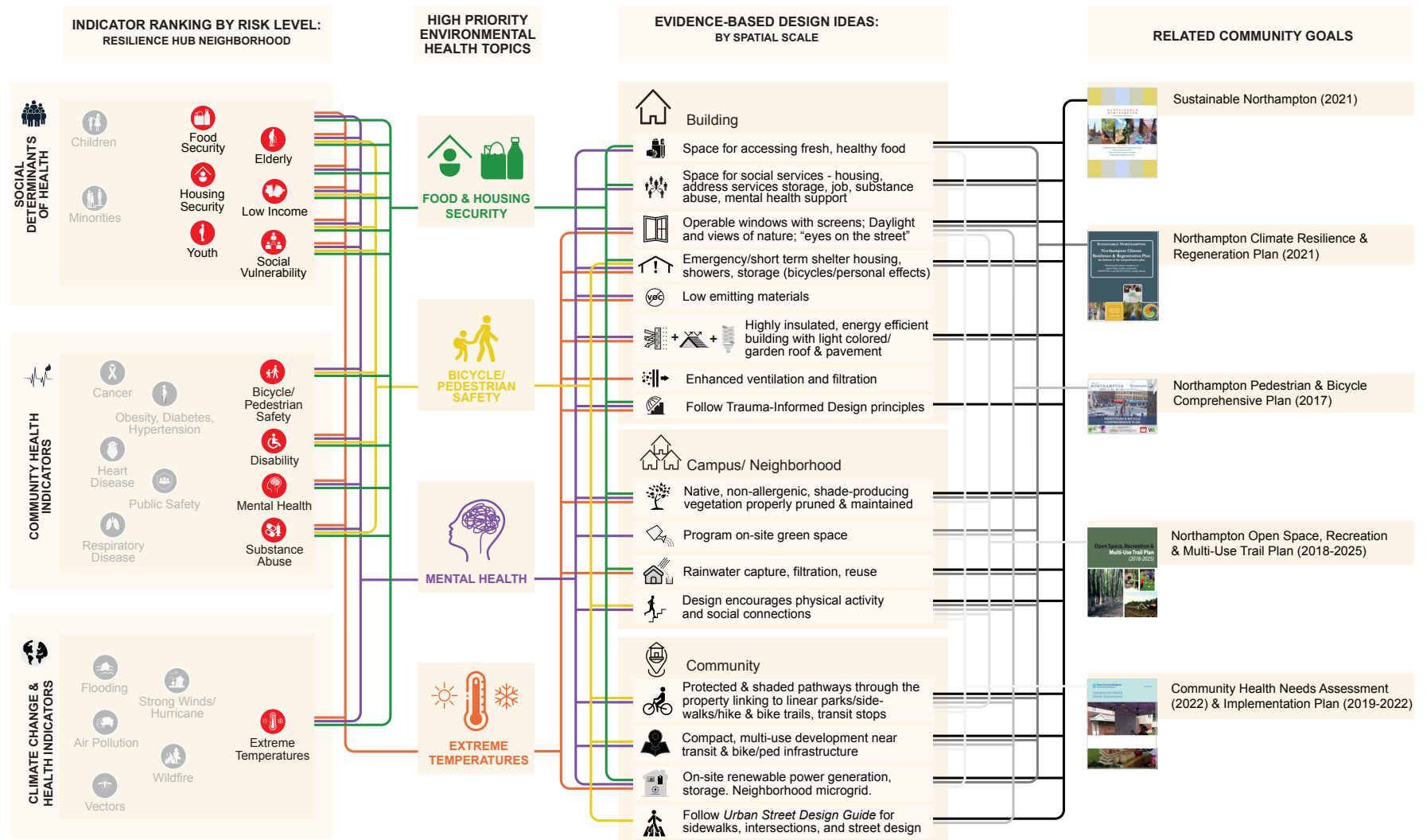


Northampton Resilience Hub

Health Situation Analysis



Introduction to Health Situation Analysis

Health Situation Analysis (HSA) is the “study of a situation that may require improvement. It begins with a **definition of the problem** and an assessment or measurement of its **extent, severity, causes, and impacts upon the community**; it is followed by appraisal of **interactions between the system and its environment** and **evaluations of performance**.” (*A Dictionary of Epidemiology*, Miquel Porta, 2014).

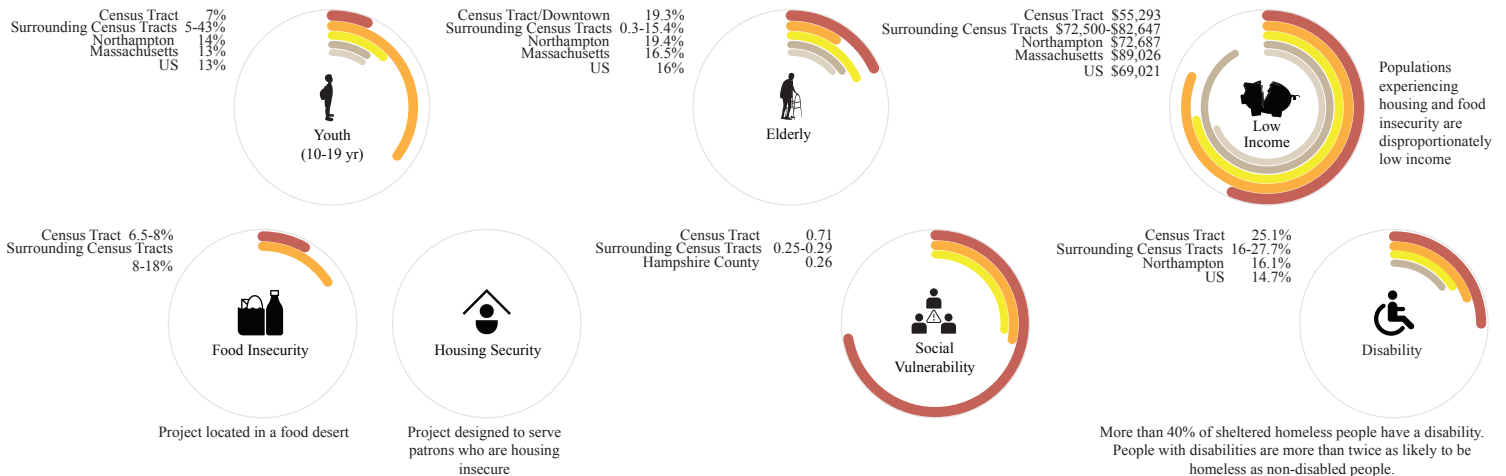
- HSA helps us see the ways that climate change, community health, and social equity interact with each other in the neighborhood.
- We can use that knowledge to write a short list of priority environmental health topics for the project that will guide our conversation about which building design ideas are most likely to bring the most benefit to the neighborhood.
- When we use evidence-based design ideas, we can also measure the final design's contribution to community goals, like the local climate action plan, sustainability plan, and community health needs assessment/implementation plan.

Environmental Health Risk Factors: Summary by Topic

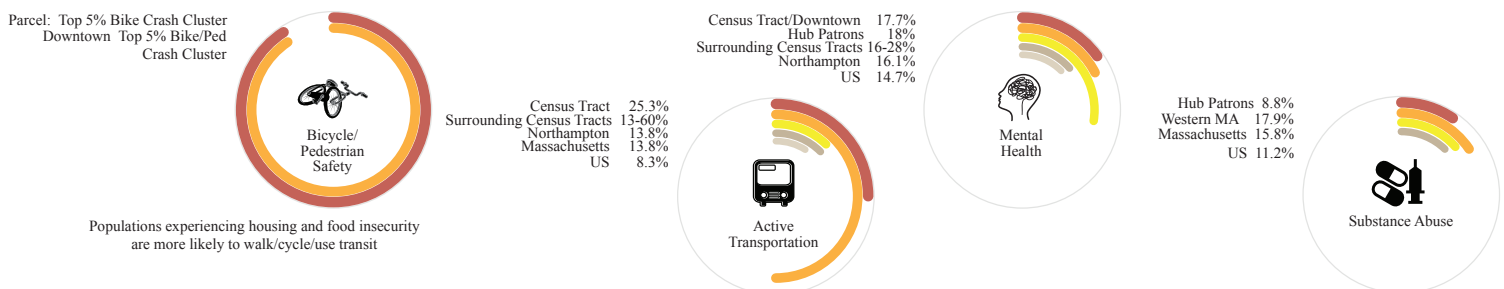
Note: See the Appendix for details and links to data sources.



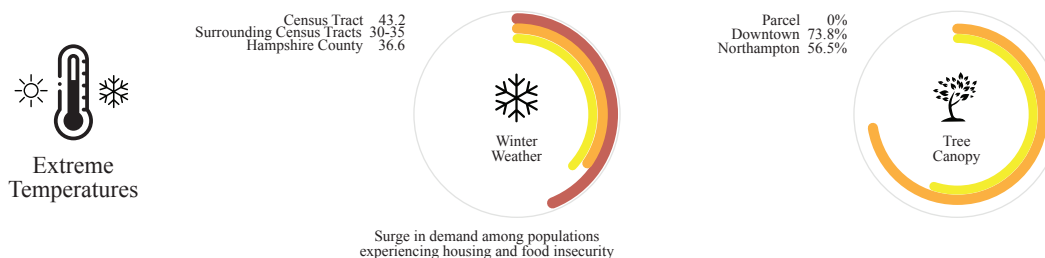
Social Determinants of Health



Current Community Health Indicators



Climate Change and Health Indicators





Evidence-Based Strategies



Building

	Space for accessing fresh, healthy food
	Space for social services - housing, address services storage, job, substance abuse, mental health support
	Operable windows with screens; Daylight and views of nature; "eyes on the street"
	Emergency/short term shelter housing, showers, and storage for bicycles and personal effects
	Low emitting materials
	Highly insulated, energy efficient building with light colored/ garden roof & pavement
	Enhanced ventilation and filtration
	Follow Trauma-Informed Design principles



Campus/ Neighborhood

	Native, non-allergenic, shade-producing vegetation properly pruned & maintained
	Program on-site green space
	Rainwater capture, filtration, reuse
	Design encourages physical activity and social connections



Community

	Protected & shaded pathways through the property linking to linear parks/sidewalks/hike & bike trails, transit stops
	Compact, multi-use development near transit & bike/ped infrastructure
	On-site renewable power generation, storage Neighborhood microgrid
	Follow <i>Urban Street Design Guide</i> for sidewalks, intersections, and street design



Food security is a core social determinant of health, particularly for chronic disease and mental health.

Housing, job security, & housing security are core social determinants of health.

Shelters are a core social determinant of health, providing access to food & temporary housing at times of crisis.

Creates a safe and welcoming environment for patrons in need of food and housing support.

On-site food production can supplement stored food during disasters, be used by patrons learning to garden.

Generates on-site water supply for irrigation, use during water outages.

Reduces risk of power interruption to food refrigeration & preparation areas.



Access to public storage lockers lowers barriers to active transportation.

Activating the property with other pedestrians & cyclists increases safety of all forms of active transportation.

Physically removing nonvehicular traffic from streets eliminates the risk of traffic-related injury.

Clustering services in a cycling & pedestrian-friendly place encourages active transportation, reduces injury risk.

Many traffic-related cycling & pedestrian injuries can be prevented through design.



Gardening and stable access to fresh, healthy food support mental health and wellbeing.

Access to social services like housing and mental health support can reduce factors contributing to mental illness.

Access to clean outside air, daylight, views of nature, and a sense of safety support mental health and wellbeing.

Access to shelter lowers stress that could trigger or exacerbate mental health concerns.

Reduces concentration of toxins that can exacerbate mental health conditions or interact with medications.

Reduces exposure to temperatures that can exacerbate mental health conditions or interact with medications.

Reduces the risk of the building inadvertently triggering mental distress.

Regular access to nature can reduce stress and depression and support mental health and wellbeing.

Outdoor activities can be therapeutic for mental health conditions.

Physical activity and social connection can be therapeutic for mental health conditions.

Protection from vehicular traffic can reduce both stress and exposure to pollutants that hurt mental health.

Access to active transportation and spaces that support social connections supports mental health and wellbeing.

Access to a place of refuge during disasters reduces the risk of exposure to traumatizing events.



Lengthens amount of time building can be occupied after power goes out.

Protects people who are housing insecure, dependent on electrical medical devices, live in underheated/cooled homes

Reduces the concentration of indoor air toxins under extreme heat conditions

Protects occupants from solar heat gain and cold passing through walls. Reduces need for on-site generator.

Reduces the concentration of indoor air toxins under extreme heat conditions.

Reduces the risk of extreme heat/cold events retraumatizing occupants.

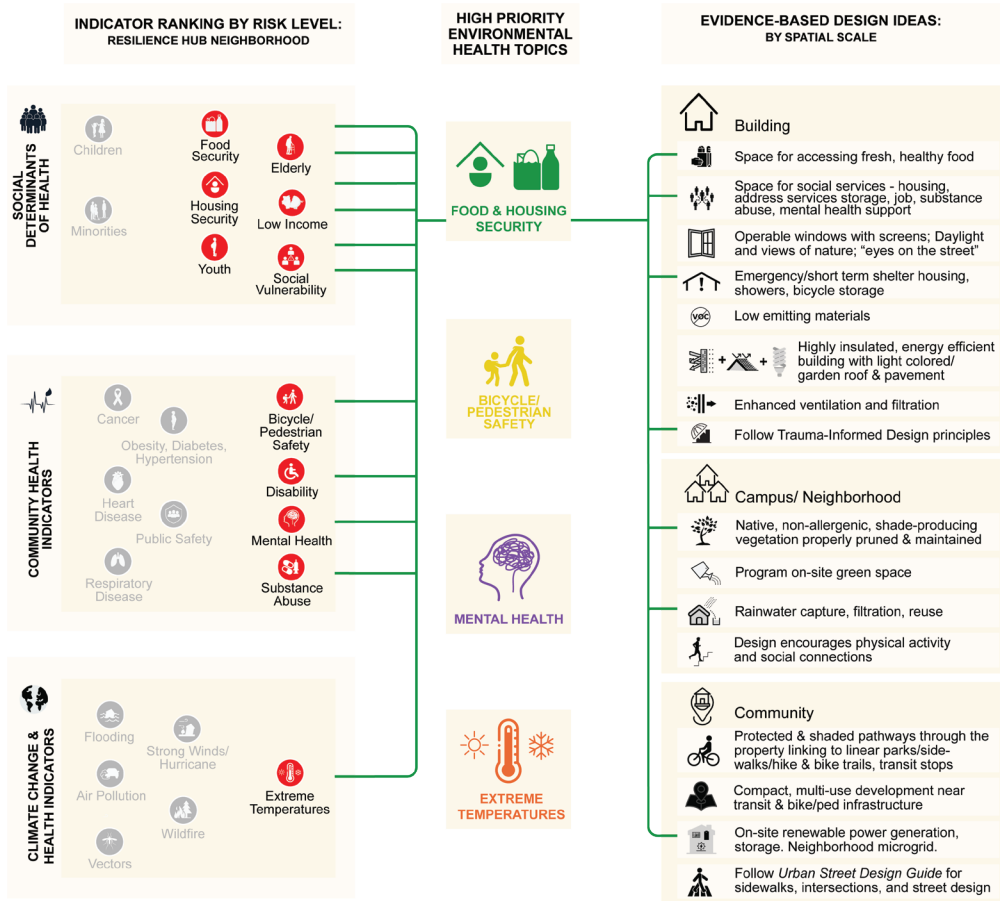
Reduces extreme temperature exposure on property.

Generates on-site water supply for use during weather-related boil-water notices.

Generates electricity for use during weather-related power outages.



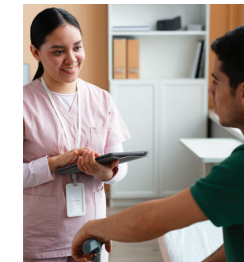
Evidence-Based Strategies



FOOD & HOUSING SECURITY



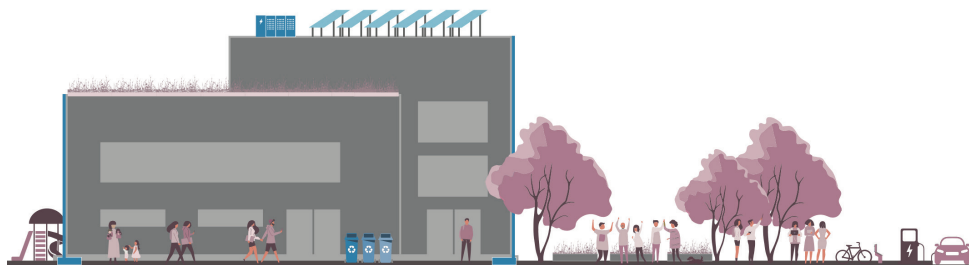
ON-SITE GROCERY/FOOD PRODUCTION: Urban farm, community garden, farmer's market, green grocery run by and/or tailored to the needs of the surrounding community.



SOCIAL SERVICES: Provide spaces that could be used to support social services, such as housing, address services, storage, job search, substance abuse, and mental health support. Include flexibility in space size and visual and acoustic privacy where possible to maximize the range of services.



TRAUMA-INFORMED DESIGN: An approach to design that avoids triggering negative memories and promotes a sense of safety, comfort, and community-building.



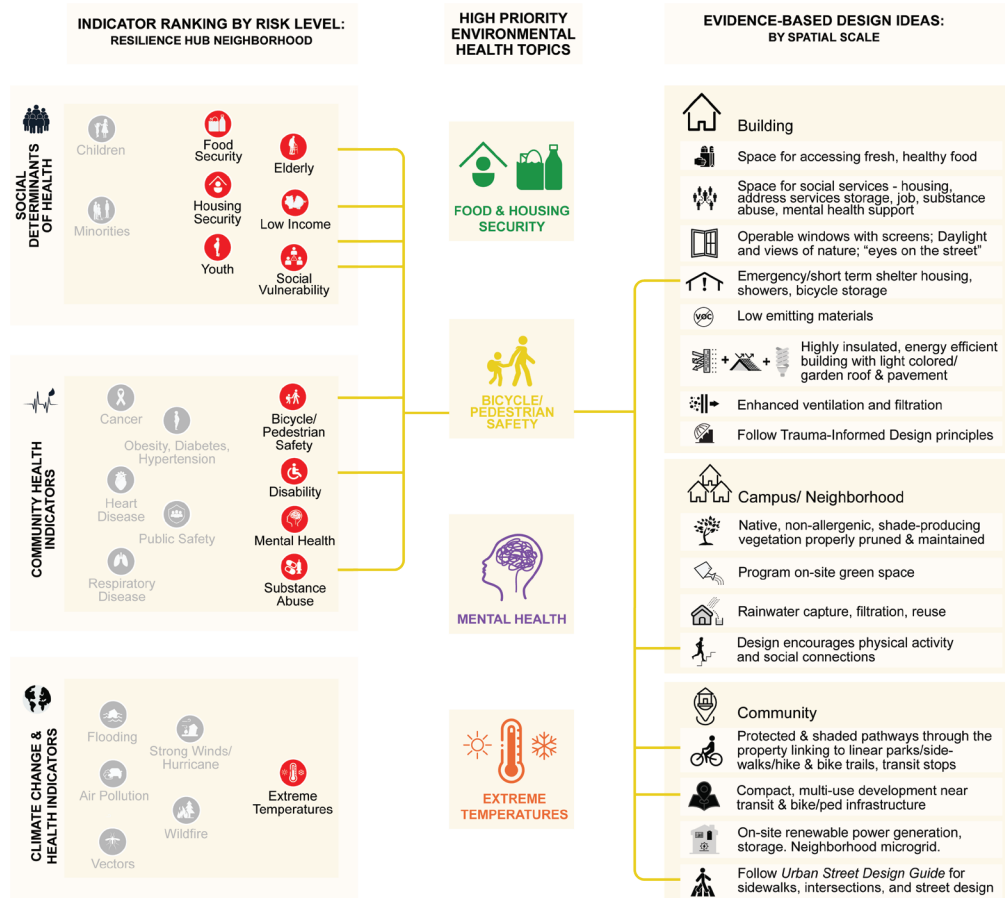
RESILIENCE HUB: A safe place to gather, charge electric devices, and stay out of the elements during disasters. Image Credit: Urban Sustainability Directors Network, *Guide to Developing Resilience Hubs*



RAINWATER CAPTURE, STORAGE, FILTRATION: Cistern, pond, or underground tank designed to collect rainwater. Filtration system to remove contaminants, so the water can be reused on-site during boil water notices.



Evidence-Based Strategies



BICYCLE & PEDESTRIAN SAFETY



SHELTER WITH PUBLIC STORAGE FACILITIES:
Provide secure storage protected from the elements for bicycles and other personal effects to lower barriers to active transportation.



Image Credit: Architectsea

DESIGN TO ENCOURAGE PHYSICAL ACTIVITY & SOCIAL CONNECTIONS:
Provide indoor/ outdoor spaces and landscape design that supports community and draws pedestrians/cyclists through the property.



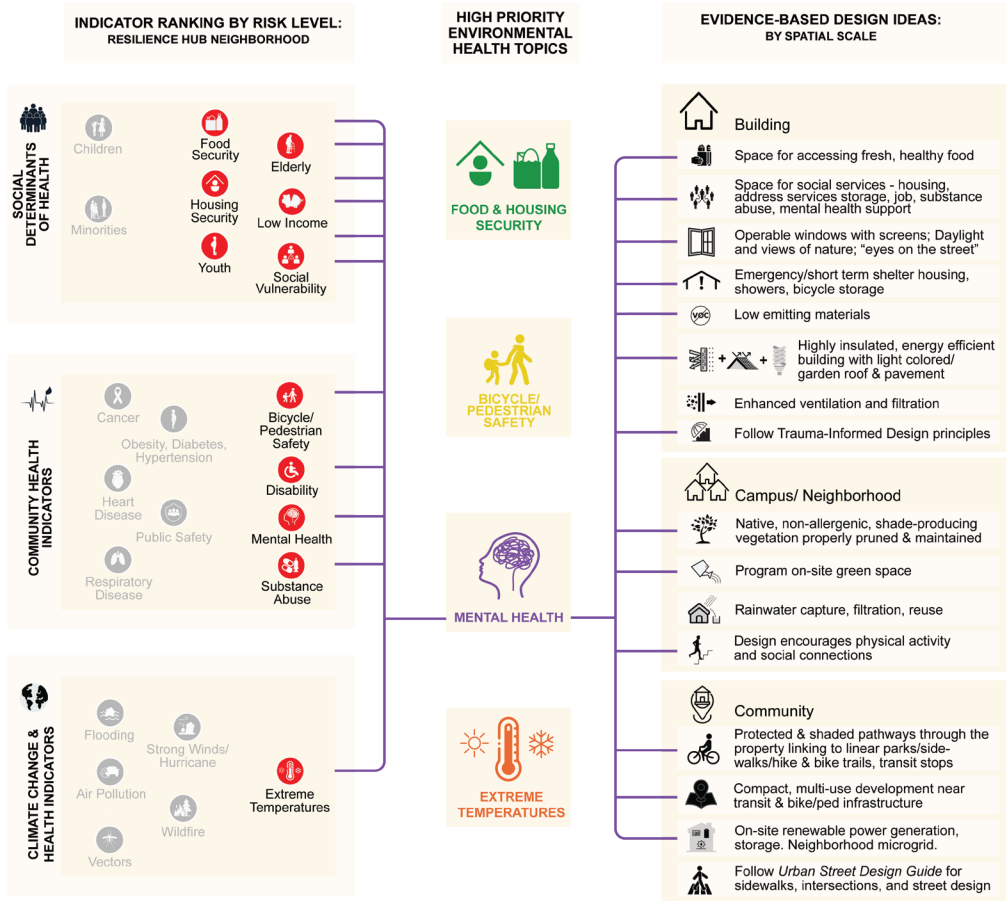
COMPACT, MULTI-USE DEVELOPMENT WITH SAFE BIKE/PED INFRASTRUCTURE:
Locate the project within or near an area with more than one building type (i.e., office, retail, housing, civic, institutional). Contribute to the mix of services in the neighborhood and design the site and links to local transportation networks to maximize safety of pedestrians, cyclists, and transit users.



PROTECTED AND SHADED PATHWAYS THROUGH THE PROPERTY:
Mark protected pathways for pedestrians and cyclists to pass through the property in order to access linear parks, sidewalks, hike and bike trails, and transit stops.



Evidence-Based Strategies



MENTAL HEALTH



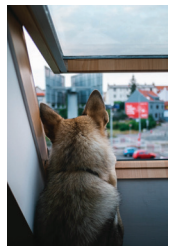
WALL/ROOF INSULATION: Insulation slows heat transfer during the summer, cold during the winter. Image Credit: Jason Dale



LIGHT COLORED/GARDEN ROOF: These roofs reflect solar heat rather than absorbing it and warming up the building interior. Garden roofs also increase roof insulation and cool the surrounding air. Image Credit: Lamiot



OPERABLE WINDOWS: Windows that open, are installed with screens, and are located to increase daylighting inside and provide views of nature and neighborhood life outside can lengthen the amount of time the building can be used during a power outage. They also support mental health and enhance public safety.



ENERGY EFFICIENCY: Design the building to use the smallest amount of energy possible, so the building can function using renewable power produced on-site. Examples of efficient equipment include: fluorescent or LED lights), heat pumps for cooling and heating.



SOCIAL SERVICES: Provide spaces that could be used to support social services. Include flexibility where possible to maximize the range of services.



ON-SITE GROCERY/FOOD PRODUCTION: Urban farm, community garden, farmer's market, green grocery run by and/or tailored to the needs of the surrounding community.



NATIVE PLANTS: Use non-invasive plants to reduce temperature extremes on the property, reduce flood risk, enhance the sense of safety and community spirit in the neighborhood, encourage physical activity, and separate occupants from air pollution & risk of bike/pedestrian injury caused by street traffic.



LOW EMITTING MATERIALS: Low VOC paint, sealants, carpet, composite wood (like plywood and MDF), and upholstery release lower concentrations of toxic chemicals into the air.



TRAUMA-INFORMED DESIGN: An approach to design that avoids triggering negative memories and promotes a sense of safety, comfort, and community-building.

COMPACT, MULTI-USE DEVELOPMENT NEAR TRANSIT, BIKE PATHS, SIDEWALKS: Extend and enhance nearby linear parks, bike infrastructure, walking paths, and access to transit.

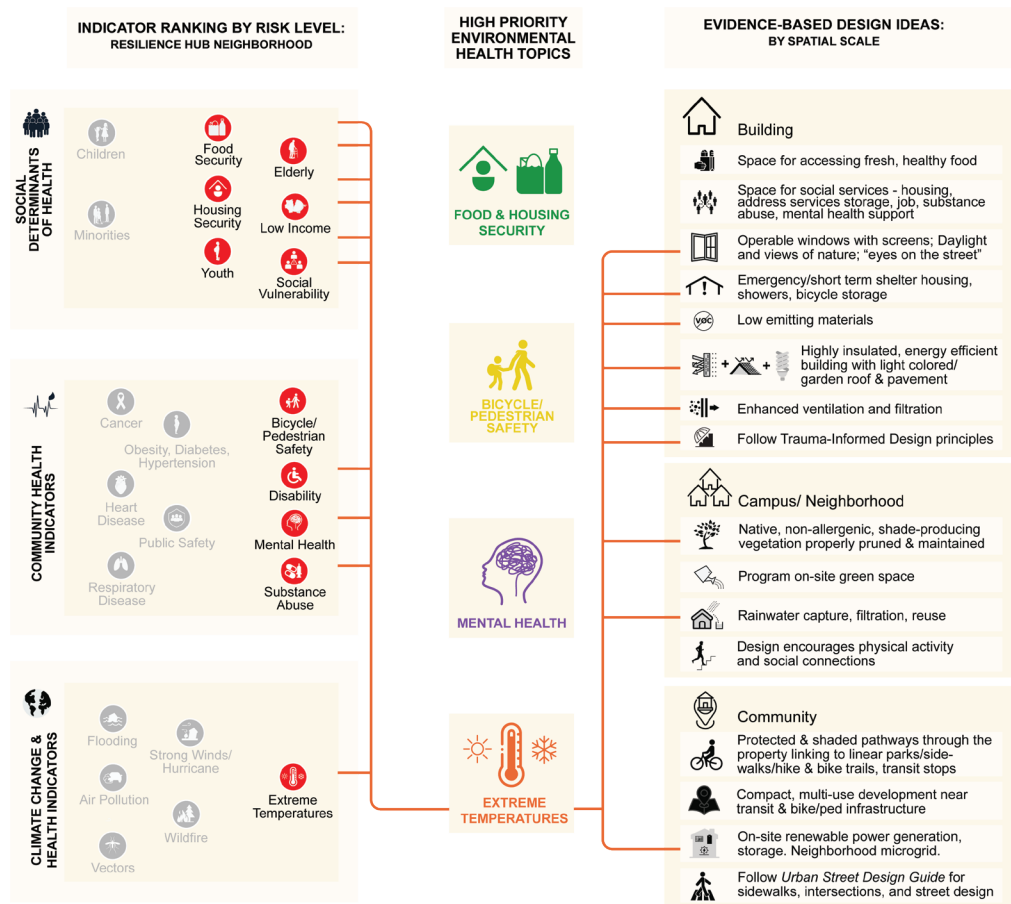


RESILIENCE HUB: A safe place to gather, charge electric devices, and stay out of the elements during disasters. Image Credit: Urban Sustainability Directors Network, *Guide to Developing Resilience Hubs*





Evidence-Based Strategies



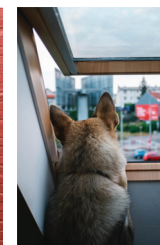
EXTREME TEMPERATURES



WALL/ROOF INSULATION: Insulation slows heat transfer during the summer, cold during the winter. Image Credit: Jason Dale



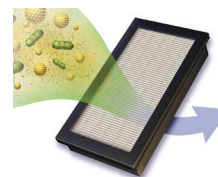
LIGHT COLORED/GARDEN ROOF: These roofs reflect solar heat rather than absorbing it and warming up the building interior. Garden roofs also increase roof insulation and cool the surrounding air. Image Credit: Lamiot



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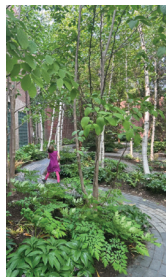
FILTRATION: Air filters remove particles and harmful chemicals from the outdoor air entering a building and circulating indoor air. Image Credit: Bruce Blasus



TRAUMA-INFORMED DESIGN: An approach to design that avoids triggering negative memories and promotes a sense of safety, comfort, and community-building.



RESILIENCE HUB: A safe place to gather, charge electric devices, and stay out of the elements during disasters. Image Credit: Urban Sustainability Directors Network, *Guide to Developing Resilience Hubs*



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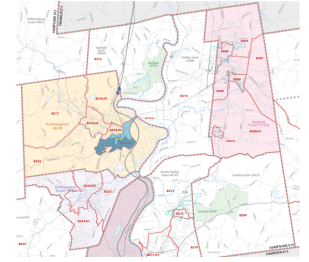
RAINWATER CAPTURE, STORAGE, FILTRATION: Cistern, pond, or underground tank designed to collect rainwater. Filtration system to remove contaminants, so the water can be reused on-site during boil water notices.

Health Situation Analysis - Data Description

Northampton, MA: Resilience Hub

Census Tract: 25015821903 (dark blue in map) (Secondary Tracts (light blue in map): 25015821904, 25015822000)

Owner: City of Northampton, MA



Focus Area	Description	Neighborhood	Northampton	Hampshire County	MA	U.S.	Year	Data Source
Social Determinants of Health								
Social Vulnerability	Overall SVI Score (Medium to High)	x1903: 0.7084 x1904: 0.2497 x2000: 0.2900		0.2575			2020	U.S. CDC, 2020 Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice Zone	Minority and Low Income	x1903: Minority, Low Income x1904: Minority x2000: Minority					2020	Massachusetts, 2020 Environmental Justice neighborhoods, https://www.mass.gov/info-details/environmental-justice-
Race/ethnicity	African American/Black (Very Low)	x1903: 4.4% x1904: 1.7% x2000: 5.3%	2.7%	2.5%	7.3%	12.6%	2021 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian (Very Low; adjacent to very high in x2000)	x1903: 1.4% x1904: 1.7% x2000: 15.9%	3.5%	5.2%	6.9%	5.7%	2021 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other (High)	x1903: 19.2% x1904: 6.7% x2000: 10%	7.8%	6.9%	11.3%	13.5%	2021 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White (Moderately High)	x1903: 75% x1904: 89.9% x2000: 68.8%	86.0%	85.4%	74.5%	68.2%	2021 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx (Average; Low in Adjacent Tracts)	x1903: 18.7% x1904: 2.2% x2000: 8.3%	7.4%	6.1%	12.4%	18.4%	2021 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Non-Hispanic/Latinx (Average; High in Adjacent Tracts)	x1903: 81.3% x1904: 97.8% x2000: 91.7%	92.6%	93.9%	87.6%	81.6%	2021 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
Median household income	Median household income in the past 12 months (Moderately Low; High in Adjacent Tracts)	x1903: \$55,293 x1904: \$82,647 x2000: \$72,500	\$72,687	\$76,959	\$89,026	\$69,021	2021 5-year estimate	U.S. Census American Community Survey, S1901, https://data.census.gov/cedsci/
Poverty status	Percent individuals below poverty level over the past 12 months (Moderately Low; Adjacent to Very Low in x2000)	x1903: 10.4% x1904: 9.2% x2000: 4.3%	11.4%	10.5%	9.9%	12.6%	2021 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Children	Percent children <5 years old (Very Low; Adjacent to Extremely Low in x2000)	x1903: 3.4% x1904: 2.7% x2000: 0.2%	2.5%	3.3%	5.1%	5.9%	2021 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Youth	Percent individuals 10-19 years old (Very Low; Adjacent to Very High in x2000)	x1903: 7% x1904: 5% x2000: 43%	14%	17%	13%	13%	2021 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Elderly	Adults >65 years (Moderately High; Adjacent to Very Low in x2000)	x1903: 19.3% x1904: 15.4% x2000: 0.3%	19.4%	17.4%	16.5%	16.0%	2021 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood	Northampton	Hampshire County	MA	U.S.	Year	Data Source
Community Health								
General health	Adult prevalence fair/poor health (Very Low)	x1903: 13% x1904: 9.7% x2000: 6.5%	11.4%	11.6%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days (Moderate)	x1903: 9.6% x1904: 7.9% x2000: 5.2%	9.1%	9.2%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood	Northampton	Hampshire County	MA	U.S.	Year	Data Source
Cancer	Adult cancer prevalence (Excluding Skin Cancer) <i>(Moderately Low)</i>	x1903: 5.4% x1904: 5.6% x2000: 1.2%	6.8%	7.1%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease <i>(Moderately Low)</i>	x1903: 4.4% x1904: 3.7% x2000: 0.7%	4.8%	5.2%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence <i>(Relatively High)</i>	x1903: 25.0% x1904: 24.4% x2000: 33.8%	24.1%	23.9%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days <i>(Moderately High; Next to Very High in x2000)</i>	x1903: 17.7% x1904: 16.2% x2000: 27.7%	16.1%	16.6%		14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Obesity, Diabetes, Hypertension	Located in a food desert	x1903: food desert x1904: not in food desert x2000: not in food desert					2019	USDA Food Access Research Atlas, https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/
	Food Insecurity <i>(Moderate)</i>	x1903: 6.5-7.9% x1904: 11.6-18.4% x2000: 7.9-11.6%					2021	Gundersen C, Strayer M, Dewey A, Hake M, Engelhard E. Map the meal gap 2021: An analysis of county and congressional district food insecurity and county food cost in the United States in 2019. Feeding U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
	Commute using public transit, walking, or cycling <i>(Very High; Next to Extremely High in x2000)</i>	x1903: 25.3% x1904: 13.6% x2000: 60.6%	13.8%	12.4%	13.8%	8.3%	2021 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
	Adult high blood pressure <i>(Moderate; Next to Very Low in x2000)</i>	x1903: 22.9% x1904: 20.7% x2000: 6.5%	24.4%	25.1%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes <i>(Moderately Low; Next to Extremely Low in x2000)</i>	x1903: 7.4% x1904: 5.9% x2000: 1.4%	7.4%	7.9%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity <i>(Moderate; Next to Moderately Low in x2000)</i>	x1903: 26.8% x1904: 24.4% x2000: 16.6%	24.8%	24.2%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity <i>(Moderate)</i>	x1903: 20.2% x1904: 16.1% x2000: 14.2%	18.4%	18.9%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Respiratory Disease	Adult Asthma <i>(Moderately High)</i>	x1903: 11.6% x1904: 11.1% x2000: 15.4%	11.4%	11.3%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood	Northampton	Hampshire County	MA	U.S.	Year	Data Source
Climate Change								
Overall Climate Risk	Very Low; next to extremely low in x2000	x1903: 22.06 x1904: 9.88 x2000: 2.29				16.91	2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Very Low	x1903: very low x1904: very low x2000: very low		relatively low			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Very Low	x1903: relatively high x1904: relatively low x2000: very low		relatively low			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Relatively Moderate	x1903: very high x1904: very high x2000: very high		very high			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Air Quality	Population near major roadway with little to no tree buffer <i>(Moderate)</i>	HUC 12 ID: 010802010606: 81.34 Adjacent: HUC 12 ID: 010802010610: 468.79					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics	x1903: 0.32 x1904: 0.32 x2000: 0.31					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/

Focus Area	Description	Neighborhood	Northampton Hampshire County MA U.S.	Year	Data Source
Bike/ Pedestrian Safety	High Risk	Located in Top 5% Bicycle Crash Cluster in Northampton	<1/4 mile west of overlapping top 5% pedestrian and bicycle	2011- 2022	MassDOT Top Crash Locations, https://gis.massdot.state.ma.us/topcrashlocations/
Earthquake	Very Low	x1903: 39.3 x1904: 36.6 x2000: 17.5	62.8	2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Flooding	Not Located in Flood Plain (low risk) Riverine Flooding (Relatively Low) Impervious Surface (Moderately High)	x1903: 45.1 x1904: NR x2000: 32.3 50-86%	59	2018 version 2021 version	FEMA Flood Map Service Center, https://msc.fema.gov/portal/ USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
Heat	Overall Vulnerability (Relatively Low Risk) Extreme Heat Vulnerability (Moderate Risk) Tree Canopy Average (Moderately High; next to Moderately Low) Street Tree Inventory Access to parks and green space (Moderate)	x1903: 19.2 x1904: 17.4 x2000: 16.9 x1903: 0.63 x1904: 0.16 x2000: 0.28 HUC 12 ID: 010802010606: Percent tree canopy : 73.818 Adjacent: HUC 12 ID: 010802010610: Percent tree canopy : 38.790 Large site with no street trees Across New South Street from Pulaski Park 1/4 mile from Veterans Field and Manhan Rail Trail	29.5 0.23	2021 version 2022 various, accessed 2022 2021 2018	FEMA National Risk Index, https://hazards.fema.gov/nri/ Extreme Heat Vulnerability Mapping Tool, https://geoxc-apps2.bd.esri.com/Climate/HeatVulnerability/index.html (From NIHHS Heat.gov; https://www.heat.gov/pages/tools-information) EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/ Northampton TreeKeeper, https://northamptonma.treekeepersoftware.com/index.cfm?deviceWidth=1728 Northampton Open Space, Recreation & Multi-Use Trail Plan (2018-2025) https://www.northamptonma.gov/DocumentCenter/View/1812/Open-Space-Recreation-Plan-2018-2025-approved-E0EEA-05-7-
Vector-borne Disease	Tickborne Disease (Relatively High Risk)		4.3-16.29 per 10,000 population	2019- 2022	Massachusetts Department of Public Health, Tick-borne Disease Syndromic Surveillance, https://www.mass.gov/lists/monthly-tick-borne-disease-reports
Hurricane	Relatively Low	x1903: 66.8 x1904: 59.6 x2000: 50.4	81.4	2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Strong Wind	Relatively Moderate	x1903: 50.4 x1904: 39.5 x2000: 32.1	45.4	2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Relatively Low	x1903: 42.9 x1904: 34.8 x2000: 24.3	51.9	2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Wildfire	High Wildfire Likelihood		Greater risk than 32% of communities in Hampshire County Greater risk than 29% of states in U.S.	various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore

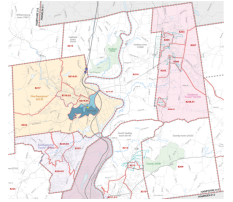
Focus Area	Description	Neighborhood	Northampton	Hampshire County	MA	U.S.	Year	Data Source
	High Wildfire Risk to Homes		Greater risk than 34% of communities in Hampshire County		Greater risk than 29% of states in U.S.		various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Moderate		x1903: 43.2 x1904: 34.8 x2000: 30.4		36.6		2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Health Situation Analysis - Data Description

Northampton, MA: Resilience Hub

Census Tract: 25015821903 (dark blue in map) (Secondary Tracts (light blue in map): 25015821904, 25015822000)

Owner: City of Northampton, MA



	Environmental Health Focus Areas					
	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures		
Design Ideas					Metric	Relevant Community Metric
Building						
Space for accessing fresh, healthy food	x		x		Square footage dedicated to fresh food delivery, storage, preparation, serving/pick-up.	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning</p> <p>Sustainable Northampton, Goal H-3: Work to end homelessness. Objective 4. Articulate services currently available for food and shelter, identify service gaps, fill those gaps. Goal IC-2: Program and utilize public buildings for maximum efficiency and availability. Objective 1. Establish a collaborative administration of city buildings and facilities to maximize utilization of space, improve operational efficiencies, and ensure a transparent process for public use of public facilities.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning</p> <p>Resilience and Regeneration Plan.</p> <ul style="list-style-type: none">- Resilience Pathway 4: Healthy and Equitable Communities- Action Plan Waste 1B: Establish comprehensive food waste prevention, donations, and composting programs in schools and large institutions- Action Plan Health and Safety 1D: Assess tree, forest ecosystem, agriculture, and food systems for resilience <p>Mass General Brigham Cooley Dickinson Hospital Community Health Needs Assessment (2022). https://www.cooleydickinson.org/wp-content/uploads/2022/10/Cooley-Dickinson-2022-Community-Health-Needs-Assessment-v2.pdf</p> <ul style="list-style-type: none">- Access to healthy food is a prioritized health need. <p>14,000 residents in Pioneer Valley receive SNAP benefits. More are eligible but do not receive them. 7% residents in Hampshire County receive SNAP benefits, compared with 11% in MA.</p> <p>USDA: 69% limited income people in CHNA service area have low access to healthy food. Feeding America: 8% Hampshire County are food insecure, 36% of whom have incomes >200% of federal poverty line so ineligible for SNAP. 3,000 children in the service area who are food insecure.</p> <p>"Mass General Brigham provided a fouryear grant to the Food Bank to increase access to food for patients who qualify based on social determinant of health screening and a secondary clinic screen."</p> <p>Healthy Incentives Program: "replaces money on EBT cards when it is used to buy local fruits and vegetables from HIP farm vendors" Hampshire County: Similar rate of farmers markets per 100,000 as MA. Franklin county has 4x MA rate of farmer's markets per 100,000 population.</p> <p>CHNA service area lower number of fast food restaurants per 100,000 residents compared to other counties in MA</p> <p>Healthy Hampshire: initiatives to improve access to healthy food, including increasing access to SNAP and HIP at farmers markets. Improve food offerings at convenience stores. Partner with Cooley Dickinson to promote healthy food. Community gardens, mobile markets in limited income areas. Established Hampshire County Food Policy Council with funding from MassUP.</p> <p>Mass General Brigham Cooley Dickinson Hospital Community Health Implementation Plan (2019-2022) https://www.cooleydickinson.org/wp-content/uploads/2019/10/2019-2022-implementation-plan.pdf</p>
Space for social services	x		x		Square footage dedicated to provision of social services, including multi-purpose rooms, offices, kiosks, treatment rooms, etc.	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning</p> <p>Sustainable Northampton, Goal H-3: Work to end homelessness. Objective 4. Articulate services currently available for food and shelter, identify service gaps, fill those gaps. Goal IC-2: Program and utilize public buildings for maximum efficiency and availability. Objective 1. Establish a collaborative administration of city buildings and facilities to maximize utilization of space, improve operational efficiencies, and ensure a transparent process for public use of public facilities.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning</p> <p>Resilience and Regeneration Plan.</p> <ul style="list-style-type: none">- Resilience Pathway 4: Healthy and Equitable Communities <p>Mass General Brigham Cooley Dickinson Hospital Community Health Implementation Plan (2019-2022) https://www.cooleydickinson.org/wp-content/uploads/2019/10/2019-2022-implementation-plan.pdf</p> <p>Social Environment. Need for Increased Culturally Sensitive Care. Focus: Information and Referral. Goal: Ensure access to services through collaboration with a community-based organization to provide health and social service information and referral that is bilingual Spanish</p> <p>Health Conditions and Behaviors. Focus: Prevention of substance use. Population: youth. Goal: Support prevention coalitions through the provision of funding to collect data on behavior and risk and protective factors</p> <p>Health Conditions and Behaviors. Focus: Opioid use disorder. Goal: Support community initiatives aimed at reducing use and impact of opioids while also continuing to implement programs, change practices, and educate patients, families, and providers in our health care system.</p> <p>Chronic Health Conditions. Focus: Provide housing and social supports for people living with HIV/AIDS Population: People living with HIV/AIDS. Goal:</p>
Operable windows with screens			x	x	Percent windows operable and protected with screens	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning</p> <p>Sustainable Northampton, Goal EEC 4: Develop strategies to protect the City from the impacts of natural hazards. Objective 4. Encourage passive survivability standards of new structures to increase survival of natural disasters for all public and private buildings.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning</p> <p>Resilience and Regeneration Plan.</p> <ul style="list-style-type: none">- Resilience Pathway 2: Resilient Building and Energy Systems- Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements
Daylight and views of nature			x		LEED credit	

Design Ideas	Environmental Health Focus Areas				Metric	Relevant Community Metric
	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures		
Design increases "eyes on the street"			x		<p>Project design promotes engagement between occupants and community members traveling along the site perimeter. Design features include: main entrance, windows, and porches facing public thoroughfares</p> <p><u>Metric:</u> Percent of 1st floor windows, porches, and entrances facing a public thoroughfare</p> <p>Landscaping that invites community members onto the site (such as designating an area as a public parklet) and provides clear lines of sight both from the street and within the property</p> <p><u>Metric:</u> Percent of site open to the public and vegetated to provide clear lines of sight</p> <p>Design for a mix of activities on the site that take place at different times of day and days of the week, preferably including outdoor activities and indoor-outdoor activities</p> <p><u>Metric:</u> Number of activities planned for different times of day/days of the week</p>	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal LU-2: Create and preserve high quality, built environments in the downtown and village centers. Objective 1. Parks, green space, agriculture. 6. Mix of commercial, civic, and cultural uses.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - Resilience Pathway 4: Healthy and Equitable Communities - Action Plan Equity 1A: Support Climate Champions and Strong and Healthy Neighborhoods Programs</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Open Space, Recreation & Multi-Use Trail Plan, Seven Year Action Plan. 10. Convert Unloved Pavement to Beloved Parks.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Pedestrian and Bicycle Plan. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit Goal T-3: Improve and expand public transit Goal T-4: Support Federal and State investments in transportation improvements Goal T-5: Provide appropriate bicycle and vehicle parking to support local businesses</p>
Emergency/short term shelter housing, showers, bicycle storage	x	x	x	x	<p>Designated an emergency shelter and/or short-term shelter by municipal authorities.</p> <p>Number of beds Number of showers Number of restrooms (toilets, urinals, lavatories) Number of all purpose lockers Number of secured bicycle storage areas</p>	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC 4: Develop strategies to protect the City from the impacts of natural hazards. Objective 4. Encourage passive survivability standards of new structures to increase survival of natural disasters for all public and private buildings. Goal H-3: Work to end homelessness. Objective 4. Articulate services currently available for food and shelter, identify service gaps, fill those gaps."</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - Resilience Pathway 4: Healthy and Equitable Communities - Resilience Pathway 6: Hazard Mitigation and Emergency Preparedness - Action Plan, Energy 1C: Continue building out distributed energy resources for critical services</p>
Low emitting materials			x	x	LEED credit	
Net zero upgrades to insulation			x	x	% reduction greenhouse gas emissions compared with code minimum. Equation: estimated annual greenhouse gas emissions / code threshold for annual greenhouse gas emissions. Metric: tons carbon equivalent	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC 4: Develop strategies to protect the City from the impacts of natural hazards. Objective 4. Encourage passive survivability standards of new structures to increase survival of natural disasters for all public and private buildings.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - City committed to becoming net carbon neutral by 2050. - City government buildings committed to becoming net carbon neutral by 2030. - Regeneration Pathway 1: Reduce Energy Demand - Efficiency and Conservation - Regeneration Pathway 4: Net Zero Energy Buildings - Resilience Pathway 2: Resilient Building and Energy Systems - Action Plan, Energy 2A: Encourage the real estate market to place greater value on building energy features, including deep energy retrofits and zero energy new buildings - Action Plan, Energy 2D: Require that all new buildings are built to Net Zero Energy standards and advocate for higher Building Code standards.</p>

Design Ideas	Environmental Health Focus Areas					Metric	Relevant Community Metric
	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures			
Net zero upgrades to mechanical systems			x	x	% reduction greenhouse gas emissions compared with code minimum. Equation: estimated annual greenhouse gas emissions / code threshold for annual greenhouse gas emissions. Metric: tons carbon equivalent	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC 4: Develop strategies to protect the City from the impacts of natural hazards. Objective 4. Encourage passive survivability standards of new structures to increase survival of natural disasters for all public and private buildings. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - City committed to becoming net carbon neutral by 2050. - City government buildings committed to becoming net carbon neutral by 2030. - Regeneration Pathway 1: Reduce Energy Demand - Efficiency and Conservation - Regeneration Pathway 4: Net Zero Energy Buildings - Regeneration Pathway 5: Electrification of Thermal Loads - Resilience Pathway 2: Resilient Building and Energy Systems - Action Plan, Energy 2A: Encourage the real estate market to place greater value on building energy features, including deep energy retrofits and zero energy new buildings - Action Plan, Energy 2B: Expand program for building electrification to convert from oil and natural gas heat to heat pumps or other electric sources - Action Plan, Energy 2D: Require that all new buildings are built to Net Zero Energy standards and advocate for higher Building Code standards.	
Net zero upgrades to lighting			x	x	% reduction greenhouse gas emissions compared with code minimum. Equation: estimated annual greenhouse gas emissions / code threshold for annual greenhouse gas emissions. Metric: tons carbon equivalent	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC 4: Develop strategies to protect the City from the impacts of natural hazards. Objective 4. Encourage passive survivability standards of new structures to increase survival of natural disasters for all public and private buildings. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - City committed to becoming net carbon neutral by 2050. - City government buildings committed to becoming net carbon neutral by 2030. - Regeneration Pathway 1: Reduce Energy Demand - Efficiency and Conservation - Regeneration Pathway 4: Net Zero Energy Buildings - Resilience Pathway 2: Resilient Building and Energy Systems - Action Plan, Energy 2A: Encourage the real estate market to place greater value on building energy features, including deep energy retrofits and zero energy new buildings - Action Plan, Energy 2D: Require that all new buildings are built to Net Zero Energy standards and advocate for higher Building Code standards.	
High albedo and planted roof/pavement			x	x	LEED credit	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements - Action Plan Health and Safety 1A: Mitigate heat by expanding cooling opportunities at open space and streetscapes	
Enhanced Ventilation				x	LEED credit		
Enhanced Filtration				x	LEED credit		
Follow Trauma-Informed Design Principles	x		x	x	Design follows the organizing principles in <i>Architectural Principles in the Service of Trauma Informed Design</i> and the stakeholder engagement process outlined in <i>Trauma Informed Design Manual</i> . http://shopworksarc.com/tid/	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal SE-1: Invest in all segments of the community to retain a population with a diverse demographic and income levels. Objective 1. Ensure a safe and secure environment for all. 3. Reach out to marginalized populations to ensure all feel welcome in the City. 4. Ensure civic and physical accessibility for all. Mass General Brigham Cooley Dickinson Hospital Community Health Implementation Plan (2019-2022) https://www.cooley dickinson.org/wp-content/uploads/2019/10/2019-2022-implementation-plan.pdf Health Conditions and Behaviors. Mental Health and Substance Use. Focus: Trauma Informed Care. Goal: Increase awareness of impact of trauma and ways	
Campus/Neighborhood							
Native, non-allergenic, shade-producing, well-drained vegetation properly pruned and maintained	x		x	x	LEED credit	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC-1: Protect valuable and sensitive ecological resources (land, air, water habitat, plants, and animals). Objective 9. Minimize the loss of tree canopy throughout the City and increase tree canopy in urbanized areas to maintain a higher quality environment in all areas. Resilience and Regeneration Plan. - Regeneration Pathway 9: Carbon Sequestration and Offsets - Resilience Pathway 3: Healthy and Resilient Natural Ecosystems - Resilience Pathway 4: Resilient and Connected Landscapes - Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements - Action Plan Energy 3A: Adopt city open space management practices for soil carbon storage - Action Plan Energy 3B: Protect, grow, and enhance the city's forestland and public lands and their capacity to store carbon - Action Plan Health and Safety 1A: Mitigate heat by expanding cooling opportunities at open space and streetscapes - Action Plan Health and Safety 1D: Assess tree, forest ecosystem, agriculture, and food systems for resilience Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Open Space, Recreation & Multi-Use Trail Plan, Seven Year Action Plan, 3. Open Space to Serve People, 10. Convert Unlabeled Pavement to Paved Paths	

	Environmental Health Focus Areas					
Design Ideas	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures	Metric	Relevant Community Metric
Partner to program on-site green space			x		Number of partnering organizations Number of programs \$/hour x expected hours in operation x number of staff	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - Resilience Pathway 4: Healthy and Equitable Communities - Action Plan Energy 3C: Support education and training in regenerative agriculture, agroforestry, silvopasture, and urban forestry - Action Plan Equity 1A: Support Climate Champions and Strong and Healthy Neighborhoods Programs Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Pedestrian and Bicycle Plan. Goal T-6: Increase walking and bicycling trips through education, encouragement, enforcement and evaluation programs Mass General Brigham Cooley Dickinson Hospital Community Health Needs Assessment (2022). https://www.cooleydickinson.org/wp-content/uploads/2022/10/Cooley-Dickinson-2022-Community-Health-Needs-Assessment-v2.pdf - Access to physical activity is a prioritized health need. Mass General Brigham Cooley Dickinson Hospital Community Health Implementation Plan (2019-2022) https://www.cooleydickinson.org/wp-content/uploads/2019/10/2019-2022-implementation-plan.pdf Social Environment. Alzheimer's disease and dementia. Goal: Increase opportunities for social connections through collaboration with community-based
Rainwater storage and filtration for potable use	x			x	Gallons of rainwater captured, filtered, and stored for reuse.	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC-2: Minimize the impacts of infrastructure systems on environmental resources. Objective 7. Conserving the supply of potable water for actual or anticipated shortages and when deemed necessary for health, welfare or safety. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - Resilience Pathway 6: Hazard Mitigation and Emergency Preparedness
Design encourages physical activity and social connections		x	x		LEED/WELL credit	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal LU-3: Maintain a distinction between rural areas, residential neighborhoods, and urban areas. Objective 6. Create Northampton neighborhoods, that provide pedestrian scales, connections to goods and services, and connections to multiple modes of travel. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning . Resilience and Regeneration Plan. - Resilience Pathway 4: Healthy and Equitable Communities - Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements - Action Plan Energy 3A: Adopt city open space management practices for soil carbon storage - Action Plan Energy 3B: Protect, grow, and enhance the city's forestland and public lands and their capacity to store carbon - Action Plan Transportation/Land Use 1A: Advance equitable transportation access - Action Plan Transportation/Land Use 1B: Expand bicycling options - Action Plan Health and Safety 1A: Mitigate heat by expanding cooling opportunities at open space and streetscapes Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Open Space, Recreation & Multi-Use Trail Plan, Seven Year Action Plan. 3. Open Space to Serve People. 9. Develop Multi-Use Trails for Easy Public Access. 10. Convert Unloved Pavement to Beloved Parks. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning . Pedestrian and Bicycle Plan. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means Mass General Brigham Cooley Dickinson Hospital Community Health Implementation Plan (2019-2022) https://www.cooleydickinson.org/wp-content/uploads/2019/10/2019-2022-implementation-plan.pdf Social Environment. Access to Healthy Food, Transportation, and Places to be Active. Goal: Increase opportunities to access affordable, fresh, healthy food
Community						

Environmental Health Focus Areas					
	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures	
Design Ideas					Metric
					Relevant Community Metric
Protected and shaded pathways through the site linking to linear parks/sidewalks/ hike and bike trails, transit stops		x	x		<p>Linear feet of protected and shaded sidewalks and bike paths through the property</p> <p>Number of protected bike/ped infrastructure with direct connection through the site</p> <p>Number of transit stops within 1/4 mile of main entrances and protected path into the property</p>
Compact, multi-use development near transit and bike/ped infrastructure		x	x		<p>Linear feet of sidewalks and protected bike lanes</p> <p>Number of transit stops within 1/4 mile of main entrances</p>

	Environmental Health Focus Areas					
	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures		
Design Ideas					Metric	Relevant Community Metric
Resilience hub	x		x	x	Designated resilience hub by local office of emergency management	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal EEC 4: Develop strategies to protect the City from the impacts of natural hazards. Objective 4. Encourage passive survivability standards of new structures to increase survival of natural disasters for all public and private buildings. Goal IC-2: Program and utilize public buildings for maximum efficiency and availability. Objective 1. Establish a collaborative administration of city buildings and facilities to maximize utilization of space, improve operational efficiencies, and ensure a transparent process for public use of public facilities. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - Resilience Pathway 4: Healthy and Equitable Communities - Resilience Pathway 6: Hazard Mitigation and Emergency Preparedness - Action Plan, Energy 1C: Continue building out distributed energy resources for critical services - Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements - Action Plan Health and Safety 1D: Assess tree, forest ecosystem, agriculture, and food systems for resilience Mass General Brigham Cooley Dickinson Hospital Community Health Needs Assessment (2022), https://www.cooleydickinson.org/wp-content/uploads/2022/10/Cooley-Dickinson-2022-Community-Health-Needs-Assessment-v2.pdf Lack of resources to meet basic needs is a prioritized health need. Increases stress. Lowers access to medical services (cost, time, insurance). "Northampton Resilience Hub will help people access basic needs such as a meal, shower, a place to store important papers." Designated cooling center by local health department
Anchor community on-site solar microgrid	x		x	x	kW generation from on-site renewables	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - City committed to becoming net carbon neutral by 2050. - City government buildings committed to becoming net carbon neutral by 2030. - Regeneration Pathway 2: Electricity from Renewable/Low-Carbon Sources - Regeneration Pathway 4: Net Zero Energy Buildings - Regeneration Pathway 5: Electrification of Thermal Loads - Resilience Pathway 2: Resilient Building and Energy Systems - Resilience Pathway 4: Healthy and Equitable Communities - Resilience Pathway 6: Hazard Mitigation and Emergency Preparedness - Action Plan, Energy 1B: Procure more renewable energy projects on city property and through city partnerships - Action Plan, Energy 1C: Continue building out distributed energy resources for critical services - Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements - Action Plan, Energy 2F: Accelerate community adoption of energy efficient & high-performance building improvements with a focus on more equitable access
On-site battery & wiring to island site during power outage	x		x	x	kWh storage	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Resilience and Regeneration Plan. - City committed to becoming net carbon neutral by 2050. - City government buildings committed to becoming net carbon neutral by 2030. - Regeneration Pathway 2: Electricity from Renewable/Low-Carbon Sources - Regeneration Pathway 4: Net Zero Energy Buildings - Regeneration Pathway 5: Electrification of Thermal Loads - Resilience Pathway 2: Resilient Building and Energy Systems - Resilience Pathway 6: Hazard Mitigation and Emergency Preparedness - Action Plan, Energy 1B: Procure more renewable energy projects on city property and through city partnerships - Action Plan, Energy 1C: Continue building out distributed energy resources for critical services - Action Plan, Energy 2B: Expand program for building electrification to convert from oil and natural gas heat to heat pumps or other electric sources - Action Plan Energy 2E: Encourage resilience and regeneration building and site improvements
Follow Urban Street Design Guide for sidewalks, intersections, and street design		x			Percent on-site sidewalks, intersections, and drives following Urban Street Design Guide requirements	Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal LU-3: Maintain a distinction between rural areas, residential neighborhoods, and urban areas. Objective 6. Create Northampton neighborhoods, that provide pedestrian scales, connections to goods and services, and connections to multiple modes of travel. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means. Objective 5. Ensure that safety is a primary goal in transportation improvements, systems, and operations, both to reduce crashes and to ensure that both vehicular and non-vehicular modes of traffic are safe and attractive to all users on all roads. Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit. Objective 1. Ensure that all new privately built streets include sidewalks. Objective 6. Ensure pedestrian, bicycle, non-motorized travel, and transit are addressed in every development project. Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Pedestrian and Bicycle Plan. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit Goal T-3: Improve and expand public transit Goal T-4: Support Federal and State investments in transportation improvements Goal T-5: Provide appropriate bicycle and vehicle parking to support local businesses

Design Ideas	Environmental Health Focus Areas				Metric	Relevant Community Metric
	Food/ Housing Security	Bicycle/ Pedestrian Safety	Mental Health	Extreme Temperatures		
					Percent of perimeter sidewalks following <i>Urban Street Design Guide</i> requirements	<p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal ED-1: Ensure vibrant and distinctive downtown, commercial, and village centers. Objective 4. Preserve/enhance the public services and amenities that draw people downtown and ensure that they are safe, pedestrian friendly, and welcoming to the diversity of Northampton residents. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means. Objective 5. Ensure that safety is a primary goal in transportation improvements, systems, and operations, both to reduce crashes and to ensure that both vehicular and non-vehicular modes of traffic are safe and attractive to all users on all roads. Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit. Objective 1. Ensure that all new privately built streets include sidewalks. Objective 6. Ensure pedestrian, bicycle, non-motorized travel, and transit are addressed in every development project.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Pedestrian and Bicycle Plan. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit Goal T-3: Improve and expand public transit Goal T-4: Support Federal and State investments in transportation improvements Goal T-5: Provide appropriate bicycle and vehicle parking to support local businesses</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal ED-1: Ensure vibrant and distinctive downtown, commercial, and village centers. Objective 4. Preserve/enhance the public services and amenities that draw people downtown and ensure that they are safe, pedestrian friendly, and welcoming to the diversity of Northampton residents. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means. Objective 5. Ensure that safety is a primary goal in transportation improvements, systems, and operations, both to reduce crashes and to ensure that both vehicular and non-vehicular modes of traffic are safe and attractive to all users on all roads. Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit. Objective 1. Ensure that all new privately built streets include sidewalks. Objective 6. Ensure pedestrian, bicycle, non-motorized travel, and transit are addressed in every development project.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Pedestrian and Bicycle Plan. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit Goal T-3: Improve and expand public transit Goal T-4: Support Federal and State investments in transportation improvements Goal T-5: Provide appropriate bicycle and vehicle parking to support local businesses</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Sustainable Northampton, Goal ED-1: Ensure vibrant and distinctive downtown, commercial, and village centers. Objective 4. Preserve/enhance the public services and amenities that draw people downtown and ensure that they are safe, pedestrian friendly, and welcoming to the diversity of Northampton residents. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means. Objective 7. Ensure that the needs of transit services, bicycle, pedestrian, and wheelchairs are considered and addressed in the design, construction, and management of every project affecting the transportation system. Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit. Objective 1. Ensure that all new privately built streets include sidewalks. Objective 6. Ensure pedestrian, bicycle, non-motorized travel, and transit are addressed in every development project.</p> <p>Sustainable Northampton Comprehensive Plan (2021), https://northamptonma.gov/957/Planning Pedestrian and Bicycle Plan. Goal T-1: Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means Goal T-2: Improve circulation system to accommodate development and encourage bicycle and pedestrian transit Goal T-3: Improve and expand public transit Goal T-4: Support Federal and State investments in transportation improvements Goal T-5: Provide appropriate bicycle and vehicle parking to support local businesses Goal T-6: Increase walking and bicycling trips through education, encouragement, enforcement and evaluation programs</p>
					Percent of bike paths/lanes adjacent to the property following <i>Urban Street Design Guide</i> requirements	
					Percent of street intersections adjacent to the property following <i>Urban Street Design Guide</i> requirements	