

ABSTRACT

Title of Thesis: Rethinking Diplomatic Architecture

Degree candidate: Eric H. Faughnan

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Thesis directed by: Brian P. Kelly AIA, Associate Professor

David Cronrath, AIA, Dean and Professor

Robert L. Vann, Ph.D and Professor

This thesis challenges the nature of current diplomatic buildings constructed abroad by the United States. The United States embassy and consulate, driven by fear of terrorism and the resulting requisite for security, has regressed from a dignified diplomatic center to an imposing fortress. Serving as a chief symbol of the United States abroad, an embassy should be a modest yet impressive structure, demonstrating diplomatic goals, fostering goodwill, and allowing access.

In many capital cities within the Middle East and Europe, these symbols of America are often secluded from the urban core and are not an adequate representation of our nation. The new compound on the outskirts of Istanbul, Turkey demonstrates this contrast as it replaces the downtown, historic Palazzo Corpi with a daunting, hilltop fortress. Many building types have demonstrated successful implementation of security features while remaining in the public view and maintaining admirable design. In current times, embassy design must incorporate security features and still respect culture of the host country, employ innovative construction techniques, and demonstrate the American ideals in a way that are polite yet sincere.

RETHINKING DIPLOMATIC ARCHITECTURE

By

Eric Hewlett Faughnan

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of the requirements for the degree of
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Advisory Committee: Brian P. Kelly AIA, Associate Professor, Chair

David Cronrath, AIA, Dean and Professor

Robert L. Vann, Ph.D and Professor

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DEDICATION

The work in this thesis is dedicated to all friends and family that have supported me through my educational journey. You all have impacted my life in significant ways.

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PREFACE

The United States Diplomatic Post is a building type that has suffered the consequences of a world of distrust and fear. Focusing on Istanbul, Turkey, this thesis attempts to propose a consulate that provides security while maintaining a presence downtown. Design principles of the consulate proposal include: defining a street edge, expressing a reserved presence downtown, allowing the ability to invite public guests, defining entrances clearly, directing visitor promenade based on need, providing public space for gathering, demonstrating and teaching cultural ideals, connecting directly to urban routes, residing alongside foreign diplomatic buildings, and to protecting employees and visitors.

The thesis focuses on finding a superior site, first in the world, and then within Istanbul. Concurrently, it seeks to identify precedents that meet the design goals of the project, of the Embassy typology and other typologies. The thesis also researches current security and defensible space practices, the history of United States diplomatic post design, and theories presented throughout time regarding foreign diplomatic posts. The end proposal seeks to create a design that balances the seemingly conflicting ideals of security and openness.

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INTRODUCTION

In traveling to many countries within Europe, it is apparent that the United States is misunderstood and criticized. The government is seen as a powerful leader that is fearful of demise and therefore must act in a way to protect and defend its status. Though these characteristics are arguably true to an extent, they are amplified through the appearance of current government architecture. Contemporary foreign diplomatic missions appear as more of a fortress than a bridge between two countries.

The Problem: Security and Openness

The United States must create embassies abroad that respect the culture of foreign countries while demonstrating American ideals. A balance between both security and diplomacy must be maintained to convey both power and openness. Structures should employ the most current technology while carefully acknowledging the site and context in order to produce an impressive intervention that displays innovation and dignity along with restraint and modesty. Sustainability should be demonstrated, not only as a way to minimize the embassy's effect on the foreign country and to create a comfortable living and work environment, but also to proclaim America's standard for environmental protection.

The United States has failed to create international embassies that adhere to these ideals. Diplomatic posts have been allowed to become glass boxes and office blocks which ignore regional context and sustainable development. We have allowed "embassy campus compounds" which are hidden from public view and do not attest to the values of the United States. Even worse, we have placed embassies resembling fortresses within

the urban core of foreign cities. These forbidding structures deaden urban space through tall blast walls, small windows and unused “no man’s land” surrounding the compound. Unique innovation, design, and detailing, which should be tied to local cultures and building practice, has been replaced by bland office blocks which are nameless, minus a bald eagle plaque or American flag. The American diplomatic post is a building type that has suffered the effects of a world afraid of conflict.

This thesis proposes to study ways to balance all of the different problems proposed by the United States Embassy building type. Studies of how to create security without the use intimidating design, how an American building should appear in a foreign country, how to avoid bland office blocks which emanate corporate ideals, how to appropriately site a diplomatic post within the reach of visitors, and how to incorporate advanced building technology into a government building will be integral to this thesis.

CHAPTER 1: THE ROLL OF ARCHITECTURE IN DIPLOMACY

Diplomacy as a Bridge

The appearance of a building can directly communicate meanings to both users and observers. As diplomacy is the art of peacefully mediating between two cultures, the diplomatic post should figuratively act and appear as a bridge. Bridges have been used throughout history to make connections. They are accessible nodes for individuals separated by a natural boundary to stop and meet or to pass through. Bridges provide memories and vistas as one crosses over an otherwise impossible separation. Bridges become an integrated part of the landscape where they stand. The presence of a bridge displays a sense of trust as it physically and visually links two places. Connecting territories of different goals, ideals, and beliefs is not without difficulty. A bridge must be prepared to accept conflict. Bridges control access and can be secured to stop movement. In times of conflict bridges are eliminated to sever all ties between boundaries. Eliminating or blocking a bridge betrays all sense of distrust and fear. Severing ties only further widens boundaries.

The opposite of a bridge is a barrier. Forts throughout time use barriers. Fortifications attest to the fears of those that inhabit them. They physically and visually sever any connection between the outside world and accentuate the confinement within. The fortress stands in contrast to the landscape around. The fort is self-sufficient and proclaims the desire to withdraw entirely from its surroundings. Fortresses imply and invite conflict. The United States has designed the diplomatic mission as a walled fortress, reminiscent of the middle ages. Few are invited, all are scrutinized, and no one

desires to visit. The post is often placed far from the city, on a remote hilltop where visitors travel only from necessity. The surrounding wall conflicts with its surroundings, displaying a sense of dominance and retreat. This is the only window an outsider has to the nation that has accepted the roll of leader within the globalized community.

The United States must eliminate the fortress as a symbol to other nations. Diplomatic missions must be considered a bridge between nations. They should be fully integrated within access to all that wish to visit. As a bridge they should be open for anyone who wishes to pass, yet controllable during times of conflict. They should account for conflict while maintaining openness, trust, connection and dependence.

How Architecture Creates Meaning

Architecture is a powerful symbol of the political context by which it is created. A casual observer can often distinguish the difference between an architectural work commissioned for “sanctuary or a reign of terror”.¹ Often monumental political buildings leave an imprint on the memory of the viewer. Cities are most often remembered by their unique and compelling built works. Often works with a positive connotation become a symbol of the city. For example, the Pantheon in Rome becomes largely symbolic of the city, reminiscent of a historic time period. Architecture that does not necessarily have a positive connotation in a city is often less advertised. EUR in Rome, a capital city built under Fascism, is seldom discussed or presented, as stripped classicism now communicates feelings of absolute dictatorship for many Italians.

¹Lawrence Vale. 1992. *Architecture, Power, and National Identity*. Routledge: London. 3.

Philosopher Nelson Goodman analyzes how architecture creates meaning in his article “How Buildings Mean”.² In his article, he identifies four ways that a building can invoke feelings within us including denotation, exemplification, metaphorical expression, and mediated reference. Denotation includes all direct quotes, symbols, and inscriptions present on an architectural work. This is the most direct way to make a statement through architecture, and why many government buildings include plaques on the façade or within the foyer that make a bold statement or contain a moving quote. Exemplification creates meaning through dramatic gestures of the built form within the urban scale or the building scale. A building at the end of a dramatic axis, such as the Arc de Triompe in Paris that terminates the Champs de Elysee, becomes important due to its placement within the urban fabric. In the same manner, a grand room located as a central piece to an architectural work also becomes a prestigious element of the plan. Metaphorical expression creates meaning through an allusion to history. Government buildings often take the form of a historic building type in order to invoke feelings. Goodman provides the example of the Lincoln Memorial, designed to mimic a Greek Temple, with Lincoln’s grand statue in place of a Greek god. A last way Goodman argues that buildings create meaning is through historical knowledge. If a building is associated with an event in history, such as a monument, it will continue to remind viewers of the event.

² Vale, 1992, 3.

Definition of Embassy, Diplomatic Mission and Chancery

The formal definition of an embassy is a building occupied by the offices of diplomatic mission headed by an ambassador.³ Often the term embassy is used loosely to refer to any diplomatic mission, even if a formal ambassador is not present. A diplomatic mission is defined as an entity which permanently represents a sending state in a receiving state.⁴ The word permanent reminds the designer that any architectural work will remain as a symbol to the country it is representing and no design decision should be treated as insignificant. A consular post is a diplomatic mission in a receiving state that has agreed to accept a head of post.⁵ Consulate General structures by the United States represent the embassy in a receiving state, but are located outside of the receiving state's capital. These are used to create local points for consular services in countries that are too large for many citizens to travel to the presiding embassy. Historically, these were constructed to facilitate trade.

The Necessity of Diplomacy in Current Times

As the world becomes smaller through globalization, states must rely on diplomacy to keep peaceful relations. Furthermore, international issues such as sustainability, financing, and trade all require networks facilitated by diplomatic posts.

³G. Berridge and Alan James. 2003. *A Dictionary of Diplomacy*. Palgrave Macmillan: Hampshire. 92.

⁴ Berridge and James, 2003, 76.

⁵ Berridge and James, 2003, 54.

Designing Government Buildings

Government buildings such as diplomatic posts often incorporate impressive atriums and gathering spaces alongside monotonous office blocks. Offices tend to create a relentless rhythm that can be broken up by hierarchical rooms and courtyards.

Designers make the decision to either make government buildings stand out from the context or design a more conspicuous building that recedes in the landscape. A more prominent building may create undesired attention, while a bland building may be uninteresting to anyone.

Designing Promenade

Diplomatic posts must cater to multiple user groups at the same time. A consulate visitor is a citizen of the receiving state or an American tourist that requests permission to enter the consulate for the purpose of obtaining a visa or other service. A visitor may also visit to simply gain knowledge from a library or other portion of the visitor's center. An invited guest would be a diplomat or other executive invited to the consulate compound. This person may attend a convention or have business in one of the specific consular offices. The consulate employee works in one of many offices within the consulate. This user group attends meetings, lounges in the courtyard or cafeteria, and greets guests. A successful diplomatic post must create clear promenades for each of these user groups.

Why the U.S. Must Re-Examine Diplomatic Architecture

The United States must rethink the decision to create fortresses in all receiving states around the world. Not only is the decision detrimental to foreign perceptions of the United States, but it also creates a social barrier for any potential visitor of a United States diplomatic post.

CHAPTER 2: HISTORY OF THE UNITED STATES DIPLOMATIC ARCHITECTURE

Presently, several sources outline detailed information about the history of United States diplomatic mission design. These sources include Jane Loeffler's book "*The Architecture of Diplomacy: Building America's Embassies*" and article "*The Architecture of Diplomacy: Hayday of the United States Embassy-Building Program, 1954-1960*" as well as Ron Robin's book titled "*Enclaves of America*". Information presented in this chapter is a summary of the detailed history outlined in these sources.

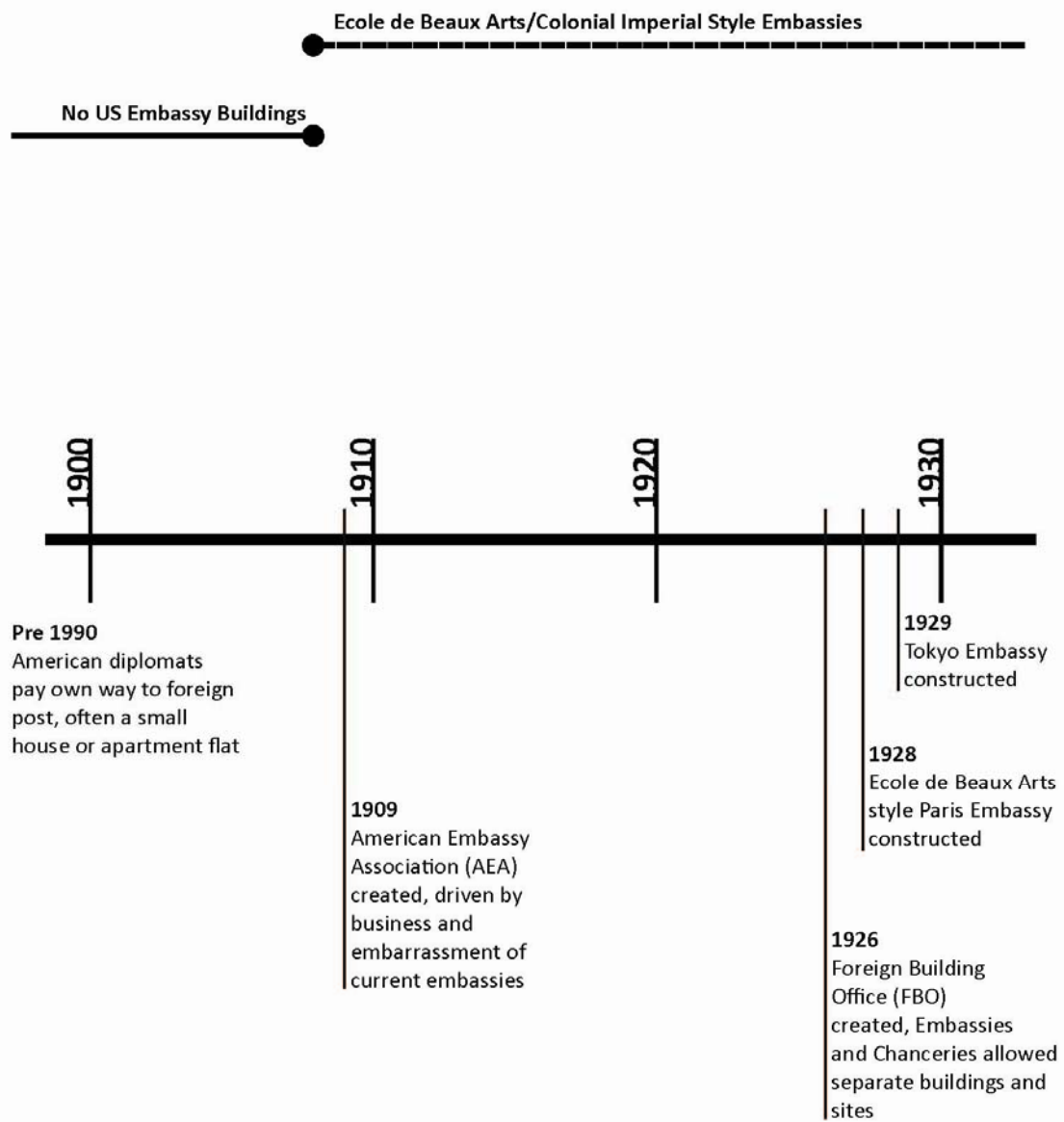


Figure 1: Timeline 1900-1930. Image by author.

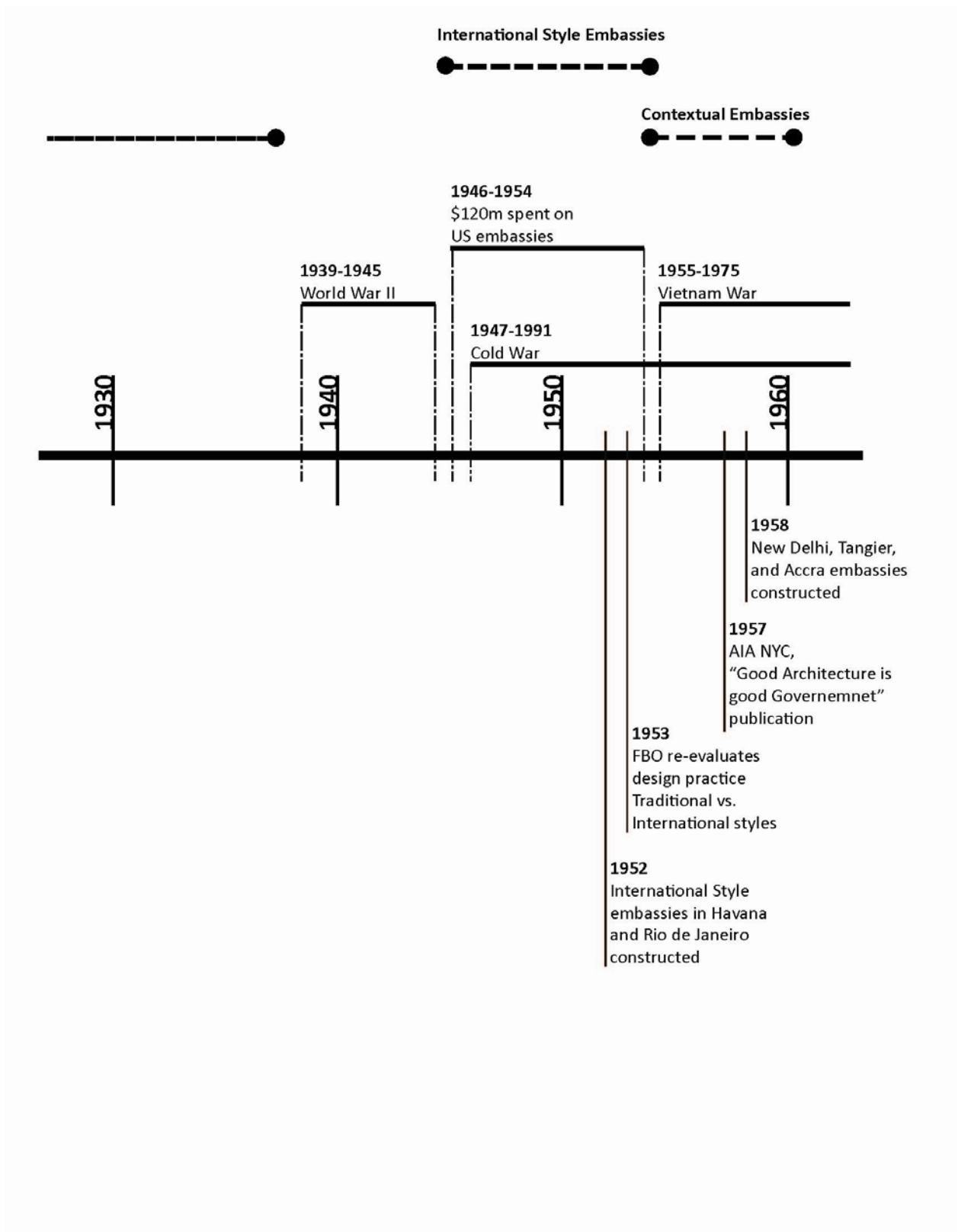


Figure 2: Timeline 1930-1960. Image by author.

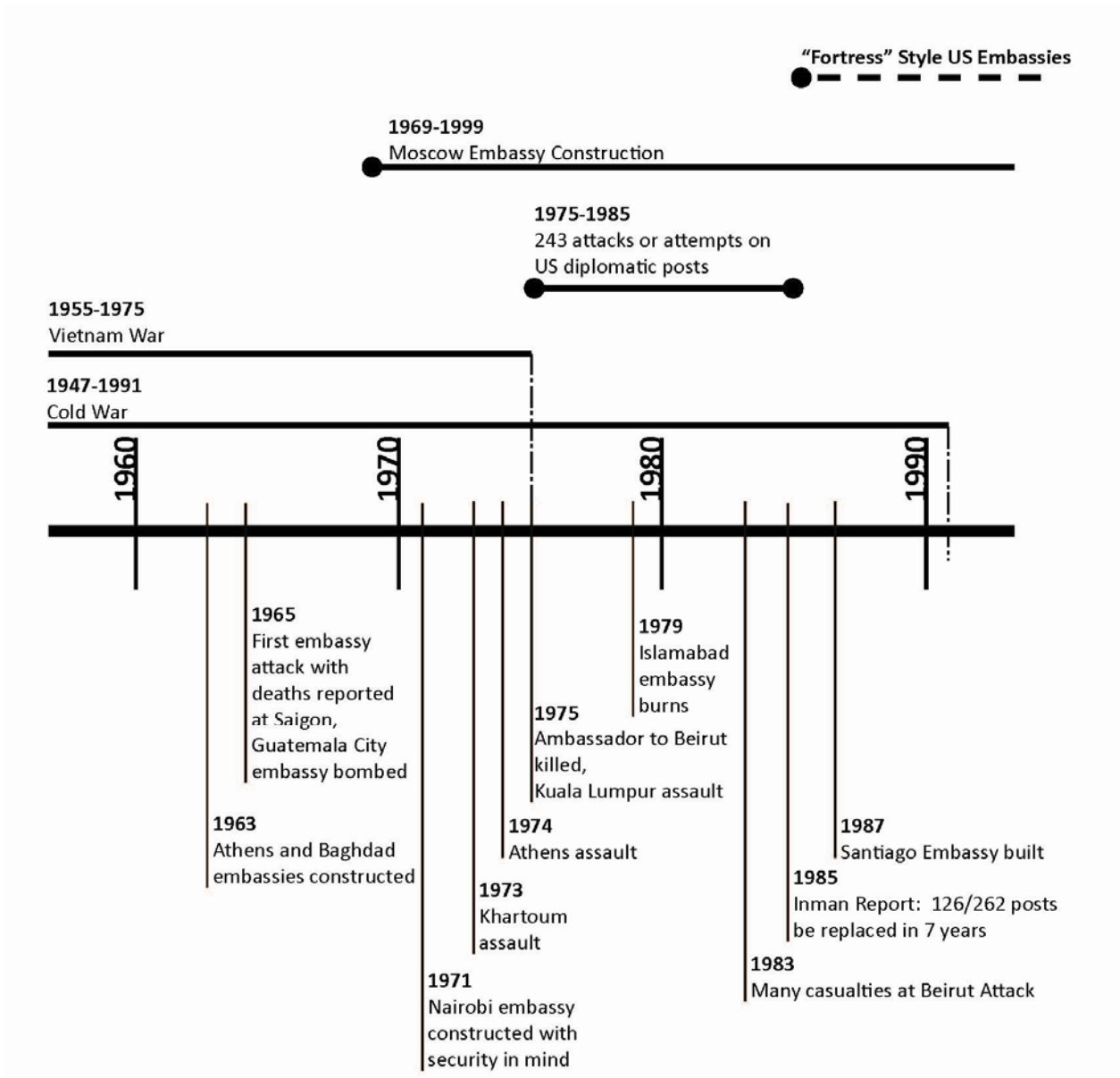


Figure 3: Timeline 1960-1990. Image by author.

"Fortress" Style US Embassies

1969-1999

Moscow Embassy Construction

1947-1991

Cold War

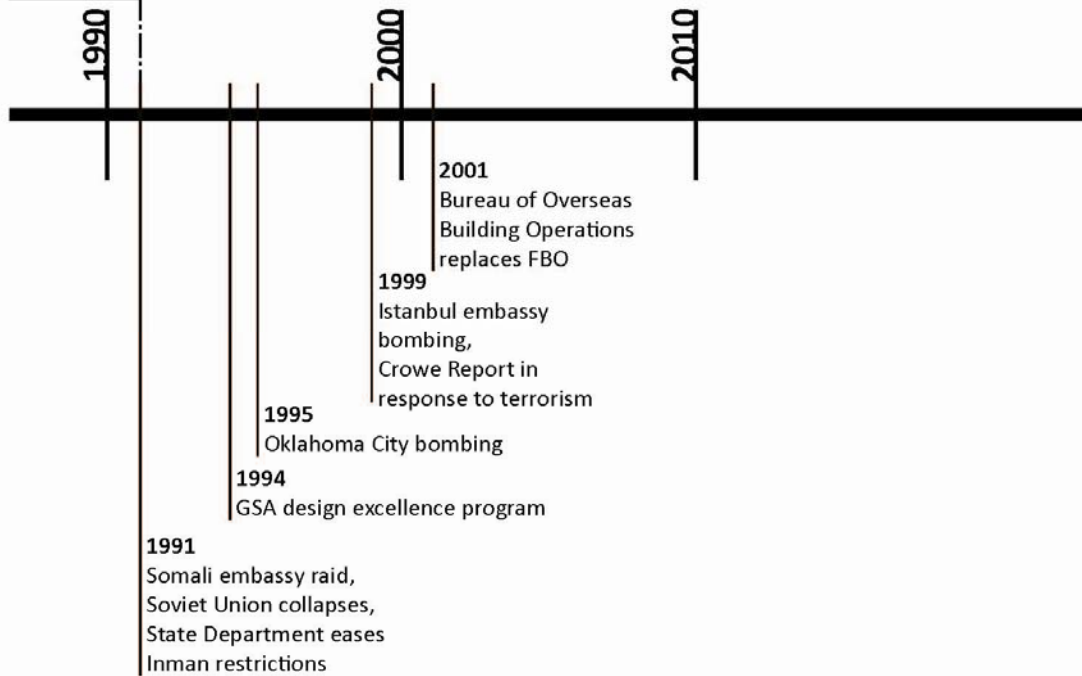


Figure 4: Timeline 1990-2010. Image by author.

History of United States Embassy Design

The United States began slowly obtaining and developing foreign property in 1900. Before the 20th century, ministers, as the United States preferred to label diplomats, were required to rent their own housing abroad. These living quarters doubled as offices and were often a small house or apartment flat. Driven by the capitalist desire to conduct trade and business worldwide, the United States implemented the American Embassy Association (AEA) in 1909. The AEA declared that “better embassies mean better business” and that often Americans have been ashamed at “appearing poverty-stricken” in countries “commercially below third or even fourth rate powers”.⁷ With no precedent except for foreign countries’ diplomatic structures, early embassies appeared as Beaux Arts style buildings of stone and refined classical detailing. In 1929, a former graduate of the Ecole des Beaux Arts, Chester Delano, and his mentor, Victor Laloux designed an “instant image of permanence and self-importance” in the classical style⁸. These symmetrical structures formed a U-shape around a central courtyard. The form allowed the ambassador’s quarters to be flanked by an office and servant wings.

Following World War I, America became more serious about foreign relations and created the Office of Foreign Building Operations (FBO) in 1926. The office was to oversee the construction of U.S. diplomatic missions abroad and would ensure the quality and aesthetics of such structures. Being an international power, America desired to

⁶ Information presented in the timeline is taken from Loeffler, 1990. Loeffler, 1992. And Robin, 1992.

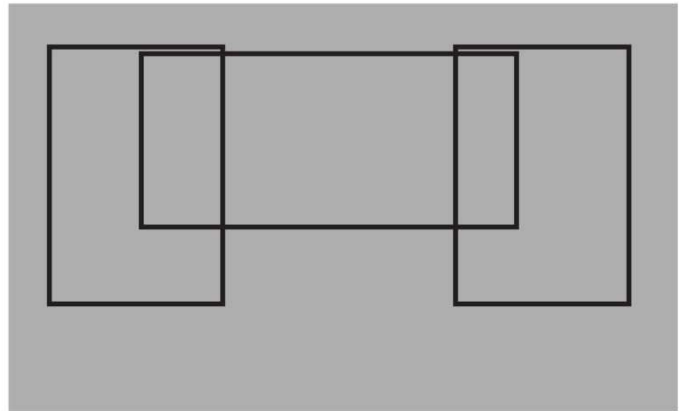
⁷ Jane C. Loeffler. 1990. “The Architecture of Diplomacy: Hayday of the United States Embassy-Building Program”, 1954-1960.” *Journal of the Society of Architectural Historians* 49: 251-278. Accessed October 25 2010. <http://www.jstor.org/stable/990518>. 252.

⁸ Loeffler 1990, 253.

create not only functional buildings, but symbols abroad.⁹ In the time period leading to the Second World War, American embassies continued to appear traditional and began to mimic colonial plantations. The elitist, extravagant, and luxurious architecture of Beaux Arts buildings now communicated feelings of corruption, tyranny, and dissolution.¹⁰ Colonial architecture communicated a “New World” style uninfluenced by foreign countries. The colonial style appropriately corresponded with ideals of permanence and power.¹¹ Ignoring foreign context, these embassies represented a seemingly appropriate architecture to denote all-American imperialism.



pre 1909
Offices on one floor of apartment building
least secure



1910
U-shaped European palatial residence plan
ambassador living quarters in center, flanked by offices and servant areas
open court for security

Figure 5: Pre 1909 Embassy and Early European Influenced Plan. Image by author.

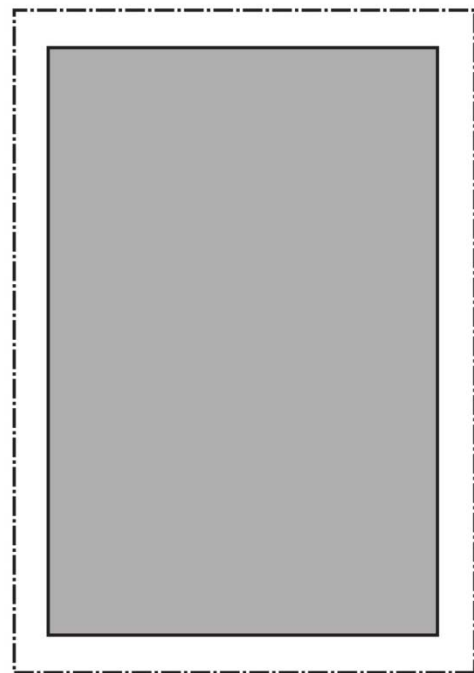
⁹ Ron Robin. 1992. *Enclaves of America: The Rhetoric of American Political Architecture Abroad, 1900-1965*. New Jersey: Princeton University Press. 63.

¹⁰ Robin, 1992, 68-69.

¹¹ Robin, 1992, 73-83.

The success of World War II changed American perception in the world, diplomatic practice and embassy design. Funding was finally available to create diplomatic structures throughout a devastated and indebted Europe. European property could be attained by the United States by subtracting debts from the war; money that would have otherwise been lost. No longer could the United States be depicted exclusively through classical architecture, but its image was projected through corporate and modern design. The International style theoretically announced a contemporary world power that had built itself through capitalism and innovation. Through 1954, SOM designed several glass and steel corporate offices buildings within Germany for the FBO. Harrison and Abramovitz, architects, followed suit in the United States Embassies to Rio de Janeiro and Havana.¹²

Through this time period a debate over the appropriate appearance of a U.S. Embassy between FBO chairman Leland King and Assistant Secretary of the State Edward Wales persevered.¹³ King argued that the United States should appear as modern



1952
glass and steel international style embassies
sun shades for climate control
unsecure, windows often broken, shades scaled

**Figure 6: International Style Embassies by SOM.
Image by author.**

¹² Loeffler, 1990, 255.

¹³ Loeffler, 1990, 255-259.

and state-of-the-art as possible while Wales persisted that traditional architecture best displayed the grandness of America¹⁴. This argument, though never fully settled may have spawned what Jane Loeffler titles “The Hayday of the United States Embassy-Building Program”. From 1954 until 1960, a board assembled by the FBO reviewed the designs of prominent architects who were charged with designing the next wave of U.S. embassies. The FBO states that embassies were to create “goodwill by intelligent appreciation, recognition, and the use of architecture appropriate to site and country”.¹⁵ For the first time, the argument revolved around making good architecture, rather than attempting to dictate an appropriate style. The architects on the committee recognized the importance of being contextual within a site abroad. Site specific design would not only aid in temperature control, as glass boxes often created uncomfortable working environments, but would hopefully aid in foreign perception. In theory, building in reference to context would demonstrate an appreciation for local culture and therefore generate goodwill between the United States and foreign countries.

¹⁴ Loeffler, 1990, 257.

¹⁵ Loeffler, 1990, 257.

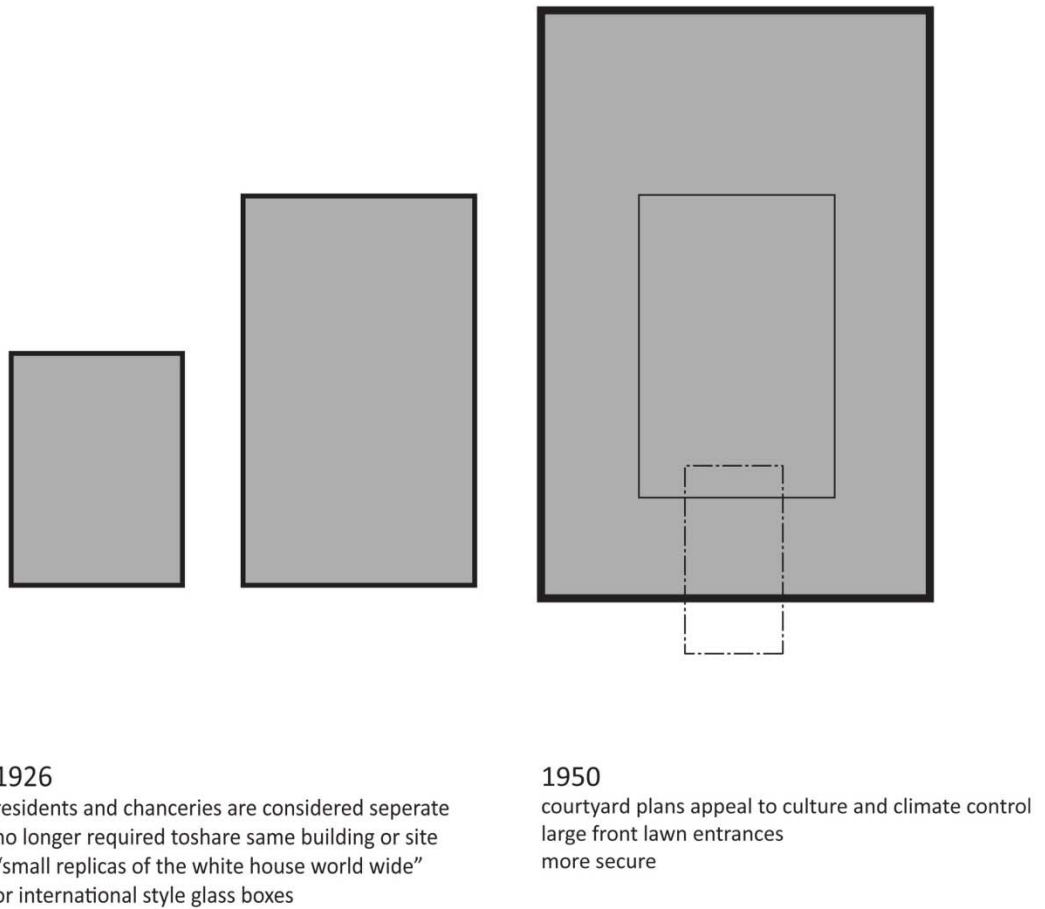


Figure 7: Separation of Residential and Diplomatic Mission and Courtyard Embassy Plan. Images by author.

Embassies constructed during this time period are worthy of further study and several will be analyzed in depth later on in this chapter. Architects such as Walter Gropius, Edward Stone, Marcel Breuer, and Eero Saarinen contributed timeless structures to the growing collection of United States Embassies world-wide. Unfortunately, historic events inhibited continued development of contextual design in the building type.

Ada Louise Huxtable explicitly described the problem of United States diplomatic missions: “embassies had two strikes against them; they are big and they are different”.¹⁶ As early as 1930, James McDonald, the executive director of the Foreign Policy Association warned that, “As long as Americans continue to boast that they are different from and better than other nations they are sowing the seed of much ill feeling among other nations”.¹⁷ Security, always a part of diplomatic architecture, slowly became the driving force behind the building type’s aesthetics. From 1964 to 1965, twenty-five American diplomatic missions, many of which were constructed during the 1950’s, were attacked.¹⁸ These demonstrations displayed no violence towards defenseless Americans, but focused on the destruction of American flags and literature. In 1965, these demonstrations turned to attacks on embassy employees. During this year three workers were killed in Saigon and a bomb, lodged within the decorative screen of the Guatemala City embassy building, exploded.¹⁹ A wealth of other attacks including a mass homicide in Beirut and attacks in Athens, Islamabad, and Khartoum led the FBO to reevaluate the practice of embassy design and construction.²⁰ The need for security rendered many embassies useless for diplomacy, especially those constructed in the International style. Glass was easily shattered and tacked on sun shading devices became ladders for intruders. Embassies fronting the street in urban areas were also considered unsafe and vulnerable to bombs. These attacks, coupled with an embarrassing bugging of the Moscow Embassy by Russian construction workers, demonstrated the necessity for

¹⁶ Robin, 1992, 137.

¹⁷ Robin, 1992, 35.

¹⁸ Robin, 1992, 137.

¹⁹ Loeffler, Jane C. 1998. *The Architecture of Diplomacy: Building America’s Embassies*. New York: Princeton Architectural Press. 242.

²⁰ Loeffler, 1998, 242.

security in American diplomatic buildings. The FBO responded to the lack of security with intentions to halt “experimental” design and to create conspicuous American posts.²¹

A continued wave of attacks fueled by the Vietnam War and continuing afterward, required immediate action of the FBO. Between 1975 and 1985, 243 attacks on American diplomatic missions drove the Inman Report, which proposed the replacement of 126 out of 262 U.S. diplomatic posts within seven years.²² Contextual American design was now replaced with hidden fortresses placed outside of the urban core. What was once a prominent building type became a “deliberately inconspicuous” structure, “tucked behind high walls” as a decree of “the low profile of Americans abroad”.²³

Even with updated security features and strict guidelines, attacks never subsided on American embassies. In 1999 the world witnessed a terrorist bombing of the British Embassy in Istanbul. Situated near the former U.S. Embassy in Palazzo Corpi, the United States felt confidence in the recent decision to relocate to a hilltop fortress away from the urban core. In 1997 Somali terrorists bombarded a new U.S. embassy by scaling the nine foot perimeter wall. Explosions, looting, and killing of Somali employees followed²⁴.

The need for security within U.S. diplomatic structures came at an inopportune time during the Cold War. As the Soviets used “Houses of Culture” to spread propaganda, preaching the goals of communism, America was without a building suitable

²¹ Robin, 1992, 164.

²² Loeffler, 1998, 245-246.

²³ Robin, 1992, 172.

²⁴ Loeffler, 1998, 249.

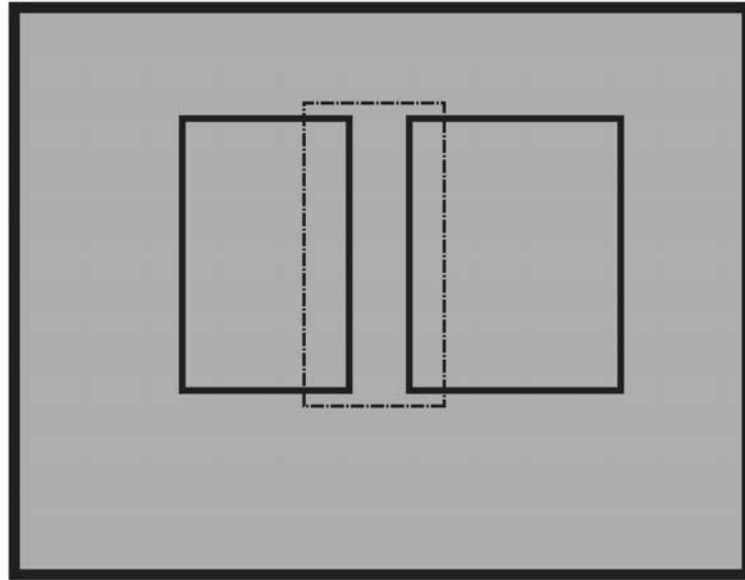
to proclaim the superiority of democracy. It was not until 1991, as the Soviet Union collapsed, that the Department of State allows the FBO to vary the rules of the Inman Report based on the country and site. Despite this allowance, embassies today generally appear as foreboding, walled fortress, hiding the bland or innovative architecture within.

Standard Embassy Design (SED)

Currently, in an effort to ensure efficiency in the construction of embassies, the Department of State has mandated rules under Standard Embassy Design (SED). The document, though continuously refined, mandates how an embassy should look and function as it includes “best practices....such as life cycle value engineering, sustainable design, energy conservation, accessibility, maintainability, force protection, and appropriate architectural expression”.²⁵ Acting as an embassy “kit of parts”, SED allows the government to select a small, medium, or large embassy composed, of nine meter square bays, complete with two office blocks connected by a central atrium. The mandate leaves little room for architectural exploration and is created for design-build contractors. Since 2002, 48 U.S. Embassies have been constructed using this document.²⁶ SED tends to ignore the site context and requires consulates to be placed well outside of the city.

²⁵ U.S. Department of State. 2010. “Standard Embassy Design.” Accessed November 2010. www.state.gov/obo .

²⁶ U.S. Department of State, 2010.



Present - SED (Standard Embassy Design)
oversized site for expansion
two office blocks flanking an atrium
highly fortified and secure
minimum interior finishes
established building entrances, core elements, and structural grid
parking and zoning
available in Small, Medium, or Large
zoning as representational, building, or service

Small = 10 acres (New London is 6 acres)
Medium =
Large = 104 acres (Iraq)

Figure 8: Standard Embassy Design General Layout. Image by author.

Theories that have Driven Embassy Design

Many different architectural styles and theories have existed throughout the history of United States Embassy design. Despite the architectural solution, the architectural goals of an embassy have remained constant. The 1983 Architectural Advisory Panel to the State department summed up the goals of embassy design as a way to “demonstrate a sound understanding of both the historical conditions and the building customs of the host country” with an addition of “American flavor” and reflection of “the highest standards of architecture and construction”.²⁷ This statement sets the basic goals of an American building abroad, but it does not specify the extent to which the architect

²⁷ Robin, 1992, 150.

applies these goals. Throughout history, there has been no answer to embassy design that has been unanimously considered an appropriate answer to all of these goals. Architects have experimented with varying levels of monumentalism, contextualism, technology, historical reference, and nationalism defining multiple theories of how an embassy should be designed.

Classicism

An early theory of embassy design, presented from the birth of United States diplomatic architecture in 1909, is to use traditional motifs while incorporating innovative building practice. These embassies reflect the imperial architecture of Washington D.C. which conveys ideals of democracy in ancient Greece and Rome. This style arguably follows the connotations of prestige displayed within the United States and should be followed abroad.²⁸ This theory was often applied to early embassies that mimicked American plantations, Roman palazzi, or Greek temples which sprang up worldwide. Delano and Aldrich's successful embassy in Paris represents a style that portrays government buildings in America, with which Americans are comfortable. The notion of creating "small replicas of the White House world-wide" depicts an imperial power that is permanent and important.²⁹ Other refined Beaux Arts buildings are insignificantly contextual, such as the embassy in Mexico City by J. E. Campbell, which combines a neoclassical façade with minute Hispanic details³⁰. These designs stand out against indigenous architecture worldwide and arrogantly display United States imperial ideals.

²⁸ Robin, 1992, 146.

²⁹ Loeffler, 1990, 253-254.

³⁰ Loeffler, 1990, 69.

Throughout time, many architects have interpreted classical ideas within a modern design. Walter Gropius designed the United States embassy in Greece using the elements, geometry and language of a Greek temple while employing modern materials and American craft.³¹ Though not explicitly historical or stamped with the intricate detailing of Beaux Arts buildings, the design displays the imperial scale and elements of grand, shameless, historic structures.

Using classicism, an architect is able to create a prestigious structure that appears refined and powerful. White structures of monumental columns and grand staircases stand out as a prominent piece within the landscape. Classical structures reference ancient Greek and Roman cultures that reflect the ambitions of a democratic society. The difficulty behind using classicism is that it reflects an outdated construction style that does not reflect a culture of innovation. The style is also linked shamelessly with western civilization and cannot be contextual within many foreign countries.

International Style

A latter theory, presented by SOM in 1954, is the use of corporate image within Embassy design. The international style of glass and steel employed in United States office buildings is concerned with portraying ideals of commerce, money, and business. These “billboards of American business” depict a “global economic arena of unrestricted commerce” and display “intrinsic ties between free trade and free government”.³² These embassies proclaim the modern and innovative thinking of Americans since the industrial revolution. Leland King, former head of the Foreign Building Office argued that the

³¹ Robin, 1992, 157.

³² Robin, 1992, 145.

international style is “truly representative of the progressive and characteristic way of American life”.³³

This design approach had not been embraced by any foreign nation in diplomatic design to date. It displayed the United States as corporate headquarters, technological superior, and banker of the world. The Foreign Building Office declared once, “To a great many people our official buildings are the only physical embodiment of our culture they are likely to see other than automobiles or refrigerators”.³⁴

International style buildings as a diplomatic mission solve the problem presented by antiquated structural elements apparent in classical architecture. They replaced the outdated architectural motifs with modern exposed structure and glass- features that are not reverent of western or historic cultures. In fact, they are “international” as they reference no specific culture at all. The problem presented by modernism in this regard is that it resembles stripped design of corporations. It does not make reference to the United States, but is only reminiscent of powerful and sumptuous individuals within American culture. These structures falsely project the United States as a business.

Despite the attempt to escape the rigid guidelines of classicism for a more progressive design, International style embassies often appeared the same and failed to incorporate contextual and security ideals that are necessary in the building type. SOM’s multiple embassies in Germany appeared as duplicates of the same refined, sleek, and mechanical glass box.³⁵ The modern, and “international” style was answered with broken glass and break in attempts through the scaling of sun shade devices, tacked on (or

³³ Robin, 1992, 147.

³⁴ Robin, 1992, 141.

³⁵ Loeffler, 1990, 255.

sometimes eliminated to save construction costs) to provide comfort for American workers inside. The FBO committee members eventually replaced the corporate solution of embassy design with modern buildings of a different nature.

Contextual Design

A more recent theory, presented during the “hayday of the building program, is to proudly display the knowledge of local culture within a United States embassy abroad. This theory demonstrates a respect for local culture while infusing a modern approach to structure, but can also be criticized as an audacious display of mastery of a foreign country’s ideals. John Wernecke’s design for the embassy of Bangkok focused on the culture of Thailand, infusing the local pagoda building type with American reinforced concrete slab engineering to create a completely modern yet contextual structure.³⁶ Though never realized, the design demonstrated the ideals of the architect to create an American building that responds to context. Contextual screens replace the international-style louvered façade. These decorative curtain walls attempt to bring a functional cultural aspect to design and can be seen in the United States Embassy of New Delhi. Eero Saarinen intended for his United States embassy in London to be contextual as he employs local building materials and a façade and envelope to fit seamlessly within the neighborhood. Though Saarinen may have had pure intentions, the details and construction techniques were criticized as a glorification to America as “every detail contradicts the original, polite intentions”.³⁷

³⁶ Robin, 1992, 171.

³⁷ Robin, 1992, 155.

Current Design Practice

Modern theory of United States embassy design focuses on the functional aspects of the structure, including security and program. “Buildings are not sculptures; neither are they monuments” contradicts all previous theories behind embassy design³⁸. Focusing less on monumental and provocative architectural style and more on the embassy as a building to fulfill international duties is theoretically the only way to minimize anti-American sentiment in now hostile world. The goals of embassy design have changed drastically since 1909 when the American Embassy Association stated that “All men.... are impressed by appearances... We pride ourselves on being the richest people on earth and declare loudly that nothing is too good for us”.³⁹ The notion of being a permanent, timeless structure in a foreign country no longer means investing in a well designed and impressive edifice, but a walled compound resembling a medieval fortress. Architects, given no choice but to adhere to strict Inman standards spelled out in detail, still were prescribed to incorporate and interpret ideals of openness, freedom, and American spirit.⁴⁰ These ideas have generally conflicted and have produced structures that seem closed as they are hidden from public sight.

United States embassy architecture, no matter the style employed, has been criticized locally and abroad. Ada Louise Huxtable explicitly describes the problem: “embassies had two strikes against them; they are big and they are different”.⁴¹ Her argument regarding the failure of the experiment of the United States Embassy is the problem of a large program within a monumental building. Huxtable’s argument seems

³⁸ Robin, 1992, 165.

³⁹ Loeffler, 1998, 252.

⁴⁰ Loeffler, 1998, 251.

⁴¹ Robin, 1992, 137.

to be that a successful embassy is a humble, contextual building that is able to accommodate necessary functions. Though architects have used different theories and design tactics for the American embassy abroad, an adequate balance of national ideals, historic reference, contextual response, and technological structure has not been met.

CHAPTER 3: SITE SELECTION PROCESS

Selecting an Embassy Site

Pre-1985 and the Inman Report, United States Embassies were typically sited within the dense fabric of a foreign city, among the embassies of the world. Sites could lie within a public square or tightly fit within a city's grid of streets. Today, embassies of the United States are cast outside of central business districts. Chosen locations are just to the outskirts of city blocks, where urban begins to sprawl into suburbia. Sites begin at ten acres, with the exception of the proposed new embassy for London which inhabits just over five. Due to the fact that diplomatic posts are currently located over an hour from downtown districts, employees must schedule time to travel in order to attend meetings. Recently, American ambassadors have realized the advantage of proximity to foreign government buildings and communicated the desire to move back to the heart of inner cities.⁴²

Regional Selections

The United States is currently replacing many embassies worldwide to increase space and security. Due to the prescriptive way that American Embassies are currently designed, Istanbul, Turkey, and Amman, Jordan, both with a history of strong diplomatic ties to the United States, have been left with austere structures as a reminder of America's presence. Malta is soon to experience the same fate as construction is underway for a new compound.

⁴² Jane C. Loeffler. Phone Interview. 1 November 2010.

Amman, Jordan

Jordan has a close relationship with the United States. For 60 years as the country has strived for peace between its neighbors. Jordan may become the key to regional peace as it readily moderates negotiations between hostile countries. The capitol city, Amman, is home to 2 million and a new central business district of grand skyscrapers in Abdali is under construction⁴³. The United States could benefit from a new diplomatic mission located within walking distance of Abdali, as the center is intended to be

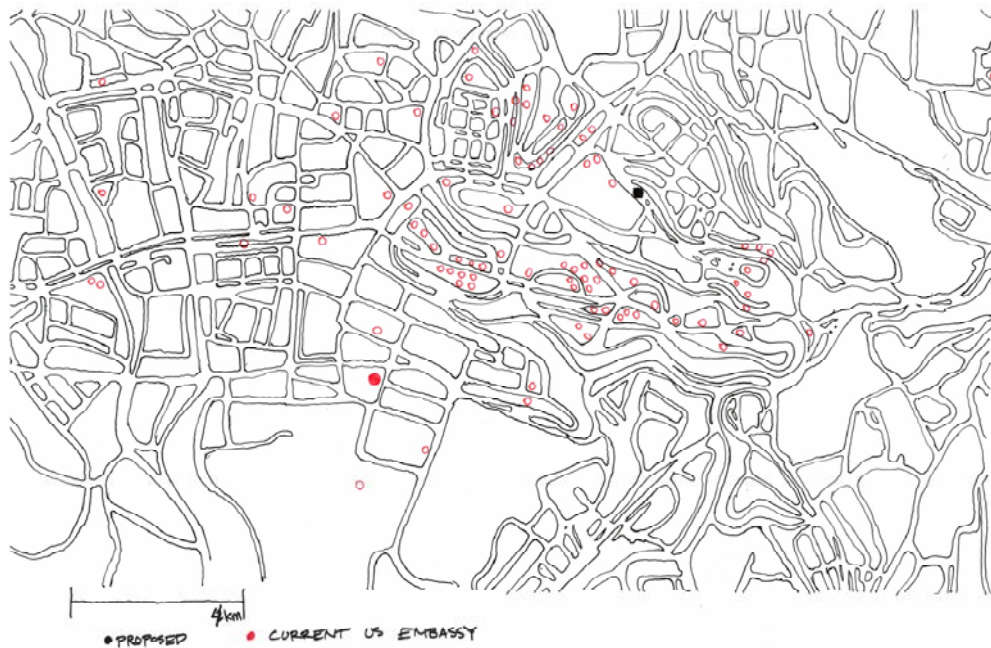


Figure 9: Current U.S. Embassy in Context with Abdali and other diplomatic missions. Image by author.

⁴³ U.S. Department of State. 2010. "Background Note: Jordan." Last modified September 21, 2010. Accessed October 5, 2010. <http://www.state.gov/r/pa/ei/bgn/3464.htm>.

pedestrian oriented within the city often separated by highways. Currently, the US Embassy is located on the outskirts of the urban region several miles from any other embassies located in Amman. A secure and welcoming presence within a country that shares similar goals would benefit American perceptions within the region and could help to facilitate peace talks.



Figure 10: Current U.S. Embassy in Amman. Russavia. *American Embassy in Amman.* www.flickr.com.



Figure 11: Rendering of future Abdali new development. Chemalijo. *Abdali the new downtown of Amman.* www.flickr.com.

The proposed site is located directly across the street from new developments in Abdali. It is currently a paved parking lot shared with a two storey retail space. The buildings currently under construction will be modern skyscrapers, towering over the dense urban context. Within a kilometer of the site are other embassies and government buildings. Soon many businesses will also be located nearby. The linear site measures 75 meters in width and 220 meters in length (250 feet by 720 feet) creating an area just over four acres. Being on the edge of new development, the proposed site can serve as a bridge between the older urban fabric and the modern urbanism.



Figure 12: Amman Site in context with other diplomatic missions. Image by author.

Though irregular in shape, block sizes within this region of Amman are traditionally about 70 metres in depth and fit together as a puzzle of warped rectangles.

Superblocks located adjacent to the site will eventually contain the footprints of large commercial structures and will most likely not be broken to reflect the traditional city fabric. The proposed site, located at the fork of two predominant streets, will have an important presence in the area.

Many of the blocks are tightly filled with three to ten storey apartment buildings with minimum yards and alleys between them. Two superblocks not being devoped to the south of the site contain monumental structures set apart from the dense urban fabric as they are surrounded by minimal trees and generous parking.



Figure 13: Amman Block Design. Image by author.



Figure 14: Amman Figure Ground. Image by author.

Pavement reflects the parking surrounding the government and religious structures adjacent to the site. The proposed site is also currently paved as an unused platform on grade with the street. Parking lots dot the cityscape and are located within many of the city blocks.

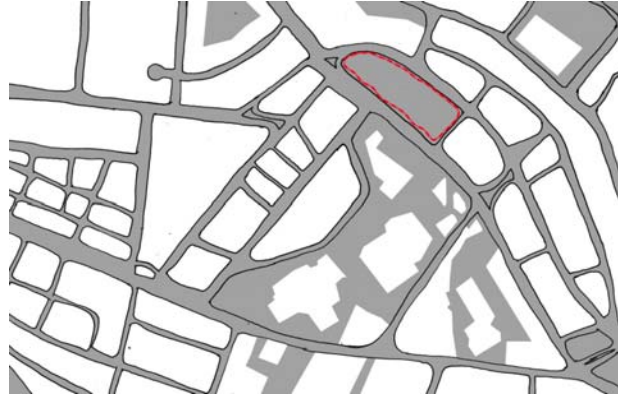


Figure 15: Amman Paved Surfaces. Image by author.

The proposed site is defined by the fork of two main roads which continue to travel parallel at either side of the site. From the south, another

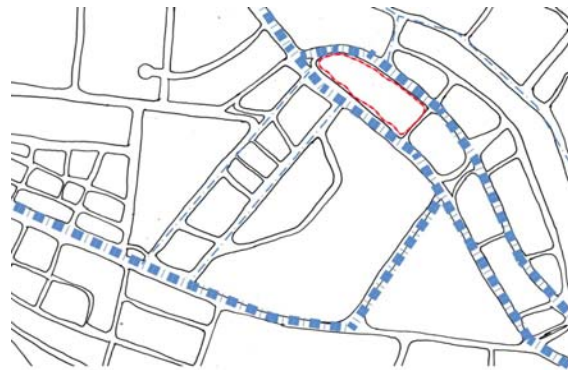


Figure 16: Amman Primary Streets. Image by author.

main artery through the city connects up connecting the government and religious buildings to the main road leading to the proposed site. Roads connecting directly on axis to the site are relatively small. There is apparently no mass transit options within the area but this may change with the new development.

Medians planted with grass within the street and parking lots dot the urban fabric. Some residences and government buildings have a minimal green front lawn or side yard. With these exceptions this region of Amman contains little green space.



Figure 17: Amman Green Space. Image by author.

The Senegal Consulate is located directly adjacent to the proposed site with the Finnish and Cyprus Consulates being within several blocks. Many government ministries for Jordan are located near the proposed site including the Ministries of Justice, Public Works, Industry and Trade, Islamic Affairs, Planning, Education, and Health. Several hotels can be quickly reached by car and a few are located within walking distance. One interesting note is that located across the street from the King Abdulla Mosque is a Christian church.

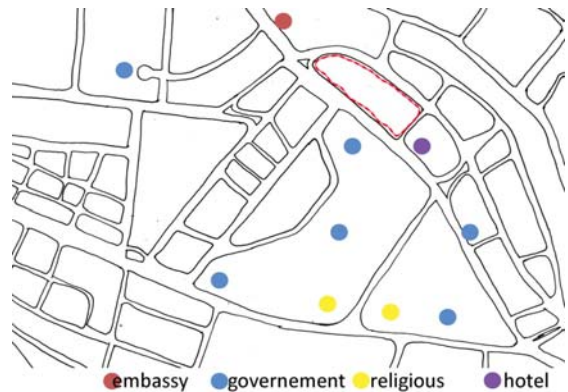


Figure 18: Amman Building Types. Image by author.

The topography of the proposed site changes five meters from north to south. Topography continues to rise northbound and decline southbound, giving the site a location several meters above the religious and government buildings.

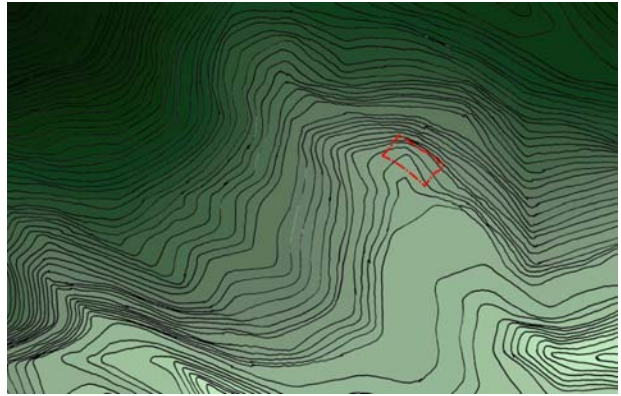


Figure 19: Amman Topography. Image by author.

Rainwater will drain through the site from the north. A swale is located to the south part of the site and water will likely follow this route south.

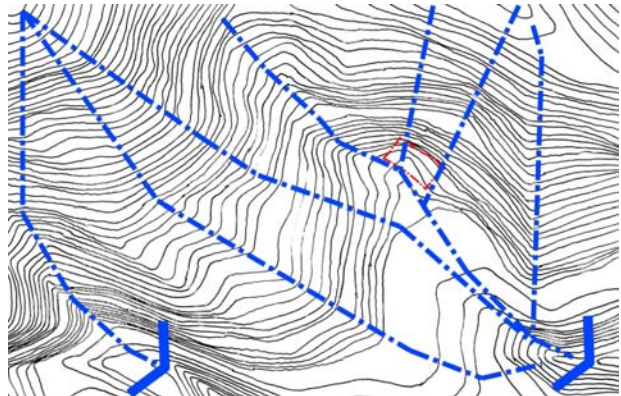


Figure 20: Amman Drainage Plan. Image by author.

Malta

The small island country of Malta not only acts as a bridge for trade between Europe and Africa, but is also concerned for the economic development of both regions. In turn, several American corporations operate within Malta, yet there are only about 20 nations with embassies within the small country. Both Malta and the United States would benefit through further American trade and representation within the region⁴⁴. The United States Embassy is located beside the embassies of all other nations in Valetta, the capital city of Malta. Recently, the United States has begun to construct a new embassy compounds outside of the city in Ta' Qali. The site is on the outskirts of urban development and is outside of the current mass transit system. Rethinking this decision to move and expand the current embassy may be beneficial to the United States and its presence within Malta. Furthermore, Malta is generally a safe country for American citizens and maybe a prime location to experiment with the embassy building type.

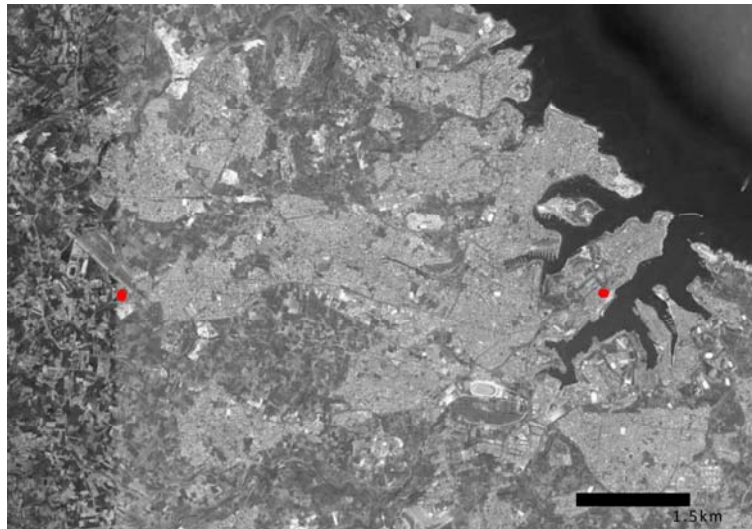


Figure 21: New U.S. Embassy Site Located 6km west of current building. Image by author.

⁴⁴ U.S. Department of State. 2010. "Background Note: Malta." Last modified April 26, 2010. Accessed October 5, 2010. <http://www.state.gov/r/pa/ei/bgn/5382.htm>.



Figure 22: Current U.S. Embassy in Floriana, Malta. Healy, Tom. *American Embassy*.



**Figure 23: Proposed Embassy Compound in Ta' Qali, Malta. *Embassy of the United States Valletta, Malta*.
<http://malta.usembassy.gov/>**

Ta' Qali, Malta



Figure 24: U.S. Government Property in Ta' Qali. Image by author.

Ta' Qali, Malta is located just outside of the urban zone and about 5 miles of Valletta, the capital city of Malta. The site becomes the only buffer in the abrupt transition from urban fabric to country landscape. Currently the site hosts a national park complete with amphitheatre, sports stadium, sculpture garden and green space. It is heavily trafficked by both tourist and citizen of Malta. The location becomes a weekend destination where families can picnic, shop, and enjoy the outdoors. Nearby are structures remaining from the English Royal Air Force from WWII and have been converted into textile and other craft village huts. A sort of unique village has sprung up as locals sell goods from this neighborhood of reused huts.

Immediately surrounding the park, village, and stadium is the Malta country side complete with dirt roads, fields of grapes, and other crops. The site is within a valley surrounded by hills which runs directly to the Mediterranean and is likely to be more fertile than the urban areas built on higher topography.

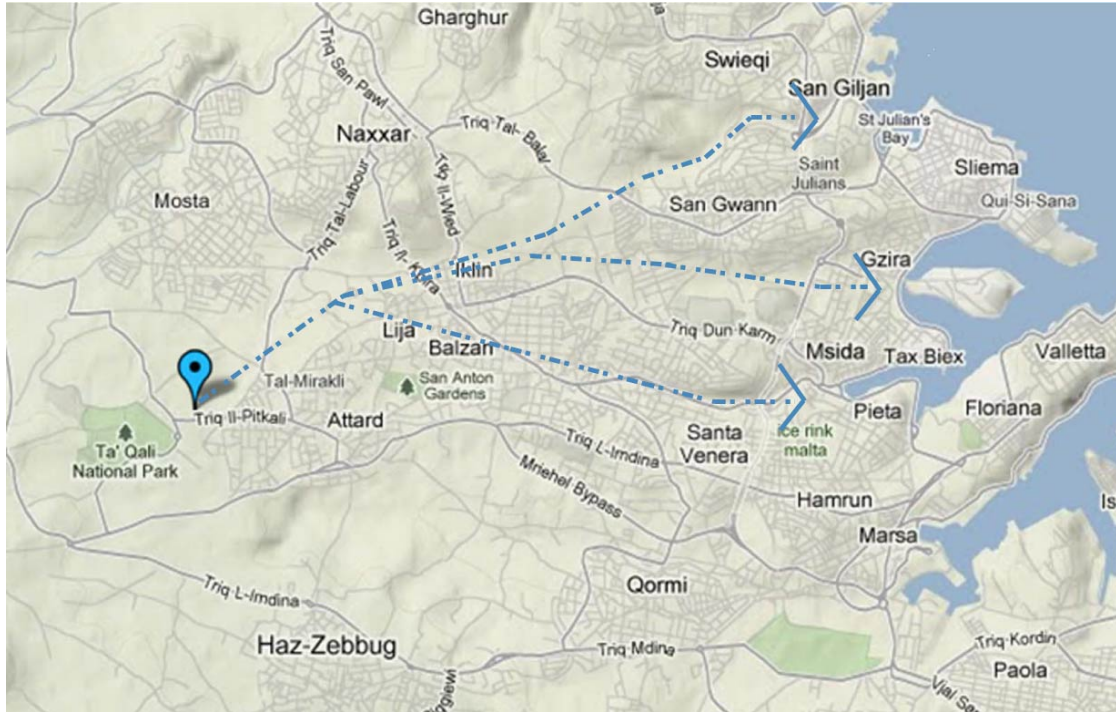


Figure 25: Drainage Diagram, Ta' Qali. Image by author over a www.bing.com map.

Floriana, Malta



Figure 26: Proposed site adjacent to current U.S. Embassy in context with main bus terminal. Image by author.

The proposed site to for a new larger embassy is within several blocks located adjacent to the existing United States Embassy. The area is rich with Maltese culture and contains many gardens, statues, and memorials. Three adjacent open blocks measure 44 meters in length and about 30 meters in width. A last open space snakes through the city as an irregular object about 200 meters in length and varying between 20 and 50 meters in width. Due to the urban context, the property in all only equals about one acre in area. If necessary, a parking garage located to the north east of the site may be reclaimed for additional area.

The United States Embassy in Malta is currently located within the regimented street grid of Valletta. Currently it is surrounded by several open blocks and a large parking garage among many monuments and other tourist destinations.

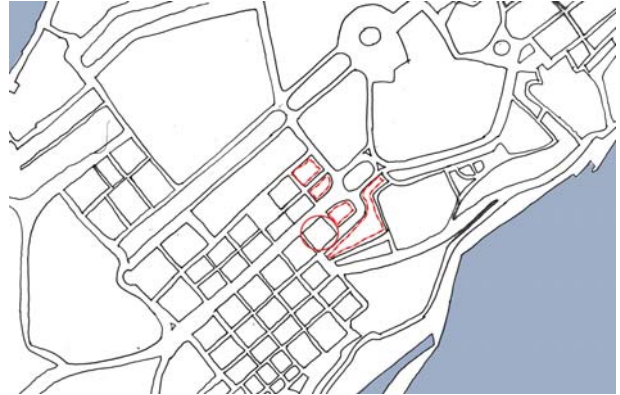


Figure 27: Current U.S. Embassy location in context with proposed site. Image by author.

The region weaves together a regimented, geometric street grid with a composition of organically shaped superblocks containing green space, parks, memorials, and pathways. Square blocks typically measure about 45 meters on each side while larger blocks are often organized around the waterfront, streets, and city nodes.



Figure 28: Floriana block design. Image by author.

A continuous street wall of three to four storey buildings surrounds most of the regimented city blocks. The superblocks often contain buildings, paths, and memorials within landscape. Boulevards and public squares have large medians which allow for pedestrian movement and landscape.



Figure 29: Floriana Figure Ground. Image by author.

Pavement occurs within the main bus terminal square and around some government buildings. A large paved area in front of Saint Paul's church contains the remnants of ancient columns.



Figure 30: Floriana paved surfaces. Image by author.

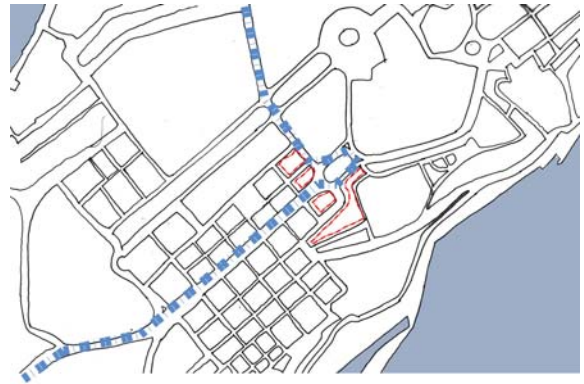


Figure 31: Floriana main roads Image by author.

A main route through Floriana separates the rigid grid of blocks and continues through a roundabout containing a war memorial, tangent to the proposed site. The road then continues northbound, to the waterfront.

The main Floriana Bus Terminal is located within a ten minute walking distance to the proposed site.

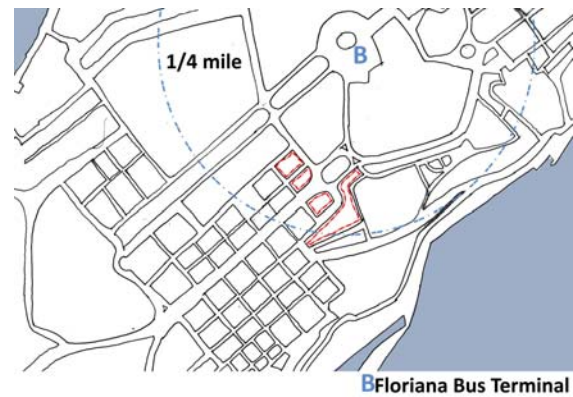


Figure 32: Floriana public transit Image by author.

This region of Floriana is dotted with many small monuments, statues, public parks, and pathways. Two historic churches, Sarria Church, and Saint Publius sit beside one another. A field of ancient columns and Independence Grounds Stadium sit beside the proposed site. Government buildings in the area include the Ministry for Resources and Rural Affairs and the Ministry of Education.

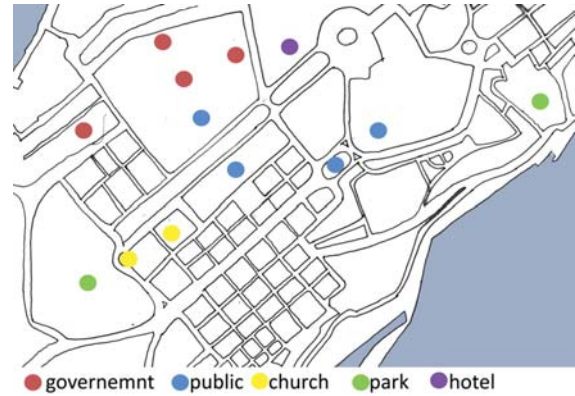


Figure 33: Floriana Building Types. Image by author.

Green space surrounds Floriana in the form of parks, promenades, fields, and gardens. Though little green space is found within the regimented grid of streets, this network only spans 300 meters before green space can again be found.



Figure 34: Floriana green space Image by author.

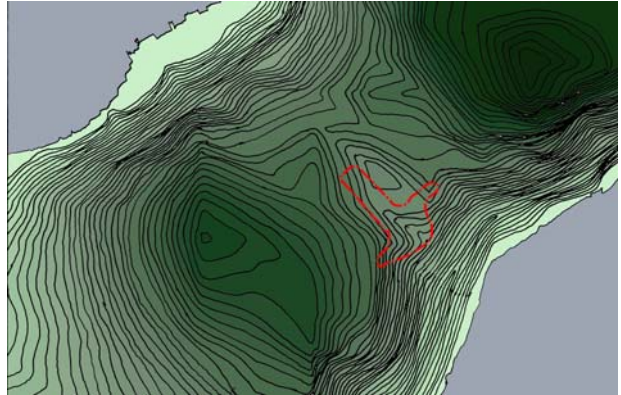


Figure 35: Floriana Topography. Image by author.

Between all of the blocks, there is a seven meter grade change as topography slopes downward towards a Mediterranean Sea inlet in the south. Each block has a maximum 3 meter grade change.

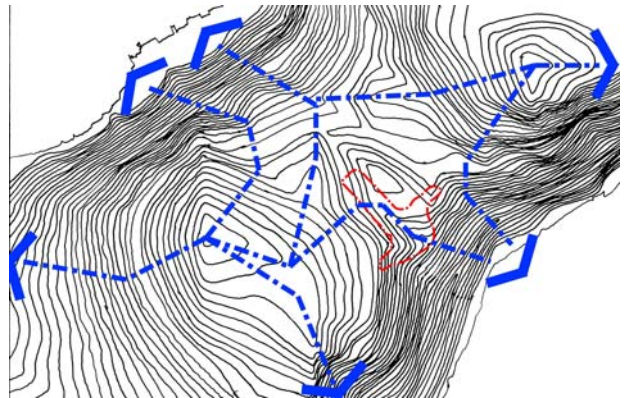


Figure 36: Floriana drainage Image by author.

The proposed site is located between two high points of topography and is a main route for water to reach the Mediterranean Sea. A swale, located directly in on the proposed site would have to be redirected.

Istanbul, Turkey

Istanbul, a dense city of over 12 million inhabitants, is located within Turkey, a country that is committed to working with the United States for regional stability and counterterrorism within the Middle East⁴⁵. Due to its location, Turkey becomes a connection point between Middle Eastern countries and the European Union. The U.S. embassy, originally located in the historic Palazzo Corpi within the dense city fabric for Istanbul, has recently relocated to the outskirts of the city on a hilltop fortress among residential neighborhoods. The foreboding structure is distant from any other diplomatic buildings and businesses. The new compound is certainly perceived as unwelcoming. Constructing an embassy within the urban core with access to mass transit that contains security features without appearing as a fortress would help American perceptions within Turkey and the region.

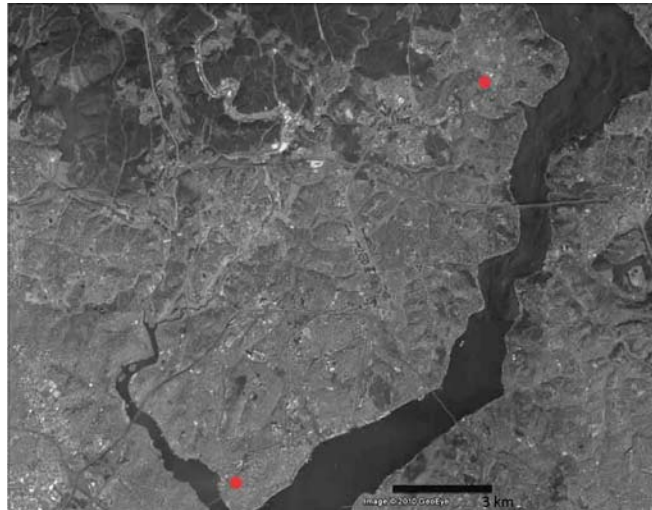


Figure 37: Palazzo Corpi, Located 12km South of the new U.S. Embassy. Image by author.

⁴⁵ U.S. Department of State. 2010. "Background Note: Turkey." Last modified March 10, 2010. Accessed October 5, 2010. <http://www.state.gov/r/pa/ei/bgn/3432.htm>.

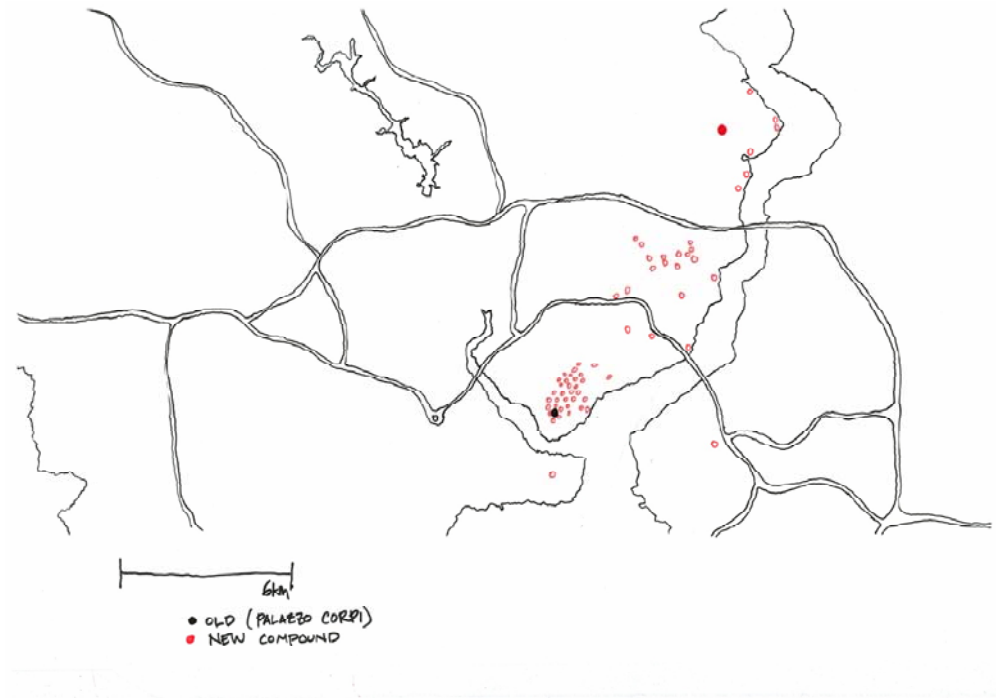


Figure 38: Embassy locations in Istanbul. Image by author.



Figure 39: Palazzo Corpi. Image by author.



Figure 40: The new U.S. Consulate. Image by author.

The proposed site measures 163 meters by 100 meters (530 feet by 330 feet) and slopes downward towards the Besiktas Sea. In total, the site is approximately four acres in size. The site is among both traditional Turkish buildings and modern architecture including a public plaza, stadium, and university. Though not as integrated in the old city fabric as Palazzo Corpi, the site provides more space, topography that may be helpful for security, and is still easily accessible by the public.



Figure 41: Proposed site in refrence to other diplomatic structures and Taksim Square. Image by author.

Block sizes change drastically around the site, demonstrating an interweaving of historic city fabric with iconic buildings set back from the street front. The site proposed is within a superblock and surrounded by other large, irregularly shaped blocks. Nearby Taksim Square, located southeast of the site, becomes a node where many streets of various hierarchy converge.



Figure 42: Istanbul Block Layout. Image by author.

The historic city grid is built up to the street edge creating a solid wall within each of the small blocks. In areas adjacent to the site most structures are set back from the street and stand out as a lone object within the landscape. These structures are more monumental in scale than the continuous line of structures within the tightly knit city blocks.

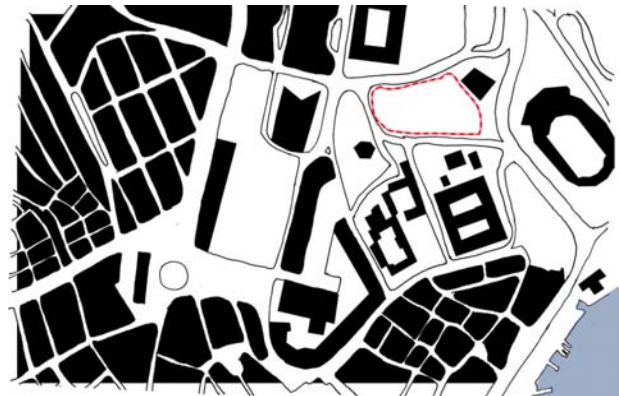


Figure 43: Istanbul Figure Ground. Image by author.

The largest areas of paved surfaces appear adjacent to Taksim Square and beside a soccer stadium which is adjacent to the proposed site. These surfaces can be assumed to have the most pedestrian traffic within the region.



Figure 44: Istanbul Paved Surfaces. Image by author.

The main street runs in a north-south direction three blocks west of the proposed site while smaller streets connect traffic to the proposed site from both the main street and the waterfront. This may be a way for a diplomatic building to possess a more humble presence within the city grid.

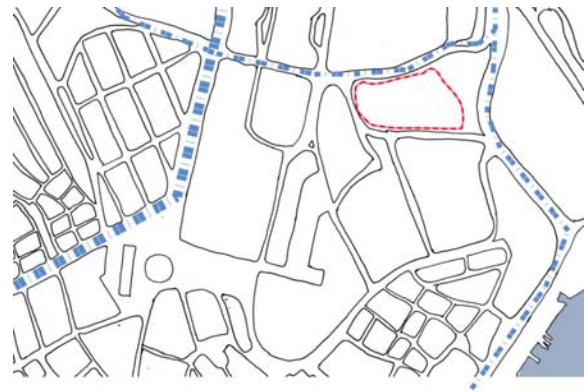


Figure 45: Istanbul Primary Street. Image by author.

Within 1/2 miles of the proposed site are many connections to transit including street grade trams, bus stops, and below grade subway. There are no stops directly at the site or across the street from the site. The site is accessible without being directly adjacent to one of these nodes.

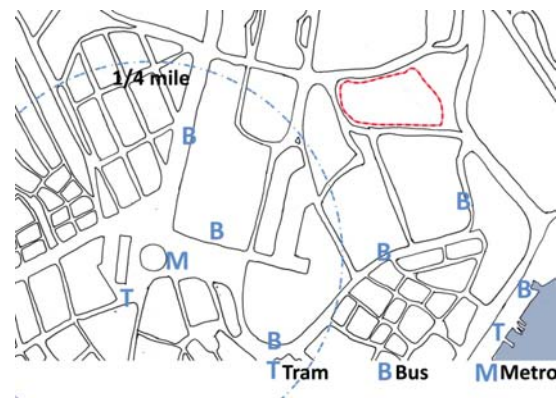


Figure 46: Istanbul Mass Transit. Image by author.

Within a fifteen minute walking distance of the site are foreign diplomatic buildings, parks, hotels, public spaces, and university buildings. The city block is shared with Suzer Plaza which contains a Ritz Carlton Hotel and other shops and restaurants. Over a dozen embassies including France, Romania, Lebanon, and Macedonia are within several blocks of the proposed site. Directly surrounding the site is the Istanbul Technical University buildings, including a school of architecture and library.

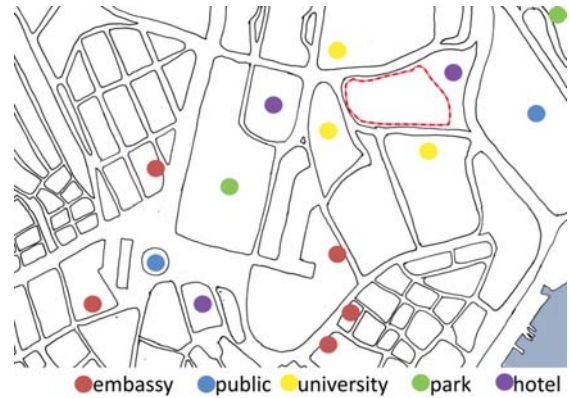


Figure 47: Istanbul Building Type. Image by author.

Parks along with other green space, often with steep topography can be found in this region of Istanbul. Just two blocks from the site are two public parks. The Taksim Gezi Park is quiet and relaxing while Macka Park has an amusement park component. Adjacent to the proposed site is the Besiktas Inonu soccer stadium which can accommodate crowds of people.



Figure 48: Istanbul green space. Image by author.

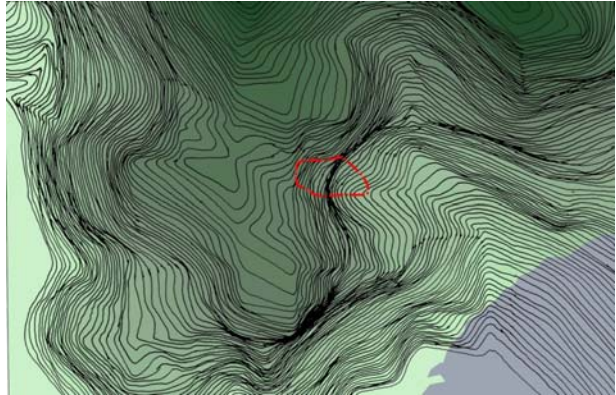


Figure 49: Istanbul Topography. Image by author.

The proposed site experiences a grade change of approximately 25 meters as it slopes to the south towards the Besiktas Sea. A cliff running through the center of the site causes an abrupt change within the topography of about 6 meters.

Swales run directly to either side of the proposed site meaning drainage can be handled by street gutters located both to the north and south of the superblock. High points are located to the north and west of the proposed site.

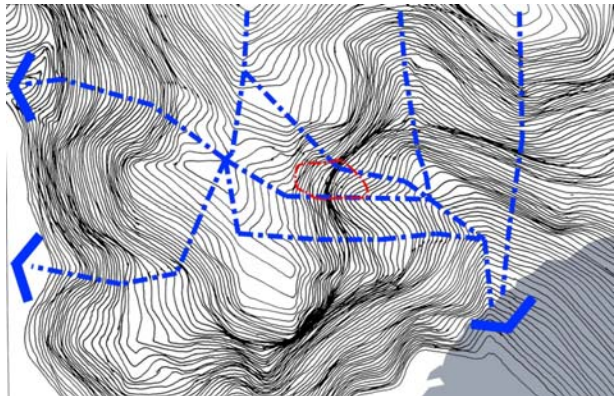


Figure 50: Istanbul Drainage. Image by author.

CHAPTER 4: THE SITE

Choice of City

Based on studies of Amman, Floriana, and Istanbul, this thesis proposes Turkey as the site to propose a new consulate for the United States. Istanbul is a city about bridging the east and western cultures as well as new and historic development. Malta and Jordan are not as predominantly connected physically and culturally to the rest of the world.

Downtown Istanbul, Turkey

The coastline of Istanbul provides many site opportunities as it contains many abandoned shipyards and warehouses sited on the Gold Horn Inlet and waterways.

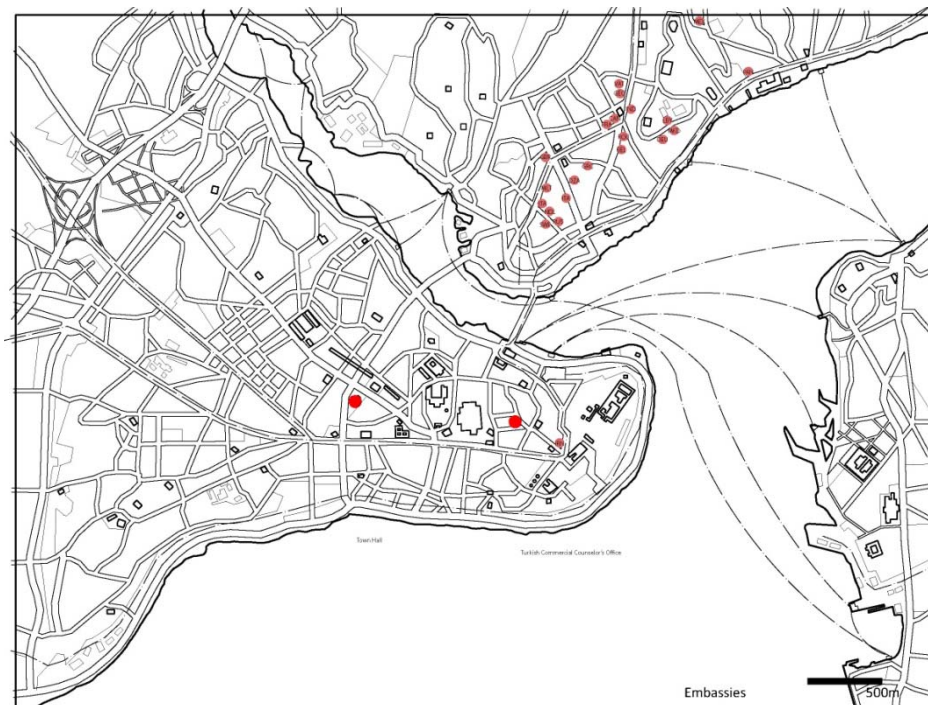


Figure 51: Embassies and Government Buildings in Downtown Istanbul. Image by author.

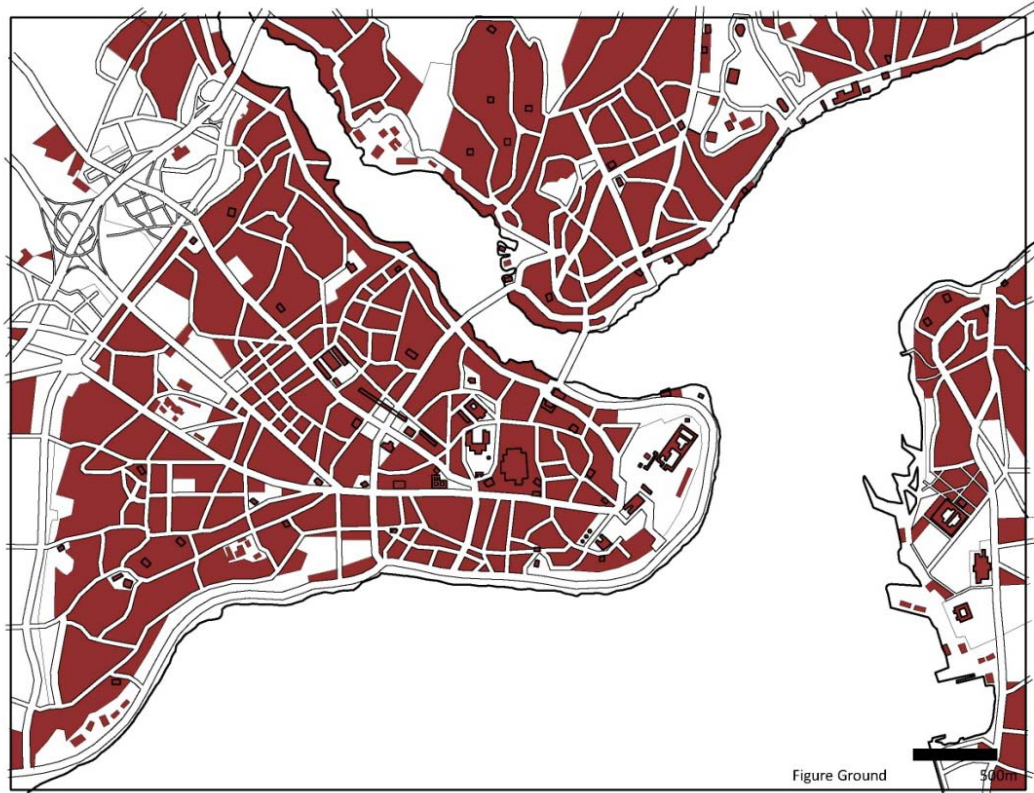


Figure 52: Downtown Istanbul Figure Ground. Image by author.

The city of Istanbul is made up of several regions including the historic Constantinople in the south, the Asian portion to the east, and the newly developed region to the north. Other nation's consulates and other government buildings are distributed throughout the old and new portions of the city.



Figure 53: Downtown Istanbul Green Space. Image by author.

The city of Istanbul is densely developed with little open space except for areas reserved for parks, historic districts, or roads. Green space is scattered throughout the city and is often contains steep topography.



Figure 54: Downtown Istanbul Paved Surface. Image by author.

Downtown Istanbul contains many expressways along the waterfront that results in many paved surfaces throughout the city. Few parking lots are found downtown.



Figure 55: Downtown Istanbul Mosque Locations. Image by author.

A common building type of the city is the mosque which adds a unique character to the city skyline.

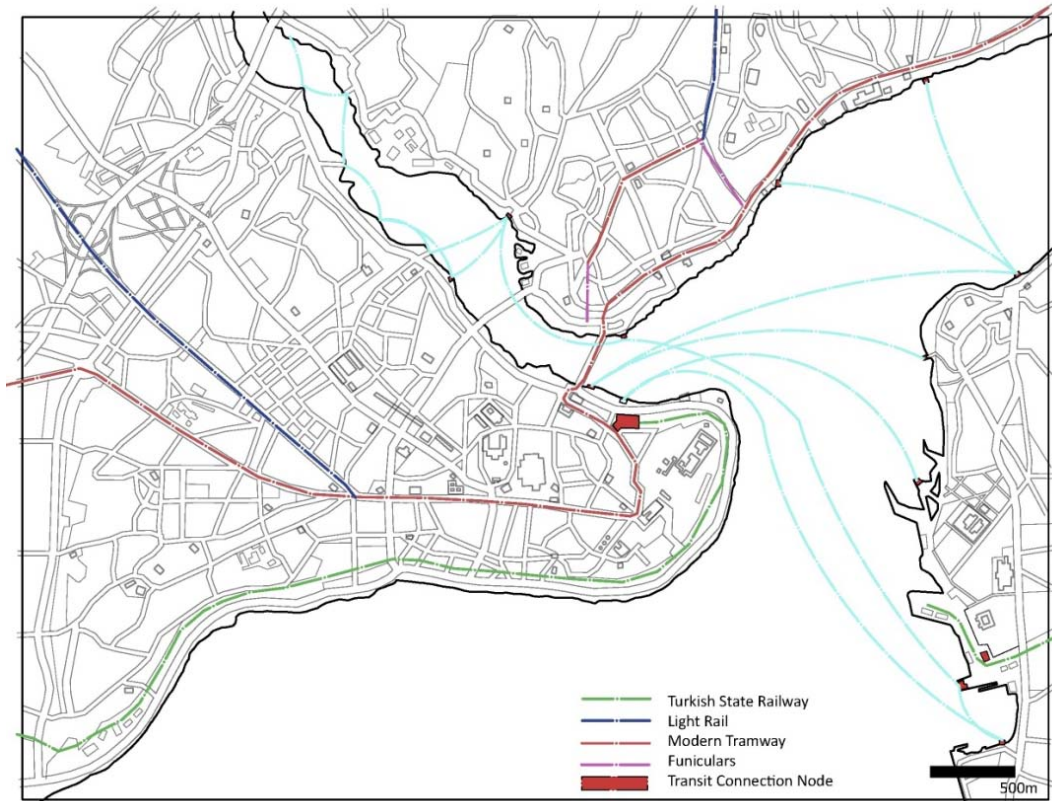


Figure 56: Downtown Istanbul Transit. Image by Author.

Istanbul boasts a comprehensive mass transit system including trams, high speed trains, funiculars, bus routes, and water taxis. Many of these routes run along the waterfront making points along the water accessible.

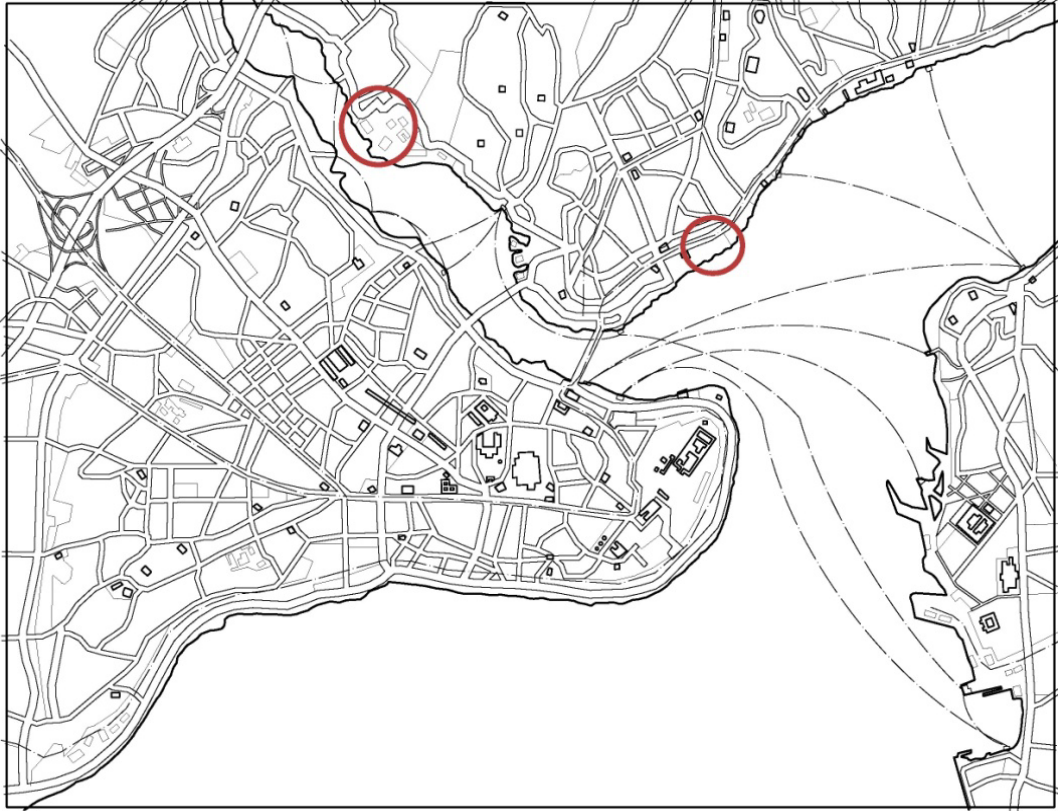


Figure 57: Downtown Istanbul Proposed Sites. Image by author.

Two proposed sites, one to the west on the Golden Horn inlet and another along the Bosphorus were studied more in depth.

Proposed Sites Downtown Istanbul, Turkey



Figure 58: Downtown Istanbul Site Proposal One. Image by author.

The site one proposal is located in a predominant area downtown Istanbul and ties together many cultural aspects of Turkey. This site is further analyzed later on in the thesis.



Figure 59: Downtown Istanbul Site Proposal Two. Image by author.

The site proposal two is located in a remote area along the Golden Horn Inlet. The proposal involves eliminating underused industrial warehouses along the waterfront. A cemetery provides a large open space across from the site. Upon visiting the site, it is concluded that this location is inappropriate for this thesis proposal.

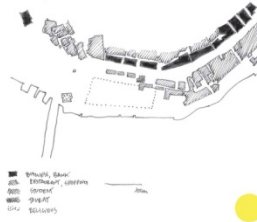


Figure 60: Downtown Istanbul Site Proposal Three. Image by author.

Upon visiting Istanbul, a third site proposal was discovered. The area between the Galata and Ataturk bridges, a heavily trafficked area, contains many dilapidated and underused buildings. These could be cleared to make way for a new United States Consulate. This site is further analyzed later on in this thesis.

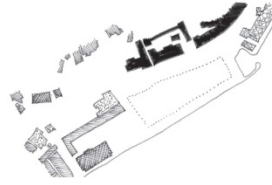
Site A

Site A is surrounded by small business retail shops selling auto and boat parts. Nearby are several restaurants and shops where fisherman sell their daily catches. Across Tersane Caddesi are banks and other financial institutions that will have limited foot traffic. Located tangential to the site is a hotel.



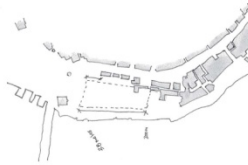
Site B

Site B is in proximity to two mosques, a modern art museum, and an architecture school. Located across Mecis-i Mebusan Caddesi are many banks and other financial institutions that will have limited pedestrian traffic.

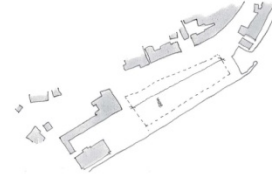


Building Use

Site A has limited street frontage due to existing buildings fronting the Tersane Caddesi. The actual street frontage is 38 meters. The buildable portion of the site completely fronts the water at a length of 200 meters.

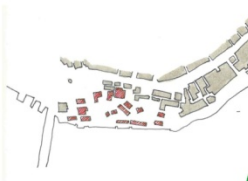


Site B has the ability to completely front both the street and water. The length of the site is 300 meters.

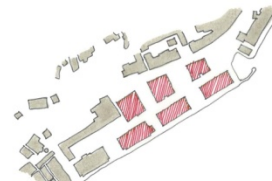


Street/Water Face

Site A requires the demolition of dilapidated structures that are little more than concrete framework and several new, single-storey sheds used for storage and shipping.

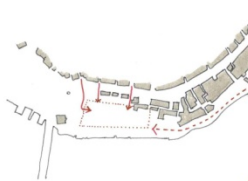


Site B requires the demolition of under used TDI offices and warehouses. The offices are 5 stories in height and the warehouses stand 2 storeys high. One of the existing warehouses has been converted into the Istanbul Modern Art Museum and will not be demolished.

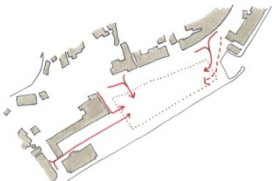


Demolition

Site A may be accessed using existing Ustupcular Sk which provides access to a neighboring mosque. Other access points may be provided by designing access roads beside existing buildings separating the site from the street. Pedestrian access from the east may be designed to continue an existing promenade from the Galata bridge, through a fish market, through a public park, to the site.

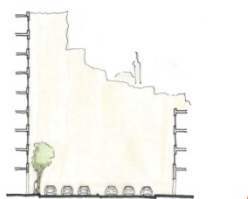


Site B may be accessed through an existing street providing entrance to the Modern Art Museum. Other existing entrances to the site may be utilized including turn lanes from Mecis-i Mebusan Caddesi providing access to the center and east ends of the site. Pedestrian access may be best placed from the Mimar Sinan University located to the east.



Access

Tersane Caddesi provides access to freeways both leaving and entering the city and in turn offers three lanes for traffic in both directions. Crossing the street in this area is difficult and traffic is in constant gridlock. Sidewalks are inadequate and provide poor space for vendors and pedestrians attempting to inhabit the street.

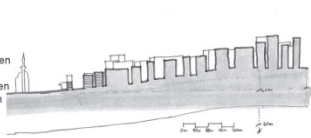


Mecis-i Mebusan Caddesi is a main thoroughfare running along the Bosphorus river on the eastern side of Istanbul. Four lanes service thru traffic and are separated in the center by a tram line. A service lane provides access and parking to the proposed site B.

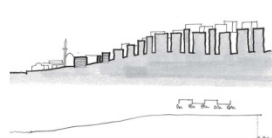


Connector Street

The topography slopes up gradually from the waterfront where Site A is located. At 500 meters inland, the topography is 60 meters above sea level. Seven storey buildings front the street opposite the site and may be seen as a security and communication concern.



The topography slopes up quickly from the waterfront where Site B is located. At 500 meters inland, the topography is 80 meters above sea level. Seven storey buildings front the street opposite the site and may be seen as a security and communication concern. Buildings located further inland become taller due to the topography change.



Security: Topography

Site A

Site A allows for a rectangular building to face the southwest allowing for prime sunlight during the afternoon hours.



Site B

Site B allows for a rectangular building to face the southeast allowing for prime sunlight during the morning hours. This may be beneficial to consulate officers that arrive at work in the morning.



Solar Orientation

Site A is within 800 meters (1/2 mile) of Istiklal Caddesi, the pedestrian street where many other consulates are located. It is also within 400 meters of the old US consulate in Palazzo Corp.



Site B is within 800 meters (1/2 mile) of Istiklal Caddesi, the pedestrian street where many other consulates are located. It is within walking distance of many consulates located within Istanbul.



Consulates

Site A is located within walking distance of Funicular 1 which connects to other mass transit to the north. No direct mass transit connection is located on the site.

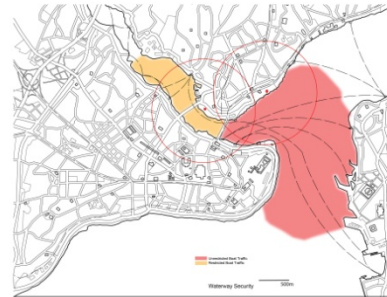


Site B is located tangential to the T1 tram line which provides stops just north and south of the site. At the north termination, the tram line connects to Funicular 2 providing direct access to Taksim Square where many tourists stay. At the south termination, the tram line connects to the main train station of Istanbul.



Mass Transportation

Site A is located past the Galata drawbridge, prohibiting large boats from reaching the site. Large boats must request entrance to the Golden Horn days in advance.



Site B is located on the Bosporus River. Ships of any size may inhabit these waters providing a security concern for the site. A 30 meter setback must be used on the site with no exceptions.



Security: Waterways

Site A is located between the Ataturk and Galata bridges. The bridges are pedestrian friendly and provide some foot traffic in the area. A fish market, park, and local shops keep the inadequate sidewalks busy. The site is located within 400 meters of Istiklal Caddesi which is filled with pedestrians at all times of the day.



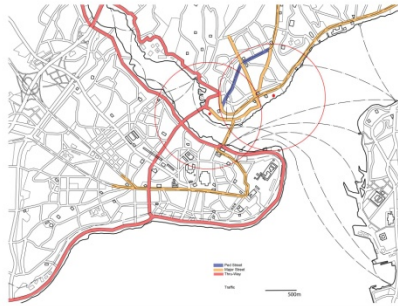
Site B receives minimal foot traffic due to a tram line that runs tangential to the site. Banks and financial institutions tend to deaden the street. Cafe's, Narghile Bars, parks, mosques, and the Mimar Sinan University generate adequate pedestrian traffic in the area.



Pedestrian Density

Site A

Site A is located adjacent to a major interchange providing access between the old city and new city of Istanbul. Highways continue from the off ramps alongside the coast of the Golden Horn inlet. Running tangential to the site is a major thoroughfare of six lanes, providing access to the thruway system. In contrast, Istiklal Caddessi, a pedestrian only street, is located within walking distance of the site.



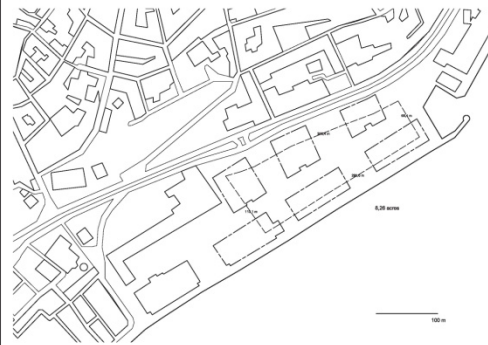
Site B

Site B is located off of Mecidiyeköy Caddessi which provides four lanes of traffic, a tram line, and various service streets to travelers along the Bosphorus River. Exits are on grade and traffic lights and violation cameras regulate the street. The street is pedestrian friendly yet entrances to the Istanbul thruway network are accessible within a kilometer.

Streets

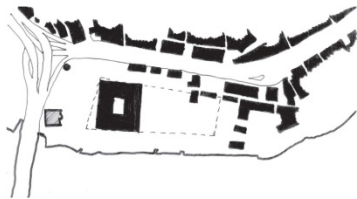


The buildable area of Site A, taking into account the necessary setbacks, is 3.64 acres which is an extremely small site for a modern US Consulate. Dimensions are just under 200 meters by about 90 meters. Though tight, the dimensions of the current US Consulate in Istanbul fit within the site dimensions. The current French Consulate in Istanbul fits nicely within the site, though the program is much smaller than the proposed program for the new US Consulate of Istanbul. The site will best hold a building of linear form in order to front the water and street with a safe buffer landscape.

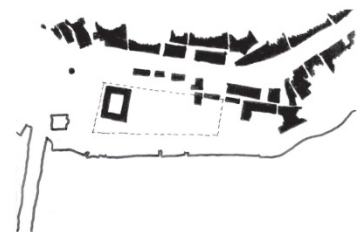
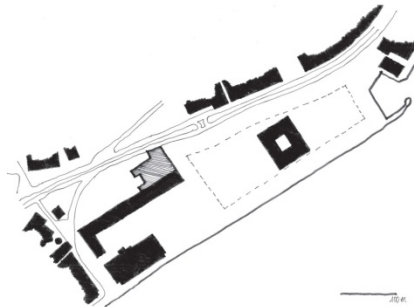


The buildable area of Site B, taking into account the necessary setbacks, is 8.26 acres which is a generous site for a modern US Consulate. Dimensions are just under 300 meters by about 70 meters. Both the current US and French Consulate building footprints fit nicely within the site with room to spare for expansion. Again, a linear building may serve the site best in order to front both the street and waterway.

Dimensions



Current US Consulate Footprint



French Consulate Footprint

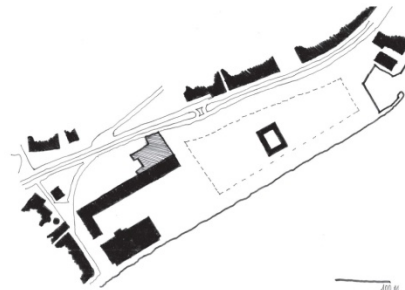


Figure 61: Proposed Site One (B) and Site Three (A) Comparison. Image by author.

	Site 1	Site 2
Building Use	0	1
Street Face/ Water Face	0	1
Demolition	1	0
Access	0	1
Connector Street	-1	1
Solar Orientation	0	1
Nearby Consulates	1	1
Mass Transportation	0	1
Security: Waterways	1	-1
Security: Topography	0	-1
Pedestrian Density	1	0
Streets	0	1
Dimensions	0	1
TOTAL	3	7

Figure 62: Site Comparison Chart. Image by author.

Through diagramming and judging multiple aspects of each site, this thesis comes to the conclusion that Site One (B) will house the proposal for a new United States Consulate.

Site Decision

The newly proposed consulate compound in Istanbul, Turkey is placed within a predominant location within the city. The site, located within the recently developed region of Istanbul provides views to both the historic Constantinople and Asian side of the city, both separated from the site by bodies of water.



Figure 63: Site Proposal in Regional Context; Within walking distance of other nation's consulates. Image by the author.

In addition, the site bridges many aspects of the vibrant culture of Istanbul which includes the Mimar Sinan Architecture School, modern western-style bank buildings, a warehouse refurbished to house the Istanbul Modern Art Museum, a historic armory, and the Nusretiye Mosque. It is easily accessible to visitors via a tram line and within walking distance of many other nations' consulates. A tourist staying at Taksim Square would require a 15 minute funicular and tram ride to the site. The site is bounded by the

Bosphorus River in the south and Meclis-I Mebusan Caddessi in the north. The proposal demolishes the existing underused shipping warehouses and offices and eliminates the vast, garbage filled parking lots currently on the site.



Figure 64: Institutions Bordering Proposed Site. Image by author.

Diplomatic Posts in Istanbul, Turkey

The site is located within walking distance of many other nation's consulates located on the pedestrian only street named Istiklal Caddesi. This street is lined with retail and dotted with a majority of the city's diplomatic posts. The old United States Consulate to Istanbul, Palazzy Corpi, became a terminus to the long pedestrian route. The street is heavily traveled by pedestrians of all ages enjoying shopping, eating, and night life. Istiklal Caddesi becomes one of the most vibrant places in the city.



Figure 65: Istiklal Caddesi. Image by author.

Case Studies: Current United States Consulate to Istanbul, Turkey

Over an hour away from Istiklal Caddesi stands the current United States Consulate to Istanbul as a fortress in the landscape. The 20 acre compound is surrounded by a daunting blast wall and the entrance is difficult to find. In his book titled, “Hot, Flat, and Crowded,” Thomas Friedman describes the current compound. “All that was missing was a moat filled with alligators and a sign that said in big red letters: ‘Attention! You are now approaching the U.S. consulate in Istanbul. Any sudden movements and you will be shot without warning. ALL VISITORS WELCOME.’”⁴⁶ Upon visiting the consulate, it is clear that one would travel two hours outside of the city to visit the consulate only out of necessity. After passing through the blast wall the visitor is questioned by guards and forced to stand outside in a line. From there, one may pass through an airlock and security where all electronics and bags are confiscated to be put away in a locker. A bridge allows visitors to reach an elevator which leads to either the consulate services offices or to the Marine Security Post 1, where one can continue into the restricted offices.

⁴⁶ Thomas Friedman. *Hot, Flat, and Crowded: Why We Need a Green Revolution and How it can Renew America* (New York: Farrar, Stratus and Giroux, 2008): 4.



Figure 66: Current United States Consulate to Istanbul Turkey. Image by author

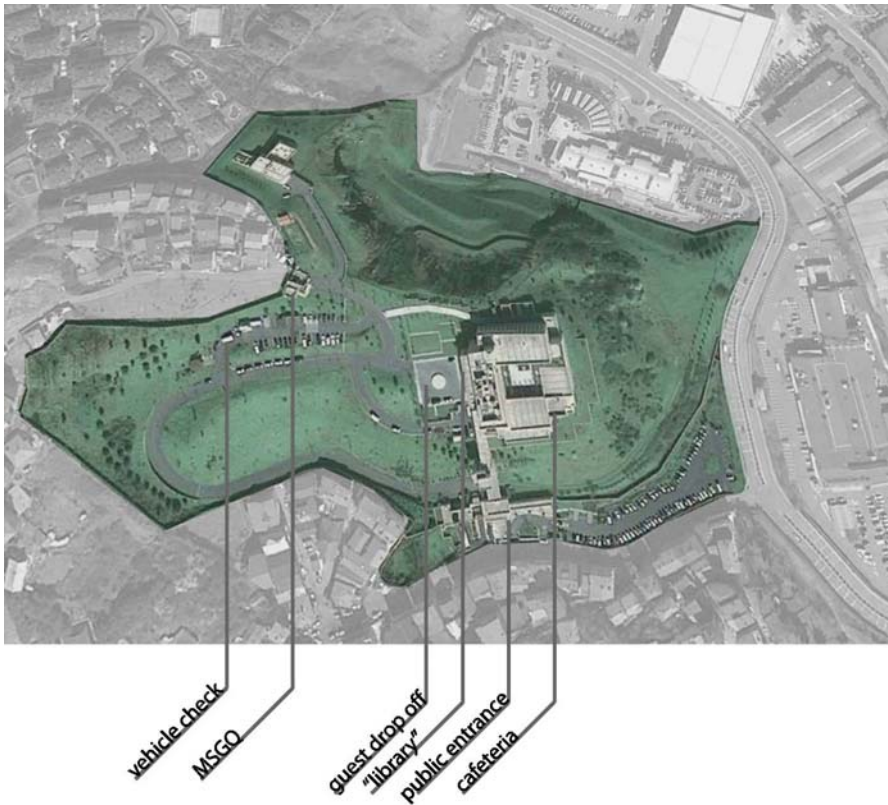


Figure 67: Current United States Consulate to Istanbul, Turkey. Image by author.

Case Studies: Current French Consulate to Istanbul, Turkey

In contrast with the United States Consulate to Istanbul, the French consulate defines public, semi-public, and private spaces. Visitors reach the consulate from Istiklal Caddesi, a public pedestrian only street that is heavily traveled at all hours of the day. Visitors are required to travel through a layer of security at the entrance to the building to ensure safety. Once passing through, the visitor enters a large semi-public courtyard. Entrances to a café, art gallery, classrooms, and book store are located adjacent to the large courtyard. A visitor in need of a visa may then pass through another layer of security to enter the consulate itself.



Figure 68: French Consulate to Istanbul: Initial Security. Image by author

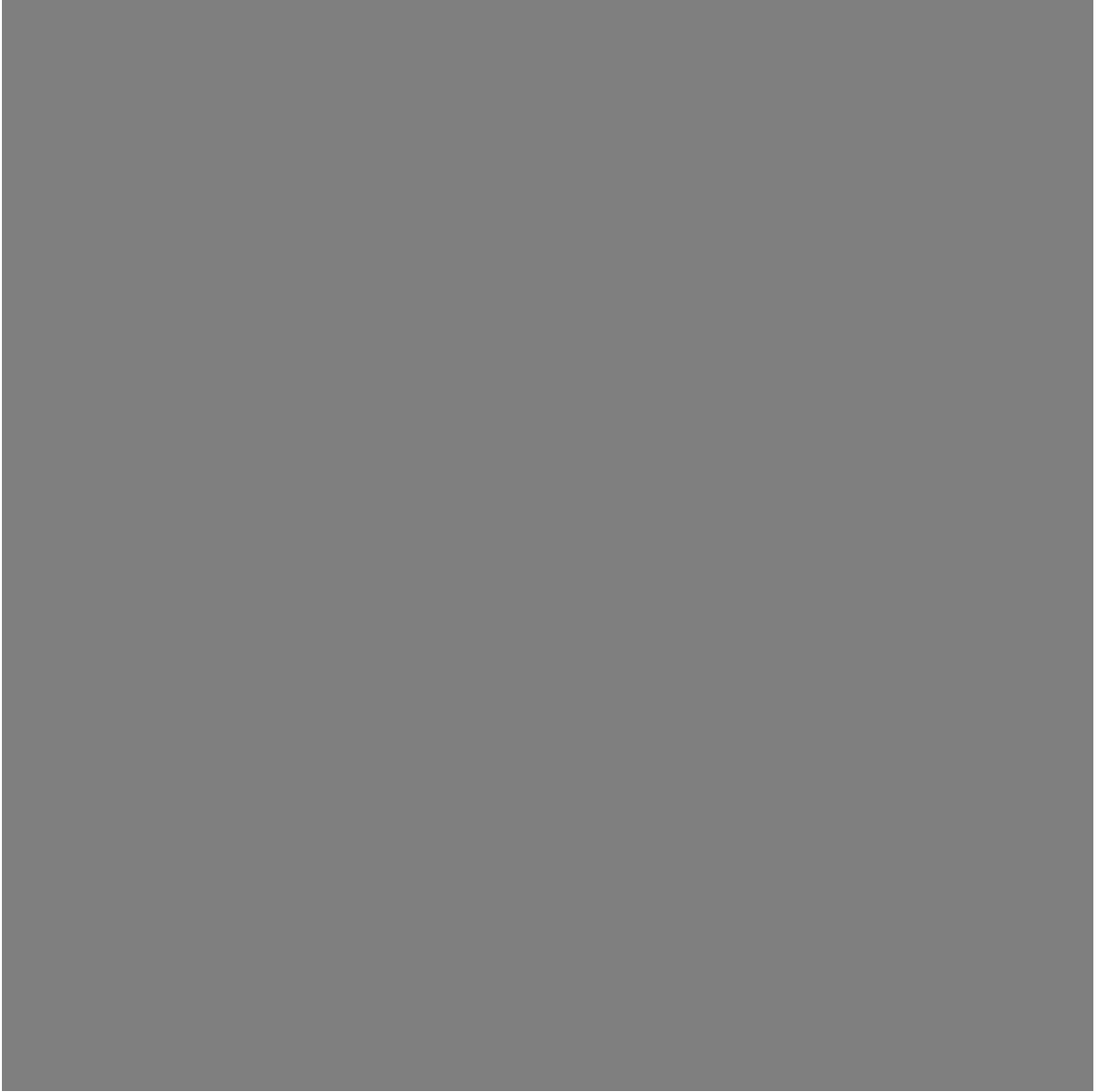


Figure 69: French Consulate to Istanbul, Turkey. Google earth model by 3D Location Earth. Image by author.

Culture, Climate, Context, and Threat Analysis

Istanbul is a vibrant city developed throughout time. The environment is densely built up with little open space. Streets are continuously congested with traffic, pedestrians, and street vendors. Likewise, the waterways are congested with fishermen, barges, and water taxis. The skyline layers natural topography with buildings of all sizes and is completed with a plethora of domes attesting to the prevalence of the mosque building time. Bridges stretch across the waterways connecting infrastructure between different portions of the city.

Istanbul has a Mediterranean climate with hot summers and moderate winters. Snowfall is possible but rain is likely in the winter. Wind travels southbound from the Black Sea along the Bosphorus River bringing relief during the hot summer months.

Istanbul contains a mixture of historic, modern, and dilapidated buildings. Palaces, mosques, ancient walls, underground caverns, and historic buildings live among concrete housing developments, warehouses, and strip malls, and walled military compounds. Abandoned buildings, small, parks, and cemeteries seem to claim all remaining open space in the city. While designing an intervention in this city, it is important to treat each building type on the site appropriately.

The threat of terrorist activity can be considered high in Turkey. It is geographically the crossroads between the east and western world with a diversity of people, all with different intentions, passing through daily. Recently, the English Consulate to Istanbul was attacked by a car bomb. Soon after, a shooting occurred at the visitor's entrance to the current United States Consulate. Despite these attacks, the

Turkish people are currently open to American ideals of capitalism and freedom.

Generally the Turks welcome Americans to their country openly.

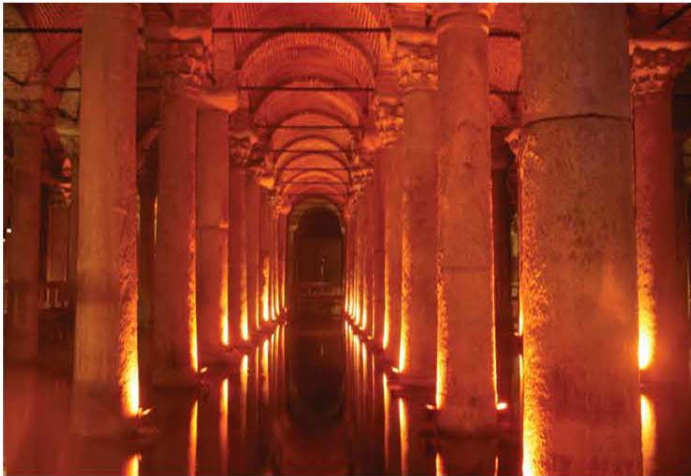


Figure 70: Vibrant City of Istanbul. Image by author.

CHAPTER 5: EMBASSY COMPOUND PROGRAM LAYOUT

Case Studies: Standard Embassy Design

The Standard Embassy design prototype was developed in 2001 by the Bureau of Overseas building Operations at the State Department in order to make chancery construction more efficient. It is essentially a living document which provides design build firms a guide in embassy construction. It eliminates most design work as it specifies program layout, building envelope, sustainable features, structure, appropriate façade detailing⁴⁷. The prototype is designed for construction in virtually any site. Construction time is normally within 4 years. Currently there are 48 SED complexes constructed for the United States.

⁴⁷ U.S. Department of State. “Standard Embassy Design.” Accessed November 1, 2010. www.state.gov/obo .

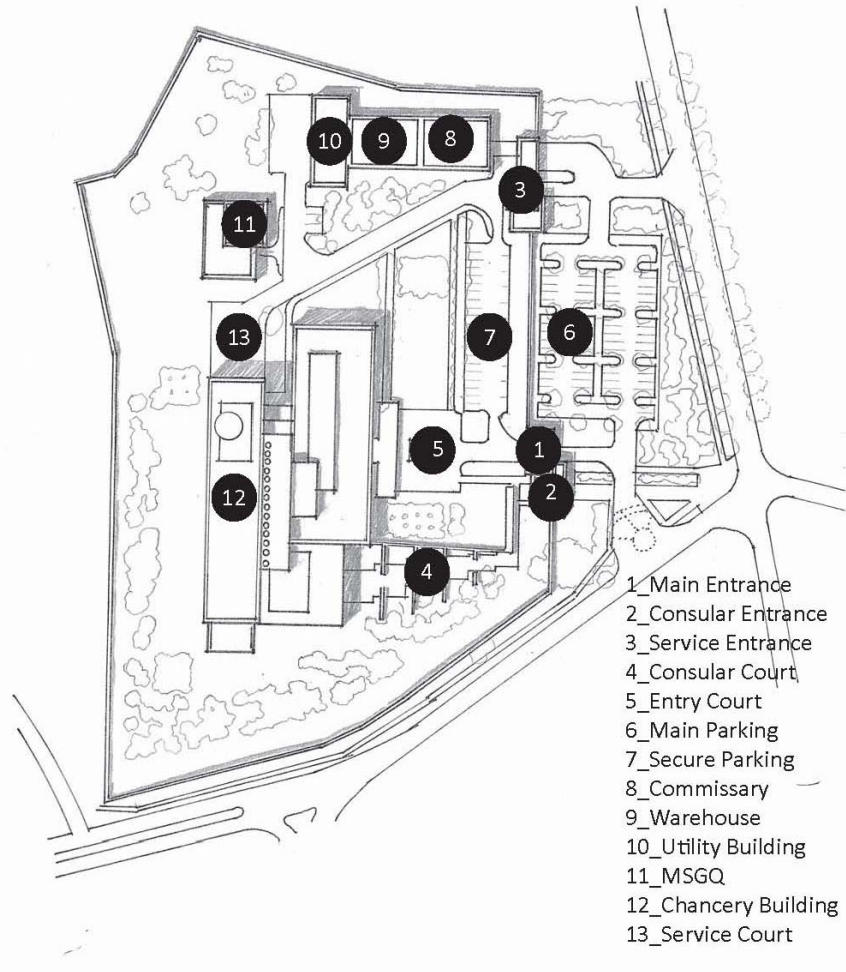


Figure 71: SED Campus Buildings. Image by author.

Three separate entrance gates at the security perimeter separate chancery guests before entering the site. Pedestrians on foot may enter through one security checkpoint leading directly to the consulate while guest vehicles may enter another adjacent checkpoint leading directly to the main chancery “ceremonial” entrance. An additional deliveries and services checkpoint is located to the opposite side of the road facing wall and allows for direct access to the chancery loading dock as well as the commissary, warehouse, utility building, and Marine Security Guard Quarters (MSGQ). All compound buildings are located a minimum of 30 meters from the security wall.



Figure 72: SED Perimeter Security. Image by author.

A security barrier nine foot in height effectively wraps the compound. The only penetration points face the main street in the form of three security checkpoint buildings. The wall is set back from the main street and public parking provides a buffer between the street and compound walls. Parking for embassy employees is located in a secure zone within the compound walls. All compound buildings are located a minimum of 30 meters from the wall.

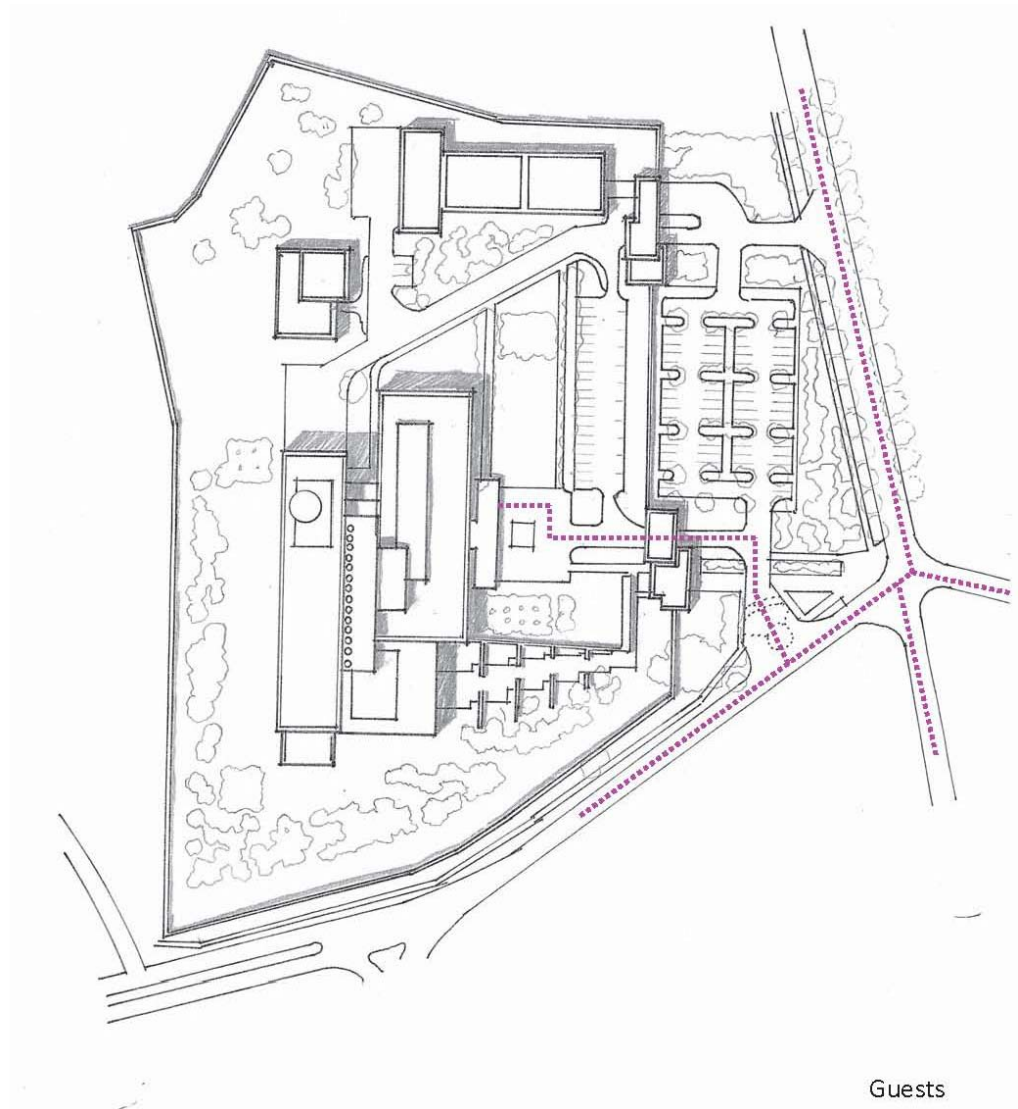


Figure 73: SED Invited Guest Entrance. Image by author.

For security purposes, no visitor to the embassy is given a straight path from the street to the entrance. Invited guests exit the main avenue by turning into a small traffic courtyard and again to enter through a security checkpoint. Once inside, guests are confronted with a traffic circle leading to the front entrance. The driver can then continue around the circle in order to reach a secure parking zone.



Figure 74: SED Consulate Visitor Entrance. Image by author.

A visitor to the consulate would enter the site by foot or park in the public parking before proceeding by foot to the pedestrian security checkpoint. Once inside the compound, visitors are forced to take an abrupt turn leading them to a large promenade stretching to the consulate entrance. The promenade is a jagged path with retaining walls, directing visitors in a zig-zag pathway. This design is a security measure which prohibits vehicles from driving straight into the consulate entrance at a high speed.



Figure 75: SED Delivery Pathway. Image by author.

Deliveries and services occur at the opposite side of the site from the visitor and guest entrances. A checkpoint located directly off of the main avenue allows vehicular access to the compound. Once inside, trucks have direct routes to the chancery loading dock and commissary. Vehicles never are allowed to drive on access to a compound building for any distance. All straight roads essentially terminate in a field.

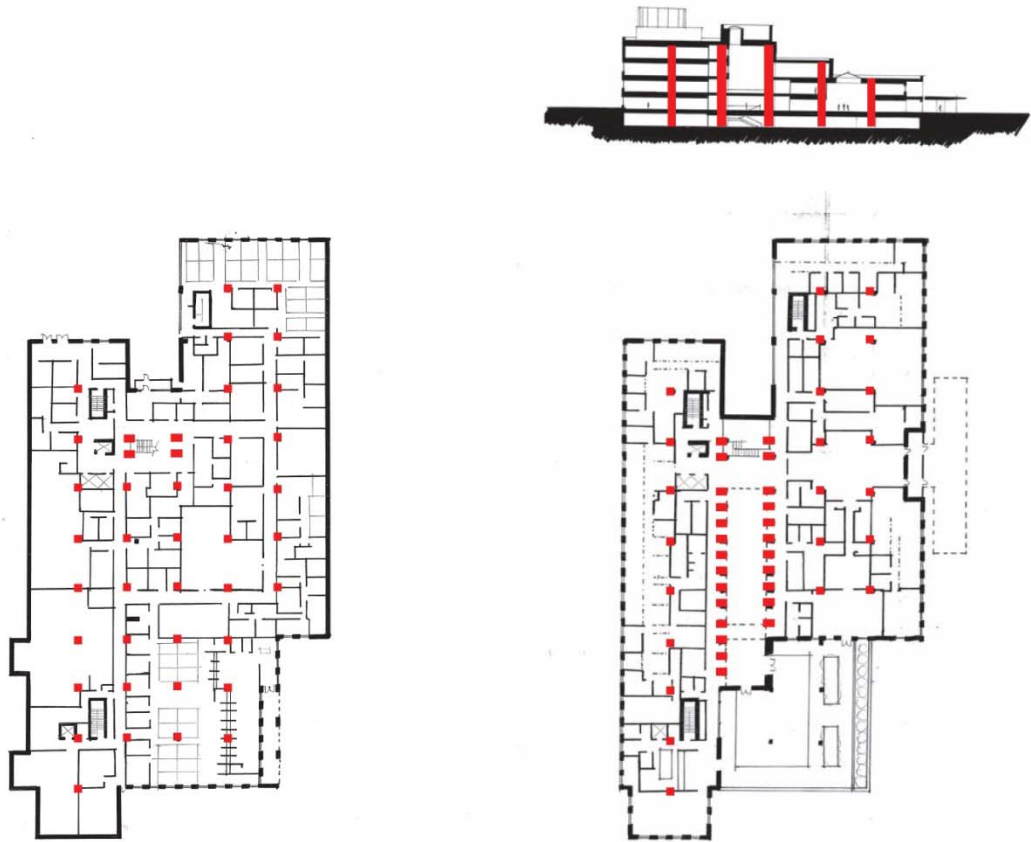


Figure 76: SED Structure. Image by author.

SED structural bays are designed within a nine meter grid. This is designed to match corporate office building layouts. Additions to the embassy can be made by adding an additional array of structure. Structural redundancy ensures the integrity of the chancery even if one bay is destroyed.

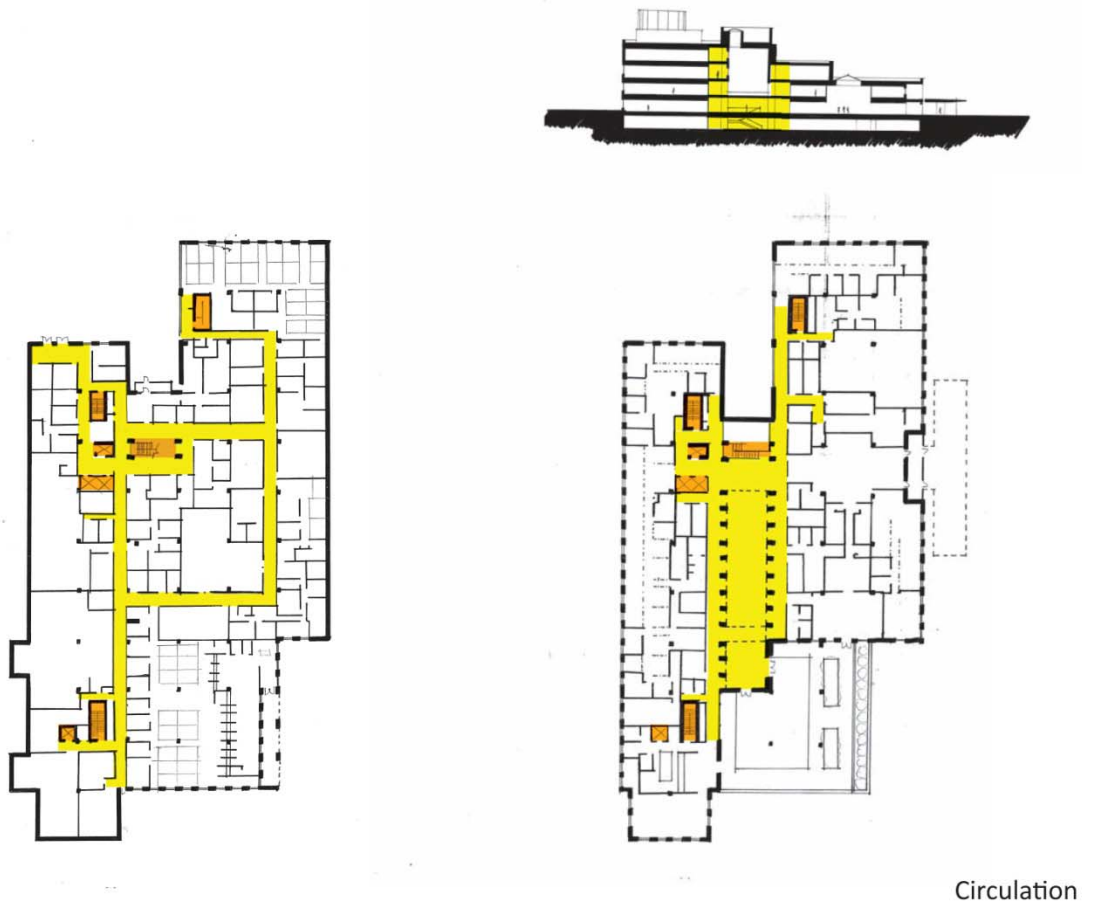


Figure 77: SED Circulation. Image by author.

Circulation on the ground floor is a beltway around offices and storage rooms with exit pathways leading to the loading dock, back offices, and mechanical rooms. On the 1st floor, where guests will first enter, a large atrium and other gathering spaces account for a large fraction of the building's footprint. Vertical circulation is expressed as a grand staircase in the atrium or as fire stairs and elevators sprinkled throughout the chancery.

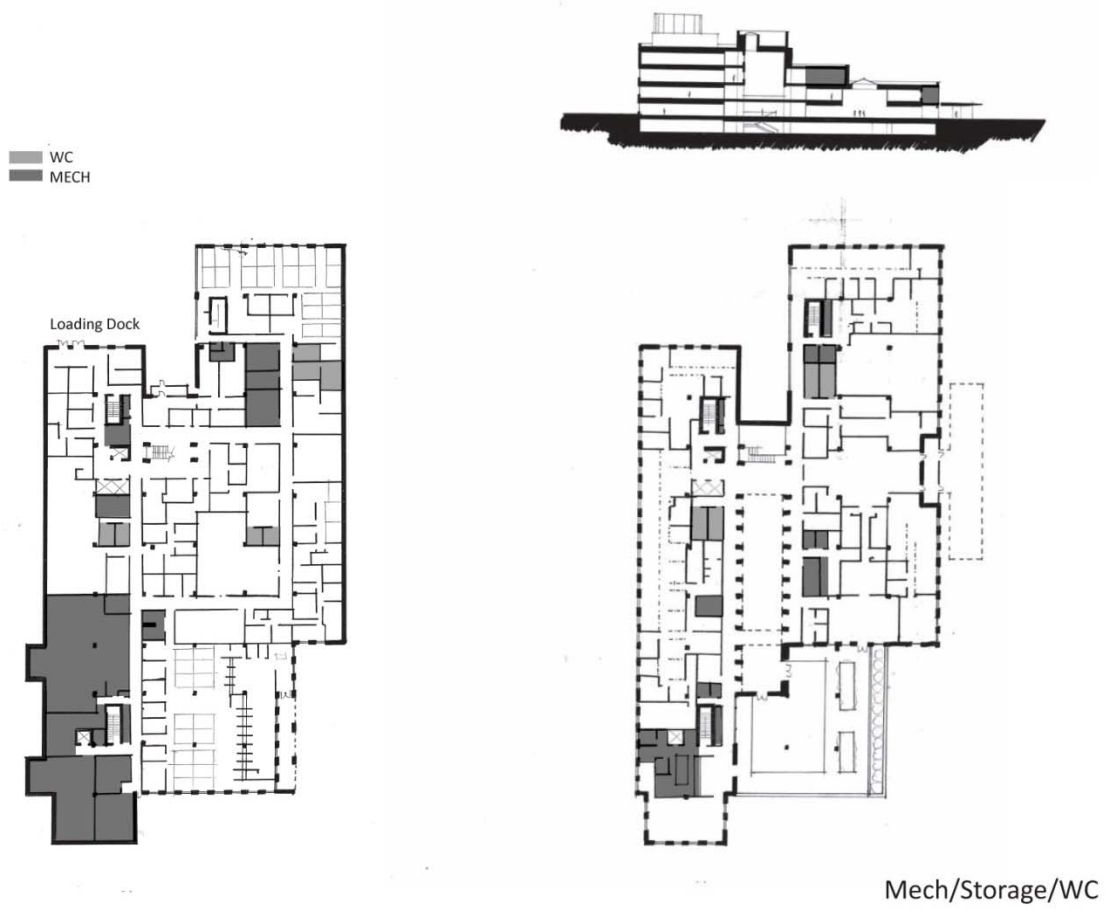


Figure 78: SED MECH/Storage/WC. Image by author.

Mechanical systems within the chancery are grouped to one corner against an exterior wall. Other mechanical and storage areas are scattered through the building, generally adjacent to circulation. Except for large mechanical areas, areas of posche seem unorganized and scattered throughout the chancery with no coherence.



Figure 79: SED Non-Consulate Offices. Image by author.

Offices of the embassy are located on every floor and throughout the building. In plan, these include private office spaces as well as large swaths of space filled with an array of temporary partition cubicles. The maze of offices demonstrates a catalog of different sizes, dimensions, and proportions. Columns sometimes are embedded in walls or awkwardly free standing in rooms. The SED, essentially two office blocks connected with a central atrium space allows for a range of office security. The most secure offices will be located in the block with no direct entrance to the site except for a loading dock. Offices that guests are more likely to visit are located in the office block containing the grand entrance.

- Conference/Visitors
- Cafeteria
- Warehouse Storage
- Consular Section

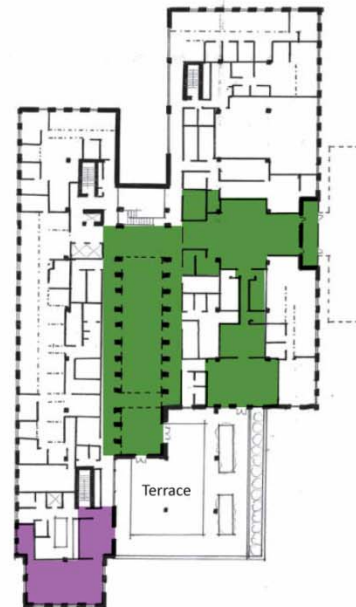
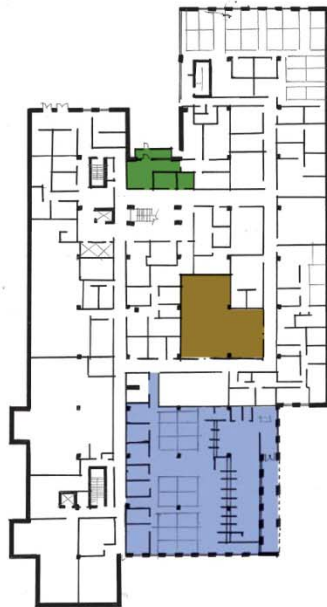


Figure 80: SED Other Program. Image by author.

Conference and visitor gathering areas are located at main entrances. The most hierarchical gathering spaces are located on the 1st floor following the grand entry sequence. The spaces lead to an exterior terrace and to a grand atrium. Both can be opened to allow guest entry or closed. The consulate is located on the ground floor with direct pedestrian access from the site. A waiting room is enclosed by teller windows and offices. A cafeteria is located above mechanical spaces on the ground floor with direct access to a service elevator and fire stair. Located inboard the building on the ground floor is a large storage room surrounded by offices.

- Conference/Visitors
- Cafeteria
- Warehouse Storage
- Consular Section
- WC
- MECH

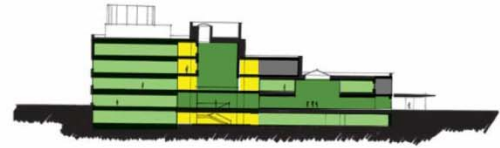


Figure 81: SED Total Program. Image by author.

The plan of the chancery connects two large office blocks with a central atrium and allows for many large gathering spaces to double as circulation. Smaller circulation meanders around groups of offices and protrudes into service areas. Storage, bathrooms, vertical circulation, and mechanical rooms are scattered throughout the plan. The overall diagram of two office blocks connected by an atrium is blurred by the addition of the consulate which allows offices to bleed into the atrium, which is reduced to a much smaller space, on the ground floor.

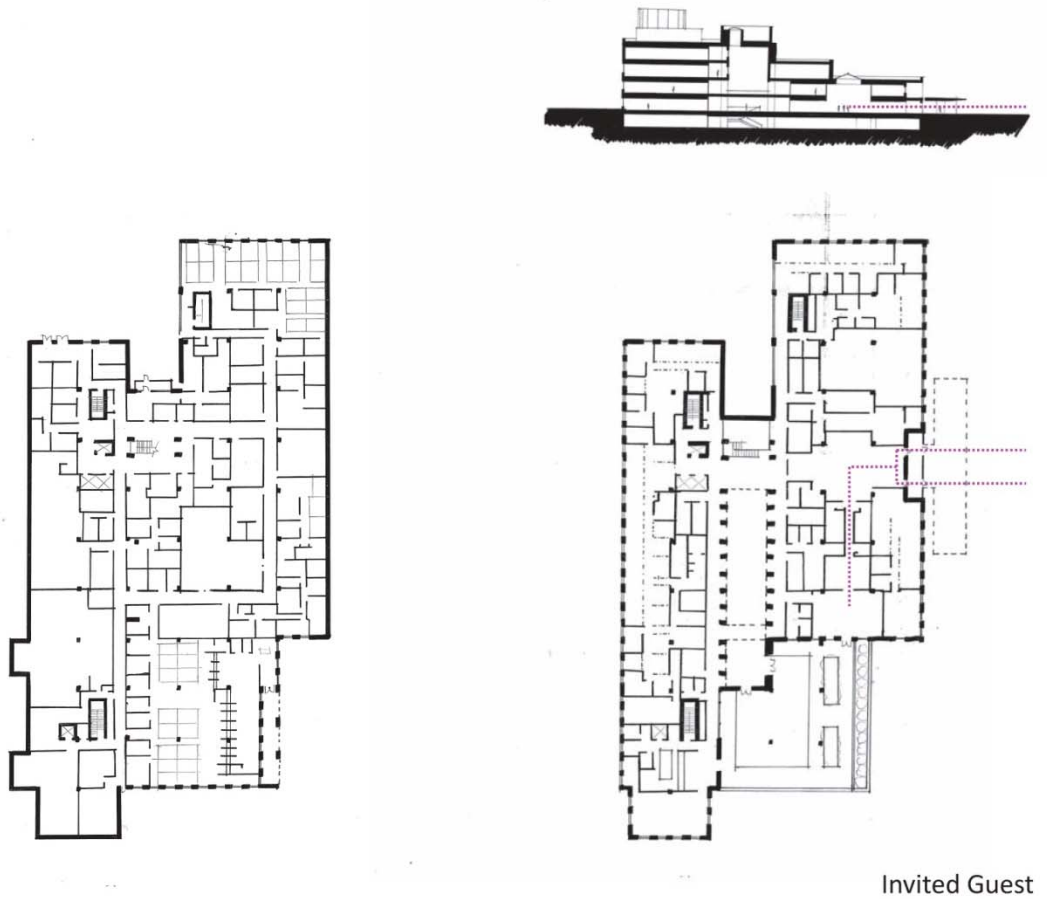


Figure 82: SED Invited Guest Pathway. Image by author.

The invited guest is allowed to enter directly into a main gathering area and can then be allowed to progress into the atrium and or continue to the main conference room which opens out to an exterior terrace. The guest will likely never venture any deeper into the more secure office block or to any other floors of the building. Bathrooms, meeting rooms, and coat storage are accessible.

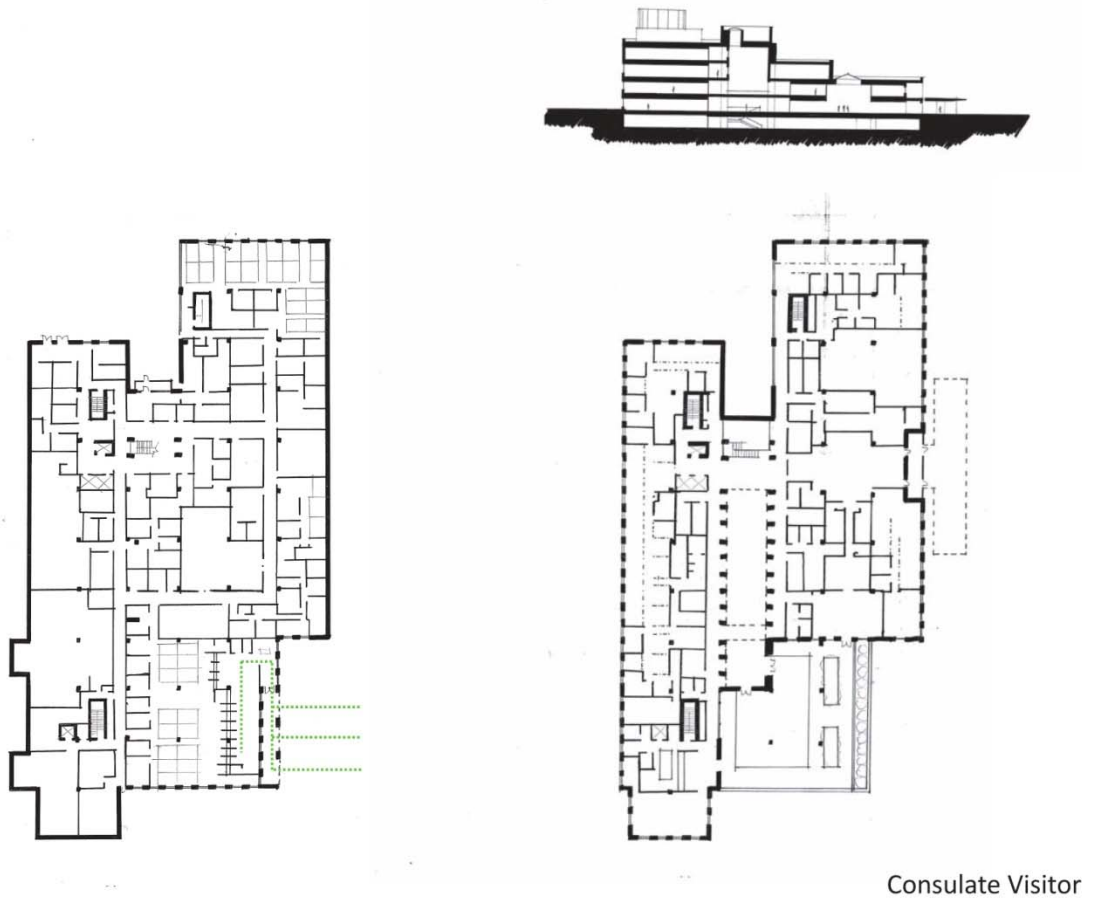


Figure 83: SED Consulate Visitor Pathway. Image by author.

The consulate visitor will never glimpse into a majority of the embassy. From the separate security checkpoint, visitors venture down a pathway and lead them underneath a small awning. Here, the visitor is again redirected into one small point of entry, where they will pass through another security checkpoint and arrive in a waiting room backed by teller windows.

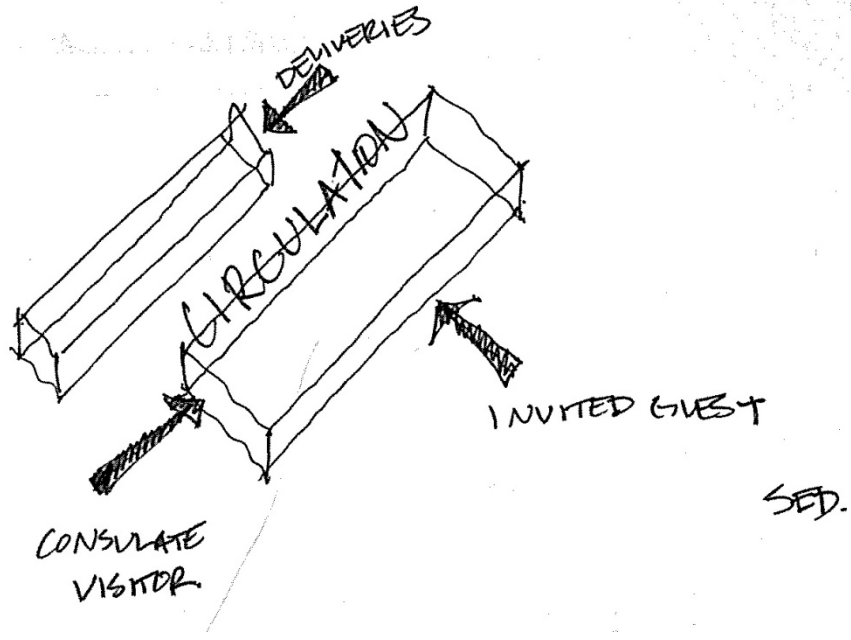


Figure 84: SED Circulation Diagram. Image by author.

Case Studies: U.S. Embassy to Lima, Peru

The current U.S. Embassy located in Lima, Peru, follows State Department SED mandates. Flat, unornamented facades cloak the five storey office block within. Visitors and guests are directed to separate parts of the embassy which is held up by a monotonous nine meter bay. “The message is now ‘keep out!’” for the 400 Peruvians who visit the embassy daily to obtain entry visas to the United States.⁴⁸



Figure 85: Peru Visitor and Guest Pathways. Image by author over an underlay in (Stein, 2006, 84).

⁴⁸ Stein, Karen. “A Fortress with No Apologies,” *Architectural Record* 184,10 (1996): 78-87.



Figure 86: Peru Structure. Image by author over an underlay in (Stein, 2006, 84).



Figure 87: Peru Circulation. Image by author over an underlay in (Stein, 2006, 84).



Figure 88:Peru Gathering Space. Image by author over an underlay in (Stein, 2006, 84).



Figure 90: Peru Auditorium and Conference Rooms. Image by author over an underlay in (Stein, 2006, 84).



Figure 89: Peru Library. Image by author over an underlay in (Stein, 2006, 84).



Figure 91: Peru Chancery. Image by author over an underlay in (Stein, 2006, 84).



Figure 92: Peru Consulate. Image by author over an underlay in (Stein, 2006, 84).



Figure 93: Peru WC and Storage. Image by author over an underlay in (Stein, 2006, 84).



Figure 94: Peru Complete Program. Image by author over an underlay in (Stein, 2006, 84).

Case Studies: British Embassy to the United States, Washington, D.C.

The British ambassador's residence and chancery is located off of Massachusetts Avenue, as a part of embassy row in Washington, D.C. The historic building, designed in 1929 by Sir Edwin Lutyens resembles that of a Parisian hotel with a semi-enclosed courtyard. The plan skillfully directs visitors on different promenades depending on the reason for the visit and weaves public, private, and servant rooms in a well orchestrated way. Today, there is a larger embassy structure on the site along with many added security barricades.

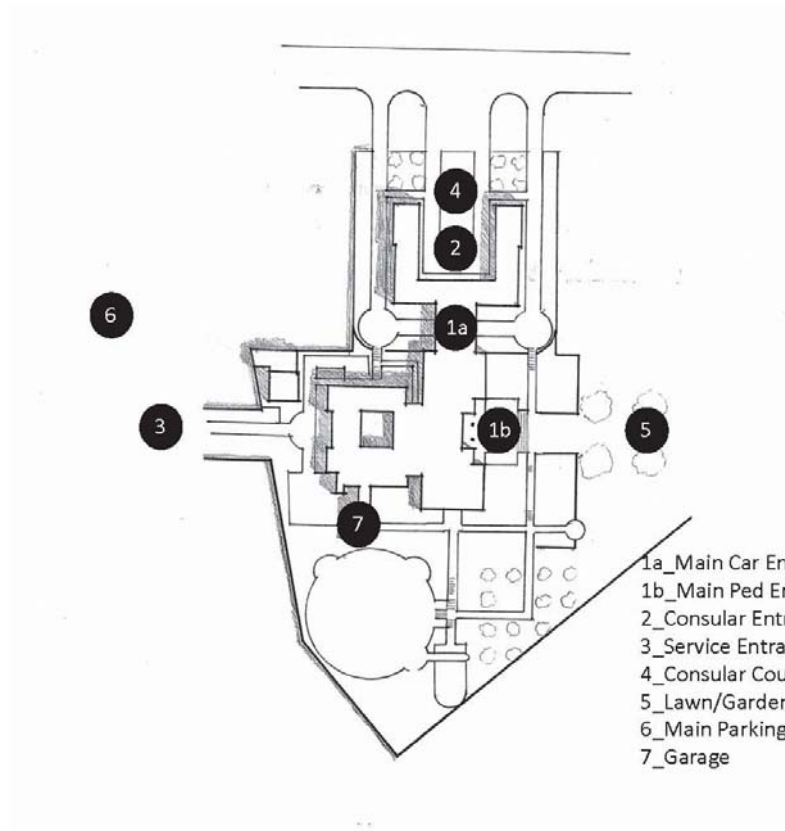


Figure 95:British Embassy Campus Buildings. Image by author.

The British Chancery to Washington, D.C. can be reached directly from Massachusetts Avenue. The site can be entered by car or by foot and immediately separates all traffic between consulate visitors and invited guests of the ambassador. A service entrance is located off axis of the visitor’s promenade. The principle façade of the chancery is located on axis parallel to the street and opens into a marvelous front lawn. Surrounding the chancery are gardens, lookouts, tennis courts, and parking.

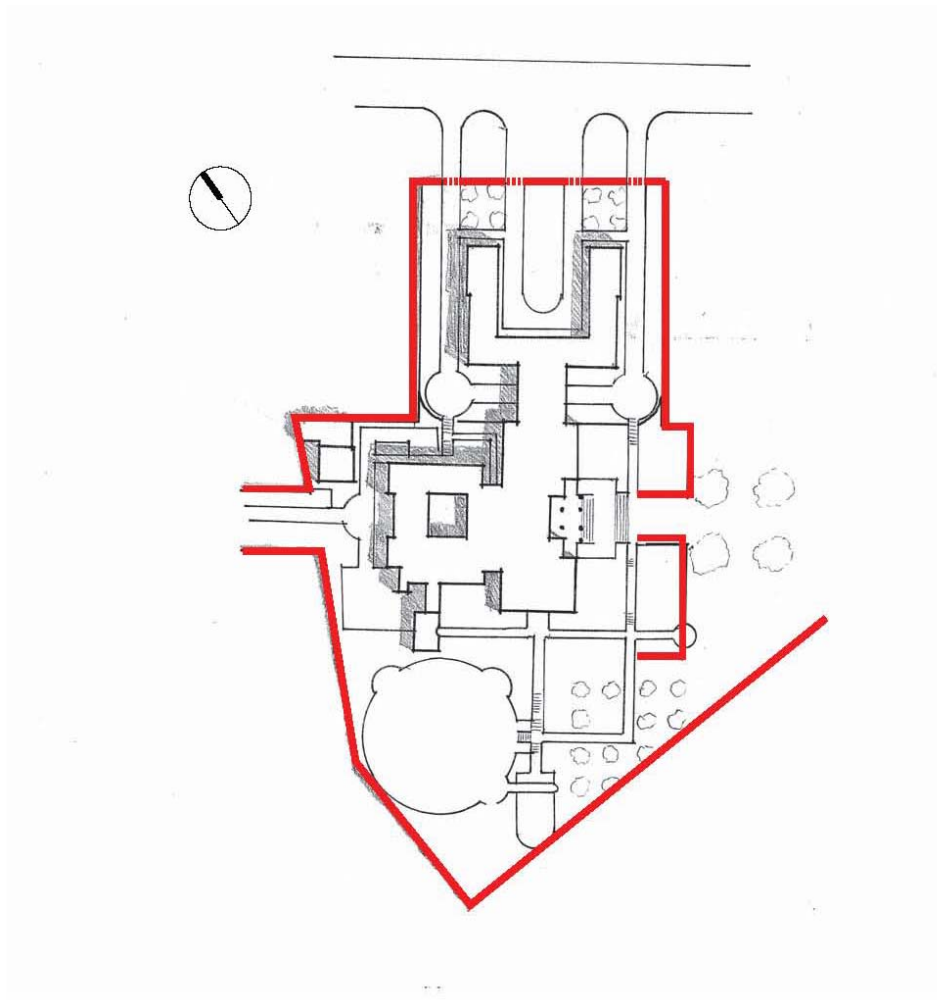


Figure 96: British Embassy Perimeter Security. Image by author.

A security perimeter is apparent around the site as either a retaining wall or gateway against Massachusetts Avenue. It is not clear if in 1929 the site was impenetrable, but ideas of security through the use of section in topography and ability to close off the site from visitors are evident. In line with current code, the chancery is located at a 90 meter setback from the street. Probably not originally for security purposes, this setback created a green buffer between the avenue and building. Currently, the entire site is gated with either a brick wall or elegant metal work. Brick planters and

benches line the street to prevent a vehicle from invading the site. Mechanical bollards denote areas that permitted traffic can enter.

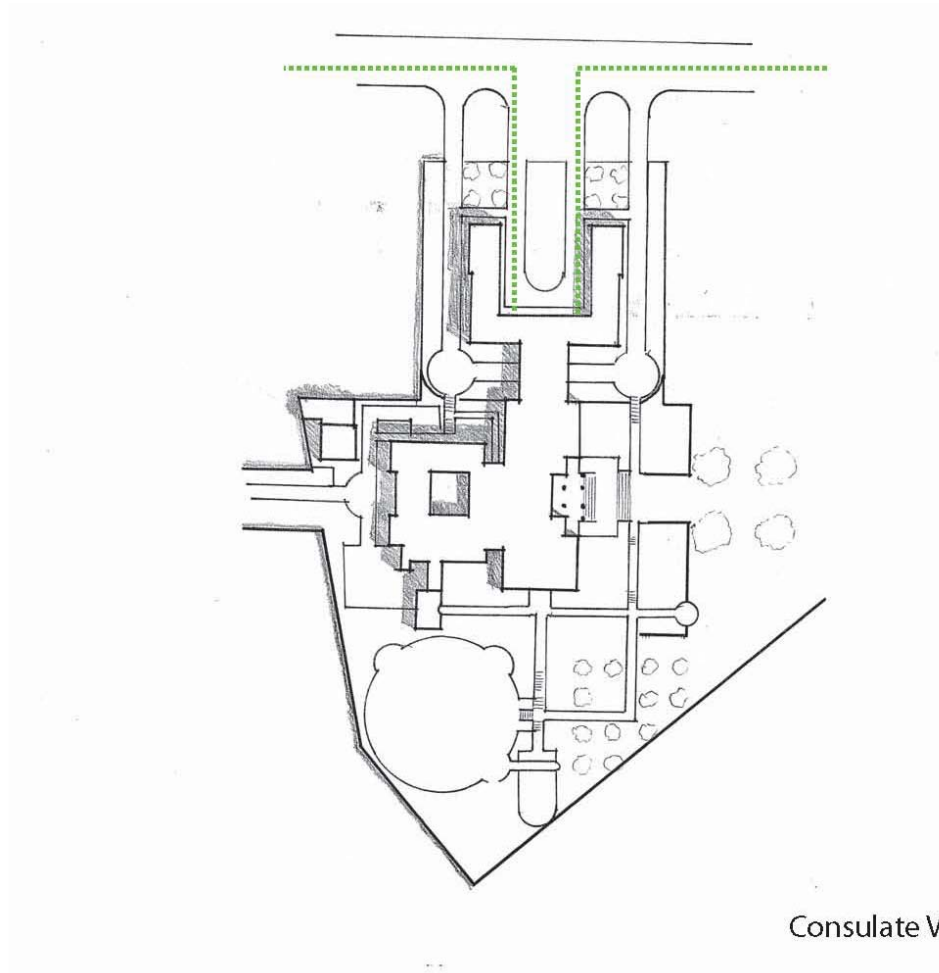


Figure 97: British Embassy Consulate Visitor Pathway. Image by author.

The visitor in need of consulate services is directed from the sidewalk or street through an “inner loop” courtyard where they may directly enter the consulate portion of the chancery. The general visitor will have to walk by foot to take a staircase down below street level into the building. Employees or those invited may walk directly into the building from the street level.

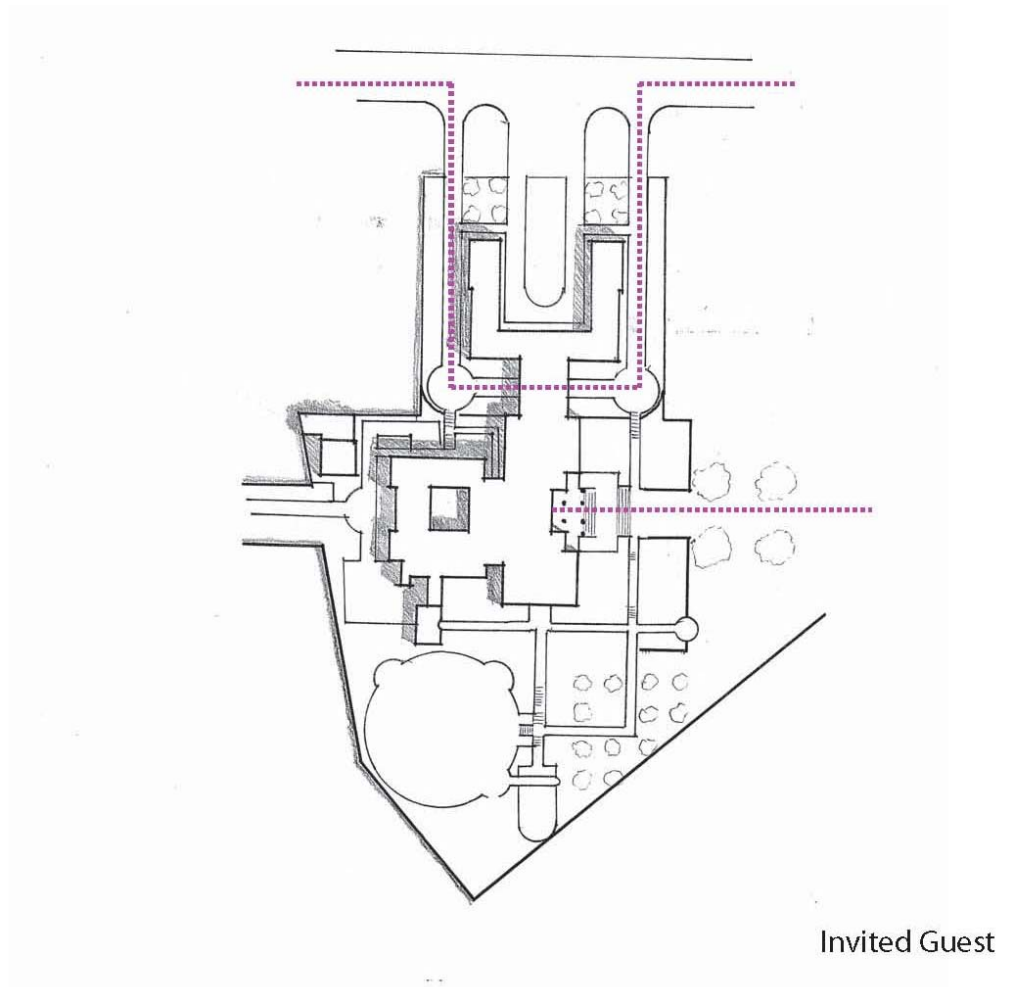


Figure 98: British Embassy Invited Guest Pathway. Image by author.

Invited guests to the embassy may bypass the consulate and access the chancery through an “outer loop” which takes them around the consulate and underneath the ambassador’s main office, which serves as a connector between the consulate and the rest of the chancery on the first level. Guests can be dropped off and enter directly into a small gathering area where they will be immediately served by embassy staff. By foot, the invited guest may enter the principle façade through the front lawn by ascending a grand staircase.

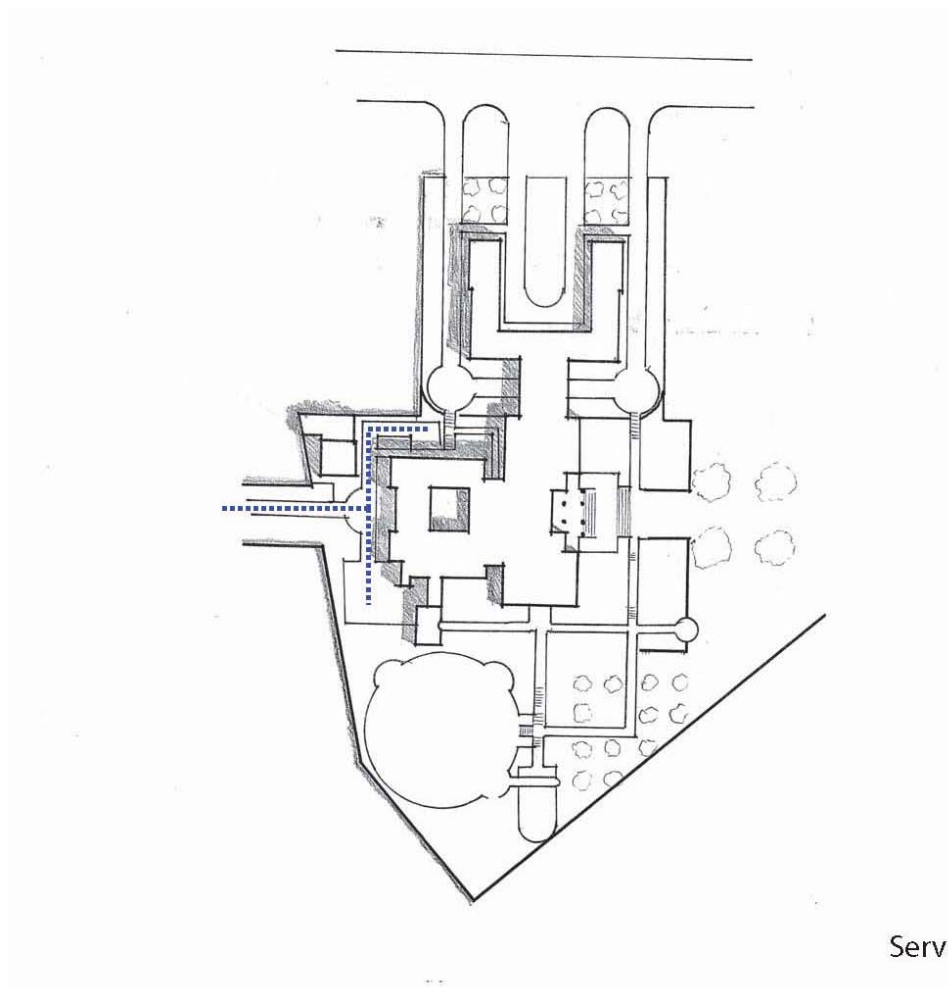


Figure 99: British Embassy Servant Pathway. Image by author.

Servants enter the chancery through the north-east end of the site and are provided a small parking lot and direct access to their principle work areas. They enter the site above street level and directly access the 1st floor of the chancery, where many of their work areas are located. They are also provided direct access to the garage where the ambassador's car is to be kept.



Figure 100: British Embassy Circulation. Image by author.

Principle circulation is carried out on axis created through the chancery and site design and is often located inboard the building. This allows for rooms to flank the perimeter and benefit from exterior windows. Much of the circulation can double as gathering or “ante” spaces. The clear circulation diagram creates simple geometric rooms and direct access throughout the entire building. Vertical circulation never intrudes upon horizontal circulation but is tucked away within nooks in the plan.

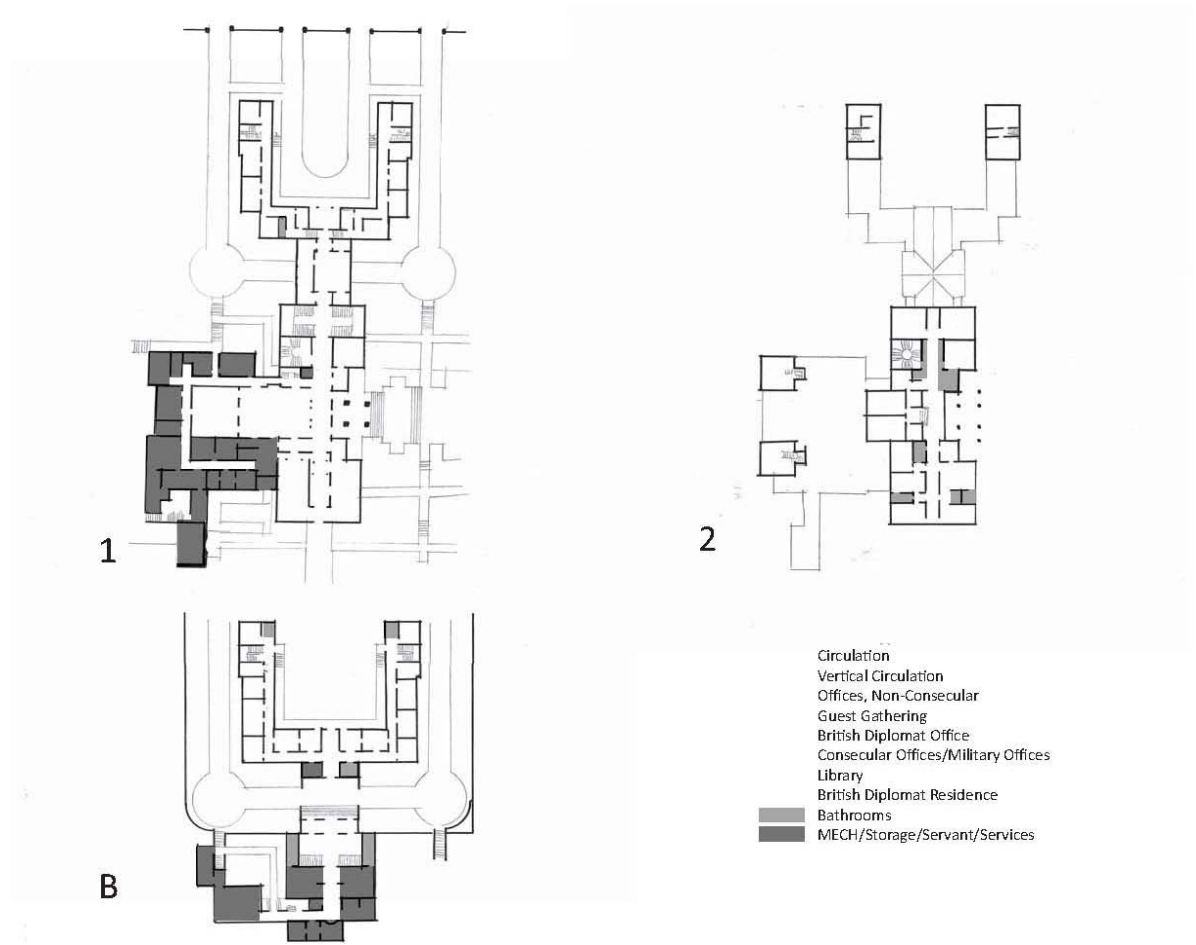


Figure 101: British Embassy Mech, Storage, and WC. Image by author.

Service areas are located to the southeast of the site. Here, servants can access the kitchen, work rooms, laundry room, storage and mechanical spaces. Servant areas are located with direct access to public and private space to ensure direct service to the ambassador and his guests. Vertical circulation allows servants to ascend to the ambassador's residence or descend to the wine storage and visitor entry. Bathrooms are located directly adjacent to entering the consulate or chancery. In selected places, storage is placed adjacent to circulation space within a thickened wall.



Figure 102: British Embassy Offices, Gathering, and Diplomat Office. Image by author.

Offices not a part of the consulate are located in a more private zone above the ground floor. The British ambassador's office acts as a hinge between the consulate wing and the ambassador's residence. It is located in close proximity to all office spaces in the chancery. A drawing room for the ambassador is located within his residence adjacent to guest entertainment areas such as the dining room, library, and courtyard.

Much of the circulation doubles as guest gathering and entertainment zones.

Guests have ample ability to congregate at the chancery entrance on the basement floor and on the first floor in the dining room, ball room, courtyard, and principle façade entry.



Figure 103: British Embassy Other Program. Image by author.

The consulate offices are located on the ground level of the chancery and immediately available from the street. A library for the public is also located within the plan. A second, semi-private library for the ambassador is located at the 1st level. Private bedrooms and living quarters are located away from guest areas in the 2nd floor of the chancery.



Figure 104: British Embassy Complete Program. Image by author.

The British Embassy to Washington, D.C. groups program areas in strategic locations without prohibiting necessary access points. Servants can easily reach the guest entertainment zones as well as the private residence of the ambassador. Guests, embassy employees, and consulate visitors all have close access to the ambassador's office certain rooms, such as the ambassador's library and drawing room, can be opened or closed to guests while the consulate can act as a segregated or integrated part of the plan.

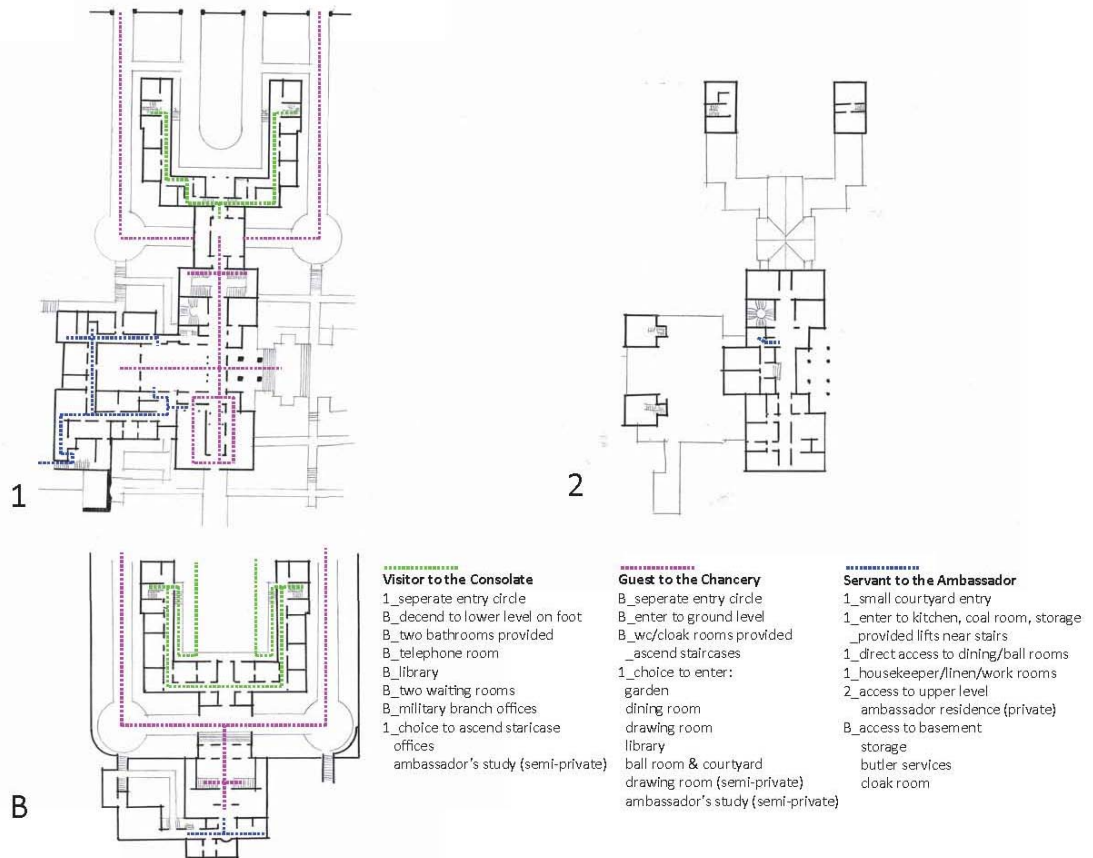


Figure 105: British Embassy Pathways. Image by author.

A visitor to the consulate enters the site through an “inner loop” courtyard and descend below ground level to access the chancery. Immediately, visitors are confronted with telephone rooms, bathrooms, a public library, and waiting rooms. Offices flank the U-shaped corridor. If necessary, consulate visitors may ascend to the 1st floor to visit embassy staff offices or the ambassador himself.

An invited guest to the chancery enters the site using a separate “outer loop”. After being dropped off by a driver, guests enter directly from the ground floor into a vestibule and gathering area. They are immediately served in the cloak room and have

access to bathrooms before ascending a ceremonial staircase up to the ambassador's residence. Once within the residence, guests are free to enter the dining room, ball room, courtyard, and grand entrance staircase which leading to the lawn. The ambassador's library, drawing room, and study may be open or closed to the guests.

A servant to the ambassador enters through the north east of the site using a separate entrance and small courtyard. Servants enter adjacent to the kitchen and are confronted with a coal room and storage areas. Direct access to the dining and ball rooms is provided. Staircases and lifts are provided for easy access to guest entry (including coat room, wine storage, and butler area) as well as ambassador's personal residence.



Figure 106: British Embassy Public Vs. Private. Image by author.

The embassy is divided into public, invited guest, semi-private, and private areas. The public has direct access to the consulate accessed from the ground floor, while other chancery office access must be granted. Guests may be admitted into entertainment portions of the ambassador's residence while ensuring the drawing room, dining room, library, and study of the ambassador are kept private. These rooms could also be opened for guests. A private 1st floor staircase grants access to the ambassador and his family to the private 2nd floor which houses bedrooms and bathrooms. Servant areas are

concentrated to one portion of the embassy while allowing for access to all other portions.

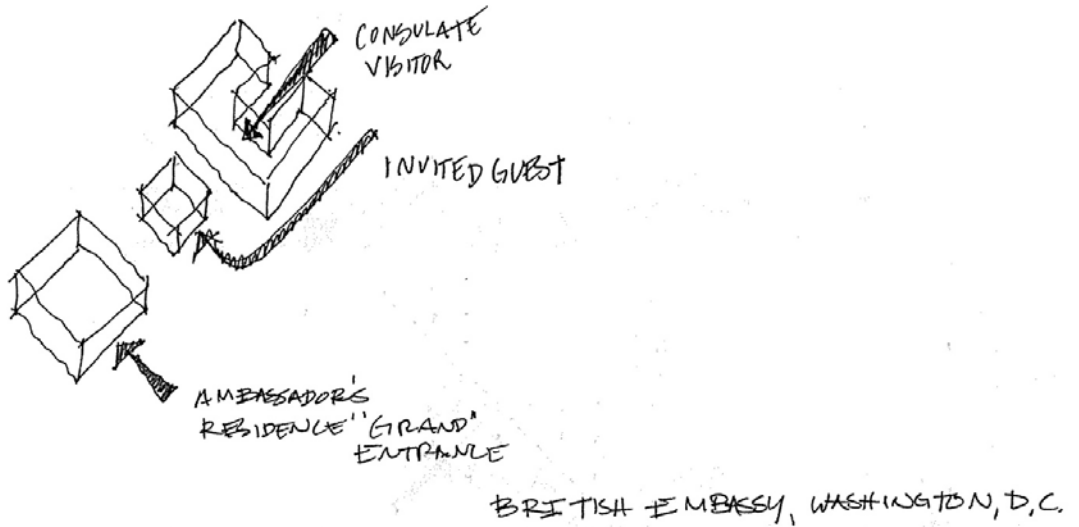


Figure 107: British Embassy, Circulation Diagram. Image by author.

Case Studies: Hôtel de Salm, Paris

The French Hôtel seeks to direct different user group's promenade through the building, essentially organizing all visitors. This example includes a large forecourt that helps to direct traffic. Employees are able to enter to the east side of the building either from the street or into the grand courtyard. Guests of the building could park to the west side of the building before continuing into the grand spaces. Visitors can directly walk into the main courtyard where grand public rooms are located on access with their arrival point. Security zones are located at all entrances.



Figure 108: Hotel de Salm Solid and Void. Diagram by author over an existing underlay.



Figure 109: Hotel de Salm Employee Pathway. Diagram by author over an existing underlay.



Figure 110: Hotel de Salm, Visitor Pathway. Diagram by author over an existing underlay.



Figure 111: Hotel de Salm, Guest Pathway. Diagram by author over an existing underlay.



Figure 112: Hotel de Salm, Public Space. Diagram by author over an existing underlay.



Figure 113: Hotel de Salm, Security. Diagram by author over an existing underlay.



Figure 114: Hotel de Salm, Connection between zones. Diagram by author over an existing underlay.

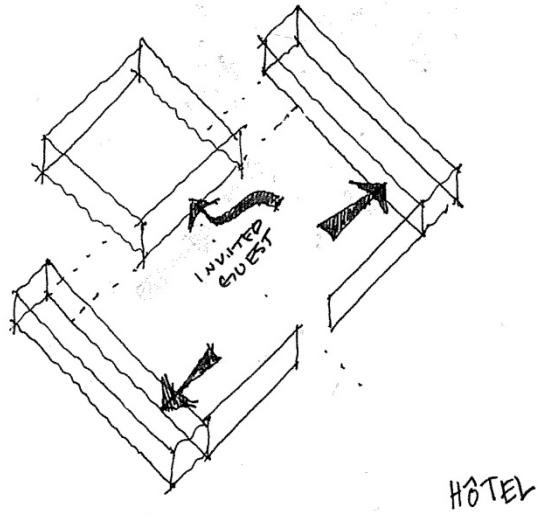


Figure 115: Hotel de Salm Circulation Diagram. Image by author.

Case Studies: U.S. Embassy to India, New Delhi, 1959

The story of a successful contextual embassy can be told by Edward Durell Stone's American Embassy to New Delhi. The project borrows the best attributes of monumental Indian architecture, from buildings such as the Taj Mahal, and abstracts them to create an American embassy. Inside, offices circle an interior water garden complete with wildlife, facilitating evaporative cooling in the hot climate. Overhangs and an exterior sun screen help to curb sunlight, air conditioning loads, and glare.⁴⁹ Local builders were employed, adding another layer of contextual design. Innovations include a double layer roof, separated by an air gap, which allows air to move through and reduces building cooling loads.⁵⁰ A platform, flat roof, courtyard, sun screen, and ivory façade combined with innovations to represent the pleasures, power and strength of America without "ponderous weight".⁵¹

⁴⁹ Ranjit Sabikhi. 1989. "Evaluation of a 50's Landmark: Edward Stone's New Delhi Embassy," *Architecture* 78,1: 76-79.

⁵⁰ Loeffler, 1998, 191.

⁵¹ Loeffler, 1998, 192.



Figure 116: New Delhi Site Pathways. Image by author over an underlay in (Sabikhi, 1989, 68).

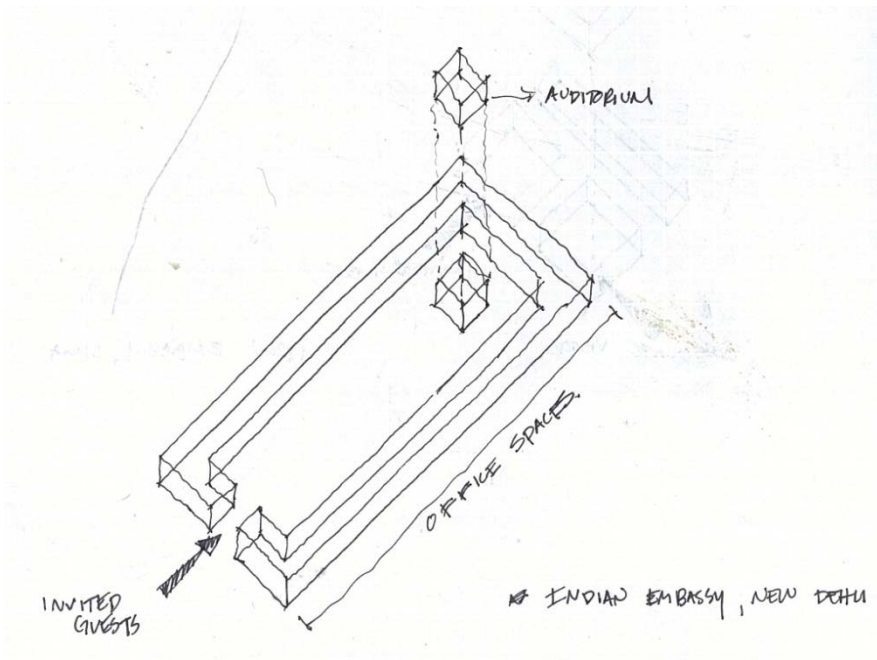


Figure 117: New Delhi Circulation Diagram. Image by author.



Figure 118: New Delhi Circulation. Image by author over an underlay in (Sabikhi, 1989, 68).



Figure 119: New Delhi Offices. Image by author over an underlay in (Sabikhi, 1989, 68).



Figure 120: New Delhi Gathering. Image by author over an underlay in (Sabikhi, 1989, 68).



Figure 121: New Delhi Service Areas. Image by author over an underlay in (Sabikhi, 1989, 68).



Figure 122: New Delhi Complete Program. Image by author over an underlay in (Sabikhi, 1989, 68).

Case Studies: U.S. Embassy to England, London, 1960

Among the embassies deemed by Jane Loeffler as part of the “Hayday” of embassy design is Eero Saarinen’s design for an American embassy in Grosvenor Square. The structure attempts to reference the classical past and become a harmonious, yet slightly bolder, addition to the neo-Georgian master plan of the square. The “English precast structural system” was designed to create a building of appropriate height with windows that were scaled to buildings within the square.⁵² Saarinen selects Portland stone, a material often employed in London and used in neighboring buildings as decorative trim, as “the” material of the embassy.⁵³ This material would age alongside other London structures as soot darkens the gray building, causing bronze detailing to stand out.⁵⁴

Unfortunately, innovation in the design prevailed in the detailing and structure of the embassy and critics failed to appreciate the reflection of society, ceremony, and community that Saarinen attempted to communicate. A polite criticism condenses the overall feeling that “disappointment overshadowed its structural innovations and thoroughly worked out details in...interiors and furniture”.⁵⁵ The building did not fulfill the desire and excitement of a “revolutionary”, progressive, and “American” building within, as the English see, a bland, historic context.⁵⁶ The scheme is successful in that the plan directs different user groups while integrating placing shared spaces throughout

⁵² Loeffler, 1998, 203-204.

⁵³ Eero Saarinen. *Eero Saarinen on his Work; A Selection of Buildings Dating From 1947 to 1964 with Statements by the Architect*. 1968. New Haven: Yale University Press. 48.

⁵⁴ Loeffler, 1998, 203.

⁵⁵ Eva-Lissa Pelkonen, and Donald Albrecht. 2006. *Eero Saarinen: Shaping the Future*. New Haven: Yale University Press. 296.

⁵⁶ 1961. “Controversial Building in London [U.S. Embassy],” *Architectural Forum* 114: 80-85.

the building. For example, the consulate offices may be used by all user groups, so it is therefore placed in a way that all users can reach it.



Figure 123: London Pathways. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 124: London Circulation. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 125: London Gathering. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 126: London Library. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 127: London Consulate. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 128: London Exhibit. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 129: London WC and Storage. Image by author over an underlay in (Atkinson, 1961, 258).



Figure 130: London Complete Program. Image by author over an underlay in (Atkinson, 1961, 258).

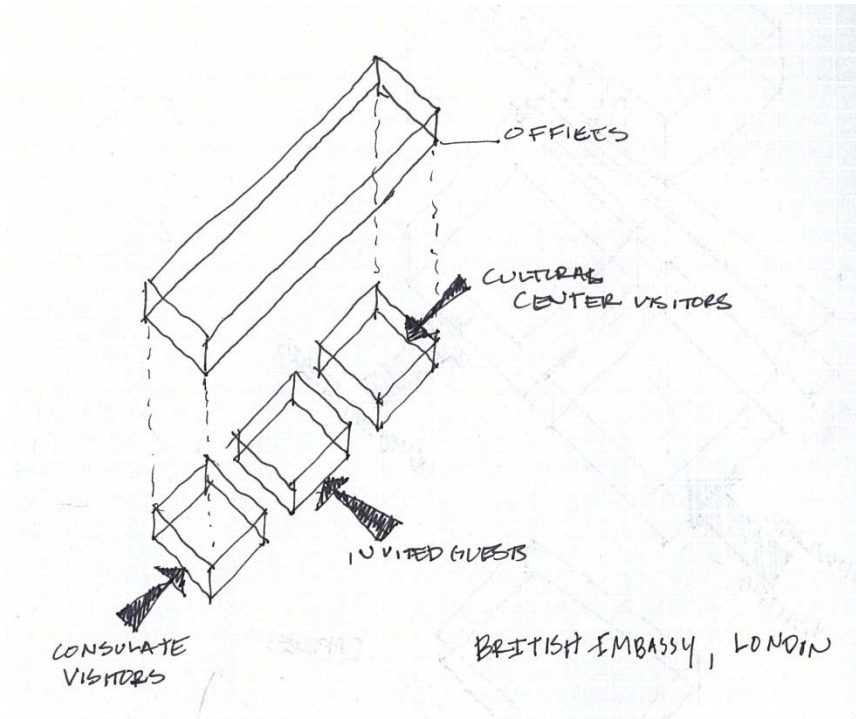


Figure 131: London Entrance Diagram. Image by author.

Case Studies: Villa Barbaro, Veneto

This suburban villa demonstrates effective ways to integrate multiple entrances for different user groups. The villa also allows for a shared thoroughfare to be used by servants, guests, and residents. Servant spaces are placed in a way that they can reach grand public spaces without interrupting events.



Figure 132: Villa Barbaro Principle Entrance. Diagram by author over an existing underlay.



Figure 133: Villa Barbaro Other Entrances. Diagram by author over an existing underlay.



Figure 134: Villa Barbaro Vehicular Entrance. Diagram by author over an existing underlay.



Figure 135: Villa Barbara Invited Guest Spaces. Diagram by author over an existing underlay.



Figure 136: Villa Barbara Servant and Strage Spaces. Diagram by author over an existing underlay.



Figure 137: Villa Barbara Massing and Connections Diagram. Diagram by author over an existing underlay.

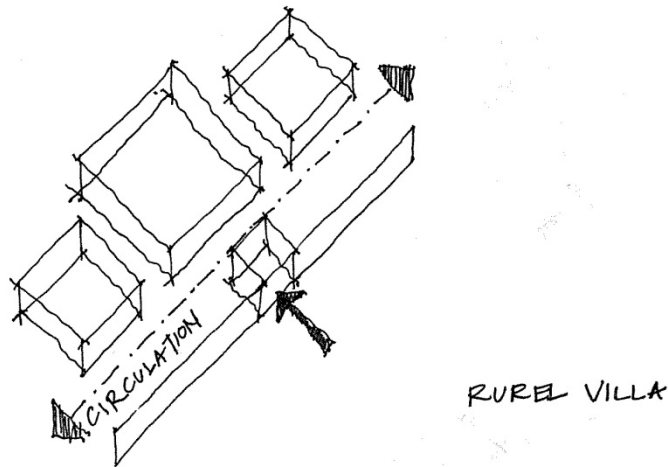


Figure 138: Villa Barbara Entrance Diagram. Diagram by author over an existing underlay.

Case Studies: Villa Giulia, Rome

This 'Villa Suburbana' presents an integration of indoor, covered outdoor, and outdoor spaces that direct user groups throughout the complex. The villa is integrated within the historic fabric of Rome as part of the city. Users travel on and off axis depending on needs.



Figure 139: Villa Giulia Solid Vs. Void. Diagram by author over an existing underlay.



Figure 140: Villa Giulia Principle Pathway. Diagram by author over an existing underlay.



Figure 141: Villa Giulia Covered Pathway. Diagram by author over an existing underlay.



Figure 142: Villa Giulia Alternative Pathway to "Secure Area". Diagram by author over an existing underlay.

New Consulate for Istanbul, Turkey Program

The program for the new consulate in Turkey can be broken down into three parts: the chancery, the consulate, and the visitor's center. The programmatic requirements are taken from the 2000 ACSA competition "Designing an Embassy for a New Millennium"⁵⁷. The requirements listed are adjusted based on information available on the Department of State's websites for the existing Consulate in Istanbul as well as the Embassy in Adana⁵⁸. These websites specifically list offices represented in each building and provide links to further describe office duties. Precedent thesis documents, including Patrick Kolesiak's "Architecture as a Diplomatic Tool: A Proposal for the New American Embassy in Baghdad, Iraq" and Ian Fishman's "Embassy of Cuba in Washington, D.C." further helped to refine the program. A last adjustment of the program is made upon visiting the U.S. Consulate to Istanbul and is based on discussion with the staff and personal experience.

⁵⁷ Association of the Collegiate Schools of Architecture. *U.S. Embassy for the New Millennium Competition 2000*.

⁵⁸ Consulate General of the United States. "Offices/Departments." Accessed November 2010. http://istanbul.usconsulate.gov/offices_department2.html and http://adana.usconsulate.gov/us_consulates.html.

Chancery General Requirements

The chancery, often called an embassy, is the building that houses all diplomatic offices including the consulate. The ambassador to a nation can live within or outside of the chancery.

Program	Quantity	m ²	Total m ²	Security
Public Entrance				
This grand entrance will be used by diplomats and guests of the ambassador only.				
main lobby	1	43	43	
screening/inspection area	2	15	30	
reception area	1	22	22	
marine security guard (MSG) post 1	1	15	15	
multipurpose room	1	210	210	
			320	

Executive Section

The executive section of the embassy houses the offices of the ambassador who is the official representative of the United States President in a foreign country. The Deputy Chief of Mission is second in command and oversees the daily activities within the chancery. The deputy becomes Chargé d'Affaires in the event of the ambassador's absence.

ambassador	1	35	35	
deputy chief of mission	1	28	28	
legal office	1	11	11	
executive secretary	5	10	50	
protocol officer	1	11	11	
assistants	3	11	33	
reception/waiting area	1	11	11	
language services	1	28	28	
conference room	1	28	28	
work room	1	11	11	
rest room	1	5	5	
			251	

Regional Security Office (RSO)

Office oversees all functions of security within an embassy and are charged with tracking down and capturing United States fugitives. Includes offices of the U.S. Department of Justice, FBI, and the International Criminal Investigative Training Program.

regional security officer	1	22	22
regional security assistants	7	11	77
secretary	1	10	10
waiting room	1	14	14
engineering security officer	1	22	22
marine security garde detachment office	1	22	22
			167

Drug Enforcement Administration (DEA)

Investigates narcotics and chemicals used to manufacture drugs. In Turkey, this office investigates many other middle eastern countries and is charged with destroying narcotic trafficking organizations. The DEA also helps foreign countries' law enforcement fight drug manufacturing and trade. Heroin is a top priority in this region. Includes offices of the International Narcotics and Law Enforcement agencies and the Bureau of Alcohol, Tobacco and Firearms.

DEA chief	1	22	22
DEA assistants	6	11	66
work room and files	2	14	28
waiting room	1	5	5
			121

Office of Regional Affairs (ORA)

Office focuses on middle east nonproliferation by developing regional policies, working with regional allies, building regional confidence, and promoting regional diplomacy.

ORA Chief	1	22	22
ORA officers	10	14	140
ORA assistants and clerks	10	11	110
ORA secretary	1	10	10
work room and files	10	11	110
meeting room	1	22	22
waiting room	1	11	11
restroom	1	5	5
			430

Foreign Agricultural Service (FAS)

Represents USDA's interests in the region by reporting commodity and trade statistics, coordinating trade policy, and promoting sale of United States products.

FAS chief	1	22	22
FAS assistants	6	11	66
work room and files	2	14	28
waiting room	1	5	5
			121

Office of Overseas Prosecutorial Development, Assistance and Training (OPDAT)

Ensures collaborative relationship in matters of terrorism and terrorism financing by working with Turkish prosecutors and law enforcement.

OPDAT chief	1	22	22
OPDAT assistants	6	11	66
work room and files	2	14	28
waiting room	1	5	5
			121

Administrative Section (Human Resources)

Oversees hiring and employee affairs as well as embassy finances.

administrative chief	1	22	22
administrative assistant	1	11	11
financial management officer	1	11	11
financial management assistants and clerks	5	10	50
human relations officer	4	11	44
work room	1	11	11
waiting room	1	10	10
			159

Public Diplomacy Section

Works with Turkey to provide information to local public about the United States.

public diplomacy chief	1	22	22
public diplomacy officers	3	14	42
public diplomacy assistants	10	11	110
cultural affairs officer	1	14	14
cultural affairs assistants	4	11	44
work room and files	1	22	22
meeting room	1	22	22
restrooms	1	10	10
press office	1	22	22
information resource center (IRC)	1	22	22
English language office	1	22	22
			352

Computer Services

computer management specialist	2	11	22
computer technicians	9	10	90
computer storage and work room	1	65	65
			177

Service Entrance

Cafeteria	1	85	28
mail/pouch room	1	23	23
loading dock	1	43	43
trash area	1	23	23
			117

Community Services

located near public access

community liaison office	1	11	11
community liaison library	1	18	18
			28

Health Unit

health unit exam rooms	3	13	39
health unit waiting room	1	13	13
health unit restroom	1	5	5
pharmacy/health unit storage	2	15	30
nurse station	1	9	9
reception station/files	1	15	15
physician office	1	15	15
			126

Consular Section

Provides services for individual Americans or Turkish Public. All offices are considered unrestricted access.

chief consular officer	1	22	22
secretary	1	9	9
work room/ files	1	11	11
conference room	1	29	29
waiting/ reception room	1	9	9
staff restrooms	2	14	28

			108
Consular Affairs Public Access			
entrance lobby	1	30	30
screening/inspection area	2	15	30
restrooms	2	25	50
			110
Immigrant Visa Unit (IV)			
chief consular officer	1	15	15
consular officers	3	11	33
specialists/assistants	9	9	81
teller windows	9	5	45
work room	1	11	11
IV waiting room	1	23	23
			208
Non Immigrant Visa Unit (NIV)			
chief consular officer	1	15	15
consular officers	3	11	33
specialists/ assistants	11	9	99
work room	1	22	22
NIV waiting room	1	30	30
			199
American Citizen Service Unit			
chief consular officer	1	15	15
consular officers	1	11	11
specialists/ assistants	3	9	27
teller windows	3	5	15
workroom/storage	2	22	44
waiting room	1	31	31
			163

U.S. Agency for International Development (USAID)

USAID director	1	22	22
USAID officers	10	11	110
USAID assistants and clerks	20	10	200
work room and files	10	14	140
meeting rooms	4	28	112
conference room	1	35	35
restroom	1	11	11
reception	1	22	22
peace corps	2	11	22
			674

Cultural Center

Unrestricted access area to foster goodwill between America and the Turkish public. Often located in the consulate, this thesis intends to make the cultural center program stand out as a beacon to the host country.

International Information Program (IIP)

IIP officer	1	11	11
IIP assistants and librarian	1	10	10
IIP library	1	44	44
IIP exhibition space	1	28	28
work room and files	1	22	22
restroom	2	11	22
auditorium	1	75	75
			212

Chancery Total Area	4418
Consulate Total Area	1462
Cultural Center Total Area	212
Gross Area	6092
<hr/>	
30% MECH/CIRCULATION	1827
TOTAL AREA	7.919m²

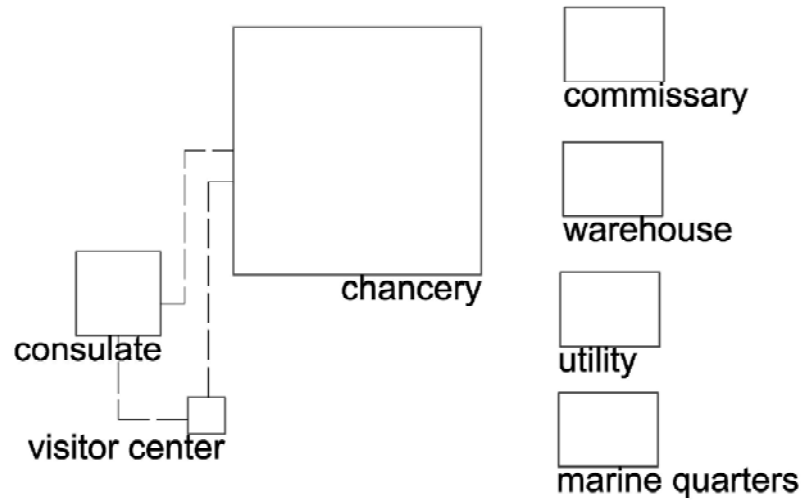


Figure 143: Consulate Compound Program. Image by author.

Program Adjacencies

A standard United States Consulate Compound includes the main Chancery building which houses all secure office functions within the compound. Consulate services offices may be used by visitors to obtain entry visas or other necessary documents.



Figure 144: Chancery Program. Image by author.

consulate



Figure 145: Consulate Program. Image by author.

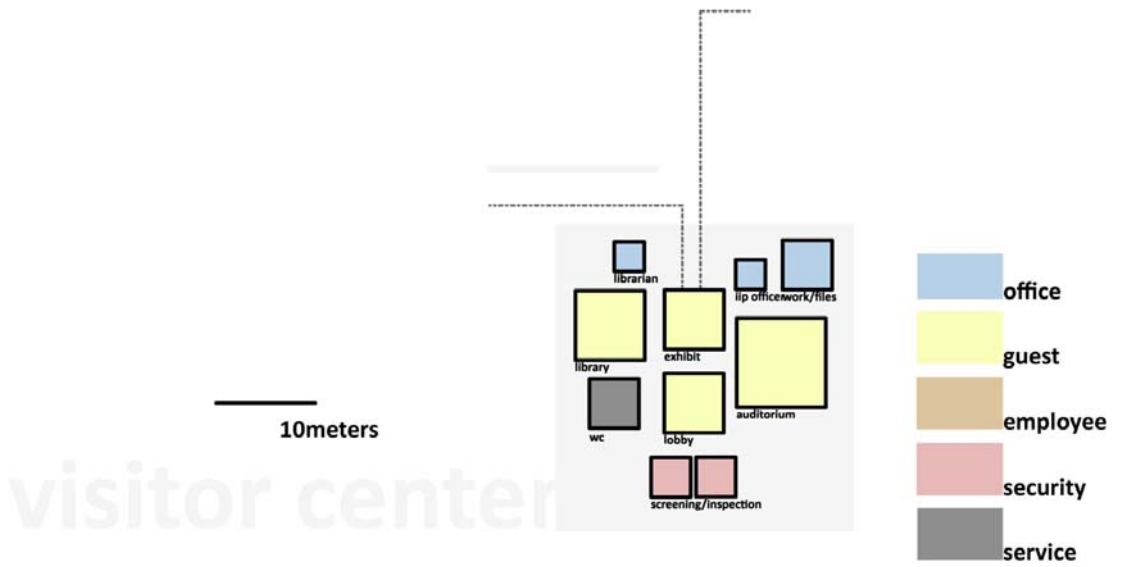
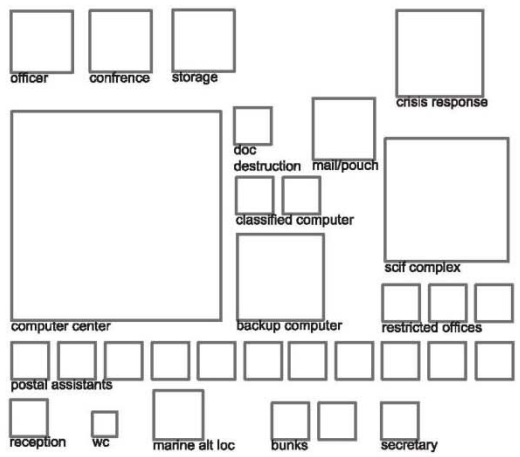
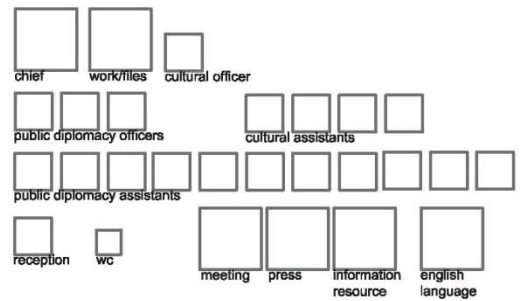


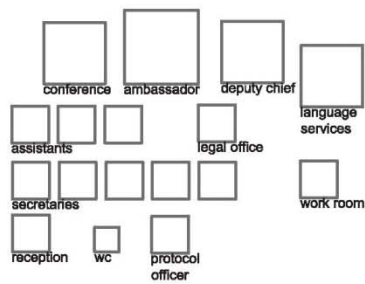
Figure 146: Visitor's Center Program. Image by author.



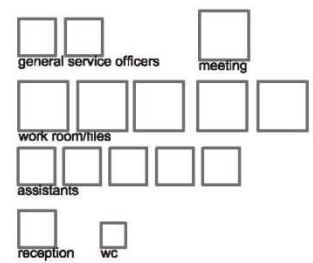
communications operation center and services



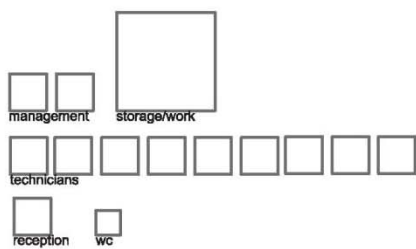
public diplomacy



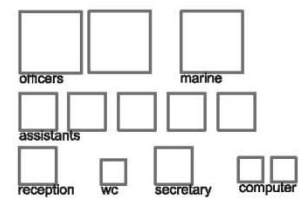
executive section



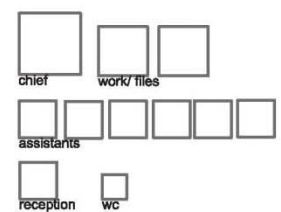
general service office



computer services



regional security office



drug enforcement administration

Figure 147: Chancery Office Program 1. Image by author.

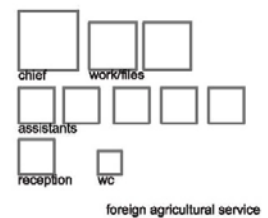
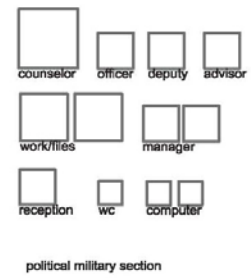
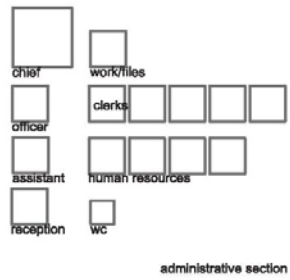
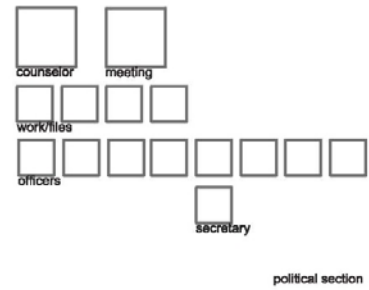
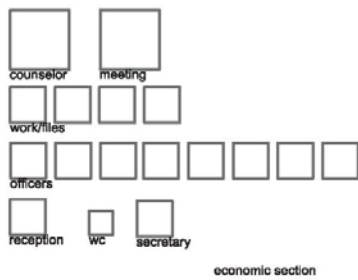
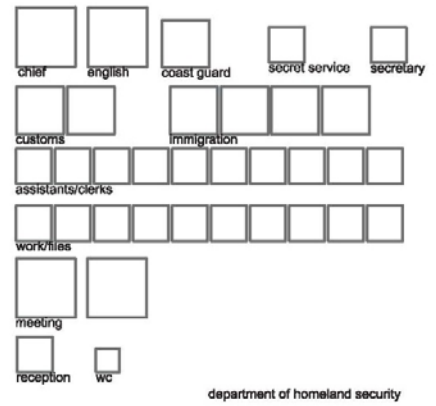
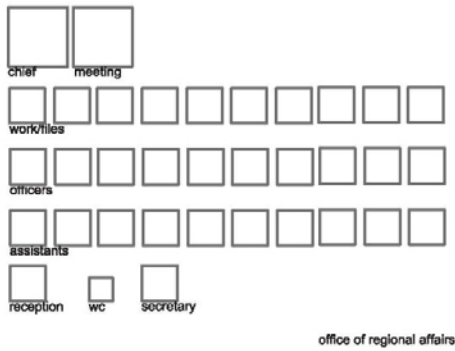
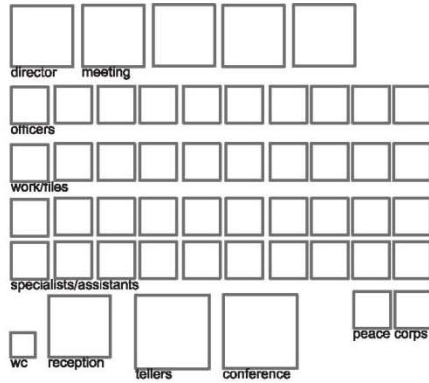
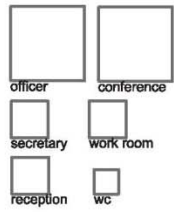


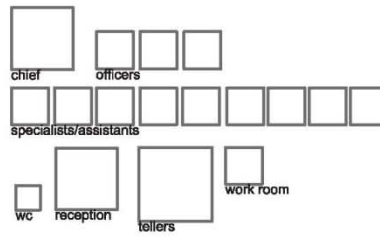
Figure 148: Chancery Office Program 2. Image by author.



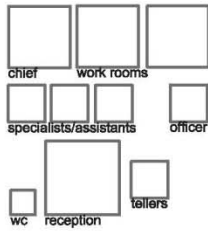
us agency for international development



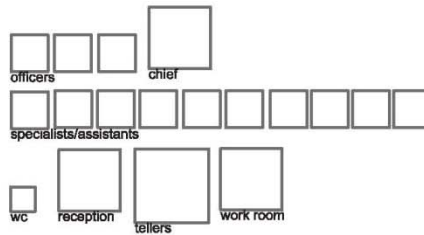
consulate general office



immigrant visa unit



american citizen unit



non immigrant visa unit

Figure 149: Consulate Office Program. Image by author.

Community Outreach and Education

The proposal for a new consulate will greatly enhance the visitor's center in order to attract cultural events and bridge the gaps between the culture of the United States and host country. Currently, the visitor center has been minimized or eliminated in most consulates. Standard embassy design mandates that compounds must be located outside of the city, therefore few visitors have the time, ability, or will to use the visitor center. The State Department justifies this by acknowledging that all information is available online and there is no need to provide space for visitors to research, mingle, or experience. An attempt to place artwork in embassies has failed due to the fact that it is often placed outside of areas that the average visitor is allowed.

CHAPTER 6: EMBASSY COMPOUND TECTONICS AND SECURITY

Security Features and Innovations

An embassy, like all forms of architecture must be designed as a permanent part of a changing world. Security threats change daily and designing for the highest possible security with the lowest social and monetary cost is integral to embassy design. If designed correctly, security can be incorporated into the site and structure of a diplomatic post without sacrificing the architectural quality of the intervention. Environments that appear highly secure could arguably attract crime. Currently, over 80% of terrorist attacks involve a vehicle charged with explosives.⁵⁹ The architect must design the site to prevent infiltration while designing the building to withstand a blast. Careful analysis of the site will alert the designer to possible vulnerable areas and points of attack. Designing for security involves the provision of multiple layers of security through the site, engineering the structure effectively, and implementing technology.

Defensible Space

A primary way to design for safety within a diplomatic post is to prevent crime outside of the post. Streets, plazas, and parks surrounding the consulate are all considered defensible spaces within the city. Crime Prevention through Environmental Design or CPTED provides theory to help the designer create safe spaces. CPTED argues that creating spaces can be broken down into designation, meaning to define the purpose of a space, definition, meaning to design boundaries and perimeters, and design,

⁵⁹ Leonard Hopper. 2005. *Security and Site Design: A Landscape Architectural Approach to Analysis, Assessment, and Design Implementation* Hoboken: John Wiley and Sons, Inc. 30.

meaning to evaluate the successes and failures of a space.⁶⁰ By creating specific spaces for certain activities, user groups will inhabit them and guard them from crime appropriately. Spaces can be defined simply by changing the paving pattern or by planting hedges. Creating clear boundaries is critical to defining public and private spaces. Ensuring surveillance, CPTED argues, will be done naturally by designed site lines, by organized police and guard posts on the site, and by mechanical means.⁶¹ Integral to designing for safe space is lighting, layers of security, clear boundaries, clear site lines, juxtaposition of different land uses, image, and definition of public and private space.

Layers of Security

Effective security measures incorporate design in layers and zones (Fig. 149). The GSA defines six zones within a site: the street, parking lane, sidewalk, yard, perimeter, and interior.⁶² These zones provide space for multiple layers of security, where interventions can be designed to prevent attack. The minimum setback, or standoff zone, of a United States diplomatic post currently allowed by the State Department is one hundred feet from the street. At one hundred feet, a panel van carrying 1500lbs of charge creates a blast wave of 33psi.⁶³ A human being can withstand the pressure of 30-40psi and therefore is likely to live if located at or behind the setback. Space created by a setback can be designed in several ways with multiple layers of building and landscape. Often, this space is designed with walls, large trees, bollards,

⁶⁰ Richard Schneider and Ted Kitchen. 2002. *Planning for Crime Prevention: A Transatlantic Perspective* London: Routledge. 98

⁶¹ Schneider and Kitchen, 2002, 100.

⁶² Hopper, 2005, 11.

⁶³ Hopper, 2005, 29.

kiosks, signs, and concrete benches. These are all valid ways to prevent a vehicle from penetrating the site, but may not be the best answer in every urban situation. A diplomatic post setback in an urban area where street frontage is integral can be attained by building an enclosed area with a structure separate to that of the post (Fig. 150). Failure of this structure fronting the street would not cause harm to the secure building.

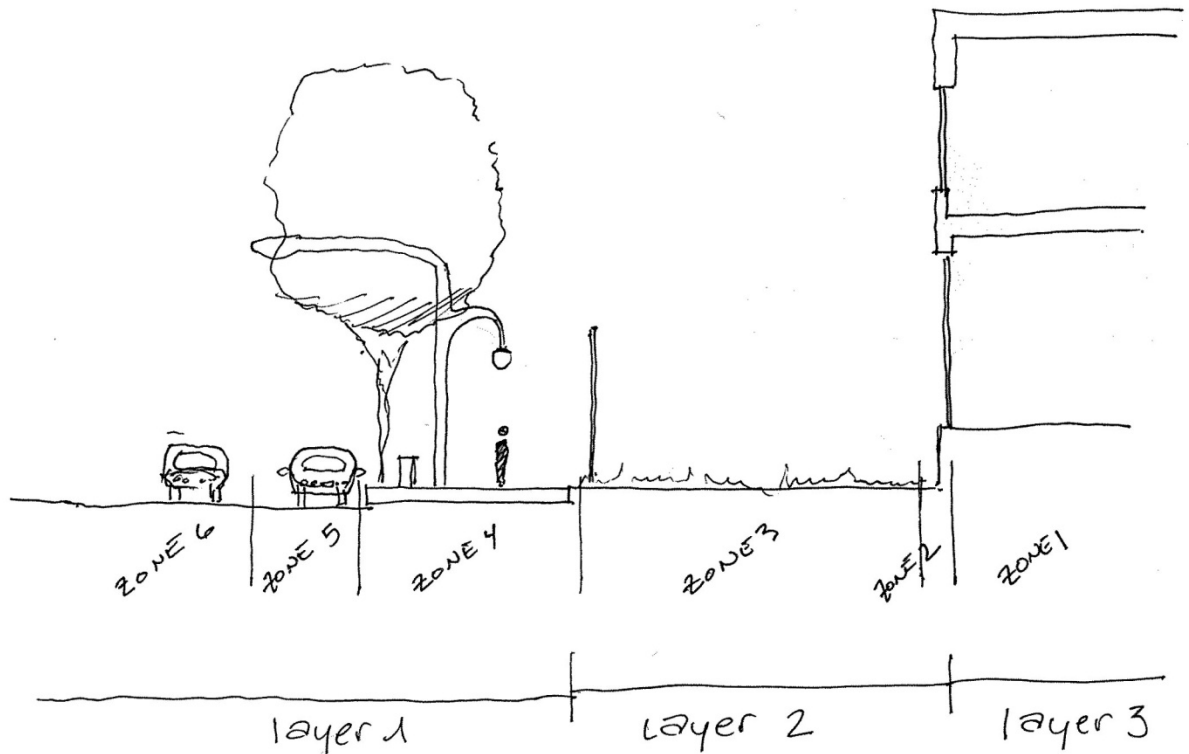


Figure 150: Site can be separated into zones which in turn can be developed into layers of security. Image by author. Hopper, 2005, 11.

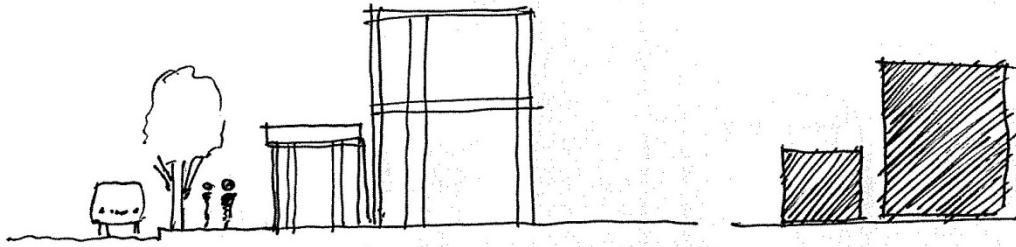


Figure 151: Building setback facilitated by building precluding embassy. The buildings contain separate structures. Image by author. Hopper, 2005, 45.

Security at the Street

The initial layer of security begins at the street edge with the incorporation of bollards, planters, trees, kiosks, signs, and curbs to create environments hostile to vehicles. Territories of trees, planters, benches, fountains, and other urban interventions create a welcoming environment for visitors while hindering vehicular access. Bollards may even be hidden within site plantings.⁶⁴ Additionally, traffic should be controlled to a slow pace to further prevent infiltration. Use of rough paving, traffic circles and speed bumps in front of the site will prevent a vehicle from breaking through built barriers.⁶⁵ Sectional design through landscape can further enhance the built environment while creating security. The use of ha-has (Fig. 151), a ditch with a retaining wall to one side in order to mitigate obstruction of views, berms, and elevation changes can deter movement across site.⁶⁶ Recent technologies include rotating bollards and drop away, or “tiger trap” sidewalks (Fig. 152). These allow for pedestrian movement while obstructing vehicular access to the site. Rotating bollards allow appropriate vehicular

⁶⁴ Hopper, 2005, 89.

⁶⁵ “Engineering Security: Proactive Design for High Risk Buildings,” last modified 2009, <http://www.nyc.gov/html/nypd/html/counterterrorism/engineeringsecurity.shtml>. 5.7.

⁶⁶ Jaffer Kolb. “Protect and Survive,” *Architects' Journal* 226, 23 (2007): 40-42.

access to the site while the “tiger trap” sidewalk conveniently supports pedestrians yet acts as an invisible moat which caves in to stop vehicles dead in transit.

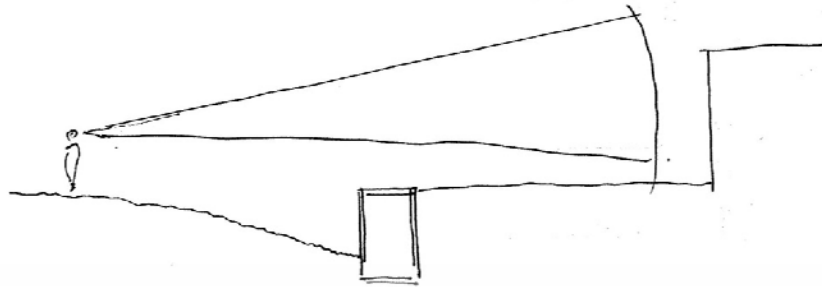


Figure 152: Ha-Has preserves site lines while creating a secure perimeter. Image by author.

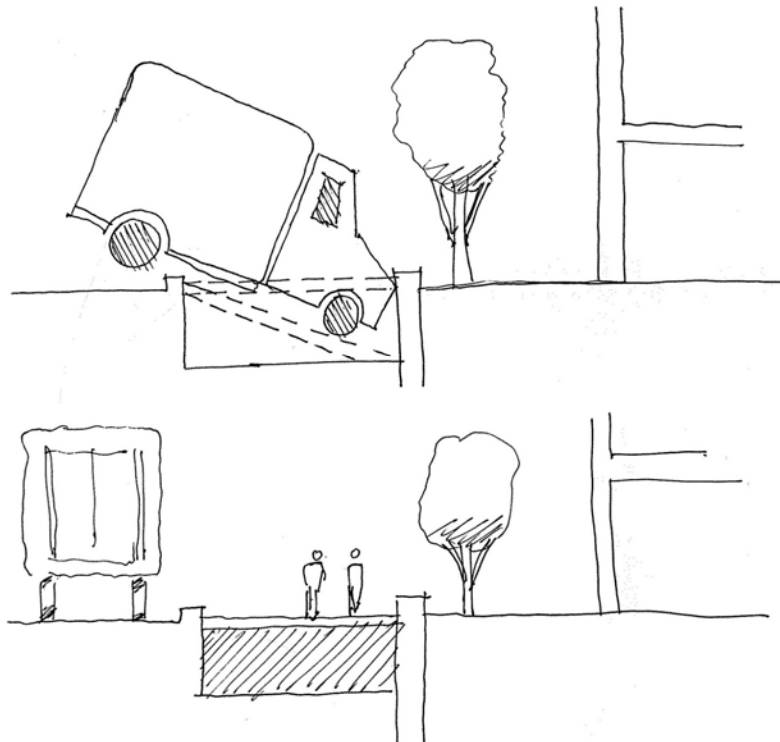


Figure 153: Break away sidewalk or "Tiger Trap". Image by author. "Engineering Security: Proactive Design for High Risk Buildings," 2009, 4.13.

Security at the Perimeter

The second layer of security is evident in all current United States Embassies in the form of a nine foot wall following the embassy perimeter. The formal barricade defines the private and public zones of the site. Entries through the wall are limited, separate, and minimized as they provide weak points of penetration. United States diplomatic posts incorporate up to two entrances: one catered for visitors seeking consular services and another for formal diplomatic events. Walls should be built of solid, blast proof material and avoid details which would allow intruders to scale. Though often used, concrete fragments during a blast and creates dangerous projectiles.⁶⁷ Current embassy walls, though forbidding, are minimal compared to historic cities which were often surrounded by barricades up to a hundred feet in height and depth.⁶⁸ Similar to historic cities, guard gates are located at access points and allow for vehicle and pedestrian screening. Parking should be located within the walls as far away from the embassy structure as possible. Using layers of walls within a site could create different control zones and further enhance security measures. Visitors to an embassy could be permitted to pass through one security layer while personnel could be admitted further into the site.

Structural Security Features

A third layer of security becomes the Embassy Building itself. Careful consideration of materials within the façade as well as the structure is integral to this

⁶⁷ "Engineering Security: Proactive Design for High Risk Buildings," 2009, 4.13.

⁶⁸ Gali Zilbershtein. 2006. "Architecture and Terror in a Historical Perspective: The role of Impediment and Deterrence," *Arris: Journal of the Southeast Chapter of the Society of Architectural Historians* 17: 57.

layer. Theoretically, an explosive should never make onto the site but the façade should incorporate blast resistant technology as past events have proven terrorists' capability of eluding security measures. Currently, resilient embassy envelopes are staged as a massive wall to minimize explosion penetration. Exterior façades exhibit no layering as this provides ways to mount the structure and invade. Windows are allowed to cover a maximum fifteen percent of exterior façades. Architects have alleviated the fortress-like appearance of these structures by incorporating multiple materials to resemble windows and layering. The United States Embassy to Peru in Lima incorporates traditional masonry materials engineered for strength as wall panels are welded together using steel plates and embedded in concrete.⁶⁹

A dynamic structural system can be integral in minimizing explosion blast damage to an embassy. Similar to other live loads, blast loads should be mitigated through the use of a flexible structure and the avoidance of rigidity⁷⁰. It is integral that embassies use a structural frame system and avoid load bearing walls.⁷¹ Use of less stiff and massive materials allow for dampening of waves created through a blast. Like other live building loads, resistance to a blast load through massive structure can result in magnification or reflection, creating further damage. Rigid materials, such as glass, masonry, timber, and cast iron accentuate blast loads and quickly fail, becoming shrapnel-like projectiles. Ductile materials include reinforced concrete and steel allow for strain, bending, and deformation without failure and should be used in embassy structure. Using these materials coupled with long spans and high mass enhances the

⁶⁹ Loeffler, Jane. "Golden Child," *World Architecture* 83 (2000): 84-85.

⁷⁰ Kolb, 2007, 41.

⁷¹ R. T. James "How to Minimise Bomb Damage," *Architects' Journal* 197, 26 (1993): 54.

flexibility of the structure. Short spans of lightweight material increase further accentuate loads as they are transferred through structure. Use of catenary forms can facilitate continuity and provide multiple load paths further allowing the structure to act as a monolithic unit.

Designing structural redundancy, engineering braced frames, and providing alternative load paths allow for structural integrity in the event of partial structural failure. Without these implementations, a strategically placed blast could cause entire structural failure. Current design standards test structure against one ton of TNT located feet one hundred away and provides a force of 120kN/m^2 at 30 to 50 milliseconds.⁷² With this force, it is considered acceptable for a building to suffer moderate damage while maintaining structural integrity. Building envelope can be designed to mitigate blast loads to structure. No matter which façade of a building accepts the blast, all faces of the structure encounter strain from the blast wave by either experiencing pressure or suction (Fig. 153).⁷³ Corners become weak spots within the structure, therefore the use of simple envelope geometries is integral.⁷⁴ While the building envelope must prevent exterior blasts from entering the embassy, it must also provide dissension in the event of an internal explosion.⁷⁵ This could be facilitated through an internal courtyard with breakaway walls for ventilation (Figs. 154-156). Placing programmatic elements that are less important along the exterior of an embassy can buffer more important rooms within.⁷⁶ Internally, an engineered central core is integral for providing protected vertical

⁷² James, 1993, 54.

⁷³ James, 1993, 55.

⁷⁴ Meyer, Ulf. "The Word is 'Botschaft'," *World Architecture* 83 (2000): 76-83.

⁷⁵ James, 1993, 54.

⁷⁶ Gallatin, Charles. "Designing the Modern Fortress," *Texas Architect* 36,4 (1986): 18.

circulation space within. Under no circumstance should parking be located below an embassy structure.

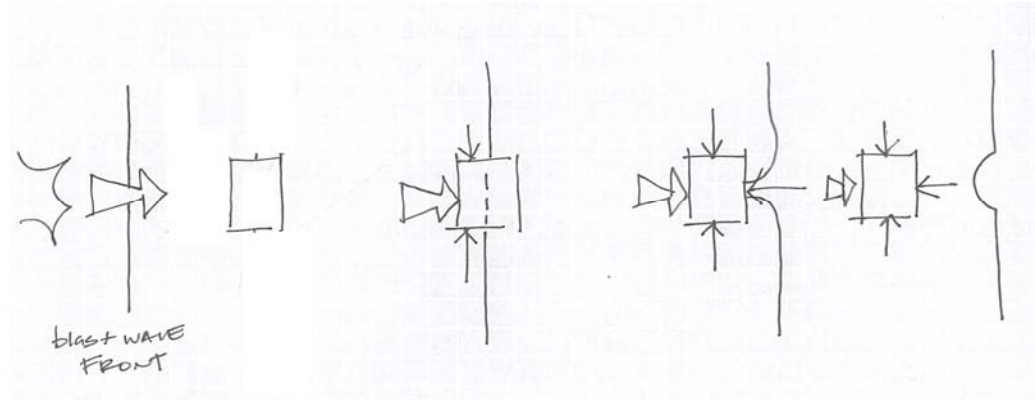


Figure 154: Blast effect on building facades. Image by author. James. Minimise. 55.

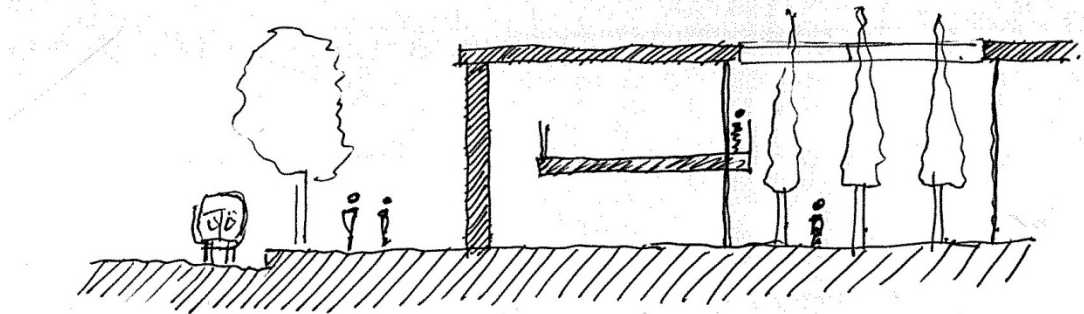


Figure 155: Impenetrable exterior wall and break away wall to interior courtyard. Image by author.

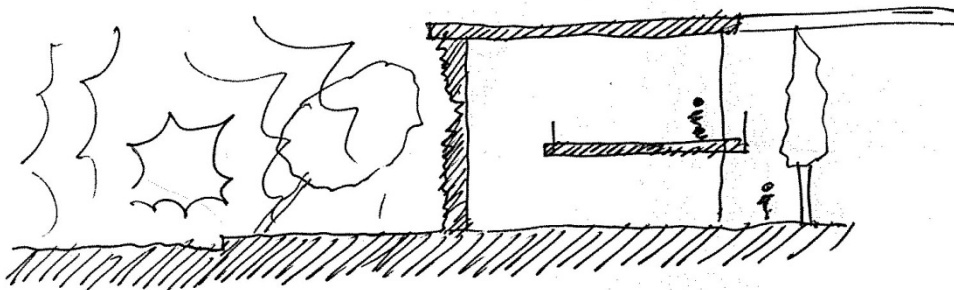


Figure 156: Exterior blast prevented from infiltrating building. Image by author.

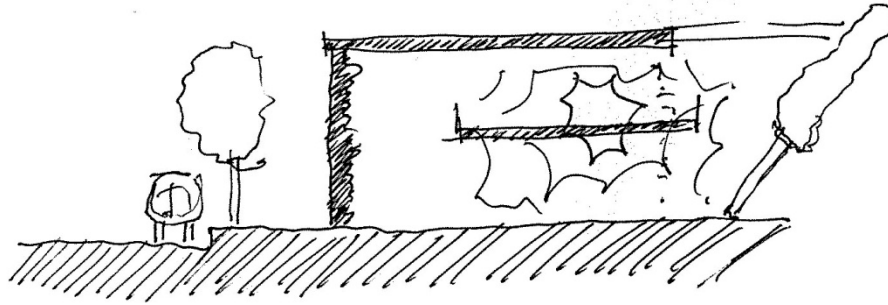


Figure 157: Internal blast allowed to escape through break away wall to interior courtyard. Image by author.

Glass used within the envelope can be engineered with the same ductile features as the structure. Laminated glass resists penetration and maintains integrity through structural bending. Shatter film, soft shock glazing, and silicone, allow for flexible glass that, if it should shatter, would not become a hazardous missile.⁷⁷ Mullion size and material also aid in transfer of blast loads to super structure and minimize strain on glass. Cable net systems allow for the façade to resist lateral loads through flexibility. Due to the State Department mandate to control façade glazing, this system probably could not be employed on an embassy.

Security through Technology

A last layer of security can be integrated throughout the site in the form of technology. Early design and placement of cameras, card readers, and security rooms can allow for integration within the scheme. Technology can be obvious in order to deter attacks or discretely hidden within the layers of security.⁷⁸ Intelligent cameras can now

⁷⁷ Kolb, 2007, 41.

⁷⁸ Burnett, John. "Building Security Basics," *Architectural Record* 180,8 (1992): 38.

determine dangerous situations and alert personal to possible attack.⁷⁹ Electronic bollards and gates can raise and lower in order to allow or forbid vehicular access to the site.

Case Studies: International Chancery Complex, Washington D.C.



Figure 158: International Chancery Complex Defensible Space Design. Image by author.

The International Chancery Complex in Washington D.C. is a region dedicated to new embassies to the District of Columbia. Various methods of creating controllable zones through use of dynamic technology and static structure demonstrate how defensible space can be created.

⁷⁹ "Architecture and Security," *Leading architecture and design* Sept.-Oct. (2007): 59.

Expansion Opportunities

In addition to increased security requirements, many United States diplomatic posts have been abandoned due to the necessity for more space. In order to create a sustainable proposal for a new diplomatic post, thought must be given to how the building can be expanded over time to facilitate more offices.

CHAPTER 7: A NEW CONSULATE COMPOUND, ISTANBUL

This thesis proposes to reinstate a United States Consulate on a predominant and accessible site within the city of Istanbul, Turkey. The proposal takes into account the roll of architecture in diplomacy, the history behind United States diplomatic post design, the regional and local context, the necessary programmatic requirements, and the tectonic and security requirements of a diplomatic post. It seeks to present the consulate as a bridge, linking the cultures of Istanbul and America.

Site Development

The proposed compound is composed of several buildings including a cultural center, a secure chancery, and marine security guard quarters. The cultural center stands as an independent volume, apart from the chancery. The USAID offices are located between the two elements, acting as bridge between the public and private portions of the site. The chancery is placed behind a blast wall to conform to current security standards. The potential foreboding nature of blast walls is concealed behind single storey formal retail fronting the street and a colonnade along with waterfront. The colonnade provides the city with a protective canopy in order to define a promenade as well promote informal street sales along the waterfront.

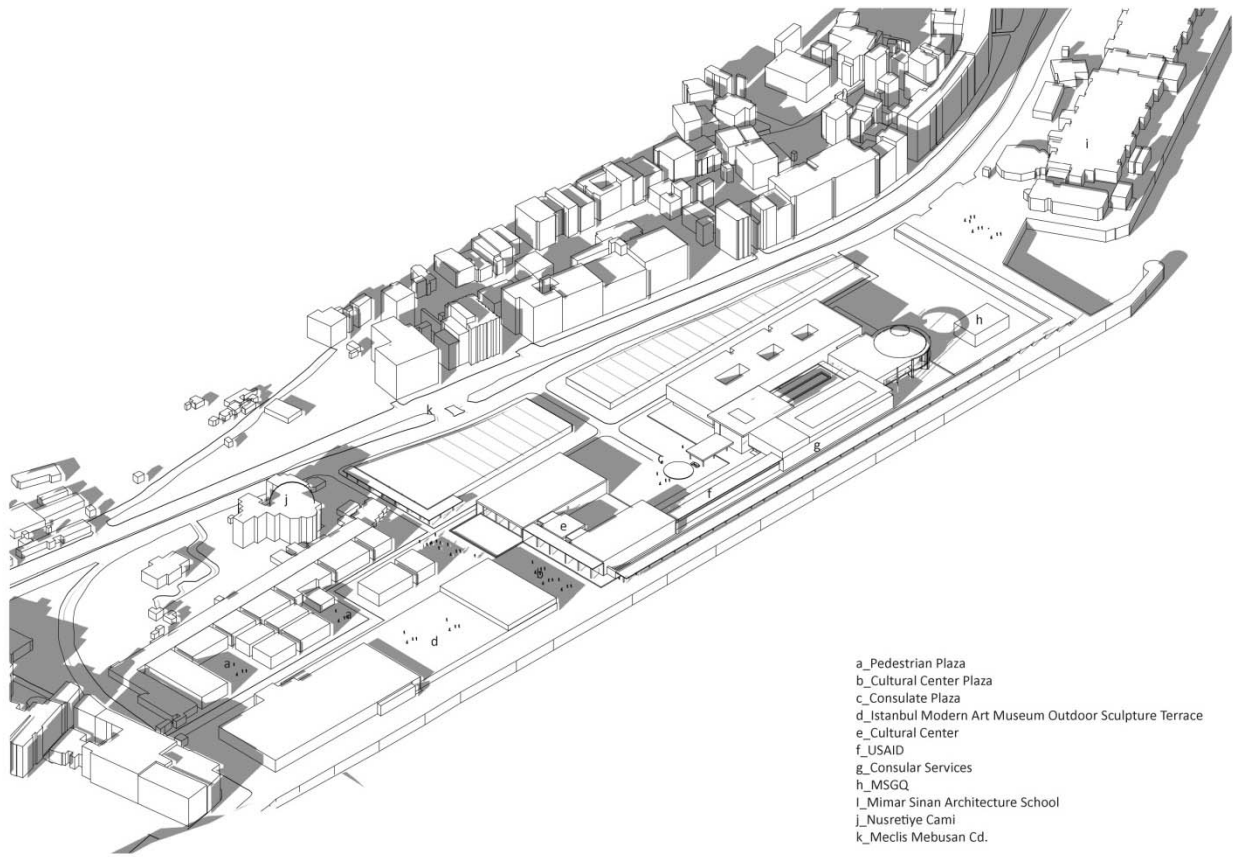


Figure 159: Proposed Site Axon. Image by author.

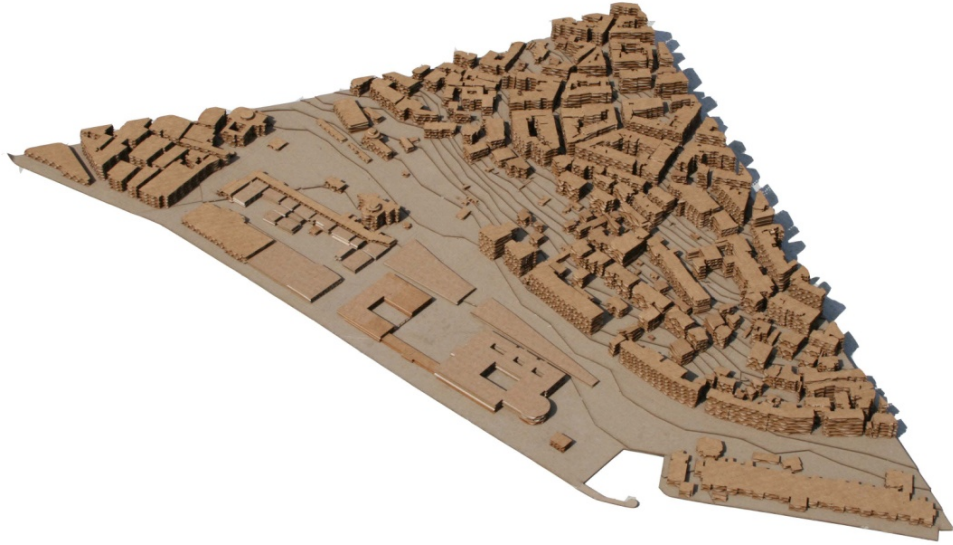


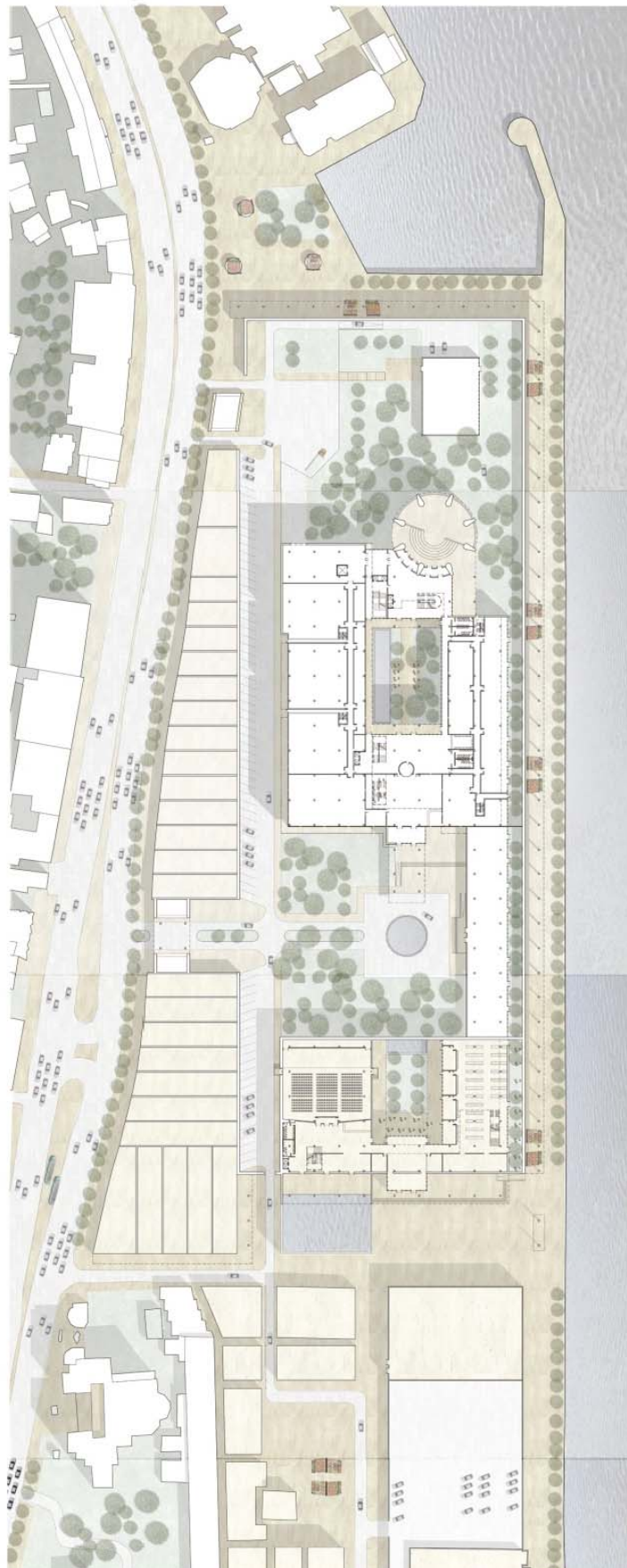
Figure 160: Proposed Urban Fabric. Image by author.

The complex maintains a low profile in the city to allow views from the nearby hill down to the Bosphorus River. The consulate does not intend to become a dominant or ostentatious landmark of the city.



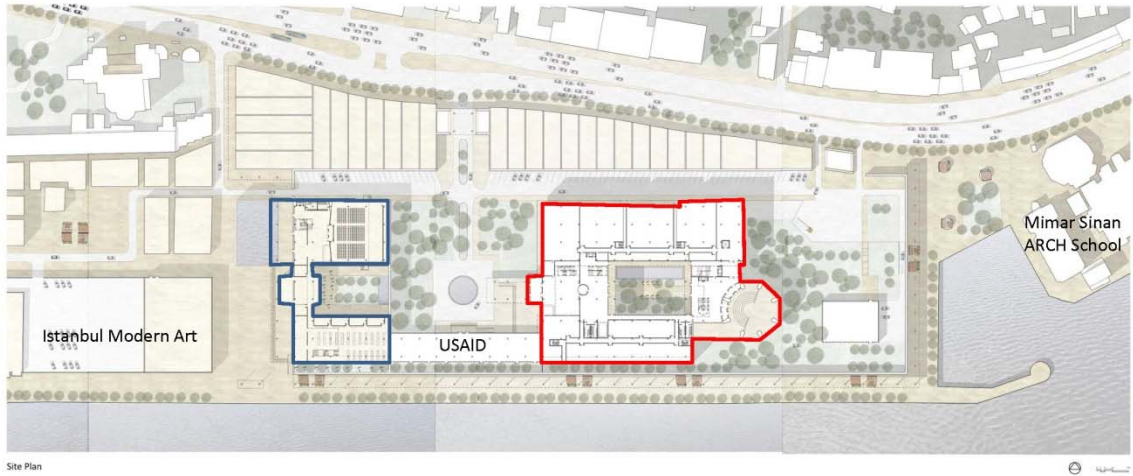
Figure 161: Meclis-I Mebusan Caddessi Proposal. Image by author.

The seven meter sidewalk proposed along Meclis-I Mebusan Caddessi intends to provide layers of security within a welcoming pedestrian environment. Lamp posts, benches, and trees protect pedestrians and the stores that mask and humanize the blast wall that protects the consulate from hostile attacks.



Site Plan

Figure 162: Proposed Site Plan. Image by author.



Secure Consulate
 Cultural Center (Provides Access to Visa Offices)

Figure 163: Proposed Relationship of Cultural Center to Chancery. Image by author.

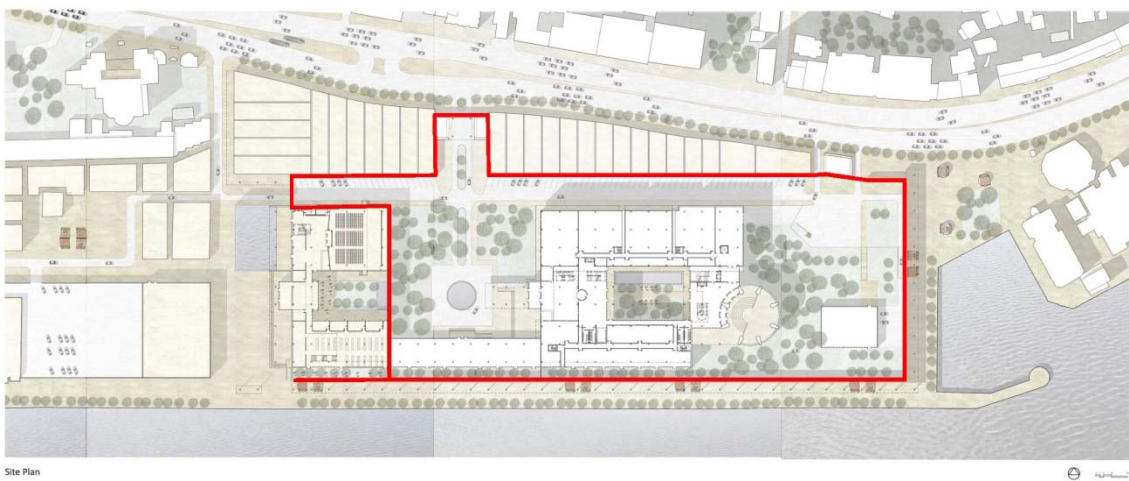


Figure 164: Proposed Perimeter Blast Wall. Image by author.

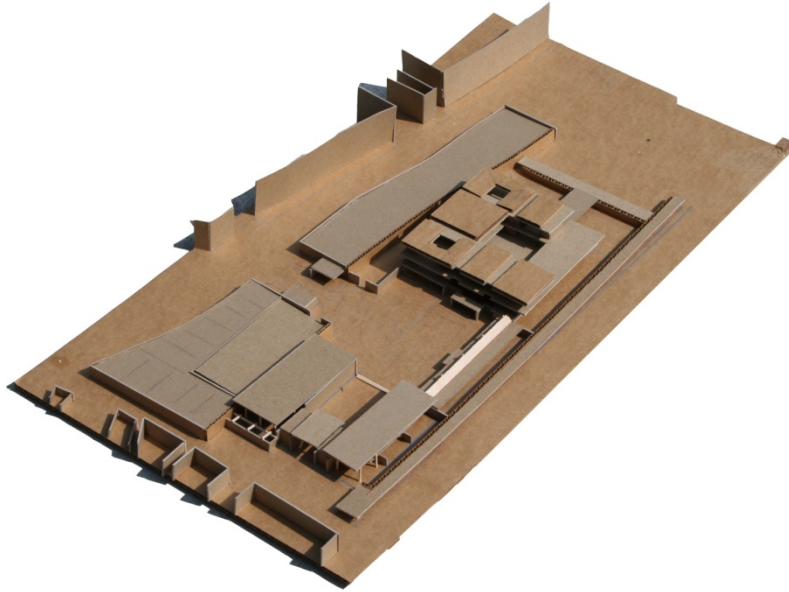


Figure 165: Proposed Consulate Massing. Image by author.

The Cultural Center

This proposal reinstates a programmatic element that has been minimized or eliminated from more contemporary United States diplomatic posts. The cultural center intends to reach out to the public of Istanbul and is readily accessible to anyone who wishes to visit. Visitors may attend a performance, explore an exhibit on Turkish-American artists, enroll in English classes, engage in discussion within the courtyard, read literature in the library, receive help on a visa application, or make an appointment to apply for a visa. The center is placed outside of the blast wall to allow guests to feel welcome, yet within a pedestrian only zone to ensure safety from hostile vehicle attacks. Thirty meter setbacks from both the street and waterfront conform to the current State Department design standards for blast mitigation.

Cultural Center Plaza

A pedestrian only plaza greets visitors to the site and provides public space for gathering. The design is influenced by the Piazza San Marco in Venice, with the Bosphorus River and historic Constantinople as backdrops to the plaza. Turkish and American flags provide a focal point within the plaza, beckoning visitors to the waterfront. The plaza is bounded by a proposed addition to the Istanbul Modern Art Museum and the new United States cultural center. A proposed neighborhood of mixed use development, located behind the Nusretiye Mosque, acts as a western entrance to the plaza. Smaller plazas are placed throughout the site to facilitate street vendors and public gathering. Due to its small size, the modern art museum is expanded. Parking for the museum is placed on grade between the existing museum and proposed expansion in order to eliminate the underused parking lot currently present on the site. An open air art garden is located above the parking garage that unites the existing museum with its extension. The raised park provides security for the artwork and provides expansive views for the gallery visitors. Within the plaza, a reflecting pool is placed fronting the cultural center. The design provides views to outdoor sculptures donated by a Turkish-American artist while prohibiting physical access to sculptures located outside of the art gallery from the plaza. A visitor driving to the art museum is given a view down the street, over the reflecting pool, to the sculptures. To see the works closer, a visitor must enter the cultural center.

Plaza and Street as Defensible Spaces

Spaces within the plaza and streets are defined by changes in paving patterns, soft scape, and overhead canopies. Barriers are designated by the use of bollards, trees, benches, and water. Further barriers are designed by sectional changes, such as the raised art garden, and steps leading to the cultural center. Natural surveillance is created by the addition of a mixed use neighborhood with ground floor retail. This design places importance on the pedestrian who would informally police the street for crime. Organized surveillance, located within the plaza, is always present outside of diplomatic posts in Turkey in the form of both the local municipal police and the invited country's foreign military. A layer of mechanical surveillance may be added to the design if necessary to further defend the public space from crime.

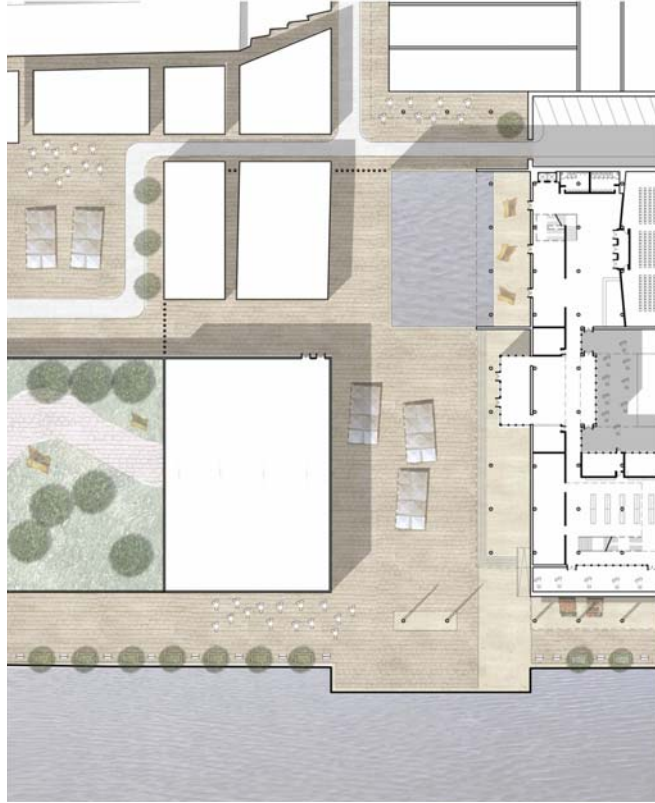


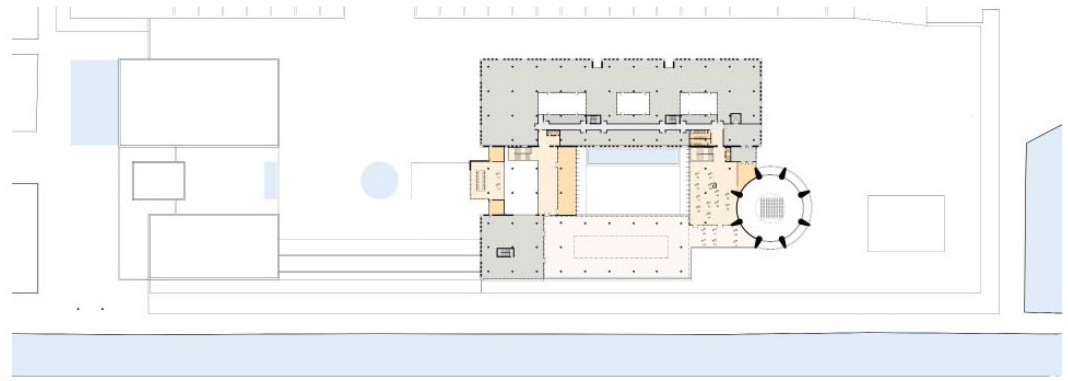
Figure 166: Proposed Cultural Center Plaza. Image by author.



Figure 167: Proposed Cultural Center Pedestrian Plaza Perspective. Image by author.

Chancery Layout

The secure chancery is composed of two office blocks to the north and south separated by atriums and a large courtyard. The central open space that runs throughout the plan provides access to the office blocks as well as vertical circulation. In addition, the void allows the offices to receive light, air, and constant visual access to other portions of the consulate.



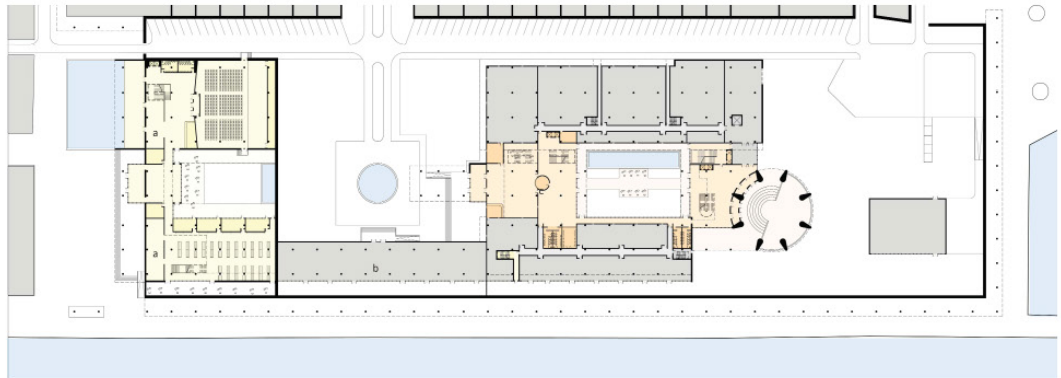
Third Floor Plan

a_Cafe



Second Floor Plan

a_Consulate Services
b_Commissary
c_Multipurpose Room



Ground Floor Plan

a_art galleries
b_USAID office
c_MSG Post 1

Inited Guest and Employee
Visitor
Secure Offices



Figure 168: Proposed Consulate Plans. Image by author.

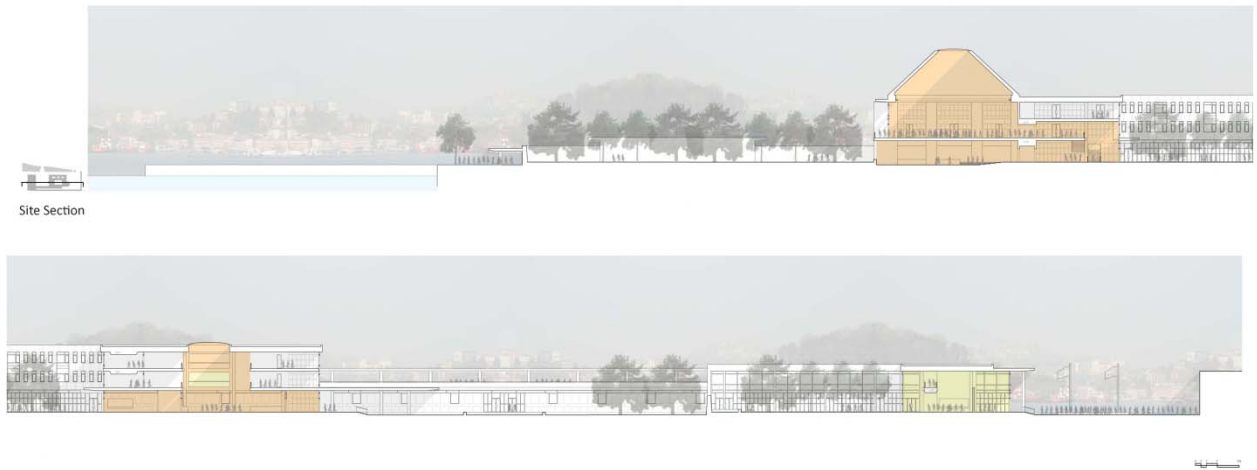


Figure 169: Proposed Site Section. Image by author.

Promenade by User Group

A chancery must create appropriate promenades for multiple user groups.

Visitors, guests, employees, and service must have distinct entrances and routes to ensure security and cater to their needs.

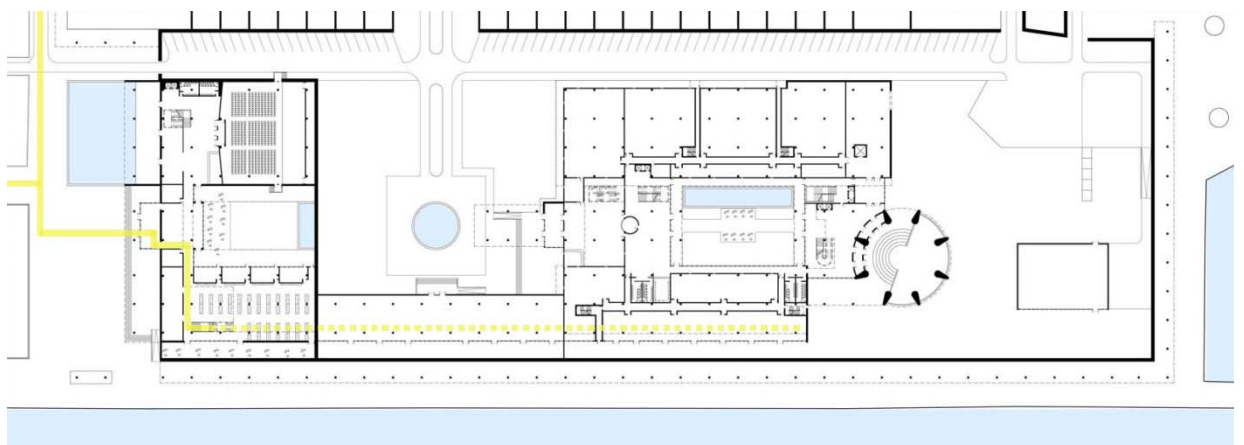


Figure 170: Proposed Visitor Promenade. Image by author.

Visitors enter the chancery through the cultural center and plaza. From the center, visitors may bridge over the USAID offices and reach the adjacent chancery. Visitors enter the chancery on the second level, and are able to reach the non-immigrant visa, the immigrant visa, and the American services units. The waiting rooms allow for glimpses into selected areas within the more private and secure portions of the chancery. The waiting room adjacent to the general consulate office and the American citizen's service unit allows visitors to peer into the grand atrium space, where invited guests first enter the chancery and employees ascend a staircase to their offices. The second waiting room, adjacent to the immigrant and non-immigrant visa tellers, provides views into an expansive courtyard designed for employees and invited guests. Throughout the promenade, the consulate visitor is provided views out to the former Constantinople across the Bosphorus River.



Figure 171: Proposed Cultural Center Elevation. Image by author.



Figure 172: Proposed Cultural Center Facade. Image by author.



Figure 173: Proposed Cultural Center Gallery. Image by author.



Figure 174: Proposed Consulate Entrance Plaza. Image by author.

Invited guests are permitted to enter the site by car from Meclis-I Mebusan Caddessi after passing through an inspection checkpoint. They are immediately presented with the main consulate plaza. Ascending a small set of steps covered by a canopy, guests may enter the chancery atrium directly. In order to continue past the atrium, all guests must pass through Marine Security Guard Post 1, where a marine verifies the identity of all guests.



Figure 175: Proposed Consulate Marine Security Guard Post 1. Image by author.

After passing security, the guest enters a zone of compression which provides access to services such as a coat closet and restroom. From here, the guest is guided through the chancery's expansive central courtyard. The guest may continue through the courtyard on axis, exposed to the weather or move off axis to pass through the courtyard under a cantilever to the left or within the protective enclosure of the building to the right.



Figure 176: Proposed Consulate Interior Courtyard. Image by author.

After passing through the courtyard, the guest encounters a second atrium which may double as a pre-event space. The guest may remain on the ground level and continue back outside an amphitheatre located among gardens to the eastern side of the chancery. A grand staircase becomes an object within the atrium, providing access to yet another pre-event gathering area before passing into the most magnificent room within the entire consulate complex. Titled, the “multipurpose room” the open space provides movable furniture to be arranged as necessary depending on the function. The glass-skinned, circular room endows the guest with panoramic views from the second floor of the consulate out to the city of Istanbul and Bosphorus River. All viewers of the American consulate are reminded of the majestic city surrounding the complex. The double height, cylindrical multi-purpose room is concluded with a cone shaped dome and central oculus to allow light to pour upon the audience. Balconies located adjacent to the grand room

provide small outdoor discussion spaces that connect visitors with the vibrant city of Istanbul.



Figure 177: Proposed Consulate Multipurpose Room. Image by author.

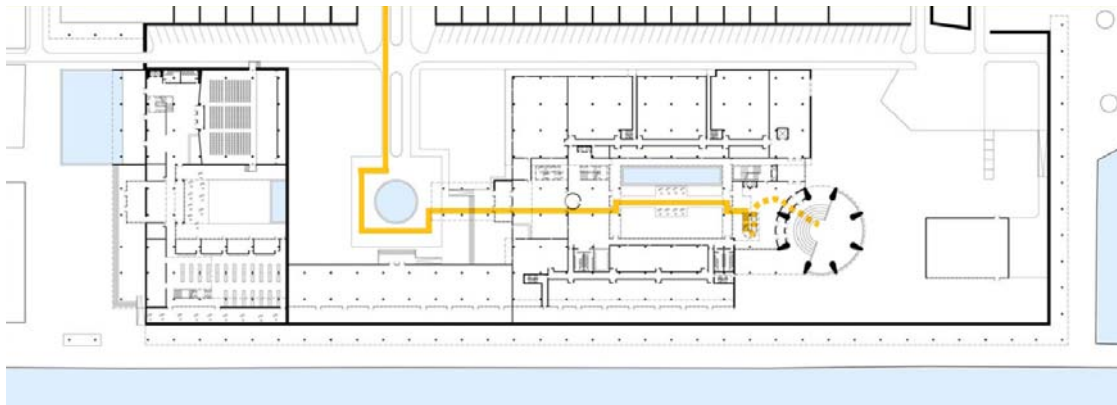


Figure 178: Proposed Invited Guest Promenade. Image by author.

The consulate employee is also permitted to enter the site by car via Meclis-I Mebusan Caddesi. Instead of driving to the traffic circle, employees are directed to park

securely on the site between the chancery and blast walls. Employees continue on foot to enter the primary atrium and through Marine security guard post, identical to the route of the invited guest. Instead of continuing through the expansive courtyard, the employee can reach their specific office most directly by using a staircase or entering the office blocks immediately after passing through security. A cafeteria is located on the third floor of the building and provides access to extensive outdoor terraces with stunning views of the city.

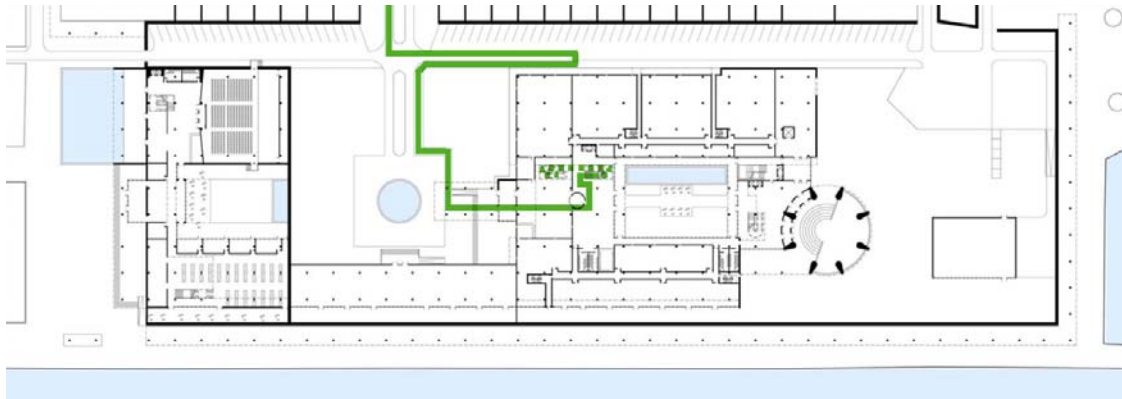


Figure 179: Proposed Employee Promenade. Image by author.

Deliveries and services to the chancery are permitted enter at the opposite end of guests, employees, and visitors. Trucks are prohibited to encroach within thirty meters of the building by placing the chancery on a raised plinth. Deliveries must enter through a segregated portion of the site after their contents are screened. Mechanical rooms and services are placed to the northwest corner of the site adjacent to the loading dock. Here they are accessible yet hidden. A service elevator connects deliveries to servant spaces of

the chancery including the cafeteria kitchen. Servant spaces are located adjacent to gathering spaces in order to allow direct access without disruptions.

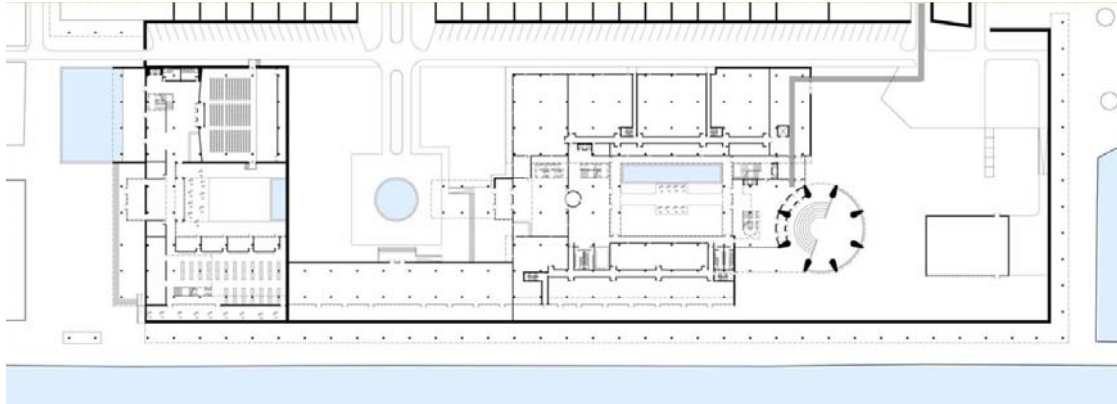


Figure 180: Proposed Delivery Promenade. Image by author.

Elevations

The proposal for a new consulate in Istanbul attempts to demonstrate the innovative, modern building techniques of the United States while also being contextual through the use of local building materials. The ground floor composed of travertine, a local stone, acts visually as a base and security wall. Occasionally, the wall recedes behind a glass vestibule, visually cuing an entrance to the visitor.

Restricted offices, located on the second and third floors, are registered on the façade through the use of a darker local stone, granite. These volumes appear solid through the use of punched window openings which attest to the necessary privacy and security of the offices. The windows in these spaces are operable to allow light and air to all work spaces. Depth in the façade provides protection from direct sunlight on the east and west faces of the building. The offices cantilever two meters over the base of the

structure, a motif often seen in Istanbul in all building typologies. The design is reminiscent of the old United States Consulate, Palazzo Corpi, without the intricate, traditional detailing. Not only does the cantilever provide shading to the ground level and increased room to the offices above, but it also provides security. A historic trend for intruders to climb to the second floor of consulates in order to invade has led designers to create consulates with facades devoid of any depth. The cantilever makes it difficult for anyone to climb the building and provides a more sustainable, elegant, and contextual solution to the problem.



Figure 181: Palazzo Corpi Second Story Cantilever. Image by author.

A fifty centimeter strip of glazing runs the length of the façade between the first floor and the offices. This detail is a building technique used by modernist architects which allows light past the security wall to the first floor offices and visually demonstrates a separation between guest spaces and private offices. Columns and details such as mullions and awnings are finished in stainless steel and represent the strength and protection provided by the United States.



Figure 182: Proposed Consulate Elevation. Image by author.



Figure 183: Proposed Consulate Facade. Image by author.

Sustainability

This proposal for a new United States Consulate in Istanbul incorporates sustainable design elements within the complex. Courtyards are placed throughout the scheme to allow for light and air into all offices. Windows placed on the second and third floors are operable to provide ventilation. Fins and louvers are used on the east, west and south facades to allow views out while controlling sunlight. The south portion of the building contains an employee terrace on the third floor. The lower mass allows sunlight into the central courtyard. Solar panels may be placed facing south on the north office block in order to mitigate the need for the consulate to purchase expensive energy from Istanbul. Rainwater can easily be contained on the site within the gardens located adjacent to the building or the courtyards within the consulate.



Section through Courtyard



Section through Atrium

Figure 184: Sections through Proposed Consulate. Image by author.

Conclusion

As the United States seeks to be a leader in a globalized world, it must not hide behind a fortress compound. It must be an engaged steward of the community and provide appropriate access for visitors wishing to learn more about the United States. America cannot frighten terrorists by using severe structures and high walls. By doing so it has only closed opportunities to bridge the gaps between nations and foreign lands. The design goals at the beginning of the project were to: define a street edge, express a reserved presence downtown, invite public guests, mark entrances clearly, direct visitor

promenade based on need, provide public space for gathering, demonstrate and teach cultural ideals, connect directly to urban routes, reside alongside foreign diplomatic buildings, and to protect employees and visitors. The proposal for a new consulate in Istanbul, Turkey addresses each of these goals. The proposal for a new Consulate in Istanbul successfully demonstrates the ability for a consulate to be placed as an accessible, welcoming, and sustainable structure within an urban context while providing security in an uncertain world.

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