, it would make more sense to build a new building or a new compound, because you are not solving all the functional requirements of post. And that project got canceled and they have since built a new building or new compound.

And so that to me -- you're right. It's a holistic step back approach, measuring twice, ability to sit back and say what can we do better? And I know Greg has comments.

MR. KNOOP: It still goes back to the beginning. I mean, how do you say that we succeeded? You have to say that we succeeded by understanding what the mission is and we have to very early in the process decide what are the priorities in the mission. Because I think that the A and E teams and OBO get put in a place where they've got twelve million dollars to spend and they're hearing all sorts of, we need this, we need

that, we need this, we need that. But what are the priorities?

You just need somebody to facilitate a communication process between post, OBO, designers and builders to establish what makes you a winner. What is the priority of the project? So that there is no question that when you get through the process, that no, we prioritize. Window shades were not a priority element so let's stop wasting money on that. Toilets were. They are all broken and we're having them leak on the ambassador's head. That's not good. So prioritization is a key element to that, I think.

GENERAL WILLIAMS: Okay. Are there -- yes, Nancy.

MS. GOSHOW: I just, I think it's great that you're doing the VE verification. That's really fabulous. And I think it will help as you begin to build a history of what is going on, particularly in terms of operations and maintenance of these buildings, which I know is still a very difficult issue. And I guess you have operations and maintenance involved from very early on in all your VE?

MS. BETHANY: We try to. I can't say that

it is 100 percent, but they are invited and they do. But every team is different and we do try to have somebody that understands operations and maintainability.

GENERAL WILLIAMS: Got it. Are there other comments from the panel?

Now, what about attitude? You had it on a slide up here. What is that?

MR. KNOOP: Again, it goes back to how you represent yourself to the marketplace. For the VE exercise that we did for the Corps of Engineers, we were looking at their RFP, we suggested they write a preamble to the entire RFP to tell the bidding community what their goals are, what they want to do, that they are a business entity that is willing to do business with the bid community in a progressive way. Tell the customer or tell the business community how you want to engage them to succeed together. And you also go to processes like partnering sessions. I'm not sure if we do that here at the Department of State, but partnering sessions is a way to again, just like a design or a VE workshop at the beginning, it allows you, all the groups to get together and try to figure out a mode to succeed together.

Build that one thing that you said after you gave us our four key elements, which was communication. Bricks and mortar do not build buildings. People do and people live in them. It's for people and it's built by people. So the communication between those people is what is going to make a successful process. That's attitude. When the bid community -- you have had --

I mean the news has reported that groups are dropping out, they are not going to bid OBO projects. The design builders might be afraid. That's based on attitude. So if they see an attitude, a willingness to do business in a new progressive way that you are inviting them as partners to succeed, they are going to try to succeed with you and they are going to try to protect that through the process.

GENERAL WILLIAMS: Any other comments from the panel?

(No response.)

GENERAL WILLIAMS: Okay, thank you very much, each of you. And we'll move now to property acquisitions and disposition, led by Steve and Keith and Clare and Regan.

MR. STOMBER: Yes, good afternoon, sir.

GENERAL WILLIAMS: Good afternoon.

MR. STOMBER: Good afternoon panel members.

The question is, "What is new in property acquisition and disposition?" And my name is Steve Stomber. I'm the managing director right now for real estate. The answer, basically, is nothing.

We've done tons of research and we haven't found too much new. But we can tell you that the key to real estate has always been location, location, location. And it still is for the Department of State in trying to find land for buildings. And the main thing that does change in real estate are trends. And I think the most current trend that I have seen is basically the problem in the American's subprime mortgage market has affected the finance market, which has affected some international real estate circles and prices on buildings and acquisitions.

But I think the best way for us to talk about what is new in property acquisitions and disposition is for Mr. Wilkie to tell you what we've done for accomplishments in the past year. Keith?

MR. WILKIE: Thank you. Good afternoon. Of course, you know that being the real estate guy coming on in the middle of the afternoon is a little

bit like trying to find a site for a new embassy. You'll never make everybody happy and I'll talk about that a little bit more.

But I basically manage the group of people that are involved in the buying and the selling and the leasing of our real estate overseas. That includes the site acquisition process for new embassies, which is probably half my workload over the recent years. But I'll talk a little bit about our recent results, some of our challenges, and some of the new things that we have done to address some of the issues that have developed over recent years.

But you can imagine that with about 18,000 properties in nearly 300 cities around the world, we are in every type of real estate market that you can imagine. We're working with office properties, residential properties, warehouse properties, mixed use properties, buying, selling, leasing, exchanging, you name it, every day. From sophisticated markets like London to places like Mexico City or Bujumbura or Dili, the assignment is usually the same regardless of the environment that we're working in, that is try to buy or sell or lease a piece of real estate. Sophisticated markets to very secretive closed markets, still the

assignment is the same. Every language, every currency. So, it keeps us busy and a different challenge every day. And we do that with less than 30 people, somehow.

Luckily the bulk of the Department's real estate transactions are day-to-day leasing of housing overseas. We have thousands of those and those are happening all the time out in the embassies and, luckily, we don't have to get involved in all of those. Most of those happen within the embassies authority and shows up in a database and that's the involvement of OBO real estate.

Where we come in is on every purchase, every sale, and in major relocations, major lease transactions, things where we can add value. So several years ago, we went from a geographically organized group to focus more on functional areas. So I have one group that does nothing but sells and decommissions properties. I have one group that only works on leasing property, one group that does nothing but site acquisition, and another one that busy existing properties like houses or buildings that we're going to buy, rather than build new.

We personally negotiate many of those

complex or major high dollar value transactions. We provide the day-to-day real estate guidance to the embassies when they just call in and have a question about the landlord is doing this, what do I do with my lease, what are my rights? And we get into dealing with bilateral property rights issues from time to time when they come up as well.

So, just a snapshot today. We're typically working on about 200 multi-year real estate transactions in my shop at any given time. And if you just took a snapshot today of the value of those real transactions, it's around two billion dollars. This year so far, fiscal year '07, you can see some of the stats up there, we've completed, meaning closed, over 200 sales, purchases, major leases, and decommissions this year valued at close to a billion dollars, another almost 50 properties under contract for sale or to purchase. We've put sites under contract in 11 cities this year, closed on another seven. We've put 38 housing properties under contract to buy, closed on 52 more, sold almost 20 properties, decommissioned over 80 properties, and completed a number of major lease relocations and again, with about 25 people.

Those nearly 300 completed real estate

transactions and new contracts this year are spread geographically over almost 70 cities, the blue dots. Okay, we're on the right page. Those are just the cities where we completed transactions. And we're working in more than twice that many others just ongoing negotiations, marketing and that sort of thing. But it gives you an idea of the market diversity that we have to deal with and the political realities that we have to deal with, just from place to place. But it's just real estate, right? Which is what everyone says, well, it's just buying and selling property.

Now this is just a little bit of history on transactions. This data is only properties that were purchased or sold. It doesn't include all the leases and other types of transactions. But you can see since 2001 we've bought or sold almost 400 properties. It's about 1.3 billion dollars worth of real estate business just there. And again, just purchases and sales. And if you go back to my division's inception in about 1991 or 1992, that number bops up to over 900 completed purchases and sales. And we've just crossed the two billion dollar mark in terms of real estate business.

So we're doing some things new. And I'm

going to specifically address what we're doing new in these four areas. In terms of sales and marketing property, there hasn't been a real widespread distribution of information about what is for sale, not only in the State Department, but throughout the U.S. government. So we looked at how to address that.

There are issues with site selection where we would be way down the road on the process of acquiring a site and something would happen and we would lost that site, we'd have to start all over again or security issues would be discovered very late in the process that would create difficulties for us.

In terms of site evaluation, we had a very outdated 20 year old or so scoring tool and we revamped that. And in terms of site development, we were finding that some of the sites we were buying were just not ready to build. And I'll talk about how we have addressed each one of these issues briefly.

So earlier this year, the government in general was working on a new public interface for all property that is for sale by the U.S. government, meaning confiscated cars to houses and

excess real estate. At about the same time, we were developing in the State Department's website, a page where people could find information about properties that we had for sale. The problem with the govsales.gov site, which is just started in the last few months, is that it only deals with things in the United States. The whole website is driven by a map of the U.S. and you click on the state you're interested in.

And so that website now has a tab, you can't probably see it on this slide, just a tab that says international real estate. You click on that tab and it takes you directly to the U.S. Department of State's property for sale overseas. It's just been up for a couple of months. If you haven't seen it, take a look. We've been averaging over a 150 visits to our website a day. We average ten actual inquiries a day from that website, actual requests for information and we've actually documented one sale so far where the guy found out about the property on the website, went through the process, and ended up buying that property. So it has dramatically increased the exposure that we have for property we're trying to sell and we typically sell 30, 40, 50 properties a year, give or take.

Also, another thing that we're doing in that regard is a lot of the properties that we market, the marketing is done through real estate brokerage firms. And so, in appropriate cases, we're encouraging those firms also to create websites within their websites on the properties. So you can see an example of a property in London that was put up for sale this year and sold. There is a very sophisticated website that the developer put together, as well as normal printed marketing materials.

In terms of site selection, we've made some improvements over the past year or so. After a couple of years of buying 10 or 15 sites a year, we started to see some trends and, as I mentioned earlier, we'd get a long way down the road and something would happen to the site that everyone has fallen in love with, the seller would change his mind and wouldn't sell to us, we found a fatal legal defect in the situation, whatever it might have been. So, it's now standard practice for us to identify a backup site. So, in every city where we can, we're actually finding two sites that will work for the new embassy or consulate and we're putting them both under contract, so that, just because some

of these markets, things aren't transparent at all and there is no way to discover some of the problems that are going to pop up later. So it's a bit of an insurance policy for us. It's more work, but I think it's paying off in the long run.

Now the other issue we were having is once we identified a lot of properties, we would then bring in as part of the process a multi-discipline team that would then evaluate all of the properties and help select the one that was the best, the preferable site. And obviously our security people and experts were involved in that process on that team. And again, we were finding that too many of the sites would fall out at that step in the process. So, we revamped the entire process and now the standard method of going about this, is to identify as many sites as we can and bring in those key people right upfront, screen out any sites that have, call them, fatal flaws from an operational or security perspective, and then when we bring in a full team to evaluate the sites, they are only evaluating sites that are viable. And it is just a matter of okay, which is the best one of the ones that work. And that is paying off as well.

Another improvement we made is these teams

that would evaluate sites and compare them against one another and decide which one is best would use a scoring tool, I call it a scoring tool that was developed 20 some years ago. We've totally revamped that tool this past year and added in a lot of elements that are say more important to us now than they were 20 years ago, like build to lease, not build to lease, ready to build attributes, environmental issues, things like that, purchasability.

You know it used to be when I first started working here 15 years ago a site would be picked and then they would say now go buy it. Well, if you can't buy it, you just picked the wrong site. So you know, we folded things like that into the process of selecting which is the best site to buy because again, if you can't buy it, it doesn't matter how well it's located or anything else.

But anyway, so this tool has eight categories about almost 350 line items and they're all positive attributes. And it's a real simple tool to use. People just go down the list and check off which ones are there versus not there. And it's turned out to be a very useful tool for the team to help them go through their process of picking out a

site.

This is just a little detail. There are eight categories, the ability to acquire the site, planning issues, environmental issues, developmental issues, operational issues, location, ready to build, and naturally, security. But that tool rolls it all up into one graphic and it's very easy for people to look at and compare site to site and we also use it to compare, relatively speaking, in a lot of cases to the existing facility.

So you can see the bar on the left side would be the existing compound and then there are ten sites and you can look and see that while that a little top blue color on the left side shows that there's a good location, but the red spot down there is very little, very few points in the security department. Where you look at some of the other sites and you've got maybe not as great a location, but you're better off from a development perspective, security perspective, and all the other critical elements. And we're using this tool very early in the stage, as well as through the actual evaluation process.

And the last issue that we have taken specific action on is the issue of ready to build

sites. Our goal for some time now has been to only buy sites that are ready to build. Unfortunately, that is virtually impossible in a lot of these markets. So we try to identify sites and buy sites that are as close to ready to build as you can get. And then we specifically address those ready to build issues with the seller, whenever we can, and attempt to negotiate as part of the real estate transaction, the seller developing, not developing, but providing the site in a ready to build condition.

So these Valletta images, this is just an example of one case where instead of just an example of one case where instead of just buying the site from the seller and then having to demo all the buildings that were on the property, deal with unexploded ordinance, and environmental issues, we built all of that remediation into the real estate transaction. And so, the seller actually delivered that site, in this case in Valletta, ready to build, dealing with all of those issues, taking a lot of the risk off of our side of the table and off the design-build contractor's table as well.

So, some of the major issues and challenges that we still have that I haven't found a cure for

is this one. This is one example that I mentioned briefly earlier. My biggest challenge is, and I'll call it mission impossible. I don't know that I've said that in front of General Williams before, but that is basically what it is. If you just think about it, you want the best location in the capital city of country, ready to build, low development costs, and you don't want to have to spend much money to buy it. Just think about that. Take a leap for a minute. If you had to go out and buy ten acres to develop in Washington, D.C. right now, on a metro stop, on The Mall, and you didn't want to have to pay much money for it. That's all I do every day.

(Laughter.)

MR. WILKIE: And all those other things, too. But, no, I mean, that's reality. If you go to London, if you go to Mexico City, it's a little different depending on the market, but if you go to even Bujumbura, you know, it's how are you going to do that? And you to into a capital city like Madrid, or London, or Mexico City, and how are you going to do that?

And the first reaction you get from anybody, guaranteed, is you can't do that. Or in

some of these less developed countries, it's well, no one has ever done that before. You know, we've never sold a piece of property that big to anyone before. So it's a real challenge. And it keeps us busy.

Just a few of the other challenges are more related to any other organization that has a worldwide presence. An unpredictable exchange rate fluctuations, whether you are buying or selling. Real estate markets where you can't even determine who owns a property. There are no for sale signs. You know, there are things for sale, but how do you find out what is for sale? There is no website. There is no real estate broker to go look up.

I mean, some of the cities we deal in are actually, that's the situation. Inconsistent service providers. We deal with local real estate professionals, as well as those that are operating globally and there are a lot of global real estate firms today that will tell you, they are global in nature and they provide consistent service. Well, I can guarantee you that it's a challenge for them to do that. And just from office to office, looking at consistency in the way they develop and provide services is a challenge. And in a lot of the cities

we work in, they have to come from another city or another country to come help us look for property. But it's an issue that everybody deals with that's in my business.

Inconsistent property rights, there are some countries you can't own property. You know, and just political realities, changing world events. Those are just things that we deal with every day.

But luckily, as I said before, we've got a great team. We have some incredible real estate people on staff. We have some of the best technical expertise that you could imagine within OBO to help work on all of these issues. We've got great staff at a lot of these embassies that help make this happen. And despite inconsistencies, a lot of our services providers are just incredible in terms of what they can do and they help a lot.

But that's an update on what they're doing and a taste of some of what we deal with every day.

GENERAL WILLIAMS: Okay, thank you, Keith. We're going to move on to Clare and Regan.

MS. ARCHER: General Williams, Steve, and Keith and fellow panel members, on behalf of AGC, I just want to thank you for allowing us to participate in the dialogue today. We think it's

pretty valuable for us to be here in the room and appreciate it.

While the membership of AGC is largely not very active in the real estate transaction arena, particularly internationally, we did reach out to some of our industry partners from the real estate arena, some that work with you, some that don't to see if we could get their assistance in identifying what is new and what are some of the trends that they are facing.

Basically, we got two responses. One was kind of along the lines of Steve's nothing new. And secondarily, it's really a little bit hard to capture specific trends across such a huge variety of market places with different regulatory environments, et cetera.

So, Regan and I both shared a great challenge in trying to identify something meaningful that was new trend-wise. One thing did pop up from the public sector domestically that we thought was, or at least I thought was worth mentioning and that's created a lot of buzz recently, and that is the whole move towards enhanced used leases, or EULs. Particularly out of DoD and Army Corps of Engineers, it's been a pretty interesting activity

in the real estate market that we're seeing. Basically, a public entity with excess land will, through a competitive process, find a development team with whom they will execute a long-term operating lease, ground lease, and are compensated through payment in kind, which can come in the form of new construction, renovations, O and M, a variety of forms.

From the industry side of the house, it's been pretty interesting. The industry is excited about it. There's a lot of creativity involved in it and flexibility and it's pretty interesting.

In talking a little bit with Steve and Keith about it, there are some challenges to implementing it within OBO. One is, I guess, the main one is really relative to OMB and scoring of leases, a capital lease. The requirements of a capital lease don't really work in an EUL environment.

So, I think from that perspective either trying to find some relief from OMB relative to that or looking like the Corps of Engineers does to using some sort of operating lease to execute an EUL are probably the two ways to go. But we thought it was interesting and worth mentioning.

Regan?

GENERAL WILLIAMS: Thank you.

MR. McDONALD: Like Clare, I reached out to my industry partners, specifically the real estate entity that services our company that does have a global reach. And without really -- their question back to me was be more specific. Be more specific country-wise or at least regionally for us, because quite honestly real estate processes are well established, longstanding, as you alluded to, and not a fast industry to change, just because of the traditions.

So the local idiosyncrasies really drive, you know, any revelation that we would have if something changes in a specific market, opening up of China and things like that, the influence that that may have. I think Steve summed it up with his opening remarks, that there is no sweeping revelation that I was able to come up with to help Keith in his monumental challenge that he described very well.

GENERAL WILLIAMS: Thank you. Are there any questions, comments, or input from the panel? Yes, John.

MR. WOODS: I was interested in Keith's

mission impossible about The Mall. And actually, this is a compliment to the real estate group because, and I did not see it publicized, but I thought the acquisition of the I and A building in Rome, for I believe it was a hundred million dollars, I thought that was the equivalent of buying the IRS building on Constitution Avenue. Now, I think perhaps the ambassador had something to do with it. I happen to have been over there when Congress visited and it was very easy to sell them on why this should be bought. And I also thought it was a coup that you got security to pay for it and not something else. I do want to compliment you on what I perceive to be a mission impossible at that site.

MR. WILKIE: Thank you. That wasn't a site. It was a building, but it fits in the mission impossible category, as General Williams would remember probably.

GENERAL WILLIAMS: Right.

MR. WILKIE: I personally negotiated that and it wasn't nearly that expensive, thank goodness, but it was a unique, one of a kind, you know, you never get that sort of opportunity to buy a property like that right next to the embassy that just

happens to be the size that you need to consolidate a lot of people in.

GENERAL WILLIAMS: Are there other comments? Would say this that yes, the acquisition and the disposal of property and all the rest of the activities that are in Keith's portfolio is very challenging. That group sees the host country the first time. They encounter it for the first time. And he is not exaggerating when he says there are many places that they don't even know how to sell property to someone who is not in that country.

But I will say this that he made it sound very difficult and it is difficult, but he is very good at it. I have turned him around in the middle of the night from one location and said get a ticket and go this way. And he has done very well with it. The complicated projects he and his team, they have done a wonderful job. It's a part of our business. I wish we could make it easier but we have to have real estate. We have to essentially own every piece of property that we place these platforms on.

And you know, when you look at our organization from the outside, you know, this is a part of the education that you can help us with. This is very tough work. You know, it's not just

the war in the two or three locations, but we are slugging it out every day somewhere in some country trying to make this happen because it is very difficult work.

So I realize that Clare and Regan were put in a little awkward situation because you know I have seen your resumes and I know what you are paid to do every day. But we thought this would be a nice little piece of homework to give you to kind of indoctrinate you to the OBO thing and let you know, in spite of what somebody may write, it's not a piece of cake. Okay? It's real difficult work over here and we have a lot of hard working people trying to make it happen.

But we are getting there. He's ahead. He didn't say this, I can. He's ahead of what we asked them to do in terms of teeing up the property. We have everything purchased we need for FY07. He is well ahead on FY08. So, it's happening. So to me, that's new because I knew a time when we would be scrambling tonight. Right, Keith?

MR. WILKIE: Absolutely. I think the biggest one positive change that affected me more than anything else with General Williams' leadership is, you know, 10, 15 years ago, there was no plan.

I never knew from day-to-day what I was going to have to buy the next day or the next year or the following year. And now there's a long-range plan that looks out six, seven years in advance, and at least I have a roadmap of where I can start throwing darts anywhere, anyway. And that makes all the difference in the world, in my business.

GENERAL WILLIAMS: Okay. Well, what we want to do now, we have had some very loyal supporters and interested visitors and you know we are always delighted to have you come. And while you are not a member of the panel, we do appreciate the fact that you are here and we do want to recognize you and you can tell us what, tell us about yourself and your organization and if you have a comment to make about our process, we would appreciate that as well.

MR. SPRAGUE: General, I was wondering if while the people are introducing themselves, if they could come up to one of the microphones.

GENERAL WILLIAMS: Okay.

MR. SPRAGUE: Because, so they can be -- they have a lot of interesting things to tell us --

GENERAL WILLIAMS: Right.

MR. SPRAGUE: -- and we want to make sure

that we get them recorded.

GENERAL WILLIAMS: Okay. Let's see how we're going to do this. Just find a mic and just step over. That will be fine. So can I start with you in the corner? Over here, anyone on this side? Yes. No, no, she belongs to us. If she introduces herself, I'm going to get up and get out.

MR. MADDEN: Hello. My name is Ed Madden. I'm with Gale Associates. We're a building envelope, roof design, evaluation consultant company. We do have an open-end contract with the State Department and, to date, we've done quite a few roof evaluations on various embassies and done some design work.

And I just want to say I really appreciate the opportunity to be here. There was a lot of great information. I think I was very impressed by what Nancy had to say and the sustainable design and that whole sustainable design discussion.

In particular, I do really believe that organizations like the State Department, and the State Department in particular, do lead the way and they do set the example, and they do show people throughout the world what we are all about. And I think to pursue that is just a wonderful thing. So

thank you.

GENERAL WILLIAMS: Thank you, very much. Yes, sir?

MR. PREZIOSO: Luigi Prezioso with M. C. Dean. We're a design-build systems contractor. The one thing I would like to say is I did hear a lot of references to what other agencies are doing, but this is probably one of the only agencies that we have that gets us involved on what they are planning as such, like the last gentleman said, so we can kind of understand where you are going before you get there and then come to us asking for solutions.

GENERAL WILLIAMS: Thank you, very much. Yes, sir.

MR. CIOTOLI: This is my fifth IAP session and I've got to tell you, it's been the most interesting of all that I have attended. And the reason that it was the most interesting to me is that there were a lot of synergy of what the topics are and what your discussions are. And who we are as a company, using synergy to --

My name is Peter Ciotoli and I'm with Weston Solutions. Some of the synergy, if I may just give you a few, you mentioned earlier the 50 projects, milestones. This year is our 50th year in

the engineering and construction business. We're also an American company. You mentioned that earlier, so I thought I would point that out.

In a recent ad in The Military Engineer, in a description of our company for the ten second elevator speech you talked about, we're defined as the trusted integrator for sustainable solutions. So naturally, the sustainability conversations today were of a great deal of interest.

We've been here meeting with Donna and her staff. We've talked about our modular green roof systems. We've offered to give tours of some of the systems, green roofs that we have here nearby, and we've talked to you about how that could be implemented for your Agency.

We also organize as a green team. And I really like that chart that Bill and Donna showed about your green team. And we, as a company, organize the same way.

In the area of property development and property redevelopment and what Keith was just discussing, we are involved heavily in enhanced use leasing. We have been selected on several of them. We have an active EUL as generating revenue for our client. We do an exploded ordinance.

Finally, we're a pre-qualified general contractor for OBO for new embassy construction. So, I'm here basically to help judge for our company whether what you do as a client and what we do has any kind of compatibility and, from today's session, I'm really excited. I think there are a lot of compatibilities.

GENERAL WILLIAMS: Thank you.

MR. CIOTOLI: Thank you.

GENERAL WILLIAMS: Thank you for your comments.

MR. DOUGLAS: Hi. I'm Mike Douglas with Bentley Systems. We provide software for the AEC industry and owner operators, including software supporting the adoption of BIM methodologies.

Of course, my interest in these meetings, and this is the latest of several that I have attended, tends to focus in on the perceptions of the value of the BIM methodology more so than just the technology that supports it. And it's also interesting to hear how BIM fits into the larger echo system or the ecology of the various considerations that must come into play here.

One issue that I expect to hear evolve over time in the context of these meetings is the

essential transition of BIM as a methodology that is applicable in the design engineering and construction phases through commissioning, to ultimately transitioning into an authoritative information source describing the building model in support of facility configuration management environment where the real benefits of BIM will play out for the owner operator through the O and M era.

So thank you again.

GENERAL WILLIAMS: Thank you.

MR. DOUGLAS: I appreciate being here.

GENERAL WILLIAMS: Thank you. Yes, sir. You can use the one right in the center there.

MR. BLINDS: All right.

GENERAL WILLIAMS: Okay.

MR. BLINDS: Hi. I'm Steve Blinds. I'm from EECI. We're a design-build contractor and we're currently doing on job, which is security upgrade in Bangkok with OBO now. And we're interested in getting into the NEC business with you.

GENERAL WILLIAMS: Okay.

MR. BLINDS: We have recently submitted a couple of proposals.

GENERAL WILLIAMS: Good.

MR. BLINDS: And it's just my first meeting here. I'm pleased to meet all of you. I just wanted to see you know, how complex and who all the players are. And thank you for inviting me. It's good to be here.

GENERAL WILLIAMS: Thank you for being here. Yes, sir.

MR. PLATT: Hello, my name is Mark Platt. I'm with Multistack. We manufacture modular water chillers and we listen with interest. I appreciate being here, as we try to determine where to put our limited resources into developing and evaluating new technology. I agree with what you said, that you know, the industry watches what happens here and you have a lot of influence over the products that are being developed and the direction people like us who are manufacturing take.

I am very encouraged by the interest in green technology. It is a trend that is not going away. And so again, we really appreciate being here and having the opportunity to listen in. It helps us be a better partner with the Department of State.

GENERAL WILLIAMS: We're delighted to have you.

MR. PLATT: Thank you.

GENERAL WILLIAMS: Yes, sir.

MR. KENYON: Hi. I'm Charlie Kenyon and I'm also with Multistack. And with this being our first meeting, it's been a real pleasure to see the steps that are being taken and the positive things that are happening with OBO. And we're just thrilled to be here and look forward to attending in the future. Thank you.

GENERAL WILLIAMS: Thank you. Yes, ma'am.

MS. KOCI: Good afternoon. My name is Alena Koci and I represent Siemens One, which is our corporate structure, in this meeting. I want to say that the session is extremely valuable for us industry learning about what you do, what your plan is and how we can help you, how we can serve you better.

Siemens is a very valuable contractor for the Department of State's OBO, providing physical security on your embassies, as well as other services. With our global reach, we can be even more valuable to you and we hope for a very loyal partnership in the future. Thank you.

GENERAL WILLIAMS: Okay, thank you.

MR. WALDSCHMIDT: Good afternoon, I am Dieter Waldschmidt. I represent Saelzer Building

Security. We provide blast-proof windows and doors to the State Department and have been here very often.

And General Williams, each time when I am here, I am picking up some interesting topics. I remember the old days, I believe when you were commander in Germany, we did dozens of value engineering studies and sustainability was an issue.

So it's always something interesting. I like to come back again. Thank you very much.

GENERAL WILLIAMS: Thank you very much. Yes, ma'am. You can get the one on the corner there, if you don't mind, right here.

MS. BYRD: Good afternoon, General Williams.

GENERAL WILLIAMS: Hi.

MS. BYRD: Good afternoon. My name is Renee Byrd with Horne International.

This is my second panel. I'm learning a great deal and I'm happy to participate again. I just hope that we were able to contribute again to this wonderful panel.

And I want to say congratulations to you and your staff for the work that you're doing. I think it's great. I'm fascinated and impressed with

it, despite what the papers say.

GENERAL WILLIAMS: Thank you.

(Laughter.)

MS. BYRD: I know it's a tough job. It's a tough job.

(Applause.)

MS. BYRD: So, thank you.

GENERAL WILLIAMS: Thank you very much.

MR. McCORMICK: Good afternoon, my name is David McCormick with Whitman, Requardt and Associates, an architectural and engineering firm of 400 and our main office is in Baltimore. And we have not ever done work with the Department of State. We've done 90 years of work the federal and DoD.

But through these meetings and the others that OBO is committed to, to helping me understand what you do, we had decided that we do want to try to do some work with you and we look forward to it.

GENERAL WILLIAMS: Thank you. Thank you very much.

MR. FLAHARTY: Kevin Flaharty with Johnson Controls. I think this is my second IAP. And it's a little more comfortable this trip around than the first time. I think that things have calmed down a

little bit. And I'm pleased to be a supplier of the OBO.

What I took away from today and in the chiller discussion, with some of the energy rates I saw on there, 40 cents a kWh and other things that you are paying overseas in various locations and self-generating power in many others, I still can't believe that geothermal doesn't really have a cost benefit ratio to you. I hope it comes forward somewhere. Thank you.

GENERAL WILLIAMS: Well, I don't think we said it didn't. It's just we're taking a step at a time.

MR. FLAHARTY: Okay.

GENERAL WILLIAMS: Okay, thank you.

MR. FLAHARTY: Thank you.

GENERAL WILLIAMS: Okay. All right.

MR. WASKEY: My name is Roger Waskey from Accent Architectural. We're suppliers of ornamental rail systems, any of the ornamental metal works, green screen systems for green buildings. We have recently completed nine embassies that we've worked on.

What I found very informative today was the idea of the value engineering. That's one thing our

company stresses. We like to work with the architects and designers at design stage to help them. With our expertise, we have a team that only works on value engineering and we like to help them with design stage. And I'd just like to thank you for inviting us here today.

GENERAL WILLIAMS: Thank you for coming. Yes, sir?

MR. McDANIEL: Good afternoon. My name is Brian McDaniel. I'm with American Appraisal, the world's largest independent asset valuation group. Thank you very much for inviting us to the meeting and we look forward to being a part of your team in the very near future.

I thought the discussion about enhanced use leasing and other creative asset management programs in the federal government was quite useful, and I think is a strategy in terms of long-term portfolio management I'm sure OBO will consider. Thank you very much.

GENERAL WILLIAMS: Yes, sir.

MR. SCHWEITZER: Sir, Joe Schweitzer, President of AICI-SP. This is our second year in the program. Like my buddy at ECCI, we have a renovation project going in the Cairo security

upgrade. We're very eager to get started on an SED NEC. We believe this is truly our year.

I appreciate coming. This is about my third or fourth IAP and appreciate the strategic insight into the program. And it helps us get set to be able to meet the needs of the program and some of the great ideas that are generated here. So thank you.

GENERAL WILLIAMS: Thank you for coming. Thank you. Yes.

MR. SMITH: General Williams, panel members, fellow colleagues, thank you for the invitation today. My name is T. C. Smith. I'm with ManTech International. I am a program manager for a secure supply chain logistics. We can do everything from procurement to storage. We've got 108,000 square feet of TS cleared storage space right here in Springfield, Virginia. We are currently supporting the State Department in program called GITMP, the Global Information Technology Modernization Program, where we swap out all the land, infrastructure in all the embassies every four years. So we know how to do the process.

We're also supporting, for the last two months, a program called the ACTOA program, the

African Contingency Training Operations and Assistance, where essentially do the logistical end of the peacekeeper training operations in Africa.

I want to thank you for the invitation today. I really enjoyed the meeting and look forward to coming again.

GENERAL WILLIAMS: Thank you. Yes, sir.

MR. KWONG: Hi, I'm Benson Kwong with Project Management Services, Inc. I am a mechanical engineer by trade, who also facilitates value engineering workshops and coordinates sustainable design. So three of the four subjects today were very much of interest to me, so I appreciate being here. Thank you.

GENERAL WILLIAMS: Yes, delighted to have you. Yes, ma'am. Oh, I know. Okay.

MR. BANKER: Thank you for having us today. Will Banker, Surge Suppression, Incorporated. I appreciate the openness. This is our fourth IAP. I've been working with the Department of State for about three and a half, four years now, supplying electrical surge suppression products. And every time, I take away just a little bit more.

I love the openness with all of the different industries. It's just -- I love it. It's

great. Thank you.

GENERAL WILLIAMS: Thank you. Okay, Mary. You can use that one.

MS. ANDERSON: Hi, good afternoon.

GENERAL WILLIAMS: Good afternoon.

MS. ANDERSON: I'm Mary Anderson and I wear more than one hat at times. And one of the hats I wear is the senior vice president for Schnabel Engineering. We're a geotechnical and environmental engineering firm involved in the OBO projects on the planning side, as well as working on some of the design-build.

Our participation in these projects is challenging, interesting, and we're very, very proud of it. And we're very proud to be a part of this.

Another hat I wear is as the President of SAME Northern Virginia Post. I want to thank you for your support of our Post and for the support of the Society of American Military Engineers.

And then finally, a hat that I once wore that I cherish very much is as a former IAP panelist. And I have seen with great pride how this has grown and the information that has been exchanged. And congratulations panel, it's a great job.

And I also wanted to say to you, General, and to the OBO staff that 50 projects and 14,000 lives moved is -- congratulations and thank you.

GENERAL WILLIAMS: Thank you very much. Thank you. Yes?

MR. ROTH: My name is Steve Roth with Roth Construction. We're a design-build firm. We're doing our first overseas project with a foreign government and we're new at it. This is our first time at this meeting and we're very happy to be here. We came with Charles Clements, our CFO to learn about the process here and we appreciate the invitation.

GENERAL WILLIAMS: Okay. What do you think about the process?

MR. CLEMENTS: Very good. Very informative.

GENERAL WILLIAMS: Thank you. Yes, sir.

MR. HARPER: Good afternoon, General --

GENERAL WILLIAMS: Good afternoon.

MR. HARPER: -- ladies and gentlemen. It's nice to be back at the IAP again. It's always one of the best meetings I look forward to each quarter in attending.

I'm Jim Harper with ISES Corporation, a

small engineering firm out of the Atlanta area. Facilities condition analysis is the mainstay of our work. We are working with a product called FOMP, Facilities Operations and Maintenance Programming which would tie into value engineering and compliment what OBO is presently doing and we hope to be contracting with you in the near future.

GENERAL WILLIAMS: Thank you. Delighted to have you. Yes.

MR. SHIRVINSKI: Good afternoon, General --

GENERAL WILLIAMS: Hello. How are you?

MR. SHIRVINSKI: -- panel members, everybody. It's good to see everybody.

Great discussion today. I loved the fact, the transition from YEP to IAP. I've been around for a few, so I've seen some good transition. BIM, it's threaded in, commissioning, and now we're into sustainable design.

One note relative to the discussion on the prepackaging, love that idea. In fact, you might want to consider the fact that in the commissioning element, you may be able to eliminate some commissioning costs by doing the commissioning at the site in Cincinnati or wherever it may be, as part of your functional startups and so on and so

forth.

So again, it was a pleasure seeing everybody and thanks again.

GENERAL WILLIAMS: Thank you for coming. Yes, sir.

MR. STINGLEY: Good afternoon. I'm Pat Stingley (ph.). I am the enterprise architect from DS Bureau. And I wanted to learn more about what OBO does. Our two bureaus are very closely aligned in providing security to diplomats overseas. And so I found fascinating things in everything that was presented today.

GENERAL WILLIAMS: Thank you.

MR. STINGLEY: So thank you for letting me come.

GENERAL WILLIAMS: Thank you for coming, sir. Yes?

MS. QUEJAS-RISDON: Good afternoon.

GENERAL WILLIAMS: Hello.

MS. QUEJAS-RISDON: My name is Joyce Quejas-Risdon. I'm with 3M Company. We're a highly diversified manufacturing company. We like to think of ourselves as innovative and we help solve people's problems and needs. We have provided solutions. For example, telecom solutions in Iraq

to the U.S. Embassy in Iraq and VHB tapes in Ecuador.

I salute the presentation today on their focus on sustainability and value engineering. These are two values that 3M believes in and we welcome a discussion on how to cooperate with you in achieving these goals.

GENERAL WILLIAMS: Thank you.

MS. QUEJAS-RISDON: Thank you.

MR. BURKE: Good afternoon, General and staff. I'm Jim Burke. I come from the infrastructure protection community, representing a small company called BlastGard. This is, I'm thinking, my fourth session with you.

We have learned a lot about your program over this period of time. Security still is an important factor. Unfortunately, the product that we have is probably not quite ready. It needs to be characterized. We're working with the Corps of Engineers in Vicksburg to do that and we'll be here when you need us. But we think we've got a product that can ultimately protect some of the facilities around the world.

GENERAL WILLIAMS: Great.

MR. BURKE: And it's been my pleasure to be

and meet some of your colleagues here today.

GENERAL WILLIAMS: When you're ready, please come speak to us.

MR. BURKE: Thank you, sir.

GENERAL WILLIAMS: Okay. Next.

MS. CONRAD: I'm Suzanne Conrad, and I'm representing Fultran (ph.) Corporation today. We're a small business experienced in doing construction overseas, both construction projects, physical security, technical security. And I told them that OBO was the right place to do business and they had to get involved. So that's why I'm here today.

(Laughter.)

GENERAL WILLIAMS: Thank you. Good. Good for you.

MR. BROWN: Good afternoon, General, I'm Bill Brown --

GENERAL WILLIAMS: Hi, Bill.

MR. BROWN: -- Executive Vice President of Page Southerland and Page, a designer of a few of these embassy projects. Another great session. What can I say? They get better and better.

I'd like to make one comment on the HVAC presentation and that is, that as you palletize these systems, you might look at ensuring that these

can be packaged in the hull of a ship, as opposed to having to be lashed on the deck of a ship as break bulk storage. There is a tremendous difference in shipping costs and if you can get them in the hull of a ship, tremendous savings there.

GENERAL WILLIAMS: Good.

MR. BROWN: Thank you.

GENERAL WILLIAMS: Thanks for the tip, Bill.

Yes?

MR. PERSKY: Good afternoon, General.

GENERAL WILLIAMS: Good afternoon.

MR. PERSKY: Thank you very much for the learning opportunity and I thank your staff. My name is Scott Perky. I work for IBM. And probably one of the lesser things known about IBM is that we are the owner of a software product called Maximo, which is a leader in the maintenance world. And we're used in your diplomatic security group and A Bureau and GSA and the Army and NAFAC and a number of areas throughout the federal government.

For me, what was very interesting was some of the discussion on BIM because we're very interested, as we live in the O and M world, in understanding the plans to move, not just from BIM

for, you know, architecture and engineering, but really streamlining that into our world and maybe not today with you at OBO, but certainly for other federal customers. And then eventually we do.

So a great learning opportunity again, so I want to thank you and look forward to attending these in the future and learning more about the BIM initiative and how we can be a part of it. So thank you again.

GENERAL WILLIAMS: Thank you. Yes.

MR. LEE: Good afternoon. I am Wanchul Lee. Today I represent KlingStubbins.

After 34 years of practice, I decide to change into my third phase of a practice. I have done 23 years of State Department work and it's very difficult to change old habits. I've aged with the embassy building type --

(Laughter.)

MR. LEE: -- and even into a third phase of my practice, I still like to represent some large firms. Now, KlingStubbins has 550 men. And as a smaller firm, it's always difficult to compete on these projects, although I managed to do Ouandi Cameroon Project 2002 program.

And it's also interesting to see how the

program has changed. We did use air-cooled chiller in Ouandi project, with a lot of lifecycle costings and it was very difficult at that time. And also you provided the modularized prepackaged with top unit. So they didn't have to screen the site from the ambassador's window.

So, all these changes are really beautiful to see how not only did we start with the fan coil unit in the olden days, and VAV and changing, I think we've made tremendous improvement in building type.

GENERAL WILLIAMS: Do you think we're going in the right direction?

MR. LEE: Absolutely. And not only did the program, I guess I served, I should say worked with six probably, over 23 years, six different directors but your program has been one of the largest programs that I have worked on. And in a way, I wish I was able to participate in more SED programs, but my team member wasn't able to bring me any design project after the -- so here I am.

But KlingStubbins is very much interested in participating in your program.

GENERAL WILLIAMS: Thank you. Thank you so much for attending.

MR. FOWLER: General.

GENERAL WILLIAMS: Hi.

MR. FOWLER: Hi. Perry Fowler, I'm with the Associated General Contractors. I've been doing these for almost three years now.

GENERAL WILLIAMS: Very good.

MR. FOWLER: It's kind of hard to believe. This is my last meeting as a bachelor. I'll be getting married here next week.

GENERAL WILLIAMS: Okay.

MR. FOWLER: So, I've heard it has a calming effect.

(Laughter.)

MR. FOWLER: So, it's very good to be here and we're very pleased to have Clare representing us in the IAP. Thank you very much.

GENERAL WILLIAMS: We're delighted to have you, Perry.

MR. FOWLER: Thank you.

GENERAL WILLIAMS: Okay. I think that covers it. Okay.

Thank you all for your comments. It's always a part of our process to try to recognize everyone. I know that many people have been coming to every one of these. We appreciate that. I

appreciate the nice comment from Horne and all the rest of you.

So at this point, we will prepare to close, after we have had comments, any parting comments from our panel, starting with your Nancy, and we'll just go around and come back to the staff.

MS. GOSHOW: Thank you so much. I enjoyed the research that I had to do and I hope I helped.

GENERAL WILLIAMS: Thank you. John?

MR. WOODS: It's a pleasure to be a part of this and I appreciate the opportunity. I look forward to perhaps being useful and not ornamental.

(Laughter.)

GENERAL WILLIAMS: Thanks, John. Darryl?

MR. HORNE: Thanks so much. I enjoyed being with everybody today. Thank you.

GENERAL WILLIAMS: Okay. Greg?

MR. KNOOP: Thank you, General. Thank you OBO panelists and members. This is a unique opportunity and it is a very progressive thing you are doing here. So I compliment you on a progressive program, but also a progressive approach to listening to the industry and setting your eyes on the future.

GENERAL WILLIAMS: Thank you. Marvin?

DR. OEY: Thank you. I look forward to the next homework assignment. When I saw the HVAC, I learned a lot speaking with George and Dave about all the different technologies.

I wanted to add, though, with the real estate real quick, something to think about. I just learned about a program that has been growing and it's the Engineers Without Borders. A lot of pharmaceuticals and chemical companies are partnering up with this organization to acquire and get some of the zoning issues that they get in the area by working with, because a lot of these plants are in rural areas, working with the villages and getting their support of these plants. And I'm not sure if that is something that could help, but it's an idea that the real estate and planning and development might want to pursue.

GENERAL WILLIAMS: Okay. Thank you very much. Clare?

MS. ARCHER: I appreciate being invited to participate. I enjoyed my first meeting and I'll look forward to my next topic --

GENERAL WILLIAMS: Okay.

MS. ARCHER: -- for December. Thanks.

GENERAL WILLIAMS: Thank you. Suman?

MS. SORG: General, I heard a word here that I thought I would like to comment on, just for a minute. I used to do aerobics to a song called "Great Attitude." So, great attitude is positive. What I heard about attitude was a little negative. I just want to say, you have a great attitude.

GENERAL WILLIAMS: Okay.

MS. SORG: Okay? And I think the openness, inclusion that you, that this panel represents, is part of that attitude. And I'm honored to be part of that.

GENERAL WILLIAMS: Thank you very much. Regan?

MR. McDONALD: As a first panel member, I hope we passed our test, despite the challenging questions. But I do appreciate the time that we had to prepare for it. Assignments came out relatively earlier than I had been led to believe that they do. Some of my predecessors, I guess, procrastinated and crammed for those.

But I look forward to working with the panel, however the assignments fall next. Thank you.

GENERAL WILLIAMS: Okay. Thank you very much.

Our next panel date, we are working on that, we will get it as soon as possible. Industry Day, which we have each year, will be on November 8th at the Crystal Gateway and more to come on that. Michael will be getting information out to our panel.

I want to thank Tim, who has a tough job. And I will tell you something. I was out at another agency, and I met your mother.

(Laughter.)

GENERAL WILLIAMS: And she said -- well, let me tell you the rest of the story. She told me, she said this, her son came home talking about transparency, talking about openness, and all of this. And I thought this was wonderful that even sitting trying to capture everything that we have here, he heard the key words. So thank you very much.

Also, we want to recognize our MSD staff that helped you with your badges and all. Will you people stand? Will you stand?

(Applause.)

GENERAL WILLIAMS: Also, we want to thank Michael and Andrea and Adelet for their effort in putting things together. We appreciate that as

well. And then we want to thank all of my staff, those sitting with me, those behind, some have gone, et cetera. So we appreciate, once again, helping out with all of this. These things are not easy to put together, but we thank you.

Okay, that's all, until we meet again.

(Whereupon, at 3:30 p.m., the proceeding in the above-entitled matter was closed.)

C E R T I F I C A T E

This is to certify that the attached proceedings in the matter of:

UNITED STATES DEPARTMENT OF STATE

OVERSEAS BUILDING OPERATION

INDUSTRY ADVISORY PANEL

Washington, D.C.

September 20, 2007

were held as herein appears, and that this is the original transcription thereof for the files of the United States Department of State.

_____

Timothy J. Atkinson, Jr.,

Reporter

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