



2023 HIGH SCHOOL DESIGN COMPETITION

Welcome



Dear High School Student & Educator,

We are pleased to invite you to participate in the Architectural Foundation of San Francisco's Fifty-Fourth annual High School Design Competition. This is an exciting competition where high school students put their design skills, creativity, spatial and analytical thinking and craftsmanship to the test. With the guidance of instructors – or in some cases for those who opt to treat this creative challenge as an independent study endeavor – high school students conceptualize a design and communicate their solutions through drawings, models and writing. Participation in this design exercise is open to all high school levels students throughout the world. This competition provides young thinkers with the opportunity to engage in what is a very unique learning project.

The Architectural Foundation of San Francisco is a nonprofit educational organization that involves students in a mentored appreciation of architecture, engineering, construction and the design process. San Francisco reigns as one of the most architecturally significant and beautiful cities in the world. The environment of architectural diversity is extremely important to the vitality of this great city. Everywhere, the vibrant and complex layering of landscape, color, cultures and light produces experiences that unexpectedly reveal themselves. Since its inception in 1990, the Architectural Foundation of San Francisco has endeavored to reach out to the general public both locally and globally to establish an open dialogue on the architectural future of this community.

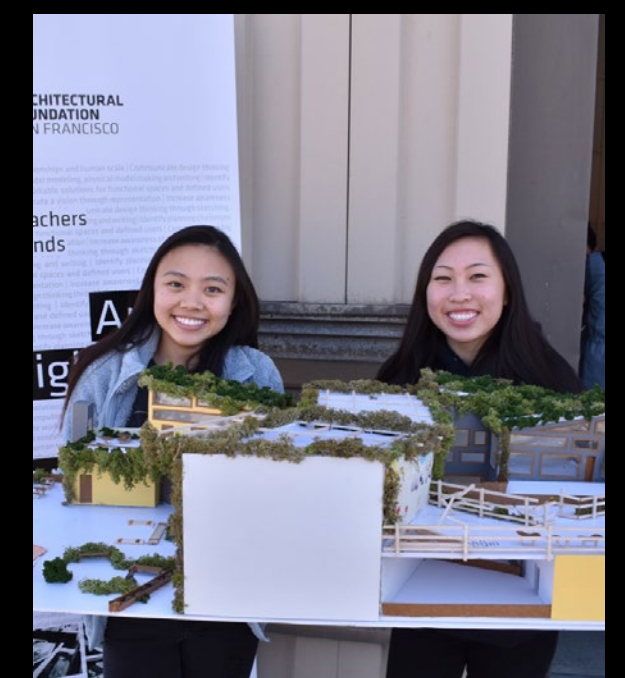
To receive more information about the Architectural Foundation of San Francisco, please visit www.afsf.org or email Alan Sandler at alan@afsf.org. For specific competition-related inquiries and/or to receive competition updates, please contact Ryan Lee at ryan@afsf.org. Please utilize the live links (in red) embedded in this PDF for reference.

Thank you for your interest and we look forward to seeing your designs!

Sincerely,

Ryan Lee
Competition Chair & Author
Vice President – Board of Directors, AFSF
Senior Associate, Woods Bagot

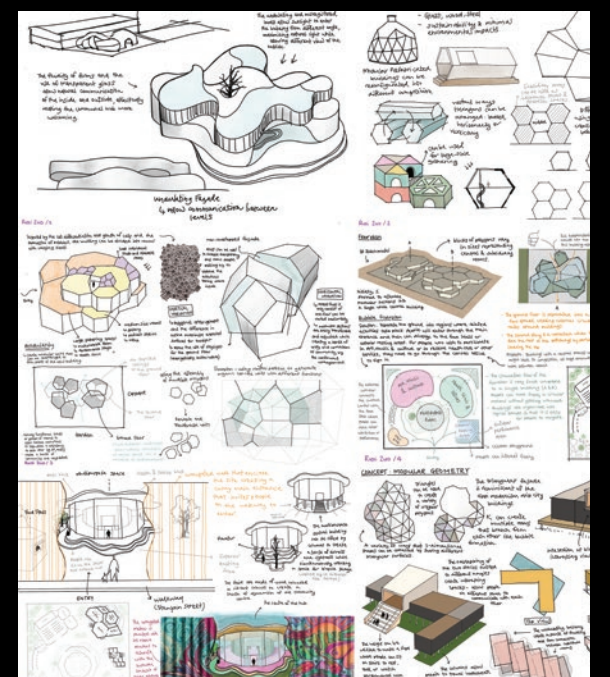
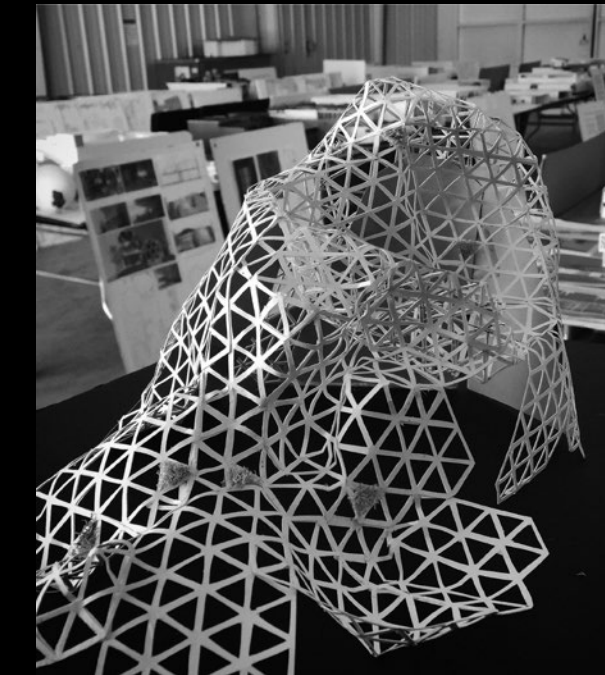
Alan Sandler
Executive Director, AFSF



Competition History

For fifty four years, there has been an architectural design competition for Bay Area high school students, which has since expanded its participation field to include global entries. This annual event challenges students to think critically and conceptualize a design for a new built intervention, requiring students to submit drawings, models and a written description capturing their design approach and ultimate solution. Every year hundreds of students from various high schools throughout the world participate. Many of San Francisco's leading architects, engineers and builders participated in the annual event when they were in high school and credit the competition with helping influence their career paths.

In 1969, the American Institute of Architects San Francisco Chapter established the Annual High School Architectural Design Competition. In 2000, sponsorship of the competition was transferred to the Architectural Foundation of San Francisco (AFSF). Over the years, AFSF has seen design technology evolve. When the competition began, drawings and renderings were completed in pen and ink – using hand-drafting tools – and line weight and lettering styles were emphasized in the judging process. With the introduction of Computer Assisted Design (CAD) made widely available in classrooms in the early 2000's, students began incorporating computer-generated drawings on their presentation boards. Currently, most students utilize 3D modeling as a design tool, be it modeling in programs such as SketchUP, Rhino and/or Build Information Modeling (BIM) designs completed in Autodesk Revit Architecture and rendered in Enscape or Lumion. In 2011, AFSF created a new category for the competition, allowing students who used 3D modeling software to include digital renderings as a part of their submission, with a separate prize given for Best 3D Representation. With the world upended in 2020, AFSF pivoted the competition to an all-virtual offering, enabling students to present their design proposals through digital slide decks and video descriptions. The virtual submission process opened up the entry pool to high school students from throughout the world to take part in this now fifty-four-year-old event. Constantly evolving to adapt to the current learning climate, this competition has always served as a forum for students to not only think critically about the built environment but to also execute creative solutions for real-world challenges.



Competition Summary



Program

This is an architectural design competition sponsored by the Architectural Foundation of San Francisco.

Design Challenge

You are tasked with designing a PDR Collective and Park Space sited adjacent to the existing Pier 94 Wetlands along Islais Creek in San Francisco.

Eligibility

The program is distributed to all high school students throughout the greater San Francisco Bay Area and participation is both encouraged and welcomed from all high school-level students interested from throughout the world.

Educational Objectives

- Increase your awareness of the relationship between space, human scale and function
- Gain experience in communicating your planning and design ideas through drawings and models
- Recognize the varied problems in planning and designing functional spaces for defined uses
- Develop design skills through sketching, hand drawing, computer-aided design platforms and model making

Costs

No entry fee and no pre-registration is required.

Awards

This is a judged competition with monetary awards.

Schedule

January 9, 2023	competition announcement
May 19, 2023	competition entries due
May 21, 2023	awards ceremony – details will be communicated to teachers and posted on www.afsf.org

Contact

Ryan Lee | Competition Chair and Author | ryan@afsf.org

Competition Sponsorship

Sponsor

This year's 2023 competition is sponsored by [Forge Development Partners](#) | Sustainable and affordable living for the urban environment

Forge Development Partners is creating high-tech, sustainable workforce housing solutions for people in the urban core. We are creating a new urban housing model that achieves environmental sustainability, affordability, and quality. Forge is committed to making our buildings and the construction process less impactful to the environment and local community, while also providing tremendous benefits for the building residents, not sacrificing quality, technology, or amenities.

FORGE
DEVELOPMENT PARTNERS

DESIGN CONTEXT

Design Context

150 years of urbanization has altered the San Francisco Bay and drastically reduced the amount of tidal marsh habitat along its shoreline. Sea Level Rise (SLR) projections in the Bay Area anticipate up to a 7' increase by 2100. Not only do tidal marshes help to mitigate sea level rise and prevent flooding, but they also help to provide habitat for fish and wildlife, filter out pollution, increase open space and recreational opportunities for the public and enhance quality of life.¹

¹ [SF Bay Restoration Authority – Measure AA The Clean and Healthy Bay Initiative June 2016](#)

Design Context

In June 2016, Measure AA: San Francisco Bay Restoration Authority "Clean and Healthy Bay" Parcel Tax passed with over 70% approval. Calling for a \$12 annual parcel tax for 20 years, the measure is on target to generate \$500 million to accelerate wetland and habitat restoration, flood control and public access along the shoreline. This was the first parcel tax in the history of the state to be levied throughout an entire region encompassing multiple counties,¹ emphasizing the need to collectively tackle a complicated challenge with an all-in mindset.

¹ [Ballotpedia – San Francisco Bay Restoration Authority "Clean and Healthy Bay" Parcel Tax, Measure AA \(June 2016\)](#)

Design Context

In response to facing increased flood and earthquake risks along its shoreline, the Port of San Francisco established its Waterfront Resilience Program (WRP) to ensure the waterfront, and its critical regional and citywide assets, are resilient to hazards – and increasingly accessible to everyone it serves. The program is seen as not only a defensive strategy but as a way to increase the array of benefits that come with rejuvenating the waterfront – more open space, enhanced mobility, safety and jobs.¹

¹ [Port of San Francisco – Waterfront Resilience Program](#)

Design Context

Storm modeling indicates that San Francisco will start experiencing potentially costly coastal flood damages in the period between 2030-2040. San Francisco will need to make key decisions about how to adapt the waterfront and defend critical assets from flooding to reach a locally-endorsed Waterfront Adaptation Strategy by early 2023 in order to access federal and state funding opportunities. Partnering with the U.S. Army Corps of Engineers, the Port has identified three priority locations to study and implement resilience efforts: Islais Creek / Bayview, Mission Creek / Mission Bay and the Embarcadero Waterfront.¹

¹ [Port of San Francisco – Islais Creek / Bayview Resilience](#)

Design Context

Through the Waterfront Resilience Program, the Port of San Francisco has examined the flood and seismic risk to the Port's 7.5 mile jurisdiction, including its shoreline running along the Islais Creek / Bayview neighborhood. The area is home to several key infrastructure assets and maritime industrial uses that serve the entire city, including critical transit facilities and disaster and emergency response support. The area at risk also includes crucial transit connections linking the southern and northern sections of the city – the Illinois St. and 3rd. St. drawbridges across Islais Creek, the T-Third light rail line, Caltrans freeways, Caltrain and a planned future High Speed Rail alignment.¹

¹ [Story Maps – Islais Creek / Bayview](#)

Design Context

The Islais Creek Southeast Mobility Adaptation Strategy (ICSMAS) is a long-range vision for the Islais Creek shoreline to protect its existing infrastructure assets, enhance shoreline access, increase natural habitat and nurture community resiliency in adjoining neighborhoods.¹ The plan identifies implementable near- and mid-term investments that build towards its long-term vision. The comprehensive set of adaptation pathways to protect against inland and coastal flooding and sea level rise through 2080 is an approach that ensures efficient and effective public investments that deliver maximum community benefits.²

¹ [SF Planning – Islais Creek Adaption Strategy](#)

² [SF Planning – Islais Creek Southeast Mobility Adaption Strategy](#)

Design Context

Building on a robust and coordinated community engagement process, the ICSMAS effort was led by community goals and a collective vision through equitable stakeholder feedback. The strategies proposed in the District-Scale Concept have been grouped into five 'Reaches' based on their geographic location and how the strategies work together to provide comprehensive flood protection.¹ Reach 5 – Southeastern Waterfront, encompassing all city-owned parcels including Piers 90-96, which are overseen by the Port of San Francisco, is the focus area of your project.

¹ [SF Planning – Islais Creek Southeast Mobility Adaption Strategy](#)

Image Ref: SF Chronicle – S.F.'s plan to protect the city from sea-level rise will 'set the stage for our future shoreline'

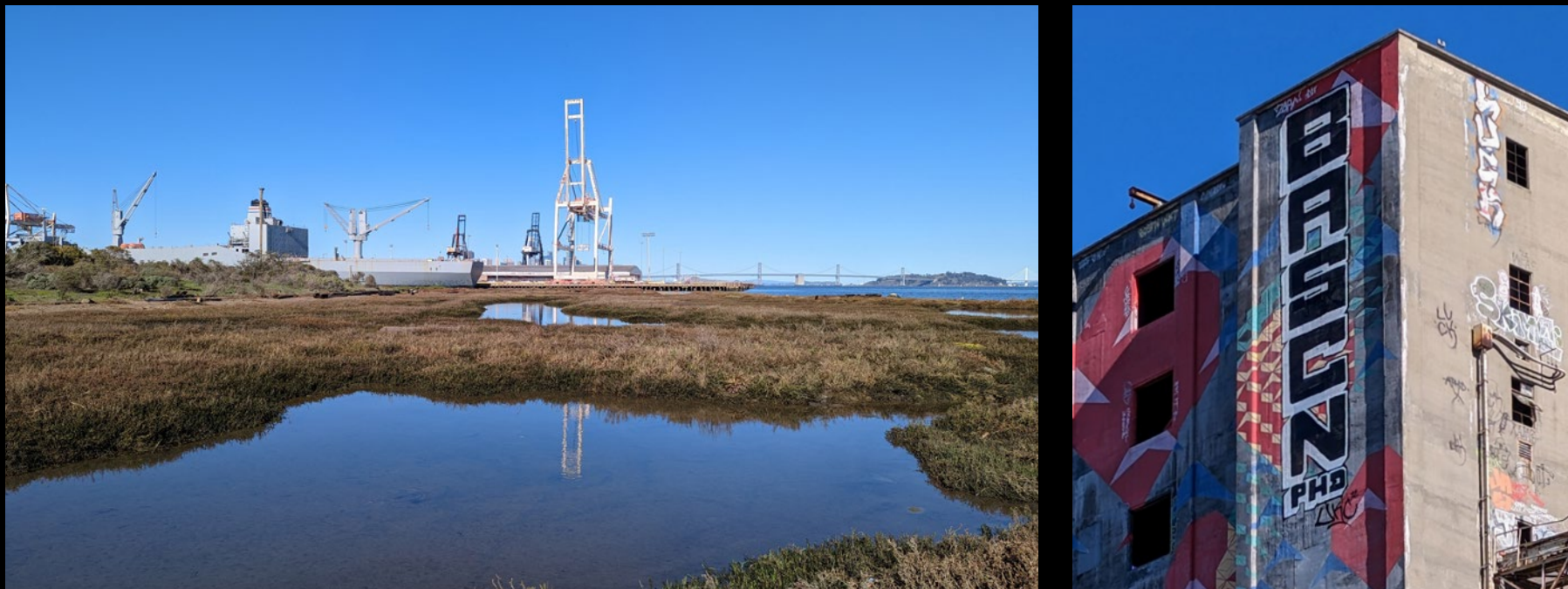
SITE CONTEXT

Site Context

Neighborhood Map

Islais Creek

Located along the low-lying Islais Creek district, your project site sits adjacent to the Pier 94 wetlands. Already vulnerable to stormwater and coasting flooding in its current state, the area is even more at risk with projected sea level rise due to climate change. The surrounding neighborhood encompasses the southeast section of the city, including Potrero Hill and the Central Waterfront / Dogpatch to the north, Bayview to the east and Hunters point to the south. The extent of the ICSMAS study includes Pier 80 to the north and Heron’s Head Park to the south. In between, the study area spans a large portion of the Bayview North Islais Creek neighborhood stretching to land west of I-280, the industrial zone surrounding Islais Creek and the industrially used piers along the waterfront. The piers are primarily constructed on landfill, making them susceptible to seismic activity in addition to sea level rise. While most of the immediate vicinity is occupied by maritime industrial use and city-dependent infrastructure facilities, the fabric of the surrounding area also includes residential communities and shared amenities.



Site Context

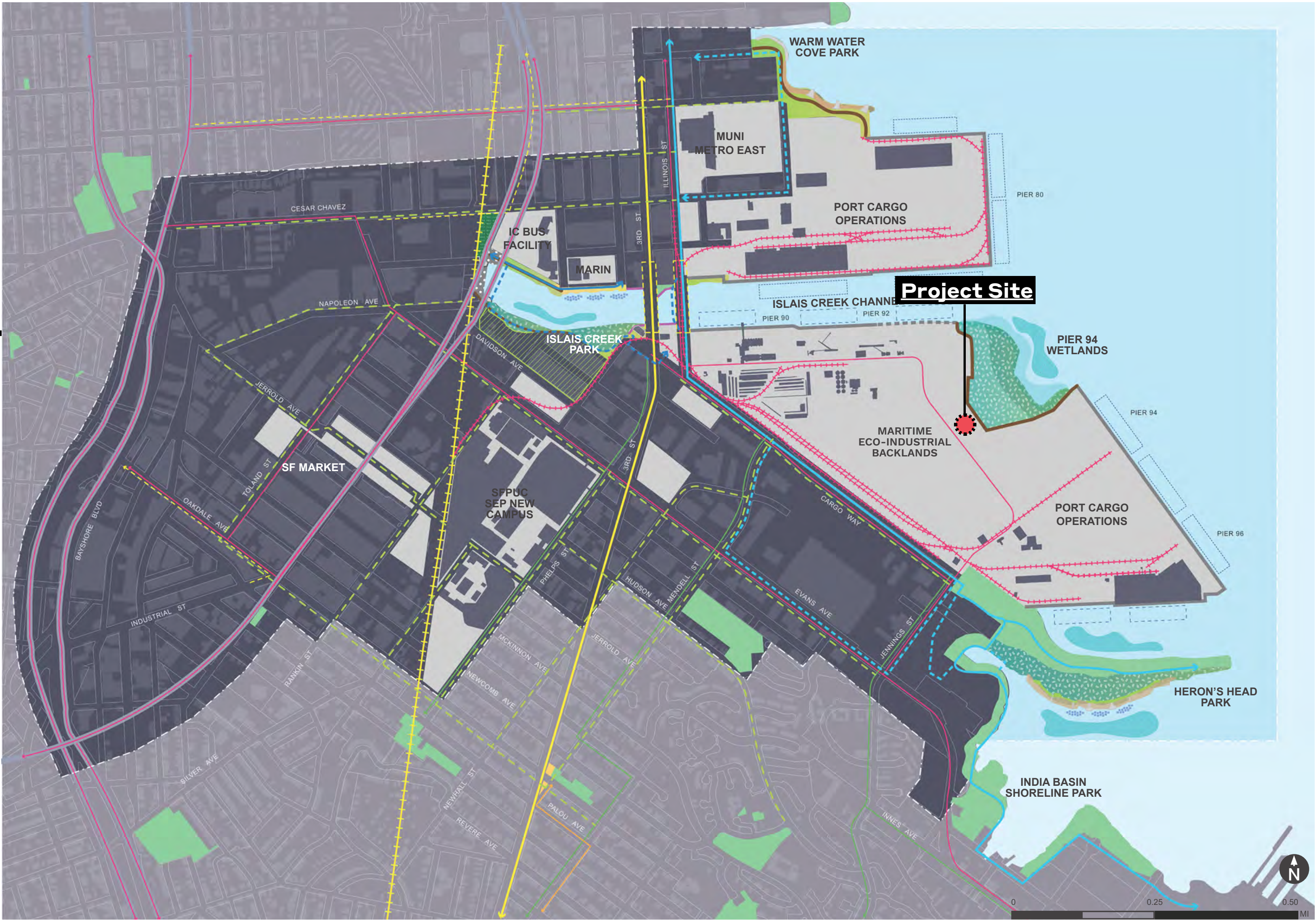
ICSMAS Study Area

Islais Creek Southeast Mobility
Adaptation Strategy

District-Scale Adaptation
Framework (through 2080)

Image Ref: Islais Creek Southeast Mobility
Adaptation Strategy

The District-Scale Concept illustrates a framework of coordinated and synergistic flood adaptation strategies within the project area. This comprehensive approach seeks to achieve a resilient district that supports the community’s goals and maximizes public benefits.



- LEGEND**
- NATURE-BASED FLOOD PROTECTION**
- Existing Open Space
 - New or Improved Open Space
 - New or Improved Marsh Wetlands
 - New Floodable Park
 - New Eel Grass Beds
 - New Oyster Reefs
 - New Beach
 - New Rock Groyne
 - New Green Streets
- HARD FLOOD PROTECTION**
- Raised & Rebuilt Pier Edge
 - New Pier Edge
 - New Flood Wall
 - New Berm
 - Replaced Bridge
 - Existing Promenade or Plaza
- MOBILITY**
- Primary Blue Greenway
 - Proposed Blue Greenway
 - Existing Creek Trail
 - Proposed Creek Trail
 - Existing (T Third Street)
 - Existing Truck Route
 - Existing Freight Rail
 - Existing Caltrain Line
- MARITIME INDUSTRIAL**
- Deep Water Berth
 - General Water Berth
- LAND USE**
- Opportunity Area: Open Space & Mixed-Use
 - City-owned Parcels (Consolidated & Optimized)
 - Existing Buildings
 - Project Area

Site Context

ICSMAS Study Area

These five Reaches are grouped adaptation strategies organized by related geographical area

The following section in this document provides more detail on the strategies proposed in each of the five Reaches. Each Reach includes an overview of existing conditions, an enlargement diagram of the District-Scale Adaptation Framework, a Strategy Matrix and an Adaptation Pathways diagram. For the selected key assets, an additional summary of strategies to be implemented by 2050 is also included.

Islais Creek Southeast Mobility
Adaptation Strategy

Adaption Pathways & Key Asset
Strategies, by Reach

- 1

Reach 1 – Northeastern Waterfront:
Introduce nature-based shoreline adaptation strategies to expand Warm Water Cove Park and elevate and protect Pier 80 to support maritime function. Key assets include:
 - Pier 80 (Port)
- 2

Reach 2 – Creek Channel Crossing:
Rehabilitate and replace Islais Creek and Illinois Street bridges. Key assets include:
 - Islais Creek Bridge (Public Works)
 - Illinois Street Bridge (Public Works)
- 3

Reach 3 – Northwestern Creek Bank:
Introduce flood protection measures at critical SFMTA facilities and enhance public access to the creek’s shoreline. Key assets include:
 - Islais Creek Bus Facility (SFMTA)
 - Marin Yard (SFMTA)
- 4

Reach 4 – Southwestern Creek Bank:
Create new tidal marsh and expand Islais Creek Park.
- 5

Reach 5 – Southeastern Waterfront:
Optimize use of cargo terminal and industrial operations at Piers 90-96 and the Backlands. Key assets include:
 - Pier 92-94 (Port)
 - Pier 96 (Port)
 - Pier 90-96 Backlands (Port)



Figure 18: Adaptation Reaches Key Plan

Site Context

Project Scope Map

Pier 94 Wetlands

Situated in Reach 5, Southeastern Waterfront, of the ICSMAS study, your project site includes the Pier 94 Wetlands along with a rectangular plot extending from the wetlands to Amador Street. Flanked by concrete batching plants, this is one of the few access points along the southern shoreline.

The Pier 94 wetlands were formed after a portion of the pier's fill material subsided and became inundated by the Bay tides. The wetlands are currently home to over 168 species of birds, including migratory birds and provide rare and valuable salt marsh habitat for a variety of plant and animal species. The Port improved the physical, hydrologic and aesthetic features of the wetland to strengthen its ecosystem. The Golden Gate Audubon Society removed invasive species and added a transition zone that increased the size and habitat value of the wetlands.¹



¹ [Story Maps ArcGIS – Islais Creek / Bayview](#)

Site Context

Project Scope Map

Building Site + Landscape Site

Your project site is broken up into two components – a building site (as highlighted in orange) and a landscape site (as highlighted in green). For your design intervention, you are to consider the entire project boundary as outlined in red as part of your design scope. For ease of access from Amador Street along with flood inundation risk mitigation in mind, the bulk of your building program should sit on your building site. You are also to consider, from a landscape design perspective, how to best futureproof against sea level rise, using the wetlands as a buffer. Some of your building program components may find their way into the landscape site depending on your design approach. As part of your design deliverable, be sure to show a site section that runs through your building site and landscape site from Amador St. to the bay (refer to the indicative section line as shown).



Site Context

Project Scope Map

Sea Level Rise & Storm Surging

Projecting out to the year 2080, this map illustrates the coastal flooding potential of a 100-year storm surge event. Assumed as a 1:200 chance sea level rise scenario, water levels are anticipated to be at +52" of permanent inundation from its present-day condition. You may refer to page 8 of the [ICSMAS report](#) for more information and to see the extent of stormwater flooding and storm surge flooding. The blue line captures the extent of the wave hazard zone and the green line emphasizes the need to construct a flood protection structure or berm between your building site and the wetland buffer zone.¹ Use the Toolkit Strategy page extracted from the ICSMAS study to reference sea level rise mitigation strategies you may consider implementing into your design. Include your strategy in your site section.



¹ [SF Planning – Islais Creek Southeast Mobility Adaption Strategy](#)

Site Context

Toolkit Strategies

Islais Creek Southeast Mobility
Adaptation Strategy

Toolkit Strategies for
combating sea level rise



A hardened vertical structure, that is anchored into and above the ground on both sides.



Supporting or creating a beach through strategic placements of fine or coarse sand—can attenuate waves in front of other structures.



Engineered structure made of packed earth with an impermeable core.



Adding a hardened lip or wall to an existing shoreline structure.



A variety of solutions that support flood protection and wave attenuation properties of natural shorelines.



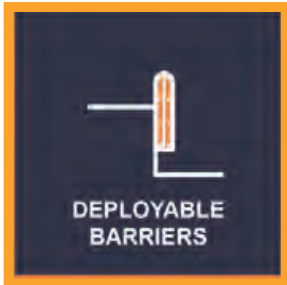
Installed mechanical devices that can be raised during storm events.



Raising a pier, either from underneath by increasing the height of the support structures, or by adding to the height of the pier surface itself.



Shoreline recreation and open spaces that are designed to accommodate water during storm events without resulting in permanent damage.



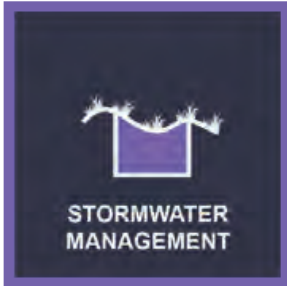
Flood barriers that can be temporarily installed during storm events.



Armoring placed on the slope of embankments or berms as a defense against erosion—revetments can be constructed from large rocks, tetrapods, etc.



A gently sloping earthen structure, possible backed by a levee, providing and ecotone slope for marsh vegetation and attenuating wave action.



Diffuse inland green infrastructure strategies that absorb stormwater to prevent ponding and reduce peak flows during flood events.



Structural armoring built on the slope of embankments, such as interlocking concrete tiles or steps.



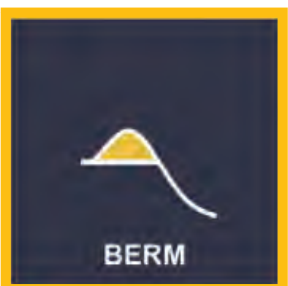
Structures that are placed in the water offshore to attenuate wave action —may be hardened structures or green/living structures.



Strategies that allow the shoreline edge to migrate inland, with associated land use changes behind.



Elevating bridges, roads, or other infrastructure to be above flood waters. Raised infrastructure can also contribute to the protection of inland assets.



Earthen non-engineered mounds, potentially vegetated.



Elevating individual structures inland to be above flood waters, with measures like pile supports or elevated foundations.



Site Context

Building Footprint Map

Mariposa Street & Pennsylvania Avenue

Your site boundary measures 340'-0" x 240'-0" totaling 81,600 ft². Maintain a 20' sidewalk buffer between the edge of your project site to Amador Street. You may choose to locate your building program and park space where you best see fit on site. Consider how your building and park space interface with the wetland buffer zone.



Site Context

Site Photos

Typically we suggest that if possible, you are encouraged to visit the project site in person to gain a better understanding of the existing conditions and surroundings to inform your design thinking. However, given that the current state of the site is still fairly remote and surrounded by heavy industrial use, **we advise against a site visit** for this year's competition. You may still use Google Earth and Google Street View, existing maps online, the [ICSMAS report](#) and the site photos provided to closely study the existing conditions. Consider access to the site, nearby transit stop locations, pedestrian flows, view corridors, sun and wind orientation, sea level rise, etc. Site photos from the locations on the map to the right are provided for your use along with a number of other images from the wetlands. These images, along with additional site/neighborhood context photos and hi-res satellite maps are made available to you on the [HSDC Google Folder](#) for reference.



Site Context

Site Photos



Facing the site along Amador Street looking northeast



Facing the site along the existing perimeter fence looking north



Site approach from the southeast along Amador Street



Site approach from the northwest along Amador Street

Site Context

Site Photos



From the Pier 94 Wetlands looking north



From the Pier 94 Wetlands looking northeast



From the Pier 94 Wetlands looking southeast



From the Pier 94 Wetlands looking south

Site Context

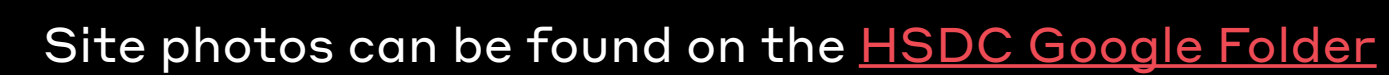
The neighborhood surrounding Islais Creek is one of the more ethnically-diverse communities in the city with large Black, Asian and Latino populations. With ties to a strong African American cultural legacy, the area is now newly recognized as the African American Arts and Cultural Heritage District (AAACD).¹ In establishing the District, the City acknowledges the importance of recognizing the neighborhood's history and preserving the legacy and traditions uniquely born in the Bayview Hunters Point.² The AAACD program formalized a collaborative partnership between the City and local stakeholders to preserve, strengthen and promote its cultural assets and diverse communities.³

¹ [Story Maps, ArcGIS – Islais Creek / Bayview](#)

² [San Francisco City Charter – CHAPTER 107A: AFRICAN AMERICAN ARTS AND CULTURAL DISTRICT](#)

³ [African American Arts & Cultural District](#)

Neighborhood Palette



PROGRAM BRIEF

Program Brief

The ICSMAS and WRP teams engaged with local community stakeholders to map out goals and an overall vision for the Islais Creek District. Categorized by transportation, environment, economy, community and social equity and governance, the vision establishes top priorities that come with ensuring safety and preparedness for the area. Among the many goals include: improved and equitable access to resilient open spaces along the waterfront, support for local, blue-collar industries and artists, increasing the opportunity for women and minority-owned businesses to thrive and flexible land use regulations and building types that can accommodate future commerce and industry.¹ The complete vision summary is outlined on the following page.

¹ [SF Planning – Islais Creek Southeast Mobility Adaption Strategy](#)

Program Brief

Islais Creek Vision

Islais Creek adapts to flood risks while ensuring healthy and resilient communities

Islais Creek Southeast Mobility
Adaptation Strategy

Community Goals

At the outset of the project, the ICSMAS Team worked with the WRP engagement team to plan and co-host a series of events and three in-person community workshops in late 2019 and early 2020 to connect with residents, workers, property owners, local organizations, and service providers. In addition to sharing the project scope and site analysis with attendees, these engagement and listening events helped develop and establish the community’s goals for the Islais Creek district, as shown in Figure 5. These goals inspired the ICSMAS strategies and will continue to guide all flood resilience work in the area.

GOALS:

Transportation: A transportation system that is resilient and adaptable to flood risk.

- Adapt key transportation facilities and assets in the near term, increase system capacity and resiliency in the long term.
- Improve and expand transit, bicycle, and pedestrian connections within and through the area.
- Ensure accessible and equitable transportation between the waterfront, the city, and region for people and goods.

Environment: A healthy environment for residents, workers, visitors and ecologies.

- Identify multi-purpose solutions and strategies that benefit the entire Islais Creek watershed.
- Prioritize nature-based solutions and green infrastructure.
- Improve access to and create new resilient open spaces along the creek and Bay shoreline.

Economy: A sustainable economy that benefits local residents, workers, and industries.

- Support local, blue-collar industries, small businesses, and artists.

- Maintain and increase women and minority-owned businesses.
- Explore flexible land use regulations and building types that can accommodate future commerce and industry.
- Prepare local workforce for the current and future economy through training and mentorship.

Community and Social Equity: A socially and environmentally resilient neighborhood.

- Encourage neighborhood vitality, character, and diversity with mixed-income housing.
- Develop equitable solutions for a wide variety of community members.
- Adapt buildings, open spaces, and services for flooding that ensure safety and preparedness.
- Support neighborhood social resilience efforts now and into the future.

Governance: Authentic and transparent public engagement during and beyond planning.

- Identify and share individual histories and stories about Islais Creek.
- Build a long-lasting basis of support with a transparent, authentic engagement process.
- Engage across generations, especially with youth, to build long-term understanding, capacity, and stewardship.
- Acknowledge the significance of the newly designated African American Arts and Cultural District.
- Establish a working group of public agencies to ensure integrated capital planning, funding, financing, and implementation of the Strategy.



Figure 5: I AM ISLAIS - Community Outreach

Program Brief

You are tasked with designing a PDR Collective and Park Space sited adjacent to the existing Pier 94 Wetlands along Islais Creek in San Francisco. Tied to traditional manufacturing industries along with ever-evolving new and specialized activities, 'PDR' is an acronym for Production, Distribution and Repair.¹ The PDR Collective will be an opportunity to grow the local business presence and provide space for communal custodians in the form of artists, makers, practitioners and nonprofit organizations. The location of this new space will grant increased public access to waterfront and provide a new gathering space for the community to come together.

¹ [SF Planning – Industrial Land in San Francisco: Understanding Production, Distribution, and Repair](#)

Program Brief

Measuring 340' x 240', your project site runs southwest to northeast starting from Amador St. and extending towards the Pier 94 Wetlands. Please refer to [page 22](#) for your plan dimension reference. Your design will be a combination of both conditioned interior space as well as open exterior space. Please limit your design to two (2) stories maximum – you may use the roof of your first or second floor for exterior space if you so choose. Your design must include all of the following spaces listed below. Square footage recommendations provided give a general idea of area/size relationships between uses. Additional spaces may be added at your discretion; however it must add value to the building program.

Interior Program (30,900 ft² not including building circulation)

- **Main Entrance & Lobby:** (500 ft.²) This will serve as the gateway into the primary interior space from the exterior and must be easily visible to the public from the street. Allocate space for informal gathering and seating. Consider how you would incorporate a welcoming component within the space; be it an opportunity for art, an interactive building directory of tenants, etc.
- **Coffee Kiosk:** (400 ft.²) Provide a space for a coffee kiosk on the ground floor. The kiosk will be open to the public and provided as an onsite amenity within the building for tenants. The kiosk should include a bar-height counter for people to sit at along with nearby cafe-style seating.
- **Artist Studios:** (6,400 ft.²) Include eight (8) artist studios at 800 ft.² each. The studios may be used for visual arts, sculpture, graphic design/illustration, fashion design, textiles, jewelry and metal arts, photography/media production, etc. Consider daylight penetration into the studios so that they all receive natural light throughout the day.
- **Production Space Studios:** (10,800 ft.²) Include six (6) production space studios at 1,800 ft.² each. The studios may be used for furniture making, ceramics production, bicycle repair shops, etc. Consider daylight penetration into the studios so that they all receive natural light throughout the day. Within each 1,800 ft.² studio, include space for an office (120 ft.²) and a meeting room (240 ft.²)
- **Nonprofit Office Space:** (4,000 ft.²) Include four (4) workplace spaces dedicated for nonprofit office use at 1,000 ft.² each. The offices will be offered up to local nonprofits working within the Bayview Islais Creek community. Within each 900 ft.² office, include space for a small meeting room (120 ft.²) and a medium meeting room (240 ft.²).
- **Gallery Space:** (5,000 ft.²) This space will allow for both building tenants and local community artists to showcase their work throughout the calendar year. Conceived not only as a gallery space, the room will also function as a flexible space to host a variety of events, fairs and lectures. Consider the Gallery Space's proximity and relationship to your proposed park space and the ability to expand between the indoors and outdoors to accommodate various uses.



Photo credit: [BOK Philadelphia](#)



Photo credit: [Brooklyn warehouse overhauled by Snøhetta to create art studio](#)



Photo credit: [BIG Designs World's Most Sustainable Furniture Factory in Norway](#)

Program Brief

- **Restaurant/Bar:** (2,500 ft.²) Similar to the Coffee Kiosk, the Restaurant/Bar will be open to the public and provided as an onsite amenity within the building for tenants. Allocate space for both a kitchen (900 ft.²), a bar (400 ft.²) and dining seating (1,200 ft.²). Consider the Restaurant/Bar's relationship to exterior space, be it on ground level overlooking the wetlands or as a rooftop deck with higher purview. Include associated exterior seating as well.
- **Restroom** (900 ft.²) Please provide an all-gender restroom with at least two (2) ADA compliant stalls. The fixture count should total a minimum of ten (10) stalls and six (6) lavatories (sinks).
- **Bicycle Storage:** (400 ft.²) Visitors are encouraged to bike to the facility and should have sufficient space to lock up their bicycles. Accommodation for up to thirty (30) bicycles should be factored into the design.
- **Building Circulation:** (no predetermined area) The building circulation includes corridors and equitable means to circulate vertically in the form of elevators, escalators and stairs. Your building must be ADA compliant so please remember to provide an elevator and/or ramp access between levels of differing heights where applicable. Stairs must be a minimum 5'-0" wide and your elevator must have a minimum clear inside dimension of 5'-8" wide x 4'-6" deep.

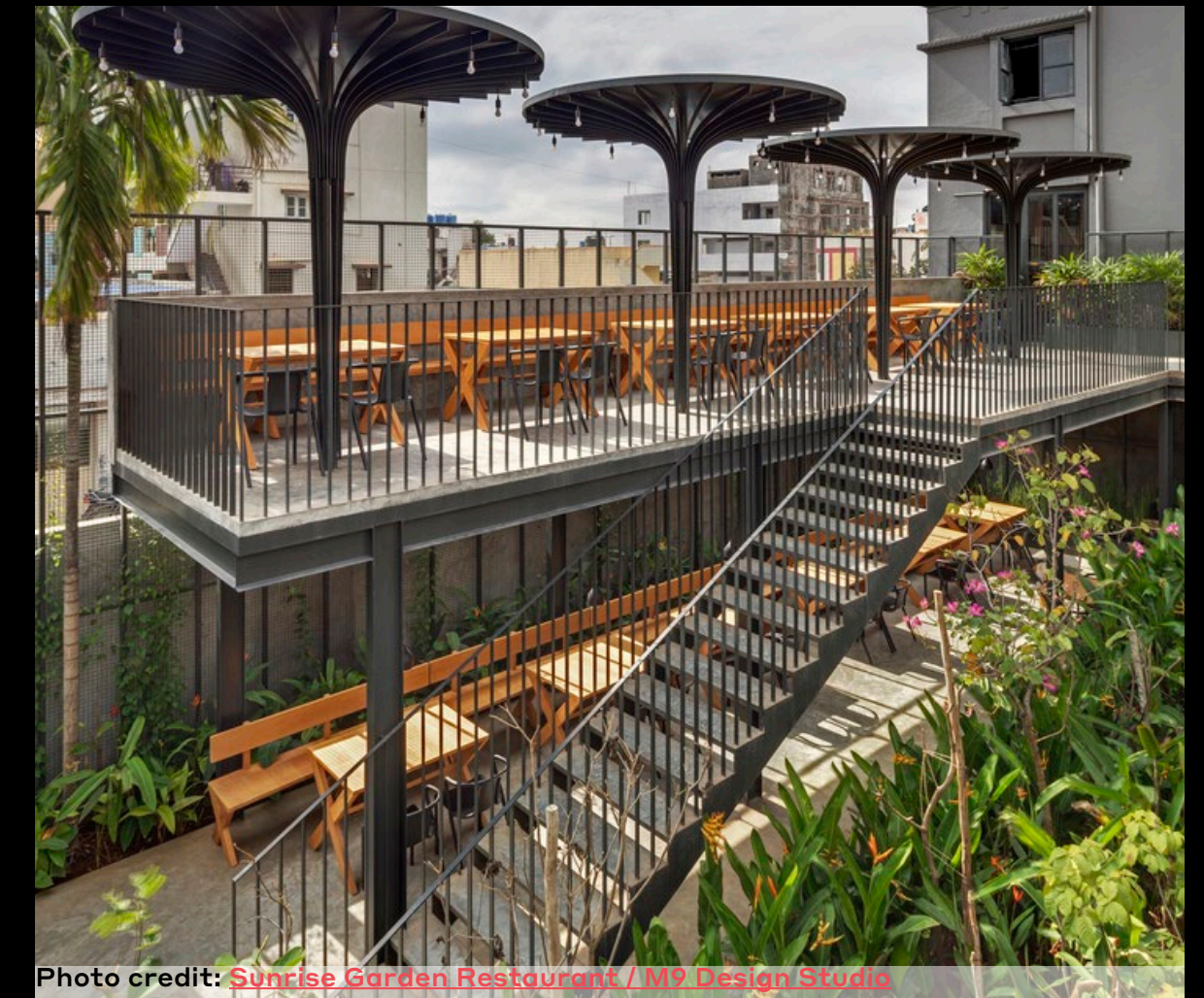
Exterior Program (minimum 40,800 ft.²)

Allocate space for a public park to enhance the visitor experience while expanding the Pier 94 Wetlands as a natural resource. With your site area (340' x 240') totaling 81,600 ft.², your maximum building coverage percentage should not exceed 50% of the total site area (40,800 ft.²). Your building footprint may be less than 40,800 ft.². This will allow for at least 50% of your site to be dedicated to park space. It is up to you how best to locate and design your park in relation to your building.

Limiting your building footprint to 50% maximum will allow for the rest of your site to be planted with both softscape and hardscape elements for you to include. These components will help minimize water runoff from rain and future storm surges in the area. Determine the need for shade (trees, landscaping, lightweight canopy structures) and seating (fixed seating benches, loose furniture, seating integrated into landscape elements, etc.). Consider the ratio of hardscape (walkways, pavers, walls) to softscape (planting) elements that works well with the program. Further research into landscaping, outdoor furniture precedents and sustainable practices (on-site energy generation, water capture, bioretention, etc.) will help guide your thinking for this design component.

Your park design should also indicate how you intend to protect against future sea level rise between the northeastern edge of your site boundary and the Pier 94 Wetlands. Refer to [page 21](#) for various strategies to consider. You may also propose design interventions within the Pier 94 Wetlands as you best see fit.

Consider how your park space compliments your building design. Be mindful of spatial adjacencies and be intentful of how you're guiding visitors through your park space and connecting to the Pier 94 Wetlands.



Design Considerations

Formulating your Big Idea

When putting together your slide deck, this is your opportunity to communicate your thinking and craft your overall narrative. Below is a list of design considerations for you to contemplate.

- How does the overall site context inform your design strategy? Can you take cues from the history, maps of the area, the people, view corridors, environmental conditions, etc.?
- How are your program components arranged? Is there logic to your spatial adjacencies?
- Pedestrian access – where are people coming from and how does your design intervention entice visitors to the site? The site will be free of any parking as users will be encouraged to use public transportation and micromobility and/or walk to the site.
- Architectural context – as is it relates to the surrounding built environment, does your design intervention blend in, stand out or fall somewhere in between and why?
- How is your design intervention future-proof? How does your proposal consider the future of transportation or climate change? Are there components of your building that are modular and potentially able to be reconfigured for another use at another site if need be?

These are all some but not all considerations for you to think about in conceiving of your big idea.

Sustainability & Construction Methods:

A fundamental goal of this exercise is to also embrace sustainability and consider the lifespan of the building. In order to reduce the overall impact of the building on the natural environment, your design intervention should consider integrating innovative green building strategies that help increase energy and water efficiency, use renewable energy and materials and reduce consumption, pollution and waste. The building should consider careful building orientation, natural daylighting, smart shading systems, water conservation and photovoltaic solar collectors among other strategies. Where possible, the building and site should showcase green building methods used to educate the public on sustainable architecture. Research into the [US Green Building Council's Leadership in Energy and Environmental Design](#) (LEED) rating system is encouraged.

You are also encouraged to contemplate various methods of design and construction for this competition. You may consider but are not limited to any of the following solutions for your design intervention: modular/prefabricated, stationary or portable architecture. You may choose to design a single structure as a whole or a cluster of several building components placed throughout the site that link the program in a cohesive manner.

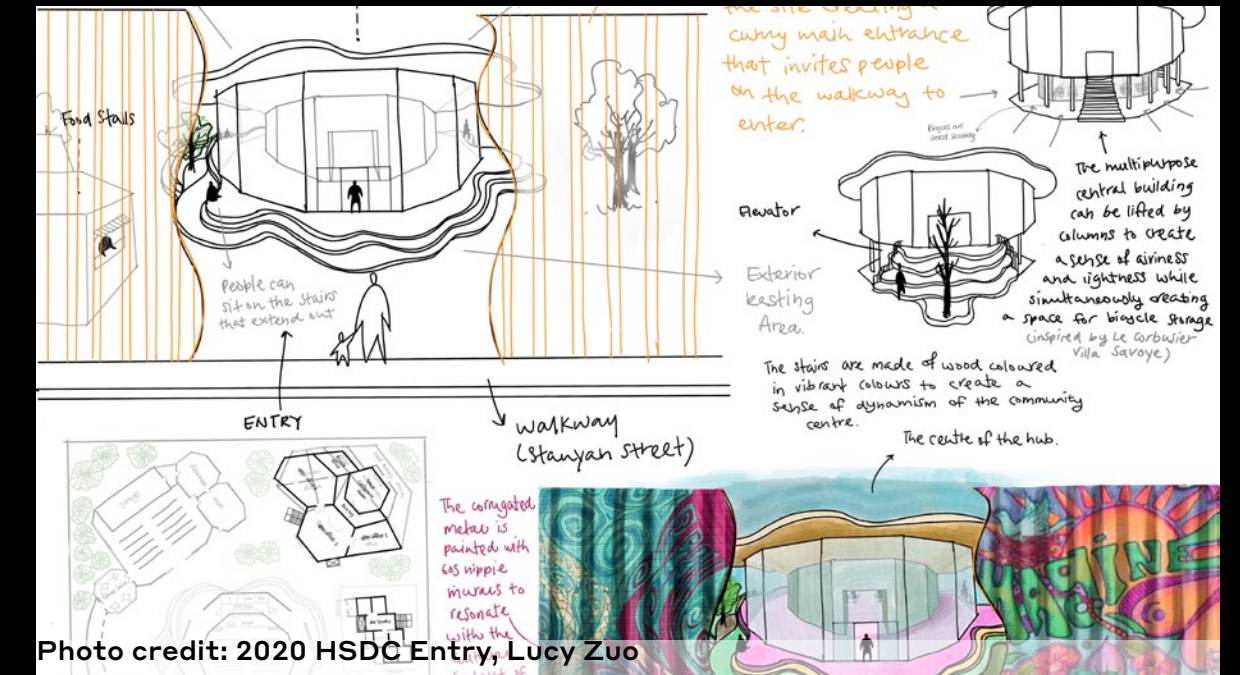


Photo credit: 2020 HSDC Entry, Lucy Zuo



Precedent Study

Islais Hyper Creek

Resilient By Design

As Measure AA passed in 2016, a group of regional leaders had been working since 2015 to develop a plan for a proactive regional design challenge modeled after Rebuild by Design. San Francisco, Oakland and Berkeley had established city plans of their own to tackle resiliency but the unique hydrology of the Bay warranted a more collaborative approach and holistic thought process. The Challenge brought on by Resilient By Design facilitated a proactive step in bringing more regional leaders to the table. Projects throughout the entire region were considered. Along Islais Creek, a team comprised of BIG + ONE + Sherwood collaborated to highlight six potential pilot projects to kickstart the long-term vision for a resilient Islais Hyper-Creek.¹ Use the precedent project to gain more information about the site and to learn how others have contemplated design interventions through the lens of a resilient future.



¹ Resilient By Design – Islais Hyper Creek

Links



Measure AA:

[Ballotpedia – San Francisco Bay Restoration Authority “Clean and Healthy Bay” Parcel Tax, Measure AA \(June 2016\)](#)

[Bay Nature – First-of-its-Kind Climate Parcel Tax Now a Measure of Hope](#)

[City/County Association of Governments of San Mateo County – Measure AA The Clean and Healthy Bay Initiative June 2016](#)

Port of San Francisco

[Waterfront Resilience Program](#)

[Draft Waterfront Adaptation Strategies](#)

[Islais Creek / Bayview Resilience](#)

[Waterfront Resilience Story Maps – Islais Creek / Bayview](#)

SF Planning

[Islais Creek Adaption Strategy](#)

[Islais Creek Southeast Mobility Adaption Strategy](#)

[Industrial Land in San Francisco: Understanding Production, Distribution, and Repair](#)

Resilient by Design

[The Challenge – About](#)

[Islais Hyper-Creek](#)

African American Arts & Cultural District

[San Francisco City Charter](#)

[African American Arts & Cultural District](#)

San Francisco Chronicle

[S.F.’s plan to protect the city from sea-level rise will ‘set the stage for our future shoreline’ – Oct. 11, 2022](#)

Project References

[Building BOK, Philadelphia](#)

[Brooklyn warehouse overhauled by Snøhetta to create art studio for painter José Parlá](#)

[BIG Designs World's Most Sustainable Furniture Factory in Norway](#)

[Benchakitti Rain Forest Observatory / HAS design and research](#)

[Sunrise Garden Restaurant / M9 Design Studio](#)

PARTICIPATION GUIDELINES

Deliverables



This year's competition will include an online submission process. There are three ways in which you may choose to enter the competition: as an Individual Entry participant, as a Group Entry participant or as a Design Process Entry participant. Design Process category entrants may choose to enter as either an individual or as a group. *All deliverables must be captured in a Google Slide deck for presentation, not just a PDF.* To better explain your thinking to the judges, you are also required to submit a brief video describing your project (no more than 2 minutes maximum). This as an opportunity to talk about your overall goals and aspirations for your design, your design process, what you enjoyed most about undertaking this challenge, etc.

Individual & Group Entry* Required Deliverables:

2D Drawings

Provide the following presentation drawings:

- Floor plans: include a north arrow and room names (for both interior and exterior spaces), furniture for scale optional
- Elevation: at least one view that best describes your design, include at least one person for scale
- Section: at least one view that best describes your design, include at least person for scale
- Site plan and site section: include the building and surrounding site, please label all site elements and include a north arrow.

Drawings must clearly communicate the design solution through selection of appropriate drawing views and clarity of line work. Each drawing must be labeled with the correct drawing name (i.e. First Floor Plan, West Elevation, etc.) and drawing scale. Rendering materiality and casting shadows is encouraged. In addition to the drawing types listed above, you are also highly encouraged to include additional drawings, be it process sketches, diagrams, renderings, etc. that help explain your design intent. Hand-generated or CAD drawings are acceptable. Use of color, while not required, is permissible to enhance the reading of your drawings.

3D Model

Build an architectural model of your building design. You may construct a physical model and/or a digital model. For a physical model, the suggested scale is 1/8" = 1'-0" but you may choose to build your model in a different scale if need be. Your model may be made of any material; museum board, card board, wood, foam core board, found objects, etc. are all acceptable options. Use of color, while not required, is permissible to enhance the reading of your model. You will need to photograph your model for inclusion into your slide deck. If you build a digital model, include renderings and/or screen captures of your design. The use of post-production software e.g. Photoshop is encouraged but not required. Inclusion of study model images is also encouraged.

Design Description

Design Solution Title – Give a project title to your design that best describes your design solution and strategy.

Design Narrative – What is your “big idea” concept for this project? Compose a thoughtful and concise description of your design solution and strategy. This may include your design inspiration and what you are trying to achieve with your design. This is your opportunity to articulate any other ideas you may have that aren't as easy to read from your drawings and models alone such as building material choices or site ideas relative to the greater master plan. 500 word limit.

Video

As described above, .mp4 format

*As a Group Entry participant, you must submit all of the required deliverables mentioned above. You may, however, work in teams ranging between 2-3 people. This will be a separately judged category.

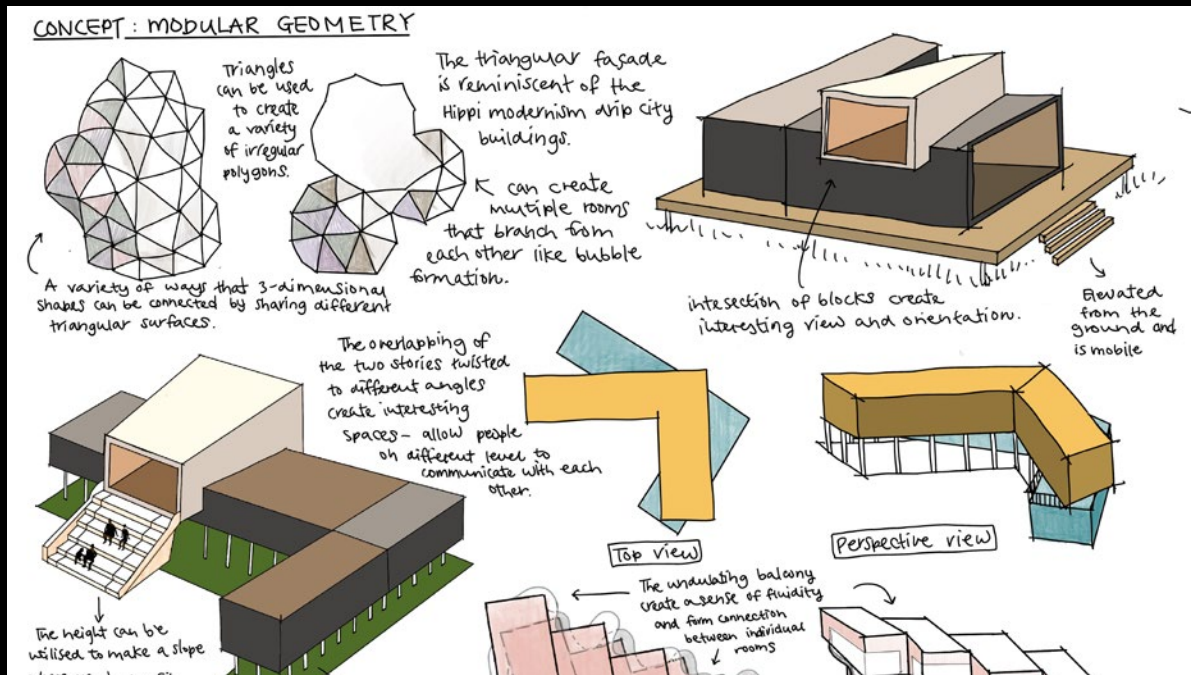
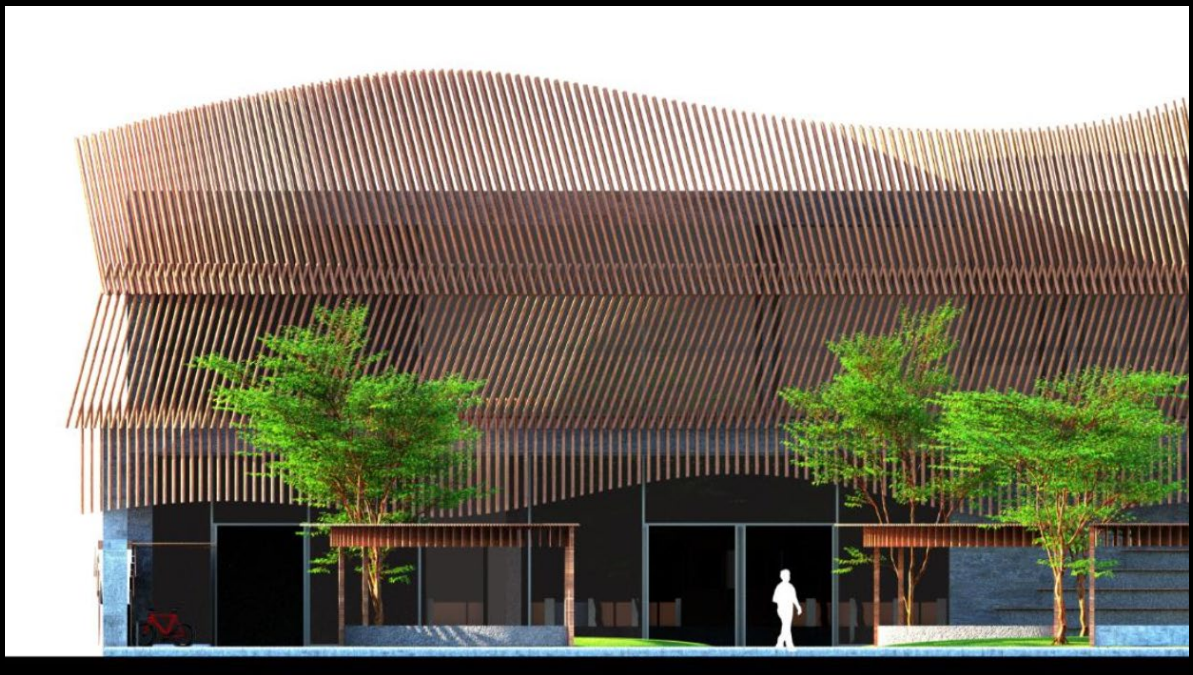
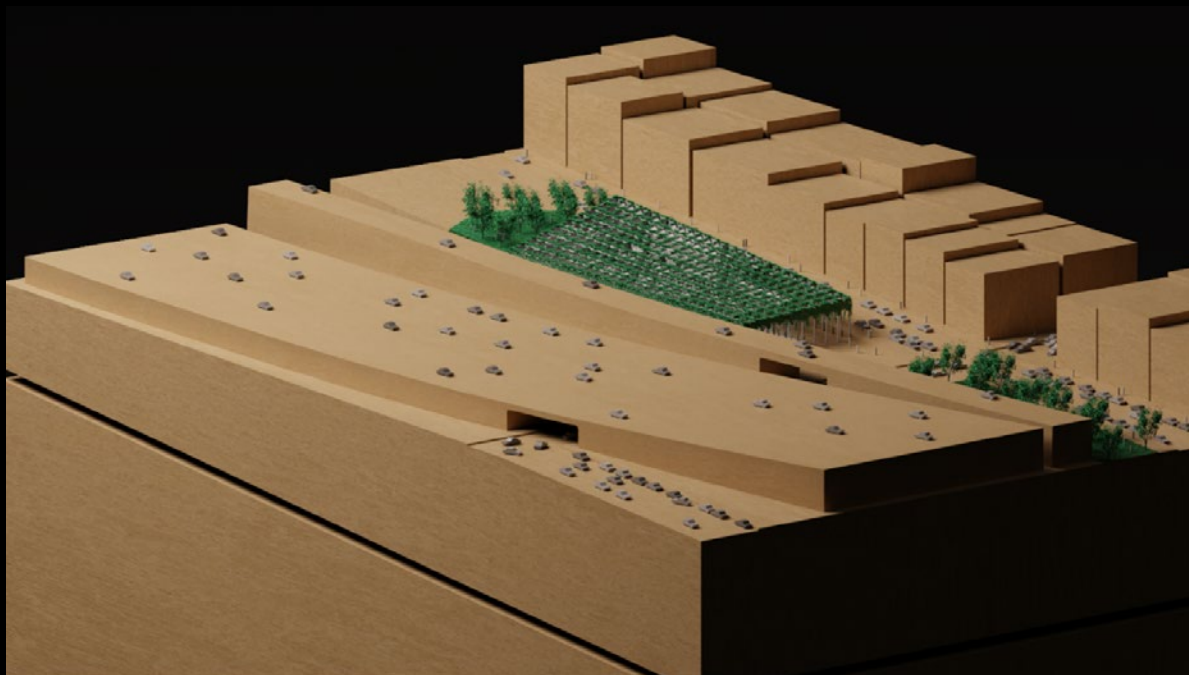
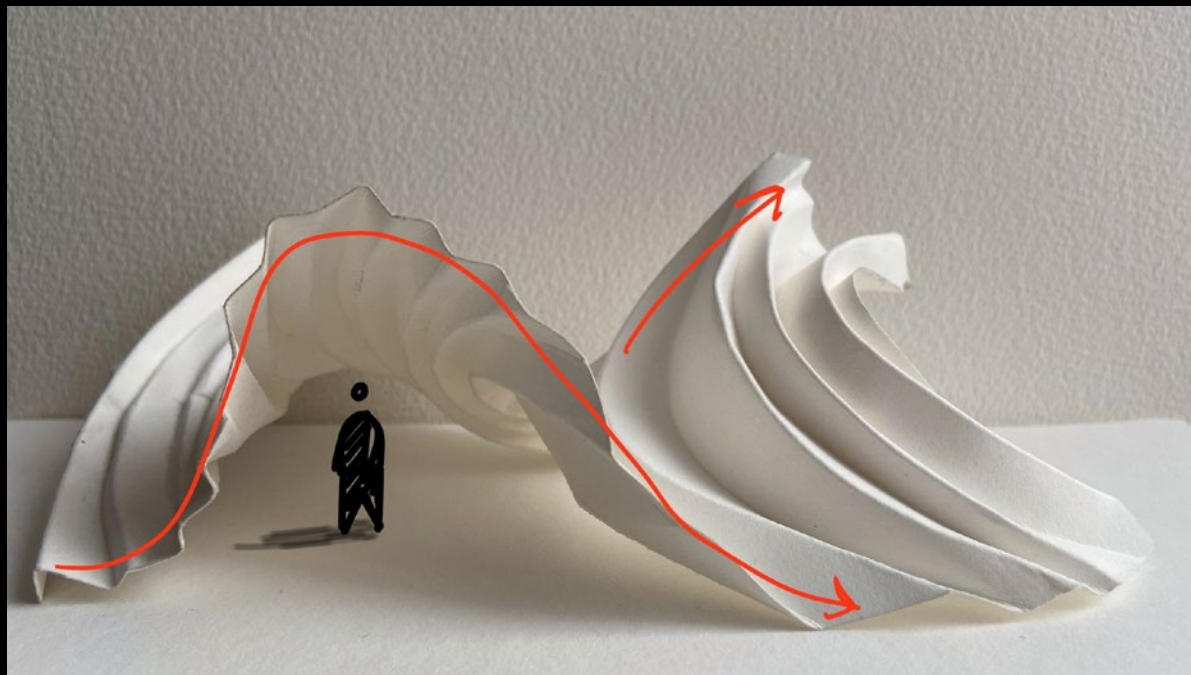
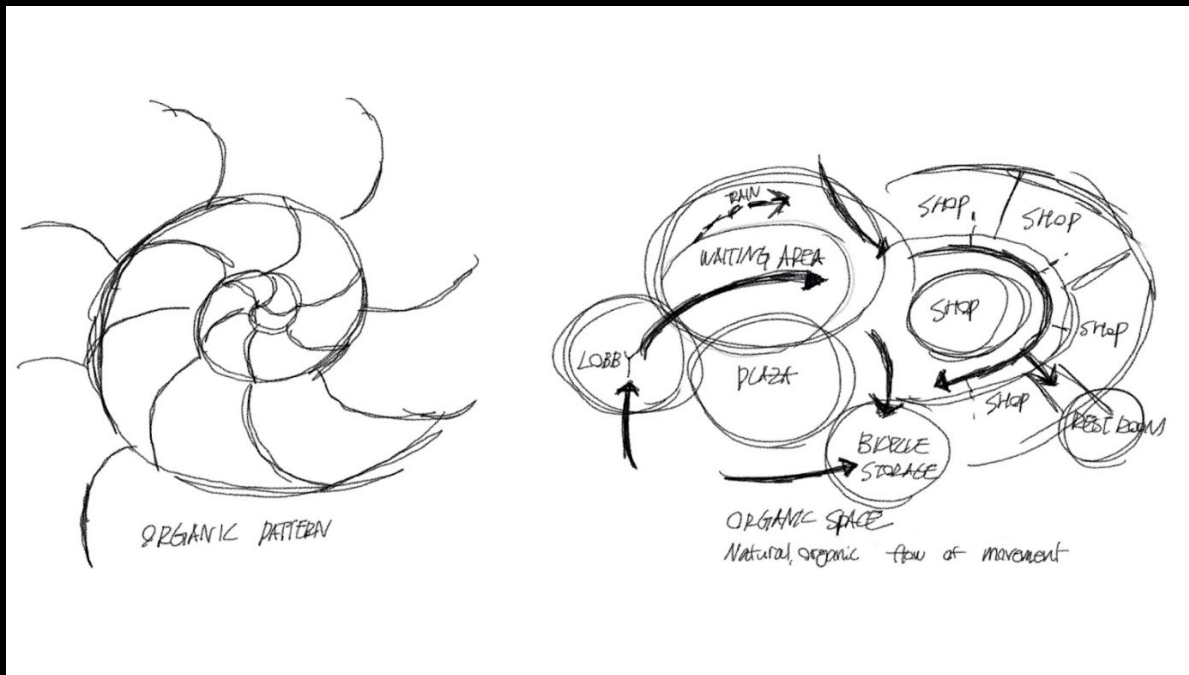
Deliverables



Design Process Deliverables:

This category enables you to submit your design thinking in any format that exemplifies your creativity and participation in the competition process without submitting the full list of deliverables required as outlined in the Individual and Group Entry categories. Any material including but not limited to: sketches, study model photos, diagrams, renderings, collages, a project narrative, a short video of you explaining your design, etc. will be well received by the jury. This submitted material should also be compiled into a Google Slide deck for presentation, not just a PDF (with the exception of a video description). This will be a separately judged category with separate monetary awards. Please feel free to curate your submission however you see fit to best describe your design ideas.

HSDC Student Work Examples



Judging Rubric

Below is a breakdown of judging criteria that will be used to evaluate your submission.

Big Idea

- What is the narrative for your design? Each project should be grounded in a big picture idea that may be inspired by your interest such as the site, the program, the users, design composition, history, view corridors, etc. – anything that most interests and inspires you. Develop a concept for what you’re trying to achieve and make that evident in your process studies, drawings, models and written description.

Design Function

- How does your design function and is it conducive to a realistic working solution? Consider programmatic adjacencies (which spaces are next to each other and why?), circulation routes to and from spaces and access to light, air and views. User experience should be carefully considered – think about the different types of people who may be visiting aspects of your design proposal and how their interactions might differ from one another.

Design Aesthetics

- Do you have a compelling solution that visually carries your big idea forth? Consider spatial composition in plan, elevation, section and perspective views. How does your design read from multiple vantage points on site? Is there a specific use of color and/or patterning that brings your design to life? Consider materiality in addition to form.

Technical Execution & Presentation Clarity

- Is your design thinking clearly presented through well-executed drawings and/or models? Use your presentation skills to curate a well-thought-out and compelling project.

Process

- Did you include images of your thought process leading up to your design solution? From conception to execution, the journey is just as important as the final product and we would like to see some of your process work. Document study models, include diagrams, sketches, whatever it may be that helped lead you to your conclusion and helps you narrate your thinking.

Submission & Resources

Submissions are due by Friday May 19, 2023 at 6pm PST.

You are required to submit your entry via the Google Form link below:

[Entry Form](#)

Please label your slides with your Project Title only, and not your name, to ensure an anonymous review process during judging. Participant information will be captured in the entry form. Your submission should include your Google Slide deck for presentation, not just a PDF and your short (2) two-minute length video description of your project. If you have any inquiries prior to submission, please send an email to Ryan Lee (ryan@afsf.org) for further clarifications. Thank you.

Project Resources

- [Google Drive Project Folder](#)
- [Google Slides Presentation Template](#)
- [Site Photos](#)
- [Maps](#)
- [Revit Software Instructions](#)

Software Resources

[Autodesk Education](#)

[SketchUp](#)

Schedule



Competition Start Date

January 9, 2023

Competition packet is distributed to high schools in the San Francisco Bay Area and posted to the AFSF's website (www.afsf.org).

Design Period

January 9, 2023 – May 19, 2023

Students work on their designs, drawings and models. Progress critiques may be scheduled with the Competition Chair, Ryan Lee. Please email Ryan (ryan@afsf.org) to schedule a review.

Competition Entries Due

Friday, May 19, 2023 by 6:00pm PST

Students will need a Google account to enter and must complete the entry form and upload their files here: [Entry Form](#).

Judging

Saturday, May 20, 2023

Judges Only. A distinguished panel of judges will review every submission virtually to determine the award winners.

Awards Ceremony

Sunday, May 21, 2023

Details for a virtual Awards Ceremony will be communicated to all when we get closer to the date and will be posted on AFSF's website (www.afsf.org).

All are invited to attend including entrants, their family, friends and school faculty members. Winners will be announced and awards will be presented at this time.

Awards



Awards will be given for the best proposals in each Design Challenge category.

Best Individual Entry

Awards for best Individual Entry submitted design solution – design solution, graphic presentation including 2D drawings, 3D model, written description, video

1st Place* | \$200

2nd Place | \$150

3rd Place | \$100

Best Group Entry

Awards for best Group Entry submitted design solution – design solution, graphic presentation including 2D drawings, 3D model, written description, video

1st Place | \$200

2nd Place | \$150

3rd Place | \$100

Best Design Process Entry

Awards for best Design Process Entry describing design solution – refer to Design Process deliverables

1st Place | \$100

2nd Place | \$75

3rd Place | \$50

Certificate of Participation

A Certificate of Participation will be distributed to all entrants

*CCA Summer Scholarship

Through the generosity of California College of the Arts, the Best Individual Entry 1st Place winner will be offered a full-tuition scholarship to [CCA's 2023 Summer Pre-college Program](#) in Architecture. CCA's Pre-college Program is a four-week intensive studio experience offered in July/August, Monday through Friday. The student will earn 3 units of college credit. The value of the scholarship is \$4,000 per student.

As stated prior, please note that depending on which option you choose to enter as, you will only be eligible for certain award categories. The award categories, listed above, are broken up into the three ways in which you may choose to enter the competition.

Please note that Judges may also award Honorable Mentions to any participant(s) in any submission category at their discretion and reserve the right to adjust awards and categories as they best see fit to provide recognition for projects entered into the competition.

AFSF Board of Directors



Design Ideas Collective Competition Committee

Ryan Lee
ryan@afsf.org
Competition Chair & Author
Vice President - Board of Directors, AFSF
Senior Associate, Woods Bagot

Alan Sandler
alan@afsf.org
Executive Director, AFSF

For questions regarding the 2023 AFSF High School Design Competition, please feel free to contact Ryan and Alan at the email addresses listed above.

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Thank you for participating in the
AFSF 2023 High School
Design Competition.
Best of luck to you all!