

ABSTRACT

Title of Thesis: IRANIAN EMBASSY AND AYANDEH
CULTURAL CENTER (EMBASSY OF THE
FUTURE)

Golnar F Ershad, Master of Architecture, 2016

Thesis Directed By: Professor, Garth Rockcastle, Architecture

This thesis began with the assertion that future embassies will differ significantly from past and current embassies. Embassy of the Future is a place where people of two (or more) countries come together to learn and share their ideologies, perspectives, dictions and ultimately their humanity. Unlike the traditional embassy model where the focus is on representing the foreign country's political and legal standing, this thesis asserts that future embassies will focus on representing cultural exchanges while promoting economic and cultural cooperation. In this new embassy model political and security matters should not dominate the cultural and humanitarian matters.¹ This thesis is exploring a proposal for the establishment of an Iranian Embassy in Washington D.C. The goal is to promote the Embassy of the Future concept through an attempt at utilizing an architectural structure to be the convening place for reconnecting and resolving conflicts between Iran and the U.S. It has been 36 years since both countries closed their embassies in one another's countries.

¹ "The Embassy of the Future." The Embassy of the Future. Accessed December 10, 2015. <http://csis.org/program/embassy-future>.

EMBASSY OF THE FUTURE-IRANIAN EMBASSY, WASHINGTON DC

by

Golnar F Ershad

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Dedication

- i. This thesis is dedicated to my supportive family who has always motivated me to strive for a better life and my professors who have guided me to become a conscious designer and problem-solver for the benefit of the humankind as well as the planet.

Acknowledgements

If needed.

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Chapter 1: What is An Embassy

Defining Embassy

Embassy Definition

An Embassy is “One country's main diplomatic office in another (usually in the capital city of the host country) where the highest diplomatic officer is the ambassador (or high commissioner, in British Commonwealth). Embassy premises and its entire diplomatic staff fall under the sovereignty of the embassy’s home country and are protected under the concept of diplomatic immunity by the host country.”² An embassy is also the first outlet for introducing a country’s culture and society to the host country. The diplomatic mission have been always the propriety but in an embassy of the future culture and social issues shall be as important.

Root

Late 16th century (originally also as ambassade denoting the position of ambassador): from Old French ambassade, based on Latin ambactus 'servant'.³

The definitions provided above are broadly emphasizing the importance of security and protection of the staff while representing a nation in a host country. The root of the word Embassy however refers to the Latin meaning of the word as “servant”.

What it means to serve through an embassy should be expanded on and improved

²"What Is Embassy? Definition and Meaning." BusinessDictionary.com. Accessed October 29, 2015.

³ "Definition of Embassy in English:" Embassy: Definition of Embassy in Oxford Dictionary (American English) (US). Accessed October 29, 2015.

http://www.oxforddictionaries.com/us/definition/american_english/embassy

over time to be more than security and protection of one's nation. It is not unrealistic to set new standards for such an important institution. Each embassy should be a servant of all nations considering the global connections we all have as humanity as well as the country which it represents. As a new model an Embassy of the future must accommodate global as well as local cultural, social and diplomatic aspects of all humanity while focusing on the same values in its own nation.

U.S. Diplomacy

A nation such as the U.S. is one of the most developed countries in building and maintaining international relationships. The definition of an Embassy has been challenged by this nation for many years and is an ongoing debate today. Interconnected pillars of peace, prosperity, democracy and development shape diplomacy in the US today. These values are used to advance bilateral and multilateral partnerships with the world. Through peace the U.S. is always looking to establish and maintain security within and among all nations that it has relationships with. Prosperity is another value that creates political, economic and financial foundations which allow investment, trade and entrepreneurship inside and outside of the U.S. The U.S. can utilize democracy to promote transparent and responsive governments that support human rights and equality. Last but not least through international development the U.S. is competent to collaborate with nations and communities to meet needs of its citizens through better and international access to health care, education, and economic opportunities.⁴

⁴ "Diplomacy: How Does It Affect You?" Discover Diplomacy Explorer. Accessed October 29, 2015.

Iran Diplomacy

Since the 1979 Iranian Revolution replacing the Pahlavi dynasty under Mohammad Reza Shah Pahlavi with an Islamic Republic Iran has had poor international relations many countries including the U.S. There have been many conflicts of opinion on multiple subjects causing a disconnect and polarization as evidenced by many of the trade sanctions placed on Iran in recent years. However the current President of Iran and the government are working hard to reestablish and improve the Islamic Republic's image in the international community and to portray the nation as being ready to deal seriously with the West. The nuclear deal agreement in January of 2016 is one example of Iran's interest in rebuilding its international relationships. One of the main goals of the new international relationships being forged by the Iranian Government is to improve Tehran, the capital of Iran as an influential location in the region. This creates a strong need to have the country forge stronger ties with other nations through international relations.⁵ The key to expanding Iran's role internationally is to strengthen the influence of its people across the globe. The people of Iran are comprised of a highly educated workforce, and a significant diasporic population that can act as an economic and cultural bridge between Iran, the region, and the West. to put into context it should be stated that by the year 2010 the number of Iranians who live outside of Iran was 6,950,000 which, 2,650,000 of them live in the U.S.⁶ An institution such as an embassy of the future will allow for a center were

⁵ "Iranian-foreign-policy-under-rouhani." [Http://www.lowyinstitute.org](http://www.lowyinstitute.org).

⁶ "Iran Politics Club: Iran Population Inside & Outside Iran 2010 Demographics - Ahreeman X." Iran Politics Club: Iran Population Inside & Outside Iran 2010 Demographics - Ahreeman X. Accessed January 24, 2016. <http://iranpoliticsclub.net/library/iran-population/>.

exchanges can flourish. Thus after 36 years of disconnect between the United States and Iran there is an opportunity to rebuild the relationship and establish a new Iranian embassy that provides a place for the people of both nations to interact. The embassy of the future will also be a place for all other nations who live or travel to U.S. to engage with Iranian culture and government in ways that they have not been able to in the past.

Embassies Open Vs. Closed

Openness VS. Closeness

Embassies are symbols of power, culture and character of their societies. To represent these elements fully the architecture of these structures has to be inviting and open.

It is a subject of debate between scholars and designers about embassies as institutions on whether they should be open to the public or closed. As societies become more conscious about the threat of terrorism and attacks to the public, security concerns are becoming more valid. Isolated, walled compounds are the new look for embassies. However nations should remember that to have better public policy and representing themselves as an open society has a direct correlation with an inviting governmental structures and what place more important than embassies which serve as their international representations.

It is imperative to maintain the security of governmental structures but today's structures are becoming a series of "faceless architectural edifices". Many examples

of this type of architecture can be found in Washington D.C. As one building becomes more secured and closed other buildings around it seem to be less of value and importance hence they become more vulnerable. For example in late 2003 there was a terrorist attack targeted toward the American consular but the target was changed to the British consular because it was less protected and more accessible. As we make more structures closed and fortified we place all other structures in a highly dangerous situation to become an easy target.⁷

Why Openness

Providing security is not a piece by piece process, but more of a sequential challenge of providing multiple zones of security. To understand the reasons about why embassies are an opportunity for building bridges between nations one can study the design of the U.S. embassy in New Delhi, India. The goal at that time for U.S. was to be recognized as a friendly and forward thinking nation. The design is to show mutual respect and created goodwill for the United States as described in the next section

U.S. Embassy in New Delhi, India

The U.S. New Delhi Embassy in India was designed by Edward Durell Stone in 1959. This embassy won the AIA's (American Institute of Architects) First Honor Award in 1961. Planning of the embassy complex began in the early 1950s, with the on a 28-acre site in the Chanakyapuri area of New Delhi. The complex includes the Chancery,

⁷ Loeffler, Jane C. "Embassy Design: Security VS. Openness." September/October 2005. Accessed January 2016. <http://janeloeffler.com/documents/49-FSJ-Embassy-Design-Security-vs-Openness.pdf>.

the Roosevelt House, office space, and living accommodations. The embassy's main building is a two level structure representing the Indian-American collaboration in design and their long friendship in a hope of "a temple of peace." In the early 1980s, a concrete wall was constructed around the embassy complex in response to security threats against American embassies abroad. Elements of south Asian, Indian temples and western concepts such as Greek temples were used in the design of this building. Historically the American Embassy in New Delhi was the first project involving architects chosen by the Director of Foreign Building Operations to design government buildings:

"To the sensitive and imaginative designer it will be an invitation to give serious study to local conditions of climate and site, to understand and sympathize with local customs and people...yet he will not fear using new techniques or new materials should these constitute real advances in architectural thinking."⁸

Although architecture is an art where its ideas are inspired by the past and current sociological and political events, In Stone's mind by allowing professional architects to work on government projects the restriction of political requirements could be removed and freedom of design could be granted to the architect. As Stone stated in 1959, this principle of empowering objective professionals to choose architects for government projects successfully removed architecture from politics for the first time.

The rectangular plan (Figure 1) of the embassy rests on top of a platform with parking and service areas underneath. A circular pool is in front of the building similar to Taj Mahal's formal pool. A ceremonial staircase is located directly in the center of the

⁸ http://www.docomomo-us.org/register/fiche/us_embassy_new_delhi

white embassy and leads to a highly valuable marble colonnade (Figure 3). The flat roof is supported by a series of thin and tall (3by8) steel columns which are extended beyond the parameter of the building providing additional shade (Figure 5). On the exterior a perforated screen with 6” cast blocks of white glazed terra cotta and/or concrete protects the double-hung glass from the blazing sun (Figure 2). The interior contains a central double height courtyard open to an aquatic internal garden, which also acts as passive cooling system (Figure 4). Living quarters for ambassadors and staff are attached to the back of the embassy recalling elements of the embassy design with less intensity.

Even though the design was not in alignment with ideas of modern architects in the U.S. at the time and caused some criticism, it won the AIA’s First Honor Award in 1961. Contrariwise, the building was greatly embraced by the people of India resembling architectural styles of some of the most important culturally enrich American figures at the time including Frank Lloyd Wright a well-known American architect and designer. The design of the Indian embassy was greatly admired by Jacqueline Kennedy the wife of the 35th president of the U.S., Jhon F. Kennedy. She was an art and culture enthusiastic political figure and she asked Edward Durell Stone to design the Kennedy Center a Performing art Center in Washington D.C., in memory of John Kennedy.



Figure 1: Plan View-New Delhi, India-Google.com-Diagram by Author

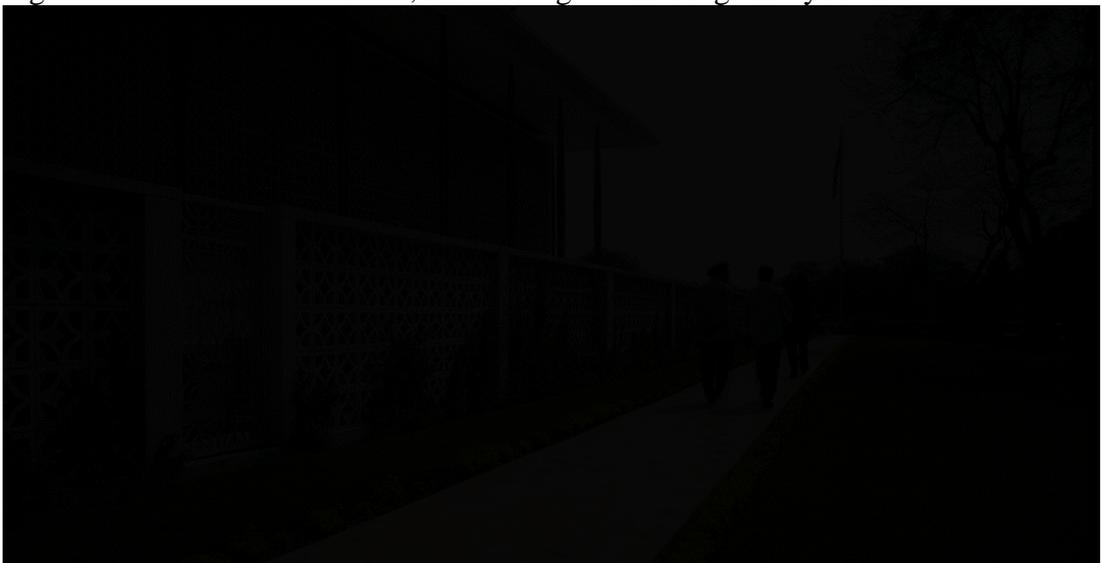


Figure 2: U.S. Embassy New Delhi, India-Image by diplomacy.state.gov



Figure 3: Exterior of New Delhi U.S. Embassy- Image by diplomacy.state.gov

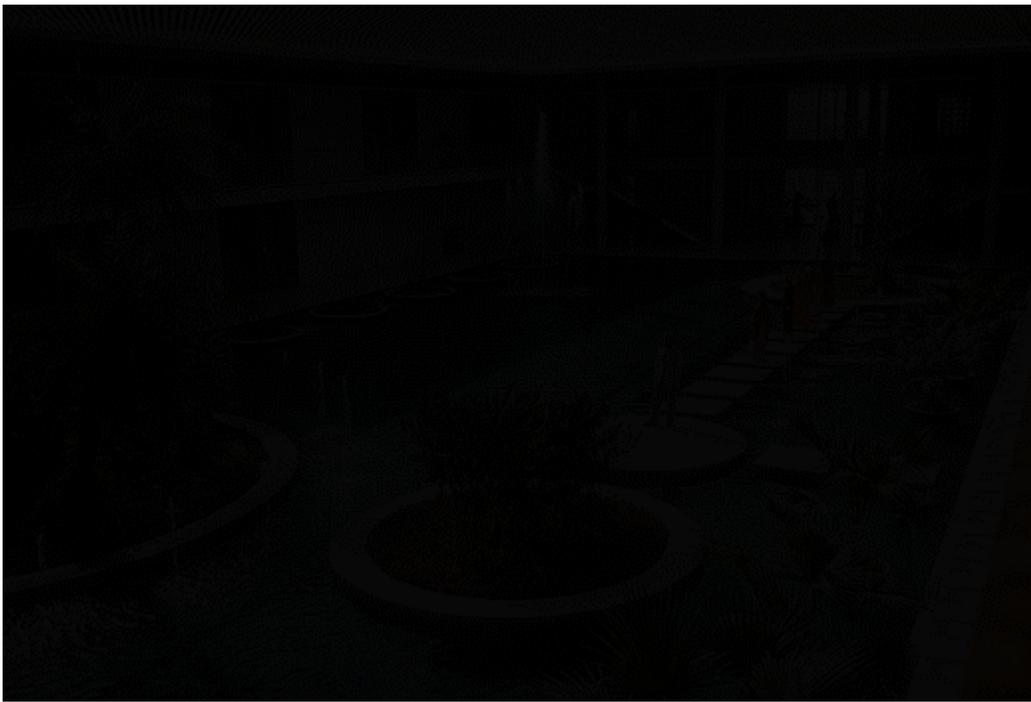


Figure 4: Interior Courtyard-New Delhi U.S. Embassy- Image by diplomacy.state.gov



Figure 5: Exterior Corridor-New Delhi U.S. Embassy- Image by diplomacy.state.gov

After 50 years, recently in 2015 the U.S. Embassy in India has been chosen by the U.S. Department of State to be redesigned by the New York-based Weiss Manfred, through a vast master planning making a two block embassy compound (Figure 6)

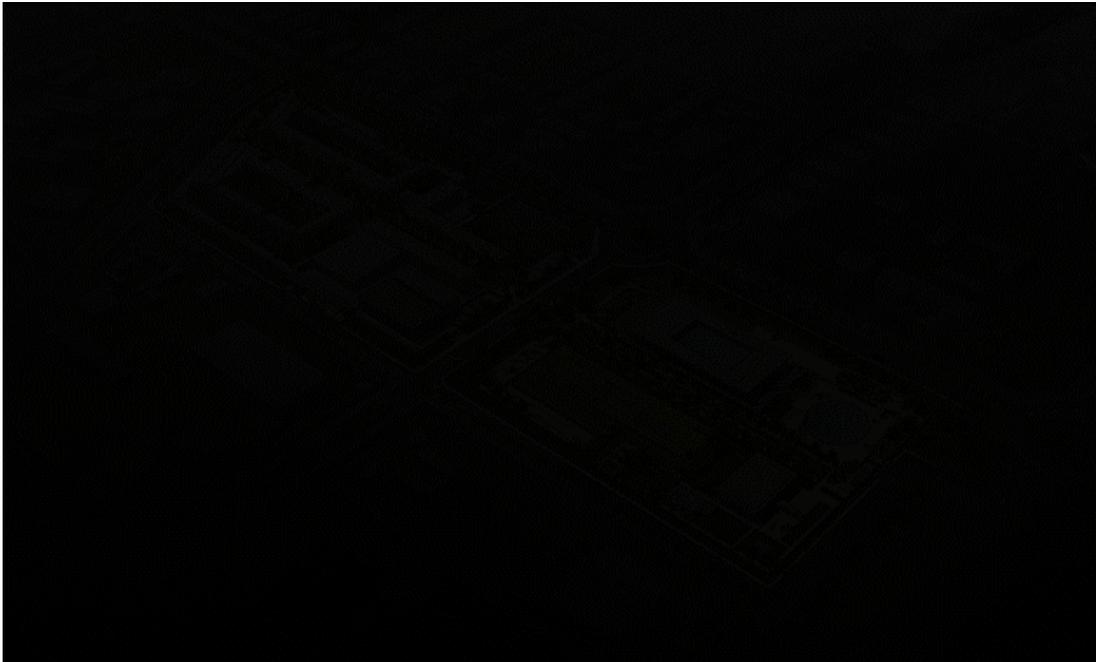


Figure 6: New masterplan for New Delhi U.S. Embassy-Image by weissmanfredi.com



Figure 7: Cross Section, New masterplan for New Delhi U.S. Embassy- Image by weissmanfredi.com

The new proposal is to give renewed architectural representation to America's diplomatic presence in India. The design of individual buildings, resilient gardens, and reflecting pools are inspired by India's traditional architecture and landscape exemplifying “the spirit of openness, environmental stewardship, and innovation,”⁹ The firm's master plan restores the early modernist Chancery Building and has an addition of set buildings on the 28-acre Embassy compound acting as a multi-functional campus setting. The first phase of the project includes the addition of a new office annex and a new landscape that provides a safe and secure environment on campus.

⁹ <http://www.weissmanfredi.com/project/us-embassy-in-new-delhi-india>



Figure 8: U.S. Embassy proposal. New Delhi, India- Image by weissmanfredi.com



Figure 10: Embassy of Australia- Jakarta, Indonesia-Image by northcountrypublicradio.org

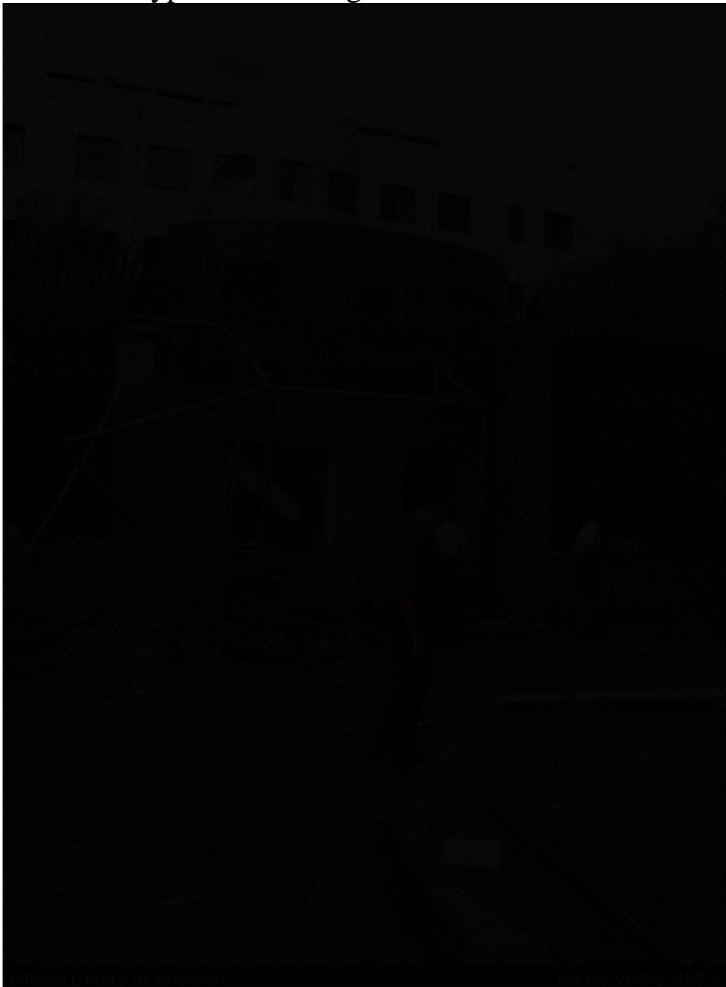


Figure 11: Embassy of Australia- Jakarta, Indonesia-Image by nla.pic

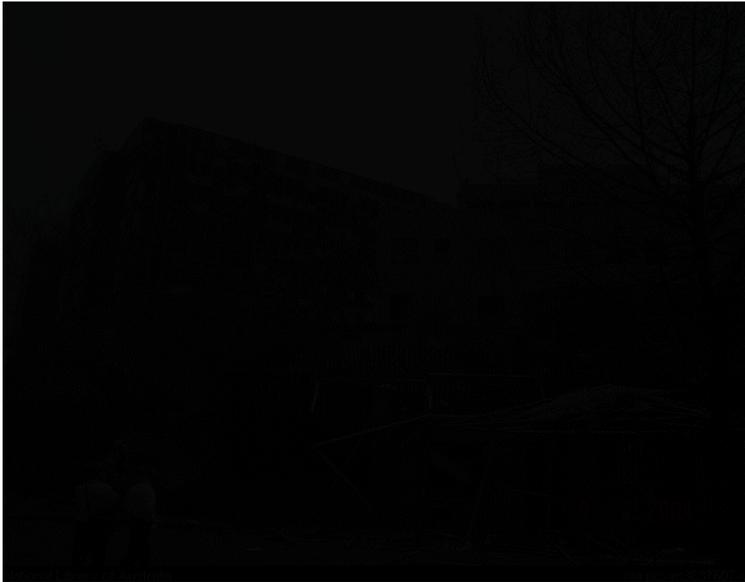


Figure 12: Embassy of Australia- Jakarta, Indonesia- Image by nla.pic

After the terrorist attack against the Australian Embassy in Indonesia, the Department's overseas property office has designated a new location for a new embassy compound in the city of Jakarta. The new compound is to be constructed on a 40, 500 sqm site in central Jakarta accommodating an official residence for the Head of Mission, 32 residential units for officers and their families, secure entry guard stations, a medical clinic, a commissary and three emergency units for crisis. The new Chancery is going to house 14 Australian Government tenant departments and agencies. The new location provides a much larger area for appropriate quality design and physical security arrangement. The development is to provide modern, functional and secure facilities. The chancery can hold official functions, exhibitions, meetings, lectures and business missions.

The architectural planning of this new embassy is to have innovative and unique spatial composition, material richness, visual clarity and the expression of diversity.

Through multiple volumes of buildings the compound has a powerful singular composition representing the diversity of Australian nation.

The development with multiple buildings allows for the offices to be separated from public and therefore secure and safe while offering open spaces where the public can experience the compound.

The security aspects of the compound is provided by having access control to allocated doors, intruder detection, cameras to cover all portions of the embassy grounds, staffed security control room and other highly detailed strategies. These strategies include boundary wall, 30 m (98.5 ft.) perimeter setback, guard houses, earth berms and perimeter clearance zone and alternative emergency egress points. ¹⁰

¹⁰ "House of Representatives Committees." – Pwc/jakarta09/subs/sub001.pdf. – Parliament of Australia. Accessed December 13, 2015.
http://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=pwc/jakarta09/subs/sub001.pdf.



Figure 13: Plan view, New Australian Embassy-Jakarta, Indonesia-Image by google map-Diagram by Author



Figure 14: New Australian Embassy Design -Jakarta, Indonesia-Image by leightonasia.com

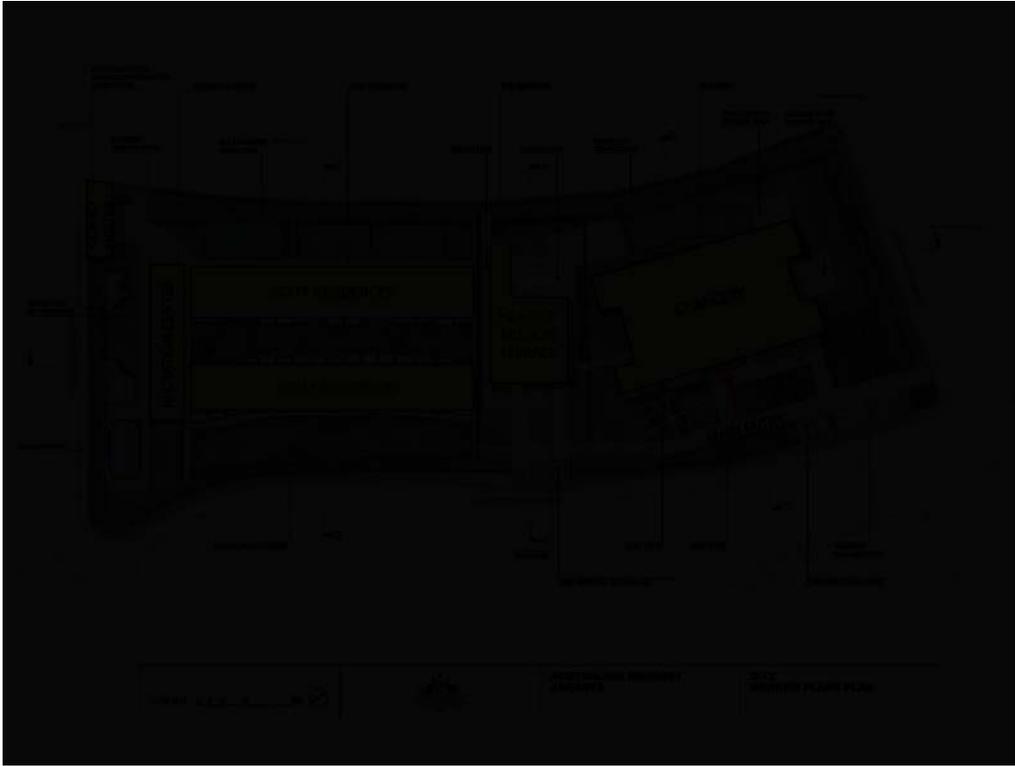


Figure 15: New Australian Embassy Design -Jakarta, Indonesia-Image by aphref.aph.gov.au-Diagram by Author



Figure 16: Elevations, New Australian Embassy Design -Jakarta, Indonesia- Image by aphref.aph.gov.au

The multiple buildings and their difference in heights and scale are symbols of individuality and diversity of the Australian nation. An open courtyard in the middle brings all these different buildings together as a place to share and experience with one another.

Balancing Security and Openness

Why and how this balance is important

It is important to remember that embassies are valuable tools in representing a country's international affairs and how they want to be perceived by other countries. This is not possible unless the aesthetics of these structures are sensibly and freely designed. This however should not be at the expense of security. The solution should be to use modern day security systems to avoid fortified looking structures. It should not be that all structures should become enclosed or boxed in to accommodate bullet proof walls and minimum small windows and openings. It is through embassies with democratic values that nations can accommodate exchange programs, language training programs and cultural and media programs in order to be welcoming of one another nations. These embassies and their values need building that project these images and evoke these experiences in all viewers and visitors.

Chapter 2: Embassy of the Future

The Power of Architecture in Representation

Diplomatic Architecture

Diplomatic architecture is an architecture where the social, cultural and political characteristics of the users of that architecture as well as the context of the site is implemented in the design. It is important to recognize this power and use it in design of embassies all around the world. To represent public diplomacy and sharing the values of each nation there needs to be a place for people to go to and experience these values and embassies are a great opportunity for such demonstrations.

Diplomatic Architecture for future Embassies

The goal of this study is to create a vision for an embassy of the future through implementing practical ideas. The embassy of the future has a much more complex role in representing and sharing ideas of countries within one another than in the past. Today there is an opportunity to expand international relationships through cultural as well as economical means which can be enhanced by the physical presence of embassies. These buildings are powerful tools in effectively promoting national values and interests.

As stated in the CSIS (Center for Strategic and International Studies):

“On the topic of The Embassy of The Future, diplomacy is a vital tool of national security. “This is an urgent national priority. Transitional threats, including terrorism, put U.S. citizens and national interests at risk. Anti-Americanism can have lethal consequences for our nations and its citizens... Unlike traditional diplomacy where government and social characters would interact in highly formal manners, today they tend to be more engaged directly

with diverse parts of other nation's societies. The embassy of the future will promote a presence where officials are capable of engaging with the societies widely to build relationships and share the culture and values of their nations."¹¹

Future Embassy Design

The basics of designing an embassy

The design of an embassy should be primarily sculptured for its unique location and its goal of promoting its culture and government as well as engaging with other nations. This is also relevant when designing all other governmental buildings of the embassy's country.

"Embassies and consulates should have modern, safe and functional spaces to work. These structures should represent not only the diplomatic missions but the advancement of their missions. Thus locations removed from urban fabric would not allow for such interactions with the host society. The Embassy of the future design should "continue from risk avoidance to risk management" ¹¹

Design Process in Theory

The host country and its ambassador should be highly involved in the design process with cooperation of relevant regional agencies. These officials should be responsible for finding a desirable location for the embassy. It is important to keep in mind the long-term goals of this structure and the social, cultural and political values it stands for. The staff of these structures will change with time but the structures will remain and should be able to maintain and adopt with new circumstances. "The state department has instructed a Standard Embassy Design (SED) program with common strategies that can be adopted across ranges of facility sizes. The new embassy

¹¹ "The Embassy of the Future." The Embassy of the Future. Accessed December 13, 2015. <http://csis.org/program/embassy-future>.

compounds are multi-building campus located on average 10-acre sites”.¹¹ this strategy could be a model for all other nations who plan to build new embassies as well as the ones in Washington D.C. Thus the proposal for the new Iranian Embassy on Massachusetts, Ave Washington D.C. will be a compound of multiple buildings and open landscape areas. The compound strategy and a central location in the capital of the host country will allow for close interaction between different agencies involved with the embassy and the social, cultural, political and economic life of the host city. The prominent and compound location also reduces the transit cost and demand providing a more secure environment for the visitors as well as citizens of the host country.

Chapter 3: Architectural Characteristics of Iran and America

Principles of Iranian Islamic architecture

Pre-Islamic and After Islam

Since thousands of years ago Persian architecture has been developing through various civilizations that have existed in Iran’s history. The Islamic architecture of Iran is greatly built upon the basis of Persian architecture through geometrical and repetitive forms, as well as surfaces that are richly ornamented with glazed tiles, carved stucco, patterned brickwork, floral motifs, and calligraphy. The ruins of the city of Persepolis, the center of the Persian Empire containing castles and gathering areas for civilized conversations was built 2500 years ago during the reign of

the Achaemenid Empire.

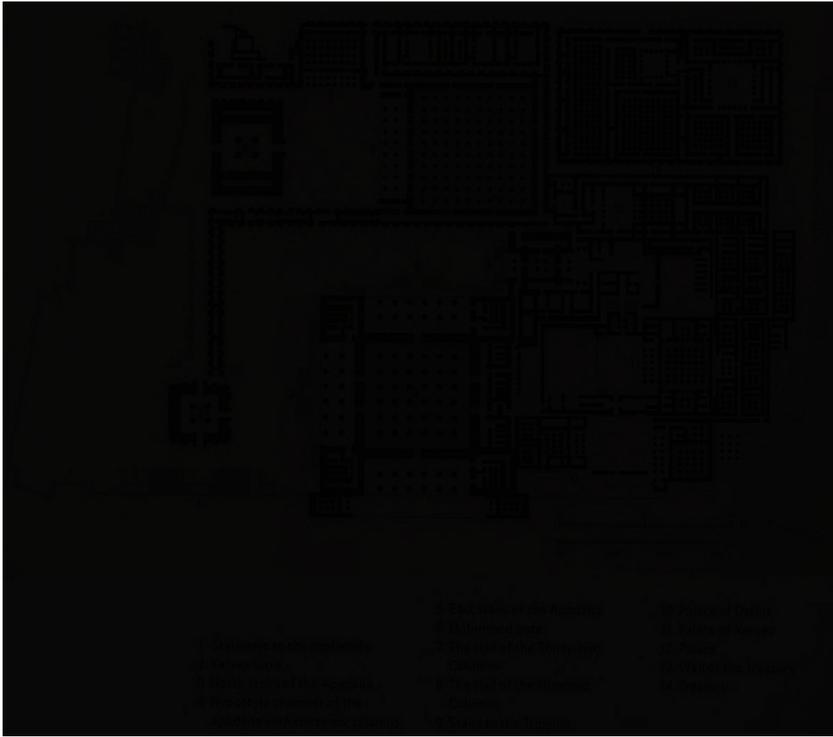


Figure 17: Persepolis Map-Image by studyblue.com

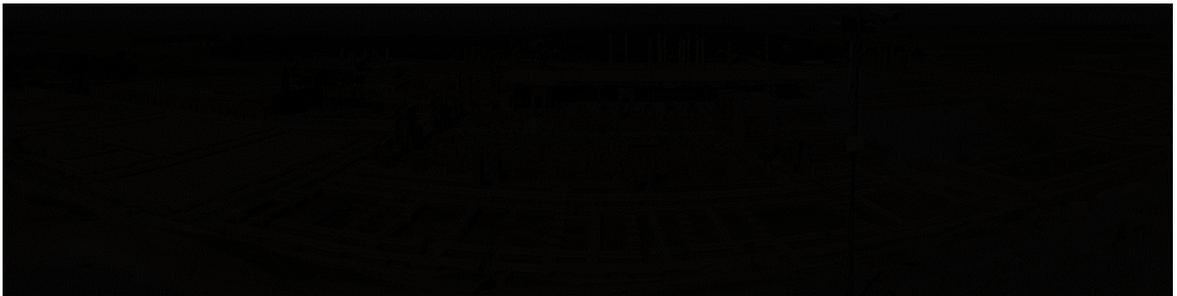


Figure 18: Persepolis ruins after the fire set by the Alexander The Great-Image by stockholm360.net

The Achaemenes was built on a grand scale utilizing artists and materials from across the Empire. After the end of Achaemenes ruling there was the rise of the Parthians and Sassanid and with those new architectural forms appeared. Architectural elements

of these periods were massive barrel-vaulted chambers, solid masonry domes and tall columns which are carried to today's modern Iranian architecture.¹²

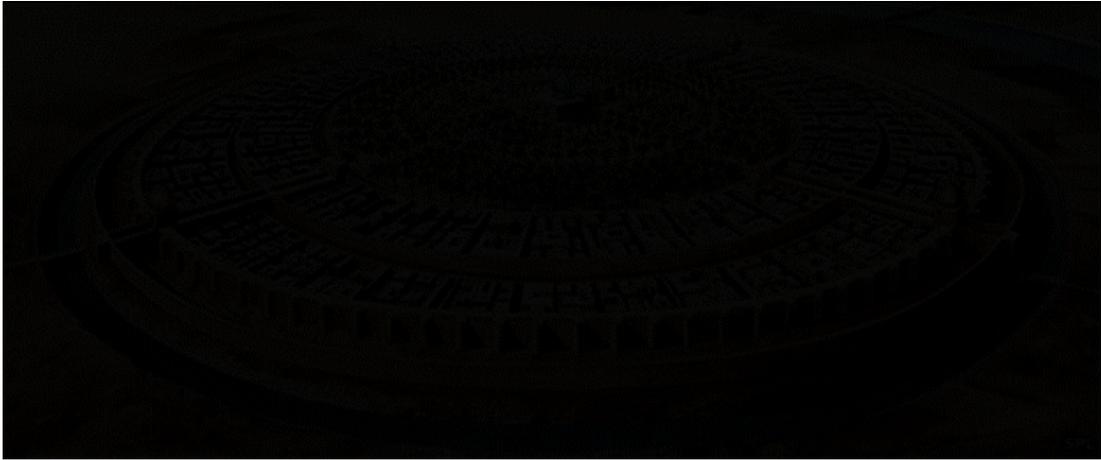


Figure 19: The roundness of the city of Baghdad in the Abbasid era influenced by an older Persian city called Firouzabad in Fars.-Image by arabnewsblog.net

Iranian architecture is an ancient form of art aging from thousands of years ago influenced by Greek and Roman architecture. After emergence of Islam in to Iranian territory around 600 A.C. the architecture of Iran did not lose its identity but was re-created. The word Islamic architecture refers to the style of architecture built in Islamic territories. However Iranian vernacular architecture is greatly dependent on its location, climate, culture as well as religion. Being humanistic and proportional, abstinence form inanity, having structure as aesthetic elements. Self-sufficiency, introversion, purity in shapes and volumes. Having symmetry and being colorful while considering the spirituality of god and manmade relationships in design are some of the origins that can be found in any building of Iranian Islamic architecture

¹² Hattstein, Markus. Islam: Art and Architecture. Cologne: Könemann, 2000.

(figure 20-22).¹³ The Lotfollah mosque in Isfahan designed in Safavid period is an example of post-Islamic Architecture. The dome is intended to see as a floating object in the sky with symbolizing the mysterious existence of the last Imam that has been missing and with its return he shall bring justice, divinity, faith, prosperity and more.¹⁴



Figure 20: Lotfollah mosque, Isfahan, Iran-Image by i-rep.emu.edu

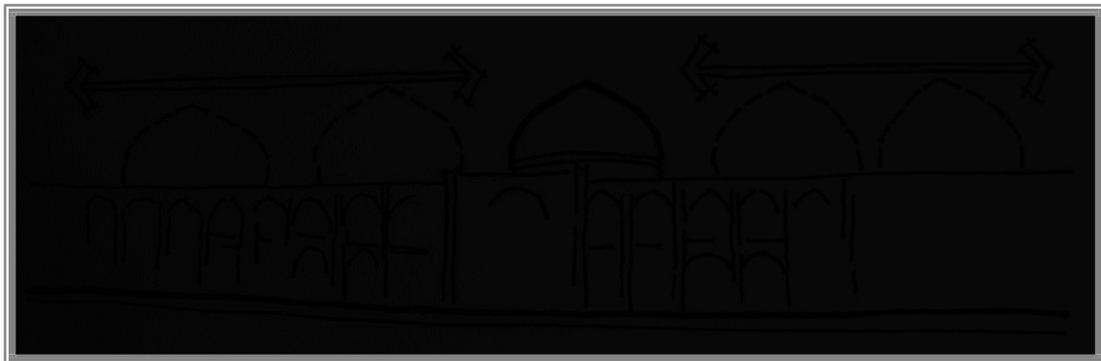


Figure 21: Floating impression of Lotfollah dome in horizontal direction- Image by i-rep.emu.edu

¹³ Accessed December 14, 2015. http://www.mukogawa-u.ac.jp/~iasu2012/pdf/iasu2012_Proceedings_607.pdf.

¹⁴ "Eastern Mediterranean University Institutional Repository: An Inquiry into Iranian Architecture Manifestation of Identity, Symbolism, and Power in the Safavid's Public Buildings." Accessed December 14, 2015. <http://i-rep.emu.edu.tr:8080/jspui/handle/11129/86>.

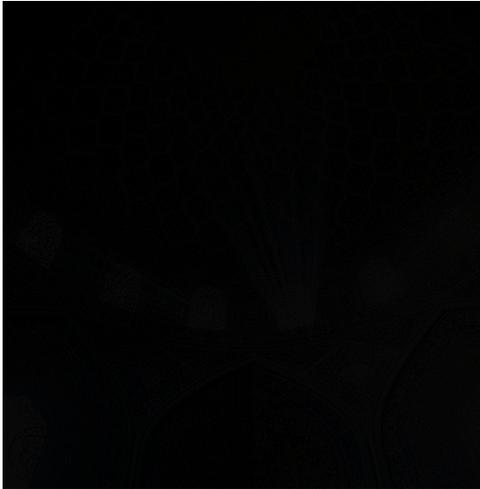


Figure 22: Inner view of Shiekh-Lotfollah dome- Image by i-rep.emu.edu

Principles of American Architecture After 1776

American Architecture (c.1776-1920) and Federal style

The Federal Style buildings in American architecture is the result of many different nation's architectural styles since the arrival of the Spanish, English, Scots-Irish, Dutch, German, French and Swedish immigrants to the North America beginning from the c.1600. During c.1776 to 1920 the American architectural style for government structures included Federal and Greek Revival styles. These styles were influenced by architectural principles of ancient Greek and Roman civilization as well as modern European architecture. These architectural styles are symbols of democracy and civility which are some of the main characteristics of what United States stands for.

The Federal style is based on classic architecture with elements from Greek and Byzantine such as symmetry, columns, surfaces with detail ornaments set within panels, tablets and friezes. The most influential American architects of this era were

William Thornton, Asher Benjamin, Samuel McIntire and Alexander Parris.¹⁵ An example of this style is the Massachusetts's State House, Boston completed in 1798 designed by Charles Bulfinch.¹⁶

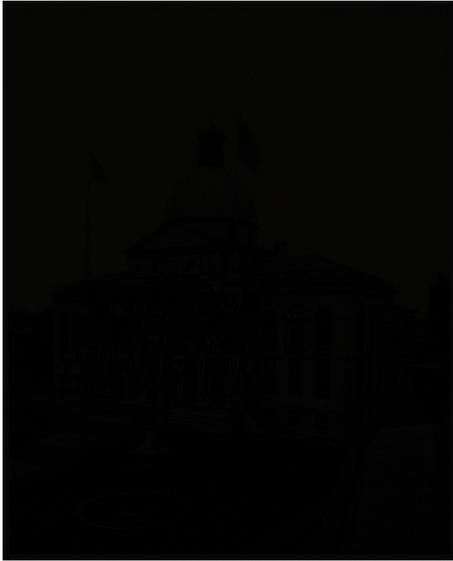


Figure 23: Massachusetts State House – 1875-Image by: IBoston.org

¹⁵ "American Architecture (c.1600-present) History, Characteristics, Famous Architects." American Architecture: Origins, History, Characteristics. Accessed December 14, 2015. <http://www.visual-arts-cork.com/architecture/american.htm#neoclassical>.

¹⁶ "Massachusetts State House - IBoston.org." Massachusetts State House - IBoston.org. Accessed December 14, 2015. <http://www.iboston.org/mcp.php?pid=stateHouse>.

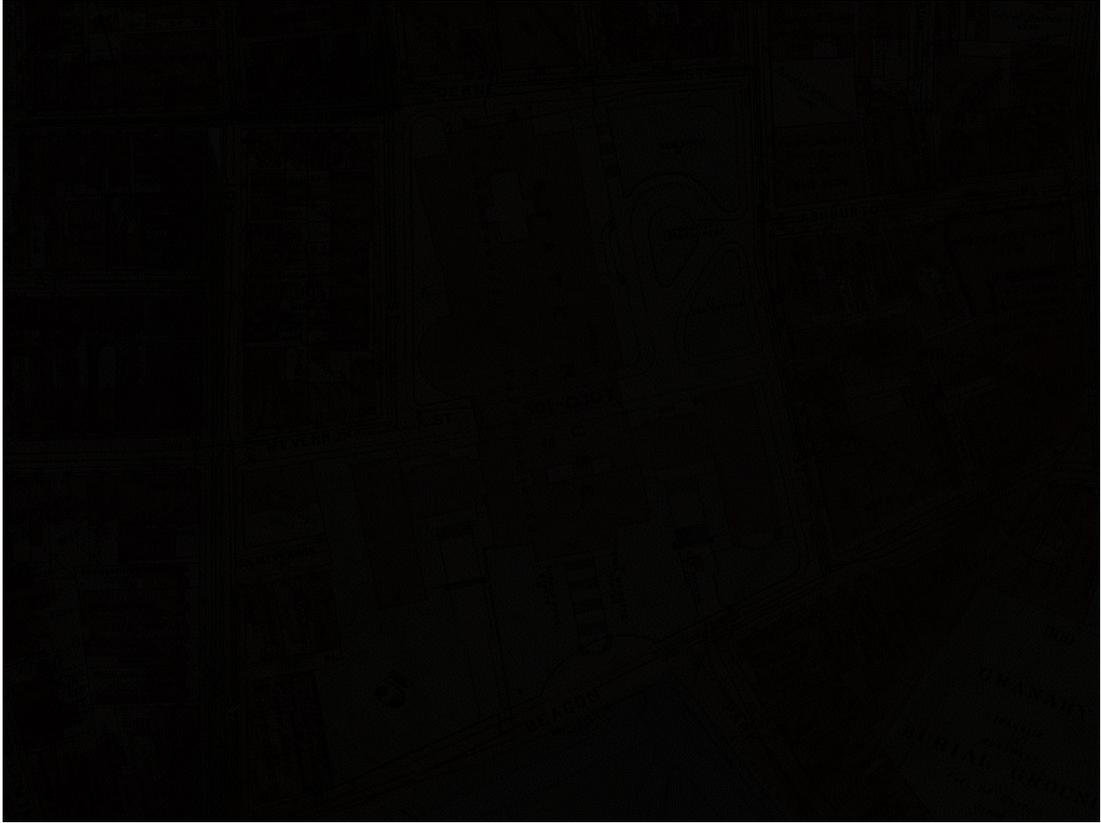


Figure 24: Massachusetts State House – 1928- Image by IBoston.org



Figure 25: Massachusetts State House – 2015-Image by Google Earth Pro

Greek and Gothic Revival (up to c.1936)

Greek architectural elements are prominent in American architecture throughout history in neoclassicism, French architecture, Gothic styles, American Renaissance movement and finally Beaux-Arts architecture. Examples of Beaux-Arts architecture are the Lincoln Memorial 1922, the National Gallery 1937 and the American Museum of Natural History's Roosevelt Memorial 1936 all located in Washington D.C. 15



Figure 26: Areal view-Lincoln Memorial-Image by mobilytrip.com



Figure 27: Plot Plan, Elevation and Sections-Lincoln Memorial-Image by flickriver.com

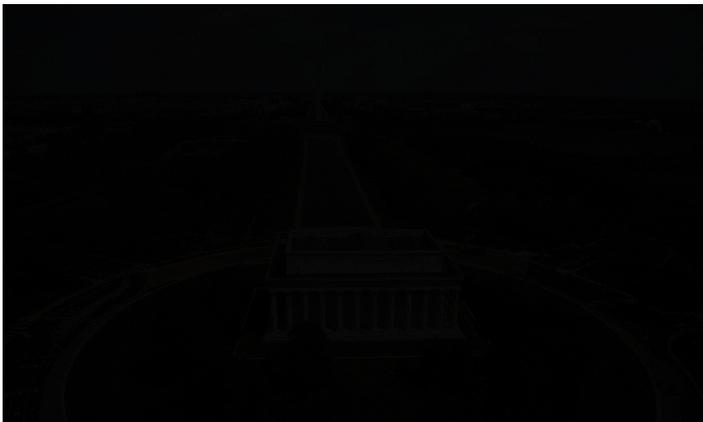


Figure 28: Areal View-Lincoln Memorial-Image by capital.news

Modern, Postmodernist and Contemporary (1925-Present)

Modern Architecture was a result of the industrial revolution in 1900 with the availability of new construction material and techniques such as steel and concrete. It rejected all the previous architectural studies and elements with the mission of making architecture for the modern society. However in Postmodernism (1970s to present) architects started to reflect back to the ancient history and draw elements from previous knowledges as well as modern styles. In United States had a strong believe in using the historic architecture style and so the modernist architecture didn't emerge until late in 1920s.

One of the most famous postmodernist structure in Washington D.C. is the East Wing of the National Gallery of Art designed by a Chinese-American Architect I.M.Pei in 1968-1978.

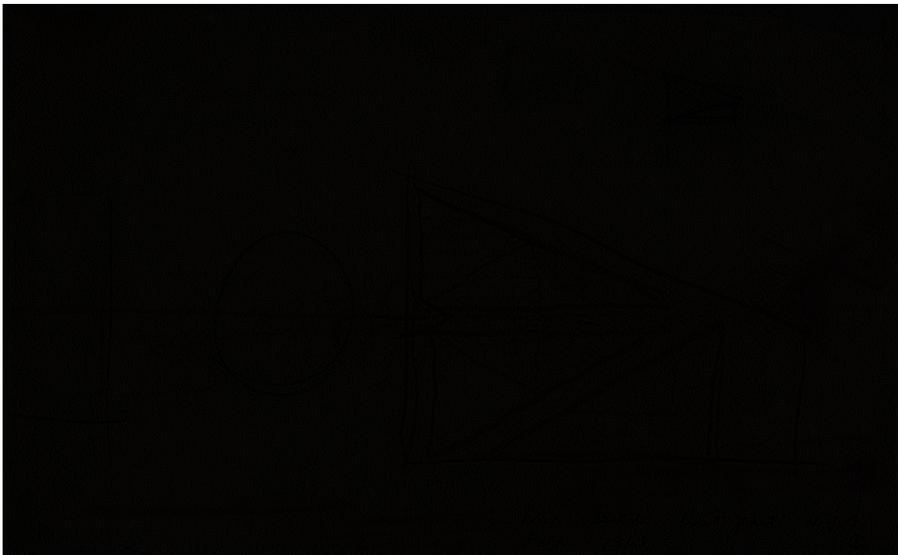


Figure 29: diagram of East and West building relationship of the National Gallery of Art Museum, Washington D.C. by I.M.Pei-Image by nga.gov



Figure 30: Areal view of the National Gallery of Art, Washington D.C.
East Wing on the right-Image by Google Earth Pro

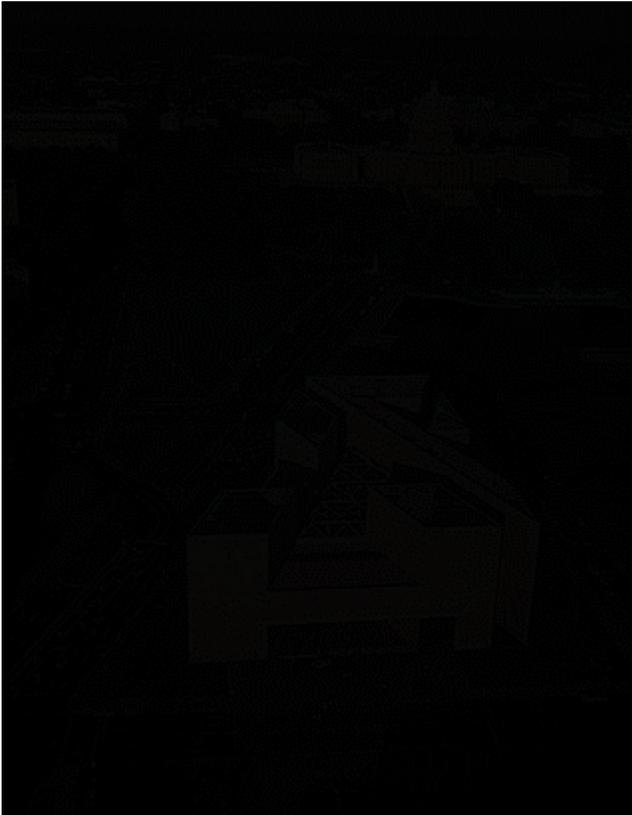


Figure 31: Areal View, East Wing National Gallery of Art, Washington D.C.-Image
by thecityreview.com

Chapter 4: Iranian Embassy, Washington D.C. Design Proposal

L'Enfant Plan



Figure 32: Washington D.C. L' Enfant Plan- Image/diagram over lay by: Author

Washington D.C. was established in 1790 and the L'Enfant plan for the city was designed by a French immigrant architect. He placed important buildings such as the capital and monument on strategically high lands as symbols of the nation and power and designed the roads and blocks using elements of baroque city planning. With the expansion of this place came the Massachusetts Ave. NW where it's famous as the Embassy Row. The former Iranian embassy site is also sitting alongside this street. The street has followed the baroque principle of the L'Enfant plan as it is an angular in North West direction. However the further developments of new streets have not followed the L'Enfant plan rigorously in is important to mention the remnant of this

plan in the future urban design of the city. As one approached from north to south on this street toward downtown D.C. the Washington Monument is one of the main visual elements seen in the distance. This would not be possible if Massachusetts Ave, was not placed in its NW angular direction giving the embassy row the advantage of having visual access to the Washington monument as a symbol of the United States and its relation with other countries and their embassy buildings.

Former Iranian Embassy, Washington D.C.

History

The existing site of the Former Iranian Embassy on Massachusetts Ave, is holding two buildings, one the embassy and another one is the Ambassador residence. Iran vacated these buildings a year after the hostage crisis at the U.S. Embassy in Tehran in 1979. The embassy was built in the early 1960s. The U.Ss and its allies the UK had overthrown Prime Minister Mosaddeq because of his nationalization policies which were not in interest of the West since his main goal was to nationalize the country's oil and gas. After overthrowing Mosaddeq and placing Shah back in power and the U.S. support of the Iran's military force a new embassy building was only appropriate to represent the relationship between the U.S. and Iran. The embassy building was one of the 1962 Craftsmanship Awards Winners.

The building's architect was Francis Keally (1889-1978). Keally was born in Pittsburgh, had studied in Philadelphia, and set up a practice in New York. He was to design quite a number of university buildings, particularly libraries. Other projects of

Keally in U.S., are consist of consultation with a team of architects working on the American Memorial Library and the new university library of the Free University.¹⁷

The overall site has a flat front on Massachusetts Ave and it slopes down as it meets the 30th street by a 20 feet drop. The site is under the Historic Districts of Washington Dc but the Buildings are not part of the designated Historic Landmarks. However the embassy has a unique design and many of its elements are a representation of traditional Iranian and Islamic architecture. The building is not accessible by the public and hence it is not possible to construct architectural drawings of its interior plan and section. Considering the age of these buildings and the fact that they are not accessible has lead the project to a decision of a fresh start where these buildings will be removed from the site and replaced by new structures.

The new proposal will be on the existing site of the Former Iranian Embassy on Massachusetts Ave. The compound will consist of three buildings the Embassy, chancery and a cultural center with an Iranian garden upon arrival. The garden will allow the required set back area to become a place where visitors can immediately engage with the culture of Iran rather than it being a black front to the compound. The excising embassy and residence will be removed but some elements of the structure and façade might be kept, modify or changed to represent the four decades of void and a structure that has turned into an image on Mass Ave rather than a place,

¹⁷ "1962 Craftsmanship Awards Winners | Washington Building Congress." 1962 Craftsmanship Awards Winners | Washington Building Congress. Accessed January 20, 2016. <http://www.wbcnet.org/craftsmanship-awards/current-and-past-winners/1962-craftsmanship-awards-winners/>.

abandonment and banning of the old structure. The existing site for former Iranian Embassy is located on the 3003-3005 Massachusetts Ave, Washington D.C. The building is a 1960s modernist structure with a symmetrical façade and a wide entrance marked with a series of steps and full height brown columns. The façade is decorated with a dominant turquoise tile pattern and a wooden tall door marks the main entrance. The compound was consisted of the main chancery as well as the ambassador's residence. Other structures related to Iranian government were the Iranian Military attaché at 3410 Garfield Street and the Iranian minister of cultural Affairs at 2954 Upton Street. ¹⁸

Exterior images



Figure 33: View from the 30th street-Image by: author



Figure 34: View from the 30th street-Image by: author



Figure 35: View from corner of the 30th Street and Massachusetts Ave -Image by: author

¹⁸ "The Polyglot: Recalling Iran's Former Embassy in Washington." The Polyglot: Recalling Iran's Former Embassy in Washington. Accessed December 14, 2015. <http://the-polyglot.blogspot.com/2011/01/recalling-irans-former-embassy-in.html>.



Figure 36: View from Massachusetts Ave -Image by: author



Figure 37: View from Massachusetts Ave -Image by: author



Figure 38-39: Street View-google.com
Image by: Author



Figure 40: Ambassador Residence
Image by Kamran Partovi



Figure 41: Main Entrance to Embassy
Image by Kamran Partovi



Figure 42: Main entrance, Image by:
Author



Figure 43: Marble Column, Image by:
Author



Figure 44: Entrance ornaments,
Image by: Author



Figure 45: Window ornaments,
Image by: Author

Interior Images

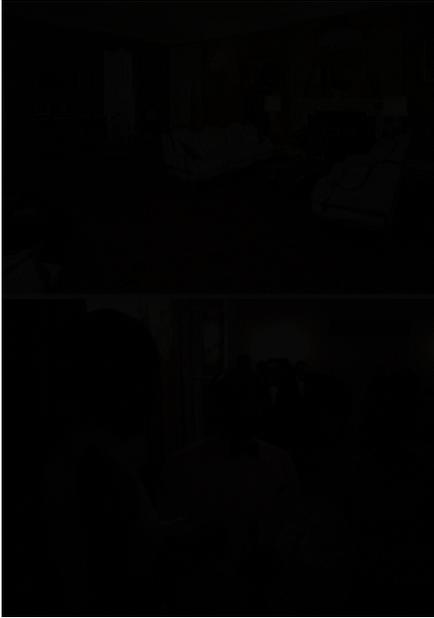


Figure 46: The main reception room of the Ambassador's residence-Images by the-polyglot.blogspot.com

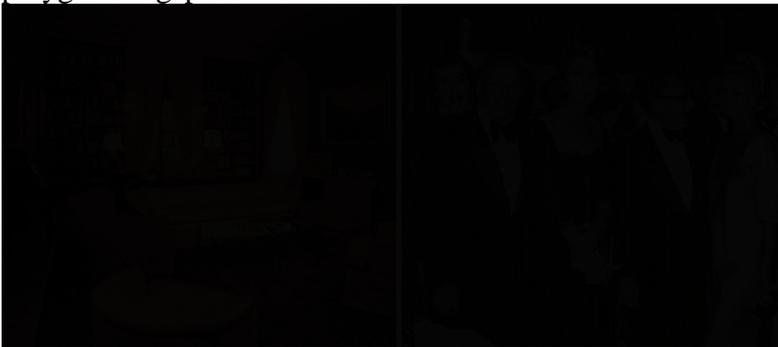


Figure 47: The Residence Library, Amongst Ambassador Zahedi's regular dinner guests were Frank Sinatra, Nancy Kissinger, Henry Kissinger and Mrs. Frank Sinatra. -Images by the-polyglot.blogspot.com



Figure 48: The Shah and Shabanou attending an embassy function in the 1970's, Entrance of the Embassy's glittering Persian room--Images by the-polyglot.blogspot.com



Figure 49: The Persian Room--Images by the-polyglot.blogspot.com

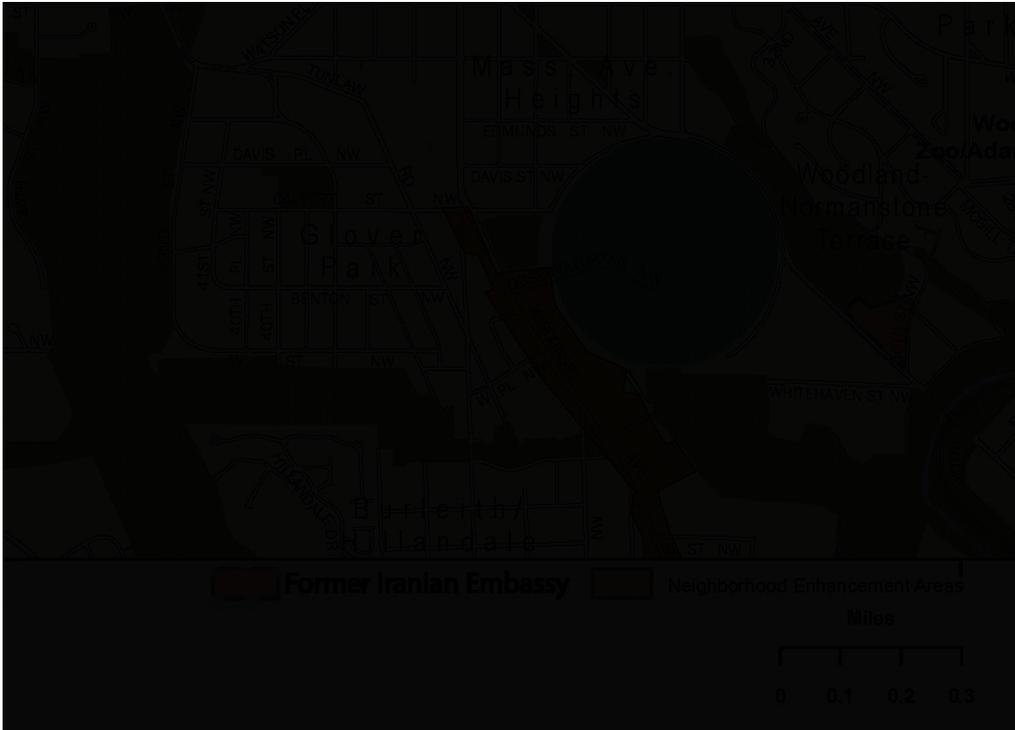


Figure 51: D.C. Policy Map. Former Iranian embassy- Image by planning.dc.gov

The former Iranian Embassy is located on Massachusetts Ave NW, in Washington D.C. This structure was active at the time of Iran's monarchy before the Islamic revolution. The compound has not been used since April 7, 1980. The embassy was built in 1956 and has been in the care of the U.S. government since its closing in 1980.²⁰

²⁰ "IIP Digital | U.S. Department of State." U.S. "Respects and Protects" Former Iranian Embassy. October 26, 2011. Accessed December 14, 2015. <http://iipdigital.usembassy.gov/st/english/article/2011/10/20111026102120enaj0.2352716.html#axz z1dZgOVQJ3>.

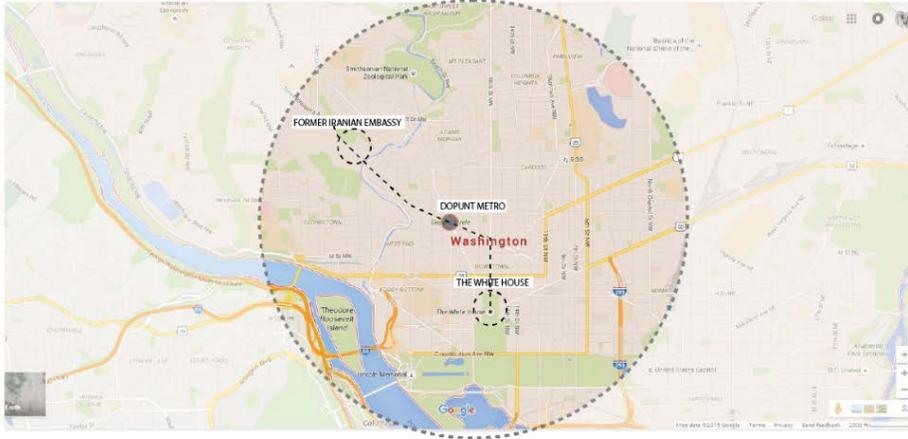


Figure 52: 2000ft scale, -Image by googlemap.com-Diagram by Author

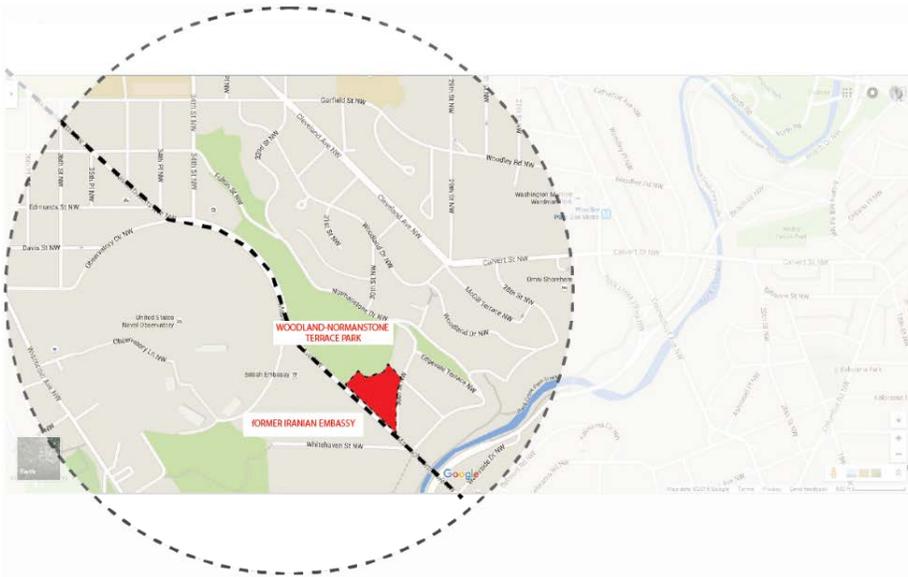


Figure 53: 500 ft scale, The former Iranian Embassy location, Massachusetts Ave NW. - Image by googlemap.com-Diagram by Author

The location of the former Iranian Embassy is within a cultural, social and politically active area of Washington D.C. The former Iranian Embassy is on Massachusetts Ave. NW which has a prominent relationship with a high traffic node; DuPont Circle. This circle is one of the main circles that connects to 16th street leading to the White house (Figure 52 and 53).



Figure 54: Site perimeters and topography. Image by: Author

The topography of Washington D.C. is a very challenging one in the sense that there are many hills and valleys throughout the city. The city's topography has changed over time through the different city plans as well as building construction.

However the challenge with building on a hill site has remained in many sites as well as the site considered for this project which is outlined with dashed lines in the image above (Figure 54).



Figure 55: Site perimeters, topography, roads. Image by: Author

The roads in Washington D.C. are the results of many different planning stages. The L'Enfant plan which is mainly implemented in the central part of the city is a series of organized grids with angular streets cutting through in baroque style connection major nodes. As the city expanded the streets had to adjust with the challenging topography thus losing the organized grid. Massachusetts Ave, is an extension of the L'Enfant plan thus allowing a strong connection between the project's site and the central part of the city (Figure 55).



Figure 56: Site perimeters, topography, roads, buildings foot print- Image by: Author
Most buildings have a similar footprint in this area and are aligned with one another with a same set back area from the street. The buildings on Massachusetts Ave. are a mix of embassies and governmental buildings. These buildings have a larger foot print compared to the surrounding residential buildings in eastern sub streets of Massachusetts NW Ave. The only exception is with the National Zoo on the north east of the plan above which contains lager buildings (Figure 56).



Figure 57: Water and Green areas, Image by: Author

Rock Creek Park and Rock Creek stream are the major natural environments of this area. The Rock Creek stream is a branch of water that leads to the Potomac River. Rock Creek Park is a national park that expands toward the north of Washington D.C. The area of the park that is within the vicinity of the former Iranian Embassy is a vegetated area with streams of water running alongside it, which provides a great opportunity for the area to be a natural way of providing sustainably aware structures as well as open spaces for public use (Figure 57).

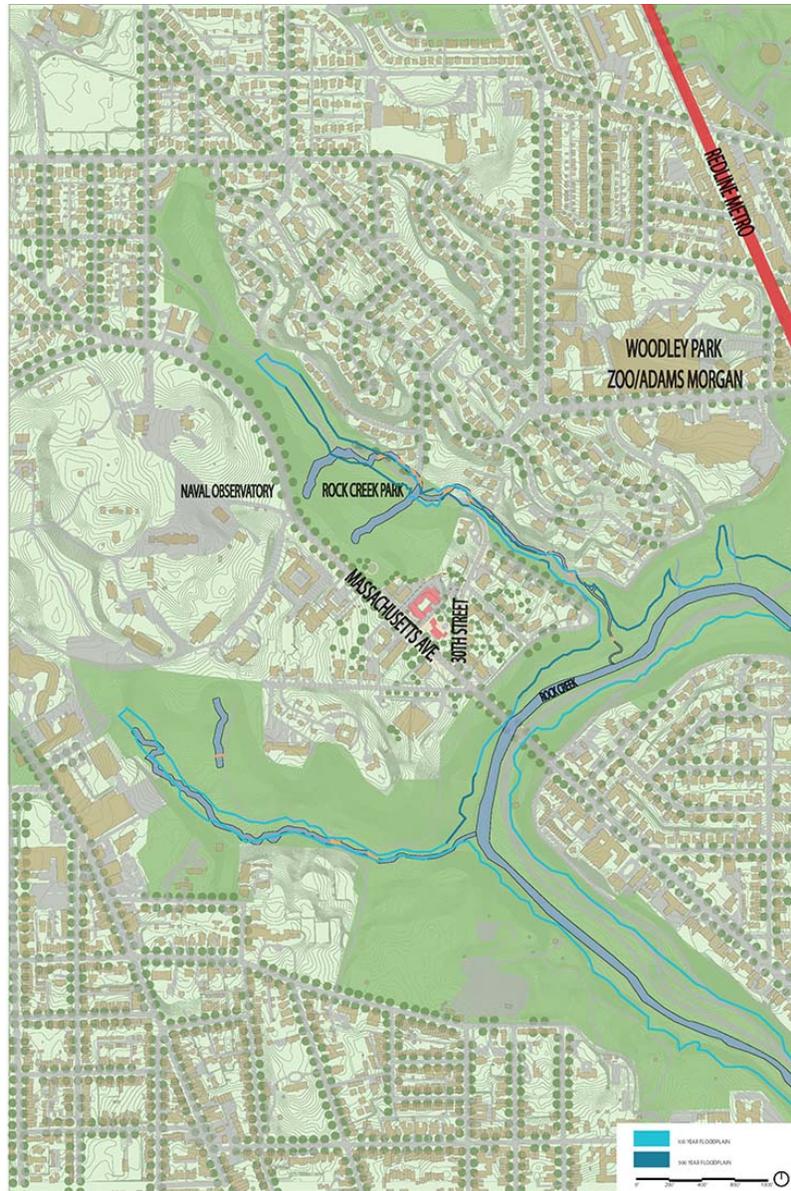


Figure 58: Floodplain footprint- Image by: Author

The floodplain shown in the image above (figure 59) is an indicator of two different floodplains, one a 100 year plain shown in light blue and another is the 500 year plain shown in dark blue. It is clear that the areas close to the water are within the floodplain but the building structures are placed away from these area and they are mostly vegetated land. The site for this project is within a reasonable distance to the floodplain and thus it is safe to be built on (Figure 58).

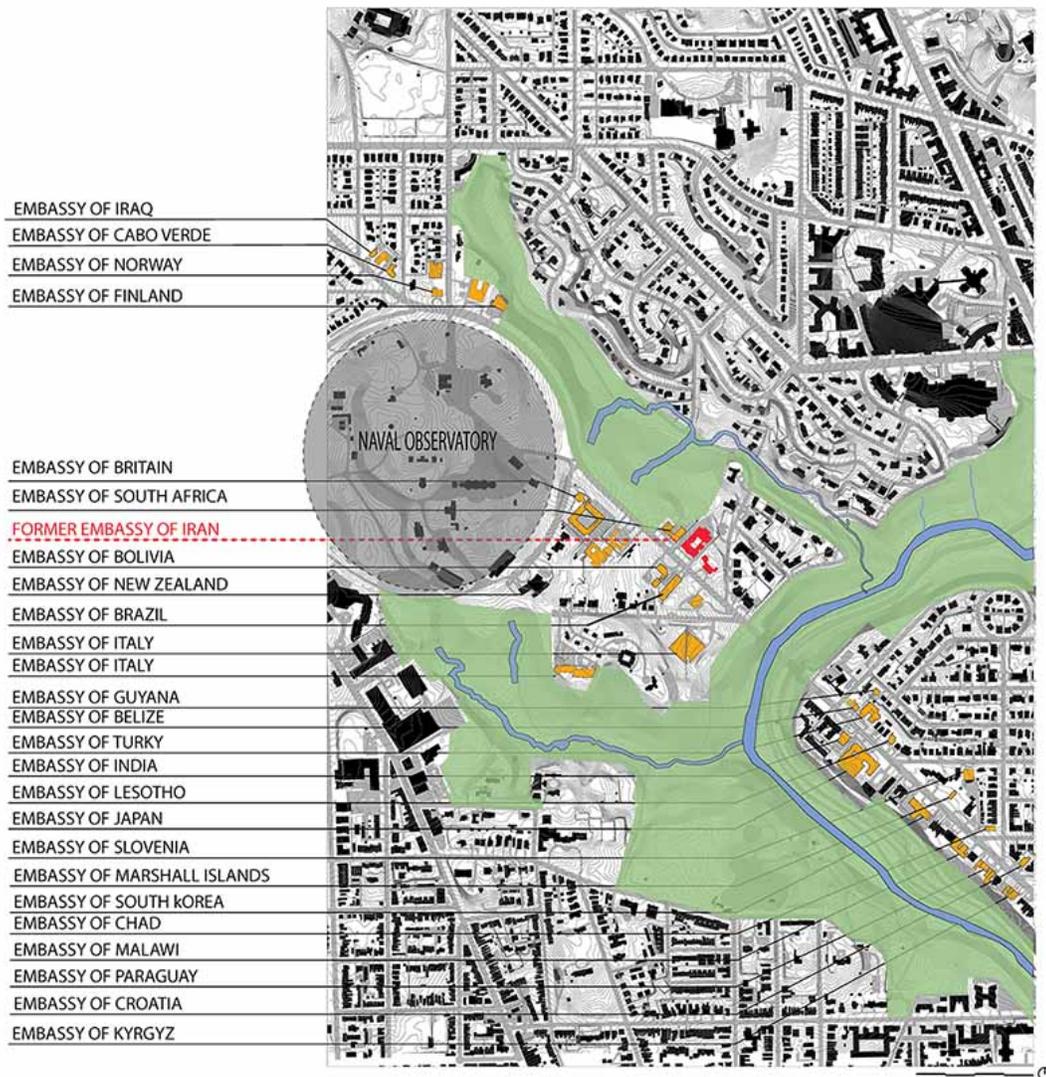


Figure 59: Embassy Row-Image by: Author

Embassies in Washington D.C. are mostly placed along Massachusetts Ave, which is an extension of the L'Enfant plan. The street has been a home for many embassies throughout years and in this respect it's also known as the Embassy Row. The location for these embassies is an opportunity for the U.S. to welcome all different nations in one area and emphasizes its interest in international relations. This area is close to many important governmental areas in the city such as the White House, U.S. Department of State, Congress, and many international organizations (Figure 59).

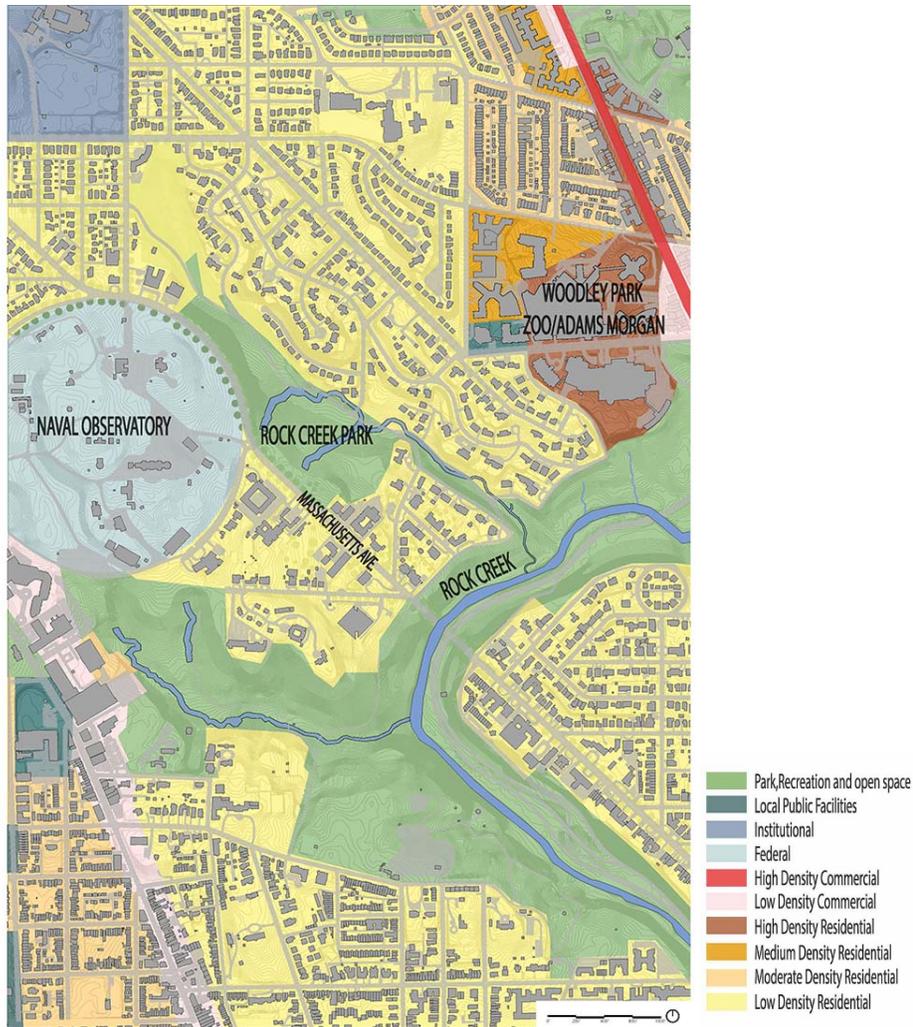


Figure 60: Land Use Diagram, referenced from GIS Map - Image by: Author
 Washington D.C. GIS map has compiled a map of the different types of the land use in the area. The surrounding area of the former Iranian embassy site is mainly occupied with a Low Density Residential and Park Recreation and open space areas. The design of the new Iranian embassy should be such that it can fit with the other embassy buildings along the embassy row while not overpowering the residential and natural fabric of the neighborhood (Figure 60).

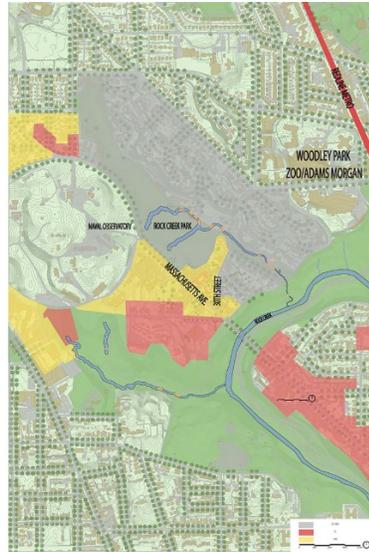


Figure 57: Over-Lay Zones Diagram, referenced from GIS Map - Image by: Author
According to the DC map on GIS data, the former Iranian embassy in the gray area is in the perimeter of the Naval Observatory Overlay District (NO). Any new construction within this area shall respect the values of the Naval Observatory as described below. It is important to note that the buildings in the gray area (NO) shall not exceed 50 foot height (Figure 57).

“The Naval Observatory Precinct (NO) Overlay District was established to promote the public health, safety, and general welfare on land adjacent to or in close proximity to the highly sensitive and historically important Naval Observatory, in keeping with the goals and policies of the Federal and District elements of the Comprehensive Plan and the adopted Master Plan for that facility. The maximum permitted building height in the NO Overlay shall not exceed forty feet, including planned unit developments.”²¹

²¹ "Summary of Overlay Districts." DC Office of Zoning. Accessed January 20, 2016. <http://dcoz.dc.gov/info/overlay.shtm>.

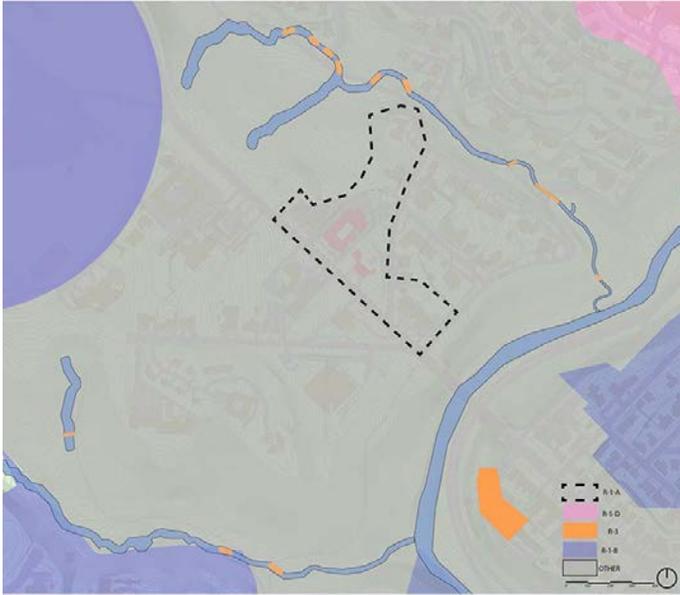


Figure 58: Zoning Diagram-Image by: Author

The former Iranian embassy is in the R-1-A zone according to the GIS map of Washington D.C. The permit for development of an embassy for this site should follow the rules for a public recreation and community center building type. The site shall have a minimum lot width of 120 feet, a minimum lot area of 7, 500 sqf, a maximum lot occupancy of 20 % and a maximum height of 45 feet (3 stories tall). The building shall be 25 feet set back from the main street and minimum 8 feet sidewalks (Figure 58).

“Permits matter-of-right development of single-family residential uses for detached dwellings with a minimum lot width of 75 feet for residential, churches, and public recreation and community centers and 120 feet for schools, a minimum lot area of 7,500 square feet for residential, churches, and public recreation and community centers and 15,000 square feet for schools, a maximum lot occupancy of 40% for residential, 60% for church and public school use, and 20% for public recreation and community centers and a maximum height of three (3) stories/forty (40) feet (60 feet for churches and schools and 45 feet for public recreation and community centers).

Rear yard requirements are twenty-five (25) feet, side yard requirements are eight (8) feet (site and make footnote)”²²

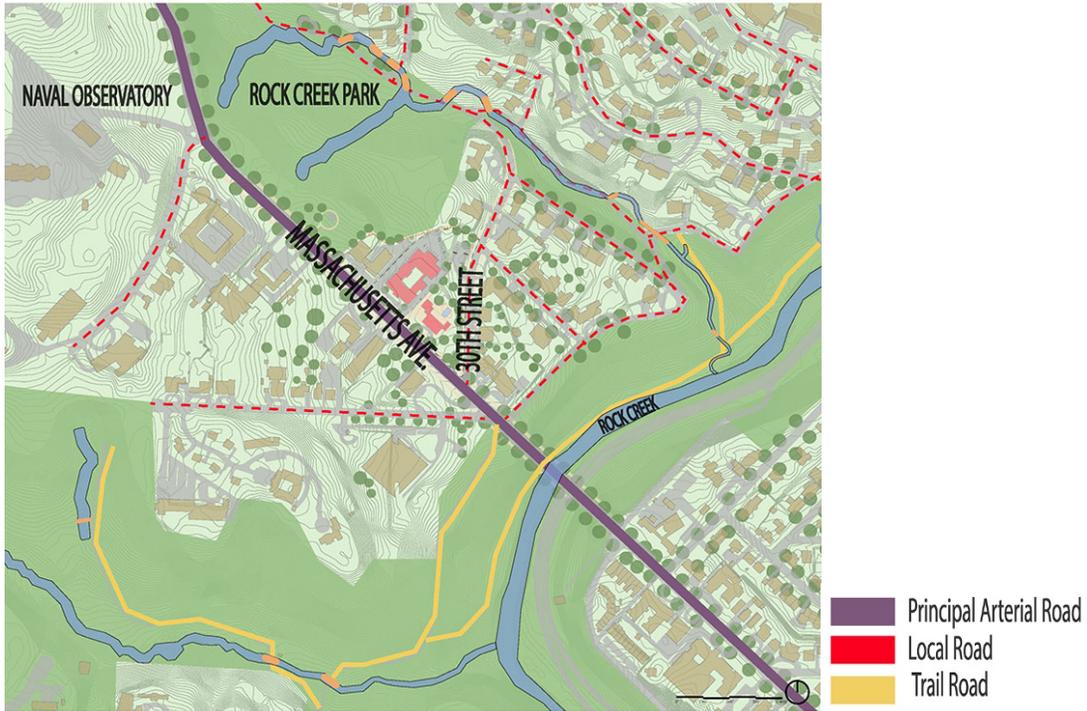


Figure 59: Right of way diagram, prominent building facades facing the principal arterial roads, Massachusetts Ave., Image by: Author

The former Iranian embassy is sitting on the principal arterial road of this neighborhood. This road is Massachusetts Ave. which is a 44 feet wide, highly used traffic road connecting to the center of the city. The local roads branching off of the principal artery are smaller in width and mainly serve the residential and commercial areas. The trail road is merely used by pedestrians allowing recreational activities along the rock creek park. All other roads have sidewalks and are pedestrian friendly

²² "Summary of Zone Districts." DC Office of Zoning. Accessed January 20, 2016. <http://dcoz.dc.gov/resources/districtsummary.shtm#R-1-A>.

which provides opportunities for people to stop and maybe even visit the public structures in the area such as the future Iranian embassy and its cultural center (Figure 59).

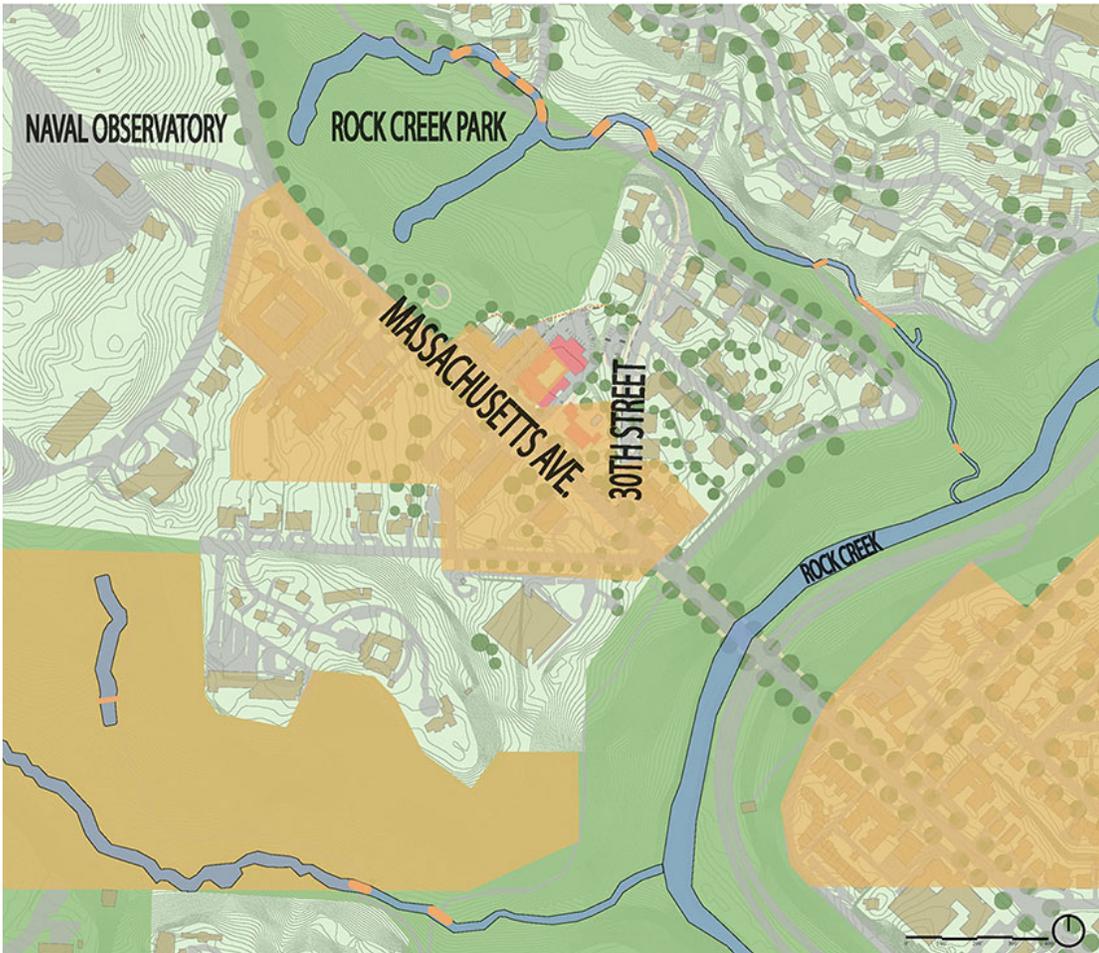


Figure 60: Historic areas diagram, Image by: Author

Washington D.C. has many historically valuable areas which are determined based on the city's fabric, the building's architecture and age as well as the neighborhood character. The former Iranian embassy is in a NR (National Register) designated area according to the GIS map. The site is within the historic area but the buildings are not

designated as historic landmarks thus allowing this project to provide a new approach and design for the new embassy. However through the design process there will be considerations in preserving the most valued historic elements of the existing structure. It is also important to maintain the historic character of the neighborhood considering a large area of the site surrounding is part of the NR area (Figure 60).

Site Plan and Sections

The former Iranian embassy site is a triangular shape of 125,000.00 sqft area. The front of the site is facing the Massachusetts Ave, with two buildings which are the embassy and the residence side by side. The west side of the site is 474 feet long and is facing other embassies such as the British, Bolivia, Brazil and Iranian embassies. The embassy of South Africa is the only adjacent embassy to the site which is sharing the green areas of the Rock Creek Park with the former Iranian embassy. The east side of the site is 515 feet long and this edge is the primary neighbor with residential structures, however these structures are mainly occupied with diplomats. (Figure 61-62)

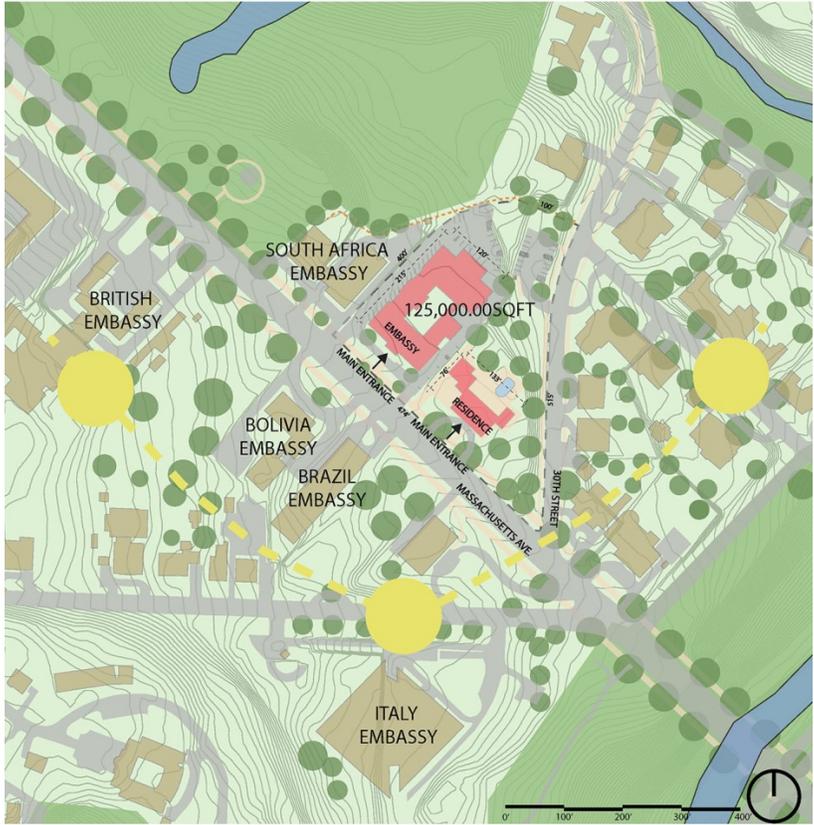


Figure 61: Site Plan, Image by: Author

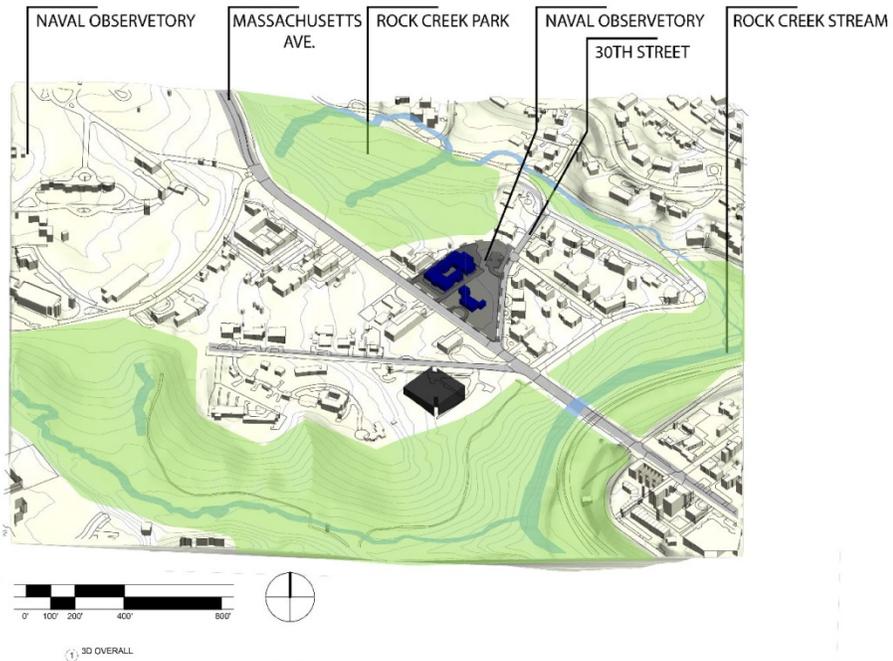


Figure 62: Site Plan 3D, Image by: Author



Figure 63: Spot Elevation Plan - Image by: Author
The site drops 20 feet from the front entrance which is along Massachusetts Ave, to the back of the building where the parking lot meets the 30th street. The diagram above is dividing the site into 8 major areas where the elevation is significantly changing from one to another. The darkest color is the higher elevation and the lighter is the lowest. (Figure 63)

The current embassy building and residence are on the relatively flat area and the rest of the site is either used for parking or for vegetation. In the future design the change in elevation will be used for navigation of water which is a main element of Iranian gardens and steps and ramps will be provided for circulation. This is also a challenge and limitation on the building design process which could potentially provide a playful in width and height and unique sets of structures (Figure 64-65).

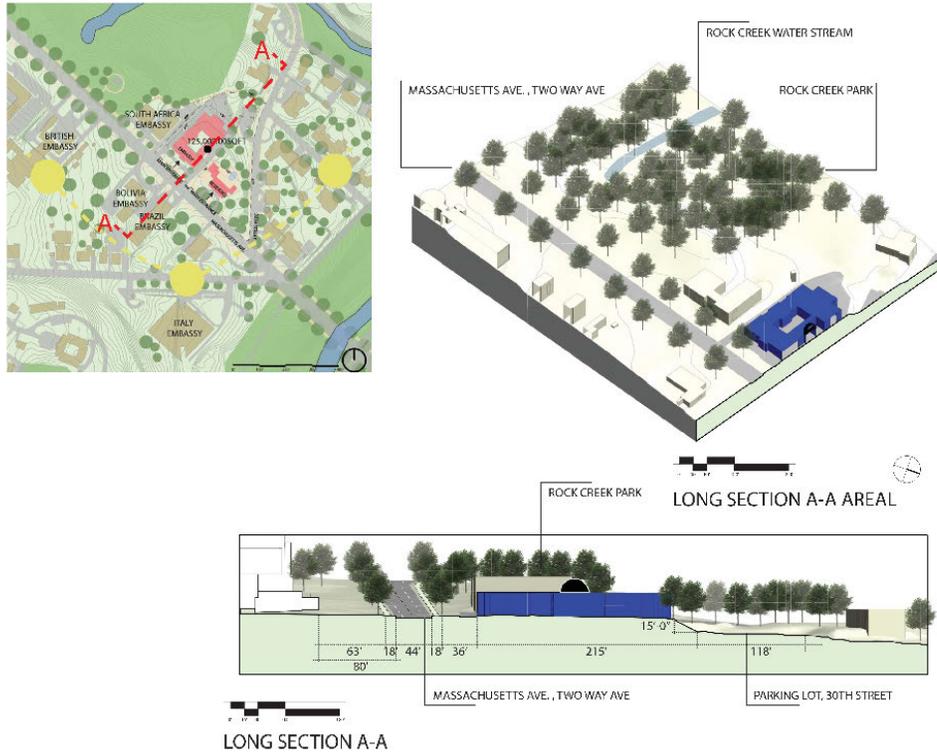


Figure 64: Long Section A-A, Image by: Author

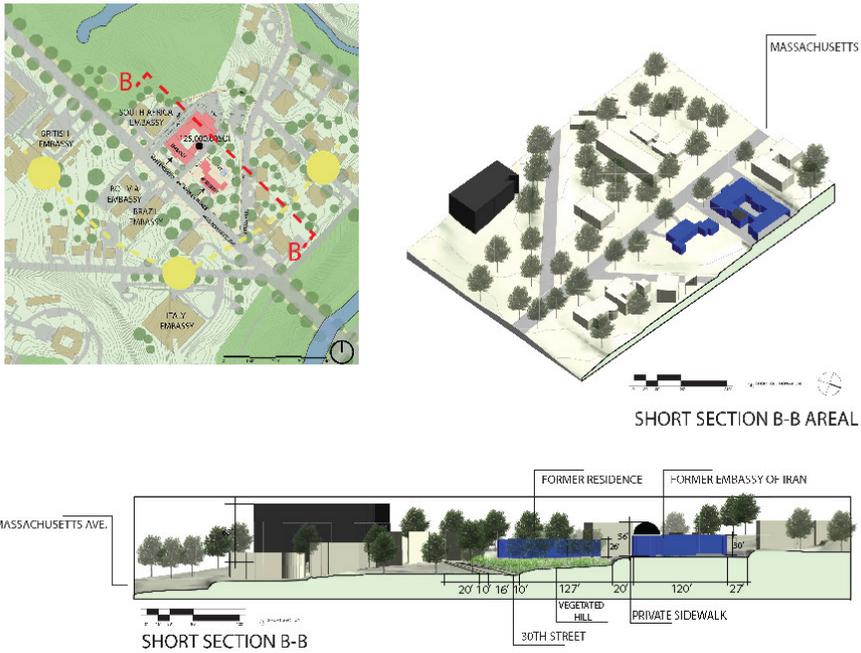


Figure 65: Short Section B-B, Image by: Author

Context Architecture and Vegetation

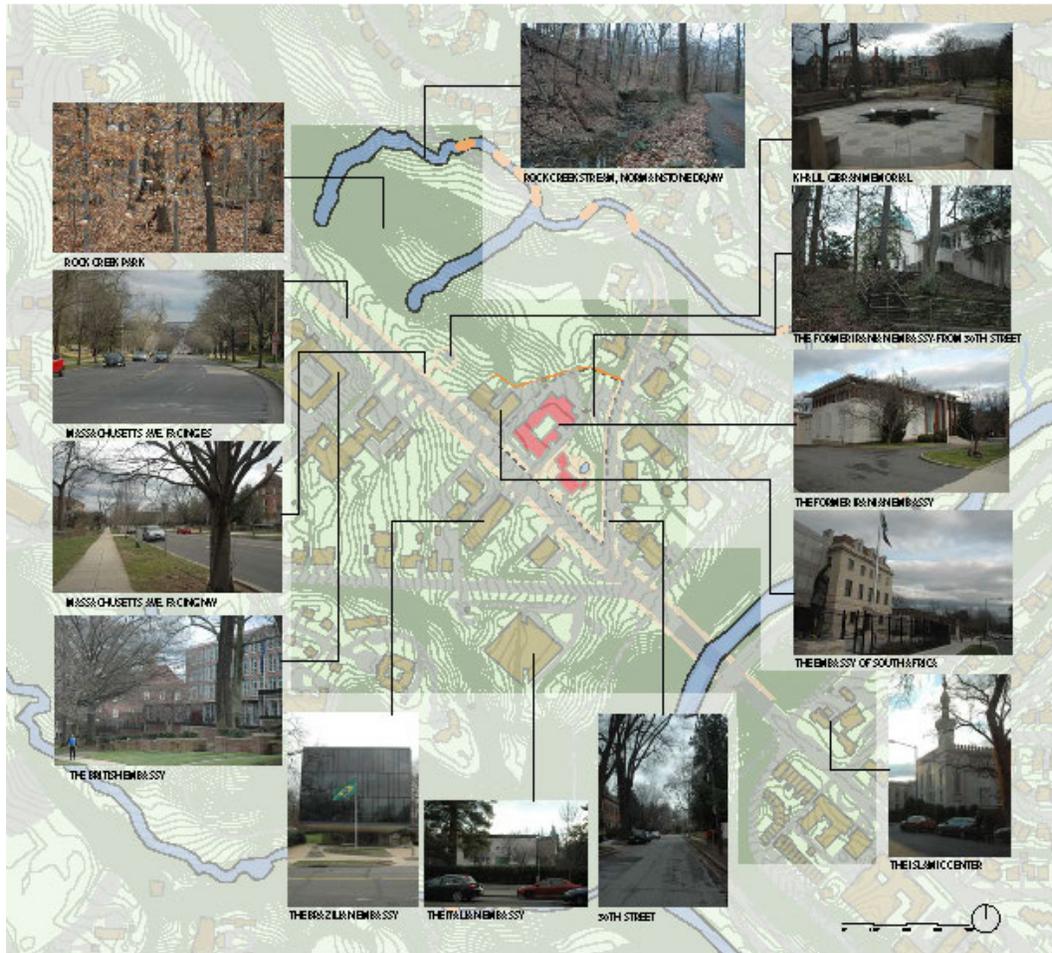


Figure 66: Context Architecture and Vegetation, Image by: Author

The Embassy Row area consists of many unique structures as well as natural landscape. The Rock Creek Park and its water stream provides a natural edge while the embassies and public buildings along Massachusetts Ave new are shaping a strong urban edge. The Islamic Center tower, the Brazilian embassy glass façade and the Khalil Gibran memorial are some of the many visually attractive urban elements of the area. The strong tree canopy along the main and local streets, the stream of Rock Creek passing underneath the bridge between the north and south part of the Massachusetts Ave, are also some of the natural elements of this area.

Sun and Cast Shadow Study

SUMMER

↑ SUN PATH



JUN 9AM



JUN 12PM



JUN 3PM



JUN 6PM

WINTER



NOV 9AM



NOV 12PM



NOV 3PM



NOV 6PM

Figure 67: Sun and cast shadow study-Image by: Author

The sun path during a summer day is shown in the image above. Since the buildings are placed within a distance from one another they do not cast a shadow on one another. During the winter time however the taller buildings such as the Brazilian embassy and the former Iranian embassy cast a minor shadow on their neighbor buildings and the respected surrounding areas.

Chapter 5: Program studies

Program Proposal

The program proposal for this project is driven by the description of the embassy of the future explained in chapter two, as well as the unique program and space requirements for an Iranian embassy and its location in Washington D.C. Security is another important element of embassies which needs to be designed using a seam less approach so that the compound is a welcoming and open space (Figure 68-70).

As it was mentioned in the Embassies Open vs. Closed section of chapter one in this thesis document, embassies are the symbols of power, culture and character of their societies. To represent these elements fully the architecture of these structures has to be inviting and open. To implement this idea the first visible element of this compound will be an Iranian civic garden parallel to Massachusetts Ave. This will allow for the required D.C. zoning of minimum 25 foot building footprint set back (zone R-1-A) as well as provide an open and welcome space for the public.

Considering the standard Embassy design program favoring the multi-building compound approach the site will hold two buildings, the Iranian Ayandeh Cultural Center and the Iranian Embassy consisting of the Chancery and the Consulate.

The security approach will be in three main layers and six zones. The layers are from outside to inside, very public, public/secure, very secure. Zone one and two are very public, zone three and four are public/secure and zone five and six are very secure.

The zones are:

- Zone 1: Neighborhood, Streetscape
- Zone 2: Standoff Perimeter, Main Entrance
- Zone 3: Site Access and Parking, Staff Parking

Zone 4: Site, Consular and Chancery Entrance

Zone 5: Building Envelope, Service Entrance

Zone 6: Management and Building Operations, Adjacent Properties

These zones are applied to each building and their respective surrounding.

The three buildings require different levels of security considering their function and use. The highest secure space in this order should be the embassy building, the consulate and the Iranian Ayandeh Cultural Center.

The Iranian civic garden will represent Iranian culture and art through architecture and landscape architecture. Elements such as water streams and water fountains, green areas and meditational spaces will be designed for this area. The security guard unit will also be a part of this garden and will be designed aesthetically so it's relatable to the culture and characteristic of the garden as well as being secure.

The embassy shall represent the Executive Section consisting of the offices of the Ambassador, the Deputy Chief of Mission, General Service office, Military Attaché, Regional Security office, Building Security unit. The service units of this building such as circulation, toilets, mechanical and HVAC system will be shared.

The consulate building shall house the Consular Section whose main goal is to provide advice through diplomats of Iran for the citizens of Iran living in the U.S or traveling to and from the U.S. This section provides services for non-Iranians as well in issuing of visa and passport documents. The building will contain a Visa Unit,

Iranian Citizen's Service unit and a Counselor Section office. The service units of this building such as circulation, toilets, mechanical and HVAC system will be shared.

The Iranian Ayandeh Cultural Center as its name states (Ayandeh=future) shall provide an open and welcoming environment for all people of all nationalities and generations. This center will provide a place for anyone who is interested in learning about Iranian culture and provides opportunities for building connections and exchange of all different cultures and knowledge in a cross cultural stimulating environment. This building will contain a library, performing arts and concert hall space, a public diplomacy center, a shop and an Iranian cafeteria (Chai Khaneh = Tea house). Building Security unit. The service units of this building such as circulation, toilets, mechanical and HVAC system will be shared.

Program Detail

	visitors	staff	QUANTITY	sqft	Total sqft
Service					
Public Parking					
Private Parking					
Motor pool					
storage (rooms, per structure) 10*12			6	120	600
loading dock (Per Structure)			2	150	300
Mechanical Unit (per Structure)			4	40	160
Trash Area (Per Structure)			2	80	160
Public Restroom (Per Structure)			16	55	880
Stairs (per Structure)					0
Elevator (Per Structure, one private one public)					0
(Total floor area should include a circulation and mechanical factor of up to 30%)					
Total					2100
Security Guard (very Public)					
Front door reception		1	1	30	30
Security guard Suit		1	1	30	30
Restroom (private)			1	30	30
Total					90
Iranian Sculpture Garden (Very Public)					
reflecting pool (streams of water coming to the pool)			1	80	80
Open areas			1	200	200
Total					280
Iranians Ayandeh Cultural Center (Very Public)					
Library			1	1200	1200
cafeteria(Chai Khaneh, Iranian cafe)/Lobby		2	1	200	200
cafeteria's kitchen		3	1	500	500
Reception		4	1	100	100
Store and Gift Shop		3	1	50	50
Language service office		2	1	120	120
Language service class room	20	1	3	80	240
Conference room	50		2	300	600
Performance space (black box) 40*40	250		1	1600	1600
Event room 80*40	500		1	3200	3200
Public diplomacy center (community Services)					
Public diplomacy chief		1	1	150	150
Public diplomacy officers		2	1	100	100
Public diplomacy assistants		2	2	50	100
cultural affair officer		1	1	100	100
Press office		4	1	100	100
Information resource center		1	1	100	100
Total					8460
Embassy Building (Chancery)					
Chancery Section (Very Public)					
Chancery General Requirements					
Main lobby			1	200	200
Screening/inspection area		1	2	30	60
Lobby/Reception area		2	1	100	100
Msecurity Guard		2	1	100	100
Multipurpose room	40		1	250	250
Public Information Service area		2	1	100	100
courtyard and pool 20*20			1	400	400
Cafeteria (Small)		2	1	150	150
Total					1360
Executive Section					
Ambassador's office Suit (very Secure)					
Ambassador's office		1	1	250	250
Private Restroom			1	50	50
Secretary		1	1	100	100
Reception		1	1	50	50
Total					450
Administrative Section (Human Resources)					
waiting room			1	100	100
Administrative chief		1	1	150	150
Administrative assistant		1	1	100	100
Financial management officer		1	1	100	100
financial management assistant		1	1	100	100
technical support office		1	1	100	100
Technical computer room		1	1	200	200

Figure 68: Program Detail-Image by Author

conference room	50		1	300	300
Kitchen (shared)			1	100	100
Administrative Officer		1	1	150	150
Work Room (Shared with ROS)		1	1	100	100
Deputy Chief of Mission Suit					
Deputy chief of Mission office		1	1	150	150
Secretary		1	1	50	50
Reception		1	1	30	30
Total					5350
General Service Office (Secretaries)					
General Service Officers		2	2	100	200
General Service assistants		2	3	40	120
Meeting Room			1	60	60
work room/files			2	50	100
Total (located in each specialized suit)					480
Press Secretary suit		4	1		480
Economic Secretary suit		4	1		480
cultural secretary suit		4	1		480
Natural Resources Secretary suit		4	1		480
Agriculture Secretary suit		4	1		480
Facility Secretary Suit		4	1		480
Total					2880
Military Attaché					
Air Force Attaché		4	1		440
Army Attaché		4	1		440
Navy attaché		4	1		440
Computer Room		4	3	100	440
Total					8000
Regional Security Office (RSO)					
Telecommunication /cipher room		2	1	400	400
Diplomatic pouch/mail area			1	150	150
ROS Officer		1	1	100	100
ROS Waiting room			1	100	100
Secretary		1	1	50	50
Building Security Unit					
Control of building access office		1	2	100	200
Surveillance		2	1	100	100
Chief of security Officer		1	1	150	150
Deputy Security officer		1	1	100	100
Security Officer		1	1	100	100
Shared spaces					
reception and waiting area/art installation			1	200	200
work room			1	100	100
Conference room			1	300	300
Kitchen (shared with all staff of Embassy)			1	100	100
restroom			2	100	200
Total					7350
Overall total	90	77			28870
Consulate Section (Public/Secure)					
Consular Affairs Public Access					
Entrance lobby			1	100	100
Screening/inspection area		2	2	30	60
Restrooms			2		0
Visa Unit (V)					
Chief consular officer		1	1	100	100
Consular officers		3	3	50	150
Specialists/assistants	22	11	11	50	550
Workroom			1	100	100
Passport waiting room		1	1	200	200
Iranian Citizen's Services Unit					
Chief consular officer		1	1	150	150
Consular officer		1	1	100	100
Specialists/assistants		3	3	50	150
Teller windows	22	11	10	25	250
Workroom/storage			2	50	100
Waiting room			1	200	200
Counselor Section Office (Very Secure)					
Chief consular officer		1	1	250	250
Secretary		1	1	100	100
Work Room			1	100	100
File Room			1	100	100
Conference room	30		1	200	200
Waiting /Reception Room			1	100	100
Staff rooms		6	6	50	300

Figure 69: Program Detail-Image by Author

Total	74	42			3360
Security Guard Total Area					90
Garden Total Area					260
Cultural Center Total Area					8460
Chancery Total Area					20870
Gross Area					29700
Cultural Center total ppl	820	32			
Embassy and Consular total ppl	162	119			

Figure 70: Program Detail-Image by Author

Program design options

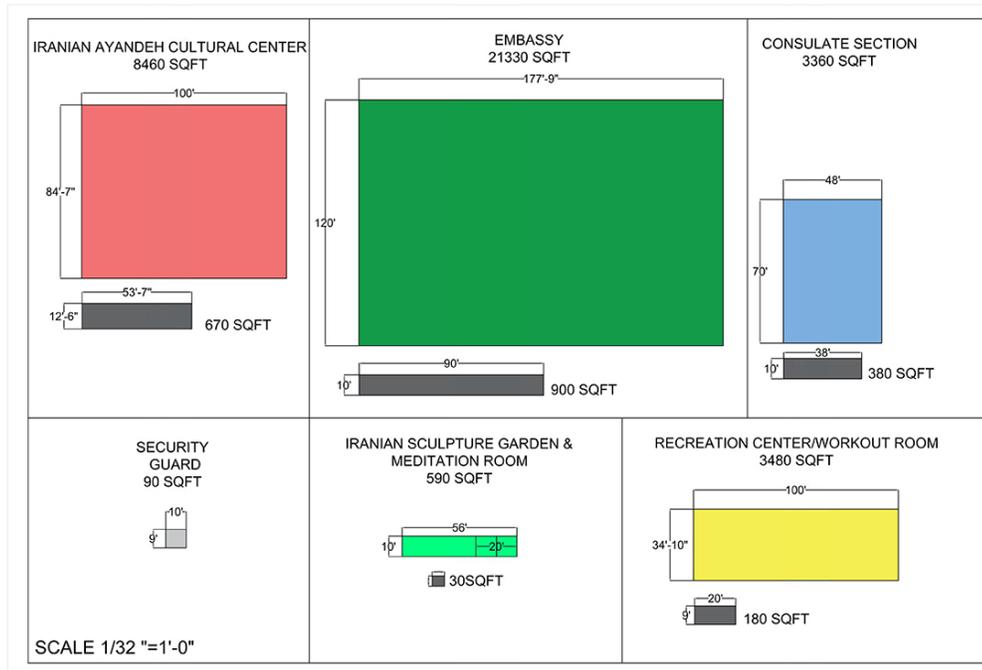


Figure 71: Program Detail graphic representation-Image by Author

The program is represented graphically with general shapes and areas calculated in the program detail chart. The areas are divided into five main spaces consisting of the cultural center, embassy, consulate, the security post, garden and recreation center.

These spaces are accommodated with a service space which has been adjusted in scaled per space requirement (Figure 71).

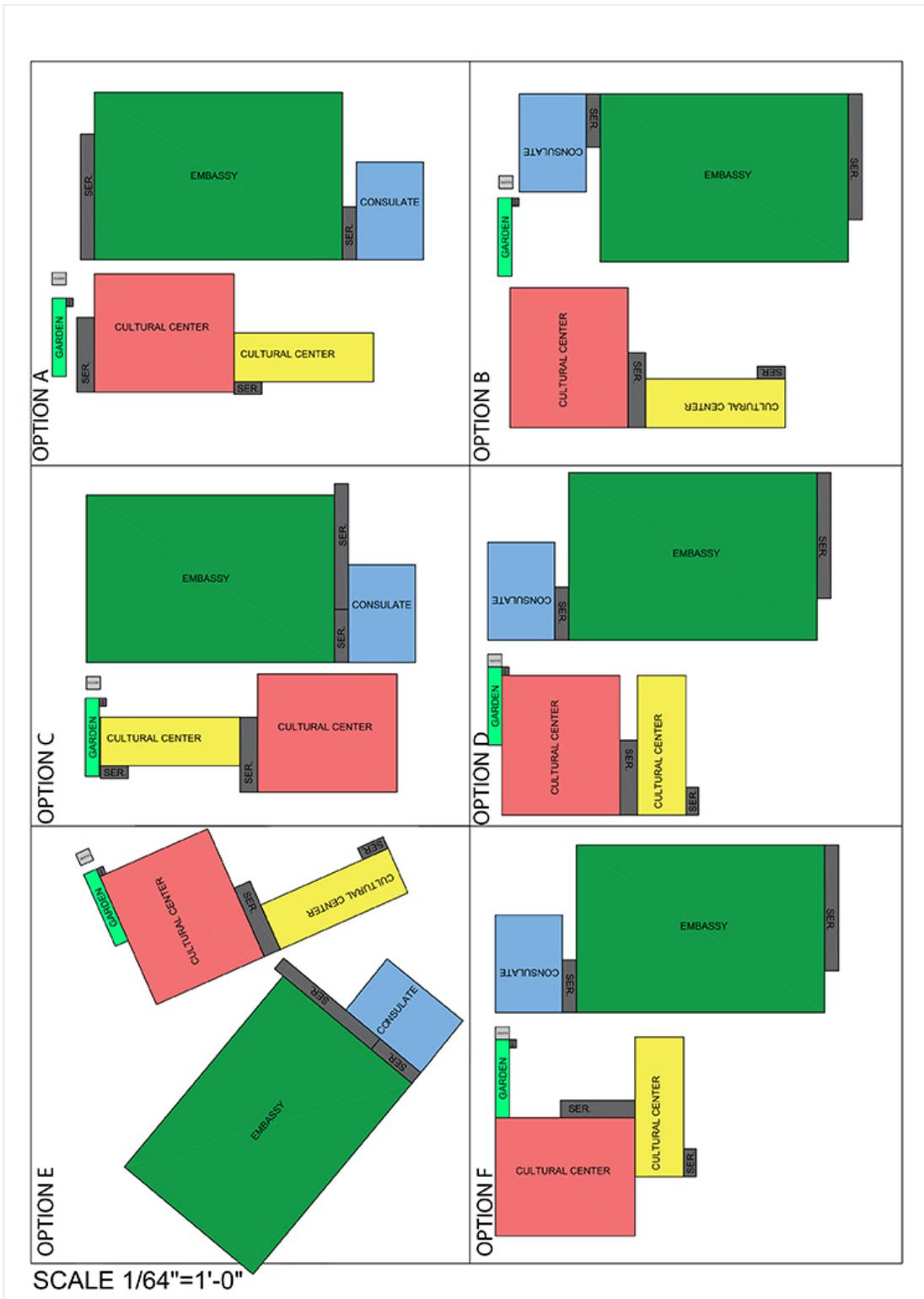


Figure 72: Program Detail-Image by Author

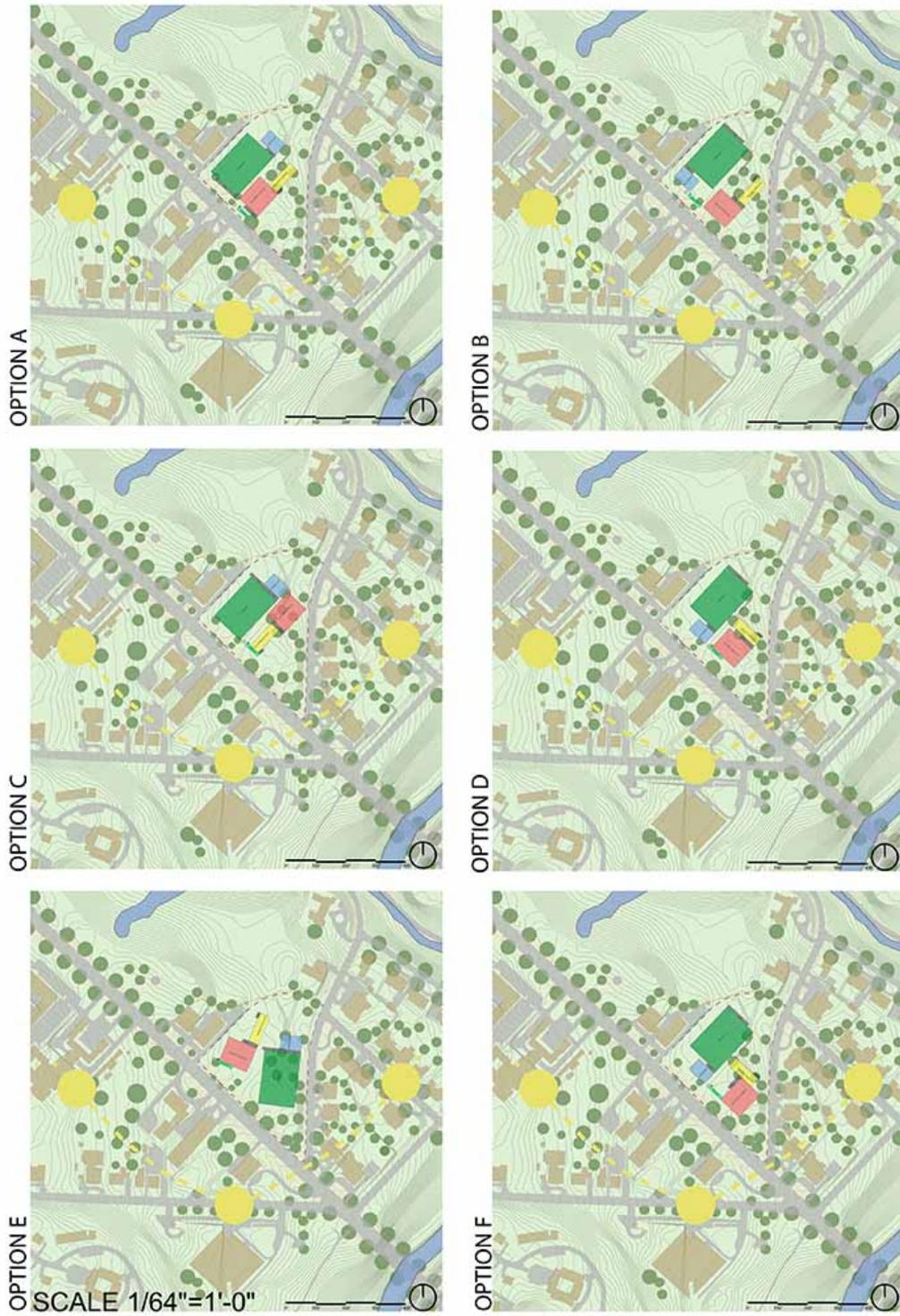


Figure 73: Program Detail-Image by Author

Options A to F are six possible layouts for the required spaces of the future Iranian embassy (figure...). In all options a prominent location for the garden, embassy and the cultural center is preferred. All other spaces can be placed adjacent or near these main areas. The embassy and consulate are two separate buildings but they can be connected through a service corridor for security and safety. It is usually preferred to have close contact between the embassy and the consulate. However in future design options the building might be considered as completely separated. The options are placed in the plan view of the site in order to see the options as a whole and their relationship to the surrounding (Figure 72-73).

Chapter 6: Embassy Security Design

Security Zones

Below are a series of embassy design security guidelines for creative integration of site security into the design process. The key concepts and elements that form the building blocks for effective site security are divided into 6 zones.²³²⁴ These zones fit into three main security layers of public, public/secure and very secure which are explored in the program detail section.

Zone 1: Neighborhood, Streetscape

Zone 2: Standoff Perimeter, Main Entrance

Zone 3: Site Access and Parking, Staff Parking

Zone 4: Site, Consular and Chancery Entrance

Zone 5: Building Envelope, Service Entrance

Zone 6: Management and Building Operations, Adjacent Properties

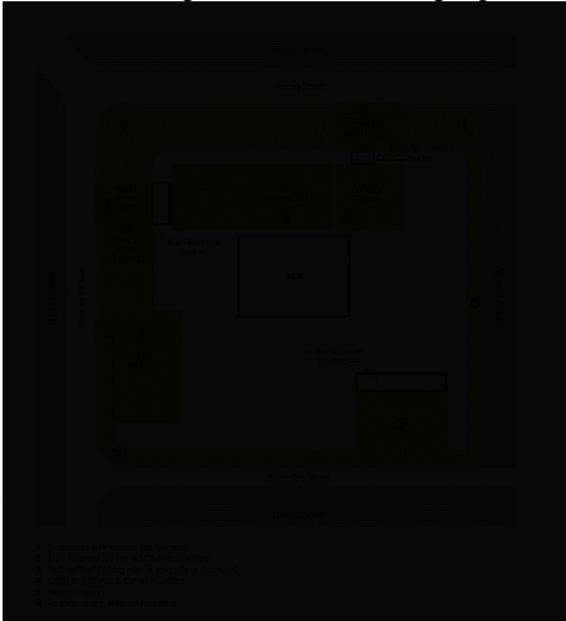


Figure 74: Embassy Perimeter Improvement Concepts and Design Guidelines, U.S. Department of State, Bureau of Overseas Building Operation.

²³ "Guidelines for Elements and Innovation." In The Site Security Design Guide. Washington, 1800 F Street, NW: U.S. General Services Administration, Public Building Service, 2007.

²⁴ Embassy Perimeter Improvement Concepts and Design Guidelines. U.S. Department of State, Bureau of Overseas Building Operations, 2011.

Zone 1, Neighborhood, Streetscape: This can be an area of one or more blocks surrounding the facility, depending on how the site is used. It may include street spaces, public spaces, parking lots, and other facilities that visitors frequent. The streetscape and immediate site perimeter are the first physical areas of contact with the embassy creating a direct connection to the surrounding site. This zone creates the first impression of the embassy on any one passing or visiting the compound. The threshold between the first zones and the second is also visible from the urban context thus requiring delicate attention. It often includes an area between the property line and the perimeter barrier outside the compound. Some design approaches for this zone consists of collaboration with the neighborhood security operations, modifying traffic conditions and public right of way.

Zone 2, Standoff Perimeter, Main Entrance: a security perimeter keeps any vehicle that is potentially containing explosive or highly security sensitive content to stay within a distance from the buildings. An Iranian garden design will be placed in this area enhancing the visual characteristics of the site as well as functionality.

Elements such as sculptures and seating barriers, walls, fences, topography, water and landscaping are some of the design strategies. The main entrance will be a ceremonial entrance for the officials and visitors thus this area and the visitor parking area require a sally-port for vehicle screening reducing the risk of any highly security sensitive material into the embassy compound.

Zone 3, Site Access and Parking, Staff Parking: This zone controls the main access

to the facility inspection the vehicles and visitors. According to the GSA site Security design elements such as inspections area, retractable bollards, gates, guard booths, sally ports, lighting and signage are some of the design elements of zone 3. There should be two locations for parking one for public visitors and one for staff and special guests. These parking areas should be in easy access to the main entrance.

Zone 4 Site, Consular and Chancery Entrance: This zone is placed within the public perimeter and the public/secure layer. This area should be a friendly and welcoming space but secure at the same time. This area is mostly used by visitors and not diplomats and staff thus allowing a public/secure environment. Visitors are screened upon arrival to the entrance therefore allowing a secure environment passing the screening layer.

Zone 5, Building Envelope, Service Entrance: the building envelope should be designed as a highly secure structure. This can be done by utilizing bullet proof windows and thick walls along with controlled entrance and exit locations. There must be an emergency entrance and exit for only the staff in emergency situations. The service entrance is mainly used for deliveries, trash storage, pickup and maintenance. This area needs a wide driveway and has to be fenced from the neighborhood for visual and security safety.

Zone 6, Management and Building Operations, Adjacent Properties: the building operations are controlled through the building's flexible program and design. The security of this zone is enhanced by a design where the public and secure areas are separated in a seamless method. Dealing with the adjacent properties the perimeter of the embassy compound should be at least 10 feet away with possible landscape treatments.

Chapter 7: Design Proposal

Abstract studies

To begin the design process the existing buildings are preserved on the site to be used as volumetric elements for abstract studies. As mentioned in the site study section the existing buildings are not going to be preserved although elements of them may be carried forward into the new design. In Figure 75 a series of abstract volumetric studies are shown to consider methods such as attachment, above, blended, combined and separated. The separated style is preferred since it allows for independency for each structure thus providing different kinds of access to the buildings. Some parts of the compound might need a higher security requirement than others. For example having the cultural center separated from the embassy allows for the structure to be open to the public.

↳ ABSTRACT VOLUMETRIC STUDIES

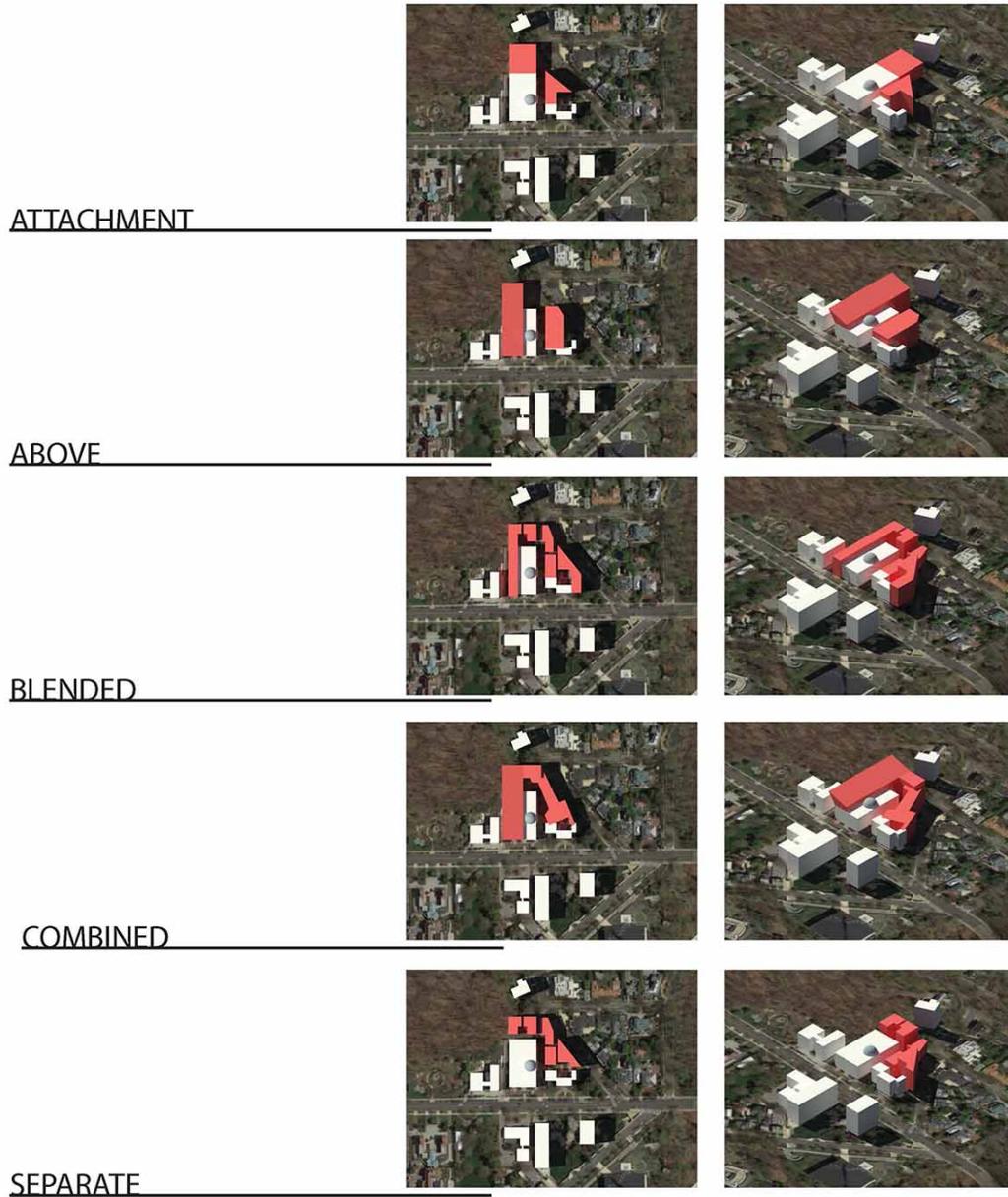


Figure 75: Abstract volumetric studies-Image by: Author

Abstract Façade Studies

To understand the character of the former Iranian Embassy the exterior material and images are used to construct collages of the structure. This represents the visual qualities of the existing compound. Complex and colorful patterns, blue as the sky color and gray and brown as the earth color are of the most used visual elements in Iranian architecture (Figure 76).



Figure 76: Material studies, Former Iranian embassy- Image by Author

A set of collages are presented below as abstract studies of the current façade and what it could be if the same elements were oriented in a different manner. For example adding the mosaic pattern to the blank gray wall and placing it adjacent to the main entrance will give the front façade a bold and stronger character. The pattern in this case is not hidden behind the brown columns and the entrance canopy where it cast a shadow on the pattern at times during the day (Figure 77).



Figure 77: Collage Study - Image by Author

In the image below (Figure 78) an addition of a modern building has been placed next to the front façade of the former Iranian embassy. This is to experience the idea of preserving the existing building and allowing a modern addition to blend with the old. The modern building is one of the Italian embassy wings which in reality are right across the street from the former Iranian embassy. However the existing building is not going to remain on the site and this collage allows a visual idea of an old and new adjacency which is one of the main elements of this project. The project is going to represent the old and new Iranian and American architecture.



Figure 78: Collage study- Image by Author

Abstract Exterior Façade Study, one wing of the new Italian Embassy used as visual modern addition to the historic former Iranian embassy

Proposed Site Plan and Civic Engagement

The Site on Former Iranian Embassy is located in Washington D.C. on the intersection of Massachusetts Ave and 30th street, making an almost triangular site.

The point where the two streets meet became an opportunity for a new civic node in the city.

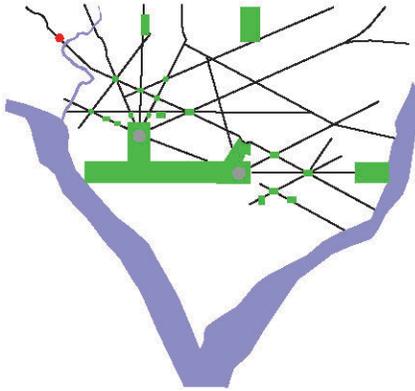


Figure 79: L'Enfant D.C. Plan and diagram of green civic spaces. Image by : Author

As mentioned before the site is about 3 miles outside of the L'Enfant plan providing an opportunity to design the site with respect to elements and ideas of L'Enfant designed D.C. to contain many civic and green spaces where streets are intersecting with one another with the objective of creating a public space where the ideas of democracy, civic engagement and openness can be exchange among the citizens.

(Figure 79).

PROPOSED CIVIC SPACE ON SITE - SITE ORIENTATION



POTENTIAL GARDEN AND A NEW PUBLIC NODE FOR THE CITY

Figure 80: Site orientation and building orientation process – Image by: Author

This concept became a driver in orienting the site and programs within the complex. The site has an edge adjacent to the Rock Creek national park, thus allowing the complex to have two different edges of urban, on the Massachusetts, Ave and the natural landscape of the Rock Creek park edge (Figure 80).

PROPOSED ABSTRACT STUDIES

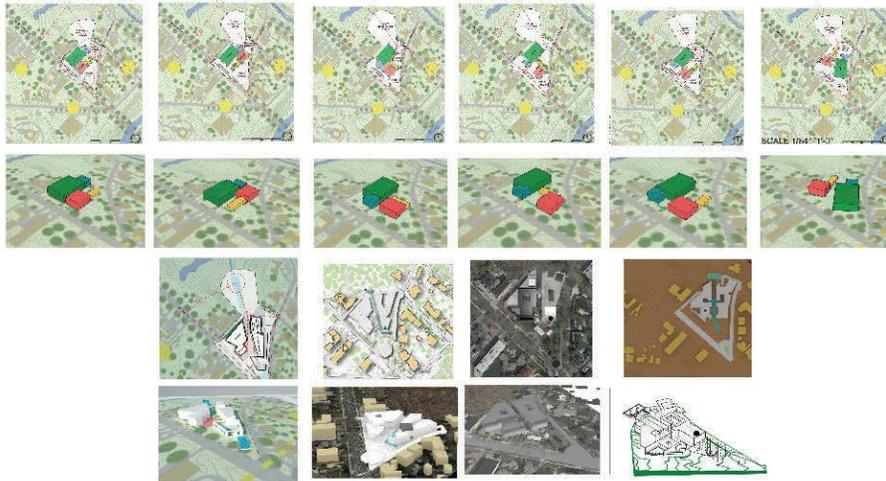


Figure 81: site orientation and building orientation studies – Image by: Author

The overall program distribution and layout of the site were studied in multiple shapes and directions with a conscious consideration of program adjacency, program-street and program-landscape adjacencies. The final orientation of the buildings was inspired by studying the Persian garden design which favors the true north, south, east, west orientation. This layout allowed the program to be distributed in four areas of the site as well as ultimate access to solar system, natural sunlight, and cross ventilation (Figure 81).



Figure 82: The Proposed site plan and site context with red dashed line of existing building – Image by: Author

The proposed design is shown in the image above with the existing building in red dashed lines. The context of the site is surrounded by well-recognized buildings or public landscape. Rock creek park on north of the site, Islamic Center within couple blocks to the south, the new and modern Italian embassy, Brazilian embassy and British embassy across the street from the former Iranian embassy and the Khalil Gibran memorial and The South African embassy on the west side of the site are some of the many valuable landmarks around the site (Figure 83).

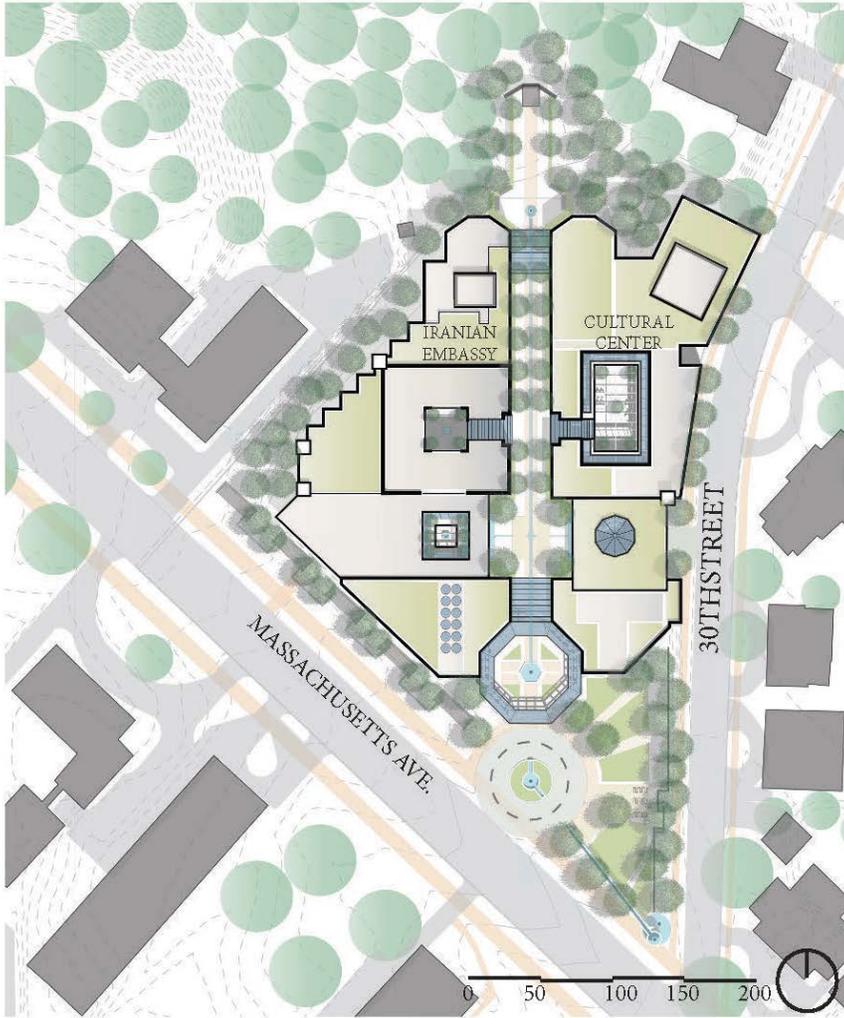


Figure 83: Proposed Site Plan and three dimensional representation – Image by:

Author

The proposed site plan includes a civic garden on the edge of the Massachusetts Ave, and 30th street, access through Massachusetts Ave. The garden is secured on the east side with a series of concrete low walls, eliminating access to the site to only the major road, Massachusetts Ave. The front circle accommodates vehicular drop-off area for special occasion and guests, all the other times the complex is approached by foot or through underground parking accessed from the 30th street. The garden is a public space for the visitors to linger in without having to go inside the two buildings. The Embassy on the west side of the site has adjacency with the embassy row (Massachusetts, Ave) and relates back to the original location of the former Iranian embassy. The building on the east side is the Ayandeh Cultural Center which is part of the complex and the embassy design program (Figure 83).

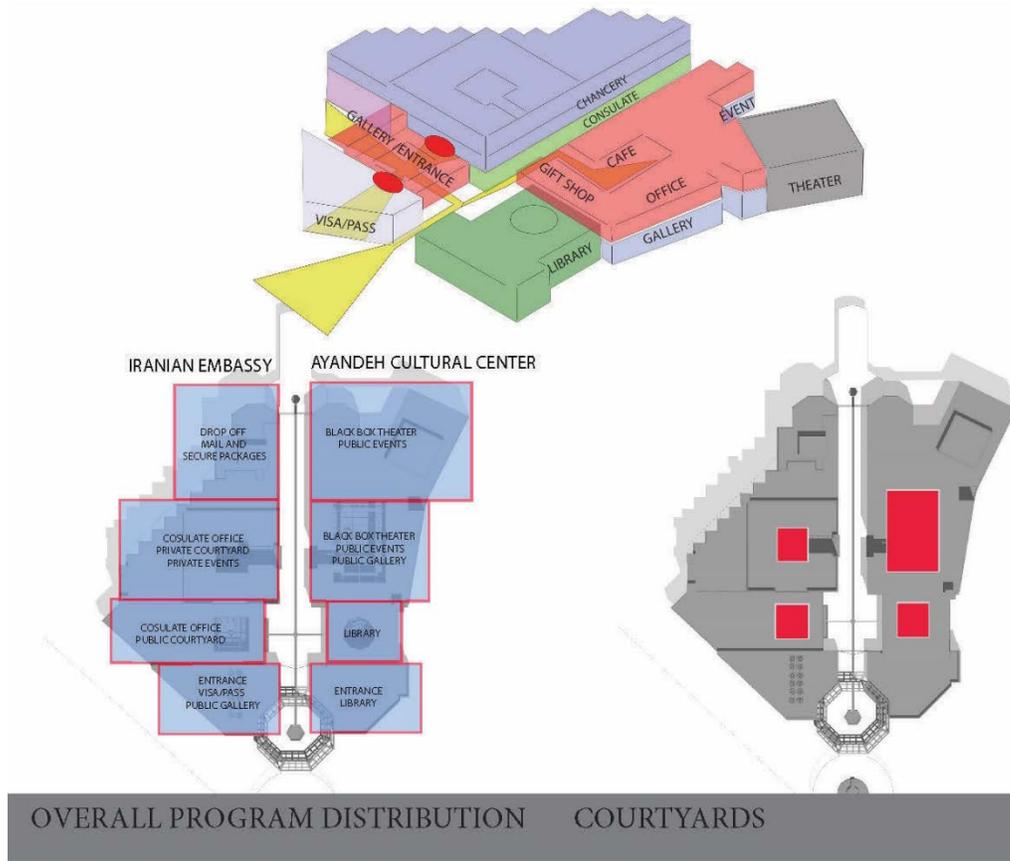


Figure 84: Overall Program Distribution – Image by: Author

The buildings are organized around a series of courtyards. Each courtyard has a different level of security and openness. The courtyards in the embassy are small, with one courtyard open and another enclosed. There are also security checkpoints between each courtyard. The cultural center has a large and publicly accessible courtyard with a security checkpoint at the entrance, and another smaller courtyard that is enclosed with a glass dome and is located in the center of the library (Figure 84).

PROPOSED CIVIC ENGAGEMENT- PROMENADE



NORTH SOUTH EMBASSY ELEVATION

Figure 85: Promenade Elevation – Image by: Author

The connection between the urban sides to the natural side of the complex is illustrated in the image above. The Italian embassy across the street also has a connection with the site, allowing the public to discover the embassy row in many different ways (Figure 85).

Proposed Security zones

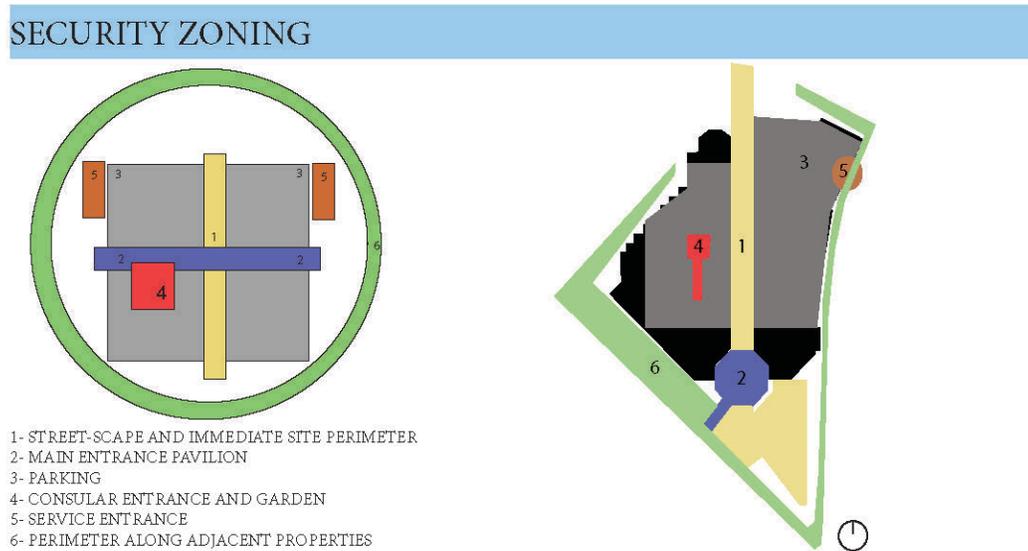


Figure 86: Diagrams by Author

The zones in the proposed design are inspired by a typical diagram on the left and are adjusted to the needs of the site and proposed design illustrated as a contextual diagram on the right image. Zone one is designated as part of the garden as well as the north-south promenade flanking by the embassy and the cultural center. In this design, the street-scape and immediate site perimeter (zone 1) are accessible to the public by foot. Zone one is secure from vehicular access and the only interior access to the buildings are the in main entrance pavilion which represent the zone 2 area (Figure 86).

SECURITY ZONING

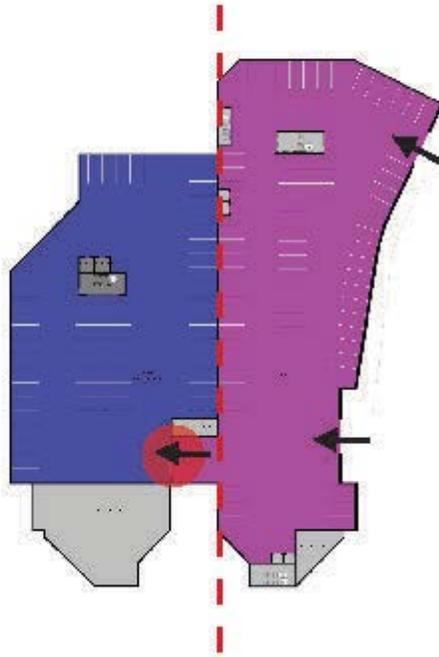


Figure 87 : Underground Parking – Cultural center parking on right, Embassy parking on left – Image by : Author

Parking on this site is placed underground (Zone 3) and is accessed from the 30th street which a security checkpoint for cars accessing the embassy parking (Figure76).

The red circle is the security check location and the dashed red line is marking the blast resistance concrete wall between the two parking area.

The consular entrance and garden (Zone 4) are removed from main entrance area for security purposes. The garden is distributed between the two courtyards. The first is

the open courtyard accessed by main entrance after a security check and immediately after exiting the open courtyard there is a security check for entering the consulate area which is followed by a closed courtyard. Service Entrance (Zone 5) is accessed through the underground parking on the minor street of the site, 30th street. The perimeter along the adjacent properties is along Massachusetts Ave, and 30th street, along the third edge to be adjacent to the Rock Creek national park (Figure 87).

Proposed Building Layouts

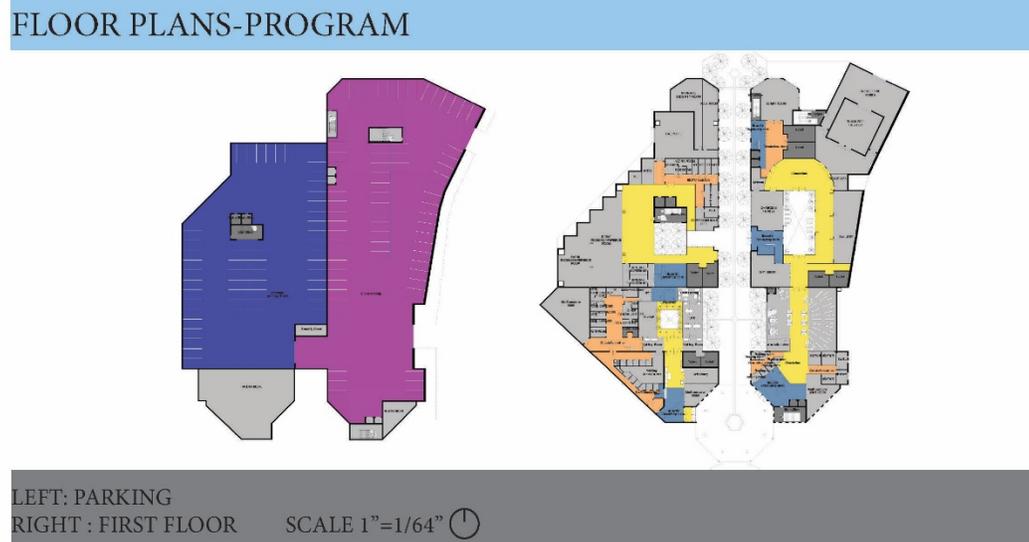


Figure 88: Proposed Floor layout – Image by: Author

The complex's parking is access through the 30th street and its underground. There are 60 parking spots offered to the Cultural Center users and 37 parking spots for the Embassy staff. Each building's mechanical room is located at the south end of the parking floor.

The first-floor plan on the embassy building consists of only one entrance at the south side of the building and through the main exterior complex pavilion. Upon entrance one comes across a security checkpoint proceeding with to the main lobby. The main lobby consists of a multipurpose room, art gallery, and restrooms. Right after leaving the lobby is the waiting area and a café which are sharing two walls of the open courtyard. On the west side of the courtyard is the enclosed visa and passport as well as the consulate offices. The more private and secure consulate offices are located on the north and east side of the first floor, organized around the second and enclosed courtyard. A large multipurpose and event room is located on the west side of the first floor. This area is accessible after a second security check and is also placed further away from the main entrance for security and safety so that in the case of any explosion or attack only the entrance and first open courtyard area would be in danger of demolition.

The first floor of the Ayandeh Cultural Center consists of the library access through the main entrance after a security checkpoint. Following the library is the large open courtyard which is accessible from the library as well as the promenade outside of the building with a security check for its promenade entrance. Around the large courtyard, there are the event room and black box theater on the north, the art gallery on the east and the café and gift shop on the west, all having access in and out of the courtyard (Figure 88).

FLOOR PLANS-PROGRAM

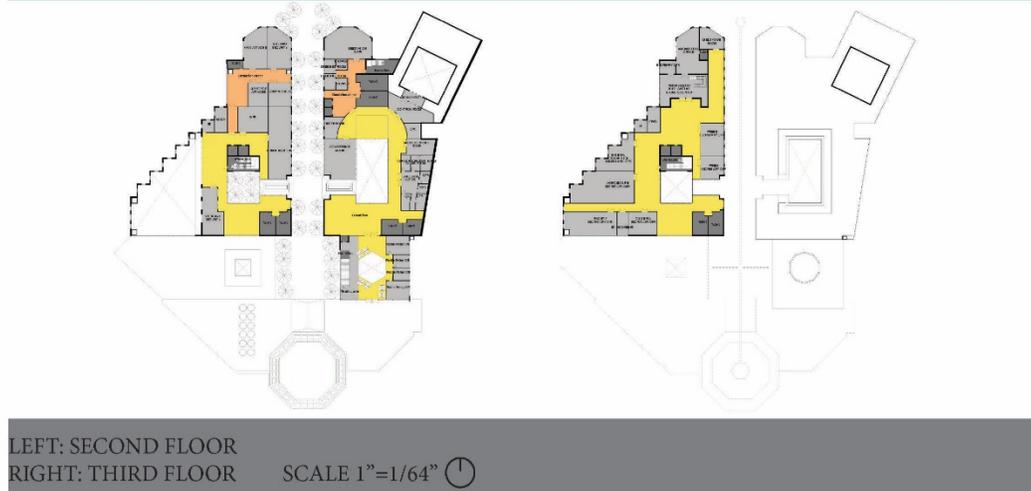


Figure 89: Proposed Floor layout – Image by: Author

The second floor of the embassy mainly consists the military attaché and regional security offices. This level is limited to the staff that is equipped with special keys for the elevators and stairs accessing this level. The third floor of the embassy holds the ambassador's suite at the north end of the level with access to a rooftop looking toward downtown D.C. as well as the Rock Creek Park. The Press Secretary office, Natural resources Secretary office, Agricultural Secretary office, Facility Secretary office, Cultural Secretary office and a meditation room are other parts of the third floor of the embassy.

The second floor of the Ayandeh Cultural Center consists of the library right above the first floor, with rooms for Public Policy offices as well as open work area. The east side of the second floor across the larger open courtyard is the Language Center and to the north is the control room, dressing room and green room serving the black

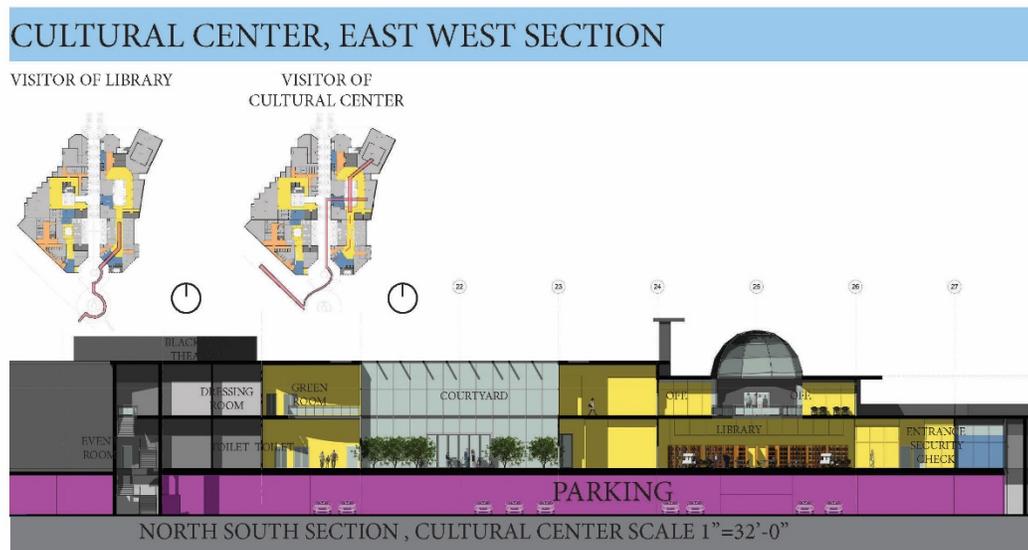


Figure 91: Ayandeh Cultural Center – Image by: Author

The section above illustrates the transition from underground parking to the Library and entertainment areas on the first floor with mostly offices on the second. The large open courtyard and the glass dome both bring natural sunlight into each level of the building as well as acting as organizational elements where the program is distributed around them (figure 91).

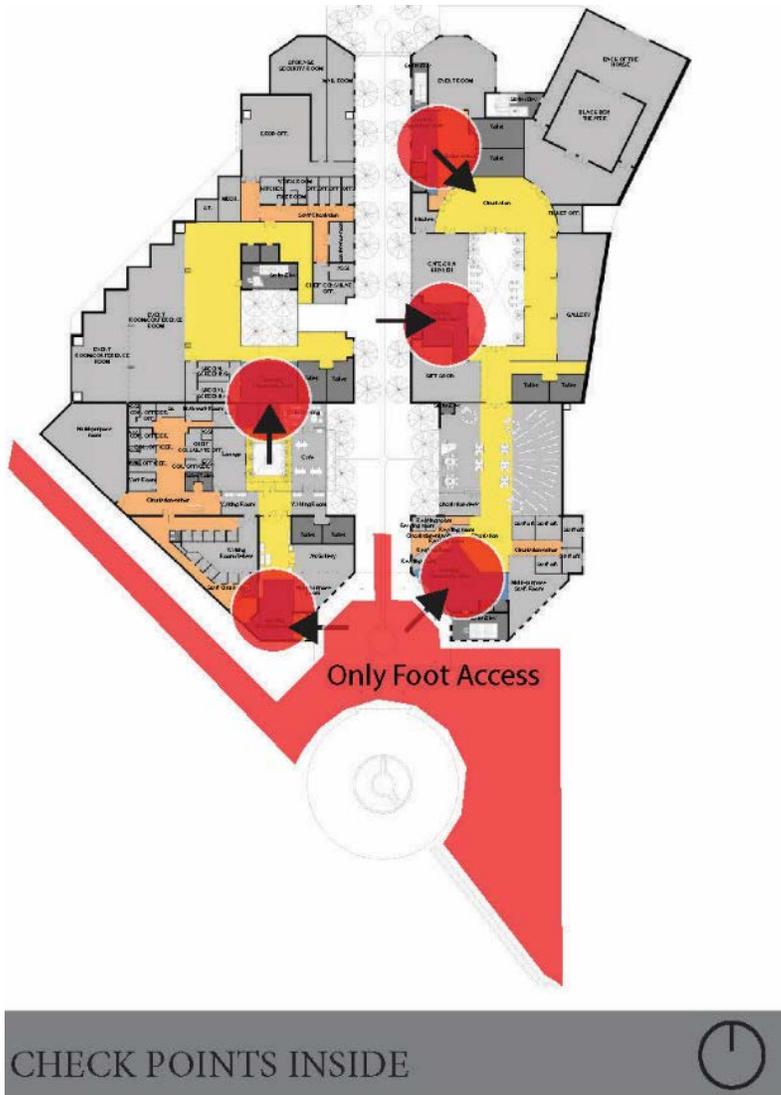


Figure 92: Security Check points – Image by: Author

The security and safety of the complex are maintained using security guards, security cameras, and security checkpoints at any point of entrance and exist within the two buildings. These checkpoints are meant to be friendly and welcoming yet done with care and attention (Figure 92).

Proposed Environmental Technologies on Site

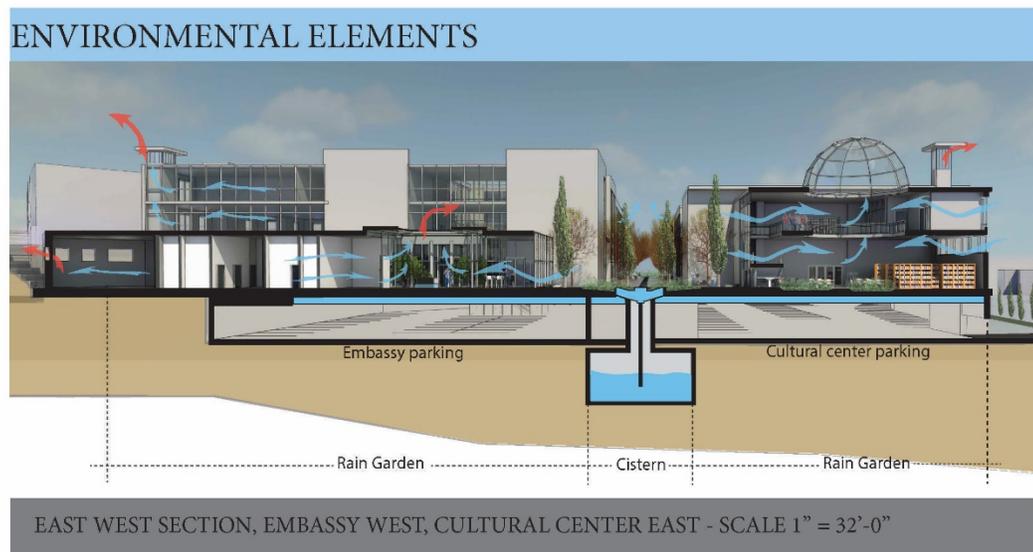


Figure 93: Environmental elements of the complex – Image by: Author

The complex is environmentally conscious and is designed to be symbols of traditional Iranian passive architecture as well as modern sustainable technologies used in American architecture. The civic garden is also a rain garden collecting rainwater from building roofs as well as the garden surface and directs all the water into a central cistern located underground below the parking level. The cross ventilation system is provided in both buildings using operable windows, wall air supply louvers located where the wall meets the floor, as well as wind catcher units located at the far end of each building. (Figure 93).

Proposed Vistas



Figure 94: Entrance Pavilion – Image by: Author

The Entrance Pavilion is the first structural area that the visitors encounter while approaching the complex. This space is designed to be welcoming and open to exploring. The main entrances of each building are on either side of this area, however, the visitors have the option to continue the path following the stream of water and alley of trees to walk down the promenade with a resting and sculptural destination located in the Rock creek park forested area. (Figure 94).



Figure 95: Promenade – Image by: Author

Upon leaving the entrance pavilion as a compressed space one is going to experience an expansion of space as the promenade widens. This space is designed to be a place of contemplation, linger and also active and vibrant depending on the event or actively planned for the day. The promenade has views on either side to the interior spaces of the embassy as well as the cultural center with a natural landscape of the rock creek park at the end of the axis. The visitors are able to enter the cultural center from the entrance pavilion as well as a second entrance along the promenade adjacent to the large open courtyard. The embassy is only accessed through the main and only entrance located at the entrance pavilion. (Figure 95).

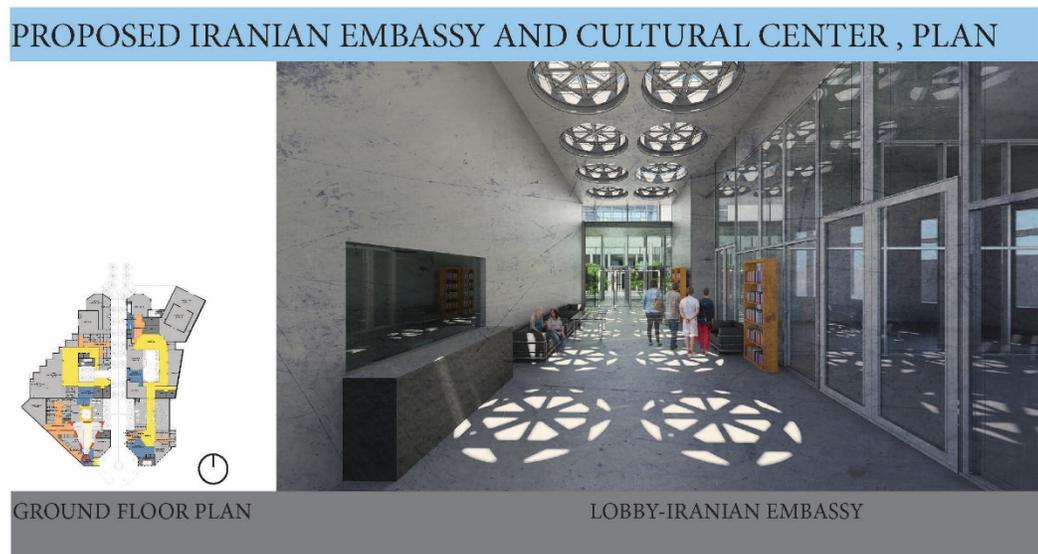


Figure 96: Iranian Embassy Lobby – Image by: Author

The embassy lobby is received upon entrance to the building beginning at a security checkpoint. The lobby then becomes a place for the visitors to pass through or stay at and visit the art gallery as the sunlight penetrates through carefully designed skylights using Iranian patterns. Behind the solid wall are the passport and visa offices and teller which are accessed through the waiting area upon exiting the lobby. (figure 96).



Figure 97: Iranian Embassy Cafe – Image by: Author

The café in the embassy is dedicated to the visitors to be freely and openly able to spend time inside the embassy. The café is sharing a glass wall with the courtyard and has only one entrance accessed through the waiting area. The light and airy quality of the space allowed for visitors to feel comfortable and welcome in this space. The users of this space could be waiting for their appointment at the visa and passport section or could simply be a visitor of the embassy to experience the Iranian culture and food while visiting the art gallery and the Ayandeh cultural center (Figure 97).

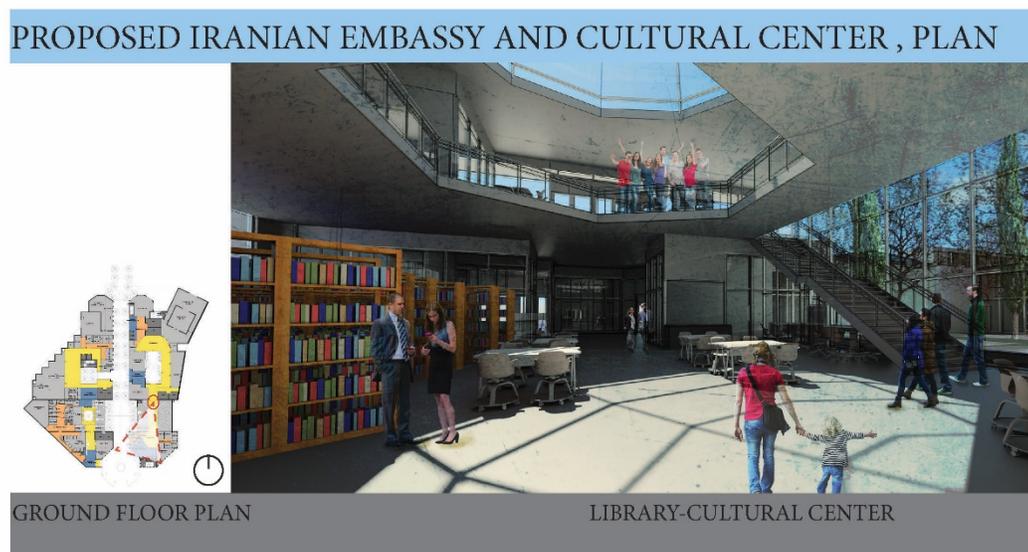


Figure 98: Ayandeh Cultural Center, Library – Image by: Author

One of the main destinations of the Ayandeh Cultural center is the library. The two level library with a glass dome in the center provides an open and welcoming space for the daily or occasional visitors of the complex. The reading areas have views of the promenade as well as the pavilion entrance and the garden adjacent to the Massachusetts Ave. The second floor contains open floor reading areas as well as offices on the east side of the building. The southern windows bring sunlight into the second floor open space, as well as a series of doors, that gives access to a large balcony looking into the garden and embassy row. (figure 98).

PROPOSED IRANIAN EMBASSY AND CULTURAL CENTER , PLAN



Figure 99: Ayandeh Cultural Center, Gallery – Image by: Author

The art gallery of the Ayanadeh Cultural Center is an open and flexible space with sliding glass doors that allows direct connection to the large courtyard which also has sliding glass doors. In the case of a large event, all the doors can be slid opened and the whole floor can provide a spacious and welcoming space for its users. This area is designed to be a place to linger and or pass through while becoming engage with the art insulations and interacting with the other visitors of the complex. (Figure 99).

Conclusion

NEW MODEL OF DEMOCRACY

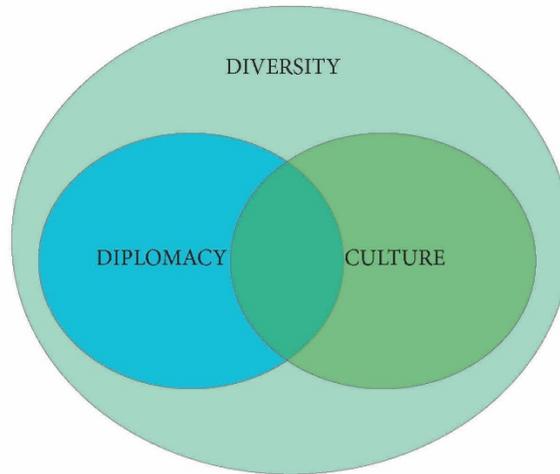


Figure 100: New model of Democracy – Image by: Author

Countries and their citizens have a lot in common and yet are constantly in conflict with one another. Having a more peaceful and united world is one big challenge.

Embassies are one of the most valued representatives of nations to one another and architecture of the future embassies can be an effective solution to such challenge. Art and architecture are necessary tools used by societies from the dawn of time to construct places that represent our unique cultures and beliefs. Experiencing these places allows for one to learn about a society's way of life. I believe in the power of architecture as an instrument which can break barriers and create bridges between cultures. The embassy of future shall value the diplomacy and culture of each country equally in order to provide a democratic environment in which nations can interact and exchange their interests (Figure 100).

In result, this thesis is proposing a new building complex that will replace and reopen the Iranian embassy in Washington DC after 40 years. The embassy is accompanied with an additional gift of a cultural center called Ayandeh Cultural Center [Ayandeh means future in Farsi] and a civic park to the city. The site is located on the existing site for the former Iranian embassy on Massachusetts Ave. NW DC This complex will be a symbol of the bridging of culture, building technology, fostering of diplomacy and establishment of a new partnership between the Iran and the United States.

Appendices

Embassy of the Future: Embassy of the Future is a place where people of two (or more) countries come together to learn and share their ideologies, perspectives, ditions and ultimately their humanity. Unlike the traditional embassy model where the focus is on representing the foreign country's political and legal standing, this thesis asserts that future embassies will focus on representing cultural exchanges while promoting economic and cultural cooperation.. In this new embassy model political and security matters should not dominate the cultural and humanitarian matters

Iranian Embassy: Iran's diplomatic and cultural office in the U.S.

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