

WASHINGTON, DC  
IVY CITY



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# VISION STATEMENT

Ivy City Renaissance seeks to incorporate equity at every stage in the revival of the Ivy City neighborhood through forward-thinking mobility, community-based renovation, and sustainable development.

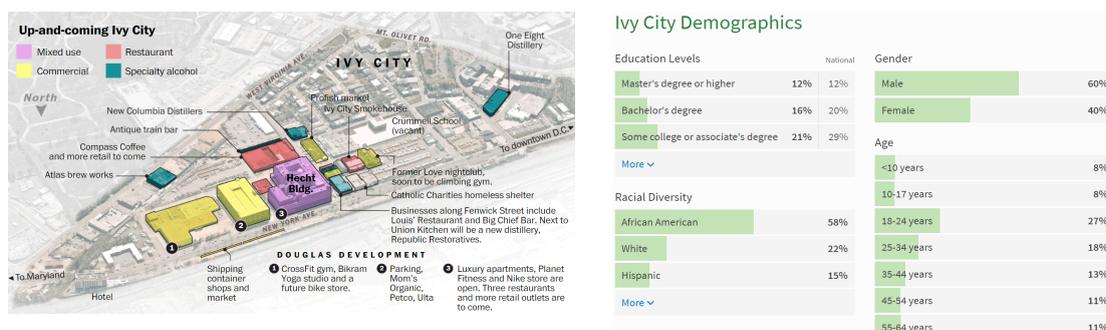
# EXECUTIVE SUMMARY

The goal of *Ivy City Renaissance* is simple yet ambitious: promote an egalitarian, eco-forward renaissance that rejuvenates one of the District’s most renowned neighborhoods. Specifically, our proposal aims to revitalize the Ivy City neighborhood by (1) promoting innovative **mobility** through the creation of both a shuttle & bus rapid transit system, coupled with streets that enhance active transportation options; (2) fostering **community** by repurposing the Crummell School lot into a community center, providing services and shelter for Ivy City’s homeless population, and converting parking lots into affordable housing; and (3) enhancing **sustainability** by revitalizing Lewis Crowe Park, greening parking lots, and transforming shipping containers into LEED-certified structures. Our proposals not only honor the history and integrity of the neighborhood and its residents but also maximize efficiency, affordability, and equity by centering the needs of the Ivy City community as conveyed in interviews with community advocates, sustainability experts, Ivy City residents, and other Ivy City stakeholders; site visits; and the documents and development goals released by the District of Columbia Government and the C40 Cities Leadership Group.

# INTRODUCTION

Ivy City is a triangular neighborhood bounded by New York Avenue NE and the Amtrak Ivy City Yard to the north, West Virginia Avenue NE and Mt. Olivet Cemetery to the east, and Mt. Olivet Road and Gallaudet University to the south. The neighborhood is surrounded by significant landmarks including Gallaudet University, the historic Mount Olivet Cemetery, and the Amtrak rail yard.

Ivy City was established as an African American community in 1873 after the Civil War. It saw significant industrial development beginning with the construction of the rail yard in 1907 and the establishment of numerous factories and warehouses. The Hecht Warehouse, which sits at the center of the community, dates from this era. However, from the 1950s forward, it experienced a significant decline, both as an industrial area and as a residential neighborhood. Many facilities were demolished. The area languished until, in 2002, DC Mayor Anthony Williams announced a revitalization plan for Ivy City. This plan enabled the Douglas Development Corporation to redevelop the Hecht Warehouse in 2014, converting the historic structure into a luxury apartment building with adjacent lots for retail and businesses (**Figure 1**). Despite this development, much of the original residential area remains intact, and fears of gentrification have begun to weigh on the community as property values have risen 22.1% since 2020.



**Figure 1:** Depiction of the Douglas Development Corp’s plans in Ivy City (left; Judkis, n.d.); demographic statistics for the Ivy City neighborhood (right; Ivy City - Washington, D.C., DC - Niche, n.d.).

The neighborhood has 68,000 residents—nearly 60% of them are African American—whose median household income is well below the District’s median income (\$41,000 versus \$126,000) (**Figure 1**). Despite the beginning stages of gentrification radiating out from the Hecht redevelopment, many original residents remain without access to necessities and stable sources of income. The neighborhood is dominated by industrial areas and warehouses. Ivy City’s economy tells a tale of two cities: one representing new developments with upscale restaurants, a distillery, and a yoga studio, and one representing what has been there for generations with three liquor stores, two take-out restaurants, the Love nightclub, and D.C. governmental uses (the group home, school bus and public works vehicle parking lots, halfway house, and Youth Services Center). The neighborhood does not contain a library, community center, or women’s shelter. It lacks green space other than the Lewis Crowe Park located at the intersection of Mt. Olivet Road and West Virginia Avenue NE. According to resident interviews, the park is mostly used by the unhoused and those abusing illegal drugs.

In any development project, the needs and wellbeing of existing residents should be of the utmost importance. Ivy City residents and groups such as Empower DC have voiced concerns regarding the need for new public facilities and affordable housing. In our interviews with multiple stakeholders and community groups, we found that residents are also concerned with the large homeless population and the insecurity of the few existing green spaces in the neighborhood, making recreational use difficult. Residents often describe a feeling of environmental injustice. Residents in partnership with “Ivy City Right to Breathe,” challenged construction project proposals for bus depots or parking lots, which residents thought could potentially increase air pollution problems that result from the heavy road traffic, low tree cover, and concentration of industrial areas. The poor air quality has serious consequences on the health of residents: higher asthma rates, cardiovascular diseases, and premature deaths.

## COMMUNITY ENGAGEMENT

Facilitating an *Ivy City Renaissance* requires considering the needs and views of Ivy City community members in regards to every facet of the proposed transformation of one of the District’s most industrial, emissions-heavy zones into a livable, sustainable area that prioritizes the health and wellness of the generations to come. Accordingly, our team began our process by interviewing a broad group of Ivy City stakeholders and businesses to determine the needs of the neighborhood and to better focus our design. A complete list of interviewed stakeholders is located in **Appendix C**. In this process, we identified the following core concerns:

<b>ENVIRONMENTAL</b>	Proximity to the busy New York Avenue and the abundance of bus parking lots have raised concerns about air pollution and subsequent negative health effects. There is very little green or recreational space aside from Lewis Crowe Park, which currently has safety issues. There has been a great deal of flooding because of sewage overflow from the aging sewer infrastructure and there are inadequate stormwater BMPs to handle this issue.
<b>ECONOMIC</b>	The expensive overhead at the Hecht Warehouse keeps many retail spaces empty, and the few spaces that are occupied, including MOM’s Organic Market, are operating at a loss. There is frequent employee turnover and minimal job creation within the neighborhood. This is partly due to a lack of public transit, aside from D4 and D8 buses and this has led to a deficiency of retail, grocery stores, and small businesses.
<b>SOCIAL/EQUITY</b>	Homelessness is one of the biggest problems within the community. The men’s shelter, run by Catholic Charities, does not allow individuals to remain on the premises during the day which leads to drug use near the park, at the bus stops, and in parking lots. There is no women’s shelter. Existing social services are inadequate to address this issue. Beyond this, efforts to convert the vacant Crummell School lot into a community center have been met with resistance from the current lessees of the property who wish to turn it into housing, which would be beneficial if it were affordable rather than luxury housing. Gentrification and economic displacement are big fears for Ivy City residents.

After this broad engagement with community stakeholders, our team identified three areas in which a renaissance must take place to help Ivy City achieve its potential: **mobility, community, and sustainability**.

# MOBILITY

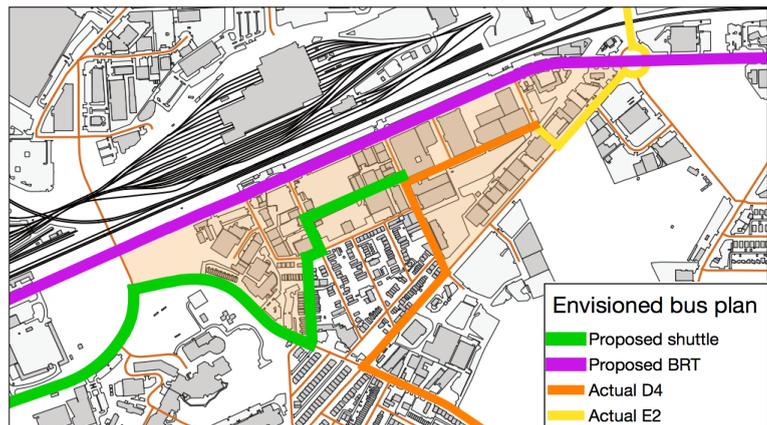
Redesigning Ivy City transportation is an essential first step towards environmental, social, and economic justice. Our proposal includes improving public transit by providing a DC shuttle and bus-rapid transportation, improving active transit with protected bike routes and enlarged sidewalks, and establishing sustainable streets with increased tree planting and stormwater best management practices (BMPs) such as rain gardens. This investment in Ivy City mobility, taking into account strategies from groups such as MoveDC, the District of Columbia Office of Planning (*Public Life Study*), and ResilientDC that prioritize efficient transportation and pedestrian-prioritization, would allow residents and potential patrons of local businesses to safely travel to, within, and from Ivy City, providing secure, affordable access to more services and potential employment opportunities across the city, moving closer to the 15-Minute City ideal, as well as beautifying and revitalizing the area.



## PUBLIC TRANSPORTATION SYSTEM

### DC SHUTTLE & BUS RAPID TRANSPORTATION

As illustrated in **Figure 2**, we propose to improve Ivy City public transportation by establishing a city-run shuttle that would run from the Hecht Warehouse to Gallaudet University and its adjacent stop, along with a bus rapid transportation line along New York Avenue. Unlike the shuttle currently under consideration by the Douglas Development Corporation, this shuttle would be available to the public. While retaining the Ivy City E2 and D4 lines, the implementation of a bus rapid transit (BRT) or dedicated bus line on

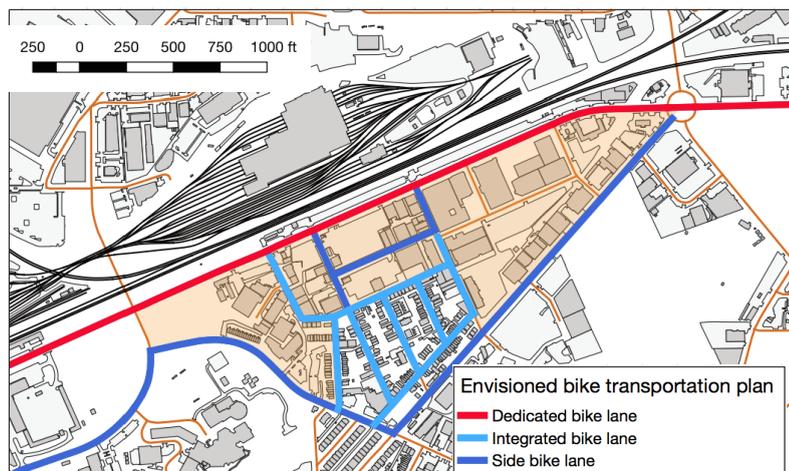


**Figure 2:** Schematic for the proposed changes to the Ivy City public transit system.

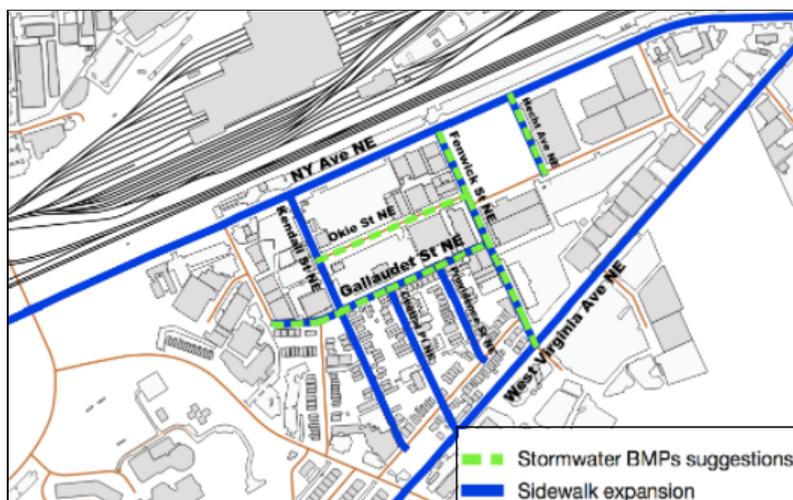
New York Avenue would allow residents to quickly access downtown and the surrounding area (**Figure 2**). Creating the BRT line is already part of the District’s development plan, so it is included as part of Phase III of our implementation plan. It would require removing one of the lanes on New York Avenue on Ivy City’s side for the BRT, but the additional space would be provided by the municipality plan to make the Avenue a managed lane (The Move DC Transportation plan envisions either a High-Occupancy Vehicle Lane or High-Occupancy Toll Lane). This transit would take advantage of the existing D.C. SmarTrip App and metro card to make the implementation as seamless as possible. These new forms of transit would be electric or hybrid to reduce emissions.

These public transit options would provide sustainable, alternative methods of transportation for residents and visitors, reducing the air pollution and greenhouse gas emissions released from vehicular travel. Since lack of transit is one cause of rapid job turnover, implementation of the shuttle and BRT would be beneficial to surrounding businesses that might share in its costs by validating patrons’ tickets so that the costs could be distributed based on usage.

## BIKEABILITY & WALKABILITY



**Figure 3:** Schematic for the proposed changes to the Ivy City bike system.



**Figure 4:** Schematic for the proposed changes to the Ivy City streets in terms of sidewalk expansion (with tree plantings) and stormwater BMP installation.

As shown in **Figure 3** and **Figure 4**, our proposal to improve bikeability and walkability involves the creation of a protected bike route with additional Bikeshare stations along West Virginia Ave and the expansion and beautification of city sidewalks to provide residents with a safe route throughout Ivy City. There are currently DC Bikeshare stops within the Hecht Warehouse but not throughout the rest of the area.

In addition, we propose implementing stormwater BMPs on these streets, as well as planting more trees, installing public furniture such as benches, adding public art displays by local artists, and inserting smart trash cans. A list of trees most suitable to handling air pollution and reducing the heat island effect can be found in **Appendix D**. Use of sustainable lighting features throughout the project, like those shown in **Figure D1**, is encouraged. The compost-powered Gaon Street lights would simultaneously tackle the problem of trash on the sidewalks while providing lighting. The Philips Design City lights mimic the blooming of a flower, opening

during the day to collect solar energy and closing at night, emitting light with its LED light bulbs. They can be set to motion sensors or timers to increase the efficiency of energy usage.

These proposals have the overall effect of reducing vehicle-miles-traveled by encouraging sustainable forms of transportation. They would create a better walking experience for residents with beautiful shrubs and trees that would simultaneously reduce flooding in the area, draw greenhouse gases from the area, and increase shading. Coupled with street art by local artists, these BMPs would help to add more life to Ivy City. Smart trash cans would have sensors to alert waste pick up when the cans are full to prevent overflowing and to promote a more efficient pick-up route.

# COMMUNITY

Enhancing community livability is critical to the sustainable and equitable development of Ivy City. As illustrated in **Figure 5**, our proposal includes repurposing the Crummell School as a community center and retail space, as well as creating a women’s shelter, expanding Ivy City services for people experiencing homelessness, and constructing additional housing units. Per Mayor Bowser’s *Housing Equity Report, Ivy City Renaissance* is committed to ensuring dedicated affordable housing and naturally-occurring affordable housing that maximize supply and resource use efficiency. Supplying essential amenities such as green recreational facilities, affordable food options, educational centers, healthcare, environmentally-friendly housing, and more would ensure the needs of every resident are met within the boundaries of Ivy City, no matter their income, their physical ability, or their current housing.

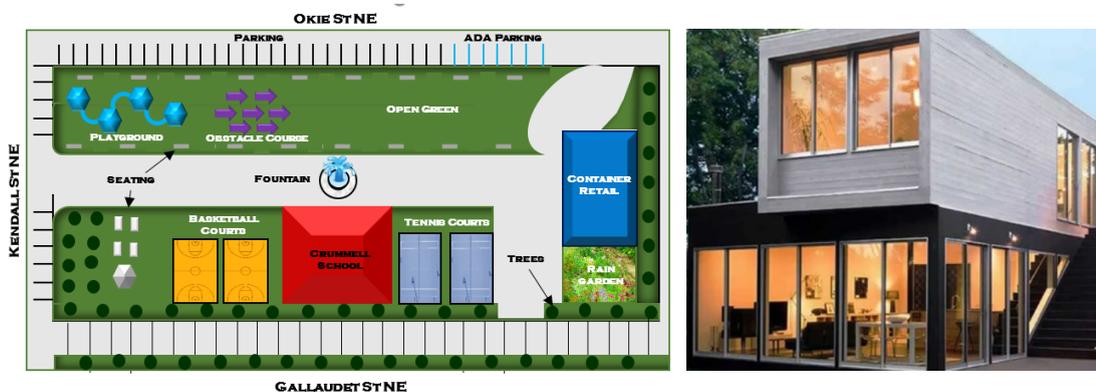


**Figure 5:** Recommended land use changes for the Ivy City area.



## CRUMMELL SCHOOL RENOVATIONS

The plans for the Crummell School lot can be found in **Figure 6**.



**Figure 6:** Schematic for the proposed changes to the Crummell School lot (left); example of container construction which will be used to create the retail center in the lot as well as housing throughout the remainder of the plan (right).

## COMMUNITY CENTER

Alexander Crummell was an African American Episcopal priest known for his work on Pan-Africanism, the belief that “African people, both on the continent and in the diaspora, share not merely a common history, but a common destiny.” To honor his work, the theme of Pan-Africanism would be incorporated into the proposed community center. Different rooms would portray the history of various African/African-American heroes and mythological figures connected to the room’s function. Additionally, on the ground floor, there would be a wall where residents can petition to depict prominent members of the Ivy City community.

The proposed community center would be centered around an atrium containing a metal statue of a tree covered in ivy. One side of the building would be devoted to a gym while the other side would have services for various ages: a daycare, an indoor playground, a homework center, a job training area, a health department clinic, rentable event rooms, a soundproof music room, among other amenities. The attic space would be converted into an indoor community garden, the roof being replaced with glass to allow for maximum sunlight to infiltrate at all times. The plants in the garden would be divided into different sectors based on the 5 senses to create an enjoyable experience for all visitors, no matter their abilities. This garden would be supported by a youth works program, along with a recycling and composting program. The floor plan schematics can be found in **Figure 7**.

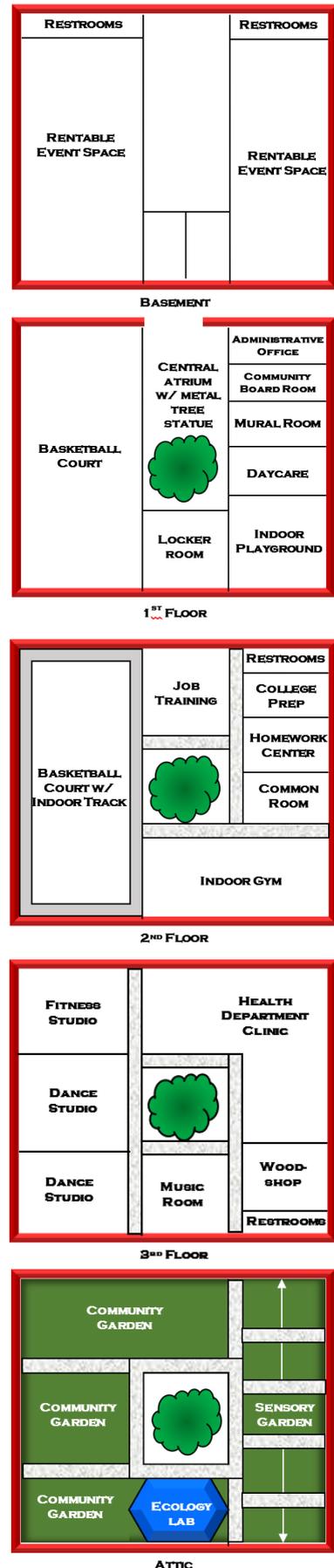
Due to the distinct lack of amenities in Ivy City, other than those provided by the Hecht Warehouse Development and a few small businesses, the Crummell School Community Center needed to fill in this gap. Having both indoor and outdoor playgrounds ensures year-round access to recreation. Educational spaces like the homework center help improve the mental fortitude of the community. The basement event space provides programming flexibility and additional income to the center. The health department clinic ensures access to health care without a 45 min trip on public transit to the nearest hospital. This center brings Ivy City closer to becoming a 15-min city. In terms of the physical structure of the center, due to being a historic landmark, significant changes cannot be made to the facade, and internal changes require approval by the DC Historic Preservation Review Board.

### RETAIL SPACE

There is currently retail space available at the Hecht Warehouse, but expensive overhead keeps all but brand name chain stores out of the area. Additionally, there is no grocery store in the area besides MOM's Organic Market, which is comparatively expensive. To fill this need, an addition would be built onto the Crummell School which would include a grocery store on the first floor and office and retail space on the remaining levels. These shops would be built out of shipping containers to encourage the recycling of building materials, to limit rents, and to leave the possibility of later modifying the layout of the building (**Figure 6**).

### GREEN SPACE

Community stakeholders have highlighted the importance of creating more green spaces in the neighborhood. To fill this need, a public green space including basketball courts, a 4-season themed playground, an all-ages obstacle course, and a hopscotch area would be built on the Crummell School lot surrounding the community center. The fence line would be moved inward on Gallaudet Street to allow for a larger, safer sidewalk.



**Figure 7:** Floor plan schematics for the Crummell School, from basement to the attic.

## **KENDALL LOT**

An empty LEED-certified building with attached parking and stormwater landscaping at the corner of Gallaudet St NE and Kendall St NE—the Kendall lot—would be repurposed to become the Ivy City Library and Computer Lab. This location provides easy access for those using the community center, with additional parking, while providing the tranquility that is characteristic of a library. The National Library Service for the Blind and Physically Handicapped can provide reading material so that Gallaudet students and more Ivy City residents can use the space.

## **HOMELESSNESS**

Homelessness is pervasive throughout the Ivy City neighborhood, an issue that the global pandemic has greatly exacerbated. Currently, the only on-site local non-profit is the New York Avenue Men's Emergency Shelter operated by Catholic Charities. As indicated in its name, this shelter only houses men, leaving women experiencing homelessness with no options. Further, representatives of the community have cited that since the existing New York Avenue Men's Emergency Shelter only operates at night, many individuals experiencing homelessness are forced outside during the daytime, which has led to needles throughout Lewis Crowe Park, overdoses in alleyways and abandoned cars, and an overall community environment at odds with economic revitalization. We believe providing better options on a daily basis to individuals experiencing homelessness, while simultaneously attacking the root causes of homelessness, is the only ethical path towards promoting better outcomes for Ivy City residents, revitalizing Lewis Crowe Park, and alleviating the burden homelessness places on Ivy City.

Our proposal would build on existing infrastructure by adding a women's shelter, expanding social services and add emergency housing pods, and making the area surrounding both shelters and these concentrated services more desirable as a refuge for individuals experiencing homelessness. The shelter would provide women experiencing homelessness with a daily safe haven, including sleep quarters and meals. It would be located near the existing Men's Emergency Shelter to increase the efficiency of services provided to the homeless population by reducing vehicle miles traveled. This includes on-site social workers providing personalized services to individuals such as directing patrons to existing job training programs, addiction rehabilitation services, self-defense courses, and mental health experts at the Community Center in the Crummell School.

The surrounding grounds would be transformed into a miniature park with outdoor recreational facilities, a zen garden for meditation, and interactive fountains. Additionally, by repurposing retired Metro Cars into weather-proof homeless pods, the pods would serve as additional emergency havens and enable people experiencing homelessness to have privacy and a place to stay during the hours the shelters do not operate. Property security would be provided for the safety of all involved.

## **RESIDENTIAL HOUSING: 5-FLOOR APARTMENT BUILDINGS**

In order to create more affordable housing options, *Ivy City Renaissance* would relocate the DC Solid Waste Division parking and storage area between Fenwick St. and West Virginia Avenue NE, to create the space for affordable housing units that could be built using either traditional methods or shipping containers in order to achieve the benefits listed in the next section under *LEED Construction & Container Housing*. The Solid Waste lot is an optimal location because it is in close proximity to the existing residential area as well as the Central Businesses District.

In addition, the spaces in the nearby DC Fleet Maintenance Center parking lot could be condensed and the resulting space converted into housing to get closer to the goal of 10,000 housing units. The remaining vehicles would be converted to electric and hybrid models, as planned under Biden's administration.

# SUSTAINABILITY

Sustainability is vital for a community that has been treated as a dumping ground for parking lots, as well as industrial uses that have had a negative impact on the area. **Appendix B** shows the results of an environmental justice report, indicating that Ivy City has higher readings for particulate matter, ozone, National Air Toxic Assessment for Air Toxics Cancer Risk and Respiratory Hazard Index, and lead paint in households than Washington, D.C., the EPA region, and the country overall. For an area in which more than 75% of its population are ethnic minorities, more than 60% belong to a lower socioeconomic group, and nearly 10% are linguistic minorities, this poses a huge environmental justice issue. These readings are corroborated by the testimonies of Ivy City residents who consistently worry about the respiratory health of their community.

To combat environmental injustice and promote livability, *Ivy City Renaissance* would revitalize Lewis Crowe Park, install stormwater BMPs, retrofit the parking lots to make them more environmentally friendly, and encourage the use of container construction designed according to LEED guidelines. In accordance with the Sustainable DC 2.0 Plan and the Mayor’s *Climate Ready DC* action plan, all propositions target restoring and expanding residents’ access to nature, reducing greenhouse gas emissions, and promoting efficiency for entities and individuals across the board. These changes would help alleviate the negative effects of climate change, reduce the urban heat island effect, diminish the effects of air pollution, handle the effects of stormwater runoff, and create an environment that is more enjoyable for all.



## LEWIS CROWE PARK

Ivy City currently has one source of open space: Lewis Crowe Park. However, residents have concerns regarding the presence of the homeless population and drug users and the outdated and unappealing facilities. As discussed above under *Community*, expanded shelters, housing, services, and dedicated outdoor spaces would alleviate the former problem by providing better options for individuals experiencing homelessness and drug addiction. In addition, we propose “sharps containers,” inaccessible to children, be placed at various intervals throughout the park to reduce the hazard posed by needle usage.

To tie into the industrial history of the neighborhood and beautify the park, a railcar-themed playground, similar to the one at Pan Pacific Park in Los Angeles, would replace the existing one along Capitol Ave NE (**Figure 8**). The inclusion of ramps, sensory-stimulating manipulators, and transfer-and-play features would ensure the park’s ADA accessibility. The central lawn would remain open for recreation and sport and an interconnected series of gazebos, perfect for lunch or outdoor learning, would be placed on the side next to the parking lot. There would be an increased amount of benching and LED lighting along the curvilinear path. In terms of the parking lot, the surface would be repaved for safety reasons and the neighboring green space converted into a rain garden to handle the runoff from the lot. Additional parking spaces can be provided by the nearby Bethesda Baptist Church.



**Figure 8:** Railcar themed playground found in Pan Pacific Park in Los Angeles, CA (left); schematic for the proposed changes to Lewis Crowe Park (right).

## STORMWATER BMPs

The *Ivy City Renaissance* plan includes the construction of rain gardens in the Crummell School and Lewis Crowe Park. Along the streets, the plan is to include bioretentions and bioswales to handle the capture and transport of stormwater. The implementation of the stormwater BMPs would be found on the streets outlined in **Figure 4**.

Stormwater BMPs handle the negative effects that result from heavy stormwater runoff of grey infrastructure. Due to D.C.'s participation in the *Chesapeake Bay Agreement*, reducing stormwater runoff is a top priority. Additionally, Ivy City has been enduring heavy floods due to the overflow of sewage water, so the implementation of stormwater BMPs throughout the area, along with a simultaneous update to the sewage infrastructure, would be beneficial. Increased tree planting—particularly of those included in **Appendix D**—supported by planter boxes that provide adequate routing and prevent soil compaction would allow for the trees' lifespan to be improved.

## PARKING LOT IMPROVEMENTS

Although our proposal includes repurposing parking lots throughout Ivy City, it may not be possible to repurpose or move every lot. Given the detrimental health and environmental effects of these parking lots, we propose breaking up any remaining lots with swaths of green space, incorporating trees and various stormwater BMPs, replacing the concrete with pervious pavement, and adding sustainable lighting features such as the compost powered Gaon Street Light (**Appendix D; Figure D1**). A miniature solar farm by constructing elevated solar panels around parking spaces. The benefits of these retrofits include: (1) reduced heat island effect, (2) reduced flooding and improved water quality, (3) lowered energy usage, and (4) improved aesthetics.

## LEED CONSTRUCTION & CONTAINER CONSTRUCTION

Promoting a sustainable Ivy City requires ensuring sustainable building practices throughout the area. First, Leadership in Energy and Environmental Design (LEED) construction should be encouraged and incentivized for multi-family and commercial construction, with the aim of achieving *LEED Gold* or *Platinum*.

Second, *Ivy City Renaissance* proposes the use of container construction for both the retail and additional housing units. Container construction is a powerful method of adaptive reuse. Though there is a trade-off in shipping them to the appropriate location unless sourced locally, converting empty shipping containers into useful structures reduces cost and emissions generated from new construction. Container housing allows for quick construction times (less than 6 months), thus responding effectively to the urgent demand for housing and retail. Containers are built to withstand strong weather events, which is extremely important in the advent of climate change. This durability makes them more affordable because they can be used on land unsuitable for traditional construction and require less external retrofitting to create a solid, resilient foundation. It is possible to place several containers in different layouts to increase the available square footage. Therefore, containers offer standardized, modular, flexible, and inexpensive buildings. Additionally, container structures possess an industrial, rugged aesthetic that meshes well with the industrial history of the neighborhood.

Finally, we recommend that the construction of container buildings double as a job training program, teaching unemployed Ivy City residents green-building job skills. Residents could also be responsible for other sustainable retrofits such as the installation of solar panels or stormwater BMPs. This would empower and prepare Ivy City residents to support further Ivy City renovations and seek gainful employment in the expanding green economy.

# ENVIRONMENTAL IMPACT ASSESSMENT

A primary objective of *Ivy City Renaissance* is reducing greenhouse gas emissions in Ivy City. These emissions include *operational*, emissions from daily processes; *embodied*, those generated during construction; and *consumption-based*, emissions from the use of goods and services. We have organized our proposed emission reductions into a hierarchy that emphasizes the avoidance of generating emissions, followed by the reduction of emissions, conversions to renewable technologies, and compensation for the unavoidable emissions to create a carbon-neutral city. Increased investment in transit, conversion of grey infrastructure into green space with ample tree cover, and use of shipping containers and Metro Cars to create the facilities for community growth are the primary initiatives used to provide the most environmentally responsible project.

EFFECT OF PLAN INITIATIVES ON GHG EMISSIONS AND THE ENVIRONMENT	
<b>AVOID</b>	<ul style="list-style-type: none"> <li>Investing in public transit, bicycle lanes, and safe streets would reduce vehicle miles traveled resulting in better air quality and less heat island effect.</li> <li>Electric/hybrid public transit would avoid the creation of greenhouse gases during travel.</li> <li>Investing in job training for the Ivy City labor force, including the homeless population, would avoid emissions generated by outside employees traveling to Ivy City for work.</li> <li>Retrofitting the Crummell School and the Kendall lot would avoid embodied emissions generated with new construction and emissions generated by residents travelling outside of Ivy City to have access to similar amenities.</li> </ul>
<b>REDUCE</b>	<ul style="list-style-type: none"> <li>Increased green space along the streets, within the Crummell School, and the homeless shelter would reduce the urban heat island effect and absorb some of the air pollution.</li> <li>Using local companies such as JCM and Kamco Building Supply would reduce embodied emissions generated by the travel of construction vehicles.</li> <li>Smart trash cans and compost powered lights would reduce the GHG emissions released from garbage trucks picking up refuse while simultaneously cleaning the neighborhood.</li> <li>Conversion of parking lots into residential housing with green space would improve air quality.</li> <li>Creation of elevated solar panels within parking lots will simultaneously generate renewable energy to be used throughout Ivy City and reduce the urban heat island effect.</li> </ul>
<b>CONVERT</b>	<ul style="list-style-type: none"> <li>Existing street lights would be replaced with sustainable LED or compost-powered lights.</li> <li>Partnering with Solar Works DC to convert businesses and residences to solar would reduce residential operational emissions.</li> <li>Container housing and creating homeless pods from retired Metro cars, as long as it is sourced locally, is a great example of adaptive reuse.</li> <li>Using LEED Silver and Platinum guidelines to inform decisions regarding construction would ensure the usage of sustainable/low-carbon designs and technologies.</li> </ul>
<b>COMPENSATE</b>	<ul style="list-style-type: none"> <li>The remaining parking lots would be retrofitted with stormwater BMPs and trees best able to filter air pollution in order to improve the air and water quality of the site.</li> </ul>

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# PHASES

Our development plan is split into phases based on overall cost, implementation rapidity, and net contributions to the community. Phase 0 refers to necessary preliminary assessments of the community which would reveal problems and concerns that were not detected during our research for this plan. Phase I deals with programs that can be implemented at a low cost with minimal disturbance to the area while still greatly improving the quality of life. Phase II includes more expensive and lengthy ventures which are necessary for a true transformation of Ivy City into a more equitable and livable community, such as the Crummell School renovation. Phase III contains long-term goals or ones that can only occur after the completion of Phase II such as the programs listed under *Community* on the next page.

Although our budget was not capped, cost-effectiveness and reasonability are essential to the political and economic feasibility of any plan. *Ivy City Renaissance* used RSMMeans Software to find cost estimates for larger projects. The numbers were adjusted for inflation using April 2021 data, and renovations to the Crummell School were multiplied by a factor of 1.2 to reflect the cost of historic restoration; similarly, 1/3 of the RSMMeans cost estimate for the homeless shelter was subtracted to reflect that the building's structure would be constructed out of repurposed shipping containers. All other cost estimates came from per-foot cost data for DC and/or national average construction costs. Sources of funding for these projects are in **Appendix C** under **Funding**. Overall, the estimated cost of this project is \$18-\$20 million over a period of 9 years.

PHASE	STEP	COST	TIMELINE	TOTAL
0	Perform an environmental survey of the area: air pollution & soil	\$6,000	2 months	\$15,000 3-4 months
	Perform an assessment of the sewer system to deal with flooding	\$8,000	2 months	
	Engage the community in the planning process	\$1,000	3 months	
I	D.C. Shuttle route to and from metro stop to Ivy City	\$10,000	2 months	\$2 million 1- 1.5 years
	Install bike lanes throughout the neighborhood	\$123,000	4 months	
	Widen the sidewalks, install benches/art/trash cans	\$916,000	8 months	
	Transform the Kendall lot building into a library/computer lab	\$451,000	12 months	
	Create weather-proof homeless pods for use during the day	\$380,000	4 months	
	Implementation of the programs listed under <i>Digital Infrastructure</i>	\$93,000	11 months	
II	Perform the Crummell School renovations	\$3,384,000	26 months	\$7.9 million 2.5 years
	Installation of stormwater BMPs	\$21,000	5 months	
	Create a women's homeless shelter	\$4,140,000	13 months	
	Renovations to Lewis Crowe Park	\$148,000	4 months	
	Retrofit existing parking lots to be more sustainable	\$200,000	2 months	
III	Implementation of the <i>Community/Sustainability</i> programs	\$900,000	13 months	\$8-\$10 million 4.5 years
	Bus Rapid Transportation stop along New York Avenue	\$17,000,000	4 months	
	Three LEED -engineered residential 5-floor apartment buildings	\$8 - \$10 mil	36 months	

# PROGRAMMING

## DIGITAL INFRASTRUCTURE

**Support for Internet Infrastructure:** Though the DC Internet for All initiative provides assistance and service to families of students and low-income families, implementing more options for accessibility would be essential to not only promoting smart approaches but also promoting more equitable opportunities and services. Supporting long-term projects such as fiber lines that provide quick and affordable internet access would be a long-term goal.

**Digital Ambassadors:** Appointing community members from local churches, nearby residences, and businesses as Digital Ambassadors would enable peer-to-peer advocacy for tech adoption. Digital Ambassadors would also share tech skills with community members and lead workshops in the Community Center to promote apps such as Libby that digitize utilities and services.

**Digital Literacy Program:** Establishing monthly digital literacy programs for children and the elderly would allow individuals to promote tech adoption and use in households.

**DC-Dedicated Application:** Creating an app that includes online digital IDs, a digital wallet for credentials such as library cards, and transportation information may improve connectivity within the district. This app would bring services and information directly to users and incentivize the use of low-carbon multimodal routes by offering an estimated carbon footprint for different transportation options and points at businesses for using the Ivy City shuttle. In line with promoting inclusivity, it would utilize features such as the soon-to-be-launched Apple Maps partnership with Gallaudet University that allows users to identify deaf-owned businesses.

## COMMUNITY

**Buddy Program:** The Buddy Program would pair mentors with young mentees, galvanizing community members and stakeholders to collaborate and learn through monthly activities such as outdoor sports and community garden volunteer work at the Community Center.

**Personal Care Events:** These workshops for the homeless community would include free visits from surrounding barbers and beauticians, wardrobe consultations for interviews, interior design assistance to prepare them for life outside the shelter.

**Quarterly Job Fair:** Residents, including those experiencing homelessness, would have the opportunity to meet with local employers, many of whom are in the sustainability field, to meet potential employers and attend job application and interview workshops.

**Classes in ASL and Braille:** In partnership with Gallaudet University, these classes would improve the ASL/Braille skills of the community to improve overall communication.

**Art Therapy & Mural Projects:** Uniting stakeholders with diverse backgrounds, art therapy programs in the homeless shelters and the Community Center would encourage creative expression. Community members would also be invited to participate in mural projects around Ivy City that would enrich the area and serve as photo destinations to attract visitors.

**Woodshop Classes:** These classes would impart carpentry skills on the Ivy City residents which can be used to aid redevelopment efforts.

## SUSTAINABILITY

**Farmer's Market:** Operated in the Crummell School lot on a weekly basis (outside for the warmer months and in the basement event space during the colder months), community members would have the opportunity to buy local produce.

**After School Ecology Program:** Individuals from all age groups would have the opportunity to tend to the community and sensory garden while learning about the science behind it.

**Waste Reclamation:** Following the footsteps of DC Central Kitchen, restaurants can donate meals to low-income families and the shelters rather than letting the excess product go to waste.

**Solar Works Ivy City:** Solar United Neighbors, Solar Solution, and Solar Works DC are all programs that can help residents and local businesses convert over to solar. DC Sustainable Energy Utility Workforce Development would instruct residents on the installation of these solar panels and other sustainable initiatives to create a green economy.

# COMMUNITY ENGAGEMENT

*Ivy City Renaissance* prioritizes the meaningful participation of community members throughout the planning and implementation process. It would be important to host an open house at the Crummell School for residents to provide feedback and their own ideas for how the space should be used. Additionally, we propose the creation of a Community Center Board, an advisory board of community members that handles programming at the community center, community meetings, and decisions regarding the center. At least five community meetings should be hosted before plans for the community center are finalized. Meetings should be made accessible to all, hosted in English and American Sign Language, and hosted before or after typical work hours. At least 2 meetings should be held at Lewis Crowe Park to gain insight into the homeless population's priorities in the development project. Additionally, at least 2 meetings should be with Gallaudet University in order to gain insight into this community's priorities. After the development plans are implemented, a community meeting space should be built that is used for community organizing, assembling for meetings, and other events. Throughout the programming implementation in the community center, we hope that members of the community would receive proper training and mentorship to be able to lead these programs.

## LOOKING TO THE FUTURE

In our preparation of this proposal, diverse groups and stakeholders were contacted for input to ensure an equitable and inclusive sustainable development plan. Even so, inherent challenges still exist; most notably, this development would be a multi-million dollar project spread over many years, with each phase posing a unique set of obstacles. For instance, adding structures such as basketball courts, playgrounds, green space would require areas to be temporarily closed off, and projects such as the renovation of the Crummell School may cause air and noise pollution during construction. Additionally, ensuring affordable housing in light of renovation costs may pose a challenge for developers. Even the conversion of retired shipping containers into container homes, though generally more cost-effective, can pose challenges with regards to the installation of utilities and insulation. Beyond general infrastructure concerns, any community programming would not only require buy-in from stakeholders and Ivy City residents but also necessitate long-term funding to keep programs alive.

While obstacles exist, *Ivy City Renaissance* has collaborated with topic experts and direct stakeholders to minimize each potential challenge. The proposed programs would benefit the Ivy City community by creating equity, access to green space, and economic growth. Transforming the Alexander Crummell School into a community center would enable equal access to resources such as an urgent care center, recreational facilities, and SAT/ACT preparation. The community center would not only provide vital programs to help community members flourish, but would also create a space for the community to feel united. Additionally, these proposals would create greater opportunities for green space access. By installing a playground and basketball courts at the community center and revitalizing Lewis Crowe Park, physical and mental health would be promoted by creating access to physical opportunities for recreation and community building. By creating a retail space for local businesses and providing green job opportunities during project construction, there would be a boost to the economy as well as to the everyday needs of community members. Using shipping containers and LEED guidelines to do so creates an adaptive reuse project that would enhance the character of the area. Lastly, the construction of the homeless center would create a safe and constructive space for a population that has been left to fend for themselves rather than allowed to contribute positively to Ivy City. *Ivy City Renaissance* would help empower an Ivy City where constituents not only survive but thrive in a changing world.

# APPENDIX

## A. PRINCIPLES LEGEND



**1: CLOSE TO HOME**



**6: GREEN ENERGY AND BUILDINGS**



**2: PEOPLE-CENTERED MOBILITY AND THRIVING STREETS**



**7: CIRCULAR RESOURCES**



**3: CONNECTED PLACE**



**8: GREEN SPACES, CLIMATE RESILIENT, AND NATURE-BASED SOLUTIONS**



**4: A PLACE FOR EVERYONE**



**9: SUSTAINABLE LIFESTYLES**



**5: CLEAN CONSTRUCTION**



**10: GREEN ECONOMY**

## B. ENVIRONMENTAL JUSTICE ASSESSMENT FOR IVY CITY

In several of the environmental indicators including particulate matter, RMP and Superfund proximity, and NATA Air Toxics Cancer Risk, Ivy City has higher values than the averages for the state, EPA region, and USA. Ivy City's high concentrations of minorities, low-income populations, and linguistically isolated populations make this an environmental justice issue.

Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
<b>Environmental Indicators</b>							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$ )	9.11	9.01	89	8.63	71	8.55	68
Ozone (ppb)	43.7	43.8	30	43.2	51	42.9	57
NATA* Diesel PM ( $\mu\text{g}/\text{m}^3$ )	1.19	1.1	75	0.477	95-100th	0.478	95-100th
NATA* Air Toxics Cancer Risk (risk per MM)	41	40	75	31	95-100th	32	80-90th
NATA* Respiratory Hazard Index	0.6	0.58	72	0.4	95-100th	0.44	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	2700	3600	54	650	95	750	93
Lead Paint Indicator (% pre-1960s housing)	0.56	0.59	37	0.36	74	0.28	80
Superfund Proximity (site count/km distance)	0.25	0.24	72	0.15	87	0.13	89
RMP Proximity (facility count/km distance)	1.6	0.65	94	0.62	89	0.74	87
Hazardous Waste Proximity (facility count/km distance)	15	16	53	2	98	5	95
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00064	0.0022	71	34	59	9.4	63
<b>Demographic Indicators</b>							
Demographic Index	69%	46%	77	30%	93	36%	89
People of Color Population	77%	64%	57	33%	87	39%	82
Low Income Population	61%	29%	91	27%	93	33%	89
Linguistically Isolated Population	9%	4%	89	3%	91	4%	82
Population with Less Than High School Education	16%	9%	77	10%	79	13%	71
Population under Age 5	5%	7%	46	6%	48	6%	44
Population over Age 64	3%	12%	6	16%	3	15%	3

\*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

## **C. COMMUNITY PARTNERSHIPS & FUNDING**

### **COMMUNITY STAKEHOLDERS CONTACTED**

- Bethesda Baptist Church
- Board of Education Zachary Parker
- Empower DC
- Friends of the Crummell School
- Gallaudet University
- MOM's Organic Market
- OSSE Division of Student Transportation New York Avenue Terminal
- Republic Restorative Distillery and Craft Cocktail Bar
- Trinity Baptist Church
- Bicycle Space
- Humane Rescue Alliance

### **COMMUNITY PARTNERS/NGOS**

#### **SMALL BUSINESS SUPPORT**

- The US Small Business Administration offers last resort loans and includes a Lender Match to match business owners with potential lenders within 2 days.
  - Economic Injury Disaster Loan program for businesses impacted by COVID-19
- District of Columbia Business Capital Program (DC BizCAP)
  - Funded by the U.S. Treasury State Small Business Credit Initiative (Initiative)
  - DC BizCAP - Collateral Support Program
  - DC BizCAP - Loan Participation Program
  - DC BizCAP - Innovation Finance Program
  - Equity Crowdfunding: District of Columbia-Only Securities Offerings Exemption
- The DC Small Business Resource Center “provides information and services to entrepreneurs and companies” conducting business in the District.
- Mindful Restaurant Groups was created by Ari Gedjenson and created a program that prepared long-time employees for becoming the owners of the restaurant they worked for.

#### **HOMELESSNESS & LOCAL CHARITIES**

- The New York Avenue Men's Emergency Shelter run by Catholic Charities is the only on-site non-profit shelter for men experiencing homelessness.

#### **JOB TRAINING**

- Thrive DC's Employment Support and Real Opportunity Training Program
- DC Gov On-the-Job (OJT) training
- So Others Might Eat (SOME) tuition-free job training
- Coalition for the Homeless Employment and Training Assistance Services
- DC Sustainable Energy Utility Workforce Development
- DC Works

#### **FUNDING SOURCES**

- D.C. Mayor Bowser's plan to give \$20 million to the development of the Crummell School, assuming the plan is passed
- Creation of the Ivy City Community Improvement District (CID) to ensure that the excess tax revenue from future development will be reinvested in the neighborhood
- KABOOM! to fund Lewis Crowe Park and the play spaces within the Crummell School Lot
- DC Pace Financing to assist in the conversion of local businesses and residential properties to solar
- Community Stormwater Solution Grants provided by DC Department of Energy & Environment to fund stormwater BMPs throughout Ivy City
- U.S. Department of Health and Human Services' grants targeted to the creation of services and housing for the homeless:
  - Projects for Assistance in Transition from Homelessness (PATH)

- Services in Supportive Housing (SSH)
- Grants for the Benefit of Homeless Individuals (GBHI)
- Cooperative Agreements to Benefit Homeless Individuals (CABHI)
- Infrastructure for Rebuilding America (INFRA) Grant Program to fund the creation of an Ivy City Shuttle and Bus Rapid Transit system

## D. ADDITIONAL DESIGN DETAILS

### STREET TREES

- **Casey Trees Urban Tree Selection Guide**
  - Best trees for Ivy City street tree planting based on the following factors: adaptability to a street landscape, air pollution, applicability in bioretentions, and adaptability to climate change: *White Shield, Honey Locust, Sycamore, Gingko, London Planetree, Southern Red Oak, Shingle Oak*

### GREEN PARKING LOT SCHEMATIC



**Figure D1:** Example of how a large parking lot, such as OSSE Division of Student Transportation New York Avenue Terminal, can become a green parking lot through the insertion of green space, stormwater BMPs, and sustainable lighting (left); two examples of sustainable lighting: compost-powered Gaon Street lights (middle), the Philips Design City solar-powered lights that mimic a flower blooming (right) (Cordrey, 2010).

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