



op-PORT-UNITY

Port-Unity Team

Team Fløck
2023-8968



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Design Narrative

The North Charleston region has long been defined by its blessing of a natural harbor, wrangled by human interference, to create piers, yards, and other pieces of working infrastructure along its waterfront that is collectively termed as “the port”. Through hundreds of years, this “port” has provided jobs, connectivity, delights from abroad. In its most modern incarnation, the port represents the region’s access to globalized commerce, a rich naval heritage, and a source of middle-class livelihoods -- but with a price -- ports have also imported injustices and their adjoining waterfronts are noisy and unwelcoming.

Now, the region is threatened by social, physical, and natural forces that are exacerbating inequality and shutting opportunities for the communities that call this place home. Our site exemplifies these challenges. In the black neighborhoods around the site, education levels remain stifled while demand for economic justice remains high



Economic attention has shifted to tech, meaning existing industrial/maritime jobs are increasingly competing against start-ups and e-commerce for warehouse space and young graduates. A lack of reliable public transit leaves residents without means to get to quality nutrition. Rising waters and rents are amplifying gentrification and displacement for the people that have endured the most unfair urban development. How can we respond effectively against these forces?

In envisioning our site, we first imagined what would it look like if we did not intervene. We could imagine that the traditional industrial typology of warehouses and small manufacturing would continue proliferating and aggrandizing, acting on our site's previous relationship to the Navy Yard to the south. We could imagine that the freight lines to our west would eventually provide a sharper divide and isolation from the rest of the Park Circle neighborhood. We could imagine, that in time, the creek and river waters would eventually overwhelm the site and leave it unsuitable for human development. A community lost.



A Port as op-Port-Unity

However, what if instead our site “pushed back” against these forces and instead leveraged the region’s strong identity informed by the port to enhance the site?

What if we went further and imagined using the elements associated with ports -- connectivity, vitality, and their connection with water -- to create an opportunity for equity to flourish?

With Port Unity we fused this new organizing paradigm into a mixed-use development that offers a place to work and live and create along the water while helping correct historical inequities.

Port Unity Fosters Connections and Mobility

Our site would leverage the most important attribute of a port – its association with movement – to increase connectivity. Ports famously facilitate the changing of one transit mode to another. We would establish a ferry service, in agreement with the region’s transportation plan, to provide direct access to downtown Charleston. Furthermore, recognizing that our development should improve livelihoods beyond our boundaries, we would develop an underutilized rail line into a shared bike/walk/mobility path to connect adjacent residents to our site and to the new regional bus rapid transit (BRT) service.

Port Unity Forwards Empowerment and Housing Equity

Our site advances equity by hosting solutions to housing demand and food accessibility. Our site would provide affordable housing units in buildings that are designed to intentionally gather residents. Borrowing from a port’s association with markets and trading, our site would work with a local food collective to help forward food justice, host a year-round farmer’s market and provide on-site experiential urban farming and warehousing for harvest storage.

Port Unity Furthers Livability Through Resiliency

Our site reinforces its connection with water to adapt to sea level rise and leverages a Port’s morphology to allow water to move between human spaces. Taking cues from containerization, we imagine buildings raised selectively on site, stacked vertically in interesting arrangements and to a logical order. Channels cut into our site will allow water to gather after a storm, while remaining as green swales during dry periods. Additionally, our site will serve as a traditional port of refuge, sheltering residents from powerful hurricanes when necessary.

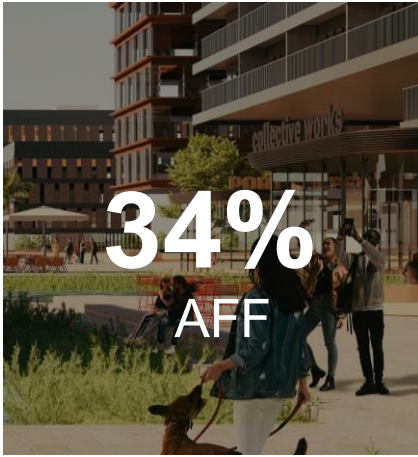
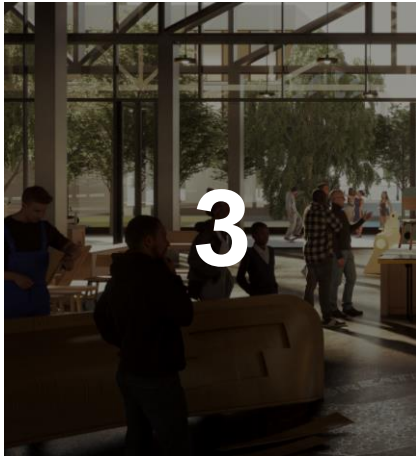
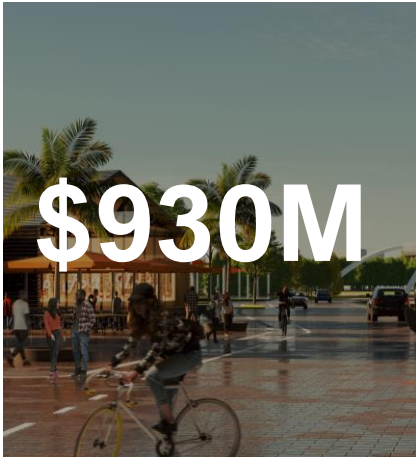
Port Unity Delivers Regional Economic Impact

Our site will lean on a port’s historic ability to transact commerce and assembly by providing industrial and craft spaces that are flexible for growing creative businesses to experiment and expand. In these same buildings, offices-as-moments provide open areas to do business with interspersed places for formal meetings instead of traditional working spaces. The maritime industries’ incessant demand for labor will be met by providing collaborating, mentorship spaces that connect area youth to South Carolina’s HBCUs and to innovative maritime technology jobs. While inspired by apprenticeships, our site would establish the Lowcountry School of the Maritime Arts to train the next generation of craftspeople in preserving the waterfront heritage.

Financial Narrative

Port Unity is imagined as a 1.7 million sq ft development spreading over all the currently owned city parcels between the Cooper River and Noisette Creek. Altogether, the project will deliver 525 units of which (34%) are affordable to residents in North Charleston along a dynamic waterfront while supplying a more equitable development strategy for the community.

In following strong and sustained market demand for industrial versus office and retail, Port Unity will focus on delivering residential living with creative industrial and retail serving as stabilizers. This allows the project to take advantage of existing industrial buildings on site and save on demolition costs while preserving the authenticity of the site's appeal. Port Unity will be built over a fifteen-year period in three phases which emphasizes project financial stability regardless of the ultimate decision with the DoD parcel.



Green + Public Space Improvements

In partnership with the city, our project will deliver **\$26m worth of green resilient infrastructure and streetscape improvements** across all sites. In exchange for these improvements, we would negotiate with the city for a general land lease with an upfront payment of \$16 million. Additionally, we will acquire the land parcels held in the north and south edges of the site while incorporating the existing brewery and the non-profit Water Mission's facilities into the development to **preserve the area's authentic businesses**.

Adaptive Reuse Development

Phase 1 (2024-28) is visualized as building off the activation of the already existing Riverfront Park and newly opened pedestrian bridge. During this phase, Creekside is established as a mixed-use development with varied residential structures and opening concurrently with a hotel to offer a place to stay for Riverfront Park's current festivals and scenic elevated views. Finally, a **repurposed warehouse is redeveloped into exhibition space** for local arts programming and a parking garage is prepared for future retail demand and cash flows.

Community-Driven Phasing

In Phase 2 (years 2026-2030), The Channels neighborhood builds on the excitement of Creekside and **delivers additional housing, education, and cultural pieces to the site**. The housing in this phase is composed of 10, 3-7 story mid-rise buildings and townhouses which provide density with context (275 units). This phase also introduces a **neighborhood childcare center** and waterfront park extension to connect residents and visitors to the Cooper River. In effect, Phase 2 establishes Port Unity as a full community with services to stabilize returns.

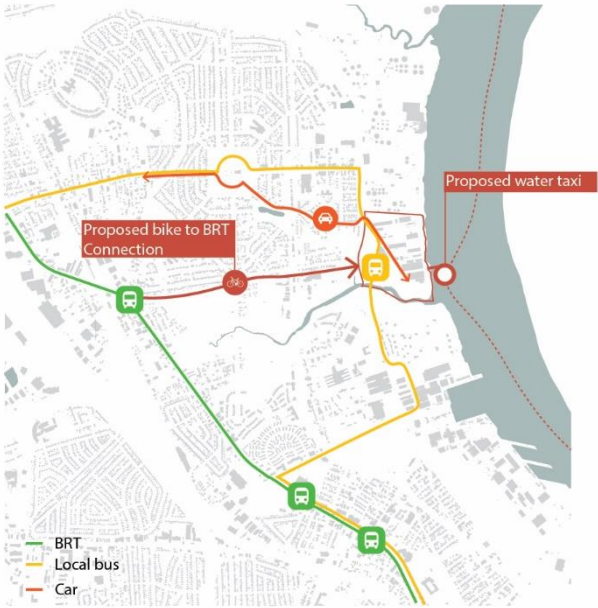
Long-term Livability and Resilience

In Phase 3 (years 10-9), we imagine how the site would function with the acquired Department of Defense parcels and with demand from the success of Phases 1 and 2. Unity Square's shared street building frontage is completed, supplying an additional 40,000 sqft of retail and would deliver an additional 399 residential units to the community. The repurposed 62,000 sqft **Health + Fitness Facility / Unity Emergency Shelter** is opened along with the final warehouse conversion into a gathering space and food hall that is now able to function with sufficient demand for food & beverage.

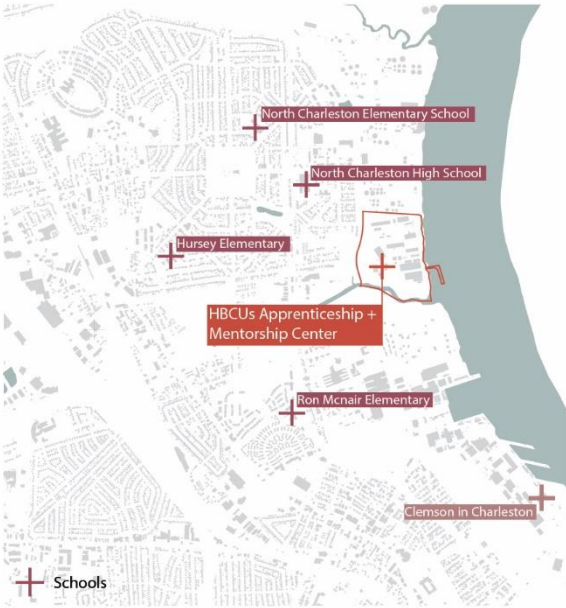
Strong Finance Performance

Port Unity's total development value is \$928 million with a total cost estimated at \$713 million. Additionally, a Community Development Block Grant (CDBG) will fund \$2.75 million, and finally a \$6.5 million grant from **FEMA's Natural Hazard Mitigation Program** (North Charleston can apply on the project's behalf) as our site includes a variety of methods to **reduce the ongoing dangers of river flooding and hurricane risks for a vulnerable population**, substantial flood mitigation through elevated structures and on-site stormwater retention, and a public riverfront walkway. **The project's total unleveraged return is estimated at 19% with a levered return of 23%.**

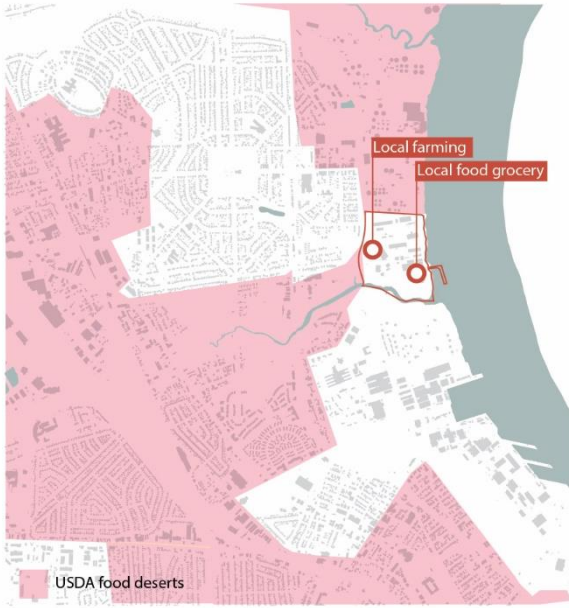
Context



Could we improve
affordability & connectivity?



Could we **bring HBCUs**
closer to the coast?

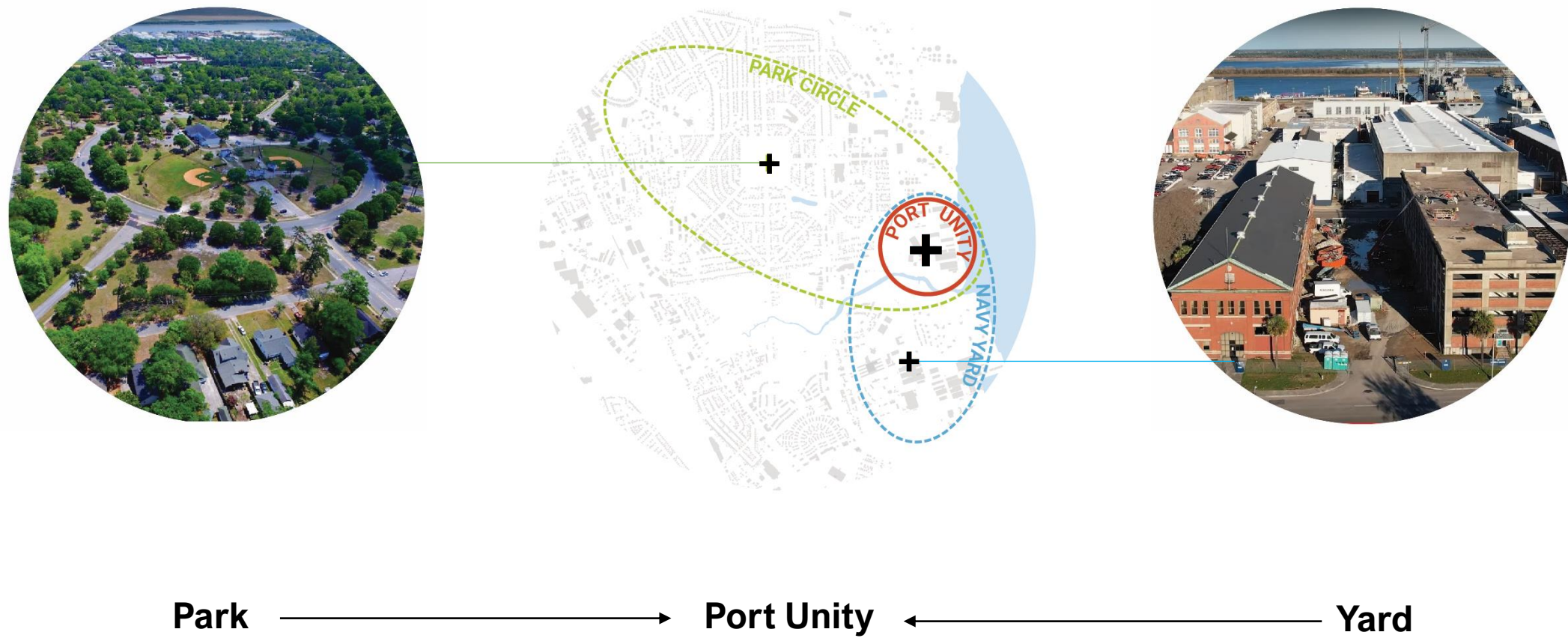


Could we bridge the gap
to **food access?**

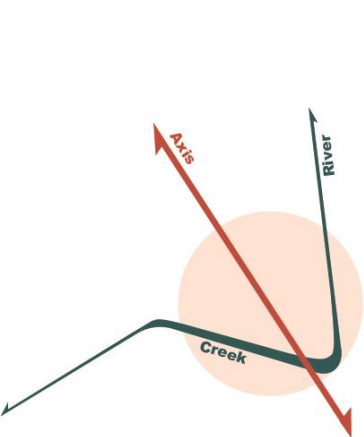


Could we
provide shelter
in times of need?

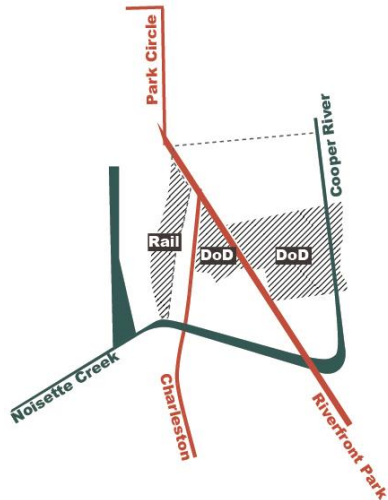
Park + Yard



Design Concept



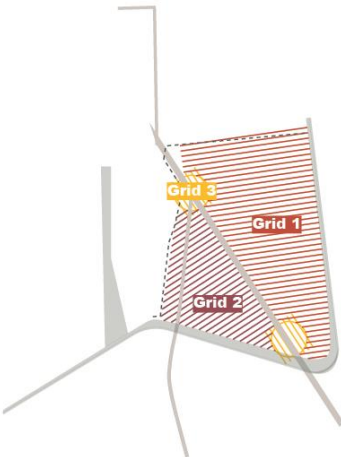
River + Axis



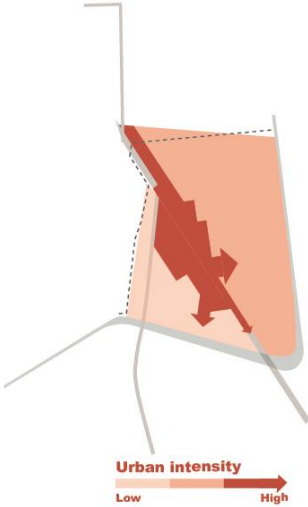
Navigating constraints



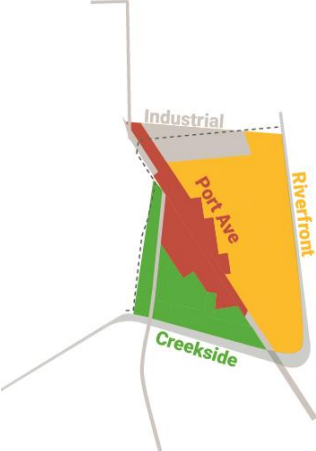
Extending blue/green structure



Structuring grids

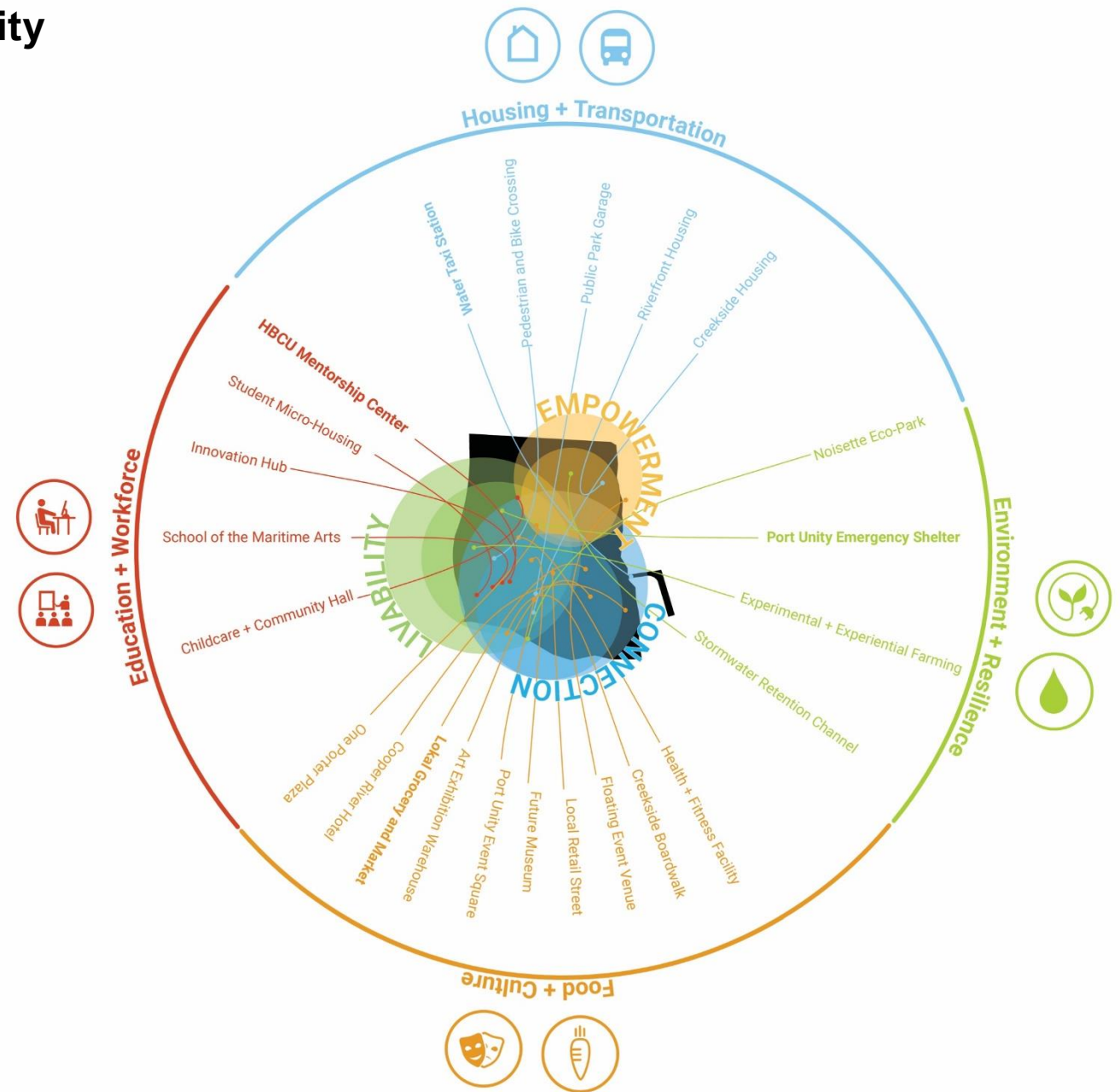


Control urban intensity



Infuse with Distinct character

In the Spirit of [Port] Unity



Vision of the Site



Open Space



Cooper Plaza **WATER + PLAY**



Unity Square **FOOD + ART**



Noisette Plaza **EVENT + NATURE**

Urban Systems



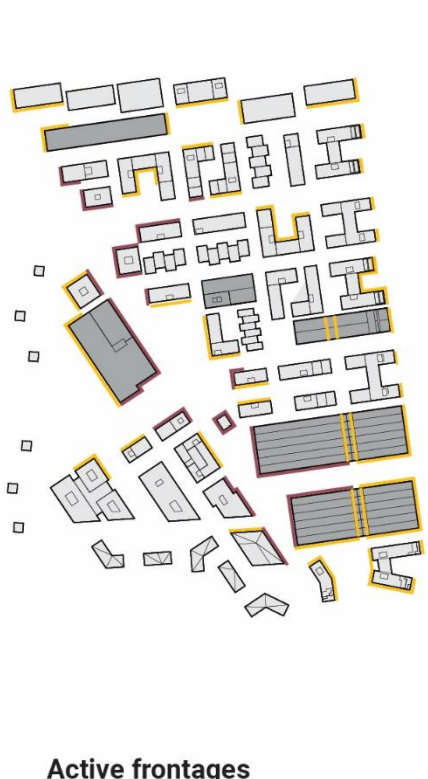
Connectivity

- Key ped routes
- Car access
- Parking structure
- Water taxi
- Bicycle lane
- Bus route
- Street parking



Blue + green structure

- Green open space
- Farms
- Bioswales
- Green roof
- Solar panels
- Blue + green channel
- Drainage



Active frontages

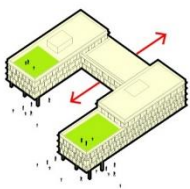
- Retail active front
- Social active front
- Adaptive reused buildings
- New buildings



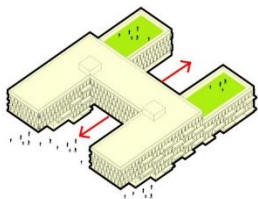
Height distribution

A Diverse Mix of Uses and Typologies

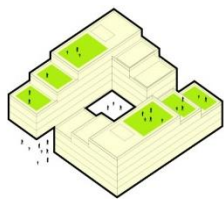
Residential + Commercial + Adaptive Reuse



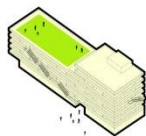
U-Shape
95,238 sq ft



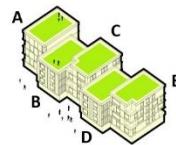
H-Shape
102,673 sq ft



Courtyard
88,109 sq ft



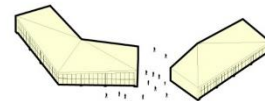
Linear
42,912 sq ft



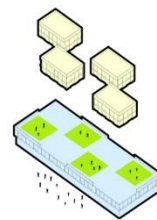
Row House - Wide
42,912 sq ft



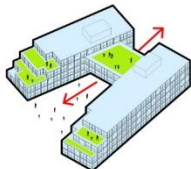
Row House - Narrow
48,851 sq ft



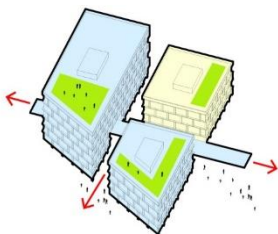
Creekside
23,918 sq ft



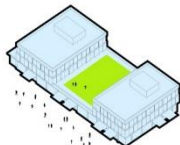
Artist Residency
48,851 sq ft



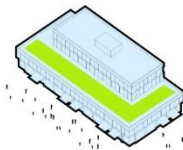
Hotel
59,373 sq ft



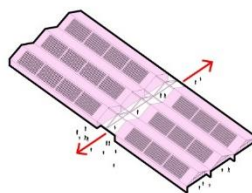
Innovation Hub
158,343 sq ft



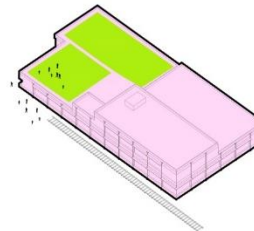
Campus Workshop
36,054 sq ft



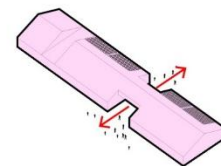
Campus Workshop
29,295 sq ft



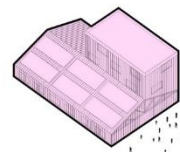
Market Hall
74,508 sq ft



Health + Fitness Center
62,153 sq ft



Exhibition/Museum
27,000 sq ft



Vertical Farming
15,000 sq ft

"It's lovely to find a **Hotel** close to the airport, that **connects** us with views of the water."

— Carl and Jenny, in town for an aviation conference



"We **linked** through a peer mentor at **the Hub**. Now, started a research focus group on virtual maritime logistics."

— Michael, a Morris College student spending a semester in North Charleston



"It has been **empowering** as an artist to take courses at the **Workshop** surrounded by a natural environment."

— Jazebel, student at the Lowcountry School of the Maritime Arts



"I love that we can **choose to walk** from our **affordable apartment** to any spot that's best for us."

— Melinda, retired North Charleston teacher.



"With the childcare center so close, we're able to grab some **Market Hall** snacks and enjoy a little **quality-of-life**."

— the Ortiz family, residents of The Channels



"Jogging on **vibrant green boardwalks** followed by a group class at the **Fitness Center** has done wonders for my mind and spirit."

— Bo, a Park Circle resident

"The new stuff is nice, but I **can still go** fishing at my favorite creek."

— Jeff, avid fisher at the Noisette for over 25 years

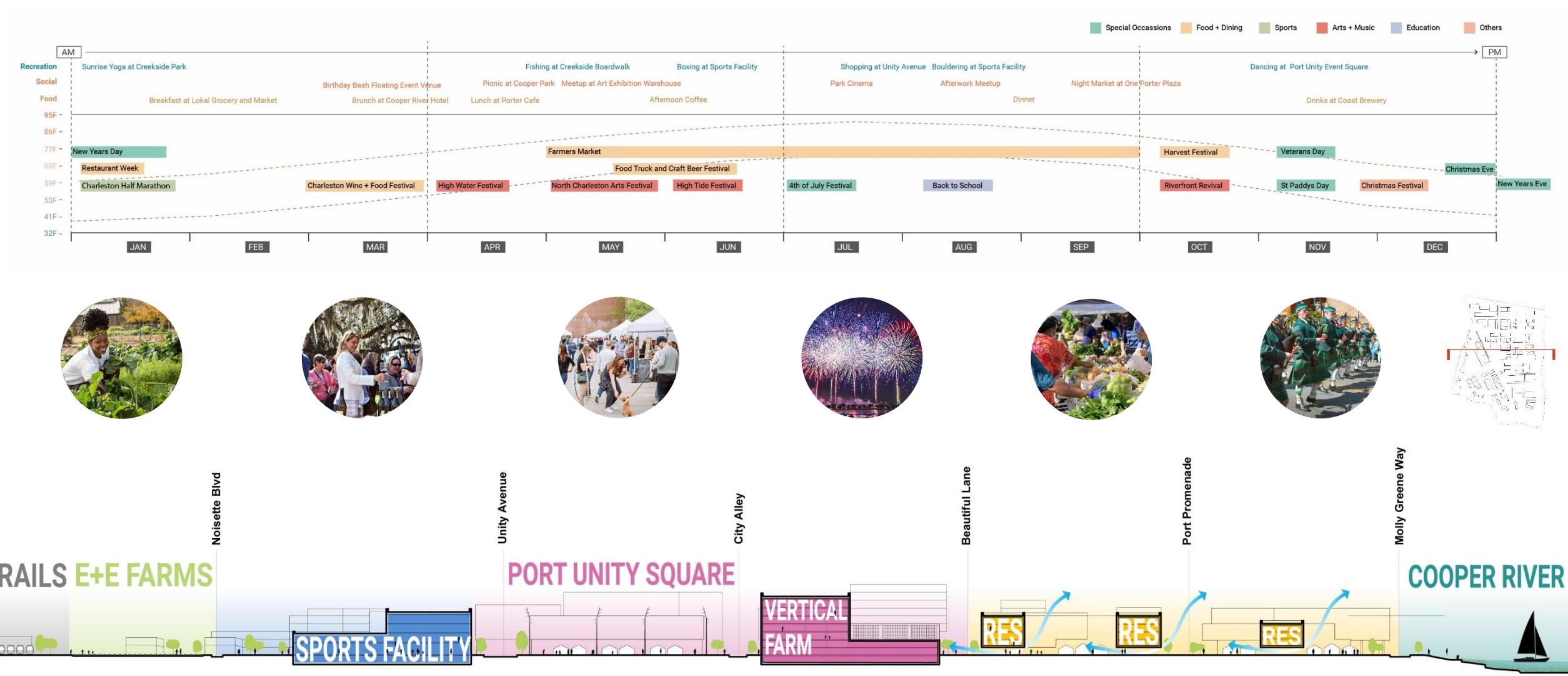


"Learning new experimental techniques at the **vertical farm** **enriches** my mission of food forwarding power."

— Jaida, attendee to the SCBFC's 6th Annual Conference



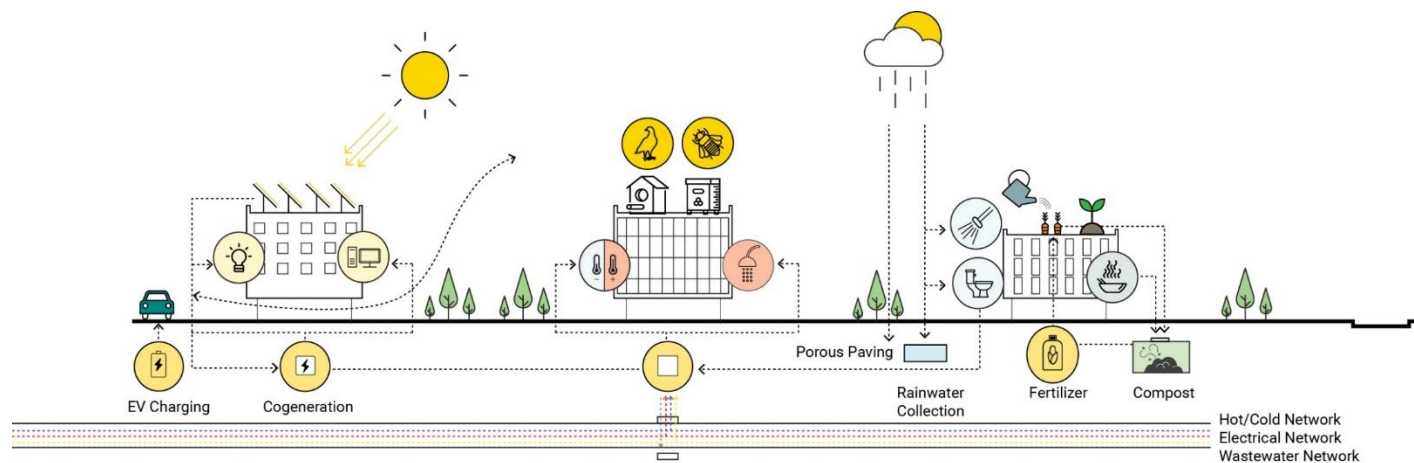
Activated Neighborhood



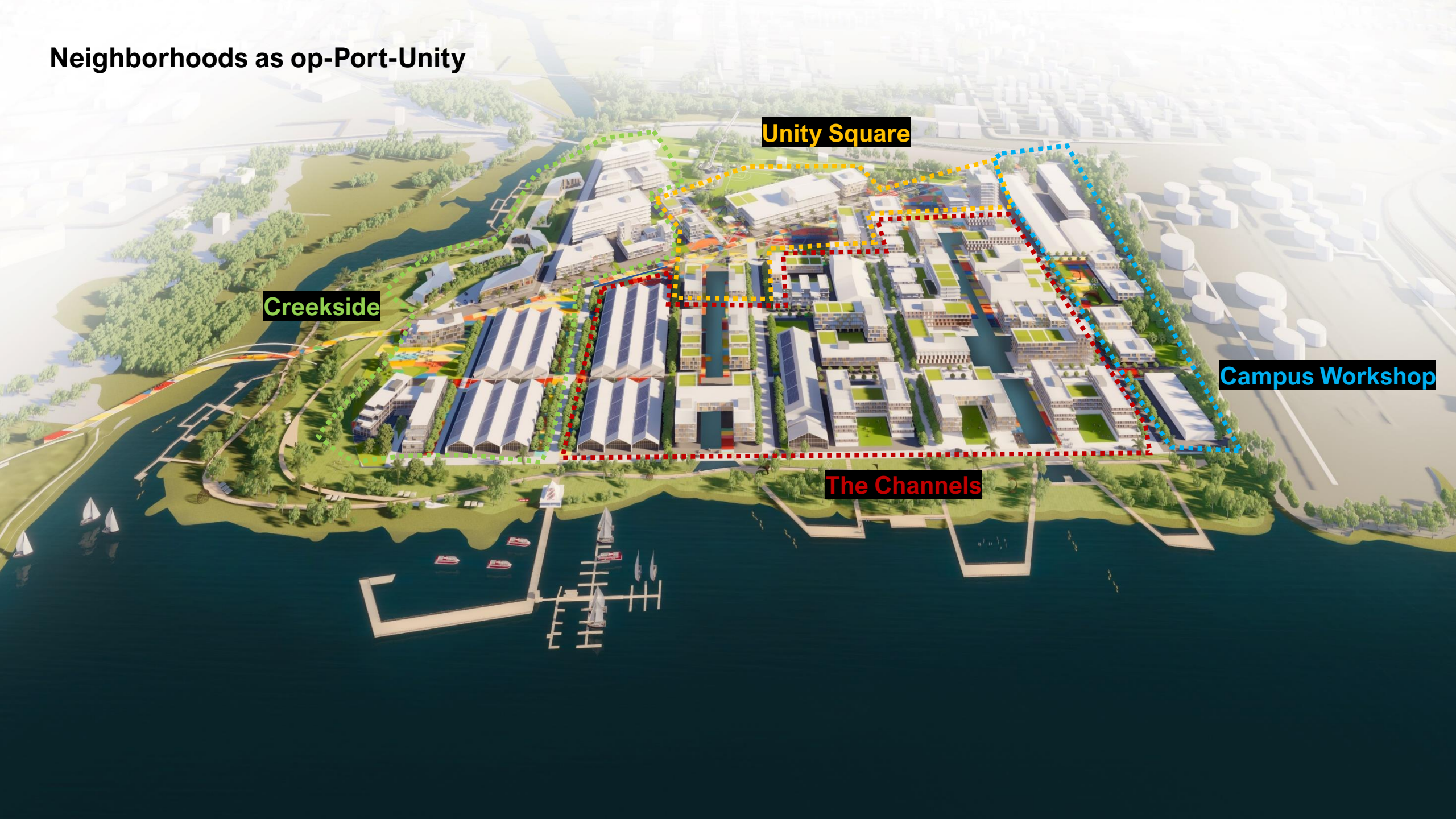
Placemaking through Local Specificity



Sustainable Neighborhood



Neighborhoods as op-Port-Unity



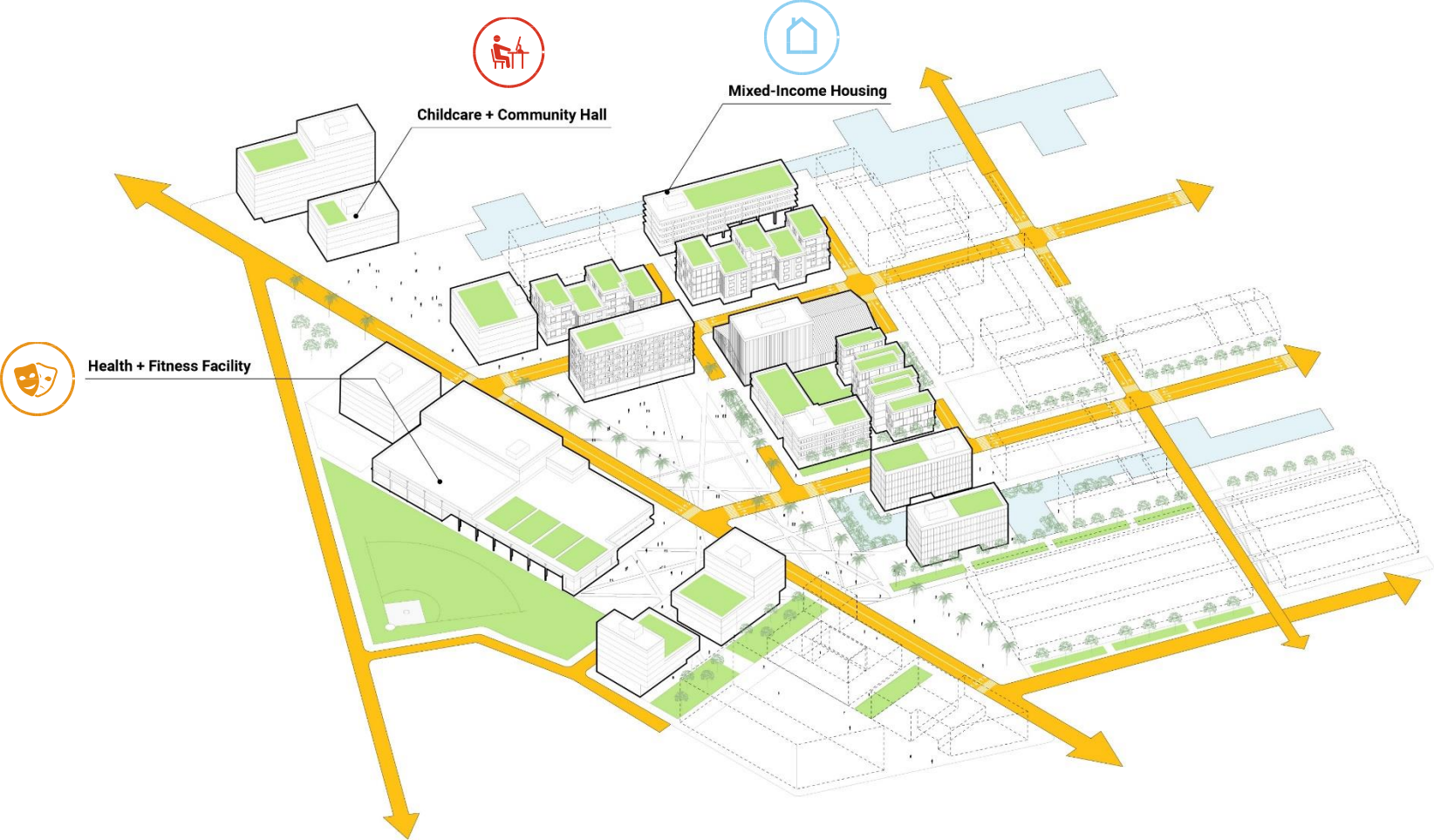
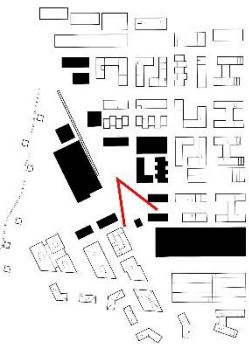
Unity Square

Creekside

Campus Workshop

The Channels

Neighborhood 1: Unity Square



Community Partners

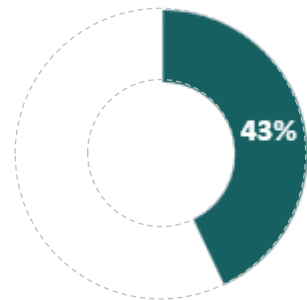
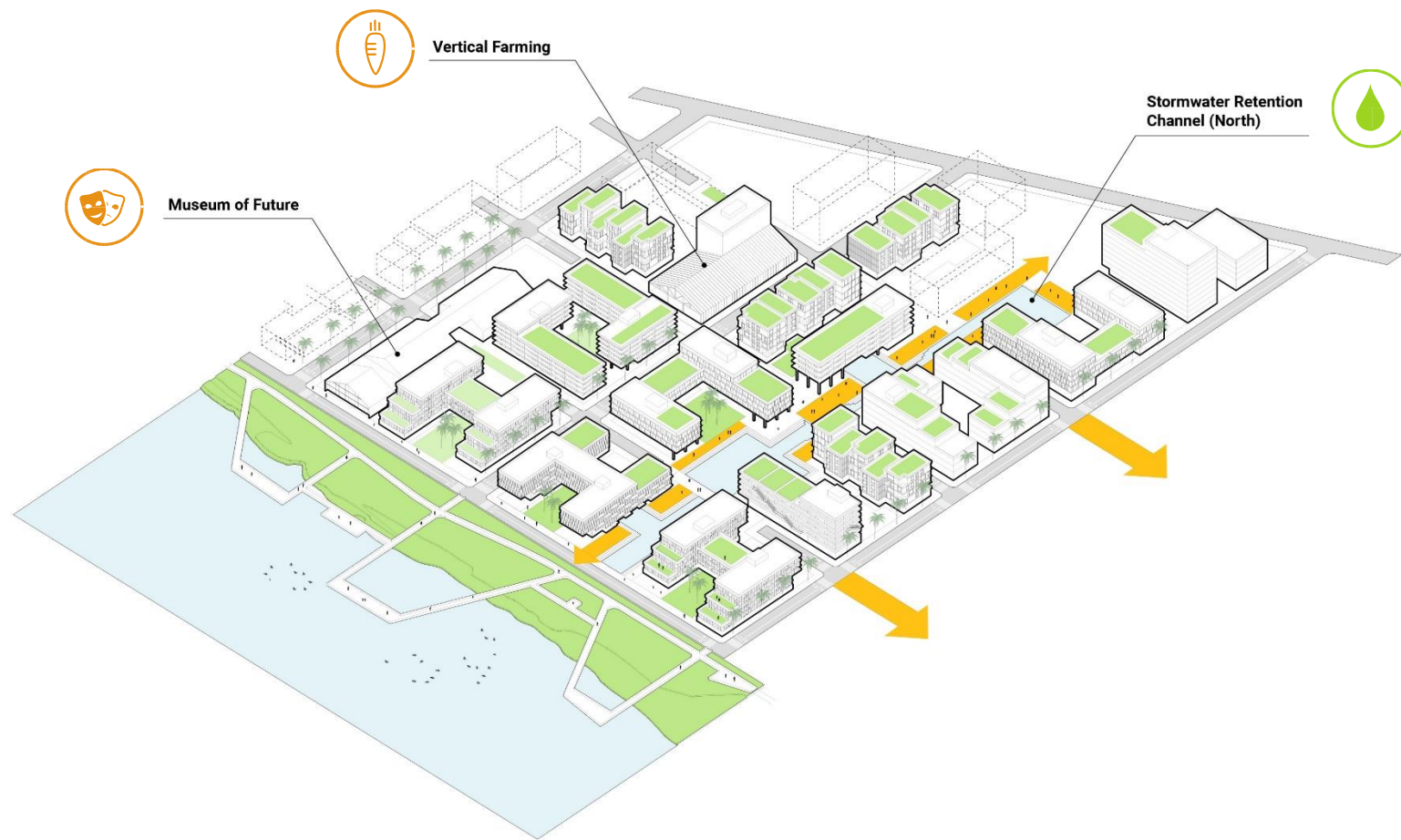
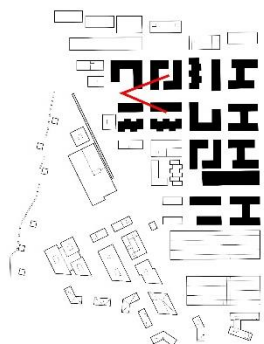




Port Unity Sq



Neighborhood 2: The Channels

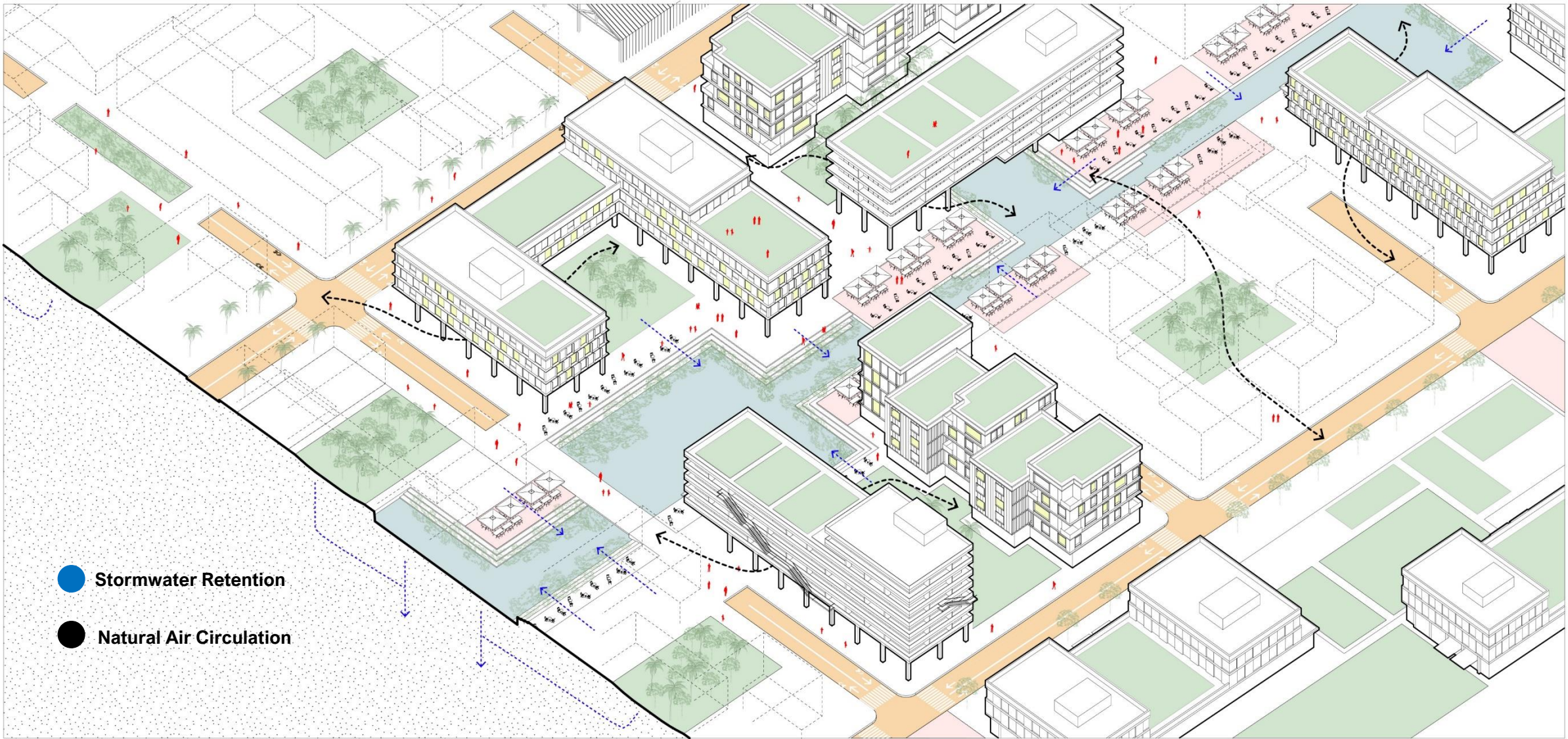


Public Realm Budget
Green resilient infrastructure
\$11,334,499

Community Partners

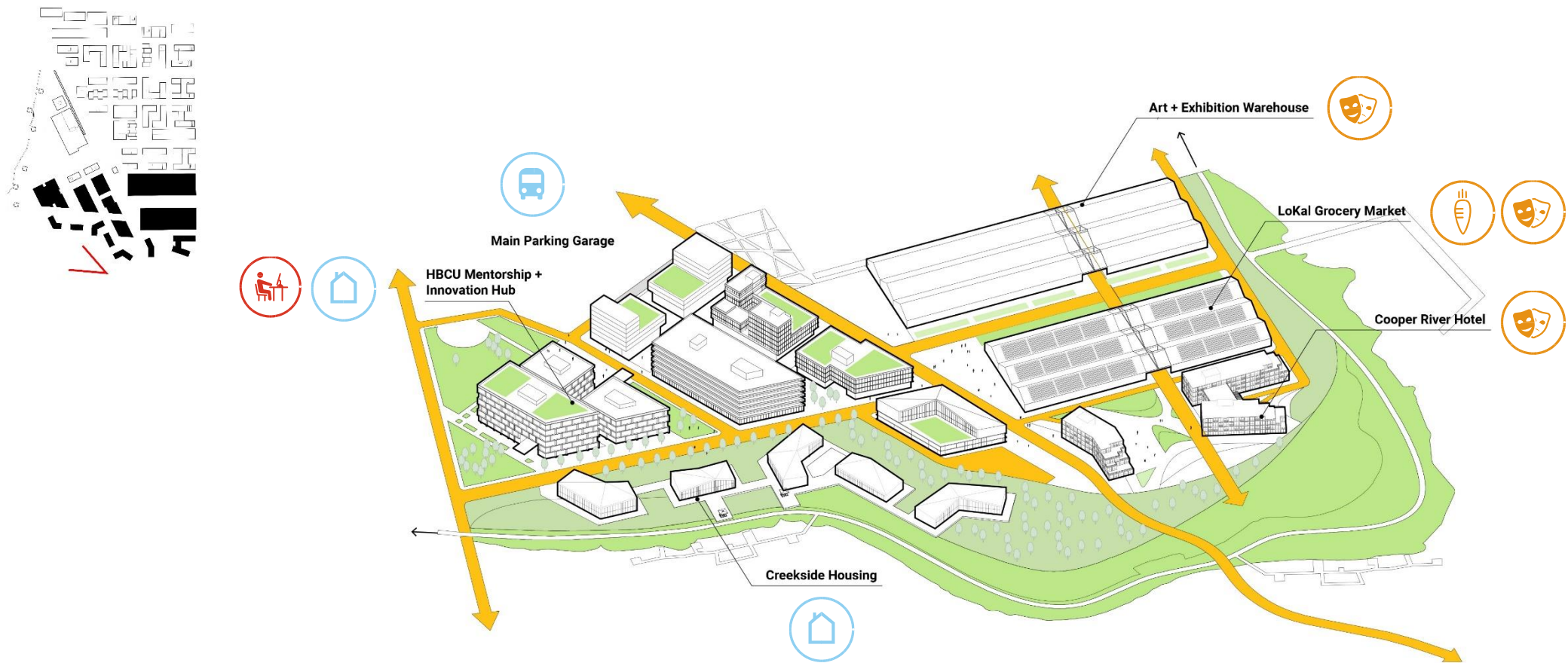


Sustainable Neighborhood





Neighborhood 3: Creekside

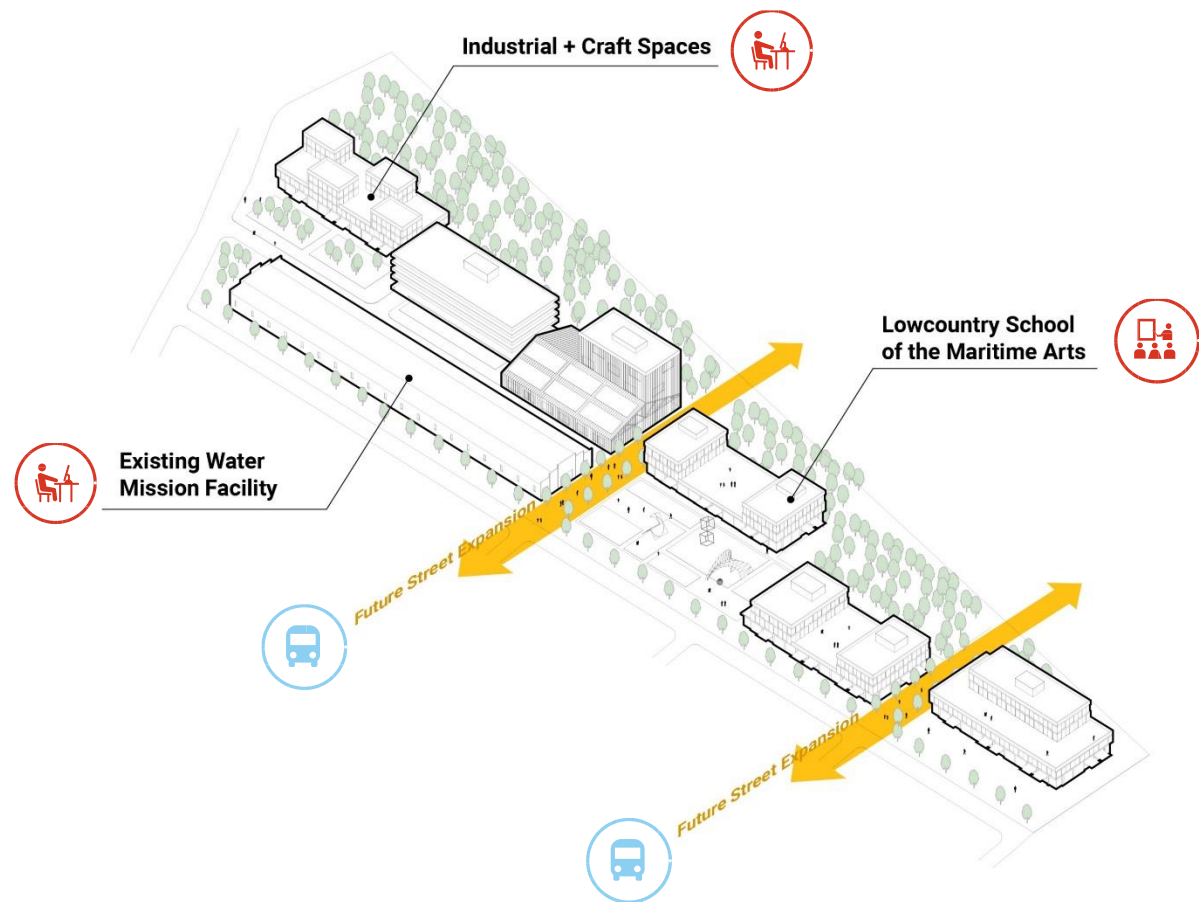
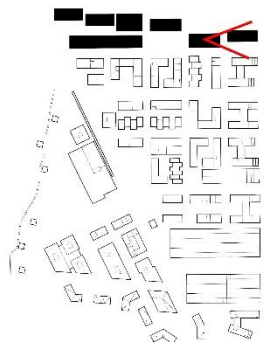


Community Partners



Noisette
Town Hall

Neighborhood 4: Campus Workshop



Community Partners



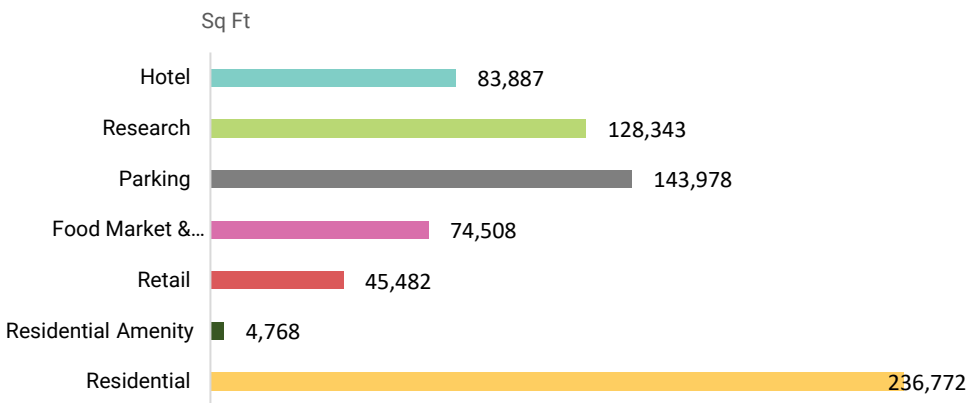
Project Phasing Strategy

2024-2028
Phase I **Catalyzing Livability**

717,739
Gross Square Feet (GSF)

\$ 334,765,205
Development Budget

28%
Affordable



19%
Leveraged IRR

14%
Unleveraged IRR



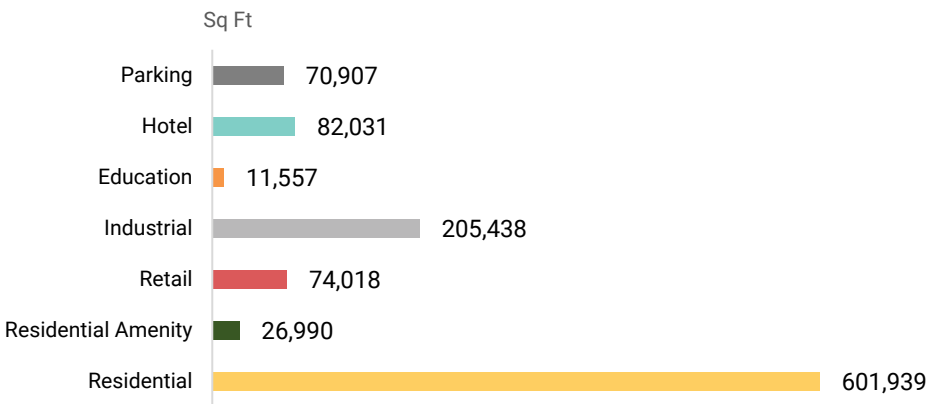
Project Phasing Strategy

2026-2030
Phase II **Connecting Neighborhoods**

1,072,879
Gross Square Feet (GSF)

\$ 378,243,304
Development Budget

40%
Affordable



12%
Leveraged IRR

10%
Unleveraged IRR



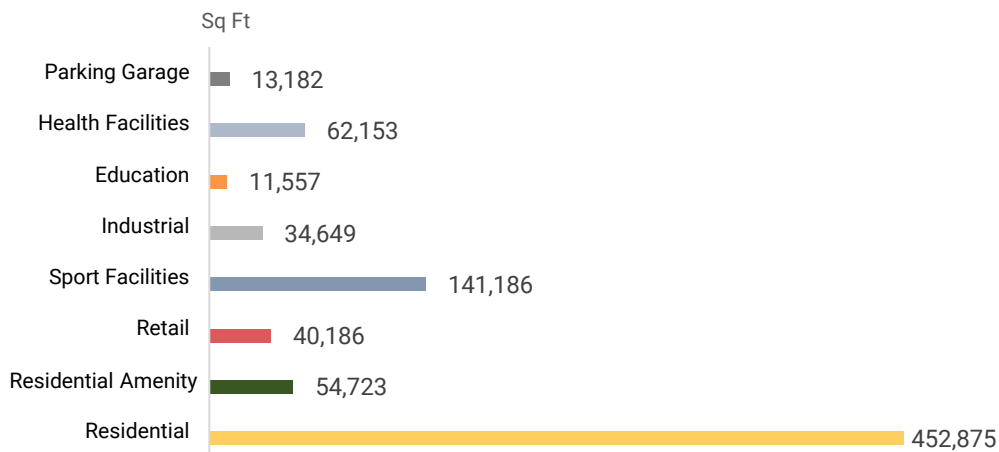
Project Phasing Strategy

2034-2038 (DoD parcels after 10 years)
Phase III **Future Empowerment**

810,511
Gross Square Feet (GSF)

\$ 437,868,914
Development Budget

24%
Affordable



24%
Leveraged IRR

18%
Unleveraged IRR



Financial Summary

Total Development
Excluding DoD Parcels

1,790,618

Gross Square Feet (GSF)

\$ 713,317,509

Development Budget

34%

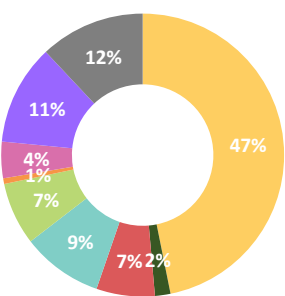
Affordable

23%

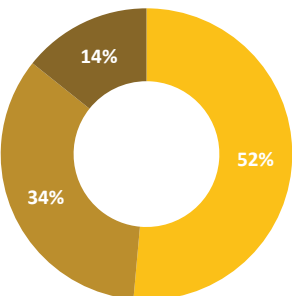
Leveraged IRR

19%

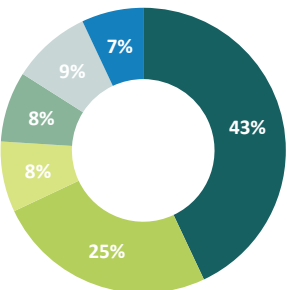
Unleveraged IRR



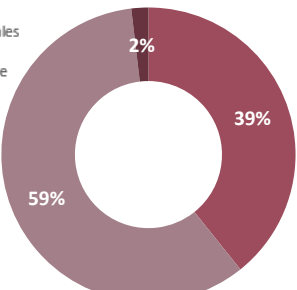
Total Development



Housing



Public Realm



Financing Sources

Market Rate Rental
270 units
Affordable Rental
180 units
Student Housing
75 units

Equity
\$285,327,082
Debt
\$427,990,123
Other Grants and Subsidies
\$13,834,000



