



March 2017

EMBASSY CONSTRUCTION

State Needs to Better Measure Performance of Its New Approach

GAO Highlights

Highlights of [GAO-17-296](#), a report to congressional requesters

Why GAO Did This Study

In 1998, terrorists bombed the U.S. embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania, killing over 220 people and injuring 4,000. In 1999, State began a new embassy construction program, administered by OBO, which to date has received \$21 billion, according to State. OBO's primary goal was to provide secure, safe, and functional workplaces, and it adopted SED with a streamlined, standard design for all embassies. In 2011, OBO replaced the SED with the Excellence approach, which makes use of customized designs for each embassy.

GAO was asked to review the implementation of Excellence. This report examines (1) the reasons for State's shift to the Excellence approach, (2) key elements and tradeoffs of the new approach, and (3) the extent to which State has established guidance and tools to implement and evaluate its Excellence approach. GAO analyzed information from State policy, planning, funding, and reporting documents and interviewed State and industry officials. GAO also surveyed OBO staff about, among other things, the sufficiency of OBO's policies, procedures, and technical guidance for the Excellence approach. GAO will examine project cost and schedule issues in a subsequent report.

What GAO Recommends

GAO is making four recommendations that State take several steps to strengthen performance measures and reporting, monitoring mechanisms, and data systems for the Excellence approach. State concurred with all four recommendations.

View [GAO-17-296](#). For more information, contact Michael J. Courts at (202) 512-8980 or courtsm@gao.gov or David J. Wise at (202) 512-5731 or wised@gao.gov.

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What GAO Found

In 2011, the U.S. Department of State's (State) Bureau of Overseas Buildings Operations (OBO) established the Excellence approach in response to concerns regarding the aesthetics, quality, location, and functionality of embassies built using its Standard Embassy Design (SED). The SED utilized a standard prototypical design for new embassies and consulates along with a streamlined delivery method combining responsibility for design and construction under a single contract. Under the Excellence approach, OBO now directly contracts with design firms to develop customized embassy designs before contracting for construction. OBO officials believe that greater design control under Excellence will improve embassies' appearance in representing the United States, functionality, quality, and operating costs.

Excellence consists of several key elements and involves trade-offs. For example, OBO now allots time and funding to develop customized designs and hires leading design firms to produce them. These design firms have faced initial adjustment challenges designing U.S. embassies, and OBO only recently began evaluating their performance as required by federal regulation. OBO's new approach poses cost and schedule trade-offs since, for example, OBO now has greater design control but may also be responsible if design problems are identified during construction. GAO's survey found that OBO staff who responded held split or conflicting opinions on Excellence compared with SED.

U.S. Embassy in Panama Constructed under Standard Embassy Design and Rendering of U.S. Consulate General in India to Be Delivered under the Excellence Approach



Panama City, Panama

Hyderabad, India

Source: Department of State. | GAO-17-296

While OBO has established guidance to implement Excellence, it lacks tools to fully evaluate the performance of this new approach. Performance measures are essential tools for managers to evaluate progress toward a program's goals, as noted in *Standards for Internal Control in the Federal Government*. However, OBO has not established performance measures to specifically evaluate and communicate the effectiveness of Excellence in delivering embassies. Moreover, OBO's bureau-wide strategic measures do not address Excellence priorities, such as greater adaptability to individual locations, functionality, or sustainability. OBO also lacks a reliable system to monitor operating performance, such as building energy usage, and a centralized database to broadly manage the Excellence program, to include effectively reporting on projects' design and construction costs and schedules. Without performance measures and reliable systems to collect and analyze relevant data, OBO cannot fully assess the value of shifting to the Excellence approach and away from the SED.

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Abbreviations

AGC	Associated General Contractors of America
AIA	American Institute of Architects
BIA	Bridging Institute of America
Bridging	design-build with bridging
DB	design-build
DBB	design-bid-build
DBIA	Design-Build Institute of America
DS	Bureau of Diplomatic Security
Excellence	Excellence in Diplomatic Facilities
GSA	General Services Administration
IAG	Industry Advisory Group
ID/IQ	Indefinite Delivery / Indefinite Quantity contract
LEED	Leadership in Energy and Environmental Design
OBO	Bureau of Overseas Buildings Operations
SED	Standard Embassy Design
State	U.S. Department of State

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March 16, 2017

Congressional Requesters

The U.S. Department of State (State) maintains facilities at more than 285 diplomatic missions (posts) located around the world, including embassies, consulates, and other diplomatic offices. More than 86,000 U.S. government employees are housed in these facilities. On August 7, 1998, terrorists bombed the U.S. embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania, killing over 220 people and injuring 4,000 others. The ensuing Accountability Review Board found that unless State addressed security vulnerabilities at U.S. embassies, U.S. government employees would remain at risk from terrorist activity. In 1999, State began its multiple-year Capital Security Construction Program, administered by the Bureau of Overseas Buildings Operations (OBO), which to date has received \$21 billion, according to State.¹ In administering the program, OBO's primary goal was providing overseas U.S. diplomatic personnel with secure, safe, and functional workplaces. OBO sought to achieve that goal by using a Standard Embassy Design (SED) approach that relied heavily on the use and site-adaptation of a standard design for new embassies and consulates (both referred to hereafter as embassies) and a streamlined delivery method combining responsibility for final design and construction under a single contract.² OBO also intended that new embassies would be efficient, state-of-the-art

¹The Capital Security Construction Program began in fiscal year 1999. Its goal was to replace embassies that did not meet security standards. Today, the Capital Security Construction Program is funded through direct appropriations to State as well as contributions from other U.S. agencies with overseas staff—received under the Capital Security Cost-Sharing Program. Congress established this cost-sharing program in fiscal year 2005 to provide additional funding for the Capital Security Construction Program by assessing agencies a per-capita staffing charge. According to State, the intent was to accelerate construction of new embassies and to ensure that agencies assign only the number of staff needed to accomplish their overseas missions. According to State, in fiscal year 2016, State allotted approximately \$1 billion to the Capital Security Construction Program from funds received via direct appropriations—under the Embassy Security, Construction, and Maintenance appropriation—and was authorized to assess and receive roughly \$1.2 billion in additional funds through other federal agencies' cost-sharing contributions.

²In 2003, the OBO Director who implemented the SED approach reported to the Senate Committee on Foreign Relations that OBO's mission was to accelerate the construction of new facilities that can satisfy State's stringent security standards and provide U.S. diplomatic personnel with safe, secure, and functional facilities in which to conduct the foreign policy of the United States.

facilities. In 2006, we reported that by using the SED and a streamlined delivery method, OBO had made significant progress in completing new embassies and, on average, reduced the time required to complete projects.³

In 2011, OBO replaced the SED approach with Design Excellence, now referred to simply as Excellence, which makes use of customized, individual designs for each embassy and emphasizes innovation. In April 2011, OBO announced the newly established Excellence approach to its Industry Advisory Panel and, with it, a revised OBO mission. That new mission is “to provide safe, secure, and functional facilities that represent the U.S. government to the host nation and support our staff in the achievement of U.S. foreign policy objectives. These facilities should represent American values and the best in American architecture, design, engineering, technology, sustainability, art, culture, and construction execution.” Some Members of Congress and others have raised concerns that this new approach may result in embassies that take longer and cost more to build. From fiscal year 2011 through fiscal year 2015, OBO allotted nearly \$300 million for the project development and design of 16 Excellence projects and awarded over \$900 million in construction contracts for 6 of those Excellence projects.

You asked us to review the Excellence approach to the design and construction of new embassies and consulates. This report examines (1) the reasons for State’s shift to the Excellence approach, (2) key elements and trade-offs of the new approach, and (3) the extent to which State has established guidance and tools to implement and evaluate this approach.

To conduct this review, we obtained and analyzed information from agency policy, planning, funding, and reporting documents, administrative memos, and select project documentation. We will examine project cost and schedule issues in a subsequent report. We also interviewed State officials from OBO; the Bureau of Diplomatic Security (DS); the Office of Management, Rightsizing, Policy, and Innovation; and the Office of Acquisitions Management. Within OBO, we spoke with officials in offices responsible for site acquisition, planning, project development, design and engineering, cost management, construction management, facility management, policy and program analysis, and financial management.

³GAO, *Embassy Construction: State Has Made Progress Constructing New Embassies, but Better Planning Is Needed for Operations and Maintenance Requirements*, [GAO-06-641](#) (Washington, D.C.: June 30, 2006).

We also interviewed officials from a variety of architecture and engineering design firms and construction contractors that have worked for State. Additionally, we spoke with industry groups such as the American Institute of Architects (AIA), the Associated General Contractors of America (AGC), the Bridging Institute of America (BIA), and the Design-Build Institute of America (DBIA). Also, because the decision to adopt Excellence was made in 2011—and the work leading up to the decision was undertaken in 2010—we interviewed key former OBO officials with direct experience with OBO’s efforts to improve the Capital Security Construction Program at that time, including some who served on OBO’s management steering committee for Excellence.

We also conducted a web-based survey of OBO staff from July 15 through August 12, 2016, soliciting their views on the sufficiency of OBO’s strategic vision, policies, procedures, and technical guidance for the Excellence approach as well as any particular efficiencies or challenges brought about by the approach.⁴ We sent the survey to 1,511 OBO staff, 705 (47 percent) of whom responded.⁵ We do not make any attempt to extrapolate the findings to the remaining 53 percent of eligible employees who chose not to complete our survey. The results of our survey provide measures of employees’ views at the time they completed the survey in July and August 2016. Over 550 respondents provided responses to at least one open-ended question in our survey. We analyzed and categorized these comments for specific questions and have included selected quotes to characterize the results of that analysis. Respondents generally provided more negative comments than positive ones; however, where possible, we have tried to present a balanced selection of positive and negative comments. In some cases we edited responses for clarity or grammar. Views expressed in the survey may not be representative of all OBO staff views on given topics. See appendix I for more detailed information on our scope and methodology, and see appendix II for survey results. In addition, see appendix III for selected responses to open-ended survey questions that touched upon issues we reviewed

⁴Those surveyed included both OBO direct hire and contracted support staff working at OBO’s offices, which we refer to in the report generally as “OBO staff.” In general, OBO staff comprises U.S. civil service staff, U.S. Foreign Service officers, and some contractors.

⁵We initially sent the survey to 1,531 OBO staff but later determined that 20 of them had left the agency prior to survey activation or were duplicates. We determined these staff to be out of scope and removed them from the overall population.

through our separate audit work and that we compiled for illustrative purposes.

We conducted this performance audit from August 2015 to March 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Events Leading to Development of the SED

Following terrorist attacks against the U.S. embassy in Beirut, Lebanon, in 1983, State began an embassy construction program—known as the Inman program—to protect U.S. personnel.⁶ However, State completed only 24 of the 57 planned construction projects, in part due to poor planning, systemic weaknesses in program management, difficulties acquiring sites, schedule delays, cost increases, and subsequent funding limitations. Following the demise of the Inman program in the early 1990s, State initiated very few new construction projects until after the two 1998 embassy bombings in Africa. Following those attacks, the Secure Embassy Construction and Counterterrorism Act of 1999 required State to maintain a list of diplomatic facilities to be scheduled for replacement based on their vulnerability to attack.⁷ In response, State initiated the Capital Security Construction Program to construct new, secure facilities overseas. At that time, State determined that diplomatic facilities at more than 180 posts—more than half of U.S. overseas missions—needed to be replaced to meet security standards. In 2016, State reported that from 2000 through 2014, it moved over 30,000 staff into more secure facilities.

⁶The 1983 and 1984 bombings of U.S. embassy facilities in Beirut killed approximately 100 people. In response, the Secretary of State convened an Advisory Panel on Overseas Security, under Admiral Bobby Ray Inman, to review security at U.S. diplomatic facilities. The panel's 1985 recommendations included making security improvements to almost half of the U.S. diplomatic facilities overseas. Thereafter, Congress provided funds to support strengthened security measures for U.S. diplomatic operations abroad.

⁷22 U.S.C. § 4865 note. Obligations and expenditures.

The Secure Embassy Construction and Counterterrorism Act of 1999 calls for new diplomatic facilities to be sufficiently sized to ensure that all U.S. government personnel at a post are located on a single secure site and that those facilities are set back not less than 100 feet from the site's perimeter boundary.⁸ Before constructing a new embassy, State must certify to Congress that, among other things, the facility incorporates adequate measures for protecting classified information and activities as well as personnel working in the facilities.⁹ OBO contracts with architectural and engineering firms (design firms) to develop designs meeting security and other project requirements. These design firms submit their designs for reviews by OBO and DS to ensure conformance with building code and security standards, respectively. DS, in consultation with the Office of the Director of National Intelligence, must certify that the design meets security standards prior to the start of construction.¹⁰ While this certification occurs in the design phase of a project, DS also has other roles in the process, such as participating in site selection, ensuring OBO contractors have necessary security clearances, and ensuring facilities are securely constructed.

The SED Approach

To address some of the performance problems experienced during the Inman program, OBO implemented reforms to its business processes in structuring the new Capital Security Construction Program. Among the most prominent reforms were the development of the SED to expedite the planning, contract award, design, and construction of new diplomatic compounds and use of the design-build (DB) project delivery method, which combines responsibility for design and construction under a single contract and allows contractors to begin basic construction before the design is fully completed.¹¹

⁸These requirements are subject to waiver by the Secretary of State.

⁹Foreign Relations Authorization Act, Fiscal Years 1988 and 1989, Pub. L. No. 100-204, § 160 (Dec. 22, 1987), codified as amended at 22 U.S.C. § 4851 note. Construction security certification.

¹⁰When facilities do not or cannot meet certain security standards, State mitigates identified vulnerabilities to the extent feasible and documents standards that cannot be met through its waivers and exceptions process.

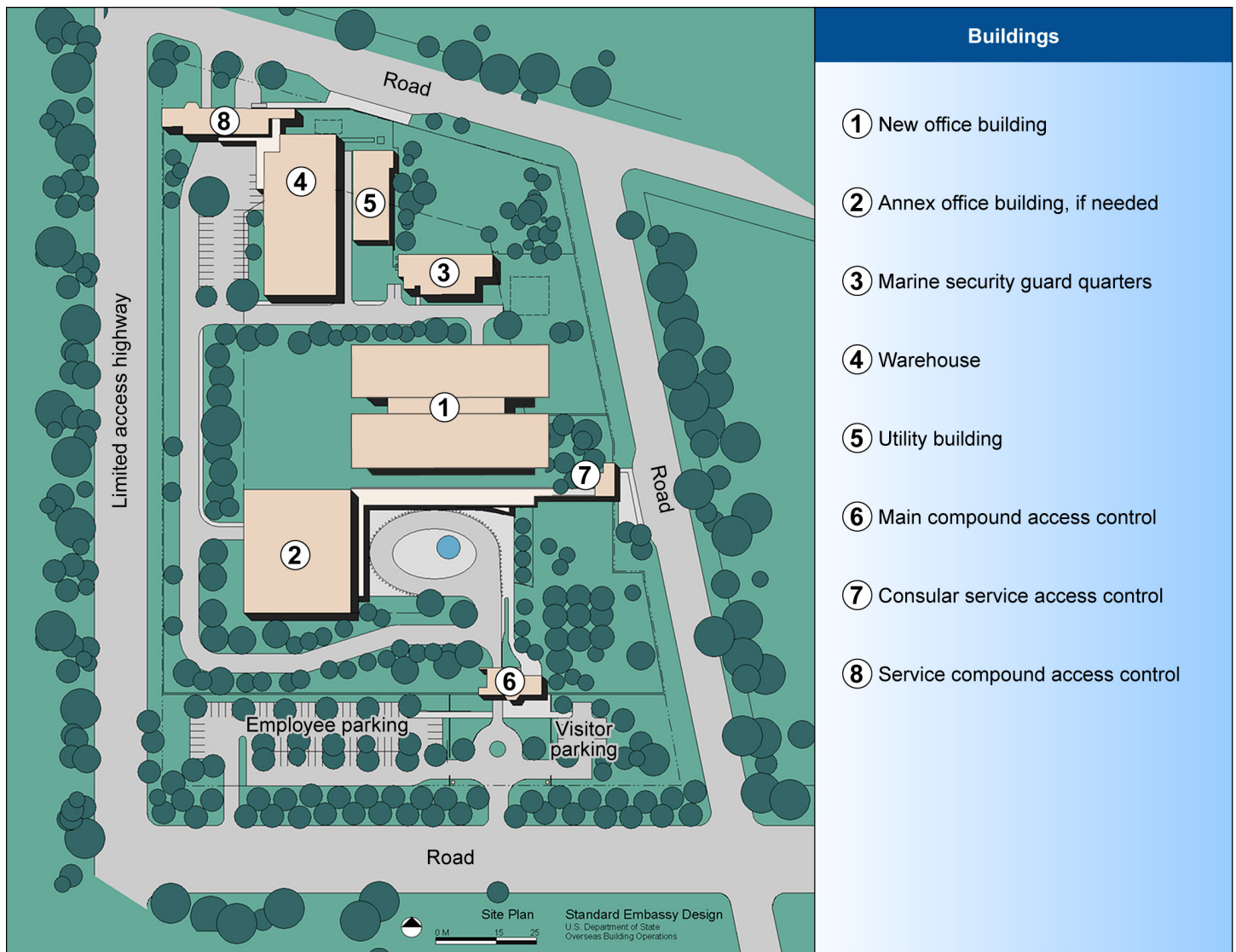
¹¹OBO used a design firm to convert the design for the U.S. embassy in Kampala, Uganda, (designed in 1999) into a standard that could be site adapted for future embassy projects; this became known as the SED.

Initially there were three common SED classes—small, medium, and large—based on the size of a post. For planning purposes, each size had predefined schedules and costs associated with them.¹² The SED itself was a set of documents providing prototypical plans (for a medium SED), specifications, and design criteria, and explaining how to adapt those to a particular site and project.¹³ The SED was not a complete design but rather a standardized template for the structural, spatial, and security requirements of a new embassy compound to guide a contractor’s final design. Compound elements described by the SED generally included the main office building; U.S. Marine Security Guards’ living quarters; a warehouse; a utility building; compound access control buildings and perimeter walls; and parking facilities. The SED also allowed for the standardization of building components such as security windows and doors. Figure 1 shows the prototypical facilities defined by the SED.

¹²OBO subsequently developed cost and size parameters for an extra-large SED and mini SED, in 2004 and 2007, respectively. In 2008, OBO explored the development of a vertical SED (or urban SED) to assess if the SED could be applied to smaller sites—less than the 10-acre typical embassy planning size—in urban areas. However, both OBO and State’s Inspector General recognized that some projects in urban locations, like London and Mexico City, would likely require their own unique, custom designs.

¹³While cost and size parameters existed for the various SED sizes, OBO officials reported that the SED design drawings were based on a medium SED.

Figure 1: U.S. Department of State Standard Embassy Design Components

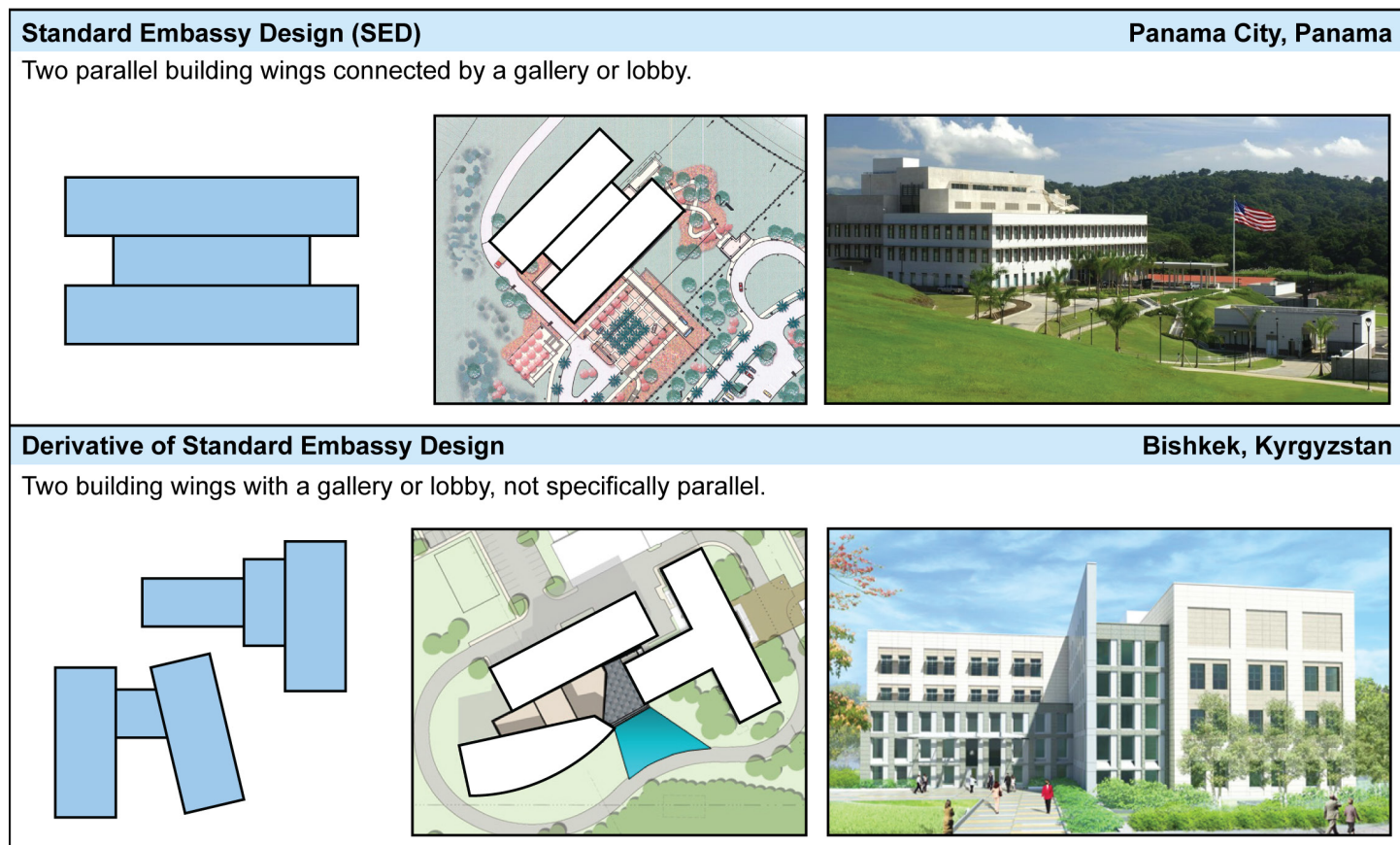


Sources: GAO and Department of State. | GAO-17-296

The main office building within the SED was organized around two parallel wings connected by a central lobby. Occasionally site conditions such as size, shape, or topography required deviating from that typical configuration; OBO refers to such projects as SED “derivatives.” From 2001 through 2015, OBO constructed more than 50 embassies using the

SED approach.¹⁴ Figure 2 shows examples of both the typical SED and derivative SED office building configurations.

Figure 2: U.S. Department of State Standard Embassy Design and Derivative



Source: GAO based on Department of State documentation. | GAO-17-296

In 2006, we reported that OBO had made significant progress constructing new diplomatic compounds using the SED approach.¹⁵ We found that the average time to design and construct the 18 new

¹⁴Of the more than 70 new compounds built since 2000 and through 2015, 48 were SEDs and 5 were derivatives of the SED. The remainder were either very large non-SED projects such as the U.S. embassy in Beijing, China; very small non-SED projects such as the U.S. embassy in Koror, Republic of Palau; or projects that preceded the establishment of the SED, such as the two new embassies built after the 1998 bombings.

¹⁵GAO-06-641.

embassies completed from 1999 to 2005 was about 3 years (36.7 months). This was nearly 3 years faster than embassies built during the Inman era, even though the newer facilities were significantly larger and more complex. We also found that reforms implemented by OBO, including the switch to the SED and the DB contract delivery method, had reduced project completion times, although it was difficult to quantify the effects of any single reform. In 2007, OBO reported that the SED, combined with DB project delivery, was expected to reduce overall delivery time—from site selection to occupancy—by 34 percent.¹⁶ In 2008, State's Inspector General found that OBO's continued use of the SED, in conjunction with the DB delivery method, was generally effective.¹⁷ Additionally, State's Inspector General found that the SED permitted faster certification of project designs and accreditation by DS because the standardized design specifications were fully vetted for conformity to security standards.¹⁸

OBO took some actions to incorporate sustainability principles in the SED to meet federal energy mandates to reduce energy and water consumption. In 2006 OBO committed, in concert with 20 other federal agencies, to seek common strategies for planning, acquiring, siting, designing, building, operating, and maintaining federal facilities in an energy efficient and environmentally sustainable manner.¹⁹ In 2008, OBO established Leadership in Energy and Environmental Design (LEED)

¹⁶American Institute of Architects, AIA Best Practices, contributed by the U.S. State Department and the General Services Administration, *Adapting Standard Embassy Design to Specific Sites*, Revised May 2007.

¹⁷U.S. State Department, *Office of the Inspector General, Report of Inspection: Bureau of Overseas Buildings Operations*, Report Number: ISP-I-08-34 (Washington, D.C.: August 2008).

¹⁸Certification entails the review and approval of new embassies' designs to ensure they meet security standards before construction begins. Accreditation consists of security inspections during construction to verify that security design requirements are adhered to and installed security systems operate as intended.

¹⁹In 2007, those strategies were codified through *Executive Order 13423: Strengthening Federal Environmental, Energy, and Transportation Management*. That order was replaced in 2015 by *Executive Order 13693: Planning for Federal Sustainability in the Next Decade*. OBO officials reported that while those orders do not directly apply to diplomatic facilities constructed overseas, OBO seeks to meet those sustainability requirements where possible.

certification as a design standard for its SED projects.²⁰ In 2009, OBO documentation indicates OBO elevated its sustainability requirement for SED projects from LEED Certified to the higher certification level of LEED Silver.

The Excellence Approach

In 2011, OBO announced a new project approach it termed Design Excellence, intended to deliver embassies that (1) best represent the U.S. government overseas, (2) are functional and secure, (3) incorporate sustainable design and energy efficiency, (4) are cost-effective to operate and maintain, (5) have greater proximity to host-government counterparts and users via more centrally-located urban sites, and (6) better respond to the unique needs and context of specific posts. OBO subsequently phased out the SED as the basis for embassy designs, and according to OBO officials, SED specifications, standards and guidance were incorporated into OBO's Design Standards and Design Guide.²¹ In 2013, OBO renamed its approach "Excellence in Diplomatic Facilities" (Excellence) to convey what OBO officials have said is a more holistic effort to improve every aspect of OBO's operations, including real estate acquisition, security methods and technologies, cost management, construction management, and facilities management.

Table 1 shows 23 new construction contracts awarded since Excellence was approved and through fiscal year 2015 at a total value of \$3.67 billion, according to State data.²² Of these, OBO reports 6 as being Excellence projects; the other projects include projects with certain Excellence features in terms of site, permit, or other requirements; SEDs; and derivative SEDs.²³ OBO officials assert that although Excellence was

²⁰LEED is a green building rating system established by the U.S. Green Building Council that defines sustainable features for buildings and includes a set of performance standards that can be used to certify their design. By meeting the standards during facility design and construction, builders can earn credits and become certified in accordance with an ascending four-level scale—Certified, Silver, Gold, and Platinum.

²¹OBO's Design Standards were released in 2013, and have been subsequently updated. OBO's Design Guide was released in 2016. We did not assess the degree to which those documents contain SED elements.

²²In fiscal year 2016—in the middle of our review, and thus outside our scope because of the timing—OBO reported awarding construction contracts for three additional projects, one each in Colombo, Sri Lanka; Dhahran, Saudi Arabia; and Hyderabad, India.

²³According to OBO, SED and derivative SED contract awards after the approval of Excellence are generally transition projects whose requirements were already developed under the SED program.

approved in 2011, OBO never planned to award any Excellence construction contracts until fiscal year 2014. No Excellence projects had been completed as of the end of fiscal year 2016 (September 30, 2016).

Table 1: New Construction Contracts Awarded Fiscal Year 2011 through 2015, U.S. Department of State, Bureau of Overseas Buildings Operations

Dollars in millions

Project	Fiscal year	Contract award value
<i>Excellence projects</i>		
Nuevo Laredo, Mexico	2014	\$109.4
Pristina, Kosovo	2014	158.4
Harare, Zimbabwe	2015	199.2
Maputo, Mozambique	2015	181.8
Matamoros, Mexico	2015	120.8
Niamey, Niger	2015	145.6
Excellence subtotal		\$915.2
<i>Non-Excellence projects</i>		
Bishkek, Kyrgyzstan	2011	\$116.8
Oslo, Norway	2011	177.9
Rabat, Morocco	2011	150.6
Vientiane, Laos	2011	109.7
Cotonou, Benin	2012	126.0
Jakarta, Indonesia	2012	302.4
Jeddah, Saudi Arabia	2012	100.5
Mbabane, Swaziland	2012	108.6
Port Moresby, Papua New Guinea - contract 1	2012	50.2
Taipei, Taiwan—phase 2	2012	121.8
London, England	2013	565.9
Nouakchott, Mauritania	2013	130.7
Paramaribo, Suriname	2013	114.9
The Hague, Netherlands	2013	125.0
Ashgabat, Turkmenistan	2014	196.5
Ndjamena, Chad	2015	159.7
Port Moresby, Papua New Guinea – contract 2	2015	96.8
Non-Excellence subtotal		\$2,754.0
Total construction contracts		\$3,669.2

Source: Department of State data and documentation. | GAO-17-296

Notes: Contract values do not include any contract cost increases or decreases made subsequent to contract award, and are based on State data rather than actual contract awards and modifications.

Excellence projects include those projects that the Bureau of Overseas Buildings Operations (OBO) reports were contractually awarded with the intent that construction of facilities would incorporate State's Guiding Principles for Excellence. Non-Excellence projects include those projects that OBO reports as being a Standard Embassy Design (SED), a modified SED (derivative), and other projects that may have some Excellence features but that OBO does not consider Excellence projects.

Excellence projects in design (i.e., not yet under construction) as of the end of fiscal year 2015, were (1) Ankara, Turkey; (2) Asuncion, Paraguay; (3) Beirut, Lebanon; (4) Colombo, Sri Lanka; (5) Dhahran, Saudi Arabia; (6) Erbil, Iraq; (7) Hyderabad, India; (8) Guatemala City, Guatemala; and (9) Mexico City, Mexico.

According to OBO documentation, a contract for the Port Moresby, Papua New Guinea, project was terminated in 2015; the resulting value at termination was \$31.4 million.

See appendix IV for a timeline illustrating the history of OBO's building program from 1998 through 2016.

OBO Established Excellence in an Effort to Improve Embassy Delivery Approach

Although combining the SED with a DB project delivery method enabled OBO to accelerate the construction of new embassies, concerns raised by various stakeholders about the aesthetics, quality, location, and functionality of SED facilities prompted OBO to take some steps to improve the SED concept and eventually transition to Excellence. These steps included the introduction in 2008 of the design-build with bridging method (bridging), whereby OBO first contracts with a design firm to develop a project-specific, partial design that a construction contractor and its design firm then completes. After a nearly yearlong review, in April 2011 OBO approved a series of recommendations and planned actions to implement Excellence. A significant change announced at this time was OBO's increased use of design-bid-build (DBB) as another delivery method alongside bridging. Generally under DBB, OBO first solicits and contracts with a design firm to develop a 100-percent design, which is then used to solicit bids from prospective construction contractors.

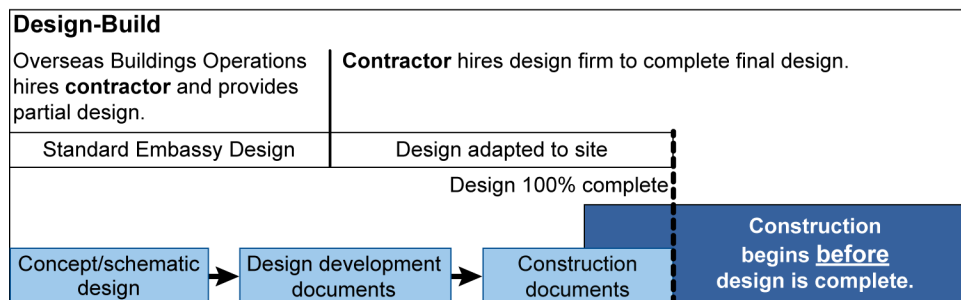
Concerns with SED and Desire to Improve Embassies Motivated OBO's Shift to Other Approaches

OBO First Shifted to Design-Build with Bridging

During the SED era, OBO predominately used a DB project delivery method. DB integrates design and construction responsibilities into a single contract. Under this model, the DB contractor is responsible for

design and construction and thus bears the risks, such as added cost, for any design problems because it (not OBO) hires the design firm to bring the design to completion. According to industry experts, DB is generally recognized as the best project delivery method for supporting accelerated delivery, in part because the DB contractor may undertake some construction while design is still in progress. Under OBO policy, in the SED approach OBO provided the DB contractor with the SED prototypical design—to include standard site and building plans, technical specifications, design criteria, and instructions for its adaptation for a particular project and contract requirements. The contractor’s design firm would then use the SED documentation to develop a 100-percent design adapted for a site at a particular post, becoming the architect-of-record. According to the AIA, in general, the architect-of-record for a project prepares the bulk of the design and construction drawings and assumes professional responsibility for the design. Although the DB contractor’s design firm completed the project design, OBO’s policy was to hire its own design firm beforehand to conduct project development activities such as due-diligence planning surveys, site studies, and other analyses needed to inform the project’s design. Figure 3 provides an overview of the embassy construction process under OBO’s implementation of DB.

Figure 3: Construction of a U.S. Embassy under Design-Build Project Delivery Method



Source: GAO. | GAO-17-296

Note: This is a general representation of this OBO project delivery method. It may not represent every project.

According to former senior OBO officials, the OBO Director who had implemented the SED viewed OBO’s mission as needing to build secure embassies as fast as possible and within a fixed budget, given the large number of facilities that State needed to replace. They stated that the then Director’s commitment was that OBO would combine a standardized design with the DB delivery method to speed design and construction and

limit the costs to build each embassy to no more than \$100 million (based on a large SED). OBO also maintained at that time that the SED generally would take no more than 36 months to build—inclusive of the time for contract acquisition, design, and construction—depending on the post size.²⁴ According to these former senior OBO officials, those estimates did not always reflect the budget and time needed to build some SED embassies. They also stated that adapting the SED to the unique requirements of some posts—such as a very large consular services operation—was challenging and that the SED did not always account for quality and long-term maintenance and operations cost considerations. In addition, one former OBO official stated that although the emphasis in the SED approach on speed and cost control enabled OBO to promote that it had moved a certain number of people into secure facilities each year, this was an indicator of performance related to a single goal: project delivery. He noted that OBO did not use any performance indicators related to design and construction quality to evaluate the new SED facilities being built.

Although the SED approach enabled OBO to accelerate the construction of new embassies intended to meet rigorous new security requirements, some stakeholders raised concerns about the aesthetics, quality, location, and functionality of those facilities.

Aesthetics. One design firm we spoke with said there were criticisms that SED embassies were “cookie cutter” facilities that looked like fortresses. In 2010, then U.S. Senator John Kerry and former Secretary of Defense William Cohen—key advocates of Excellence—reported newly constructed embassies were not sending the right message. They described new embassies as cold concrete facilities at a forbidding distance hidden away from city life, with little regard for the local surroundings, undermining U.S. diplomats’ message and mission. They asserted that State was constructing a standardized “embassy in a box,” uniform in appearance, quickly assembled, and fortress-like.²⁵

Quality. According to some former senior OBO officials, OBO’s emphasis on speed and cost under the SED approach resulted in some poor-quality

²⁴According to OBO officials, no embassy, location, or site was the same, so regardless of a maximum timeframe, each construction schedule had to align with its site-specific conditions.

²⁵See Senator John Kerry and William Cohen, *Concrete Bunker U.S. Embassies Send Wrong Message*, Special to CNN, May 12, 2010.

buildings. According to these officials and one design firm we interviewed, the time and budget pressures sometimes resulted in OBO and its contractors making trade-off decisions such as using less costly and lower-quality building systems or materials. For example, one former official reported that the SED approach resulted in some projects where contractors used lesser-quality exterior stone or metal cladding on building exteriors. In some projects, he indicated that contractors installed heating, ventilation, and air-conditioning systems that were minimally acceptable under the SED but not the best solution for the post's geographic climate.

Location. OBO officials commented that in some cases the 10-acre lot specified by the SED required siting the embassy too far from urban centers where foreign government offices and other embassies are located. This issue also arose in a 2007 report to State entitled *The Embassy of the Future*.²⁶ Guided by a commission composed of former U.S. ambassadors, among others, the report recommended that State avoid constructing embassies in locations remote from urban centers. It also noted that although the appearance of embassies as influenced by security requirements deserves careful consideration, their location is of higher importance.²⁷

Functionality. One former OBO official stated that because the SED was “very complete” as a standardized design concept and was based on a completed embassy in Africa, its design was not always conducive to being site adapted and applied to other regions in the world. For example, the design criteria for the heating and cooling systems generally specified by the SED may not always have been the best for climates that are very hot, cold, or humid. Some design firms we spoke with echoed that assessment, saying that project size, site shape or topography, regional climate, or special post needs could render the SED difficult to apply. OBO's most recent former Director has also stated that the SED did not always permit OBO to meet posts' varied needs.²⁸ Former OBO officials told us that, in some cases, functional elements such as warehouses

²⁶Center for Strategic and International Studies, *The Embassy of the Future* (Washington, D.C.: 2007).

²⁷The commission identified two new embassies—in Tbilisi, Georgia, and Zagreb, Croatia—that it assessed as being too far outside those capitals' urban areas for effective diplomatic operations.

²⁸*Examining New Embassy Construction: Are New Administration Policies Putting Americans Overseas in Danger?*, Before the H. Comm. on Oversight and Government Reform, 113th Cong. 12–17 (2014) statement of Lydia Muniz, Director, Bureau of Overseas Buildings Operations, U.S. Dept. of State.

were eliminated from SED projects to deliver them on time and within budget.²⁹ Additionally, current OBO officials emphasized a need to acknowledge the frequency of which the scope of SED projects were reduced to keep projects on time and within cost, without a corresponding reduction to schedule and budget.³⁰

Issues with the SED approach have been documented in past OBO and GAO studies. For example, in 2008, OBO initiated a “look back” study to examine shortcomings with the early SED projects (2001-2007). The study identified deficiencies in newly completed SEDs stemming from building functionality issues, construction flaws, maintenance issues, and de-scoped facilities. Our 2010 review also examined functionality at 22 new embassy compounds where construction began in or after fiscal year 1999 and was completed by September 30, 2009.³¹ Officials at 21 of the 22 posts reported that the design of some spaces within their facility did not fully meet their functional needs, with an average of five functionality-related issues per post.³² We reported that in some cases, functionality challenges resulted in the need to conduct costly follow-on projects after posts occupied the embassy. OBO officials assert that by using the SED approach, a deficiency in one project was effectively built into each active project as it was a standardized approach to project delivery. By comparison, OBO officials assert that by designing each project individually, the Excellence approach provides OBO with the ability to more quickly identify and make changes or improvements from project to project.

²⁹In its 2008 inspection of OBO operations, State’s Inspector General also reported on this issue and provided examples such as the elimination or size reduction of the multipurpose room, kitchen, and recreation facility on the new embassy project in Bamako, Mali.

³⁰In 2010, we reported that programmatic support facilities, such as warehouses, recreational facilities, and cafeterias, were eliminated from a project’s scope before any changes were made to office space, according to OBO officials. State officials noted that, in some cases, reducing the scope of a project may have been preferable to delaying the project. GAO, *New Embassy Compounds: State Faces Challenges in Sizing Facilities and Providing for Operations and Maintenance Requirements*, [GAO-10-689](#) (Washington, D.C.: July 20, 2010).

³¹[GAO-10-689](#).

³²Functionality issues cited included inadequate or nonexistent warehouses; inappropriate size or design of areas such as consular affairs sections, maintenance shops, cafeterias, and recreational facilities; inadequate parking; and challenges in utilizing representational spaces—the public spaces most often seen and/or used by visitors.

OBO took some steps to improve the exterior look of embassies prior to adopting the Excellence approach. According to former senior OBO officials we spoke with, OBO recognized there were some legitimate criticisms about the aesthetics and architecture of the embassies built under SED. Those officials indicated that one of OBO's interim Directors initiated a study to improve future embassy projects such that they better fit in with the streets and spaces around an embassy.³³ These officials cited OBO's 2011 *Embassy Perimeter Improvement Concepts & Design Guidelines* as a direct effort to improve the exterior appearance of embassies by using various design techniques and landscaping so that they would look less "fortress-like."³⁴

OBO had previously prepared a report, in 2008, that reviewed its embassy construction process and the SED.³⁵ To address some of the problems found in this report—such as the need to balance SED standardization with unique post conditions—OBO's then-Director approved the use of DB with bridging in 2008.³⁶ Generally under this delivery method, OBO first contracts with a design firm (the bridging architect) to develop a project-specific, partial design package (bridging design) that conveys State's design vision and a higher level of detail for key design requirements. Upon completing a project's bridging design, OBO's procedure is to separately contract with a DB contractor to complete the design and build the project. Therefore, unlike the SED, each bridging design is project-specific, customized, and separately contracted to a design firm. According to senior OBO officials, as well as construction contractor and design firm officials, the current extent of design represented by Excellence bridging documents varies by project

³³In 2007, some Members of Congress expressed concerns about the construction of the new embassy in Baghdad. The leadership of OBO changed in 2008, and from roughly 2008 through mid-2011, two interim Directors from the U.S. Foreign Service filled the OBO director position.

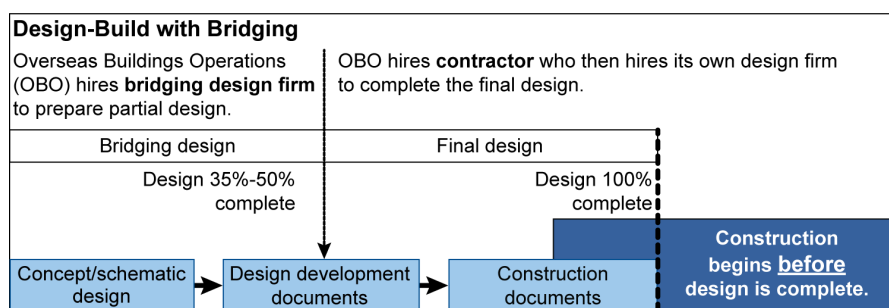
³⁴OBO, *Embassy Perimeter Improvement Concepts & Design Guidelines*, June 2011. Released just after Excellence was approved, this study was initiated before Excellence, according to former OBO officials we spoke with.

³⁵U.S. Department of State, Bureau of Overseas Buildings Operations, *Capital Acquisition Process Working Group, Findings and Recommendations*, abridged final report, Sept. 19, 2008. The report was provided as a memorandum to State's Under Secretary for Management.

³⁶While the decision to use formal bridging designs was approved in 2008, OBO did not implement project-specific bridging for SED projects and subsequent Excellence projects until 2009.

but generally approximates an overall 35- to 50-percent design. Those officials indicated that bridging designs include multiple design disciplines whereby elements such as architectural design may be developed to a far greater extent than others, such as electrical design. Under this method, the DB contractor and its design firm are responsible for completing the design. Figure 4 provides an overview of the embassy construction process under bridging.

Figure 4: Construction of a U.S. Embassy under Bridging Project Delivery Method



Source: GAO. | GAO-17-296

Note: This is a general representation of this OBO project delivery method. It may not represent every project.

In 2009, we reported that by providing more design detail up front, OBO believed bridging would more effectively translate project requirements to contractors, speed the design security certification process, and enable construction to begin sooner.³⁷ OBO documentation also indicates that OBO believed bridging would better define the desired look and quality for projects than the SED alone could achieve and provide less room for the contractor to make interpretations and change OBO's vision of the project. However, according to OBO documentation, the effort, cost, and time to produce a contract solicitation with bridging documents can be significantly more than that required for a typical DB contract using the SED.

³⁷GAO, *Embassy Construction: Additional Actions Are Needed to Address Contractor Participation*, [GAO-09-048](#) (Washington, D.C.: Jan. 16, 2009).

OBO Later Shifted to Excellence

In 2009, the American Institute of Architects (AIA) submitted a report to OBO entitled *Design for Diplomacy, New Embassies for the 21st Century*.³⁸ Informed by a task force composed of architects, engineers, former ambassadors, staff from the U.S. General Services Administration (GSA), OBO design professionals, and others, the AIA recommended that OBO “adopt Design Excellence as a mandate to advance a new generation of secure, high performance embassies and diplomatic facilities that support the conduct of American diplomacy.” It outlined several actions it viewed as necessary to realize the benefits of design excellence.³⁹ AIA officials we spoke with said that AIA never expressly advocated that the SED be completely abandoned, because that approach might remain appropriate for some projects. However, these officials noted that as more SED projects were built, AIA’s members (i.e., architects) believed that SEDs were not the optimal choice for most projects, as the standardized design was not always conducive to adapting to different climates, countries, or unique post functions.

In April 2010—a year before formally instituting Excellence—OBO released “Guiding Principles of Design Excellence in Diplomatic Facilities” (Guiding Principles) to its Industry Advisory Panel.⁴⁰ See appendix V for a summary of these principles. At that time, State also announced OBO’s intent to create the Design Excellence approach, with the goal to produce diplomatic facilities outstanding in all respects, including security, architecture, construction, sustainability, operations and maintenance.⁴¹ OBO’s “Guide to Excellence in Diplomatic Facilities” (Guide to

³⁸American Institute of Architects, *Design for Diplomacy: New Embassies for the 21st Century* (Washington, D.C.: July 2009).

³⁹Those actions generally included the following: establish a design excellence policy; institute a peer review process for selecting design firms and reviewing project designs; provide design excellence policy guidance for project activities, including site selection, planning, design, construction, and maintenance; apply appropriate building systems technology to projects according to their location and factors related to cost and maintainability; and convey to Congress the benefits of adopting a design excellence program.

⁴⁰OBO reports that its Guiding Principles were prepared with support from stakeholders within State, the design community, the AIA, and key congressional stakeholders.

⁴¹OBO’s Guiding Principles are based on the 1962 “Guiding Principles for Federal Architecture,” which OBO asserts are still relevant today. Those 1962 principles are the basis for the GSA’s Design Excellence program, which the GSA applies to domestic federal construction projects that it oversees.

Excellence) released in July 2016, states that the new approach will result in innovative, new American landmarks around the globe.⁴²

OBO's establishment of Excellence was informed by a nearly yearlong review—begun in June 2010—by seven internal OBO working groups⁴³ overseen by a steering committee composed of OBO's senior managers and chaired by OBO's then Deputy Director (who later served as OBO's Director from June 2012 through January 2017). OBO also sought assistance from GSA, which assigned GSA's Director of Design Excellence to subsequently participate as an external advisor to the Steering Committee.⁴⁴ OBO's working groups were tasked with examining OBO policies and procedures and providing the steering committee with recommendations as to how best to integrate design excellence into all of OBO's activities. This review resulted in over 60 recommendations and a series of planned actions that were approved in an April 2011 decision memo (Excellence decision memo) as a means to implement Excellence.⁴⁵ The review also identified some specific changes to OBO's processes in the areas of (1) site selection; (2) project delivery method; (3) design standards and guidelines; (4) hiring of outside architectural and engineering design firms; (5) design reviews; and (6) life-cycle cost analysis, among other areas. See appendix VI for a table describing the approaches OBO identified to achieve its goals under the Excellence approach.

⁴²U.S. Department of State, Bureau of Overseas Buildings Operations, *Guide to Excellence in Diplomatic Facilities*, July 2016.

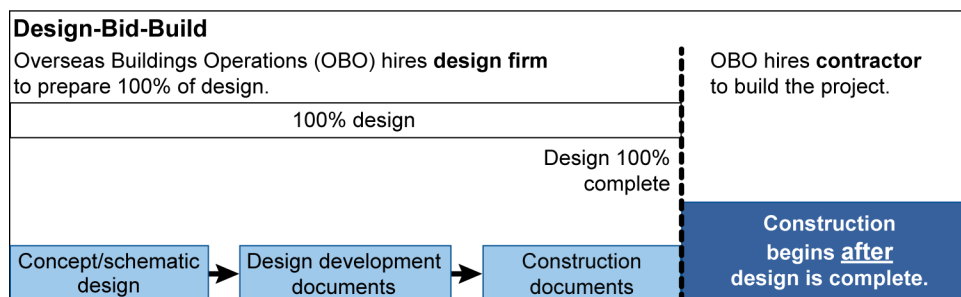
⁴³These multidisciplinary working groups covered (1) Program Planning and Execution, (2) Site Selection, (3) Programming, (4) Project Planning and Development, (5) Design Goals and Standards, (6) Project Construction, and (7) Operations and Maintenance.

⁴⁴That individual was the only external advisor on the steering committee. In January 2012, that individual was hired by State to oversee OBO's Excellence approach and served as OBO's Deputy Director for the offices of Program Development, Coordination, and Support; and Construction, Facility, and Security Management. That individual subsequently resigned from State in January 2017.

⁴⁵OBO officials reported that nearly half of those recommendations were fully implemented—such as the recommendation to employ peer review in the design process—and the others will be ongoing, such as the recommendation to “measure performance of planners, designers, and builders for design excellence and project performance in the federal government-wide contractor performance database.”

A significant change under Excellence since 2011 has been OBO’s shift to an increased use of the DBB delivery method alongside bridging.⁴⁶ Generally under DBB, OBO first solicits and contracts with a design firm to develop a 100-percent design.⁴⁷ Under this method, OBO then uses the completed design to solicit bids from prospective construction contractors. According to OBO documentation, OBO selects a project’s delivery method, either bridging or DBB, based on an evaluation of local context, project complexity, construction factors, and urgency. According to OBO officials, the timing of a construction award (i.e. the planned fiscal year when OBO expects to receive funding to make an award) is also a key determining factor regarding delivery method. Figure 5 provides an overview of the embassy construction process under DBB.

Figure 5: Construction of a U.S. Embassy under Design-Bid-Build Project Delivery Method



Source: GAO. | GAO-17-296

Note: This is a general representation of this OBO project delivery method. It may not represent every project.

⁴⁶According to OBO, while it predominately employed DB during the SED program era, OBO did utilize DBB for a few select iconic projects, such as the new embassy compounds constructed in Berlin, Germany, and Beijing, China.

⁴⁷OBO’s intent is that the contracted design firm will be retained—after the design is complete—to review the construction contractor’s documents and perform any additional design, as needed. DBB is the same delivery method used by OBO for the Inman program.

OBO's Greater Design Control Requires Greater Up-Front Resources and Has Cost and Schedule Trade-Offs

Changes made under Excellence provide OBO with greater design control, but carry trade-offs. Key elements under the Excellence approach include (1) allotting funding and time for developing custom designs; (2) hiring leading design firms for projects and promoting innovation in design; (3) conducting peer reviews of designs; and (4) using bridging and DBB project delivery (rather than DB). We found that OBO now funds the development of customized designs and provides up to 24 months for front-end design work. OBO also seeks to hire leading U.S. design firms to develop those designs for each project. New design firms OBO has hired for Excellence projects have faced some challenges, and OBO only recently began assessing their performance. OBO also requires design reviews by industry advisors. This shift to more design-focused delivery methods—from DB to bridging and DBB—has design, schedule, and cost trade-offs. OBO's staff had split opinions regarding the Excellence approach compared to the SED approach.

OBO Now Allots Project Funding and up to 24 Additional Months to Develop Excellence Designs

OBO's Excellence approach—using bridging and DBB—represents a new investment to develop innovative, project-specific designs. Previously, the SED approach combined with DB delivery made use of the same standard design, which DB contractors' design firms would adapt to a specific site. Thus OBO did not contract with design firms to develop customized designs. One senior OBO official said that OBO's intent under Excellence is to "own the quality of each project" and that contracting for project-specific designs provides control over the design process to avoid what OBO reports were quality issues with some SED projects. OBO reports it has awarded 24 new embassy or consulate design contracts—for either 100-percent designs or partial bridging designs—during fiscal years 2011 through 2015.⁴⁸ The first design contract solicited as an Excellence project, according to OBO, was awarded in January 2013 for the new U.S. embassy to be built in Mexico City.⁴⁹

Design-related activities include both actual project design, which entails the preparation of plans, drawings, and specifications; and project development, which included due diligence efforts such as boundary,

⁴⁸In fiscal year 2016—in the middle of our review, and thus outside our scope because of the timing—OBO reported awarding design contracts for three embassy or consulate projects in Guatemala City, Guatemala; Nogales, Mexico; and Tegucigalpa, Honduras.

⁴⁹The design for the new U.S. embassy in Mexico City's was completed in August 2016. By the end of fiscal year 2016, according to OBO officials, a construction contract had not been awarded due to environmental site remediation and project scope issues.

utility, and soil surveys. OBO officials stated that they could not distinctly segregate the cost for project designs from project development costs needed to complete a project's design under any project delivery method, including DB using the SED. Furthermore, according to OBO officials, because such costs were funded out of a central pot of money during the SED era, they cannot be broken out of those earlier contracts. Table 2 shows the amount of funding OBO has authorized for both project design and development activities from fiscal year 2011 through 2015 at a total value of over \$400 million. OBO identified 16 of these 24 project designs as being Excellence projects.

Table 2: Funding Authorized for Design and Project Development, Fiscal Year 2011 through 2015, U.S. Department of State, Bureau of Overseas Buildings Operations (OBO)

Dollars in millions

Project	Fiscal Year	Design Type	Funding authorized for design and project development
<i>Excellence projects</i>			
Maputo, Mozambique	2012	100% design	15.0
Erbil, Iraq	2013	100% design	26.3
Harare, Zimbabwe	2013	Bridging design	5.9
Mexico City, Mexico	2013	100% design	56.5
Pristina, Kosovo	2013	Bridging design	5.5
Colombo, Sri Lanka	2014	Bridging design	8.4
Hyderabad, India	2014	Bridging design	14.9
Matamoros, Mexico	2014	Bridging design	4.2
Ankara, Turkey	2014	100% design	18.9
Asuncion, Paraguay	2014	100% design	16.6
Beirut, Lebanon	2014	100% design	44.8
Dhahran, Saudi Arabia	2014	100% design	17.6
Nuevo Laredo, Mexico	2014	Bridging design	4.5
Guatemala City, Guatemala	2015	Bridging Design	6.4
New Delhi, India	2015	100% design	35.0
Niamey, Niger	2015	Bridging design	6.2
Excellence subtotal			\$286.7
<i>Non-Excellence projects</i>			
Cotonou, Benin	2011	Bridging design	4.1
London, England	2011	100% design	61.5
Mbabane, Swaziland	2011	Bridging design	3.9

Project	Fiscal Year	Design Type	Funding authorized for design and project development
Ndjamena, Chad	2012	Bridging design	8.4
Paramaribo, Suriname	2012	100% design	10.4
Ashgabat, Turkmenistan	2013	Bridging design	7.2
Port Moresby, Papua New Guinea	2013	100% design	10.1
The Hague, Netherlands	2013	100% design	8.1
Non-Excellence subtotal			\$113.7
Total design and project development			\$400.4

Source: GAO analysis based on Department of State data and project authorization documents. | GAO-17-296

Notes:

Figures shown capture funding authorized by OBO for design and project development activities, which generally include both design (i.e., the development of plans, drawings, and specifications) and various due-diligence planning surveys, studies, and other analyses needed to complete a project's design under any project delivery method.

Values do not necessarily reflect contract values and are based on OBO data rather than actual contract awards and modifications.

OBO includes design costs—for the development of plans, drawings, and specifications—as a combined cost with other design and project development activities. Because those costs are combined, OBO could not provide GAO with the specific cost of design (separate from project development costs) for each of its projects.

Excellence projects include those projects that OBO reports were contractually awarded with the intent that construction of facilities would incorporate State's Guiding Principles for Excellence. Non-Excellence projects include those projects that OBO reports as being a Standard Embassy Design (SED), a modified SED (derivative), and other projects that may have some Excellence features but that OBO does not consider Excellence projects.

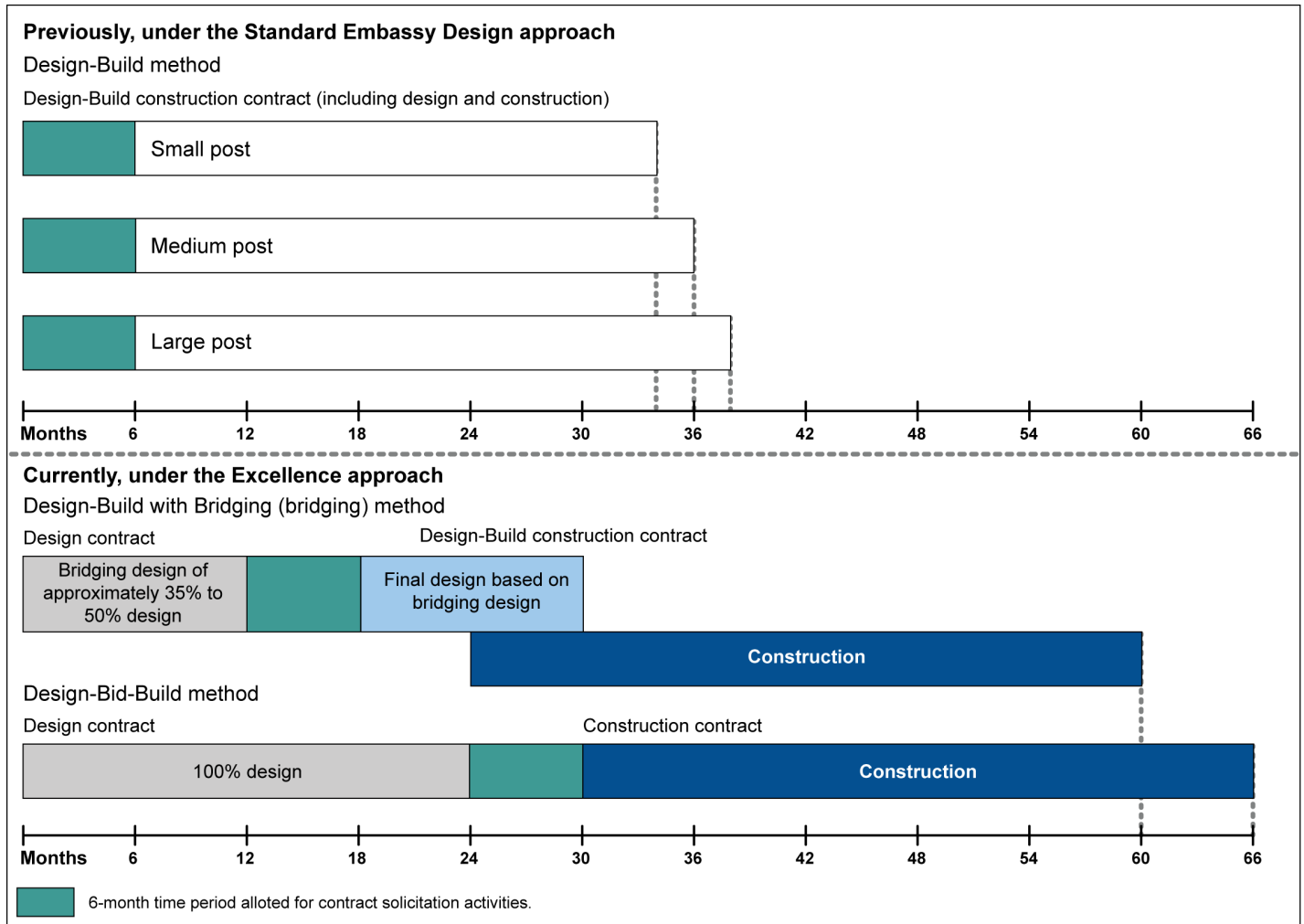
OBO's Excellence approach—using bridging and DBB—also represents a new investment in up-front design time, potentially up to 2 additional years (compared to the SED approach) to develop custom, innovative designs before OBO contracts for construction.⁵⁰ OBO maintains that this additional design time is integrated into its projects such that planned construction contract award dates are not affected and remain consistent with OBO's overall Capital Security Construction Program schedule for constructing new secure facilities. In other words, by starting projects earlier, OBO asserts that it can still meet the Capital Security

⁵⁰In its 2009 report to OBO, AIA said that Design Excellence requires more time spent during the planning and design process than using a more standardized approach.

Construction Program schedule for delivering new embassies.⁵¹ However, because the first set of Excellence construction projects were awarded in fiscal year 2014 and are still in progress, it is currently unknown whether OBO will deliver new facilities consistent with the overall program schedule. OBO's process under both bridging and DBB is now to award contracts to design firms to produce custom project designs, and OBO planning documentation generally estimates up to 2 years (24 months) for the design process of a generic new embassy. OBO documentation generally indicates that when there is sufficient time available for conducting planning and design activities before awarding a construction contract, OBO is inclined to utilize DBB, which OBO asserts often results in a superior end product. OBO officials cautioned that its generic timeframes are just a starting point, and that every project can encounter unique challenges. Figure 6 shows OBO-generic timelines under the prior SED approach (using DB)—which were established based on the size of a post—in comparison with OBO's generic schedules for Excellence bridging and DBB projects, the latter two providing up to 24 months of additional design work before construction begins.

⁵¹Based on its analysis of the security vulnerabilities affecting posts, DS guides State's annual process to assess and, if warranted, revise its "Top 80" list of candidates for replacement embassies. Once the annual Top 80 list is established, OBO then develops its Capital Security Construction Program schedule. That schedule covers the current fiscal year plus 5 additional years and identifies planned construction contract awards by year based on projected funding estimates. OBO reports that the schedule is flexible and that planned fiscal year awards may be changed because some projects will be delayed due to challenges such as host government planning approvals, site acquisition, scope changes late in the project's development, or contract award issues. OBO identifies backup projects for each fiscal year that may be advanced if originally scheduled contract awards are delayed. OBO's Director approves the Capital Security Construction Program schedule and any substitution of backup projects.

Figure 6: Generalized Time Lines for Project Delivery Methods Used in State’s Capital Security Construction Program, as Estimated by the Bureau of Overseas Buildings Operations



Source: GAO analysis of agency data and Department of State documentation. | GAO-17-296

Design Firms New to OBO Have Faced Adjustment Challenges; OBO Recently Began Assessing Their Performance

One of OBO's Guiding Principles for Excellence is that OBO will hire leading U.S. design firms based on their design achievements and portfolio of work.⁵² OBO's intent in hiring leading design firms is, in part, to promote the innovation of American architecture, engineering, and design disciplines as well as U.S. technology, manufacturing, and product design. According to OBO, selection of these firms is based, in part, on their achievements in the design field and work on projects similar in scale and complexity to an embassy project. OBO's guidance indicates that material advances and new technologies can result in the delivery of better diplomatic facilities and that OBO must invest in innovation. For most of its design projects, OBO utilizes an Indefinite Delivery/Indefinite Quantity (ID/IQ) contract mechanism—under which five design firms have been hired—to task design firms to develop project designs, when needed.⁵³ In some instances, OBO prefers to issue project-specific solicitations and contracts for more unique and challenging projects, such as the London and Mexico City embassy designs.

Under the SED approach, design firms typically conducted due diligence and project development (i.e., planning activities) for OBO to ensure projects were ready for design and construction by the DB contractors.⁵⁴ Under Excellence, OBO contracts with design firms to develop Excellence designs before awarding a construction contract, according to OBO. Four of the five firms hired by OBO under its current ID/IQ are new to embassy construction work. Officials we spoke with—including DS officials, design firms, construction contractors, and former OBO officials—identified some adjustment challenges facing design firms new to OBO that have never designed an embassy before. For example, having to become familiar with State's unique security requirements for diplomatic facilities is a challenge for those design firms. DS officials reported the firms require a

⁵²Before the SED era, State hired leading U.S. architects to design some of the embassies that were built.

⁵³The ID/IQ expedites tasking because the firms will already have been selected and have prenegotiated terms and conditions. The current 5-year ID/IQ—1 base year and 4 option years—began in 2013 and runs through 2017.

⁵⁴Due-diligence activities include conducting surveys of a site's existing conditions, such as soil and utility information. Project development services generally consist of documenting planning issues, such as, the local permitting processes and the availability of local construction labor. Under the SED approach, OBO also generally provided site utilization diagrams to convey how buildings—such as the office building and U.S. Marine Security Guard Quarters—might be arranged on the site. Also, OBO provided some planning drawings to show how a project's space requirements might be arranged and the site adapted within the SED framework.

great deal of work to bring them up to speed on State's security requirements. To mitigate this situation, DS has been conducting "101 Certification Workshops" for new design firms so that they understand DS's approach to the security certification of new embassy designs. Those officials stated that conducting those workshops and reviewing customized Excellence designs has increased DS's workload.⁵⁵

Newer design firms have also been challenged by such issues as lack of sufficient staff with required security clearances, information systems, or office space to independently and securely perform the contracts, according to DS and design firm officials. Some of the new-to-OBO design firms further indicated that they have contracted—as partners or subcontractors—design firms that have worked on past OBO projects to assist the new-to-OBO firms in navigating State's standards and process.

OBO did not begin conducting performance evaluations of its design firms until recently. Recommendations from the 2011 Excellence decision memo indicated that OBO would (1) measure performance of its designers for Design Excellence and project performance, and (2) use the federal contractor performance reporting system to promote consistency, increase data integrity, and motivate contractor performance. The Federal Acquisition Regulation requires agencies to conduct contractor performance evaluations. Such evaluations are intended to provide essential information regarding whether to award future contracts to these design firms.⁵⁶ We found that OBO had not been conducting contract performance evaluations of the design firms contracted to deliver Excellence designs. OBO officials acknowledged they had not been recording performance evaluations. As a result of our inquiry and a subsequent request from State's contracting office, OBO has trained staff and as of August 2016 had initiated design firm evaluations for six of its Excellence projects.

⁵⁵DS officials stated that they have increased staff resources to review designs and allow extra time for the design certification process.

⁵⁶The evaluation criteria to assess contractors' performance may include quality, cost control, management, regulatory compliance, use of small business subcontractors, and other criteria an agency may establish for a contract.

Excellence Approach Includes Design Reviews by Industry Advisors

The Excellence approach entails greater involvement by OBO's industry advisors. In 2012, OBO made changes to its industry advisory body, previously called the Industry Advisory Panel.⁵⁷ It is now called the Industry Advisory Group (IAG) and OBO increased the number of members from up to 9 advisors representing industry organizations—such as AIA, Associated General Contractors of America (AGC), and Design-Build Institute of America (DBIA)—to up to 35 members, who must, among other criteria, be members of professional organizations and trade groups involved in property management issues, but who represent the companies employing them (not those organizations or industry groups). OBO officials indicate the change was made to allow OBO to have broader industry representation.

In September 2014, OBO established a new policy mandating OBO senior management and industry peer design reviews, called OBO senior management and IAG design reviews. The policy requires that two such design reviews be conducted for each new project and that OBO's Director will designate three members from its IAG or other adjunct professionals to serve as reviewers. These reviews are intended to assist OBO in making certain that projects are well-conceived and can be realized in an efficient and cost-effective manner.⁵⁸ The first design review occurs during the Concept Design Phase. The design firm awarded the design contract must submit three viable concepts that it assesses as achievable within the project budget, according to OBO policy. The design firm must explain the factors that influenced each of the three proposed designs, including any opportunities and constraints. During the concept design review, OBO senior management and IAG panel members may raise and discuss any concerns about the proposed concepts or issues affecting scope, schedule, or cost. After considering the IAG panel's recommendations, OBO selects one concept to be designed to a greater level of detail.

⁵⁷The purpose of OBO's industry advisory body is to advise OBO on areas of research and development, real estate, planning, program development, design, engineering, construction, historic preservation, sustainability, natural hazards, emergency operations, security, operations, and maintenance.

⁵⁸The industry peer design reviews are in addition to separate design reviews that OBO and DS staffs conduct to ensure projects meet building code, security standards, and other project requirements. Similar industry peer reviews were conducted during the Inman era but were ceased under the SED approach.

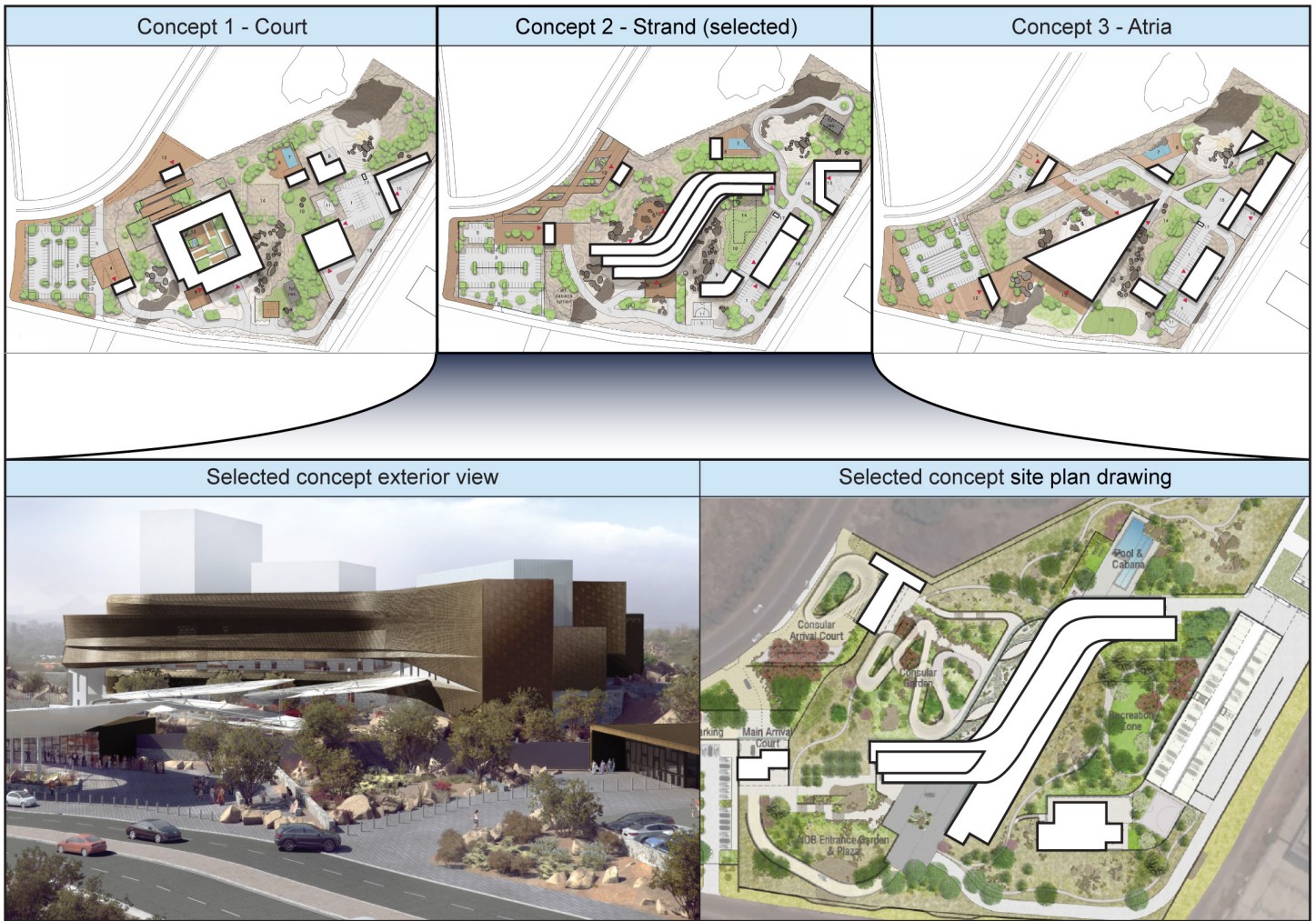
The second set of design reviews, outlined in OBO policy, occurs during the Schematic Design Phase, when the selected concept has been more fully designed. The schematic review examines aspects of the proposed design—though not a final design—against the project’s requirements, approved schedule, and estimated construction contract price. The review examines site context and surroundings; the proposed building systems, including security systems and sustainability features; the exterior and interior design elements and materials; and how the local environment and construction labor may impact the design. The general purpose is to highlight opportunities to strengthen the project before the design progresses further and is completed.

Following both OBO senior management and industry concept and schematic design reviews, the contracted design firm makes a presentation to OBO’s Director. OBO’s Director may either approve the proposed schematic design to be used for a project or indicate necessary changes to the design for its subsequent approval. After OBO’s Director has approved the schematic design for a project, the final design must be in keeping with the approved design. Senior OBO officials indicated industry advisory design reviews do not add additional time in OBO’s process, as they occur within the overall time allotted for design. See appendix VII for a figure depicting where IAG design reviews occur within OBO’s overall design process.

The first Excellence project to go through the industry design review process was the new U.S. embassy planned for Mexico City. Through April 2016, OBO had conducted a total of 27 industry design reviews on 14 Excellence projects.⁵⁹ Figure 7 shows the three design concepts that underwent an IAG design review and the schematic design of the selected concept for the new consulate in Hyderabad, India.

⁵⁹These were Ankara, Turkey; Asuncion, Paraguay; Beirut, Lebanon; Colombo, Sri Lanka; Dhahran, Saudi Arabia; Erbil, Iraq; Guatemala City, Guatemala; Harare, Zimbabwe; Hyderabad, India; Matamoros, Mexico; Mexico City, Mexico; New Delhi, India; Niamey, Niger; and Pristina, Kosovo.

Figure 7: Concept Designs Proposed and Subsequent Schematic Design Developed for the New U.S. Consulate in Hyderabad, India



Source: GAO analysis of Department of State documentation. | GAO-17-296

Design firms we spoke with had varying views on the utility of OBO’s industry advisory reviews. For example, two design firms reported that although the contractual requirement to develop three design concepts for review and consideration adds some value, making it a formal requirement and holding a structured, peer-reviewed process adds

additional time, cost, and work.⁶⁰ Another design firm new to OBO found the process valuable, particularly when peer reviewers (members of the IAG design review panel) already have OBO experience and can provide advice on potential embassy design pitfalls.

Different Project Delivery Approaches Offer Distinct Design, Schedule, and Cost Trade-Offs

OBO's Guide to Excellence indicates that different delivery methods have design, schedule, and cost implications that must be evaluated relative to the characteristics of each project and that OBO's Director must approve the delivery method for each project. Since 2011, OBO has generally been using both bridging and DBB as delivery methods to have more control over project designs, according to OBO officials. OBO officials believe that greater design control under Excellence will improve embassies' appearance in representing the United States, functionality, quality, and operating costs. Table 3 lists various design, schedule, and cost trade-offs inherent in the DB, bridging, and DBB project delivery methods identified by industry studies and experts we interviewed.

⁶⁰In 2014, a design firm also conveyed to OBO that its senior management and industry advisory peer review process extends the project schedules and that the purpose of these multiple reviews is unclear.

Table 3: Industry Studies and Experts Identified Trade-offs Inherent in the Design-Build (DB), Design-Build with Bridging (bridging), and Design-Bid-Build (DBB) Project Delivery Methods

Design

- In its 2009 report to the Bureau of Overseas Buildings Operations (OBO), the American Institute of Architects (AIA) asserts that design excellence is enhanced by greater participation of architects and engineers throughout the design and documentation stages, which does not always occur in DB projects. Under DB, the industry generally recognizes that an owner (e.g., OBO) gives up some design control as compared with other delivery methods and some industry groups indicate that DB may be inappropriate if an owner seeks an iconic design. Bridging Institute of America (BIA) officials identify bridging as a good alternative between DB and DBB, because the bridging method provides the owner with some of DBB's design control and some of DB's scheduling advantages while reducing cost and schedule risks (i.e., increased costs and schedule delays). According to BIA officials, the architecture community is generally an advocate for DBB and the construction industry is more often an advocate for DB.
- A Construction Management Association of America study reported that DBB provides an owner with significant design control, since a project will be fully designed prior to hiring a construction contractor.^a Design-Build Institute of America (DBIA) officials told us that the DB method can deliver facilities with outstanding designs if an agency makes a best-value decision to award a DB contract based, in part, on the qualifications of the DB contractor's proposed design team rather than on the lowest price proposal, which may affect the quality of the design the agency receives.^b

Schedule

- According to industry experts, DB is generally recognized as supporting faster delivery schedules. The industry generally refers to such an emphasis on accelerating project delivery as "fast-tracking." In 2003, OBO's then-Director reported to Congress that OBO intended to reduce the construction period for new embassies through a fast track process, referring to the SED approach. However, AIA and the Associated General Contractors of America have reported that—although some project owners place a premium on schedule, and therefore favor DB, so as to move people or functions into new facilities as soon as possible—a potential downside to fast tracking is that some design elements may be locked in early, which may make later changes, if needed, difficult and costly.^c
- An industry survey conducted by a leading construction data analytics company generally found agreement among building owners, architects, and contractors that DB has a positive impact on project duration. In the survey, 20 percent of owners reported their DB projects finishing ahead of schedule, while only 7 percent of owners reported DBB projects finishing ahead of schedule.^d Similarly, a Construction Industry Institute study—based on an examination of over 350 projects—found DBB projects examined had a median schedule growth rate of 4.4 percent meaning that the total actual project duration exceeded the schedule's predicted duration by 4.4 percent. In comparison, DB projects examined schedule growth was near 0 percent. The study included representatives from OBO and other organizations.^e

Cost

- The industry has generally reported that when an owner assumes more design control—as under DBB—this poses greater risk for cost increases if the construction contractor finds problems with the constructability of the design provided by the owner. DBIA and BIA officials we spoke with emphasized that because the owner hires the architect to prepare a 100 percent design under DBB, the owner assumes the project risk if there are any errors or omissions in the design. In their view OBO—in exerting direct design control over its projects under Excellence—now bears the cost risk for any potential errors, omissions, and ambiguities in those designs and thus increases the likelihood for costly change orders and claims^f by the construction contractors (if not also schedule delays) resulting from conflicts between the design as documented and its actual construction.^g Under DB, the Construction Management Association of America notes such conflicts are internal to the DB contractor (and its design team), meaning the owner does not have to resolve conflicts between two contract parties (i.e., the owner's design firm and the construction contractor) as happens under DBB. This advantage of the DB method lowers the owner's exposure to cost increases, since the contractor is responsible for resolving any design issues with its design firm, according to industry reports.
- Both the Construction Industry Institute study and the industry survey mentioned previously attempted to address comparative costs of DB and DBB. Projects using DBB in the Construction Industry Institute study had a 50 percent likelihood of realizing a cost increase ranging from 2 to 11 percent, whereas the comparable cost growth figure for DB projects in the study was from 0 to 7 percent. The industry survey reported very large differences of opinion as to which delivery approach best reduces project costs, particularly among the opinions expressed by architects versus those expressed by contractors.

Source: GAO analysis. | GAO-17-296

^aThe Construction Management Association of America, An Owner's Guide to Project Delivery Methods (August 2012).

^bOBO reported to us that under Excellence, it is now making some project awards based on a best-value determination, rather than awarding the project to the lowest priced, technically acceptable contractor proposal. Further information on DB best-practices can be found in Design-Build Institute of America, Federal Sector, Design-Build Done Right; Best Design-Build Practices, Nov. 2015.

^cAmerican Institute of Architects and Associated General Contractors of America, Primer on Project Delivery, Second Edition; joint publication, 2011.

^dMcGraw Hill Construction, Project Delivery Systems: How They Impact Efficiency and Profitability in the Buildings Sector (Bedford, Mass.: 2014). That study was supported by AIA and DBIA.

^eConstruction Industry Institute, Project Delivery Systems: CM at Risk, Design/Build, Design/Bid/Build, RS133-1 (Austin, Tex.: December 1997). Other representatives included the U.S. Navy, the National Aeronautics and Space Administration, the University of Texas, Pennsylvania State University, and private sector companies such as General Motors Corporation.

^fChange orders are issued to modify contracts, which in some cases can be a change to correct design errors or omissions found by the owner or contractor. Claims are written demands or written assertions by one of the contracting parties seeking the payment of money in a set amount; the adjustment or interpretation of contract terms; or other relief arising under, or relating to, the contract. Both change orders and claims may increase project costs.

^gIn general, conflicts may arise in constructing a project because the design is incomplete, lacks clarity, or the design firm did not fully coordinate the design disciplines, such as architectural, structural, electrical, or mechanical designs. For example, if the design is not fully coordinated, mechanical air ducts might be designed to occupy the same space as the structural or electrical systems, thus creating a conflict.

Construction contractor representatives we spoke with reported seeing these issues play out in the execution of OBO's Excellence approach. AGC's representative told us that the more customized designs under Excellence create increased risks for design problems or errors that could result in cost and schedule increases. Two OBO construction contractors we spoke with reported that OBO's bridging and DBB projects cost more and take longer from start of design to completion when compared with a SED DB project. In part, these contractors said they had found some problems with some aspects of the designs, which took time to resolve with OBO and OBO's contracted design firms. Those contractors also said OBO's Excellence projects tend to specify more unique materials or custom-made products, which also adds to construction costs.⁶¹ These contractors also stated that they are tracking more change orders and redesign work on current OBO projects, which further indicates the potential for cost and schedule growth under Excellence. Finally, contractors we spoke with said that while OBO now uses bridging to develop a partial customized design for some OBO projects, their own firms' design costs for a bridging project will not be lower than a similar

⁶¹For example, one contractor said that more customized security windows used in Excellence projects increases construction costs. Under the SED, OBO standardized the types and sizes of windows used in projects.

SED DB project.⁶² They said this is because their own design firms are still responsible for the design and must validate any design information that OBO's bridging architects develop.

OBO Staff Held Split Opinions on the Excellence and SED Approaches

Benefits and Challenges of Excellence

OBO staff expressed a wide range of opinions in response to our survey request for comments regarding any specific benefits or challenges brought about by Excellence in their specific area of expertise.⁶³ Some 421 respondents provided comments covering diverse topics that we evaluated and grouped into 20 categories. Staff often held opposing views regarding a wide range of Excellence issues such as developing Excellence standards or procedures, facilitating stakeholder input, and focusing on maintenance and sustainability. Staff providing comments generally provided more negative narratives than positive ones. Table 4 summarizes the results of our analysis.

⁶²One contractor said the fees they pay their architect to complete the design for an OBO bridging project are about double what they had paid to develop a SED-based design. This is because bridging designs for Excellence projects require more coordination between the contractor and OBO to ensure the intent of bridging design is maintained.

⁶³Those surveyed included both OBO direct hire and contracted support staff working at OBO's offices, which we refer to in the report generally as "OBO staff."

Table 4: Summary of Survey Comments Expressing Opinions on Benefits and Challenges Attributed to the Excellence Approach

Benefit comments	Quantity	Challenge comments	Quantity
Control/flexibility of designs and site selection.	39	—	
Aesthetic/ architectural improvement (“iconic designs”).	27	—	
Development and/or improvement of standards, processes, procedures, templates, documents, etc.	69	Lack of, inadequate, or inconsistent application of policies/procedures/standards/ systems; uncertain impact of new policies, etc.	175
Improved coordination; facilitating input from different stakeholders/internal teams; consensus and leadership around program objectives.	60	Inadequate coordination; failure to facilitate input from various stakeholders/internal teams.	82
Increased focus on maintenance/sustainability/ life cycle analyses.	50	Not enough emphasis on maintenance/sustainability/ life cycle analyses.	62
Greater oversight of/cooperation with construction contractors; improvement of the commissioning process.	15	Inadequate oversight and/or training of contractors; issues related to contracts/contract management; issues related to commissioning.	76
Improved design review process.	13	Problematic/burdensome design review and/or certification process.	51
—		New/slow/problematic processes and/or requirements resulting from more complex and varied projects.	89
—		Schedule challenges; extended timelines.	88
—		Budget challenges; high costs.	86
—		Leadership/management issues.	80
—		Staffing issues.	47
—		Construction challenges.	26
—		Design errors and omissions.	28
—		Limited data tracking/sharing; difficulties measuring performance and results.	24

Legend: — = No contrasting comments were identified in this category.

Source: GAO analysis. | GAO-17-296

Note: In response to two questions asking for examples of (1) benefits or efficiencies and (2) challenges or inefficiencies, 421 respondents left 760 comments, some of which were counted in more than one category. Opinions expressed in the survey may not be representative of the opinions held by all Department of State Bureau of Overseas Operations staff.

For examples of specific benefits and challenges cited, see appendix III.

Comparison of Excellence and SED Approaches

We asked OBO staff to characterize Excellence compared with the SED approach in terms of producing diplomatic facilities that are outstanding in all respects, including security, architecture, construction, sustainability, operations and maintenance. Of the 339 staff expressing an opinion, 157 (46 percent) identified the SED as generally more effective, 109 (32

percent) identified Excellence as generally more effective, and 73 (22 percent) believed they were equally effective.⁶⁴

We analyzed responses by length of service in OBO. Some 288 staff with 5 years or less experience responded to the question. These respondents were hired around or after the introduction of Excellence in 2011. Most respondents with 5 years or less experience, 204, did not provide an opinion about Excellence or SED. Of the 84 respondents with 5 years or less who did express an opinion, 37 (44 percent) indicated Excellence was more effective, 31 (37 percent) reported SED was more effective, and 16 (19 percent) found both equally effective. On the other hand, many OBO staff with 6 or more years of experience who responded (255 out of 395) offered an opinion. Of the 255 staff with more than 5 years' experience who had an opinion, 72 (28 percent) indicated Excellence was more effective, 126 (49 percent) reported SED as more effective, and 57 (22 percent) found both equally effective.

We also selected offices for further analysis based on size. Of the respondents expressing an opinion to the question from particular offices within OBO (specifically not including those with "No opinion/no basis to judge" or who provided no response), the four largest offices found SED generally more effective.⁶⁵ Staff from Facility Management were most closely divided. Of the 62 Facility Management staff who had an opinion, 24 (39 percent) said that the SED program is generally more effective than the Excellence program, while 20 (32 percent) said that Excellence is generally more effective, with the remaining 18 (29 percent) reporting one program as effective as the other. A larger percentage of Construction Management and Design and Engineering staff reported SED as generally more effective. Of the 79 Construction Management staff who had an opinion, 44 (56 percent) said that the SED program is generally more effective, compared to 20 (25 percent) who said Excellence is generally more effective. Of the 58 Design and Engineering

⁶⁴The remaining 366 staff either responded "No opinion/No basis to judge" to the question or did not provide any response to the question.

⁶⁵According to OBO, the Facility Management office is its largest office in terms of staff, followed by Construction Management. The Office of the Executive Director for Resource Management is the third largest office, however very few from that office responded to our survey and none expressed an opinion. The Design and Engineering office provided the third most numerous responses. The Security Management office and the office of Project Development and Coordination were fourth and fifth. Offices with 25 responses or fewer are rolled into one row in table 8 in app. II.

staff who had an opinion, 28 (48 percent) said that the SED program is generally more effective, compared to 18 (31 percent) who said Excellence is generally more effective.

The greatest division among the large offices was in Security Management, with 21 out of 29 (72 percent) who had an opinion reporting SED was generally more effective than Excellence, compared with 3 out of 29 (10 percent) reporting Excellence was generally more effective. These offices are among those most directly involved in the planning, design, construction, maintenance, and security at U.S. facilities worldwide.

Other offices were more supportive of Excellence. Of the 24 respondents from the Office of Project Development and Coordination who had an opinion, 13 (54 percent) reported that Excellence is generally more effective than SED. All remaining offices were more narrowly split, with 35 out of 87 (40 percent) reporting Excellence as more effective than SED and about 32 out of 87 (37 percent) reporting SED more effective. The OBO Front Office firmly supported Excellence as more effective than SED with five of six (83 percent) of respondents who had an opinion saying so.

Some 403 staff provided narrative comments comparing SED with Excellence. We categorized the comments, some of which fell into more than one category. The most common positive comment regarding Excellence cited aesthetic or architectural improvements, while the most common negative comment noted higher costs under Excellence compared to SED. The tally for the categories is in table 5 below.

Table 5: Summary of GAO’s Analysis of Survey Comments Expressing Positive and Negative Opinions toward the Excellence Approach to the Design and Construction of New Embassies and Consulates

Positive comments	Quantity	Negative comments	Quantity
Aesthetic/architectural improvement (“iconic designs”)	62	Excellence prioritizes design over functionality	27
Control/flexibility of designs and site selection	42	—	
Excellence embassies demonstrate an increased focus on maintenance/ sustainability/life cycle analyses	31	—	
Excellence embassies are more secure	11	Standard Embassy Design (SED) faster, more efficient, more cost effective at building safe/ secure facilities	32
Improved coordination; facilitating input from different stakeholders/ internal teams; consensus and leadership around program objectives	10	—	
SED and Excellence both have positive and/or negative attributes; no or minimal difference; appropriateness of either program depends on the type of project or metric used to compare			41
—		Excellence costs more compared with SED (“budget challenges”)	74
—		Excellence takes more time compared with SED (“schedule challenges”)	64
—		Excellence introduces new/ slow/ problematic processes and/or requirements resulting from more complex and varied projects	51
—		Under Excellence (compared with SED): Lack of, inadequate, or inconsistent application of policies/ procedures/ standards/ systems; poor communication of policies, etc.	38
—		Under Excellence (compared with SED): Inadequate oversight and/or training of contractors; issues related to commissioning; issues related to contracts/ contract management	22
—		Under Excellence (compared with SED): Staffing issues	19
—		Under Excellence (compared with SED): Problematic and/or burdensome design review/ certification process	17
—		Under Excellence (compared with SED): Leadership/ management issues	14
—		Excellence buildings too complex for many locations	13

Legend: — = No contrasting comments were identified in this category.

Source: GAO analysis. | GAO-17-296

Note: In response to one question comparing SED to Excellence, 403 respondents left comments, some of which were counted in more than one category. Opinions expressed in the survey may not be representative of the opinions held by all Department of State Bureau of Overseas Buildings Operations staff.

Figure 8 lists some selected comments comparing the SED and Excellence approaches.

Figure 8: Selected Survey Comments from Staff of the Bureau of Overseas Buildings Operations regarding the Current Excellence Approach and the Previous Standard Embassy Design Approach



Excellence design
Maputo, Mozambique



Standard embassy design
Libreville, Gabon



Excellence design
Pristina, Kosovo



Standard embassy design
Sarajevo, Bosnia-Herzegovina

- The Excellence program designs buildings that are architecturally pleasing, but in order to achieve nice aesthetics and achieve the security mandates that embassies must adhere to, I believe a cost premium exists. I think a compromise can be achieved and some cost savings could be realized, but in my opinion the pendulum has swung completely opposite that of the standard embassy design (SED), and the evidence is in a cost comparison between the embassies designed under the SED program with those designed under the Excellence program.
- The SED model streamlined many processes that apparently translated into a more expedient overall delivery of new facilities. The Excellence program successfully addresses many of the SED program drawbacks ('embassies looking similar and like fortresses'); however, at a price (arguably longer and more expensive projects). The decision clearly needs to be made whether it is worth that price.
- On the positive side, designing unique facilities improves the aesthetics of the U.S. presence abroad and sets an example for building system efficiency and innovative systems to the world. On the negative side, each unique design requires re-inventing the wheel and creates additional challenges for the designer to integrate physical and technical security, as well as accounting for building maintenance and upkeep. These designs are often difficult to implement overseas, and the state-of-the-art systems are difficult to maintain in some countries [without] unique equipment and a significant increase in facilities staff. Unique designs are more difficult and frequently more expensive to implement, creating an impact on time and cost.
- The designs of [embassies] are more challenging or difficult to introduce, implement, and execute. Every design is unique and different, takes longer to evaluate, and requires more coordination; more issues are encountered that need to be resolved. The construction of [embassies] is also more challenging or difficult to execute. The distinct construction materials used are more expensive, take longer to procure and transport, and are more difficult to install. Therefore, the schedule is longer, especially if there are more issues encountered during design and construction, and the cost of construction and contingencies are much higher.
- I believe that the Excellence program produces a better product and platform for diplomacy; however, most of us also acknowledge that the SED program gave us the ability to execute faster when needed. They should not be mutually exclusive. There are principles in the SED that can be applied and probably should not have been just "thrown out." It should have been a good solution for an expeditious need, in a place where appropriate. We also know that it did not work well everywhere, and in places with stringent code, zoning, or other restrictions (including the desire to operate in an urban context), it was definitely not a good solution. As long as the Front Office doesn't focus solely on aesthetics, the Excellence program should produce some outstanding facilities that have far more flexibility than the SED, better functionality, and improved suitability for the country in which they reside.

Source: GAO survey (quoted text); Department of State (images). | GAO-17-296

When asked whether Excellence had generally improved the Capital Security Construction Program (i.e., the embassy construction program),

OBO staff who responded were more evenly divided. Of the 470 respondents expressing an opinion, 174 (37 percent) generally agreed that Excellence improved the program, while 161 (34 percent) respondents generally disagreed, and 135 (29 percent) neither agreed nor disagreed.⁶⁶

OBO Has Established Some Implementation Guidance but Lacks Tools to Assess Performance under Excellence

While OBO has established some policies and other guidance to implement Excellence, it lacks tools to fully evaluate the performance of the new approach. OBO continues to document changes in its policies, procedures, standards, and other guidance. In our survey, OBO staff generally were evenly split on the sufficiency of OBO's efforts in these areas. However, OBO has not defined performance measures specific to Excellence goals at either the strategic or project level, such as greater adaptability to individual locations, functionality, or environmental sustainability. OBO also lacks a centralized database to broadly manage Excellence by enabling, for example, effective reporting on projects' design and construction costs and schedules. Without performance measures specific to Excellence and sufficient systems to collect and analyze relevant data, OBO will not be able to demonstrate whether the performance of Excellence projects over time justifies the increased emphasis on and investment in their designs.

OBO Continues to Document Changes in Its Policies, Procedures, Standards, and Guidance

While OBO has created or updated some policies and other guidance to implement Excellence, it has taken more time to do this than OBO estimated in 2011. Key guidance deliverables in OBO's 2011 Excellence decision memo—identified as "critical elements" by OBO—were to be produced within the first year after Excellence was approved. However, it took more time than OBO estimated to issue some of those key elements. For example, OBO replaced the SED with the new OBO Design Standards in 2013⁶⁷ and released its Guide to Excellence in 2016, despite

⁶⁶Another 227 indicated they had no basis to judge or no opinion. For this analysis we combined the response categories of strongly agree and somewhat agree into the generally agree category; we also combined the strongly disagree and somewhat disagree response categories into the generally disagree category. For the full results, see app. II.

⁶⁷OBO officials report that lessons learned from the SED were incorporated into OBO's new Design Standards.

its initial plan to release these documents within a year of the memo.⁶⁸ New or updated policies issued in support of implementing Excellence were also not in place until nearly 2 years or more after Excellence was approved in 2011.⁶⁹ For example, in recent years OBO has finalized several policies, such as the following:

- **2013 Site Selection:** This new policy emphasizes criteria for urban sites; attributes of the preferred site include (1) considering American values in promoting a sense of openness, accessibility, and transparency through location; (2) proximity to key host-government facilities, embassies of other countries, and businesses and cultural centers; and (3) an urban setting that provides connectivity to public transportation and infrastructure, making the mission accessible to visitors and clients.⁷⁰
- **2014 OBO Senior Management and Industry Advisory Group Design Reviews:** This new policy requires two reviews by external industry advisors and approval of Excellence designs by OBO's Director.
- **2015 OBO Core Project Team:** This new policy requires OBO's Design Manager⁷¹ to be an integrated team member—with OBO's Project Manager, Project Director, and Construction Executive⁷²—to

⁶⁸OBO's Guide to Excellence indicates it is intended to provide a broad overview of OBO's goals, policies, and procedures. In 2016, OBO also released its OBO Design Guide which provides noncontractual information to design firms on how to design a diplomatic office building and addresses communication between various project stakeholders, including OBO, staff and other agencies at posts, the design team, and contractors.

⁶⁹OBO's policy on establishing and updating policies and procedures states, "As with any complex organization, OBO benefits from having established policies and procedures."

⁷⁰See U.S. Department of State, *Foreign Affairs Manual*, 15 FAM 470, New Embassy/Consulate Site Selection.

⁷¹The policy establishes that OBO's Design Manager is authorized to manage the design development and is responsible for the integrity, accuracy, and quality of the design, and leads the project team to resolve design issues.

⁷²The Project Manager oversees the project's development and design contracts. The Project Director (PD)—located overseas—provides oversight of the construction contractor and the contract. Once a DB or construction contract is awarded, the PD has principal authority for ensuring that scope, schedule, and budget are executed as approved by OBO's Director and that the project is constructed in accordance with the approved design. The Construction Executive manages Washington-based issues on behalf of the PD.

ensure that decisions about a project's design are integrated at project inception and maintained through project completion.

- **2016 Architect/Engineer Team Selection:** This revision to an existing policy governs the evaluation and award of design contracts to design firms. The revision expands the evaluation panel from at least three to up to seven members, with key changes being the addition of an OBO Director's designee; a representative with a connection to the post or regional bureau; and an external advisor (a federal employee from another agency).⁷³

OBO Has Introduced Innovation but Faced Challenges in Implementing Excellence

A report commissioned by OBO provided insight into the challenges faced in implementing Excellence. In June 2014, OBO modified an existing task order with one of its design firms to require the firm to participate in a roundtable discussion about Excellence and identify ways Excellence might be more effectively communicated and managed. The design firm subsequently delivered a report, based on the roundtable and its own experiences, with the firm's findings and recommendations on how to improve Excellence.⁷⁴

The roundtable included OBO officials, DS, the Office of Logistics Management, and contractors. The resulting consultant's report noted that OBO had transformed its design approach, design guidelines, project requirements, and preferred project delivery methods. According to the report, this transformation presented significant opportunities. For example, the introduction of highly regarded design firms new to working with OBO offered tremendous potential for innovation and overall quality of building design and performance. However, the report also identified challenges with Excellence, including the following:⁷⁵

⁷³The other members are OBO technical subject-matter experts generally from OBO's design, project development, and construction offices.

⁷⁴According to State officials, State did not identify any organizational conflicts of interest related to this work, and the order did not limit the design firm's participation on future Excellence design work.

⁷⁵OBO officials noted that although OBO participated extensively in the roundtable discussion, the specific recommendations and findings in the report are those of the contractor.

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- There did not appear to be an entity responsible for instituting and managing the significant organizational change that the Excellence approach imposed.
 - The Excellence process had altered the internal practices at OBO and its offices; with every project, its implementation has resulted in nuances in the definitions of the Design Standards that led to variations in their implementation, document submittal requirements, milestone analysis, and security risk assessments.
 - While the new *Design Standards* were more comprehensive, they were very difficult to navigate, particularly as a Portable Document Format (PDF) file with over 8,000 pages.
 - Senior management reviews and the IAG peer review process extended project schedules, and their purpose appeared unclear.

The consultant's report made numerous recommendations to OBO, including that OBO (1) seek to manage and clarify change internally; (2) assign dedicated staff to be responsible for instituting change; (3) utilize more standardization for project requirements, while acknowledging the recommendation may seem counterintuitive in light of OBO's move away from the SED; (4) further define the Excellence program to capture the new standards and processes OBO was instituting; and (5) train OBO personnel and modify internal systems and practices to be compatible with the new OBO project delivery methods and design standards.

In discussing OBO's implementation of Excellence with us, senior OBO officials stated that they continue to work to improve OBO's processes. They noted that the development or updating of OBO policies and procedures takes considerable time because numerous OBO technical offices must weigh in on any needed or proposed changes and that OBO management must then review and approve those changes (or send them back for revisions). Senior OBO officials also maintained that it was difficult to "describe a program at the same time that you are implementing it." One former senior OBO official stated that OBO's priority during the transition to Excellence was trying to implement the new program and that they may have lagged in establishing policies and procedures to document changes to OBO's processes.

Survey Respondents Held Mixed Opinions on OBO’s Provision of Guidance Related to Excellence

In our survey seeking feedback on Excellence, we asked OBO staff whether they agreed or disagreed with seven statements about OBO’s establishment and communication of strategic direction, policies, and guidance for doing their daily jobs. OBO staff who responded agreed most strongly with statements about the provision of policies and standards for their daily jobs. They divided more narrowly on statements about strategic vision and guidance (see table 6). The largest percent of OBO staff who responded generally agreed with the statement: “Since 2011, OBO has provided clear and comprehensive technical standards and guidelines related to my job.” The largest percent of OBO staff who responded generally disagreed with the statement: “Since 2011, OBO has provided clear and comprehensive strategic or long-term guidance to implement its planning, design, construction, and maintenance approach.”

Table 6: Distribution of Agree-Disagree Responses from Bureau of Overseas Buildings Operations (OBO) Staff Expressing Opinions on the Implementation of the Excellence Approach

Percentage of n for each question

Survey questions	Generally agree	Neither agree nor disagree	Generally disagree
OBO senior leadership has effectively conveyed their strategic vision of Excellence. (n=557)	43	19	38
OBO senior leadership has successfully guided the organization in defining, implementing and supporting Excellence. (n=540)	43	20	37
The Excellence initiative has generally improved the Capital Security Construction Program. (n=470)	37	29	34
OBO has provided clear, comprehensive strategic or long-term guidance to implement its planning, design, construction, and maintenance approach. (n=533)	40	20	41
OBO has established clear, comprehensive bureau-wide policies related to my job. (n=550)	46	22	33
OBO has provided clear, comprehensive office-level SOPs related to my job. (n=604)	44	17	39
OBO has provided clear, comprehensive technical standards and guidelines related to my job. (n=585)	50	18	31

Legend: SOP = standard operating procedure.

Source: GAO. | GAO-17-296

Notes: All questions specifically referenced Excellence implementation since 2011. For each of these seven questions, on average, about one in five respondents indicated that the statement was outside their expertise or that they had no opinion and those respondents are not included in the results of this table. The number of respondents for each question varied, resulting in different “n” values (total number of responses for each question).

Percentages may not sum to 100 due to rounding.

For this analysis, we combined the response categories of strongly agree and somewhat agree into the generally agree category; we also combined the strongly disagree and somewhat disagree categories into the generally disagree category.

Opinions expressed in the survey may not be representative of all OBO staff opinions.

OBO Lacks Performance Measures to Evaluate the Potential Costs and Benefits of Excellence

While OBO has established Excellence and taken some steps to implement it, OBO has not established strategic or project-level performance measures to evaluate and communicate the effectiveness of the Excellence approach in delivering embassies under the Capital Security Construction Program. Performance measures are essential tools for managers to evaluate progress toward a program's objectives. GAO's *Standards for Internal Control in the Federal Government* state that agencies' internal controls should include the establishment and review of performance indicators.⁷⁶ Furthermore, State's Foreign Affairs Manual indicates that State must maintain effective systems of internal controls that incorporate GAO's internal control standards.⁷⁷ In addition, the AIA 2009 report stated that "OBO should be willing to evaluate and explain the benefits of integrating security with design excellence, and the potential benefits to life-cycle costs, design, operations, maintenance, public image, and public diplomacy. OBO's ability to explain the benefits will require some empirical evidence of claims made for those tangible items such as cost benefit and operations."

Both OBO's 2011 approval of Excellence and 2016 Guide to Excellence assert that a design excellence program will provide the best value for the U.S. taxpayer. According to GAO's *Business Process Reengineering Assessment Guide*, if an agency decides to initiate a reengineering project, it should develop and communicate a compelling business case to customers and stakeholders that supports this decision.⁷⁸ Such a

⁷⁶GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999). The standards were updated in 2014, and GAO has indicated that for quantitative objectives performance measures may be a targeted percentage or numerical value. For qualitative objectives, management may need to design performance measures that indicate a level or degree of performance, such as milestones. See GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#), (Washington, D.C.: September 2014).

⁷⁷See U.S. Department of State, *Foreign Affairs Manual*, 2 FAM 020 Management Controls.

⁷⁸GAO, *Business Process Reengineering Assessment Guide*, [GAO/AIMD-10.1.15](#), (Washington, D.C.; May, 1997). A business case is also a key tool for communicating the rationale and for managing expectations, particularly with the agency's own staff.

OBO Has Not Established Strategic Performance Measures Specific to Excellence

business case should contain critical performance measures relating to the organization's core business processes, such as cost, quality, service, and speed. As an agency completes its process redesign work, the business case should be updated to present a full picture of the benefits, costs, and risks involved in moving to a new process. Without meaningful performance indicators, an agency has no way of knowing if the new process has produced the desired results and whether those results compare favorably or not to the previous process.

OBO's strategic plan does not define how OBO intends to evaluate the performance of the Excellence approach. State's 2010 press release announcing Excellence and OBO's 2011 Excellence decision memo both noted that a comprehensive strategic plan was to be implemented in 2011 and would act as a roadmap for developing Excellence policies and procedures. OBO senior officials told us that a 2010 presentation—briefed to the then Secretary—was OBO's strategic plan for Excellence implementation.⁷⁹ The briefing document does not say how Excellence is to be evaluated—one of the functions of a strategic plan—nor does it outline any performance indicators to show how OBO would assess and report on the extent to which Excellence facilities are any more safe, secure, functional, sustainable, or more effective in better supporting U.S. diplomacy than the SED facilities.

State's department-level fiscal year 2014-2017 strategic plan is largely silent on Excellence.⁸⁰ Its single Capital Security Construction Program-related performance indicator is the relocation of 6,000 U.S. government employees into more secure and functional facilities by September 30, 2017. OBO used a similar performance indicator under the SED approach. This indicator provides no performance assessment on the extent to which Excellence facilities are any more functional, sustainable, or effective in supporting U.S. diplomacy. Furthermore, the projected target may be low relative to past performance, since 6,000 employees moved by September 2017 equates to an average of 1,500 employees relocated per fiscal year (2014 through 2017).⁸¹ However, State reports

⁷⁹That briefing was titled "Design Excellence" and dated April 14, 2010.

⁸⁰U.S. Department of State and U.S. Agency for International Development (USAID), *FY 2014 – FY2017 Strategic Plan* (Washington, D.C.: Mar. 17, 2014).

⁸¹State's combined Fiscal Year 2015 Annual Performance Report and Fiscal Year 2017 Annual Performance Plan shows State's target of moving 6,000 employees into secure facilities by September 2017 is based on a multiyear average target of moving 1,500 people in each fiscal year from 2014 through 2017.

that from 2000 through 2014 it moved over 30,000 people into more secure facilities—which equates to an average of over 2,100 people per year (based on actual performance).⁸² As a result, it is unclear whether State’s target is an appropriate measure given OBO’s past performance.

Excellence is briefly discussed in OBO’s bureau-level Functional Bureau Strategy for fiscal years 2015–2017.⁸³ It states that OBO is implementing design innovation and that Excellence will introduce improved use of functionality, sustainability, and security for diplomatic facilities. That strategy document includes bureau-level design and construction related performance indicators, among others related to other OBO operations. Those indicators include the following, among others:

- average duration [schedule] and cost growth for capital construction projects completed annually;
- design standards are met and updated on an annual basis incorporating lessons learned and other feedback from stakeholders from prior years; and
- percent of new embassy and consulate compounds designed to achieve LEED Silver certification.

While the first set of indicators can quantitatively measure performance and enable OBO to report on the efficiency of project delivery under Excellence (as OBO did previously under the Inman program and under SED), those schedule and cost indicators do not address new aspects of Excellence, such as lower operating costs or better support for U.S. conduct of diplomacy. In addition, the latter two indicators in the list above are, if anything, even less useful for assessing Excellence performance. First, OBO updates its design standards annually and conducts design reviews to ensure that projects meet those standards. Thus, it is unlikely OBO would fail to meet this performance indicator. Second, according to OBO documentation, LEED Silver certification has been an OBO design standard since 2009, before Excellence. Thus, to meet design standards, every Excellence embassy built—with an emphasis on greater

⁸²U.S. Department of State, *Congressional Budget Justification, Fiscal Year 2016; Appendix 1: Department of State, Diplomatic Engagement* (Washington, D.C.: Feb. 2, 2015).

⁸³U.S. Department of State, Bureau of Overseas Buildings Operations, *Functional Bureau Strategy, FY2015-FY2017*. Functional bureau strategy documents are bureau-level planning components of State’s planning, budgeting, and performance management cycle. They are intended to support the State-USAID joint strategic plan.

OBO Is Exploring Ways to Better Track and Evaluate Long-Term, Project-Level Performance

sustainability—should be at least LEED Silver, so the indicator should be 100 percent, or very near to it. Furthermore, the LEED indicator assesses only the performance implied by the design itself, not the actual building operations and maintenance performance and whether the actual utility usage and costs are equal to or less than initially estimated in the designs.

While no Excellence projects can be evaluated yet, as none have been completed, without additional performance indicators relevant to the goals of the Excellence approach, OBO has no way of knowing if its new process is achieving the desired results. Furthermore, it lacks an important tool for reporting on the Excellence approach to congressional overseers, the public, and other State stakeholders such as other U.S. diplomatic agencies that must help pay some of the costs for constructing and maintaining new embassies.

OBO also lacks post-specific performance measures to track and evaluate the long-term performance of its embassies. According to Office of Management and Budget guidance, more than 80 percent of a building's total cost over its lifespan can consist of ownership costs such as operations, maintenance, and energy usage. When combined with front-end costs such as design and construction, these costs embody a project's "life-cycle costs."⁸⁴ OBO has attempted to address long-term operations and maintenance costs on the front-end by, for example, committing to include LEED Silver certification in its design standards since 2009, according to OBO officials. Other sustainability "stretch" initiatives OBO considers desirable (though not required) under Excellence include trying to achieve LEED Platinum certification, increasing use of renewable energy sources, reducing greenhouse gas emissions, and achieving net-zero energy and water consumption on its compounds, whereby enough renewable energy or water is generated to meet a post's requirements. OBO design standards also require design firms to incorporate operations and maintenance cost analysis into embassy designs through sustainability studies. From 2001 through 2015, in locations where OBO has constructed a new diplomatic compound,

⁸⁴The Office of Management and Budget defines the cost of a capital asset as its full life-cycle cost, including all direct and indirect costs for planning, procurement (purchase price and all other costs incurred to bring it to a form and location suitable for its intended use)—[e.g., site, design, and construction costs]—, operations and maintenance (including service contracts), and disposal.

OBO reported it has constructed 26 new LEED-certified embassy or consulate office buildings, 19 of which were SEDs.⁸⁵

However, despite the additional emphasis now focused on operations and maintenance on the front end during design, OBO has no post-specific performance measures related to operations and maintenance cost performance after a new embassy is constructed. One reason for this is the lack of available or reliable data. OBO officials stated that although some embassies do have utility meters on site, getting data from there back to Washington, D.C., is challenging. While OBO does have a data system in place to capture some operations and maintenance information, such as utility usage, it is dependent upon manual entry of data at each specific post. According to OBO officials, this lowers data reliability, and differences in data entry compliance by posts over time make historical analysis of operations and maintenance costs difficult. Also, while some posts have building-level meters for the main office building, other posts have compound-level utility meters that track data for multiple buildings, making broader data comparisons difficult across posts.

OBO is taking some steps to address this situation. According to OBO's 2016 Guide to Excellence, OBO is in the process of developing project and portfolio operations and maintenance cost assessment procedures to account for these costs over the estimated life of embassies. In 2016 OBO initiated an effort to develop a methodology and process to better assess the full life-cycle cost of its projects. OBO's July 2016 statement of work on its Life-Cycle Cost Assessment effort shows that OBO intends to develop a methodology and plan to assess the total cost of ownership of projects and facilities, which takes into account the costs of (1) acquisition, (2) design, (3) construction, and (4) operations and maintenance. According to OBO officials, this effort represents a gradual shift in OBO's orientation, whereby OBO's portfolio is expected to reflect less emphasis on new construction and greater attention to maintenance, repair, and renovations. Therefore, decisions must be made regarding what metrics should be tracked.

⁸⁵Additionally, 29 projects in design or construction are planned to achieve LEED certification; 16 of those are Excellence projects. Figures do not include other LEED certified projects, such as buildings that were renovated to LEED criteria, ancillary buildings such as a Marine Security Guard Quarters, or annex office buildings subsequently constructed on a compound such as those for the U.S. Agency for International Development.

OBO is also working with State’s Office of Management, Rightsizing, Policy, and Innovation on a pilot effort—called “MeterNet”—with the intent to install more metering systems on embassy compounds and to transmit performance data back to Washington. Under MeterNet, State intends to automate and improve the collection of data on electrical energy usage (both utility and renewable sources), water usage, and fuel consumption. According to OBO officials, MeterNet should relieve posts of manual data entry and also enable OBO to more accurately monitor, collect, and analyze more reliable data on sustainable energy and water performance. OBO anticipates that this in turn will enable facility managers to manage energy consumption data across State’s facilities, as well as analyze and track energy usage trends over time, such as energy per square foot or overall electricity demand. OBO has also been working with the Department of Energy to address challenges with its existing utility data system. According to OBO officials, OBO has not yet determined how MeterNet will interface with OBO’s existing data systems.

The steps OBO has taken to improve monitoring of post-specific operations and maintenance costs are at a very early stage. Until OBO clearly defines a process to assess the performance of its projects after construction and establishes reliable data systems to track and report this performance, OBO will lack an essential tool for determining whether completed projects—whether Excellence or SED facilities—are performing as intended by their designs from either a sustainability (e.g., energy and water usage) or an operating and maintenance cost standpoint.

OBO Is Exploring a Centralized Data Solution to Better Manage Projects and Track Cost and Schedule Performance

OBO currently lacks easily accessible data to provide overall project management information. During our review, we requested a variety of data related to OBO’s embassy construction projects from January 2001 through September 2015, such as contract award amounts, site acquisition costs, delivery method, completion dates, and other data. However, OBO was unable to easily provide such information. According to OBO officials, while these data did exist and could be retrieved, the data were not available in any centralized data source. Rather, each OBO office maintained separate data relevant to its own operations, and so consolidated and current data to provide overall project information were unavailable.

OBO offices consolidate certain project management information in periodic project performance reviews, whereby individual offices and project teams report on cost, schedule, and scope for specific embassy

projects. However, while this can facilitate some data retrieval from a specific ongoing project, according to OBO officials it can be difficult and time consuming to find information on older, completed projects for which there is no longer an active project team. We reported on similar data issues in September 2014, when OBO could not provide all of the real property files we requested, at that time also citing lack of centralized data, maintenance by different groups within OBO, and difficulty of retrieval.⁸⁶

According to federal internal control standards, quality information is an essential tool for agency management to achieve an agency's objectives.⁸⁷ According to these standards, a process should exist that uses the agency's objectives and related risks to identify the information requirements needed to achieve the objectives and address the risks. Furthermore, such data should be sufficiently relevant, reliable, and accessible to agency management. Additionally, OBO's 2011 Excellence decision memo cited the need for a comprehensive information technology platform that would integrate and make available all OBO project information; promote effective review, communication, and decision making; and support the maintenance and operations of completed facilities.

No such system existed at OBO in October 2015 at the time of our data request. In response to our request, OBO began assembling a wide range of project management data to fulfill our request as well as to better provide information to Congress. We received these data in the form of a spreadsheet 10 months later in August 2016. OBO officials attributed this delay to the aforementioned difficulty of retrieving historical project data as well as having to address concurrent information requests from Congress and State's Inspector General. The database we received covers projects from January 2001 through September 2015, includes many elements of the information we requested, and also includes some other information useful to OBO management. According to OBO officials, these data were compiled by OBO office units and project managers based on the latest documentation available.

⁸⁶GAO, *Overseas Real Property: State Department Needs to Improve Guidance and Records Management*, [GAO-14-769](#) (Washington, D.C.: Sept. 25, 2014).

⁸⁷[GAO-14-704G](#).

OBO recently established an initiative—termed the Ideal Operational State—to explore long-term ways to centralize and standardize data collection across OBO’s operations. According to OBO officials, this Excellence-related initiative is intended to provide a long-term data solution that will allow for better program management across OBO’s business activities as well as better tracking of project metrics such as cost and schedule performance. The study group tasked with assessing OBO’s current information technology systems and potential market alternatives held a kickoff in May 2016 and, after a series of working sessions and vendor evaluations, recommended a series of actions to OBO’s senior management, including an upgrade and modification of existing OBO management software. OBO management approved action on these recommendations in October 2016.

Until OBO develops an effective, centralized data system capturing essential and reliable project management data as well as cost and schedule performance across its project portfolio, not only will OBO management lack a critical tool for consolidating key project data, assessing performance, and guiding strategic oversight and internal control, but it will also be hampered in responding to oversight queries by Congress, GAO, and State’s Inspector General.

Conclusions

At the heart of OBO’s changes under the Excellence approach is the premise that greater design focus and control will produce more innovative, functional, and sustainable embassies that are just as secure as those built using the SED but that will be more cost efficient to operate and maintain. From fiscal year 2011 through fiscal year 2015, OBO has allotted hundreds of millions of dollars to fund more customized designs rather than applying a standardized design to build new embassies. Though a greater upfront investment in design may yield embassy improvements, it carries with it increased risk to project costs and schedule. While OBO is attempting to manage this risk, without strategic or project-level performance measures specific to the goals of Excellence, OBO cannot fully assess the merits of this new approach. Furthermore, as projects initiated during Excellence’s implementation come to fruition and begin operations, such measures will be essential to any long-term assessment of their performance. Establishing reliable data systems to measure, record, and report on building performance can help OBO management evaluate all costs that occur over a building’s lifespan. Further, centralized project management data are also needed to allow OBO to quantify and assess design and construction costs under Excellence for each project. While OBO has begun efforts to establish

such systems, it will take time to complete these initiatives and collect these crucial data. Nevertheless these steps are essential to creating safe and lasting buildings that best represent the United States while ensuring that projects make efficient use of resources and assess the value of shifting to the Excellence approach rather than continuing to use the SED.

Recommendations for Executive Action

To better assess OBO's performance, we recommend that the Secretary of State take the following four actions:

1. Determine whether the existing OBO program performance measure and annual target of moving 1,500 people into safe, secure, and functional facilities is still appropriate or needs to be revised.
2. Establish additional performance measures applicable to the new goals of the Excellence approach in support of the Capital Security Construction Program.
3. Finalize the mechanisms OBO will use to better track and evaluate the actual operations and maintenance performance of its buildings—whether Excellence or SED—and document through appropriate policies, procedures, or guidance.
4. Finalize the mechanisms OBO will use to centrally manage project management data (to include project cost and schedule information), currently termed the Ideal Operational State, and document through appropriate policies, procedures, or guidance.

Agency Comments

We provided a draft of this report to State for comment. State provided technical comments on the draft, which we incorporated as appropriate. State also provided written comments that are reproduced in appendix VIII. In its written comments, State concurred with our four recommendations and described actions planned or under way to address each of them. State said it will

1. Perform a comprehensive evaluation of its performance measure and annual target of moving 1,500 people into safe, secure, and functional facilities and determine whether that target remains appropriate.
2. Develop new metrics applicable to the Excellence approach.
3. Finalize the mechanisms it will use to better track and evaluate the actual operations and maintenance performance of its buildings,

stating that this will occur after its life cycle cost analysis methodology project produces its final report.

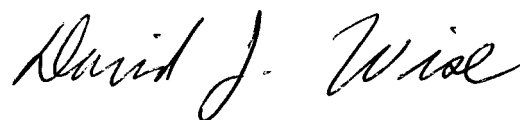
4. Finalize the mechanisms OBO will use to centrally manage project management data, noting that State expects the ultimate product of this multiyear effort to provide a comprehensive framework for managing project data.

We are sending copies of this report to the appropriate congressional committees and the Secretary of State. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact either Michael J. Courts at (202) 512-8980 or at courtsm@gao.gov or David J. Wise at (202) 512-5731 or at wised@gao.gov. Contact points for our Office of Congressional Relations and Office of Public Affairs can be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IX.



Michael J. Courts
Director, International Affairs and Trade



David J. Wise
Director, Physical Infrastructure Issues

List of Requesters

The Honorable Ron Johnson
Chairman
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Jason Chaffetz
Chairman
The Honorable Elijah Cummings
Ranking Member
Committee on Oversight and Government Reform
House of Representatives

The Honorable Ron DeSantis
Chairman
The Honorable Stephen Lynch
Ranking Member
Subcommittee on National Security
Committee on Oversight and Government Reform
House of Representatives

The Honorable Darrell Issa
House of Representatives

Appendix I: Objectives, Scope, and Methodology

This report examines (1) reasons for the Department of State's (State) shift to its Excellence approach, (2) key elements and trade-offs of the new approach, and (3) the extent to which State has established guidance and tools to implement and evaluate its Excellence approach.

To conduct this review, we obtained and analyzed information from State policy, planning, funding, and reporting documents, administrative memos, and select project documentation. We also interviewed officials from State's Bureau of Overseas Buildings Operations (OBO); Bureau of Diplomatic Security (DS); Office of Management, Rightsizing, Policy, and Innovation; and Office of Acquisitions Management. Within OBO, we spoke with officials from offices responsible for site acquisition, planning, project development, design and engineering, cost management, construction management, facility management, policy and program analysis, and financial management. We also interviewed officials from a variety of architecture and engineering (design) firms and construction contractors that have worked for State. Additionally, we met with experts from several industry groups. In general, we did not review acquisition plans, the complete contracts for each project, or the terms and conditions that could have impacted cost, schedule, and performance of any project.

To identify the reasons for State's shift to its Excellence approach, we analyzed relevant industry studies and OBO assessments from before the introduction of Excellence. We also examined the outputs from OBO's 2011 Excellence working groups as well as other Excellence documentation, such as OBO's "Guiding Principles of Design Excellence in Diplomatic Facilities" and OBO's 2011 memo approving the Excellence approach. Also, because the decision to adopt Excellence was made in 2011—and the work leading up to the decision was undertaken in 2010—we interviewed key former OBO officials with direct experience with OBO's efforts to improve the Capital Security Construction Program at that time, including some who served on OBO's management steering committee for Excellence.

To examine the key elements and trade-offs of the new approach, we collected and analyzed OBO policy and procedures directives, administrative memos, budget documentation, project authorization documents, design standards, and design-related documentation. We discussed changes in OBO's process with relevant officials from OBO, DS, and the Office of Acquisitions Management. We also discussed these changes with officials from design firms and construction contractors that had previously worked, or are currently working for State. Furthermore,

we consulted industry studies and spoke with experts from industry groups, including the American Institute of Architects, the Associated General Contractors of America, the Bridging Institute of America, and the Design-Build Institute of America to determine the trade-offs inherent to different delivery approaches.

To determine the extent to which State has established guidance and tools to implement and evaluate its Excellence approach, we examined changes to OBO's policies and procedures directives, design standards, standard operating procedures, and other guidance since 2011. We compared these changes to goals and recommendations from OBO's approval of Excellence and also reviewed an OBO-sponsored study of its implementation progress. Additionally, we reviewed strategic planning documentation, to include State's strategic plan, OBO's Functional Bureau Strategy, and State's Annual Performance Report. We also consulted federal standards for internal control and business process reengineering guidance.¹ We also met with officials from OBO and the Office of Management, Rightsizing, Policy, and Innovation to discuss efforts to evaluate embassy buildings and to improve OBO's data management.

To supplement our findings, we conducted a web-based survey of OBO staff from July 15 through August 12, 2016, soliciting their views on the sufficiency of OBO's strategic vision, policies, procedures, and technical guidance for the Excellence approach as well as any particular efficiencies or challenges brought about by the Excellence approach.² This survey was sent to 1,511 OBO staff, 705 (47 percent) of whom responded.³ We do not make any attempt to extrapolate our findings to the remaining 53 percent of eligible employees who chose not to complete our survey. The results of our survey provide measures of

¹GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999). Updated in 2014, see GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014). GAO, *Business Process Reengineering Assessment Guide*, [GAO/AIMD-10.1.15](#) (Washington, D.C.: May 1997).

²Those surveyed included both OBO direct hire and contracted support staff working at OBO's offices, which we refer to in the report generally as "OBO staff." In general, OBO staff comprises U.S. civil service staff, U.S. Foreign Service officers, and some contractors.

³We initially sent the survey to 1,531 OBO staff but later determined that 20 of them had left the agency or were duplicates. We determined these 20 to be out of scope and removed them from the overall population.

employees' views at the time they completed the survey in July and August 2016.

Because we surveyed all OBO staff, the survey did not involve sampling errors. To minimize nonsampling errors, and to enhance data quality, we employed recognized survey design practices in the development of the questionnaire and in the collection, processing, and analysis of the survey data. To minimize errors arising from differences in how questions might be interpreted and to reduce variability in responses that should be qualitatively the same, we conducted pretests with six OBO employees. To ensure that we obtained a variety of perspectives on our survey, we randomly selected one employee from each of the following offices to pretest the survey: Area Management; Construction, Facility, and Security Management; Design and Engineering; Planning and Real Estate; Program Development, Coordination and Support; and Security Management. Based on feedback from these pretests, we revised the survey in order to improve the clarity of the questions. An independent survey specialist within GAO also reviewed a draft of the questionnaire prior to its administration. To reduce nonresponse, another source of nonsampling error, we followed up by e-mail with employees who had not responded to the survey to encourage them to complete it.

To analyze open-ended comments provided by those responding to the survey, we conducted a content analysis in two steps. In the first step, analysts read the comments and jointly developed categories for the responses. In the second step, each open-ended response was coded by one analyst, and then those codes were verified by another analyst. Any coding discrepancies were resolved by the analysts agreeing on what the codes should be.

Additionally, many comments touched upon findings we developed through our separate audit work. We have included some of these comments for illustrative purposes in appendix III. Respondents generally provided more negative comments than positive ones; however, where possible, we have tried to present a balanced set of positive and negative comments. In some cases, we edited responses for clarity or grammar. Views expressed in the survey may not be representative of all OBO staff views on given topics.

We conducted this performance audit from August 2015 to March 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our

findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Results of GAO's Survey of Staff of the Department of State's Bureau of Overseas Buildings Operations

We conducted a web-based survey of the Department of State's (State) Bureau of Overseas Buildings Operations (OBO) staff from July 15 through August 12, 2016, soliciting their views on the sufficiency of OBO's strategic vision, policies, procedures, and technical guidance for the Excellence approach to the design and construction of U.S. embassies and consulates, as well as any particular efficiencies or challenges brought about by the approach.¹ We sent the survey to 1,511 OBO staff, 705 (47 percent) of whom responded.² We do not make any attempt to extrapolate the findings to the remaining 53 percent of eligible employees who chose not to complete our survey. The results of our survey provide measures of employees' views at the time they completed the survey in July and August 2016. The questions we asked in our survey are shown below. Our survey comprised both fixed-choice and open-ended questions. In this appendix, we include all survey questions and aggregate results of responses to the fixed-choice questions and the number of responses provided to the open-ended questions. We do not provide text of the responses to the open-ended questions. For a more detailed discussion of our survey methodology, see appendix I. For our summary analysis and selected examples of comments provided in response to open-ended questions, see appendix III.

¹Those surveyed included both OBO direct hire and contracted support staff working at OBO's offices, which we refer to in the report generally as "OBO staff."

²We initially sent the survey to 1,531 OBO staff but later determined that 20 of them had left the agency or were duplicates. We determined these 20 to be out of scope and removed them from the overall population.

**Numeric Responses to GAO's Survey of State's Embassy
Construction Program**

Demographic information

1. About how long have you worked with OBO?

<input type="checkbox"/> Less than 1 year	76 respondents
<input type="checkbox"/> 1 to 5 years	218 respondents
<input type="checkbox"/> 6 to 10 years	150 respondents
<input type="checkbox"/> 11 to 20 years	170 respondents
<input type="checkbox"/> More than 20 years	89 respondents
Provided no answer to this question	2 respondents

2. Which of the following categories best describes your position?

<input type="checkbox"/> Civil Service	264 respondents
<input type="checkbox"/> Foreign Service	214 respondents
<input type="checkbox"/> PSC ³	134 respondents
<input type="checkbox"/> Other: _____	86 respondents
Provided no answer to this question	7 respondents

3. How many new NEC/NCC⁴ projects have you worked on or supported as an OBO employee? Please do not include annexes or where you were covering for someone else.

<input type="checkbox"/> None	127 respondents
<input type="checkbox"/> 1 to 3	162 respondents
<input type="checkbox"/> 4 to 6	100 respondents
<input type="checkbox"/> 7 to 12	72 respondents
<input type="checkbox"/> More than 12	239 respondents
Provided no answer to this question	5 respondents

4. Where is your current posting?

<input type="checkbox"/> Headquarters (SA-6)	501 respondents
<input type="checkbox"/> Overseas	196 respondents
Provided no answer to this question	8 respondents

5. In which OBO office do you currently work?
OBO Front Office (FO):

<input type="checkbox"/> Director, Deputy Directors, all Managing	
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³Personal services contractor.

⁴New embassy compound/new consulate compound.

**Appendix II: Results of GAO's Survey of Staff
of the Department of State's Bureau of
Overseas Buildings Operations**

Directors, and executive staff	9 respondents
Planning and Real Estate (PRE):	
<input type="checkbox"/> Acquisitions and Disposals	11 respondents
<input type="checkbox"/> Master Planning and Evaluations	3 respondents
<input type="checkbox"/> Real Property Leasing	14 respondents
<input type="checkbox"/> Strategic Planning	16 respondents
Project Development, Coordination, and Support (PDCS):	
<input type="checkbox"/> Cost Management	11 respondents
<input type="checkbox"/> Design and Engineering	84 respondents
<input type="checkbox"/> Project Development and Coordination	40 respondents
Construction, Security, Facilities Management (CSFM):	
<input type="checkbox"/> Construction Management	120 respondents
<input type="checkbox"/> Facility Management	165 respondents
<input type="checkbox"/> Security Management	51 respondents
Operations (OPS):	
<input type="checkbox"/> Area Management	18 respondents
<input type="checkbox"/> Fire Protection	18 respondents
<input type="checkbox"/> Safety Health and Environmental Management	10 respondents
Resource Management (RM):	
<input type="checkbox"/> Financial Management	8 respondents
<input type="checkbox"/> Office of the Executive Director	25 respondents
<input type="checkbox"/> Policy and Program Analysis	5 respondents
Other:	
<input type="checkbox"/> Other: _____	52 respondents
<input type="checkbox"/> I'd rather not identify my office	42 respondents
<input type="checkbox"/> Provided no answer to this question	3 respondents

Program Direction

6. Do you agree or disagree with the following statements about the program direction of OBO's construction program? What perspectives or specific examples can you provide to illustrate your answers?

**Appendix II: Results of GAO's Survey of Staff
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		Outside my expertise	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	No opinion	No response	Number of written responses provided
a.	Since 2011, OBO senior leadership—Director, Deputy Directors, and Managing Directors—have effectively conveyed their strategic vision of what Excellence is.	71	91	148	104	106	108	75	2	267
b.	OBO senior leadership—Director, Deputy Directors, and Managing Directors—has successfully guided the organization in defining, implementing and supporting State's Excellence Initiative.	79	81	149	109	104	97	77	9	203
c.	The Excellence Initiative has generally improved the Capital Security Construction Program.	137	77	97	135	72	89	90	8	203
d.	Since 2011, OBO has provided clear and comprehensive strategic or long-term guidance to implement its planning, design, construction, and maintenance approach.	83	74	138	104	116	101	75	14	195
e.	Since 2011, OBO at an overarching level has established clear and comprehensive policies (e.g., PPDs, Foreign Affairs Manual, Foreign Affairs Handbook,) related to my job.	61	98	155	118	89	90	85	9	171
f.	Since 2011, OBO at an office level has provided clear and comprehensive standard operating procedures related to my job.	34	103	163	105	114	119	57	10	199
g.	Since 2011, OBO has provided clear and comprehensive technical standards and guidelines related to my job.	37	119	176	107	92	91	66	17	184

7. Since 2011, what, if any, benefits or efficiencies—related to how OBO now plans, designs, constructs, and maintains NECs/NCCs—have been introduced within your specific area of expertise (i.e., site acquisition, planning, cost estimating, project management, scheduling, design, construction, security management, and facility management)?

- We received 373 written responses to this question.

8. Since 2011, what, if any, challenges or inefficiencies—related to how OBO now plans, designs, constructs, and maintains NECs/NCCs—have been introduced within your specific area of expertise (i.e., site acquisition, planning, cost estimating, project management, scheduling, design, construction, security management, and facility management)?

- We received 387 written responses to this question.

9. To the extent you have knowledge, how would you characterize the Excellence program (roughly 2011 to present) as compared to the SED program (roughly 2001 to 2011) in terms of producing diplomatic facilities that are outstanding in all respects, including security, architecture, construction, sustainability, operations and maintenance?

1. The Excellence program is generally more effective than the SED program.	109 Respondents
2. The SED program is generally more effective than the Excellence program.	157 Respondents
3. The Excellence program is generally as effective as the SED program.	73 Respondents
4. No opinion/no basis to judge	345 Respondents
Provided no responses to this question	21 Respondents

9a. What specific examples regarding security, architecture, construction, sustainability, or operations and maintenance can you provide to illustrate your answer?

- We received 403 written responses to this question.

**Appendix II: Results of GAO's Survey of Staff
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Table 7: Responses on the Effectiveness of Excellence by Tenure at the Bureau of Overseas Buildings Operations

To the extent you have knowledge, how would you characterize the Excellence program (roughly 2011 to present) as compared to the SED program (roughly 2001 to 2011) in terms of producing diplomatic facilities that are outstanding in all respects including security, architecture, construction, sustainability, operations and maintenance?

Staff tenure	1. The Excellence program is generally more effective than the SED program.	2. The SED program is generally more effective than the Excellence program.	3. The Excellence program is generally as effective as the SED program.	4. No opinion/ no basis to judge.	No Response to this question.	Totals
Less than 1 year	6	4	1	61	4	76
1 to 5 years	31	27	15	143	2	218
6 to 10 years	29	33	11	72	5	150
11 to 20 years	29	64	26	44	7	170
More than 20 years	14	29	20	24	2	89
No Response to Tenure Question	—	—	—	1	1	2
Totals	109	157	73	345	21	705

Legend: SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Table 8: Responses from Major Bureau of Overseas Buildings Operations Offices on the Effectiveness of Excellence

To the extent you have knowledge, how would you characterize the Excellence program (roughly 2011 to present) as compared to the SED program (roughly 2001 to 2011) in terms of producing diplomatic facilities that are outstanding in all respects, including security, architecture, construction, sustainability, operations and maintenance?

Office	1. The Excellence program is generally more effective than the SED program.	2. The SED program is generally more effective than the Excellence program.	3. The Excellence program is generally as effective as the SED program.	4. No opinion/ no basis to judge.	No response to this question.	Totals
Facility Management	20	24	18	98	5	165
Construction Management	20	44	15	37	4	120
Design and Engineering	18	28	12	25	1	84
Security Management	3	21	5	21	1	51
Project Development and Coordination	13	8	3	16	—	40
12 remaining offices and 2 categories ^a	35	32	20	147	8	242
No response to office question	—	—	—	1	2	3
Totals	109	157	73	345	21	705

Legend: SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

**Appendix II: Results of GAO's Survey of Staff
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^aThe "12 remaining offices" are the Office of the Executive Director for Resource Management, Area Management, Fire Protection, Strategic Planning, Real Property Leasing, Acquisitions and Disposals, Cost Management, Safety Health and Environmental Management, Financial Management, Policy and Program Analysis, Master Planning and Evaluations, and the Bureau of Overseas Buildings Operations Front Office. These offices had 25 or fewer total responses. The "2 categories" are from our survey: "other offices" and "I'd rather not identify my office."

10. What additional information, if any, would you like to share in order to further elaborate on any of the responses you provided above?

- We received 338 written responses to this question.

Appendix III: Selected Comments from Our Survey of Bureau of Overseas Buildings Operations Staff, with Summary Tabular Analyses

Of the 705 respondents, 550 provided comments in response to at least one open-ended question in our survey of Department of State Bureau of Overseas Buildings Operations (OBO) staff. For specific questions, we analyzed and categorized respondents' comments and have reproduced selected comments below to characterize the results of that analysis. In addition, since many of the comments touched upon findings we developed through our separate audit work, we have also included some of those comments for illustrative purposes. Respondents generally provided more negative comments than positive ones; however, where possible, we have tried to present a balanced selection of positive and negative comments. In some cases, we edited responses for clarity or grammar. Views expressed in the survey may not be representative of all OBO staff views on given topics.

Table 9 summarizes the results of our analysis to categorize comments expressing opinions on the benefits and challenges of OBO's Excellence approach to the design and construction of new embassies and consulates.

**Appendix III: Selected Comments from Our
Survey of Bureau of Overseas Buildings
Operations Staff, with Summary Tabular
Analyses**

Table 9: Summary of Survey Comments Expressing Opinions on Benefits and Challenges Attributed to the Excellence Approach

Benefit comments	Quantity	Challenge comments	Quantity
Control/flexibility of designs and site selection.	39	—	
Aesthetic/ architectural improvement (“iconic designs”).	27	—	
Development and/or improvement of standards, processes, procedures, templates, documents, etc.	69	Lack of, inadequate, or inconsistent application of policies/procedures/standards/ systems; uncertain impact of new policies, etc.	175
Improved coordination; facilitating input from different stakeholders/internal teams; consensus and leadership around program objectives.	60	Inadequate coordination; failure to facilitate input from various stakeholders/internal teams.	82
Increased focus on maintenance/ sustainability/ life cycle analyses.	50	Not enough emphasis on maintenance/sustainability/ life cycle analyses.	62
Greater oversight of/cooperation with construction contractors; improvement of the commissioning process.	15	Inadequate oversight and/or training of contractors; issues related to contracts/contract management; issues related to commissioning.	76
Improved design review process.	13	Problematic/burdensome design review and/or certification process.	51
—		New/slow/problematic processes and/or requirements resulting from more complex and varied projects.	89
—		Schedule challenges; extended timelines.	88
—		Budget challenges; high costs.	86
—		Leadership/management issues.	80
—		Staffing issues.	47
—		Construction challenges.	26
—		Design errors and omissions.	28
—		Limited data tracking/sharing; difficulties measuring performance and results.	24

Legend: — = No contrasting comments were identified in this category.

Source: GAO analysis. | GAO-17-296

Note: In response to two questions asking for examples of (1) benefits or efficiencies and (2) challenges or inefficiencies, 421 respondents left 760 comments, some of which were counted in more than one category. Opinions expressed in the survey may not be representative of the opinions held by all Department of State Bureau of Overseas Operations staff.

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The two text boxes that follow contain selected narrative responses on, respectively, the top four most-cited benefits and the top four most-cited challenges of the Excellence approach.

Selected Survey Comments on the Top Four Most-Cited Benefits of the Excellence Approach

Development and/or improvement of standards, processes, procedures, templates, documents, etc.:

- The 2016 OBO Design Standards have greatly improved the design process.
- We've started doing constructability reviews during design, which is helpful at making sure the designers are realistic in what they propose and that projects can be implemented in the specific region.

Improved coordination; facilitating input from different stakeholders/internal teams; consensus and leadership around program objectives:

- The different offices in OBO seem to work more closely together through the life of the project. There is still some "stove-piping," but it generally works better than previous years.
- Seems to be better coordination between OBO and the embassies and consulates.

Increased focus on maintenance/sustainability/life cycle analyses:

- OBO has recently directed its attention to the large role Facility Management undertakes during and after the construction of [an embassy]. It takes OBO 3 to 5 years to get a [an embassy] constructed, but OBO Facility Management has the responsibility for operations and maintenance for [the embassy's] following 50 years of life. Facility Management now has a role in design and is working toward obtaining a meaningful role in the construction phase.
- Operations and Maintenance (O&M) are finally being brought into the full realm of planning, design, and construction of new facilities by current management. The greatest expense to the [U.S. government] is not in the planning or the design or the construction of new facilities, it is in the O&M of facilities over their 50-year average life cycle. OBO must bring greater focus as an organization on not just design excellence but on the "Total Ownership Cost" by incorporating the facility management experts and into every single facet [i.e., planning, design, construction, etc.] in order to minimize the O&M costs to the taxpayer over that 50-year life cycle. This will require resources, [which are] not currently at hand.

Greater control/flexibility of designs and site selection:

- My understanding is that previous to 2011 most projects were SED design-build. While this is a very efficient delivery method for some projects, it is not necessarily the best fit for every project. I believe that the Excellence Initiative provides the flexibility to review and select the most appropriate design and delivery method for each project taking into account the unique budget, schedule, and site-specific parameters each project has.
- Since 2011, we have co-led the effort to search for and legitimize smaller sites in downtown or urban locations. Prior to 2011, the practice was to find overscaled sites outside of the urban core. The Excellence initiative allows for greater flexibility and customization to a specific site (relative to SED), allowing for greater efficiencies. Those efficiencies can, and often do, lead to reduced construction and operational costs.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

**Appendix III: Selected Comments from Our
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Selected Survey Comments on the Top Four Most-Cited Challenges of the Excellence Approach

Lack of, inadequate, or inconsistent application of policies/procedures/standards/systems; uncertain impact of new policies, etc.:

- The transition from “design-build” back to “design-bid-build” construction has been poorly implemented. Project design documents have not fully achieved the transition to the level of quality and detail required for overseas “design-bid-build” construction. The effort to move from standard design documents has further made achieving the level of quality for construction and security more difficult.
- Clear, applicable, specific, and enforceable standards have been watered down or replaced with less specific and in some cases tentative suggestions. Senior OBO management has difficulty objectively articulating design excellence goals or even attempting to measure results. Contract performance in particular is difficult to measure or, in some cases not obtained due to lack of quantifiable criteria.

New/slow/problematic processes and/or requirements resulting from more complex and varied projects:

- Challenges have been introduced in realizing design intent in most of the underdeveloped countries that construction occurs in. Designs are complex and the materials exotic for the location. Inefficiencies have been introduced in requiring senior management reviews of [design-build] projects without fully defining what the intent of such reviews are. Challenges have been introduced in the constructability of building features. Challenges introduced with reliance on outside architect firms to develop plans and drawings and to judge design intent or answer questions.
- My required time spent on projects has at least doubled because of the policies put in place since 2011. In terms of improvements, more aesthetically pleasing facilities are being produced, but in my opinion the amount of effort required to attain good design is very disproportionate to the effort required to achieve this goal. This is due to a poorly organized process and a severe lack of communication throughout the organization.

Schedule challenges; extended timelines:

- Schedules are consistently moved forward with longer timelines to accomplish the design portion of the project.
- Planning and design take much more time and effort than before. Assurance of meeting security criteria is challenging, since every new embassy is a “one of a kind” project. More daunting is the process by which the Front Office approves design concepts. That alone has added 3 to 6 months to the planning and design schedule.

Budget challenges; high costs:

- Since no two posts have the same size, plan, finish materials, exterior components, or operating systems, I see no efficiencies whatsoever. The push for high initial budgets is to be able to cover the costs associated with the fancier design elements.
- Site acquisition is more difficult, and more costly than ever. Only urban locations and not cheaper bigger suburban sites are even considered. Project design costs are exponentially higher through the Excellence program. Higher costs mean fewer projects being planned for or constructed in any given year.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

**Appendix III: Selected Comments from Our
Survey of Bureau of Overseas Buildings
Operations Staff, with Summary Tabular
Analyses**

Table 10: Summary of GAO’s Analysis of Survey Comments Expressing Positive and Negative Opinions toward the Excellence Approach to the Design and Construction of New Embassies and Consulates

Positive comments	Quantity	Negative comments	Quantity
Aesthetic/architectural improvement (“iconic designs”)	62	Excellence prioritizes design over functionality	27
Control/flexibility of designs and site selection	42	—	
Excellence embassies demonstrate an increased focus on maintenance/ sustainability/life cycle analyses	31	—	
Excellence embassies are more secure	11	Standard Embassy Design (SED) faster, more efficient, more cost effective at building safe/ secure facilities	32
Improved coordination; facilitating input from different stakeholders/ internal teams; consensus and leadership around program objectives	10	—	
SED and Excellence both have positive and/or negative attributes; no or minimal difference; appropriateness of either program depends on the type of project or metric used to compare			41
—		Excellence costs more compared with SED (“budget challenges”)	74
—		Excellence takes more time compared with SED (“schedule challenges”)	64
—		Excellence introduces new/ slow/ problematic processes and/or requirements resulting from more complex and varied projects	51
—		Under Excellence (compared with SED): Lack of, inadequate, or inconsistent application of policies/ procedures/ standards/ systems; poor communication of policies, etc.	38
—		Under Excellence (compared with SED): Inadequate oversight and/or training of contractors; issues related to commissioning; issues related to contracts/ contract management	22
—		Under Excellence (compared with SED): Staffing issues	19
—		Under Excellence (compared with SED): Problematic and/or burdensome design review/ certification process	17
—		Under Excellence (compared with SED): Leadership/ management issues	14
—		Excellence buildings too complex for many locations	13

Legend: — = No contrasting comments were identified in this category.

Source: GAO analysis. | GAO-17-296

**Appendix III: Selected Comments from Our
Survey of Bureau of Overseas Buildings
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Note: In response to one question comparing SED to Excellence, 403 respondents left comments, some of which were counted in more than one category. Opinions expressed in the survey may not be representative of the opinions held by all Department of State Bureau of Overseas Buildings Operations staff.

Selected Survey Comments Regarding the SED and Excellence Approaches

- The SED model streamlined many processes which apparently translated into a more expedient overall delivery of new facilities. The Excellence program successfully addresses many of the SED program drawbacks (“embassies looking similar and like fortresses”), however, at a price (arguably longer and more expensive projects). The decision clearly needs to be made whether it is worth that price.
- While the SED program was severely limiting, it is my belief that there is a middle ground between the SED and the Excellence program—where OBO has a set of standards, specifications, and requirements that are clearly communicated to the design firm while allowing them to customize the footprint and design features of the building. OBO has buildings in its portfolio that were built using “SED Criteria” that are not “prison-like” and forbidding. It can be done in a thoughtful and efficient way that would appeal to people architecturally. In plain words—OBO didn’t have to throw the baby out with the bathwater.
- On the positive side, designing unique facilities improves the aesthetics of the U.S. presence abroad and sets an example for building system efficiency and innovative systems to the world. On the negative side, each unique design requires re-inventing the wheel and creates additional challenges for the designer to integrate physical and technical security, as well as accounting for building maintenance and upkeep. These designs are often difficult to implement overseas, and the state-of-the-art systems are difficult to maintain in some countries with unique equipment and a significant increase in facilities staff. Unique designs are more difficult and frequently more expensive to implement, creating an impact on time and cost.
- The Excellence program designs buildings that are architecturally pleasing, but in order to achieve nice aesthetics and achieve the security mandates that embassies must adhere to, I believe a cost premium exists in order to meet the aesthetics of the embassies designed under the Excellence program. I think a compromise can be achieved, and in that compromise some cost savings could be realized, but in my opinion the pendulum has swung completely opposite that of the SED, and the evidence is in a cost comparison between the embassies designed under the SED program to those designed under the Excellence program.
- The designs of [embassies] are more challenging or difficult to introduce, implement, and execute. Every design is unique and different, takes longer to evaluate, and requires more coordination; more issues are encountered that need to be resolved. The construction of [embassies] is also more challenging or difficult to execute. The distinct construction materials used are more expensive, take longer to procure and transport, and are more difficult to install. Therefore, the schedule is longer, especially if there are more issues encountered during design and construction, and the cost of construction and contingencies are much higher.
- SEDs were all about schedule and budget and when either of these were threatened, things were de-scoped or glossed over. Many times those were support annexes (shops, storage facilities) that allowed the facilities to be properly maintained or morale/welfare/recreation facilities or amenities, meaning that these things had to be added after the fact, putting a great deal of pressure on posts. Excellence does a better job in terms of incorporating architectural features, energy efficiency and sustainability design, and delivering a fully realized compound.
- I believe that the Excellence program produces a better product and platform for diplomacy; however, most of us also acknowledge that the SED program gave us the ability to execute faster when needed. They should not be mutually exclusive. There are principles in the SED that can be applied and probably should not have been just “thrown out.” It should have been a good solution for an expeditious need, in a place where appropriate. We also know that it did not work well everywhere, and in places with stringent code, zoning, or other restrictions (including the desire to operate in an urban context), it was definitely not a good solution. As long as the Front Office doesn’t focus solely on aesthetics, the Excellence program should produce some outstanding facilities that have far more flexibility than the SED, better functionality, and improved suitability for the country in which they reside.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Appendix III: Selected Comments from Our Survey of Bureau of Overseas Buildings Operations Staff, with Summary Tabular Analyses

Many responses to open-ended questions in the survey touched upon issues we reviewed through our separate audit work. We have included some of these responses for illustrative purposes in the text boxes that follow. In some cases, we edited comments for clarity or grammar.

Selected Survey Comments on Concerns with SED

- The SED program was a failure for site specific implementation. It is generally known around OBO that there was no such thing as a real SED building. Due to the technical requirements and the site specific requirements, all SED compounds required adaptation, usually at significant cost and time.
- The SED had plenty of problems. Yes, the main issue was the boring and unimaginative concrete box; however, it did produce embassies. There is a middle road that opens up the options and opportunities for improved design without going overboard.
- The SED program was effective in quickly and efficiently providing safe and secure facilities to perform diplomatic activities overseas using the [design-build] delivery method. However, the designs were not very attractive and didn't represent the best in American architecture.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Selected Survey Comments on the Desire to Improve Embassies under the Excellence Approach

- The Excellence initiative is a better way to design the [State] Department's projects and buildings. It takes advantage of innovation in the design generated by architects and engineers from different points of view. The SED program produced more and more generic buildings that translated into more or less a template mentality.
- The architecture is less fortress-like, more approachable to local populations, more culturally sensitive (more diplomatic). It is more attractive and something that Americans can be prouder of, as well as being greener and increasingly sustainable.
- From my limited experience with OBO, it appears as though the Excellence program attracts better design firms to the program. Better design firms should result in a better end product. The Excellence program also appears to result in more excitement from the host country and allows for embracing culturally specific designs.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Selected Survey Comments on Industry and Senior OBO Management Design Reviews

- The incorporation of the Industry Advisory Reviews gives design firms real-time feedback from their peers on not only how to support the Excellence program, but how to save costs and make buildings more efficient during the design process.
- I think that the new processes are moving forward, and we are seeing some positive results with stronger designs and hopefully, construction. For example, there were positive reactions by both the staff and private sector architects to the Industry Advisory Reviews that I attended.
- Too much time and effort is spent on reviews by OBO Front Office and outsiders. Front Office seems to be inconsistent in what it wants in a design and will change its mind from one review to the next. We are hiring professional design firms. They should be able to do their jobs.
- The design process has been significantly impacted by the introduction of numerous senior management and Industry Advisory Group reviews. These reviews are expensive and time consuming. An independent evaluation of their value versus their cost is warranted.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Appendix III: Selected Comments from Our Survey of Bureau of Overseas Buildings Operations Staff, with Summary Tabular Analyses

Selected Survey Comments on OBO Guidance Related to the Excellence Approach

- I do believe OBO as a whole is trying to maintain and keep up with outdated policies. In my observations OBO is very understaffed or doesn't have the right mix of professionals necessary to maintain policy and regulations.
- There is no mention anywhere of changes to the security program brought on by Design Excellence. In my opinion, no one has ever thought through what it means to construct anything other than a SED. There is no Design Excellence guidance for security professionals.
- The Guiding Principles are widely available to staff and clearly reflect the vision of the senior leadership.
- The Design Excellence guide took 2 years to write; then they wanted the operations and maintenance piece added but gave us initially only 2 weeks.
- Case in point. Just yesterday an OBO notice came out on the Excellence Initiative. No doubt it had something to do with the timing of this [GAO] survey.
- OBO has been working to modify policies and procedures directives (PPDs), etc.; however, it takes time, and it is difficult to get people to take the time away from their regular duties to step back and look at policies.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Selected Survey Comments on the Need for Excellence-Specific Performance Metrics

- I have not seen any performance metrics that compare before/after the Excellence Initiative.
- What are the performance metrics used to measure this [Excellence]?
- Senior OBO management has difficulty objectively articulating Design Excellence goals or even attempting to measure results.
- I am not aware of any metrics for evaluating the "Excellence" of a project and the many facets involved in assessing a building.
- What metrics does OBO employ to measure "effectiveness" or "efficiency," specifically, strategically? Answer: none. Each project takes as long as it takes. The project costs what it costs.
- Several presentations have been given and a few documents produced to try to articulate Design Excellence; however, much of the concept is subjective, due to the emphasis on architecture, and cannot be measured or effectively monitored for performance.
- There are no real performance measures; total operations and maintenance costs are unknown.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

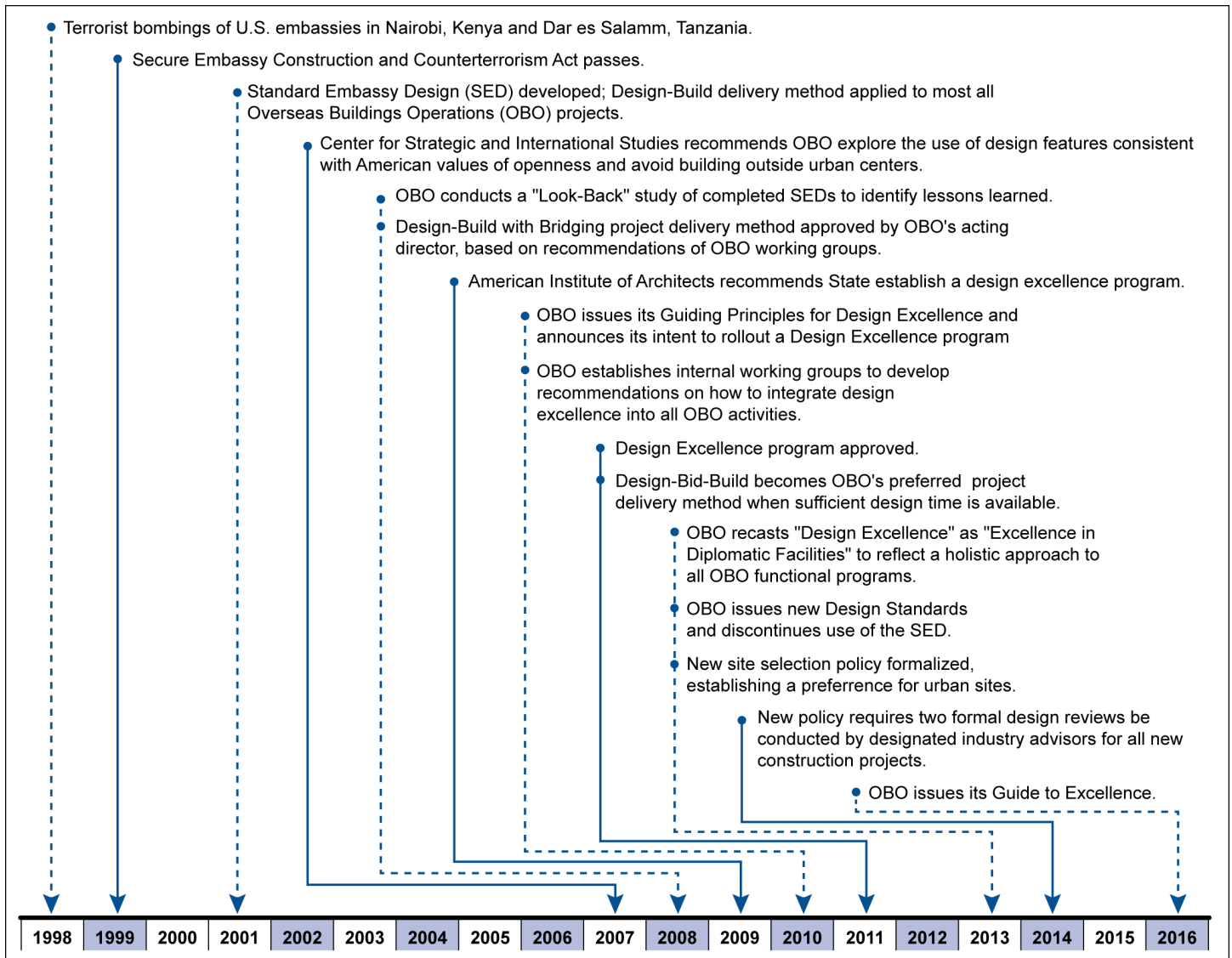
Selected Survey Comments on the Need for Better Project Data and Systems

- Project database does not have a user manual or guide, either. Who does this? Why create a database and never provide a user guide or how-to manual for the user of the data? We are supposed to have a new and better projects database.
- We used the same databases/networks and computers for the last 10+ years. Not enough server space to store the size/volume of electronic files/docs that we produce. The "Ideal Operational State" research/data collection effort, however, we hope, will resolve some of these technological issues.
- The Ideal Operational State effort is an excellent opportunity to manage the Life Cycle Cost Analysis of the entire business process life cycle. The existence of the Ideal Operational State, while itself a very good thing, indicates the need for more strategic alignment of process with and definition of a vision.

Legend: OBO = Bureau of Overseas Buildings Operations; SED = Standard Embassy Design.

Source: GAO analysis. | GAO-17-296

Appendix IV: Timeline of Department of State Bureau of Overseas Buildings Operations, Standard Embassy Design, and Excellence



Source: GAO based on Department of State documentation and other sources cited above. | GAO-17-296

Appendix V: Guiding Principles of Excellence in Diplomatic Facilities; U.S. Department of State Bureau of Overseas Buildings Operations

Guiding Principles of Excellence in Diplomatic Facilities; U.S. State Department Bureau of Overseas Buildings Operations (OBO)	
Guiding principle	Intent
Purpose and function	Embassies and consulates have two essential purposes: to be safe, secure, functional, and inspiring places for the conduct of diplomacy, and to physically represent the U.S. government to the host nation.
Site	The site and location of an embassy have practical as well as symbolic implications. OBO will develop sites that best represent the U.S. government and its goals, and enhance the conduct of diplomacy. Whenever possible, sites will be selected in urban areas, allowing U.S. embassies to contribute to the civic and urban fabric of host cities.
Design	OBO will evaluate designs on the basis of their success in skillfully balancing requirements, and on how well the design represents the United States to the host nation. Designs are to be functionally simple and spatially flexible to meet changing needs and be enduring over time. An official embassy style will be avoided. Designs will be cost-effective. Each design will be responsive to its context, to include the site, its surroundings, and the local culture and climate. The designs will make use of contextually appropriate and durable materials and incorporate the latest in security and safety features. The grounds should be functional and representational spaces. They will be sustainable, include indigenous plantings, and incorporate existing site resources, such as mature trees.
Engineering	The facilities will incorporate advanced methods, systems, technologies, and materials appropriate to the facility and local conditions, including the site, climate, natural hazards, security, and the practical reality of construction, maintenance, and operations in the host nation.
Safety and security	The safety and security of staff and visitors is paramount. Designs and construction will meet or exceed all security and safety standards and specifications.
Sustainability	Buildings and grounds will incorporate sustainable design and energy efficiency. Construction, maintenance, and operations practices will be sustainable.
Architectural and engineering professional services	OBO will hire leading American architects and engineers. Selection will be based on the quality of their design achievements and portfolio of work. The selection methodology will be open, competitive, and transparent.
Construction and craftsmanship	Construction professionals will be engaged throughout the process to ensure the best possible design and implementation. OBO is committed to selecting the most qualified building contractors with a record of delivering high quality projects.
Operations and maintenance	Operations and maintenance professionals will be engaged throughout the design and construction process. Buildings and sites will be economical to operate and maintain and will utilize equipment and materials that are durable, dependable, and suitable. Designs will be based on life-cycle analysis of options that take into account long term operations and maintenance.
Art	Embassy buildings and grounds are an opportunity to showcase the best of American and host nation art and culture. OBO is committed to integrating art into its facilities such that each property will be both an individual expression of Excellence and part of a larger body of work representing the best that America's designers and artists can leave to later generations.
Historically, architecturally, or culturally significant properties and collections	OBO is committed to preserving the State Department's historical, cultural, and architectural legacy. The Secretary of State's Register of Culturally Significant Property is the official listing of important diplomatic architecture overseas and properties that figure prominently in our country's international heritage.

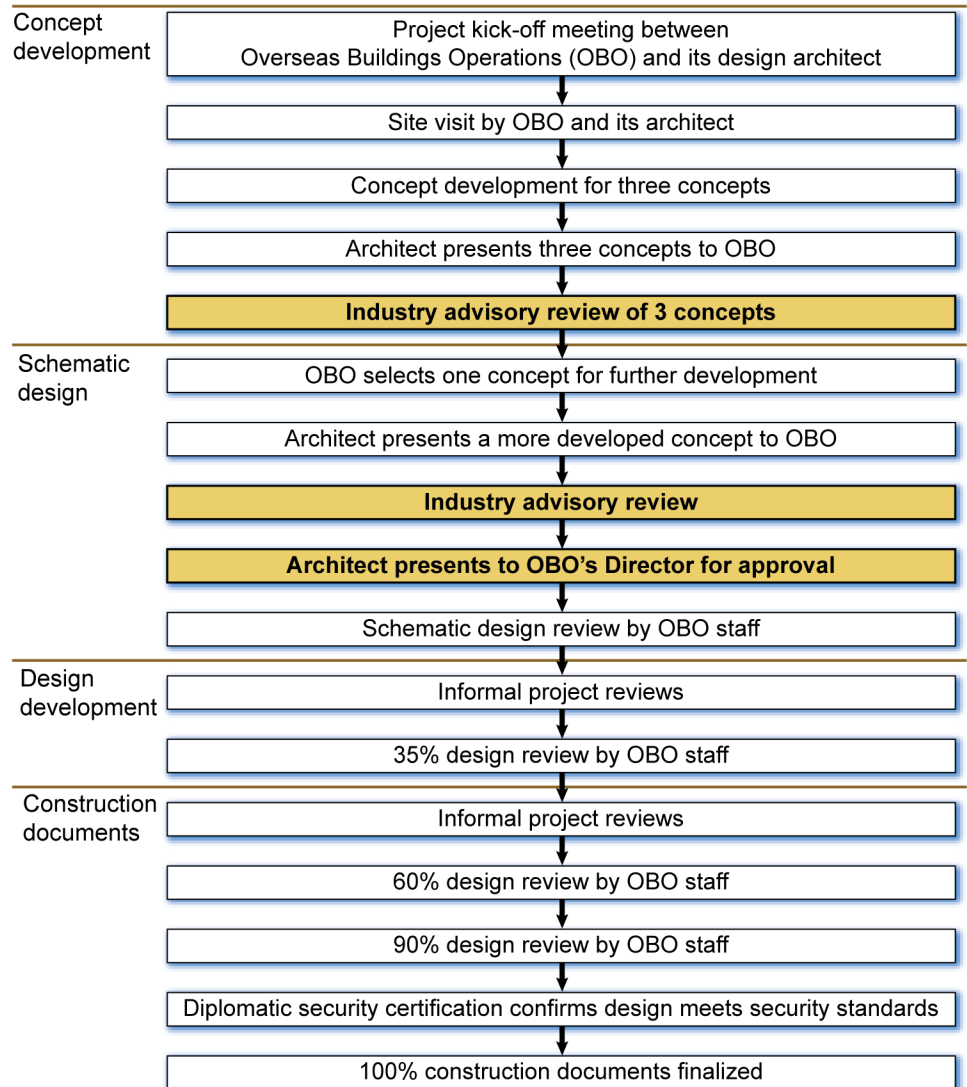
Source: GAO based on Department of State documentation. | GAO-17-296

Appendix VI: Approaches to Achieve Excellence; U.S. State Department, Bureau of Overseas Buildings Operations

Approaches to Achieve Excellence; U.S. State Department, Bureau of Overseas Buildings Operations (OBO)	
Strategy	General Intent
Holistic approach to project delivery	Project teams include all key stakeholders such as users, tenant agencies, and OBO disciplines, as well as members of the architectural, engineering, and construction contractor teams.
Information technology (IT)	OBO's IT platform integrates and makes available all project information, promoting effective review, communication, and decisionmaking during project development, construction, maintenance and operations.
Project delivery methods	OBO uses either Design/Build or Design/Bid/Build. Neither delivery method is a default. Context, complexity, construction environment, and urgency are evaluated when selecting a method for each project.
Sites	OBO recognizes the representational and symbolic importance of site location. OBO has revised site scoring criteria to acquire sites in urban areas. OBO considers redevelopment of strategically-located U.S. government owned sites.
Architect and engineer (A-E) selection	OBO contracts with the most talented A-E firms, whether long-established or emerging new firms. The selection process focuses on the portfolio of work, team members, and past performance.
Design process	OBO effectuates high-quality design through design processes such as on-site design charrettes, on-board working sessions, constructability and maintainability reviews, senior management approvals, and peer reviews.
Design goals	The Guiding Principles outline the fundamental design goals of all of our projects. These include the integration of purpose, function, security, safety, flexibility, sustainability, maintainability, and art.
Ensuring long-term value	OBO uses sustainability principles and life-cycle cost analysis to ensure that facilities provide the lowest overall long-term cost of ownership, consistent with quality and function.
Construction contractor selection	OBO is working to expand the pool of contractors and reach out to new emerging firms to promote competition and ensure the best outcome.
Best value contract award	OBO is using the Best Value method, which includes factors such as past performance and team qualifications, as well as consideration of lifecycle costs in the evaluation process.
Early contractor involvement	OBO involves construction contractors in early stages, particularly on long-term and complex projects, to ensure the best outcome and reduce risk.
Operations and maintenance	Reference guides and training programs are developed for each major project. The guide includes information such as design intent, systems information, maintenance requirements, and troubleshooting. This ensures that facilities are operated and maintained properly and that future modifications to the building are in keeping with the original design intent.
Guide to Excellence	A Guide to Excellence in Diplomatic Facilities has been released on the OBO website (www.state.gov/obo). The guide is comprehensive and highlights how Excellence goals and priorities will be achieved in each phase of a project. The Guide is a basic "how to" manual.
Revised architectural and engineering design guidelines	Design requirements have been revised to support Excellence. The requirements emphasize high-performance buildings, flexibility and best design practices, while moving away from a fixed solution.
Recognizing Excellence	An Excellence awards program is in development. The program will recognize projects that exemplify Excellence.

Source: GAO based on Department of State documentation. | GAO-17-296

Appendix VII: Timing of Industry Advisory Reviews within the Bureau of Overseas Buildings Operations Design Process



Source: GAO analysis of Department of State documentation. | GAO-17-296

Appendix VIII: Comments from the U.S. Department of State



United States Department of State

Comptroller

Washington, DC 20520

Charles M. Johnson, Jr.
Managing Director
International Affairs and Trade
Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548-0001

FEB 21 2017


Dear Mr. Johnson:

We appreciate the opportunity to review your draft report, "EMBASSY CONSTRUCTION: State Needs to Better Measure Performance of Its New Approach" GAO Job Code 100233.

The enclosed Department of State comments are provided for incorporation with this letter as an appendix to the final report.

If you have any questions concerning this response, please contact John Pette, Senior Program and Policy Advisor, Office of Policy and Program, Bureau of Overseas Buildings Operations at (703) 875-5105.

Sincerely,


Christopher H. Flaggs

Enclosure:
As stated

cc: GAO – Michael J. Courts
OBO – William Moser (Acting)
State/OIG - Norman Brown

Department of State Comments on GAO Draft Report

**EMBASSY CONSTRUCTION: State Needs to Better Measure Performance
of Its New Approach**
(GAO-17-296, GAO Code 100233)

The Department of State's Bureau of Overseas Buildings Operations welcomes the opportunity to comment on the GAO draft report, "*EMBASSY CONSTRUCTION: State Needs to Better Measure Performance of Its New Approach.*"

OBO has reviewed the recommendations provided in the draft. OBO concurs with GAO's first recommendation, to determine whether the existing OBO program performance measure and annual target of moving 1,500 people into safe, secure, and functional facilities is still appropriate, or needs to be revised. OBO will perform a comprehensive evaluation of this performance metric and determine whether the target remains appropriate. If not, OBO will introduce an alternate measure.

OBO concurs with the second recommendation, to establish additional performance measures applicable to the new goals of the Excellence approach in support of the Capital Security Construction Program. In order to measure the effectiveness of elements of the Excellence in Diplomatic Facilities Initiative, OBO will develop performance metrics to assess the execution and delivery of its projects. These will be tied to the Bureau's strategic plan, which is reviewed annually and updated every three years.

OBO concurs with GAO's third recommendation, to finalize the mechanisms it will use to better track and evaluate the actual operations and maintenance performance of its buildings – whether Excellence or SED – and document through appropriate policies, procedures, or guidance. In 2016, OBO engaged in a complete life cycle cost analysis methodology project. The goal was to take an in-depth look at OBO's processes, practices, and procedures, compare and contrast them with best industry practices, and make recommendations to the bureau. The initial data gathering began in August 2016. Upon finalization of the report, OBO will determine which recommendations to implement as part of its long-term effort to evaluate the performance and maintenance needs of its buildings.

OBO concurs with the fourth recommendation, to finalize the mechanisms it will use to centrally manage project management data (to include project cost and schedule information), currently termed the Ideal Operational State (IOS), and

-2-

document through appropriate policies, procedures, or guidance. OBO's IOS initiative will deliver ready, reliable, and relevant information, enabling data-driven decision making across the bureau through an integrated enterprise system. The full implementation of the information systems is a multi-year effort, but the ultimate product will provide a comprehensive framework for managing project data.

Additional Observations

In addition to the recommendations, OBO offers the following observations on the draft report:

- OBO notes that GAO provided the survey exclusively to OBO employees, and considered the opinions of the occupants of the buildings outside the scope of the study. OBO considers the opinions of the technical and non-technical occupants of the buildings to be additional key elements in assessing the results of its construction efforts.
- In discussing the survey results, the draft report states, "OBO's staff had split opinions regarding the Excellence approach compared to the SED approach." OBO notes that this was true during the SED era as well – people were divided as to which delivery method was best. OBO has observed differences in opinion on this topic, both internally and within industry, typically divided between disciplines. Each delivery method has its advantages and disadvantages and OBO employs the one that best aligns with conditions of each project.

Appendix IX: GAO Contacts and Staff Acknowledgments

GAO Contact

Michael J. Courts, (202) 512-8980 or courtsm@gao.gov

David J. Wise, (202) 512-5731 or wised@gao.gov.

Staff Acknowledgments

In addition to the contact named above, Leslie Holen (Assistant Director, International Affairs and Trade), Michael Armes (Assistant Director, Physical Infrastructure), David Hancock, John Bauckman, Eugene Beye, Melissa Wohlgemuth, and Elisa Yoshiara made key contributions to this report. Technical assistance was provided by David Dayton, Jill Lacey, Alex Welsh, and Neil Doherty.

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