

LARGE MULTIFAMILY CLIMATE CASE STUDY

Financing Community Resilience
Displacement, Climate and Earthquakes

October 1, 2018 | Federal Reserve | Los Angeles, CA

Purpose

The purpose of this case study is to use a real world example of climate vulnerability in a large multifamily residential affordable housing project to explore innovative solutions for financing resilience upgrades and mitigating displacement pressures. The large multifamily apartment building in this study, The Berendos, is a building in Koreatown that was recently rehabilitated to meet green standards and improve climate resilience. This case study sheds light on the financing options and barriers that affordable housing developers face when trying to rehab projects on a limited budget. The goal of this case study is to find a way to finance mitigation strategies for improved climate resilience without displacing or creating hardship for existing residents, and to increase the resilience of the owners and tenants, therefore advancing both building and social resilience.



Context

- **Owner:** A Community of Friends (ACOF), one of the most seasoned developers of permanent supportive housing in Los Angeles and Orange Counties, serves as the developer and general partner for the project and will assume long-term ownership upon partnership

transfer. ACOF was founded in 1988 and has developed a strong reputation for producing high quality, supportive housing for persons with special needs. Their mission is to end homelessness through the provision of quality permanent supportive housing for people with mental illness. After nearly 30 years of development, ACOF has completed 48 apartment projects, containing over 1,900 units of affordable housing. Forty-two buildings are currently in ACOF's portfolio, which is home to over 2,600 individuals and families, including over 600 children.

Common challenges for most affordable housing developers include limited financing available for development, preservation and ongoing maintenance, including for case management and services for residents (particularly those with special needs or high-acuity homeless populations); staffing, particularly "building the bench" for real estate development positions, long-term retention of real-estate development staff, and retaining institutional knowledge; having enough capacity for meaningful engagement and outreach for projects, particularly with the strong NIMBYism in communities and the deeper coordination and thoughtfulness that requires.

- **Property:** The Berendos is a rehabilitated multi-family 72-unit rental housing project comprised of two buildings (59 studios and 11 1-BR units). The project involved a combination of two parcels that were packaged together as a single LIHTC resyndication to make the project more financially feasible. The two buildings are located on the same block, nearly across the street from each other, in the Koreatown area of Los Angeles. The buildings were originally built in the 1920's and were renovated in the mid-1990's; the work done at that time included seismic reinforcement to meet Los Angeles building code requirements. The scope of work focused on enhancing sustainability, improving and reconfiguring entry ways, new kitchens and bathrooms, and new roofs and boilers. Each building includes two community spaces as well as offices for management and resident services staff. Green features include solar hot water heating systems (generating energy credits), Energy Star appliances, attic insulation, cool roofs, and energy efficient electrical and plumbing fixtures.

- **Building:**

- **Location:** 226 and 235 S. Berendo, Los Angeles, CA 90004
- **Year built:** 1926 and 1928; renovation in 1994
- **Construction type:** large-multi family residential; substantial rehab
- **Number of stories:** 226 Berendo is 4 stories; 235 is 3 stories.
- **Do tenants pay own utilities?** No
- **Total square footage:** 34.034
- **Site area:** 226 Berendo is 8,969 sq ft; 235 is 8,424 sq ft
- **Parking lot area:** There are no parking spaces at the site and none are required by code. This is not uncommon; many buildings in the area were built in the same time period (1920's) and do not include parking.
- **Accessibility Upgrades:** 5 units at 226 Berendo are ADA compliant (4 mobility-impaired and 1 hearing/visual impaired unit). These units were designated on the first floor and were reconfigured to make accessible with in-unit washers and dryers. 4 units at 235 Berendo are ADA compliant (3 mobility-impaired, 1 hearing/visual impaired unit), also located on the first floor. At 226, a new accessible entrance was constructed into a reconfigured ground floor entrance, which includes a new accessible lift to the first floor since the existing elevator did not meet accessibility standards. 235 is a

three-story, walk-up building, with an at-grade entry. The building has an attractive elliptical staircase at the front of the building.

- **Presence of AC:** All studio units received new, high-efficiency wall heaters to replace the outdated units that were previously in place. All 1-BR units at 235 will receive high-efficiency HVAC systems. The corridor ventilation system will be replaced with mini-splits on each floor of both buildings.
 - **Other Service Space Needs:** Each building has space for a small community room and offices.
 - **Transit:** in a Transit Priority Area, TOC Tier 3 (0.6 miles from Vermont / Beverly Metro Red Line station)¹
- o **Tenants:** All residential units are set-aside for special needs households, including 12 units that are designated for the elderly or disabled. Five units at 226 Berendo and four units at 235 Berendo are ADA compliant. ACOF was not required through regulatory agreements to serve formerly homeless mentally ill residents but due to their mission, they strived to continue to serve those residents after the building rehabilitation was complete. All 70 residential units (minus manager units) are restricted to 30% AMI, though relief to raise income targeting was allowed through capital sources if the rent or operating subsidies are to be lost at no fault of the project sponsor. Eight units were held vacant for the renovation. The relocation plan included usage of the vacant units during construction for a period of up to 30 days per resident.
 - o **Neighborhood:** The property is located in the Koreatown neighborhood of Los Angeles, which is approximately three miles west of downtown Los Angeles. The neighborhood is 2.7 square miles and has one of the highest population densities in the city. It is characterized by multifamily residential developments, commercial offices, and retail space. The neighborhood is well-served with local and express bus service and the city's Metro system and is experiencing revitalization as the real estate market continues to heat in Los Angeles.
 - **Displacement risk:** Koreatown is going through a period of drastic change, and, according to the LA Index of Neighborhood Change, future displacement pressure for this particular census tract is "Very High."²

Building Improvements

- **Background:** While the properties were not at risk for conversion to market rate, the project focused on making them more safe and accessible, with the goal to ultimately reduce utility costs and environmental impact. The scope of work was designed to modernize the project's interiors, improve the entryways and front areas, increase overall energy efficiency, and provide accessibility upgrades.
 - o **Interior:** Interior improvements included: new flooring, doors, cabinets, countertops, appliances, light fixtures, toilets, new low-e, dual-paned windows, and tub/shower enclosures.

¹ Building information collected from the LA Department of City Planning "Zone Information and Map Access System," [ZIMAS](#)

² [LA Index of Displacement Pressure and Neighborhood Change](#)

- **Envelope:** Both buildings received a new cool roof, insulation in the attic space, new roof drainage systems, new roof railing and flashing, and new sump pumps.
- **Exterior:** Regarding exterior work, concrete window sills at both buildings were sealed to prevent water intrusion and chairlifts were added (235 Berendo with a stair lift and 226 with an elevator).
- **Green upgrades:** In terms of green upgrades, they were not intended to meet green program standards but the studio units received a new wall heater, and the one-bedroom units received new energy-efficient HVAC units (the studio units did not have air conditioning previously and it was decided it was too costly to add ducting during the renovation). Both buildings received new boilers, new solar hot water systems, and the corridor ventilation system was replaced with a new efficient system. The overall rehabilitation costs amounted to close to \$64,000/unit.
- **Environmental assessment:** The environmental assessment revealed some potential concerns that were addressed or mitigated, including asbestos containing material on the roof and radon screening, which upon testing was found to be at acceptable levels (testing was not required on 235 Berendo). The LIHTC investor commissioned a seismic report that recommended retrofits to reduce the Scenario Expected Loss (SEL) below 20% to avoid post-renovation insurance requirements. Seismic upgrades were estimated at close to \$175K. Other additions that grew out of the physical needs assessment (PNA), and that were not included in the original scope of work, were elevator modernization and tuck-pointing for areas that were showing wear and tear.
- **Financing:** The project financing involved the assumption of existing permanent loans from the City of Los Angeles (two previous loans assumed under one loan) and the State of California Housing and Community Development (HCD) California Housing Rehabilitation Program (CHRP) (existing loan that was modified). A new soft loan was added from the Housing Authority of the County of Los Angeles (sustainable rehab loan program). The project had an existing executed Project-based Section 8 Rental Assistance HAP contract for 70 units, with a term of 15 years that will expire in 2025 and 2026 respectively. The project utilized non-competitive 4% credits in 2014. Total development costs came in at \$14MM.

Climate Change Population Vulnerability Screening Tool Indicators (CA Dept. of Public Health)³	Census Tract (2044.20)	LA County average
Households without a car	28.6%	12.2%
Households elderly (over 65) living alone	8.3%	2.6%
Proximity to transit	1,056 ft	2,640 ft
A/C ownership (% of households)	46%	39%
Tree canopy coverage (average % of land coverage)	1.1%	2.2%
Impervious surface coverage (average % of land coverage)	78.2%	48%
Sea-rise risk	0	1.1
Flood risk	3.8	4
Fire risk	4.1	4

³ Garzon, C., Cooley, H., Heberger, M., Moore, E., Allen, L., Matalon, E. and Doty, A., 2012. [Social Vulnerability to Climate Change in California](#). Prepared for California Energy Commission Prepared by Pacific Institute; [indicator maps](#)

Climate-Smart Cities, Los Angeles

Parcel Report

September 27, 2018

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THE TRUST FOR PUBLIC LAND

Parcel ID: 5518022016

Owner: 235 BERENDOL P

Acres: 0.19

Address: 235 S BERENDO ST LOS ANGELES CA 90004 5754

Administrative Boundaries:

State Assembly District: District 53

Senate Assembly District: District 24

Los Angeles Neighborhood Council Boundary: WILSHIRE CENTER - KOREATOWN NC

Public Owned: No

Green Infrastructure Suitability Indicators

Canopy Cover Minimum (%): 0.00

Canopy Cover Maximum (%): 0.00

Canopy Cover Mean (%): 0.00

Impervious Surface Minimum (%): 81.00

Impervious Surface Maximum (%): 94.00

Impervious Surface Mean (%): 88.17

Parking Lot (sq. ft.): 0.00

Available Solar (sq.ft.): 1975.00

Cal EnviroScreen Ozone: 0.02

Cal EnviroScreen Ozone (%): 41.51

Cal EnviroScreen Particulate Matter: 14.95

Cal EnviroScreen Particulate Matter (%): 86.71

Cal EnviroScreen Toxic Releases: 1501.06

Cal EnviroScreen Toxic Releases (%): 69.67

Cal EnviroScreen Traffic Density: 1252.00

Cal EnviroScreen Traffic Density (%): 68.03

Cal EnviroScreen Asthma: 37.89

Cal EnviroScreen Asthma (%): 46.34

Cal EnviroScreen Low Birth Weight: 0.05

Cal EnviroScreen Low Birth Weight (%): 58.28

Cal EnviroScreen Pollution: 57.03

Cal EnviroScreen Pollution Score (1-10): 5.70

Cal EnviroScreen Pollution (%): 89.65

Cal EnviroScreen Population: 67.35

Cal EnviroScreen Population Score (1-10): 6.74

Cal EnviroScreen Population (%): 79.27

Cal EnviroScreen Score Pct Range: Top 10%

Cal EnviroScreen Score: 38.41

USC PERE EJ Scrn. Cum. Impact Score: 13.00

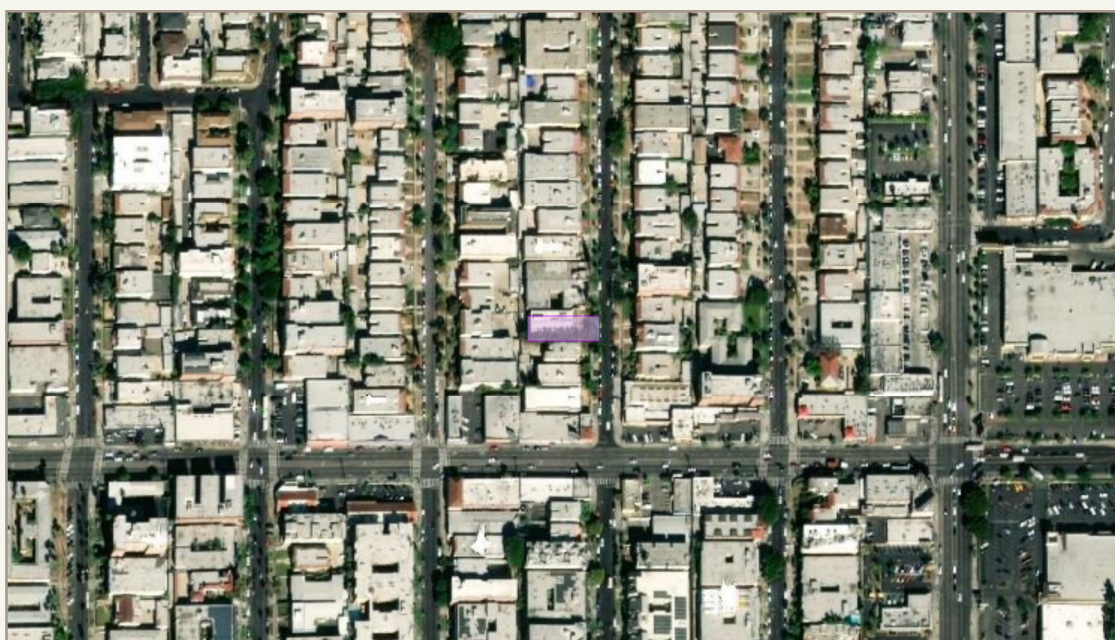
USC PERE EJ Scrn. Cum. Imp. Vuln. Ind. Score: 18.00

Park Need Assessment Results: Very High

Vacant: No

Legend

 Los Angeles Parcels



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Parcel ID: 5518022016 Owner: 235 BERENDOLP Acres: 0.19
 Address: 235 S BERENDO ST LOS ANGELES CA 90004 5754

AB31 Criteria:

Acres of Park per 1k Residents: 0.14
 Median Household Income <80%: Yes
 Less than 3 acres Park per 1k Residents: Yes

Overall Stacked Priorities	Acres	Percent	Present
Stacked Priorities	0.19	100.0%	Yes
Goal: Cool	Acres	Percent	Present
Daytime Urban Heat Islands	0.19	100.0%	Yes
Nighttime Urban Heat Islands	0.19	100.0%	Yes
Cool Priority Areas	0.19	100.0%	Yes
Goal: Absorb	Acres	Percent	Present
Riparian Areas	0.00	0.0%	No
Flood Prone Areas	0.00	0.0%	No
Permeable Soils	0.00	0.0%	No
Spreading Grounds	0.00	0.0%	No
Wetland Areas	0.00	0.0%	No
Lakes and Ponds	0.00	0.0%	No
Groundwater Forebay	0.19	100.0%	Yes
Groundwater Basin	0.19	100.0%	Yes
Absorb Priority Areas	0.19	100.0%	Yes
Goal: Protect	Acres	Percent	Present
Coastal High Hazard Areas	0.00	0.0%	No
Projected Storm Inundation Areas	0.00	0.0%	No
Cliff Erosion Areas	0.00	0.0%	No
Shoreline Change	0.00	0.0%	No
Flood Prone Areas	0.00	0.0%	No
Protect Priority Areas	0.00	0.0%	No

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Parcel ID: 5518022016 Owner: 235 BERENDOLP Acres: 0.19
 Address: 235 S BERENDO ST LOS ANGELES CA 90004 5754

Goal: Connect	Acres	Percent	Present
Connect Low-Income Communities to Job-Rich Districts	0.00	0.0%	No
Connect Low-income Communities to Shopping Centers and Medical Facilities	0.00	0.0%	No
Connect Low-income Communities to High Quality Transit	0.19	100.0%	Yes
Connect High Bike/Walk Communities to Job-Rich Districts	0.00	0.0%	No
Connect High Bike/Walk Communities to Shopping Centers and Medical Facilities	0.00	0.0%	No
Connect to the LA River Sustainable River Revitalization Projects	0.00	0.0%	No
Provide Access to Public Schools	0.19	100.0%	Yes
Provide Access to Colleges and Universities	0.19	100.0%	Yes
First Last Mile Walkable Areas	0.19	100.0%	Yes
Connect Priority Areas	0.19	100.0%	Yes
Goal: Equity	Acres	Percent	Present
Populations with People of Color	0.19	100.0%	Yes
Low-Income Populations	0.19	100.0%	Yes
Populations with Less than High School Diploma	0.19	100.0%	Yes
Populations with Linguistic Isolation	0.19	100.0%	Yes
Populations under 5	0.00	0.0%	No
Populations over 64	0.00	0.0%	No
Populations with Unemployment	0.19	100.0%	Yes
Populations with Asthma	0.00	0.0%	No
Populations with Low Birth Weight	0.19	100.0%	Yes
Equity Priorities	0.19	100.0%	Yes