Climate Justice in Architecture

Appendix

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

AIA Knowledge Community



Baltimore Unity Hall: Street View
Image Credit: Tom Holdsworth

Baltimore Unity Hall

This case study shares an exemplary architecture project that centered both the environmental and social aspects of climate change in their design process, approach to community engagement, and final design. It touches on many aspects of the AIA Climate Justice in Architecture Taxonomy at the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy Diagram

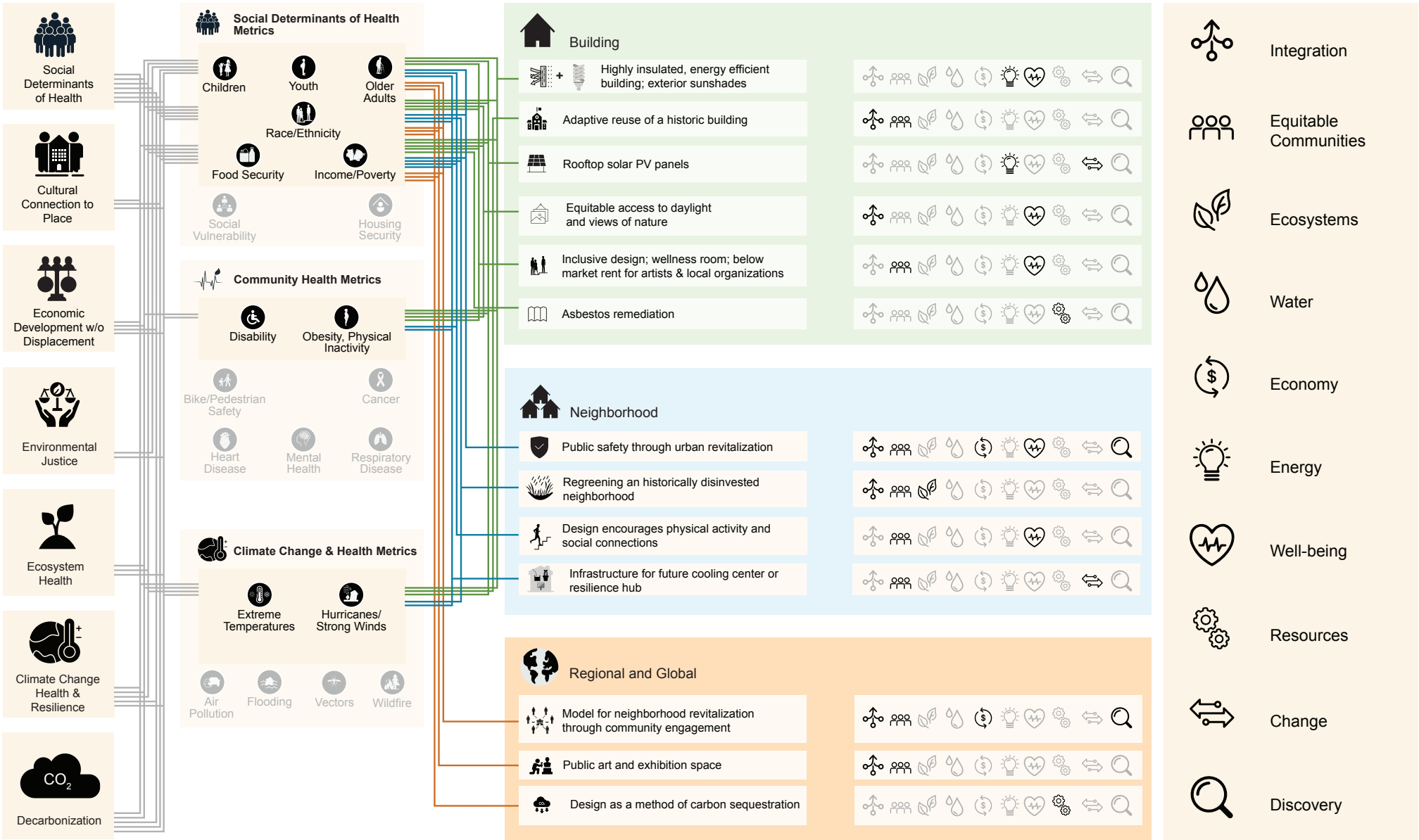
Explore seven climate justice themes linking social equity, environmental health, resilience, and decarbonization

The essential social, cultural, and climate conditions shaping vulnerability, inequity, and community well-being.

Explore how each design strategy contributes to climate justice taxonomy and community metrics

Mapping climate justice actions to AIA principles guiding equitable, healthy, resilient, zero-carbon design.

Icons representing the ten AIA design principles used to evaluate climate justice outcomes.

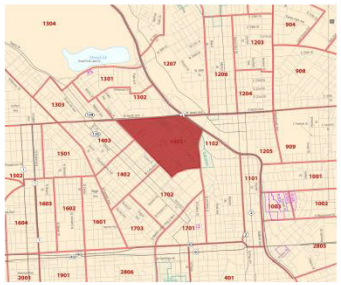


Health Situation Analysis - Data Description

Baltimore, MD: Baltimore Unity Hall

Census Tract: 24510140100 (dark red in map)

Owner: Baltimore Unity Hall



Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
Social Determinants of Health									
Social Vulnerability	Overall SVI Score *(Moderate)*	**0.71**	x40200: 0.9425 x70200: 0.9122		0.86			2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice	Overall EJI Score *(Moderate)*	**0.72**	x40200: 0.98 x70200: 0.95					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
	★EJI: Environmental Burden *(Very High)*	**0.93**	x40200: 0.93 x70200: 0.73					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
	EJI: Social Burden *(Moderately High)*	**0.79**	x40200: 0.89 x70200: 0.95					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
★ **Chidren**	Percent children <5 years old *(Low)*	**3.0%**	x40200: 6.4% x70200: 5.2%	6.1%	5.7%	5.8%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Youth**	Percent individuals 10-19 years old *(Very Low compared with surrounding census tracts)*	**1.8%**	x40200: 20.2% x70200: 17.7%	11.8%	12.7%	12.8%	13.1%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Older Adults**	Adults >65 years *(Low)*	**3.9%**	x40200: 0.5% x70200: 8.5%	14.8%	17.6%	16.0%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
★ **Race/ Ethnicity**	African American/Black *(Moderate compared with Baltimore)*	**38.0%**	x40200: 39.2% x70200: 71.1%	61.2%	30.1%	29.9%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Moderately High compared with Baltimore)*	**12.8%**	x40200: 8.5% x70200: 0.5%	2.6%	6.1%	6.5%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(Moderate)*	**8.4%**	x40200: 8.5% x70200: 0.5%	7.8% Other	7.9%	12.4%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(High compared with Baltimore)*	**40.8%**	x40200: 39.3% x70200: 4.1%	28.4%	55.9%	51.2%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Low compared with surrounding neighborhoods)*	**9.8%**	x40200: 39.3% x70200: 4.1%	5.9%	6.1%	10.9%	18.7%	2022 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 High compared with surrounding neighborhoods)*	**$67,277**	x40200: $40,625 x70200: $36,818	$58,349	$88,157	$98,461	$75,149	2022 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 *(Low compared with surrounding neighborhoods)*	**14.7%**	x40200: 48.4% x70200: 39.4%	19.6%	10.2%	9.3%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
★ **Food Security**	Not located in a food desert	Not located in a food desert						2019	USDA Food Access Research Atlas, https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/

Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
	Food Insecurity *(Moderate)*				15.5%	10.8%	13.5%	2022	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(Low)*	**13.3%**	x40200: 46.7% x70200: 60.9%				13.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Housing Security	Prevalence of housing insecurity *(Moderately Low Risk)*	**12.4%**	x40200: 38.4% x70200: 47.4%	22.3%	19.5%		11.8%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	★Percent owner occupied *(Very Low)*	**3.48% (0% Black/AA owners; 70.5% White owners; 12.3% Asian owners; 17.1% other race/ethnicity owners)**	x40200: 3.45% (100% Black/AA owners; 0% White owners) x70200: 43.45% (78.2% Black/AA owners; 0.7% White owners)	47.76% (53.1% Black/AA owners; 39.5% White owners)	66.53% (20.4% Black/AA owners; 70.2% White owners)	67.47% (23.3% Black/AA owners; 63.6% White owners)	64.82% (8.1% AA/ Black owners; 77.8% White owners; 14.1% Other race/ethnicity owners)	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Moderate)*	**30%**	x40200: 17% x70200: 15%	32%	42%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
Community Health									
Bike/ Pedestrian Safety	High Risk	**Located in a cluster of crashes with injuries but not near any fatal crashes**							Maryland Crash Data https://mdsp.maryland.gov/Pages/Dashboards/CrashDataDownload.aspx
Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Moderate)*	**5.9%**	x40200: 3.8% x70200: 4.8%	5.5%	5.7%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★ **Disability**	Adults diagnosed with a disability *(Moderately Low)*	**23.5%**	x40200: 43.1% x70200: 53.8%	31.4%	30.8%		28.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease *(Moderate)*	**5.2%**	x40200: 6.8% x70200: 10.8%	6.2%	6.2%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence *(Moderate)*	**22.7%**	x40200: 25.3% x70200: 26.3%	22.6%	22.5%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderately Low)*	**16.6%**	x40200: 27.0% x70200: 28.4%	19.6%	19.4%		14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	★**Access to parks and green space**	**Across street from Eutaw Place esplanade 1/4 mile from 4 parks**						Accessed 2024	Google Maps, https://www.google.com/maps/
★**Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Low)*	**29.0%**	x40200: 43.3% x70200: 51.1%	36.0%	36.3%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Low)*	**10.4%**	x40200: 17.7% x70200: 26.6%	14.5%	14.3%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderate)*	**27.3%**	x40200: 48.2% x70200: 52.8%	37.3%	38.1%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Moderately Low Risk)*	**18.2%**	x40200: 40.2% x70200: 50.5%	27.5%	27.0%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Commute using public transit, walking, or cycling *(Moderately Low)*	**30.1%**	x40200: 43.5% x70200: 41.0%	19.0%	5.0%	7.7%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci

Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
Respiratory Disease	Adult Asthma (*Moderate*)	**10.7%**	x40200: 15.1% x70200: 16.9%	12.4%	12.3%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderately Low Risk)*	**12.9%**	x40200: 32.5% x70200: 45.6%	21.0%	19.8%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Moderately Low Risk)*	**9.6%**	x40200: 19.1% x70200: 26.9%	13.7%	13.3%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Climate Change									
Overall Climate Risk		**59.7%**	x40200: 34.14 x70200: 39.77		95.2			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss		**relatively low**	x40200: very low x70200: relatively low		relatively high			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability		**relatively high**	x40200: very high x70200: relatively high		relatively moderate			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience		**relatively high**	x40200: relatively high x70200: relatively 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 *(Low Risk)*	**HUC 12 ID 020600031201: 19.8%**	HUC 12 ID: 020600031203: 43.7%					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Low Risk)*	**0.50**	x40200: 0.52 x70200: 0.53					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Earthquake	Low	**40.20**	x40200: 28.2 x70200: 38.1		81.3			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Flooding		**not in a floodplain**						2012	FEMA Flood Map Service Center, https://msc.fema.gov/portal/

Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
	Riverine Flooding	**no rating**	x40200: no rating x70200: no rating		72.26			2016 version	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	★**Impervious Surface** *(High)*	**75.0%**						2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows *(None)*	**HUC 12 ID 020600031201: 0**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★ **Heat**	Overall Vulnerability *(Very High)*	**92.2**	x40200: 84.7 x70200: 85.9		99.6			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Disparities in Heat Vulnerability *(Very High)*	**98th percentile**	x40200: 83rd percentile x70200: 98th percentile					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
		HUC 12 ID 020600031201: 34.3%	HUC 12 ID: 020600031203: 2.0%					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★**Hurricane**	Very High	**82.30**	x40200: 73.2 x70200: 75.7		96.37			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★**Strong Wind**	High	**75.4**	x40200: 60.6 x70200: 63.3		94.15			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Moderate	**60.3**	x40200: 48.3 x70200: 50.3		80.8			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Low Risk)*				10 cases			2010-2023	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html

Focus Area	Description	Neighborhood (x40100)	Surrounding Census Tracts	Baltimore	Baltimore County	MD	U.S.	Year	Data Source
	Riverine Flooding	**no rating**	x40200: no rating x70200: no rating		72.26			2016 version	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	★**Impervious Surface** *(High)*	**75.0%**						2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows *(None)*	**HUC 12 ID 020600031201: 0**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★ **Heat**	Overall Vulnerability *(Very High)*	**92.2**	x40200: 84.7 x70200: 85.9		99.6			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Disparities in Heat Vulnerability *(Very High)*	**98th percentile**	x40200: 83rd percentile x70200: 98th percentile					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
		HUC 12 ID 020600031201: 34.3%	HUC 12 ID: 020600031203: 2.0%					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★**Hurricane**	Very High	**82.30**	x40200: 73.2 x70200: 75.7		96.37			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★**Strong Wind**	High	**75.4**	x40200: 60.6 x70200: 63.3		94.15			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Moderate	**60.3**	x40200: 48.3 x70200: 50.3		80.8			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Low Risk)*				10 cases			2010-2023	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

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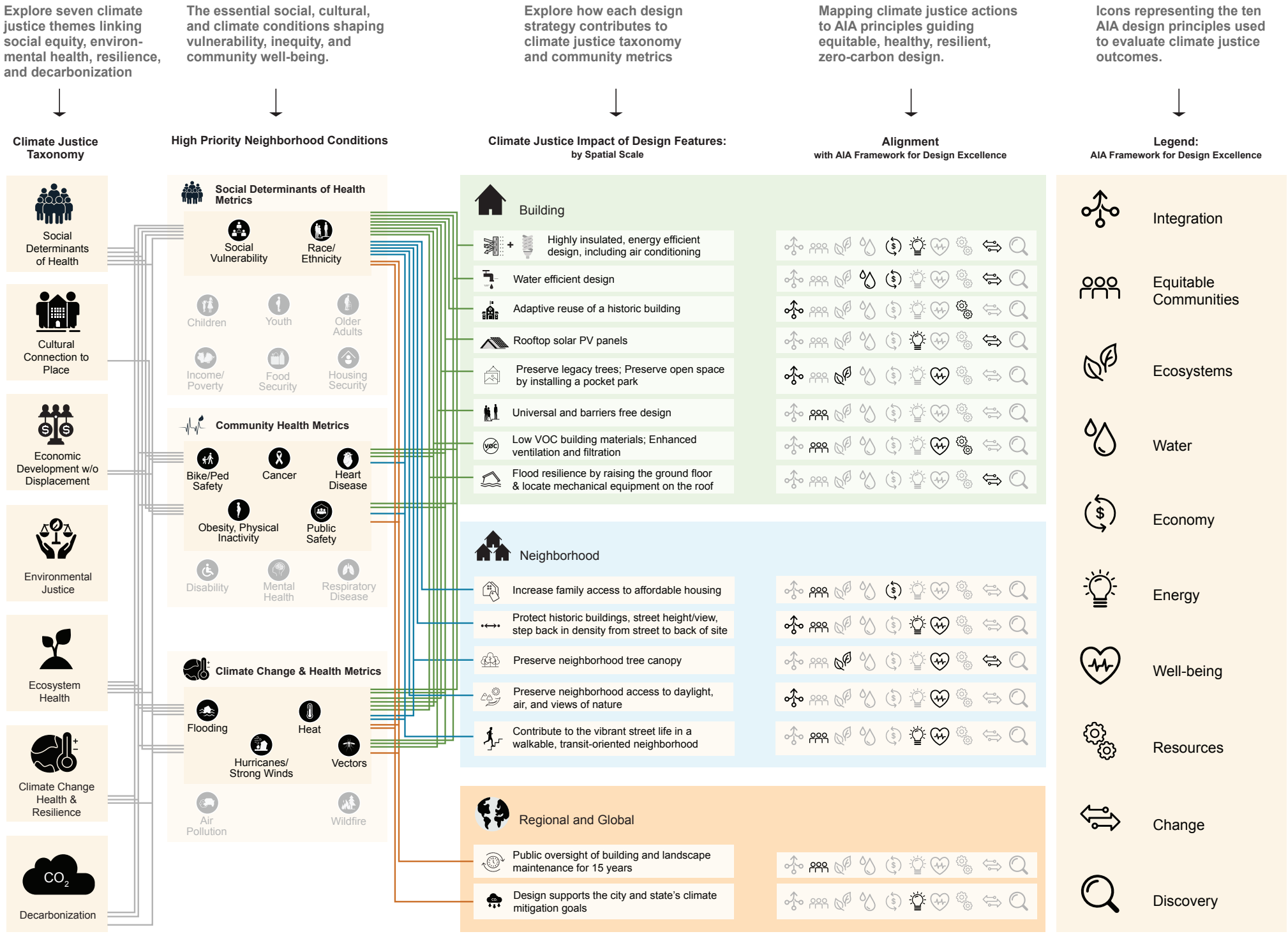


Frost Terrace, Street View
Image Credit: Robert Benson Photography

Frost Terrace

This case study highlights an exemplary architecture project that prioritized both environmental and social aspects of climate change in its design process, community engagement approach, and final design. It aligns with many aspects of the AIA Climate Justice in Architecture Taxonomy across the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy Diagram

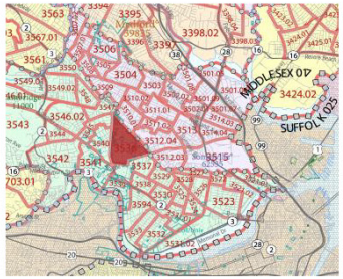


Health Situation Analysis - Data Description

Cambridge, MA: Frost Terrace

Census Tract: 25017353600 (dark red in map)

Owner: CC HRE 1791 Mass Ave Tenant LLC



Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
Social Determinants of Health									
★ **Social Vulnerability**	Overall SVI Score *(Very Low)*	0.16	x3545.00: 0.13 x3540.00: 0.29 x3510.01: 0.04 x3547.00: 0.12					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice	Overall EJI Score *(Very Low)*	0.21	x3545.00: 0.16 x3540.00: 0.29 x3510.01: no data x3547.00: 0.23					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
Chidren	Percent children <5 years old *(Very Low)*	**1.7%**	x3545.00: 8.8% x3540.00: 5.4% x3510.01: 1.4% x3547.00: 2.7%	4.2%	5.1%	5.0%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Youth	Percent individuals 10-19 years old *(Moderately High)*	**16.0%**	x3545.00: 11.5% x3540.00: 9.4% x3510.01: 1.9% x3547.00: 8.8%	10.4%	12.0%	12.3%	13.1%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Older Adults	Adults >65 years *(Average for Cambridge)*	**10.7%**	x3545.00: 18.5% x3540.00: 13.8% x3510.01: 7.5% x3547.00: 17.7%	11.9%	15.7%	17.1%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(Low)*	**5.0%**	x3545.00: 4.5% x3540.00: 3.4% x3510.01: 0% x3547.00: 11.9%	10.8%	5.0%	7.1%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
	Asian *(High)*	**16.8%**	x3545.00: 9.4% x3540.00: 14.5% x3510.01: 10.7% x3547.00: 13.0%	19.3%	13.0%	7.0%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(Moderately Low)*	**9.5%**	x3545.00: 12.9% x3540.00: 8.7% x3510.01: 12.5% x3547.00: 10.2%	10.6%	10.9%	13.2%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Moderate)*	**68.7%**	x3545.00: 73.2% x3540.00: 73.4% x3510.01: 76.8% x3547.00: 64.9%	59.3%	71.1%	72.7%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Low)*	**6.0%**	x3545.00: 6.2% x3540.00: 8.2% x3510.01: 6.5% x3547.00: 6.6%	8.7%	8.4%	12.6%	18.7%	2022 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 Compared with Cambridge but Moderately High Compared witih the County)*	**$130,222**	x3545.00: $170,089 x3540.00: $93,217 x3510.01: $133,563 x3547.00: $176,600	$191,796	$121,304	$96,505	$75,149	2022 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 *(Average Compared with Cambridge)*	**12.0%**	x3545.00: 4.8% x3540.00: 21.8% x3510.01: 8.4% x3547.00: 3.1%	12.1%	7.4%	9.9%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Food Security	Not located in a food desert	**not in a food desert**	x3545.00: not in a food desert x3540.00: not in a food desert x3510.01: not in a food desert x3547.00: not in a food desert					2019	USDA Food Access Research Atlas, https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
	Food Insecurity *(Moderately Low)*				154,670 individuals 9.5% (moderately low)	804,180 individuals 11.5% (moderately low)	13.5%	2022	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(Low)*	**6.3%**	x54500: 4.8% x54000: 8.1% x51001: 5.9% x54700: 3.9%				13.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Housing Security	Prevalence of housing insecurity *(Moderately Low)*	**6.9%**	x3545.00: 5.3% x3540.00: 7.9% x3510.01: 6.9% x3547.00: 4.8%	8.5%	8.8%		11.8%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Percent owner occupied *(Average for Cambridge, Low for larger spatial scales)*	**35.5%**	x3545.00: 55.8% x3540.00: 34.5% x3510.01: 31.5% x3547.00: 47.4%	33.6%	61.5%	62.4%	64.8%	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Moderately High)*	**43.0%**	x3545.00: 44% x3540.00: 38% x3510.01: 41% x3547.00: 44%	40.0%	43.0%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
Community Health									
★**Bike/ Pedestrian Safety**	High Risk	**top 5% pedestrian and bicycle crash clusters in Massachusetts**						2019, 2020, 2021	Mass DOT Top Crash Locations: https://gis.massdot.state.ma.us/topcrashlocations/

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
★Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately Low)*	**4.8%**	x54500: 9.2% x54000: 5.6% x51001: 3.9% x54700: 6.9%	5.3%	8.0%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderate)*	**19.6%**	x54500: 19.5% x54000: 22.3% x51001: 16.7% x54700: 16.5%	20.5%	22.8%		28.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★**Heart Disease**	Adult coronary heart disease *(Moderately Low)*	**3.1%**	x54500: 5.1% x54000: 3.8% x51001: 2.3% x54700: 3.7%	3.5%	5.3%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence *(Moderate)*	**25.1%**	x54500: 22.1% x54000: 25.9% x51001: 25.6% x54700: 22.5%	23.6%	23.0%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderately High)*	**16.8%**	x54500: 12.2% x54000: 17.5% x51001: 15.9% x54700: 12.7%	15.7%	14.1%		14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Access to parks and green space	**100.0%**	x54500: 100% x54000: 100% x51001: 100% x54700: 100%		94.2%	85.4%	61.0%	2020	National Environmental Public Health Tracking Network, percent of people living within 1/2 mile of a park
★ **Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Moderately Low Risk)*	**16.5%**	x54500: 24.4% x54000: 18.7% x51001: 13.4% x54700: 20.4%	19.3%	26.5%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Low Risk)*	**4.5%**	x54500: 6.6% x54000: 5.2% x51001: 3.4% x54700: 5.3%	5.6%	7.7%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderate Risk)*	**19.5%**	x54500: 20% x54000: 20.6% x51001: 19.7% x54700: 19.0%	22.7%	22.0%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
	Adult physical inactivity *(Moderately Low Risk)*	**12.8%**	x54500: 12.2% x54000: 14.0% x51001: 11.0% x54700: 10.5%	13.9%	15.6%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Commute using public transit, walking, or cycling *(High Risk)*	**50.6%**	x54500: 32.4% x54000: 48% x51001: 38.1% x54700: 42.1%	47.7%	14.5%	12.7%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
★ **Public Safety**	Low Incidence	**housebreaks: 5 street robbery: 1 auto theft: 4 larceny from motor vehicles: 12 package theft: 7 larceny of bicycle: 16 malicious destruction: 5**	N Cambridge: housebreaks: 20 street robbery: 5 auto theft: 15 larceny from motor vehicles: 49 package theft: 23 larceny of bicycle: 80 malicious destruction: 55 Neighborhood 9: housebreaks: 13 street robbery: 2 auto theft: 7 larceny from motor vehicles: 38 package theft: 22 larceny of bicycle: 41 malicious destruction: 21					2019-2023 five-year average	City of Cambridge Police Department, Cambridge Crime Overview by Neighborhood
Respiratory Disease	Adult Asthma (*Moderate*)	**10.9%**	x54500: 10.3% x54000: 11.3% x51001: 10.5% x54700: 10.1%	10.7%	10.8%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderately Low Risk)*	**8.5%**	x3545.00: 8.4% x3540.00: 9.7% x3510.01: 7.1% x3547.00: 6.9%	9.5%	11.3%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
General physical health	Adult poor physical health over past 14 days *(Average for Cambridge)*	**7.0%**	x3545.00: 7.4% x3540.00: 7.9% x3510.01: 6.1% x3547.00: 6.3%	7.5%	9.1%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Climate Change									
Overall Climate Risk	Relatively Low	**35.2**	x3545.00: 7.36 x3540.00: 23.75 x3510.01: 6.08 x3547.00: 10.9		96.1			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Relatively Low	**relatively low**	x3545.00: very low x3540.00: relatively low x3510.01: very low x3547.00: very low		relatively high			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Very Low	**very low**	x3545.00: very low x3540.00: relativley low x3510.01: very low x3547.00: very low		relatively low			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Very High	**very high**	x3545.00: very high x3540.00: very high x3510.01: very high x3547.00: 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 *(Low)*	**HUC 12 ID: 010900010704: 15.5%**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Moderate)*	**0.46**	x3545.00: 0.43 x3540.00: 0.45 x3510.01: 0.42 x3547.00: 0.43					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
Earthquake	Moderate	**62.8**	x3545.00: 37.5 x3540.00: 53.9 x3510.01: 33.3 x3547.00: 44.6		94.1			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Flooding**	Not Located in Floodplain *(Low Risk)*							2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Riverine Flooding *(Very High Risk Locally)*				97.2			2016 version	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Impervious Surface *(Very High)*	**65-82%**						2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows (None)	**HUC 12 ID 010900010502: 0**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★ **Heat**	Overall Vulnerability *(Relatively Low)*	**30.9**	x3545.00: 21.2 x3540.00: 31.7 x3510.01: 25.5 x3547.00: 24.8		88.5			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Disparities in Heat Vulnerability *(Moderately Low)*	**34th percentile**	x3545.00: 34th percentile x3540.00: 52nd percentile x3510.01: no data x3547.00: 34th percentile					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
	Tree Canopy Average *(Low)*	**HUC 12 ID: 010900010704: 21.07**						various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Low)*	**0-32%**						2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/

Focus Area	Description	Neighborhood (x3536)	Surrounding Census Tracts	Cambridge	Middlesex County	MA	U.S.	Year	Data Source
★ Hurricane	Moderately High	**78.4**	x3545.00: 62.2 x3540.00: 73.7 x3510.01: 60.3 x3547.00: 65.2		97.4	11.5		2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Strong Wind	Low Risk	**12.9**	x3545.00: 5.9 x3540.00: 12.5 x3510.01: 7.7 x3547.00: 7.8		29.0			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Moderately Low Risk	**29.9**	x3545.00: 13.6 x3540.00: 26.2 x3510.01: 13.2 x3547.00: 17.3		90.6			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Vectorborne Disease**	Dengue Risk *(Moderately High Incidence)*				85 cases	328 cases		2010-2024	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Low-Moderate Incidence)*				0.2 cases per 100,000	243 cases		1999-2023	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(High Incidence)*				10,394 cases			2001-2023	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Low Wildfire Likelihood			Greater wildfire likelihood than 14% of communities in US				various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Mow Wildfire Risk to Homes			Homes have greater wildfire risk than 15% of communities in US				various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Moderately Low Risk	**21.8**	x3545.00: 18.4 x3540.00: 21.6 x3510.01: 19.5 x3547.00: 19.5		36.2			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

AIA Knowledge Community

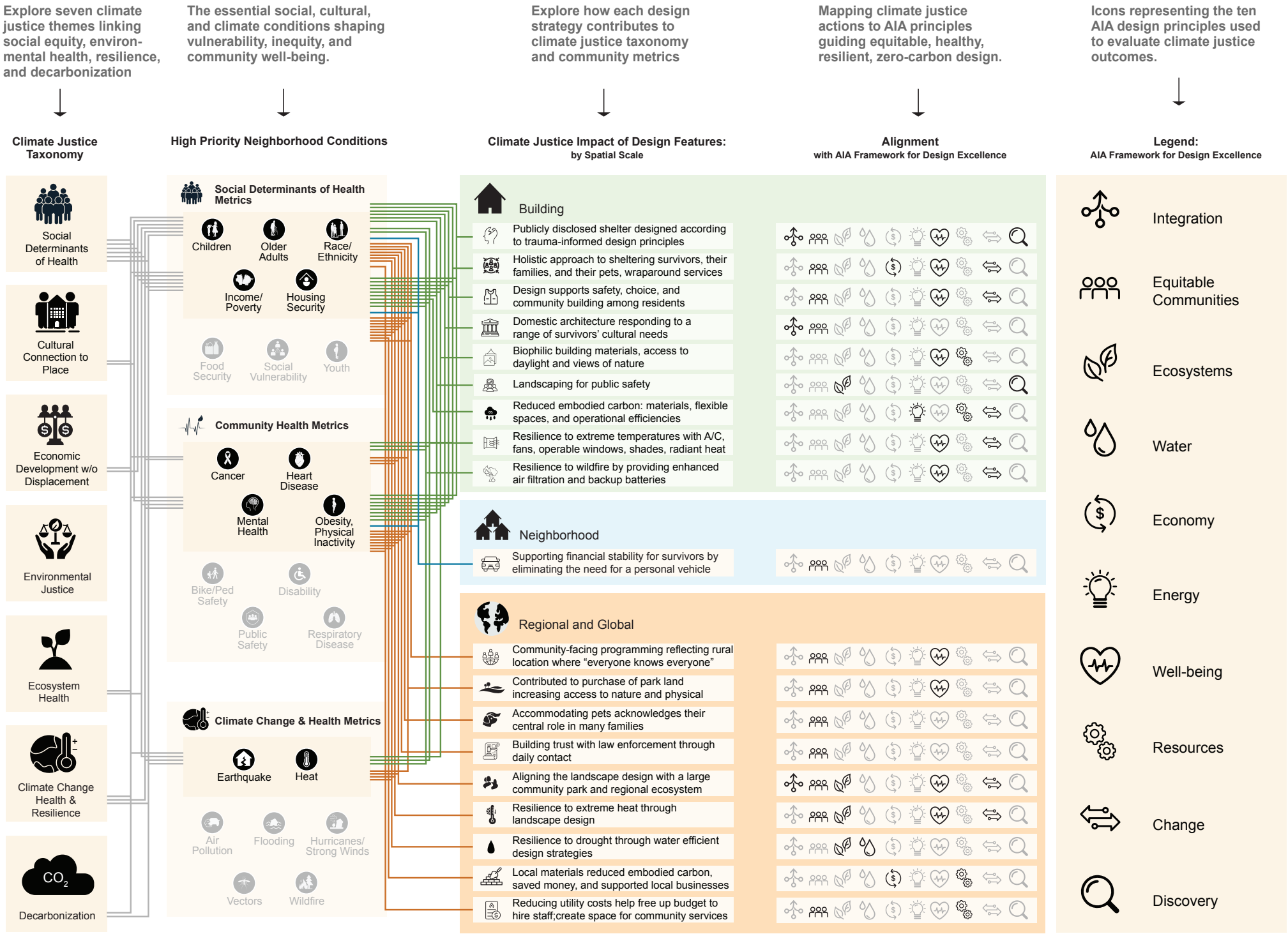


Front entrance of the Haven Domestic Violence Shelter.
Image Credit: MASS

Haven Domestic Violence Shelter

This case study highlights an exemplary architecture project that prioritized both environmental and social aspects of climate change in its design process, community engagement approach, and final design. It aligns with many aspects of the AIA Climate Justice in Architecture Taxonomy across the building, neighborhood, regional, and global scales.

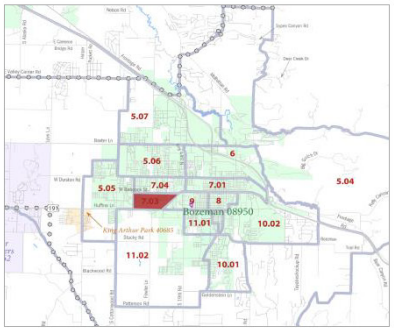
APPENDIX: Full AIA Climate Justice Taxonomy Diagram



Health Situation Analysis - Data Description

Bozeman, MT: Haven Domestic Violence Shelter

Census Tract: 30031000703 (dark red in map)
Owner: Haven



Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
Social Determinants of Health								
Social Vulnerability	Overall SVI Score *(Moderate)*	0.41					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
★**Chidren**	Percent children <5 years old *(High Compared with Bozeman; Average Compared with US)*	**5.7%**	3.3%	4.9%	5.4%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Youth	Percent individuals 10-19 years old *(Moderately Low)*	**7.8%**	7.7%	11.1%	12.1%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★**Older Adults**	Adults >65 years *(Very Low)*	**4.4%**	10.7%	13.0%	19.4%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(Very Low)*	**0.0%**	0.6%	0.4%	0.6%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Very Low)*	**0.0%**	2.4%	1.4%	0.8%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
	Other *(Very Low)*	**3.0%**	8.4%	7.0%	12.2%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Very High)*	**97.0%**	88.6%	91.2%	86.4%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(High Compared with MT; Low Compared with US)*	**8.3%**	4.8%	4.3%	4.2%	18.7%	2022 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 Compared with Bozeman; Average for MT)*	**$67,529**	$74,113	$83,434	$66,341	$75,149	2022 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 *(High)*	**22.3%**	14.7%	10.6%	12.4%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Food Security	Not located in a food desert	**not in a 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 *(Moderately Low)*			9.9%	12.3%	13.5%	2023	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(Average)*	**9.4%**	8.9%	8.4%	10.1%	11.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
★**Housing Security**	Prevalence of housing insecurity *(Average)*	**9.3%**	8.5%	8.9%	9.4%	10.2%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Percent owner occupied *(Moderately Low)*	**38.8%**	43.7%	61.4%	69.0%	64.8%	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Moderately High)*	**37.0%**	42.0%	47.0%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
Community Health								
Bike/ Pedestrian Safety	Low Risk	**low risk**					2024	Gallatin County HUFFINE LANE SUP CONNECTION - Four Corners to Bozeman Crash density, Appendix C (Figures) https://www.gallatinmt.gov/sites/g/files/vyhlif606/f/events/application_-_narrative-appendices-los.pdf
★**Cancer**	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately Low)*	**4.8%**	5.3%	7.0%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderately Low)*	**25.4%**	23.5%	23.2%	31.2%	30.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★**Heart Disease**	Adult coronary heart disease *(Moderately Low Compared with US)*	**3.7%**	3.7%	4.8%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★**Mental Health**	Adult depression prevalence *(Moderately High)*	**25.7%**	24.9%	23.3%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
	Adult poor mental health over past 14 days *(Moderately High)*	**20.0%**	18.5%	16.2%	16.7%	16.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Access to parks and green space *(High Exposure)*	**100.0%**		58.2%	55.6%	61.0%	Accessed 2024	Google Maps, https://www.google.com/maps/
★ **Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Moderately Low Compared with US)*	**18.5%**	19.0%	22.8%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Low Compared with US)*	**5.1%**	4.9%	6.2%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderately Low Compared with US)*	**23.6%**	21.7%	22.6%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Moderately Low Compared with US)*	**17.0%**	15.2%	15.3%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Commute using public transit, walking, or cycling *(Very Low)*	**0.7%**	13.5%	8.2%	6.0%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
Public Safety	Low Risk	**low risk**						Bozeman Polic Department Call Logs, https://bozeman.maps.arcgis.com/apps/dashboards/cc932235e9b44b178fa20c596c0d4c05 Montana Board of Crime Control, Offienses by County, https://mbcc.mt.gov/Data/Montana-Reports/Crime-Dashboards

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
Respiratory Disease	Adult Asthma *(Average)*	**10.8%**	10.6%	10.2%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderate)*	**13.6%**	12.2%	12.5%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Average)*	**10.3%**	9.5%	9.9%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
Climate Change								
Overall Climate Risk	Low Risk	**16.2**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Low Risk	**20.9**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Low Risk	**0.2**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Moderate Risk	**58.4**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Air Quality	Population near major roadway with little to no tree buffer *(Very Low)*	**HUC 12 ID 100200081002: 7.4%**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Very Low Risk)*	**0.19**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
★**Earthquake**	Moderately High Risk	**80.5**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Flooding	Not Located in Floodplain *(Low Risk)*	**Not in a floodplain**					2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Impervious Surface *(High)*	**50-80%**					2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows (None)	**HUC 12 ID 100200081002: 0**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★**Heat**	Heat Vulnerability *(High Heat Health Risk)*	**50th percentile overall** **92nd percentile for historical number of extreme heat days** **75th percentile for heat-related illness**					2024	CDC Heat and Health Index, https://ephtracking.cdc.gov/Applications/heatTracker/?page=detail3
	Tree Canopy Average *(Very Low)*	**HUC 12 ID 100200081002: 3.1%**					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Low)*	**20%**					2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/

Focus Area	Description	Neighborhood (x0703)	Bozeman	Gallatin County	MT	U.S.	Year	Data Source
Strong Wind	Moderately Low Risk	**34.5**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Very Low Risk	**8.3**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Low-Moderate Incidence)*			10 cases			2010-2024	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Low Incidence)*			0.09 Incidence per 100,000 Population			1999-2024	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(Low Incidence)*			27 cases			2001-2022	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Moderately High Wildfire Likelihood		Greater wildfire likelihood than 73% of communities in the US	Greater wildfire likelihood than 82% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Moderately High Wildfire Risk to Homes		Greater risk than 73% of communities in the US	Greater risk than 84% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Moderate Risk	**57.3**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

AIA Knowledge Community

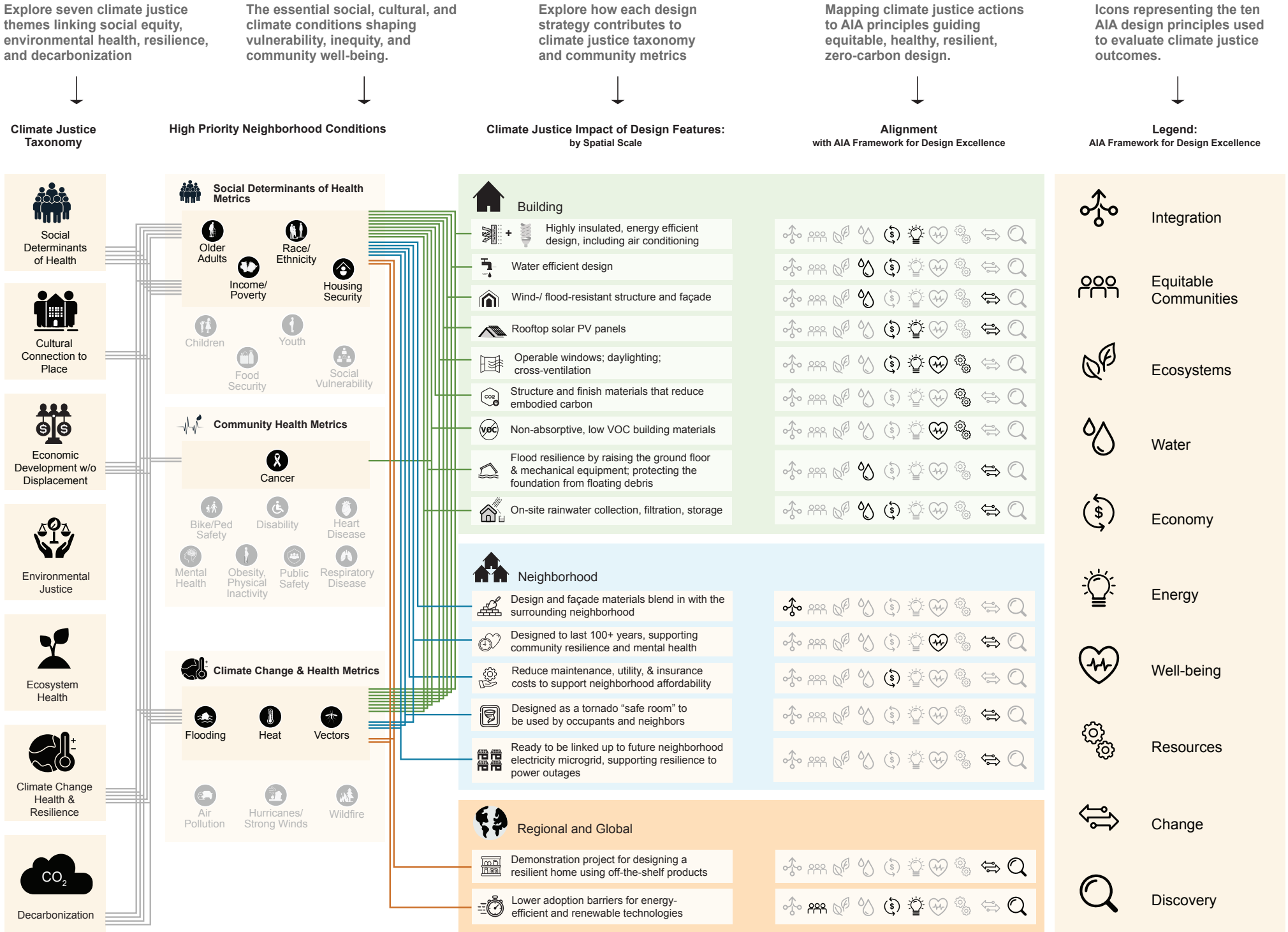


Hurricane Strong Home, front elevation
Image Credit: Eric Soltan for +lab Architect PLLC

Hurricane Strong Home

This case study highlights an exemplary architecture project that prioritized both environmental and social aspects of climate change in its design process, community engagement approach, and final design. It aligns with many aspects of the AIA Climate Justice in Architecture Taxonomy across the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy Diagram

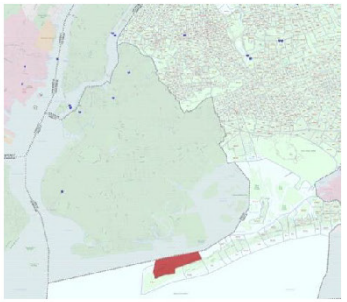


Health Situation Analysis - Data Description

Queens, NY: Hurricane Strong home

Census Tract: 36081091603 (dark red in map)

Owner: Private Homeowner



Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
Social Determinants of Health								
Social Vulnerability	Overall SVI Score *(Very Low)*	0.07					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Chidren	Percent children <5 years old *(Average)*	**5.8%**	5.8%	6.0%	5.6%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Youth	Percent individuals 10-19 years old *(Moderately Low)*	**7.1%**	10.9%	11.2%	11.5%	13.1%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★**Older Adults**	Adults >65 years *(Moderately High)*	**23.3%**	16.5%	15.5%	17.0%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★**Race/ Ethnicity**	African American/Black *(Very Low)*	**0.2%**	17.7%	23.1%	15.1%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Very Low)*	**1.1%**	26.0%	14.5%	8.8%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(Very Low)*	**1.6%**	25.8%	24.9%	17.3%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
	White *(Very High)*	**97.1%**	30.5%	37.5%	58.8%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Very Low)*	**3.4%**	28.0%	29.0%	19.5%	18.7%	2022 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 *(High)*	**$134,563**	$82,431	$76,607	$81,386	$75,149	2022 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 *(Low)*	**3.9%**	11.7%	17.2%	13.6%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Food Security	Not located in a food desert	**not in a 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 *(Moderate)*		14.1%	14.5%		13.5%	2022	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 America. 2021. https://map.feedingamerica.org
★**Housing Security**	Percent owner occupied *(Moderately Low)*	**96.9%**	45.2%	32.9%	54.3%	64.8%	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(High)*	**47.0%**	41.0%	36.0%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
Community Health								
Bike/ Pedestrian Safety	Relatively Low Risk	**38 injuries 2 fatalities**					2009 - 5/2025	NYC Vision Zero View, https://vzv.nyc
★**Cancer**	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately High)*	**11.5%**	6.0%	5.7%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderately Low)*	**26.0%**	27.0%	29.5%	27.5%	28.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease *(Moderately High)*	**7.2%**	5.8%	5.9%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence *(Moderate)*	**17.9%**	14.3%	17.7%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderate)*	**13.4%**	13.7%	16.0%	15.4%	14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	★Access to parks and green space *(High Exposure)*	**100.0%**	99.9%		82.2%	61.0%	Accessed 2024	Google Maps, https://www.google.com/maps/
Obesity, Diabetes, Hypertension	Adult high blood pressure *(Moderate)*	**33.2%**	31.8%	29.0%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Moderately Low)*	**9.6%**	12.3%	11.6%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderately Low)*	**23.3%**	24.7%	26.8%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Moderately Low)*	**21.5%**	27.7%	27.9%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
	Commute using public transit, walking, or cycling *(Low Compard with NYC)*	**14.9%**	49.9%	58.2%	29.9%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
Public Safety	Low Risk	**Low crime rate compared with other boroughs**					2025 access	NYPD Borough and Precinct Crime Statistics, https://www.nyc.gov/site/nypd/stats/crime-statistics/borough-and-precinct-crime-stats.page#queens
Respiratory Disease	Adult Asthma (*Moderate*)	**9.2%**	8.6%	10.1%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★**General health**	Adult prevalence fair/poor health *(Moderately Low Risk)*	**12.9%**	16.8%	19.4%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Average Risk)*	**11.2%**	11.4%	12.9%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
Climate Change								
Overall Climate Risk	Moderate Risk	**58.6**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Relatively Moderate Risk	**relatively moderate**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Very Low Risk	**very low**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Very Low Risk	**very low**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
Air Quality	Population near major roadway with little to no tree buffer *(Low Risk)*	**HUC 12 ID 020302020104: 25.3%**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Very Low Risk)*	**0.57**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Earthquake	Moderate Risk	**41.1**	94.7				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★**Flooding**	Located in Floodplain *(High Risk)*	**Flood Zone AE (100-year flood plain)**					2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Coastal Flooding *(Very High Risk)*	**98.1**	97.4				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Riverine Flooding *(Very High Risk)*	**89.5**	93.5				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Impervious Surface *(Very High Risk)*	**80-100%**					2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows *(Low Risk)*	**HUC 12 ID 020302020104: 4**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★**Heat**	Overall Vulnerability *(Relatively High Risk)*	**79.6**	99.8				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Tree Canopy Average *(Very Low Risk)*	**HUC 12 ID 020302020104: 3.5%**					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Very Low Risk)*	**0%**					2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/

Focus Area	Description	Neighborhood (x916.03)	Queens County	New York City	New York State	U.S.	Year	Data Source
Hurricane	Relatively Moderate Risk	**70.7**	16.0		15.0		2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Strong Wind	Moderate Risk	**61.6**	99.8				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Low Risk	**20.6**	85.6				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★**Vectorborne Disease**	Dengue Risk *(High Incidence)*		295 cases				2010-2024	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Low-Moderate Incidence)*		0.32 Incidence per 100,000 Population				1999-2024	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(High Incidence)*		2,501 cases				2001-2023	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Moderate Wildfire Likelihood		Greater wildfire likelihood than 24% of counties in the US	Greater wildfire likelihood than 37% of communities in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Moderate Wildfire Risk to Homes		Greater risk than 27% of counties in the US	Greater risk than 39% of communities in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Low Risk	**28.4**	87.2				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

AIA Knowledge Community

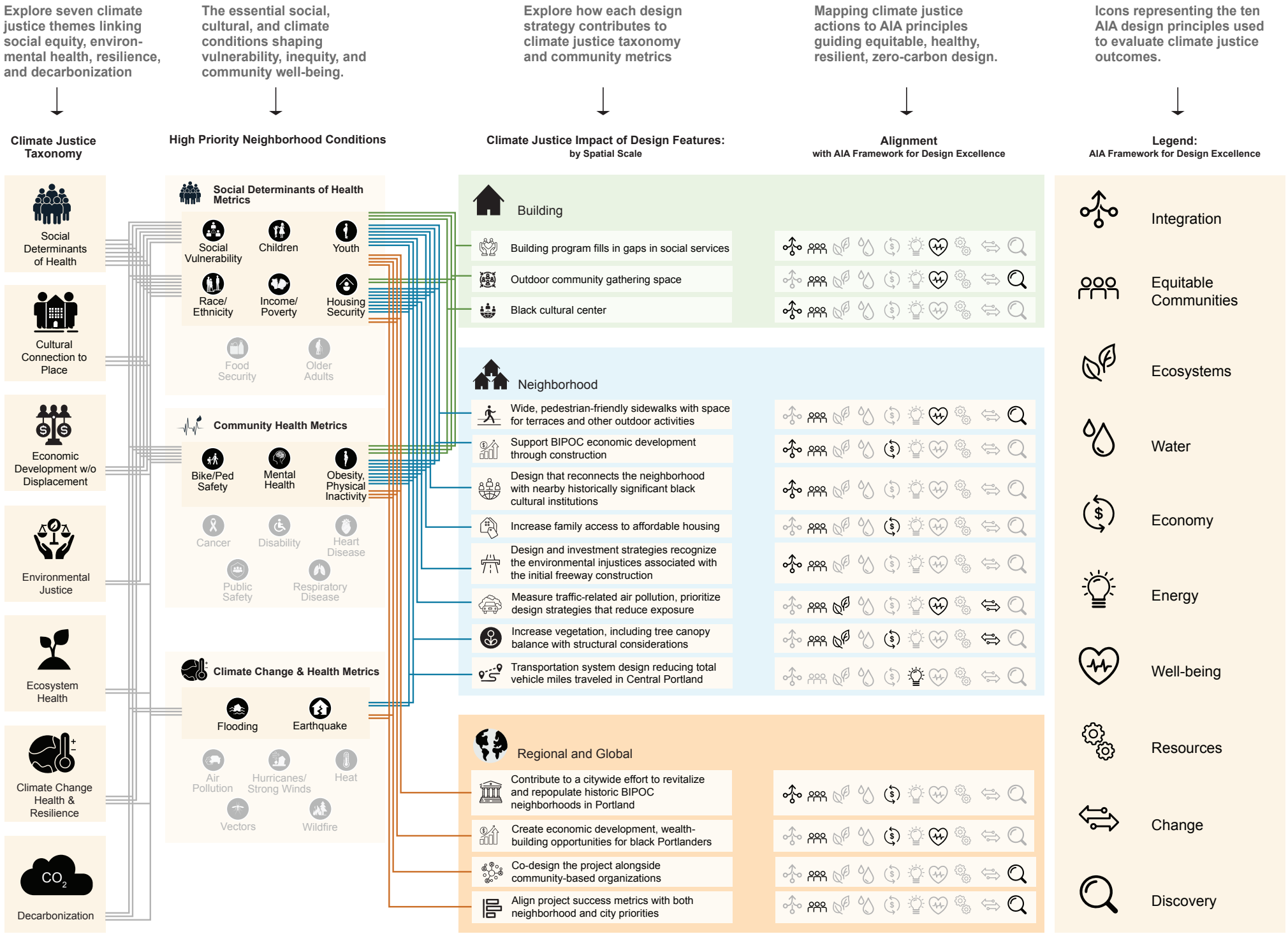


Rendering of future I-5 Rose Quarter Freeway Cap
Image Credit: created by ODOT and ZGF

I-5 Rose Quarter Independent Cover Assessment

This case study highlights an exemplary architecture project that prioritized both environmental and social aspects of climate change in its design process, community engagement approach, and final design. It aligns with many aspects of the AIA Climate Justice in Architecture Taxonomy across the building, neighborhood, regional, and global scales.

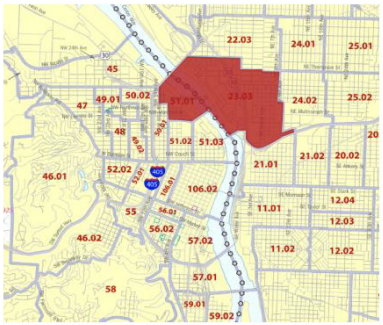
APPENDIX: Full AIA Climate Justice Taxonomy Diagram



Health Situation Analysis - Data Description

Portland, OR: I-5 Rose Quarter Independent Cover Assessment

Census Tract: 41051002303 (dark red in map)
Owner: Oregon Department of Transportation



Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
Social Determinants of Health								
★ **Social Vulnerability**	Overall SVI Score *(Moderately High)*	0.79					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice	Overall EJI Score *(Moderate)*	0.56					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
★ **Children**	Percent children <5 years old *(Low)*	**2.0%**	4.4%	4.8%	5.1%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Youth**	Percent individuals 10-19 years old *(Low)*	**5.6%**	9.5%	10.2%	11.6%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Older Adults	Adults >65 years *(Average for Portland)*	**13.9%**	14.0%	14.1%	18.3%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(Moderately High for Portland)*	**7.5%**	5.9%	5.4%	1.9%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
	Asian *(Moderately Low for Portland)*	**6.2%**	8.4%	7.6%	4.4%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(Moderately Low for Portland)*	**12.2%**	13.6%	14.6%	15.0%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Average for Portland)*	**74.1%**	72.1%	72.4%	78.7%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Average for Portland)*	**9.3%**	10.3%	12.3%	13.8%	18.7%	2022 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 Compared with Portland)*	**$55,673**	$85,876	$83,668	$76,632	$75,149	2022 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 *(High)*	**25.6%**	12.2%	12.2%	11.9%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Food Security	Not located in a food desert	**Not in a 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 *(Moderate)*	**Moderate**		14.2%	14.2%	13.5%	2022	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 America. 2021. https://map.feedingamerica.org

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
★**Housing Security**	Percent owner occupied *(Low Overall Ownership but High for African American/Black Residents)*	**10.2% (15.7% Black/AA owners; 14.9% Asian owners; 69.4% White owners)**	53.3% (3.2% Black/AA owners; 8.1% Asian owners; 81.6% White owners)	54.5% (3.1% Black/AA owners; 7.5% Asian owners; 81.9 White owners)	63.2% (0.9% Black/AA owners; 4.0% Asian owners; 86.6% White owners)	64.82% (8.1% Black/AA owners; 77.8% White owners; 14.1% Other owners)	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Moderately High)*	**33.0%**	42.0%	42.0%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
Community Health								
★**Bike/ Pedestrian Safety**	High Risk	**High crash intersection: Broadway and I-5** **Broadway designated by the City of Portland as high number of driving crashes, pedestrian crashes, and biking crashes** **Broadway has the highest number of Bicycle crashes in the city**						Portland, OR High Crash Network streets and intersections, https://www.portland.gov/transportation/vision-zero/high-crash-network-streets-and-intersections PortlandMaps - Open Data, https://gis-pdx.opendata.arcgis.com/datasets/PDX::high-crash-network/explore?location=45.539366%2C-122.663327%2C14.50 Portland Pedestrian Fatalities, https://www.arcgis.com/apps/instant/basic/index.html?appid=fe9a2f57151d4e3590ef866cf469edb0

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately Low)*	**5.1%**	6.9%	7.0%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderately Low)*	**27.1%**	25.3%	26.8%	30.2%	30.6%	2022 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease *(Moderate)*	**4.7%**	5.2%	5.9%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★ **Mental Health**	Adult depression prevalence *(Moderately High)*	**28.8%**	27.4%	27.0%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderately High)*	**21.3%**	18.8%	18.7%	18.0%	16.6%	2022 version	CDC PLACES*, https://www.cdc.gov/places
	Access to parks and green space *(Very High Compared with US)*	**100.0%**		99.2%	80.3%	61.0%	Accessed 2024	Google Maps, https://www.google.com/maps/
★ **Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Moderately Low)*	**21.6%**	24.6%	25.1%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Moderately Low)*	**6.9%**	7.9%	8.7%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderately High Compared with Portland)*	**30.3%**	28.4%	29.2%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Moderately Low)*	**17.1%**	16.3%	17.9%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Commute using public transit, walking, or cycling *(Very High)*	**42.6%**	17.5%	15.6%	8.0%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
Public Safety	Moderate Risk	**13,523 offences: Assaults: 1,446 Larceny: 7,482 Motor vehicle theft: 1,138**					May 2015 - May 2025	Portland, OR Monthly Portland Neighborhood Offense Statistics, https://public.tableau.com/app/profile/portlandpolicebureau/viz/New_Monthly_Neighborhood/MonthlyOffenseTotals
Respiratory Disease	Adult Asthma (*Moderately High*)	**11.3%**	10.9%	10.9%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Average)*	**17.5%**	16.1%	17.4%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Average)*	**11.7%**	11.4%	12.2%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
Climate Change								
★**Overall Climate Risk**	Very High	**98.8**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Very High	**very high**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Relatively High	**relatively high**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
Community Resilience	Relatively High	**relatively high**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Air Quality	Population near major roadway with little to no tree buffer *(Low)*	**HUC 12 ID 170900120202: 14.8%**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Moderate Risk)*	**0.67**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★ **Earthquake**	Very High	**99.6**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Flooding**	Not Located in Floodplain *(Low-Moderate Risk)*	**Not located in a floodplain, but near river**					2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Coastal Flooding *(High Risk)*	**84.8**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Riverine Flooding *(Average Risk)*	**50.0**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Impervious Surface *(Very High)*	**70-90%**					2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows (None)	**HUC 12 ID 170900120202: 0**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Heat	Overall Vulnerability *(Relatively Low)*	**36.1**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x2303) Portland	Multnomah County	OR	U.S.	Year	Data Source
	Disparities in Heat Vulnerability *(Average)*	**52nd percentile**				2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
	Tree Canopy Average *(Low)*	**HUC 12 ID 170900120202: 22.5%**				various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Very Low)*	**0-25%**				2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
Hurricane	no rating	**no rating**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Strong Wind	Very Low Risk	**6.0**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Low Risk	**17.7**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Low to Moderate Incidence)*		23 cases			2010-2023	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk		no data			1999-2024	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html

Focus Area	Description	Neighborhood (x2303)	Portland	Multnomah County	OR	U.S.	Year	Data Source
	Tickborne Diseases *(Low Incidence)*			167 cases			2001-2023	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Moderate Wildfire Likelihood		Greater wildfire likelihood than 28% of communities in the US	Greater wildfire likelihood than 65% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Moderate Wildfire Risk to Homes		Greater risk than 30% of communities in the US	Greater risk than 69% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Low Risk	**23.3**					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

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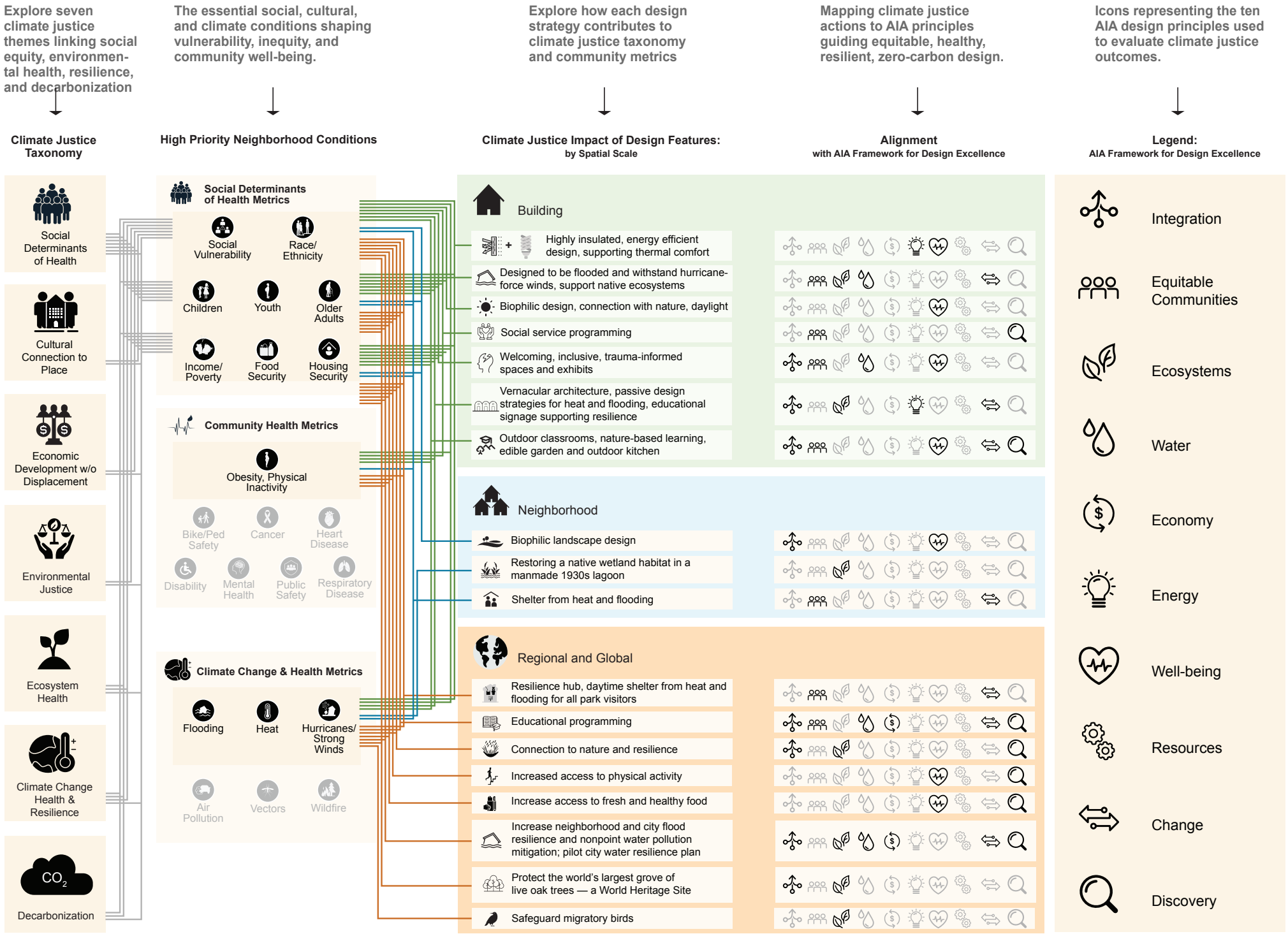


Louisiana Children's Museum, Aerial View
Image Credit: Kevin Scott

Louisiana Children's Museum

This case study highlights an exemplary architecture project that prioritized both environmental and social aspects of climate change in its design process, community engagement approach, and final design. It aligns with many aspects of the AIA Climate Justice in Architecture Taxonomy across the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy Diagram



Health Situation Analysis - Data Description

New Orleans, LA: Louisiana Children's Museum

Census Tract: 22071980000 (dark red in map)
Owner: Louisiana Children's Museum



Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
Social Determinants of Health									
★ **Social Vulnerability**	Overall SVI Score *(Disparities Across Census Tracts)*		x0037.01: 0.71 x0046.00: 0.29 x0055.00: 0.12					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
★ **Environmental Justice**	Overall EJI Score *(Disparities Across Census Tracts)*		x0037.01: 0.60 x0046.00: 0.12 x0055.00: 0.07					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
★ **Chidren**	Percent children <5 years old *(Low)*	**0.0%**	x0037.01: 1.8% x0046.00: 2.7% x0055.00: 7%	5.6%	5.6%	6.2%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Youth**	Percent individuals 10-19 years old *(Low)*	**0.0%**	x0037.01: 4.9% x0046.00: 5.6% x0055.00: 7.4%	11.0%	11.0%	13.1%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Older Adults**	Adults >65 years *(High)*	**28.6%**	x0037.01: 29.6% x0046.00: 20.1% x0055.00: 16.4%	15.9%	15.9%	16.0%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(Disparities Across Census Tracts)*	**42.9%**	x0037.01: 48.1% x0046.00: 2.2% x0055.00: 11.3%	57.0%	57.0%	31.6%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
	Asian *(Very Low)*	**0.0%**	x0037.01: 0% x0046.00: 0% x0055.00: 7%	2.8%	2.8%	1.7%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(High Compared with New Orleans)*	**14.2%**	x0037.01: 8.6% x0046.00: 8.5% x0055.00: 12.1%	7.8%	7.8%	7.3%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Disparities Across Census Tracts)*	**42.9%**	x0037.01: 43.3% x0046.00: 89.3% x0055.00: 69.6%	32.4%	32.4%	59.4%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(High Compared with New Orleans)*	**14.3%**	x0037.01: 4.8% x0046.00: 8.5% x0055.00: 6.2%	5.7%	5.7%	5.5%	18.7%	2022 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 High Compared with New Orleans; Low Compared with U.S.)*		x0037.01: $59,500 x0046.00: $66,266 x0055.00: $72,868	$51,116	$51,116	$57,852	$75,149	2022 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 *(High)*	**85.7%**	x0037.01: 11.6% x0046.00: 11.1% x0055.00: 10.2%	22.9%	22.9%	18.7%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
★ **Food Security**	Located in a food desert	**Located in a food desert**						2019	USDA Food Access Research Atlas, https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
	Food Insecurity *(Moderately High)*				18.6%	18.1%	13.5%	2023	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 America. 2021. https://map.feedingamerica.org
★ **Housing Security**	Percent owner occupied *(Disparities Across Census Tracts)*		x0037.01: 45.8% (59.3% Black/AA owners; 34% White owners; 6.7% Other owners) x0046.00: 38.5% (0% Black/AA owners; 94.7% White owners; 5.3% Other owners) x0055.00: 59.2% (3.6% Black/AA owners; 85.5% White owners; 4.7% Asian owners; 6.2% Other owners)	49.3% (48.7% Black/AA owners; 43.2% White owners; 2.8% Asian owners; 5.3% Other owners)	49.3% (48.7% Black/AA owners; 43.4% White owners; 2.8% Asian owners; 5.1% Other owners)	67.2% (21.8% Black/AA owners; 71.9% White owners; 1.5% Asian owners; 4.8% Other owners)	64.82% (8.1% Black/AA owners; 77.8% White owners; 14.1% Other owners)	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Very Low)*	**0.0%**	x0037.01: 47% x0046.00: 52% x0055.00: 55%	49.0%	49.0%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
Community Health									
Bike/ Pedestrian Safety	Low Risk								New Orleans crime map, https://www.arcgis.com/apps/webappviewer/index.html?id=f277bee14b6744bb9028731b8953b568
Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately High)*		x0037.01: 7.4% x0046.00: 7.6% x0055.00: 6.6%	5.7%	6.2%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderately High)*		x0037.01: 30.9% x0046.00: 23.6% x0055.00: 22.5%	34.6%	34.9%	37.8%	30.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease *(Moderate)*		x0037.01: 7.0% x0046.00: 5.2% x0055.00: 4.3%	6.5%	6.8%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★ **Mental Health**	Adult depression prevalence *(Moderate)*		x0037.01: 24.1% x0046.00: 27.7% x0055.00: 28.5%	26.1%	25.4%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(City Park acts as a mental health respite in New Orleans)*		x0037.01: 16.3% x0046.00: 15.7% x0055.00: 16.9%	20.0%	19.5%	20.2%	16.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	★ Access to parks and green space	**100.0%**	x0037.01: 100% x0046.00: 100% x0055.00: 100%		90.9%	34.9%	61.0%	Accessed 2024	Google Maps, https://www.google.com/maps/
★ **Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Average)*		x0037.01: 39.4% x0046.00: 26.5% x0055.00: 25.2%	36.8%	38.8%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
	Adult diabetes *(High Compared with US)*		x0037.01: 34.6% x0046.00: 28.6% x0055.00: 28.8%	14.1%	14.9%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Average)*		x0037.01: 34.6% x0046.00: 28.6% x0055.00: 28.8%	37.0%	38.1%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Disparities)*		x0037.01: 22.7% x0046.00: 15.9% x0055.00: 15.7%	26.7%	27.0%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Commute using public transit, walking, or cycling *(Moderately Low)*		x0037.01: 9.4% x0046.00: 5.6% x0055.00: 4.1%	13.2%	13.2%	3.3%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
Public Safety	Low Risk	**low risk**							New Orleans crime map, https://www.arcgis.com/apps/webappviewer/index.html?id=f277bee14b6744bb9028731b8953b568
Respiratory Disease	Adult Asthma (Average)		x0037.01: 10.1% x0046.00: 9.2% x0055.00: 9.2%	11.0%	10.9%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderately Low Risk)*		x0037.01: 18.3% x0046.00: 12.4% x0055.00: 11.3%	22.6%	22.1%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Moderately Low)*		x0037.01: 12.3% x0046.00: 9.7% x0055.00: 9.2%	14.0%	13.9%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
Climate Change									
Overall Climate Risk	Relatively Low	**22.8**	x0037.01: 56.4 x0046.00: 57.0 x0055.00: 74.8					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Very Low	**very low**	x0037.01: relatively low x0046.00: relatively moderate x0055.00: relatively high					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Relatively High	**relatively high**	x0037.01: relatively moderate x0046.00: relatively low x0055.00: very low					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Very High	**very hight**	x0037.01: very high x0046.00: very high x0055.00: 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 *(Moderately Low Risk)*	**HUC 12 ID 080902030103: 17.8%**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Moderately Low Risk)*	**0.34**	x0037.01: 0.55 x0046.00: 0.57 x0055.00: 0.56					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Earthquake	Moderately Low Risk	**19.4**	x0037.01: 28.3 x0046.00: 19.5 x0055.00: 46.6					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
★ **Flooding**	Not Located in Floodplain *(Low Risk; Receives stormwater from surrounding neighborhoods)*	**Not in a floodplain**	Stormwater drains to City Park					2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Riverine Flooding *(Moderately Low Risk)*	**26.1**						2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Impervious Surface *(Moderately Low)*	**0-50%**						2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows (None)	**HUC 12 ID 080902030103: 0**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★ **Heat**	Overall Vulnerability *(Relatively Low; City Park acts as a place of respite for heat)*	**16.2**	x0037.01: 59.5 x0046.00: 68.3 x0055.00: 63.0					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Disparities in Heat Vulnerability		x0037.01: no data x0046.00: 52nd percentile x0055.00: 52nd percentile					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
	Tree Canopy Average *(Very Low)*	**HUC 12 ID 080902030103: 1.7%**						various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Moderate)*	**40-60%**						2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/

Focus Area	Description	Neighborhood (x9800)	Surrounding Census Tracts	New Orleans	Orleans Parish	LA	U.S.	Year	Data Source
★ **Hurricane**	Moderately High *(High in surrounding census tracts)*	**75.1**	x0037.01: 84.6 x0046.00: 84.7 x0055.00: 89.5					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Strong Wind	Very Low	**3.4**	x0037.01: 17.4 x0046.00: 19.8 x0055.00: 19.3					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Very Low	**2.0**	x0037.01: 21.5 x0046.00: 27.2 x0055.00: 25.2					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Very Low Incidence)*				21 cases			2010-2024	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Very Low Incidence)*				0.55 incidence per 100,000			1999-2024	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(Very Low Incidence)*				13 cases			2001-2022	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Moderate Wildfire Likelihood			Greater wildfire likelihood than 63% of communities in the US	Greater wildfire likelihood than 49% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Moderate Wildfire Risk to Homes			Greater risk than 77% of communities in the US	Greater risk than 67% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Moderately Low	**16.5**	x0037.01: 21.7 x0046.00: 22.8 x0055.00: 23.3					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

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Committee on the Environment

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Santa Monica City Hall East, aerial view
Image Credit: Alex Nye, courtesy of Buro Happold

Santa Monica City Hall East

This case study shares an exemplary architecture project that centered both the environmental and social aspects of climate change in the design process, approach to community engagement, and final design. It touches on many aspects of the AIA Climate Justice in Architecture Taxonomy at the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy

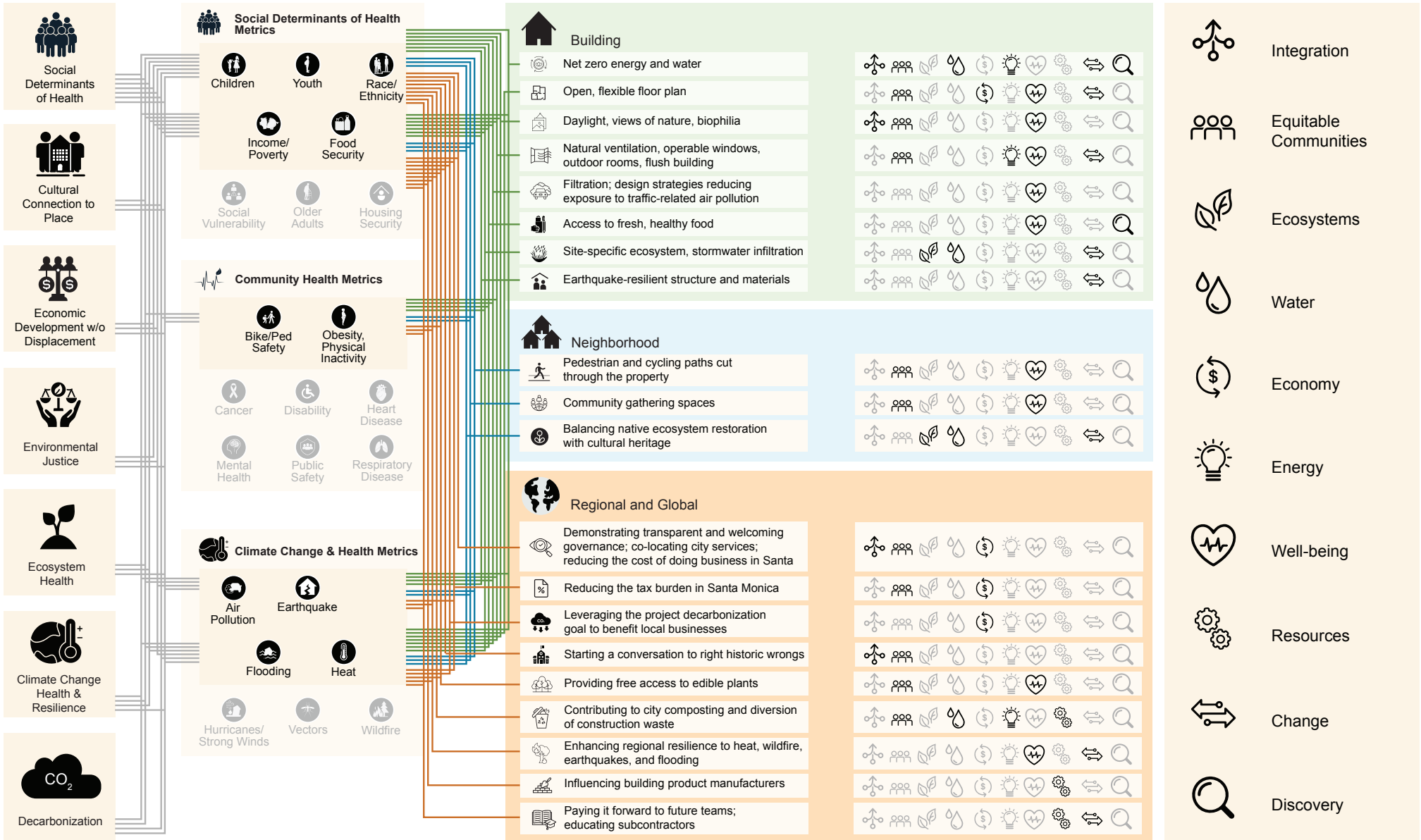
Explore seven climate justice themes linking social equity, environmental health, resilience, and decarbonization

The essential social, cultural, and climate conditions shaping vulnerability, inequity, and community well-being.

Explore how each design strategy contributes to climate justice taxonomy and community metrics

Mapping climate justice actions to AIA principles guiding equitable, healthy, resilient, zero-carbon design.

Icons representing the ten AIA design principles used to evaluate climate justice outcomes.



Health Situation Analysis - Data Description

Santa Monica, CA: Santa Monica City Hall East

Census Tract: 06037701902 (dark red in map)

Owner: City of Santa Monica



Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
Social Determinants of Health									
Social Vulnerability	Overall SVI Score *(Moderately High)*	0.71	x7020.02: 0.64 x7018.02: 0.78 x7017.02: 0.70 x7015.02: 0.55 x7014.02: 0.71					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice	Overall EJI Score *(Moderately Low)*	0.45	x7020.02: 0.28 x7018.02: 0.59 x7017.02: 0.41 x7015.02: 0.35 x7014.02: 0.56					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
★**Chidren**	Percent children <5 years old *(Very Low)*	**0.5%**	x7020.02: 7.8% x7018.02: 2.5% x7017.02: 2.9% x7015.02: 2.5% x7014.02: 1.8%	4.7%	5.4%	5.7%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★**Youth**	Percent individuals 10-19 years old *(Very Low)*	**2.6%**	x7020.02: 5% x7018.02: 8.8% x7017.02: 4.4% x7015.02: 3.8% x7014.02: 6%	8.0%	11.0%	12.6%	13.1%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
Older Adults	Adults >65 years *(Average for Santa Monica)*	**18.4%**	x7020.02: 18.3% x7018.02: 13.3% x7017.02: 16.1% x7015.02: 22.5% x7014.02: 20.5%	18.8%	14.2%	14.9%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(High Compared with CA, but Average Compared with US)*	**11.1%**	x7020.02: 12.4% x7018.02: 10.2% x7017.02: 12.9% x7015.02: 7.8% x7014.02: 1.3%	5.3%	7.9%	5.6%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Moderately Low Compared with Santa Monica; Low Compared with LA County)*	**6.8%**	x7020.02: 8.1% x7018.02: 8.3% x7017.02: 10.6% x7015.02: 6.4% x7014.02: 7.7%	8.8%	14.8%	15.1%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(Low Compared with LA County; Moderately Low Compared with US)*	**11.8%**	x7020.02: 12.4% x7018.02: 29.8% x7017.02: 9.8% x7015.02: 18.2% x7014.02: 25%	16.9%	37.7%	31.2%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Average Compared with Santa Monica; High Compared with LA County and CA)*	**70.3%**	x7020.02: 67.1% x7018.02: 51.7% x7017.02: 66.7% x7015.02: 67.6% x7014.02: 66%	69.0%	39.6%	48.1%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Low)*	**6.0%**	x7020.02: 14.6% x7018.02: 32.5% x7017.02: 11.9% x7015.02: 17.9% x7014.02: 24.9%	17.2%	48.7%	39.7%	18.7%	2022 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 *(Low Compared with Santa Monica; Moderately Low Compared with LA County and CA)*	**$75,565**	x7020.02: $96,664 x7018.02: $89,125 x7017.02: $73,906 x7015.02: $105,455 x7014.02: $116,296	$106,797	$83,411	$91,905	$75,149	2022 5-year estimate	U.S. Census American Community Survey, S1901, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
★ **Poverty Status**	Percent individuals below poverty level over the past 12 months *(High)*	**24.2%**	x7020.02: 9.4% x7018.02: 17.7% x7017.02: 20.8% x7015.02: 5.7% x7014.02: 16.6%	11.6%	13.7%	12.1%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
★ **Food Security**	Not located in a food desert	**not in a food desert**	not in a 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 *(Moderate)*				14.6%	13.7%	13.5%	2022	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(High Disparities in Risk)*	**10.6%**	x7020.02: 8.6% x7018.02: 22.9% x7017.02: 12.2% x7015.02: 7% x7014.02: 8.1%	8.5%	17.2%	15.9%	11.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places
x7020.02: 17.2% x7018.02: 22.9% x7017.02: 6.5% x7015.02: 12% x7014.02: 14.8% +A25:J25	Prevalence of housing insecurity *(Moderate Risk)*	**11.3%**	x7020.02: 9.1% x7018.02: 14.4% x7017.02: 12.3% x7015.02: 7.8% x7014.02: 8.8%	9.1%	15.7%	14.2%	10.2%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Percent owner occupied *(Moderately Low)*	**4.2%**	x7020.02: 17.2% x7018.02: 22.9% x7017.02: 6.5% x7015.02: 12% x7014.02: 14.8%	28.9%	46.2%	55.6%	64.8%	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
	Housing + Transportation as percentage of household income *(Very High)*	**51.0%**	x7020.02: 47% x7018.02: 49% x7017.02: 45% x7015.02: 41% x7014.02: 43%					2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
Community Health									
★ **Bike/ Pedestrian Safety**	Moderate Risk	**Moderate Risk (surrounded by high density on intersections near beach)**						2022	Santa Monica Vision Zero, https://www.santamonica.gov/programs/vision-zero City of Santa Monica Local Road Safety Plan https://www.santamonica.gov/media/Mobility/Local%20Roadway%20Safety%20Plan/Santa%20Monica%20Local%20Roadway%20Safety%20Plan%20-%20Full%20-%202022-04-22.pdf
Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Disparities Across Census Tracts)*	**6.9%**	x7020.02: 8.0% x7018.02: 6.1% x7017.02: 6.4% x7015.02: 8.6% x7014.02: 9.5%	8.3%	6.0%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderate)*	**23.9%**	x7020.02: 23.8% x7018.02: 28.1% x7017.02: 23.2% x7015.02: 23.3% x7014.02: 25.1%	22.4%	28.3%	29.2%	30.6%	2022 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
Heart Disease	Adult coronary heart disease *(Moderate)*	**5.3%**	x7020.02: 5.1% x7018.02: 5.0% x7017.02: 4.5% x7015.02: 5.2% x7014.02: 6.0%	5.1%	5.4%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence *(Moderate)*	**22.1%**	x7020.02: 23.8% x7018.02: 23.5% x7017.02: 23.2% x7015.02: 21.7% x7014.02: 22.7%	22.1%	20.1%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Disparities Across Census Tracts)*	**15.3%**	x7020.02: 16.3% x7018.02: 28.1% x7017.02: 23.2% x7015.02: 23.2% x7014.02: 15.2%				14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Access to parks and green space *(High Access)*	**100.0%**	x7020.02: 100% x7018.02: 100% x7017.02: 100% x7015.02: 99.7% x7014.02: 100%		82.8%	79.5%		Accessed 2024	Google Maps, https://www.google.com/maps/
★ **Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Moderate)*	**27.0%**	x7020.02: 26.4% x7018.02: 26.5% x7017.02: 24.6% x7015.02: 25.6% x7014.02: 28.7%	26.6%	28.2%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Moderate)*	**9.2%**	x7020.02: 8.9% x7018.02: 10.1% x7017.02: 8.8% x7015.02: 8.4% x7014.02: 9.3%				11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderate)*	**24.8%**	x7020.02: 25.1% x7018.02: 26.3% x7017.02: 25.1% x7015.02: 21.4% x7014.02: 23.6%	23.2%	26.2%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
	Adult physical inactivity *(High)*	**16.8%**	x7020.02: 16.6% x7018.02: 20.6% x7017.02: 16.9% x7015.02: 15.5% x7014.02: 16.8%	15.5%	23.1%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Commute using public transit, walking, or cycling *(Moderately High Compared with Santa Monica and LA County; High Compared with US)*	**14.1%**	x7020.02: 13.7% x7018.02: 10.8% x7017.02: 23.6% x7015.02: 12.6% x7014.02: 12.8%	11.3%	7.7%	6.7%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
Public Safety	Moderately Low Risk	**22 incidents**	108 and 399 incidents closer to the beach					2024 - 2025	Santa Monica, CA Community Crime Dashboard, https://experience.arcgis.com/experience/a9495d76e6fd484aa78572f84995bb24/page/Crime-Data-Explorer https://www.santamonica.gov/topic-explainers/crime-reports-and-statistics
Respiratory Disease	Adult Asthma *(Average)*	**9.2%**	x7020.02: 9.8% x7018.02: 10.1% x7017.02: 9.6% x7015.02: 9.0% x7014.02: 9.4%	9.2%	9.1%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderate Risk)*	**14.5%**	x7020.02: 13.9% x7018.02: 18.1% x7017.02: 14.5% x7015.02: 12.9% x7014.02: 13.9%	12.9%	19.6%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
General physical health	Adult poor physical health over past 14 days *(Moderate Risk)*	**11.2%**	x7020.02: 11.4% x7018.02: 12.7% x7017.02: 11.1% x7015.02: 10.2% x7014.02: 11.3%	10.5%	10.5%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Climate Change									
★ **Overall Climate Risk**	Very High	**99.6**	x7020.02: 90.2 x7018.02: 96.1 x7017.02: 91.2 x7015.02: 90.1 x7014.02: 95.6					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Expected Annual Loss**	Very High	**99.3**	x7020.02: 89.2 x7018.02: 93.8 x7017.02: 88.8 x7015.02: 89.9 x7014.02: 93.4					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Relatively High	**relatively high**	x7020.02: relatively moderate x7018.02: relatively high x7017.02: relatively high x7015.02: relatively moderate x7014.02: relatively high					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Very Low	**very low**	x7020.02: very low x7018.02: very low x7017.02: very low x7015.02: very low x7014.02: very low					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Air Quality**	Population near major roadway with little to no tree buffer *(Very Low)*	**HUC 12 ID 180701040403: 14.9%**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
	Respiratory risk (hazard index) due to cumulative air toxics *(Moderate)*	**0.58**	x7020.02: 0.59 x7018.02: 0.59 x7017.02: 0.58 x7015.02: 0.59 x7014.02: 0.56					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Exposure to PM2.5 *(High Exposure)*	**80th percentile**						2019	Wong G. Climate Action and Adaptation Plan: A 2030 Community Plan to Reduce Carbon Emissions and Become Climate Resilient. City of Santa Monica; 2019:1-63. https://www.smgov.net/uploadedFiles/Departments/OSE/Climate/CAAP_SantaMonica.PDF
	Exposure to Ozone *(High Exposure)*	**90th percentile**						2019	Wong G. Climate Action and Adaptation Plan: A 2030 Community Plan to Reduce Carbon Emissions and Become Climate Resilient. City of Santa Monica; 2019:1-63. https://www.smgov.net/uploadedFiles/Departments/OSE/Climate/CAAP_SantaMonica.PDF
	Diesel particulate matter *(High Exposure)*	**20.39 kg/day**							Public Health Alliance of Southern California. California Healthy Places Index. Accessed December 30, 2021. https://map.healthyplacesindex.org
★ **Earthquake**	Very High Risk	**99.8**	x7020.02: 97.1 x7018.02: 98.8 x7017.02: 97.4 x7015.02: 97.0 x7014.02: 98.7					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Flooding**	Not Located in Floodplain *(Low Risk)*	**not in a floodplain**						2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
	Coastal Flooding *(Moderately High Risk)*	**76.6**	x7020.02: 70.7 x7018.02: no rating x7017.02: no rating x7015.02: no rating x7014.02: 71.7						
	Riverine Flooding *(Moderately Low Risk)*	**43.8**	x7020.02: 30.3 x7018.02: no rating x7017.02: no rating x7015.02: no rating x7014.02: 36.3					2016 version	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Impervious Surface *(Very High)*	**80-100%**						2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows *(None)*	**HUC 12 ID 180701040403: 0**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★ **Heat**	Overall Vulnerability *(Relatively Low Rick)*	**27.2**	x7020.02: 26.6 x7018.02: 25.1 x7017.02: 22.3 x7015.02: 21.9 x7014.02: 29.0					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Disparities in Heat Vulnerability *(Very High Disparities)*	**91st percentile**	x7020.02: 69th percentile x7018.02: 69th percentile x7017.02: 92nd percentile x7015.02: 83rd percentile x7014.02: 91st percentile					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
	Tree Canopy Average *(Low)*	**HUC 12 ID 180701040403: 7.8%**						various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
	Tree Canopy Average - alternative example *(Moderately Low)*	**20%**						2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
Strong Wind	Very Low Risk	**12.9**	x7020.02: 12.2 x7018.02: 10.9 x7017.02: 8.5 x7015.02: 8.1 x7014.02: 14.2					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Moderately Low Risk	**35.9**	x7020.02: 25.5 x7018.02: 26.7 x7017.02: 22.5 x7015.02: 21.5 x7014.02: 31.1					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Very High Incidence)*			653 cases				2010-2024	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Moderate Incidence)*			0.66 Incidence per 100,000 Population				1999-2024	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(Low Incidence)*			157 cases				2001-2022	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Very High Wildfire Likelihood			Greater wildfire likelihood than 92% of communities in the US	Greater wildfire likelihood than 97% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore

Focus Area	Description	Neighborhood (x7019.02)	Surrounding Census Tracts	Santa Monica	Los Angeles County	CA	U.S.	Year	Data Source
	Very High Wildfire Risk to Homes			Greater risk than 94% of communities in the US	Greater risk than 99% of counties in the US			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

AIA Knowledge Community



Sealaska Heritage Institute Arts Campus, Heritage Square, and Sealaska Cultural Values Totem Pole
Image Credit: Zane Jones

Sealaska Heritage Institute

This case study highlights an exemplary architecture project that prioritized both environmental and social aspects of climate change in its design process, community engagement, and final design. It aligns with many aspects of the AIA Climate Justice in Architecture Taxonomy across the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy

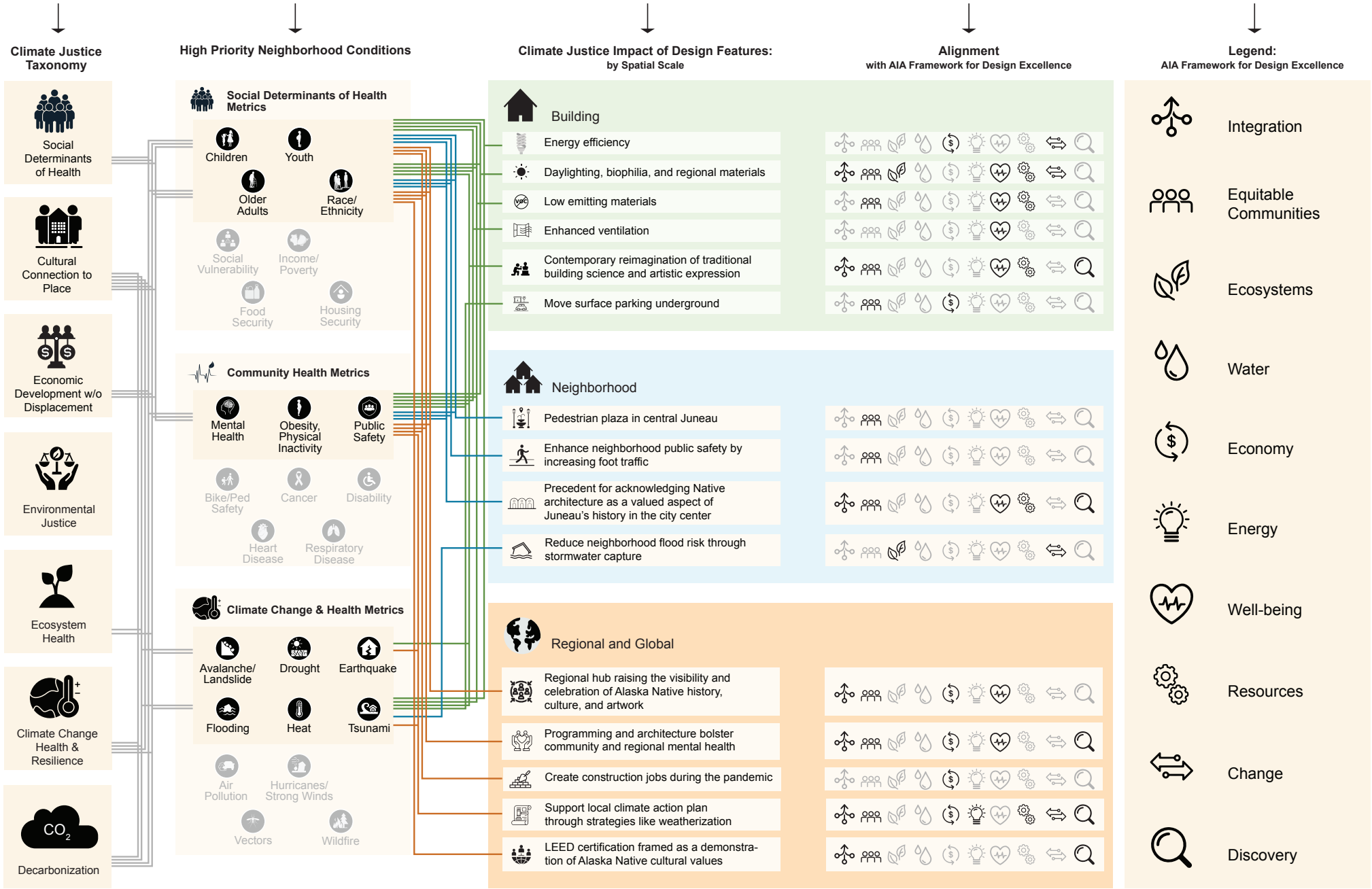
Explore seven climate justice themes linking social equity, environmental health, resilience, and decarbonization

The essential social, cultural, and climate conditions shaping vulnerability, inequity, and community well-being.

Explore how each design strategy contributes to climate justice taxonomy and community metrics

Mapping climate justice actions to AIA principles guiding equitable, healthy, resilient, zero-carbon design.

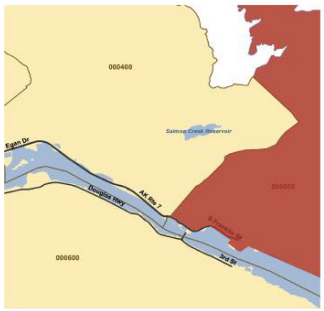
Icons representing the ten AIA design principles used to evaluate climate justice outcomes.



Health Situation Analysis - Data Description

Juneau, AK: Sealaska Heritage Institute

Census Tract: 02110000500 (dark red in map)
Owner: Sealaska Heritage Institute



Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
Social Determinants of Health							
Social Vulnerability	Overall SVI Score *(Moderately Low)*	0.41				2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
★**Chidren**	Percent children <5 years old *(Low)*	**3.2%**	5.2%	6.7%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★**Youth**	Percent individuals 10-19 years old *(Low)*	**3.4%**	12.0%	13.8%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★**Older Adults**	Adults >65 years *(High)*	**29.8%**	14.8%	12.8%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(Very Low)*	**0.0%**	1.1%	3.3% B	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
	American Indian/Alaska Native *(Moderately Low Compared with AK, but Very High Compared with US)*	**8.1%**	9.4%	14.3%	0.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Moderately High)*	**9.4%**	7.2%	6.5%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Moderately High)*	**73.4%**	64.0%	61.3%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Moderately Low Compared with Juneau; Low Compared with US)*	**6.4%**	7.2%	7.5%	18.7%	2022 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 Compared with Juneau; Moderately High Compared with U.S.)*	**$90,259**	$95,711	$86,370	$75,149	2022 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 *(Low Compared with Alaska and US)*	**5.1%**	6.9%	10.5%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Food Security	Not located in a food desert	**not in a food desert**				2019	USDA Food Access Research Atlas, https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
	Food Insecurity *(Moderate)*		12.2%	14.5%	13.5%	2022	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(Moderately Low Compared with Alaska)*	**8.7%**	10.1%	13.8%	11.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Housing Security	Prevalence of housing insecurity *(Moderately Low)*	**8.8%**	10.0%	12.5%	10.2%	2022 version	CDC PLACES*, https://www.cdc.gov/places
	Percent owner occupied *(Moderately Low)*	**44.7%**	64.3%	66.3%	64.8%	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Moderately High)*	**37%**	44%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
Community Health							
Bike/ Pedestrian Safety	Low Risk	**low risk at site, but surrounded by several streets with high motor vehicle crash**				Accessed 2025	Juneau Community Crime Map, https://www.communitycrimemap.com/?address=juneau,ak
Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately High)*	**8.8%**	7.4%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderately Low)*	**25.0%**	25.8%	30.0%	30.6%	2022 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease *(Moderate)*	**6.4%**	5.9%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence *(Average)*	**19.1%**	20.0%		19.5%	2022 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderately Low)*	**13.9%**	15.4%	16.1%	16.6%	2022 version	CDC PLACES*, https://www.cdc.gov/places
	★Percent of people living within 1/2 or 1 mile from a park *(High)*	**100.0%**	100.0%	66.3%	61.0%	2020	U.S. National Environmental Public Health Tracking Network, https://ephtracking.cdc.gov/
Obesity, Diabetes, Hypertension	Adult high blood pressure *(Average)*	**31.6%**	29.0%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
	Adult diabetes *(Average)*	**8.7%**	8.5%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Average)*	**32.9%**	33.6%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Average)*	**19.1%**	20.7%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	★Commute using public transit, walking, or cycling *(High)*	**27.2%**	8.6%	9.5%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
★**Public Safety**	Moderately High Risk	**moderately high risk of theft, assault, larceny**				Accessed 2025	Juneau Community Crime Map, https://www.communitycrimemap.com/?address=juneau,ak
Respiratory Disease	Adult Asthma *(Average)*	**9.7%**	10.2%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Slightly Lower Risk Compared with Juneau and US)*	**12.4%**	13.6%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Average)*	**10.9%**	11.6%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
Climate Change							
Overall Climate Risk	Moderate Risk	**45.3**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Moderate Risk	**43.4**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Average Risk	**50.2**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Moderate Risk	**58.4**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Air Quality	Respiratory risk (hazard index) due to cumulative air toxics *(Low Risk)*	**0.15**				various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
★**Avalanche/ Landslide**	High Risk		High risk of landslide and avalanche in steep terrain			2022	Juneau Climate Report, June 2022, https://acrc.alaska.edu/juneau-climate-report/
★**Drought**			Increased drought risk poses a risk to hydroelectric power			2022	Juneau Climate Report, June 2022, https://acrc.alaska.edu/juneau-climate-report/
★**Earthquake**	Moderately High Risk	**81.9**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
★ **Flooding**	High climate risk of flooding		High risk of exposure to heavy precipitation from atmospheric rivers (particularly in downtown Juneau) High risk of Pacific storms and storm surge High risk of glacier outburst floods			2022	Juneau Climate Report, June 2022, https://acrc.alaska.edu/juneau-climate-report/
	Not Located in Floodplain *(Moderate Risk)*	**not in a floodplain, but 3 blocks from coastline**					City and Borough of Juneau, Alaska - Flood Map Comparison (Historic vs. Effective), https://fema.maps.arcgis.com/apps/StorytellingSwipe/index.html?appid=48beaefc7ca447f895978686b8e6bd1d#
	Coastal Flooding *(Moderately High Risk)*	**86.5**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Riverine Flooding *(Moderate Risk)*	**61.9**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Impervious Surface *(Very High)*	**100%**				Accessed 2025	Google Maps, https://www.google.com/maps

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
	Sanitary Sewer Overflows *(High Risk)*		High risk of combined sewer overflows (particularly in downtown Juneau)			2022	Juneau Climate Report, June 2022, https://acrc.alaska.edu/juneau-climate-report/
★**Heat**	Extreme Heat Vulnerability *(High Risk)*		Siginificant increase in winter and summer temperatures; projected 10°F increase in annual average temperature by 2100			2022	Juneau Climate Report, June 2022, https://acrc.alaska.edu/juneau-climate-report/
	Tree Canopy Average *(Very Low)*	**HUC 12 ID 190103010606: 0%**				various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Very Low)*	**0%**				2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
Tornado	Very Low Risk	**0.2**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★**Tsunami**	Very High Risk	**97.2**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Tickborne Diseases *(Very Low Incidence)*	**9 cases**				2001-2022	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html

Focus Area	Description	Neighborhood (x500)	Juneau City and Borough	AK	U.S.	Year	Data Source
Wildfire	Very Low Wildfire Likelihood		Nearly all other the US counties, on average, have greater wildfire likelihood than Juneau City and Borough			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Very Low Wildfire Risk to Homes		Nearly all other the US counties, on average, have greater wildfire likelihood than Juneau City and Borough			various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Average Risk	**49.2**				2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the context of climate change.

Committee on the Environment

AIA Knowledge Community



Stanley Center for Peace and Security: Front Entrance
Image Credit: Cameron Campbell, Integrated Studio

Stanley Center for Peace & Security

This case study shares an exemplary architecture project that centered both the environmental and social aspects of climate change in their design process, approach to community engagement, and final design. It touches on many aspects of the AIA Climate Justice in Architecture Taxonomy at the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy Diagram

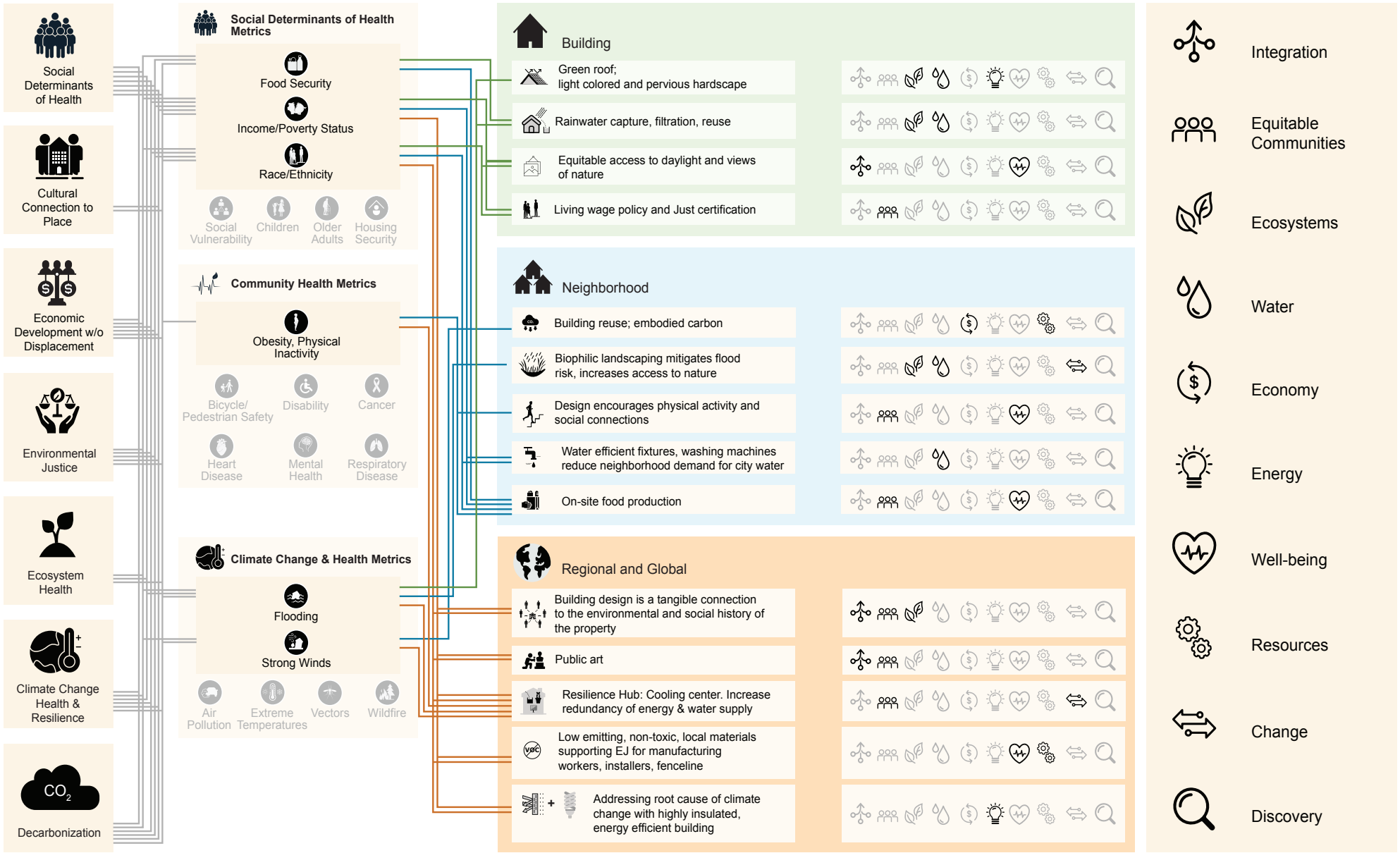
Explore seven climate justice themes linking social equity, environmental health, resilience, and decarbonization

The essential social, cultural, and climate conditions shaping vulnerability, inequity, and community well-being.

Explore how each design strategy contributes to climate justice taxonomy and community metrics

Mapping climate justice actions to AIA principles guiding equitable, healthy, resilient, zero-carbon design.

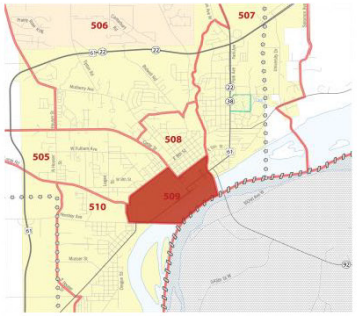
Icons representing the ten AIA design principles used to evaluate climate justice outcomes.



Health Situation Analysis - Data Description

Muscatine, IA: The Stanley Center for Peace and Security Headquarters

Census Tract: 19139050900 (dark red in map)
Owner: The Stanley Center for Peace and Security



Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
Social Determinants of Health								
Social Vulnerability	Overall SVI Score *(Moderately High)*	**x50900: 0.73**		0.48			2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice	Overall EJI Score *(Moderately Low)*	**x50900: 0.46**					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
	EJI: Environmental Burden *(Moderately Low)*	**x50900: 0.41** *(Details: toxic release inventory site, pre-1980 housing, railway)*					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
	EJI: Social Burden *(High)*	**x50900: 0.77** *(Details: poverty, education, unemployment, lack of internet, group quarters)*					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
Chidren	Percent children <5 years old *(Moderately Low)*	**x50900: 4.2%**	7.2%	6.1%	6.0%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
Youth	Percent individuals 10-19 years old *(Moderately High)*	**x50900: 20.1%**	14.9%	14.5%	13.6%	13.1%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Older Adults	Adults >65 years *(Moderately Low)*	**x50900: 10.0%**	15.0%	17.1%	17.6%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Race/ Ethnicity**	African American/Black *(Moderately High for Iowa)*	**x50900: 5.1%**	4.1%	2.7%	3.8%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Very Low)*	**x50900: 0%**	0.8%	0.7%	2.5%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Other *(Very Low)*	**x50900: 0.4%**	14.2%	13.1%	6.8%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Very High)*	**x50900: 94.5%**	80.9%	85.5%	86.9%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Very High)*	**x50900: 28.9%**	20.1%	18.6%	6.5%	18.7%	2022 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 Compared with Muscatine City and County; Low Compared with U.S.)*	**x50900: $48,109**	$58,474	$67,427	$70,571	$75,149	2022 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 *(High)*	**x50900: 25.8%**	17.4%	11.7%	11.1%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
★ **Food Security**	Located in a food desert	**x50900: located in a 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 *(Moderate)*			11.3%	10.8%	13.5%	2022	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(High)*	**x50900: 20.3%**	14.3%	12.4%		13.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Housing Security	Prevalence of housing insecurity *(Moderately High)*	**x50900: 16.4%**	12.3%	11.1%		11.8%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Percent owner occupied *(Moderately Low)*	**x50900: 59.3% (total): 0% AA/ Black; 70.4% White; 25.4% Other Race/ Ethnicity**	69.3% (total); 1.3% AA/ Black; 89% White; 6.8% Other	75.4% (total); 0.7% AA/ Black; 90.4% White; 5.7% Other	71.52% (total); 1.2% AA/ Black; 93.8% White; 5.0% Other	64.82% (total); 8.1% AA/ Black; 77.8% White; 14.1% Other	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
Community Health								
Bike/ Pedestrian Safety	Low Risk	**Not high traffic-related injury neighborhood**					2023	ICAT - Iowa Crash Analysis Tool https://icat.iowadot.gov
Cancer	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately Low)*	**x50900: 6.3%**	8.0%	8.5%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Disability	Adults diagnosed with a disability *(Moderately High)*	**x50900: 35.5%**	30.1%	28.2%		28.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Heart Disease	Adult coronary heart disease *(Moderate)*	**x50900: 7.2%**	7.0%	7.2%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
Mental Health	Adult depression prevalence *(Moderate)*	**x50900: 20.7%**	19.6%	19.0%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderately High)*	**x50900: 18.7%**	15.8%	14.4%		14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Access to parks and green space	**<1/4 mile from Mississippi River linear park and Fourth Street Park**					Accessed 2024	Google Maps, https://www.google.com/maps/
★ **Obesity, Diabetes, Hypertension**	Adult high blood pressure *(Average)*	**x50900: 31.9%**	31.2%	31.3%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Moderate)*	**x50900: 13.5%**	12.3%	12.3%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(High)*	**x50900: 43.5%**	38.8%	37.6%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(High)*	**x50900: 35.1%**	28.8%	26.3%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
	Commute using public transit, walking, or cycling *(High)*	**x50900: 10.3%**	2.8%	2.9%	4.1%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci
Respiratory Disease	Adult Asthma (*Moderately High*)	**x50900: 10.7%**	10.1%	9.7%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderately High)*	**x50900: 24.1%**	19.0%	17.3%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Moderately High)*	**x50900: 15.2%**	13.0%	12.2%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
Climate Change								
Overall Climate Risk	Relatively Low	**x50900: 40.05**		54.9			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Relatively Low	**x50900: relatively low**		relatively low			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Social Vulnerability	Relatively High	**x50900: relatively high**		relatively moderate			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Very High	**x50900: very high**		very high			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
Air Quality	Population near major roadway with little to no tree buffer *(Very Low)*	**HUC 12 ID 070801010605: 3.0%** Adjacent: HUC 12 ID 070801010604: 2.5% Adjacent to west: HUC 12 070801010701: 3.8%					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Low)*	**x50900: 0.34**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Earthquake	Moderate	**x50900: 61.2**		55.3			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Flooding**	Not Located in Floodplain *(Low Risk)*	**x50900: not floodplain**					2016	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Riverine Flooding *(Moderately High)*	**x50900: 78.0**		72.03			2016 version	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Impervious Surface *(Very High)*	**100.0%**					2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows (None)	**HUC 12 ID 070801010605: 0**					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Heat	Overall Vulnerability *(Relatively Low)*	**x50900: 18.8**		22.4			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Extreme Heat Vulnerability *(Moderate Risk)*	**x50900: 0.70**					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
	Tree Canopy Average *(Low)*	**HUC 12 ID 070801010605: 24.5%** Adjacent: HUC 12 ID 070801010604: 8.08% Adjacent to west: HUC 12 070801010701: 10.15%					various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average - alternative example *(Very Low)*	**x50900: 0%**					2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
Hurricane	Very Low	**x50900: 12.5**		9.15			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Strong Wind**	Very High	**x50900: 98.0**		95.13			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Moderate	**x50900: 56.6**		54.76			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Vectorborne Disease	Dengue Risk *(Very Low)*			1-4 cases			2010-2023	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Moderate)*			0.19 Incidence / 100,000 Population			1999-2023	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(Low Incidence)*			Low			2001-2022	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html

Focus Area	Description	Neighborhood	Muscatine	Muscatine County	IA	U.S.	Year	Data Source
Wildfire	Moderate Wildfire Likelihood		Greater risk than 69% of communities in Muscatine County		Greater risk than 75% of communities in Iowa	Greater risk than 55% of states in U.S.	various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Moderate Wildfire Risk to Homes		Greater risk than 69% of communities in Muscatine County		Greater risk than 73% of communities in Iowa	Greater risk than 53% of states in U.S.	various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Moderate	**x50900: 64.6**		38.91			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Climate Justice in Architecture

Design centering both the environmental and social aspects of climate change.

Climate justice in architecture refers to engagement, advocacy, planning, and design that draw down emissions; build resilience and capacity; support human, cultural, and ecological health; and protect all communities in the era of climate change.

Committee on the Environment

AIA Knowledge Community



Williams Terrace: A modern reinterpretation of the Charleston "piazza"
Image Credit: Chris Luker

Williams Terrace

This case study shares an exemplary architecture project that centered both the environmental and social aspects of climate change in their design process, approach to community engagement, and final design. It touches on many aspects of the AIA Climate Justice in Architecture Taxonomy at the building, neighborhood, regional, and global scales.

APPENDIX: Full AIA Climate Justice Taxonomy

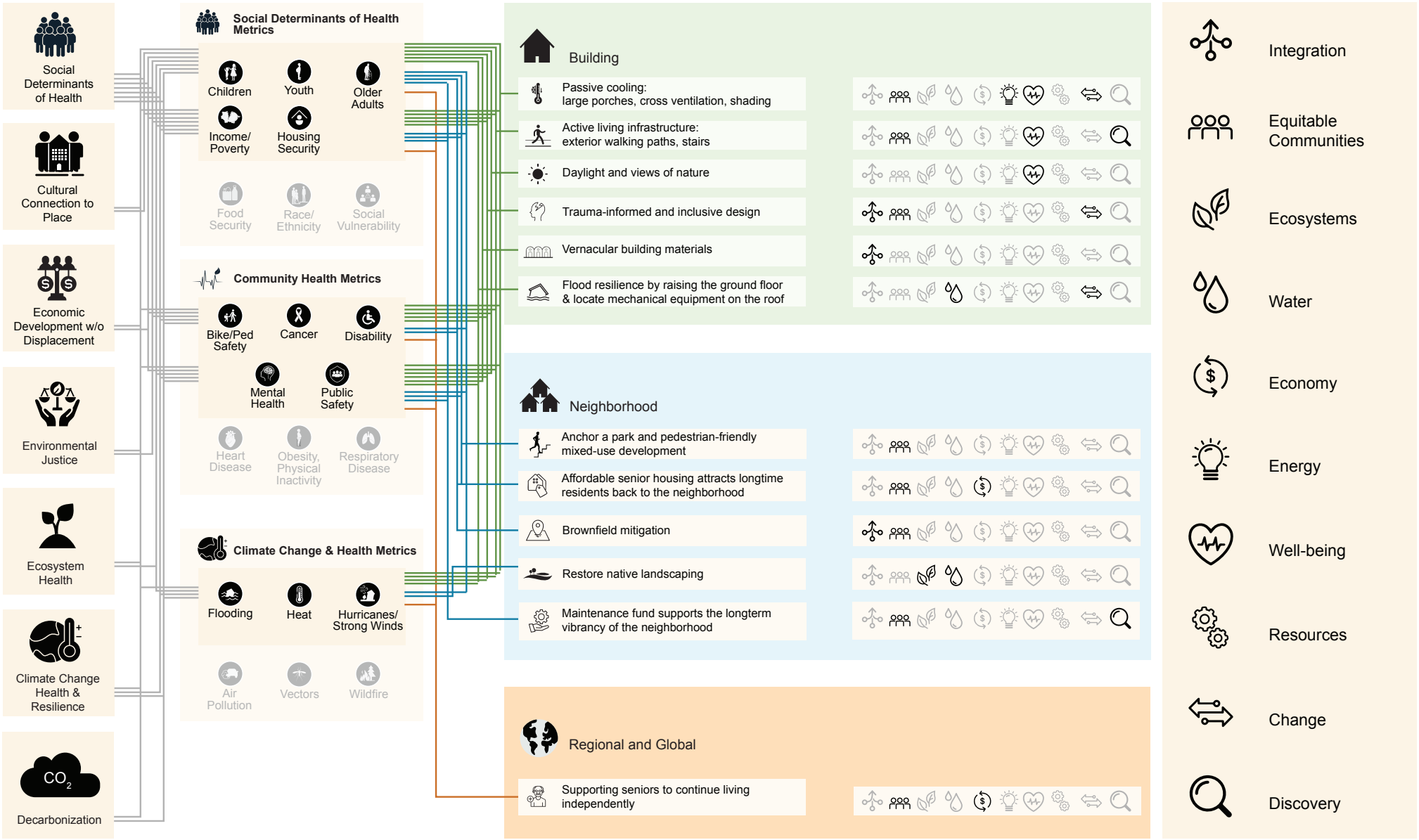
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Icons representing the ten AIA design principles used to evaluate climate justice outcomes.

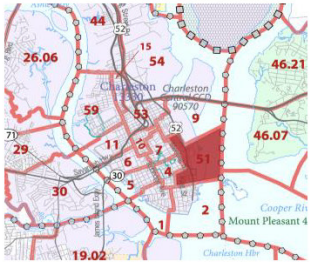


Health Situation Analysis - Data Description

Charleston, SC: Williams Terrace

Census Tract: 45019005100 (dark red in map)

Owner: The Housing Authority of Charleston



Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
Social Determinants of Health									
Social Vulnerability	Overall SVI Score *(Moderate)*	0.45	x0400: 0.36 x0900: 0.39 x0700: 0.35 x0200: 0.01					2022	U.S. CDC, Social Vulnerability Index, https://svi.cdc.gov/map.html
Environmental Justice	Overall EJI Score *(Moderately Low)*	0.12	x0400: 0.51 x0900: 0.65 x0700: 0.39 x0200: 0.13					2022	CDC, 2022 Environmental Justice Index, https://www.atsdr.cdc.gov/placeandhealth/eji/index.html
★ **Chidren**	Percent children <5 years old *(Low)*	**2.8%**	x0400: 0% x0900: 3.1% x0700: 0% x0200: 0.6%	5.2%	5.6%	5.5%	5.7%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Youth**	Percent individuals 10-19 years old *(Moderately Low)*	**6.6%**	x00400: 34.1% x00900: 9.3% x00700: 29.5% x00200: 6.6%	10.0%	11.0%	18.8%	13.1%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
★ **Older Adults**	Adults >65 years *(High)*	**29.2%**	x00400: 13.0% x00900: 5.7% x00700: 2.6% x00200: 44.5%	16.3%	17.3%	18.2%	16.5%	2022 5-year estimate	U.S. Census American Community Survey, DP05, https://data.census.gov/cedsci/
Race/Ethnicity	African American/Black *(Moderately High)*	18.7%	x0400: 8.6% x0900: 36.3% x0700: 14.6% x0200: 1.3%	18.2%	24.8%	25.8%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Asian *(Very Low)*	0.0%	x00400: 4.9% x00900: 0.3% x00700: 2.2% x00200: 0%	2.1%	1.8%	1.7%	5.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
	Other *(Moderate for Charleston)*	6.4%	x00400: 14.5% x00900: 1.4% x00700: 5.6% x00200: 1.1%	6.0%	6.5%	7.5%	15.8%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	White *(Average for Charleston)*	74.9%	x00400: 72.0% x00900: 62.0% x00700: 77.6% x00200: 97.6%	73.7%	66.9%	65.0%	65.9%	2022 5-year estimate	U.S. Census American Community Survey, DP-05, https://data.census.gov/cedsci/
	Hispanic/Latinx *(Moderate for Charleston)*	6.8%	x00400: 7.7% x00900: 1.0% x00700: 3.8% x00200: 0%	4.8%	5.4%	6.2%	18.7%	2022 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 *(High Disparity Across Neighborhoods)*	**$69,250.00**	x00400: $31,016 x00900: $66,417 x00700: $29,255 x00200: $180,491	$83,891	$78,795	$63,623	$75,149	2022 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 *(High Disparity Across Neighborhoods)*	**17.0%**	x0400: 40.9% x0900: 39.8% x0700: 46.4% x0200: 5.5%	12.6%	12.3%	14.4%	12.5%	2022 5-year estimate	U.S. Census American Community Survey, S1701, https://data.census.gov/cedsci/
Food Security	Not located in a food desert	**Not located in a food desert**	x0400: Not food desert x0900: Food desert x0700: Not food desert x0200: Not 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 *(Moderately Low)*		x0400: x0900: x0700: x0200:		51,110 individuals 12.3% (moderately low)	757,840 individuals 14.1% (moderate)	13.5%	2022	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 America. 2021. https://map.feedingamerica.org
	Food Insecurity *(Moderately Low)*	**8.3%**	x0400: 16% x0900: 21.8% x0700: 18.4% x0200: 2.8%	10.1%	9.8%	14.8%	11.6%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
★ **Housing Security**	Prevalence of housing insecurity *(Disparities Across Neighborhoods)*	**7.9%**	x00400: 12.0% x00900: 18.4% x00700: 13.6% x00200: 2.8%	9.8%	9.6%	13.0%	11.8%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Percent owner occupied *(Disparities Across Neighborhoods)*	**53.4%**	x0400: 20.1% x0900: 22.3% x0700: 11.8% x0200: 83.7%	55.6%	63.2%	70.9%	64.8%	2022 5-year estimate	U.S. Census American Community Survey, S2502, https://data.census.gov/
	Housing + Transportation as percentage of household income *(Very High)*	**58%**	x0400: 36% x0900: 40% x0700: 47% x0200: 76%	47%	47%			2015	Center for Neighborhood Technology. H&T Index. https://htaindex.cnt.org/

Focus Area	Description	Neighborhood	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
Community Health									
★ **Bike/ Pedestrian Safety**	Moderately High Risk	**678 collisions** **99 injuries**	North of neighborhood: 119 collisions 41 injuries West of neighborhood: 2,880 collisions 3 fatalities 638 injuries					2023	South Carolina Department of Public Safety Collisions Dashboard, https://scdps-gis-and-mapping-scdps.hub.arcgis.com/pages/dashboards (2017-2021)
★ **Cancer**	Adult cancer prevalence (Excluding Skin Cancer) *(Moderately High)*	**10.2%**	x0400: 5.7% x0900: 3.7% x0700: 3.2% x0200: 15.9%	7.5%	8.2%		7.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★ **Disability**	Adults diagnosed with a disability *(Moderately Low)*	**24.6%**	x0400: 32.6% x0900: 29.5% x0700: 30.6% x0200: 20.0%	23.5%	22.9%		28.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
Heart Disease	Adult coronary heart disease *(Moderate)*	**7.1%**	x0400: 5.8% x0900: 4.3% x0700: 3.3% x0200: 7.6%	5.0%	5.8%		6.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
★ **Mental Health**	Adult depression prevalence *(Moderately Low compared with surrounding census tracts)*	**19.7%**	x0400: 26.9% x0900: 23.8% x0700: 29.5% x0200: 16.8%	21.7%	19.2%		19.5%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult poor mental health over past 14 days *(Moderately Low compared with surrounding census tracts)*	**13.1%**	x0400: 22.1% x0900: 20.4% x0700: 25.7% x0200: 8.9%	15.7%	13.3%		14.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Access to parks and green space	**100.0%**	x0400: 100% x0900: 95.8% x0700: 100% x0200: 100%		56.2%	28.0%	61.0%	2020	National Environmental Public Health Tracking Network, percent of people living within 1/2 mile of a park
Obesity, Diabetes, Hypertension	Adult high blood pressure *(Moderately High)*	**33.9%**	x0400: 23.1% x0900: 27.5% x0700: 18.3% x0200: 39.7%	28.4%	32.2%		32.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult diabetes *(Moderately High)*	**11.5%**	x0400: 8.8% x0900: 9.8% x0700: 6.2% x0200: 10.4%	9.2%	10.6%		11.3%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult obesity *(Moderately High)*	**27.1%**	x0400: 26.3% x0900: 32.6% x0700: 26.7% x0200: 22.5%	28.5%	28.7%		33.0%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	Adult physical inactivity *(Moderate Risk)*	**17.6%**	x0400: 22.0% x0900: 22.6% x0700: 19.5% x0200: 12.6%	17.8%	17.8%		23.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
	★ Commute using public transit, walking, or cycling *(High)*	**18.7%**	x0400: 51.0% x0900: 42.0% x0700: 46.6% x0200: 9.1%	6.8%	4.3%	2.5%	6.7%	2022 5-year estimate	U.S. Census American Community Survey, S0801, https://data.census.gov/cedsci

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
★ **Public Safety**	Moderately High Risk	**Within 1/4 mile:** **8 aggravated assault** **16 burglary** **>50 drug/narcotics violation** **30 theft OF motor vehicle** **35 theft FROM motor vehicle** **1 murder** **5 robbery** **12 weapons law violaitons (mostly on Meeting St)**						2022 - 05/2025	City of Charleston Police Department Open Data Portal, https://pdi-charleston-sc.opendata.arcgis.com/
Respiratory Disease	Adult Asthma (*Moderate*)	**9.1%**	x0400: 10.9% x0900: 10.7% x0700: 11.4% x0200: 7.7%	9.4%	8.9%		9.7%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General health	Adult prevalence fair/poor health *(Moderate)*	**13.0%**	x00400: 17.1% x00900: 18.2% x00700: 14.7% x00200: 8.6%	12.6%	12.5%		16.1%	2021 version	CDC PLACES*, https://www.cdc.gov/places
General physical health	Adult poor physical health over past 14 days *(Moderate)*	**9.7%**	x00400: 11.4% x00900: 11.3% x00700: 10.0% x00200: 7.8%	9.4%	9.3%		10.9%	2021 version	CDC PLACES*, https://www.cdc.gov/places

* Crude rate, because available at census tract level

Focus Area	Description	Neighborhood	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
Climate Change									
Overall Climate Risk	Very High	**98.0**	x0400: x0900: x0700: x0200:		99.5			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Expected Annual Loss	Very High	**very high**	x0400: x0900: x0700: x0200:					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
Social Vulnerability	Very Low	**very low**	x0400: x0900: x0700: x0200:					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Community Resilience	Very High	**very high**	x0400: x0900: x0700: x0200:					2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Air Quality	Population near major roadway with little to no tree buffer *(Very Low)*	**HUC 12 ID: 030502010707: 3.5%**	x0400: x0900: x0700: x0200:					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Respiratory risk (hazard index) due to cumulative air toxics *(Moderate)*	**0.48**	x0400: 0.47 x0900: 0.48 x0700: 0.48 x0200: 0.45					various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
Earthquake	Very High Risk	**95.1**	x0400: 97.5 x0900: 86.7 x0700: 92.0 x0200: 88.6		98.9			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
★ **Flooding**	Located in a Floodway *(Very High Risk)*	**High hazard - Zone AE (regulated floodway)**						2021	FEMA Flood Map Service Center, https://msc.fema.gov/portal/
	Coastal Flooding *(High Risk)*	**88.3**	x0400: 79.7 x0900: 86.8 x0700: 80.3 x0200: 85.7		73.4			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Riverine Flooding *(Moderate Risk)*	**70.6**	x0400: 56.1 x0900: 56.6 x0700: 46.4 x0200: 60.4		76.6			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Impervious Surface *(High Risk)*	**63-90%**						2021 version	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Sanitary Sewer Overflows (None)	**HUC 12 ID: 030502010707: 0**						various, accessed 2024	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
★ **Heat**	Overall Vulnerability *(Relatively Low Risk)*	**35.6**	x0400: 48.7 x0900: 35.5 x0700: 41.4 x0200: 30.4		88.7			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
	Disparities in Heat Vulnerability *(Moderately High Risk)*	**83rd percentile**	x0400: 83rd percentile x0900: no data x0700: no data x0200: 83rd percentile					2022	Disparities in Heat Vulnerability in the United States, Yale Center on Climate Change and Health (YCCCH), https://storymaps.arcgis.com/stories/887792e05ea744d3b085856ca061ef53
	Tree Canopy Average *(Low)*	**HUC 12 ID: 030502010707: 18.2**						various, accessed 2022	EPA EnviroAtlas, https://enviroatlas.epa.gov/enviroatlas/interactivemap/
	Tree Canopy Average Percentage *(Very Low)*	**0-14%**						2021	USGS Multi-Resolution Land Characteristics Consortium, NLCD Impervious Surface 2021 CONUS, https://www.mrlc.gov/viewer/
	Tree Canopy - Disparities Across Neighborhoods	**11.8%**	x0400: 27.3% x0900: 11.8% x0700: 13.8% x0200: 13.8%						City of Charleston tree canopy over rights of way, https://storymaps.arcgis.com/stories/593cdef7583444949e70845a6bf1f8fd
★ **Hurricane**	Very High	**98.4**	x0400: 99.5 x0900: 92.0 x0700: 96.5 x0200: 96.1		99.6	33.9		2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Strong Wind	Low Risk	**25.0**	x0400: 36.2 x0900: 25.3 x0700: 29.8 x0200: 21.7		66.7			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/
Tornado	Low Risk	**27.2**	x0400: 35.8 x0900: 21.9 x0700: 28.3 x0200: 20.6		72.4			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/

Focus Area	Description	Neighborhood (x5100)	Surrounding Census Tracts	Charleston	Charleston County	SC	U.S.	Year	Data Source
Vectorborne Disease	Dengue Risk *(Low-Moderate Incidence)*				0 cases (low-moderate)	85 cases (moderately high)		2010-2024	CDC Dengue Virus Historic Data, https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
	West Nile Virus (WNV) Risk *(Very Low Incidence)*				0.08 cases (very low)	145 cases (low-moderate)		1999-2023	CDC West Nile Virus Historic Data, https://www.cdc.gov/west-nile-virus/data-maps/historic-data.html
	Tickborne Diseases *(Low Incidence)*				123 (low)			2001-2023	CDC Lyme Disease Case Map, https://www.cdc.gov/lyme/data-research/facts-stats/lyme-disease-case-map.html
Wildfire	Low Wildfire Likelihood	very low risk	x0400: very low risk x0900: moderate risk x0700: very low risk x0200: very low risk	Greater wildfire likelihood than 85% communities in US				various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
	Low Wildfire Risk to Homes	very low risk	x0400: very low risk x0900: low-moerate risk x0700: very low risk x0200: very low risk	Greater risk than 89% communities in US				various, accessed 2022	USGDA Forest Service, Wildfire Risk to Communities data portal, https://wildfirerisk.org/explore
Winter Weather	Moderate	**40.8**	x0400: 56.3 x0900: 41.1 x0700: 48.1 x0200: 35.2		82.9			2021 version	FEMA National Risk Index, https://hazards.fema.gov/nri/