

**Historical Architectural Review Board
COA Preliminary Review Sheet**

HDC-2024-00094

Address: 728 Liberty Street

District: Old Allentown Historic District

Owner: Juan and Claudia Montero

Applicant: Katherine Caceres and Yasel Corporan

Proposal: Solar Panel Installation

Building Description: This 2½-story row house ca 1870 is Federal in style. The roof has slate shingle, snow catchers and single chimney. The windows are 2/2 sash with shutter brackets and flat lintels. The front entry is a single panel door with a transom. There is a concrete stoop and steps with a pipe railing and a visible basement window grille. The side yard has concrete steps leading up to it and chain link fencing surrounding it. The 2nd floor front windows have window boxes and the 1st floor front window has paneled shutters. The 2nd floor rear has been enclosed with asbestos siding and there is a shed roof covering the side yard door.

Project Description:

The proposed work is install rooftop solar panels over the entirety of the roof.

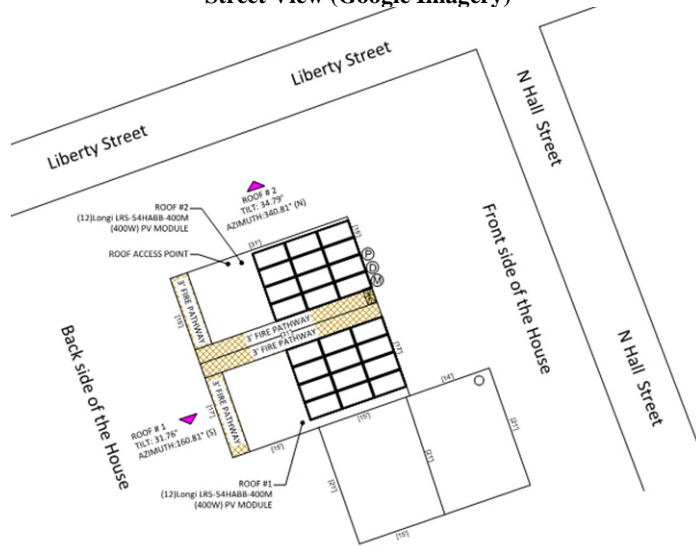


Front Elevation (Applicant)

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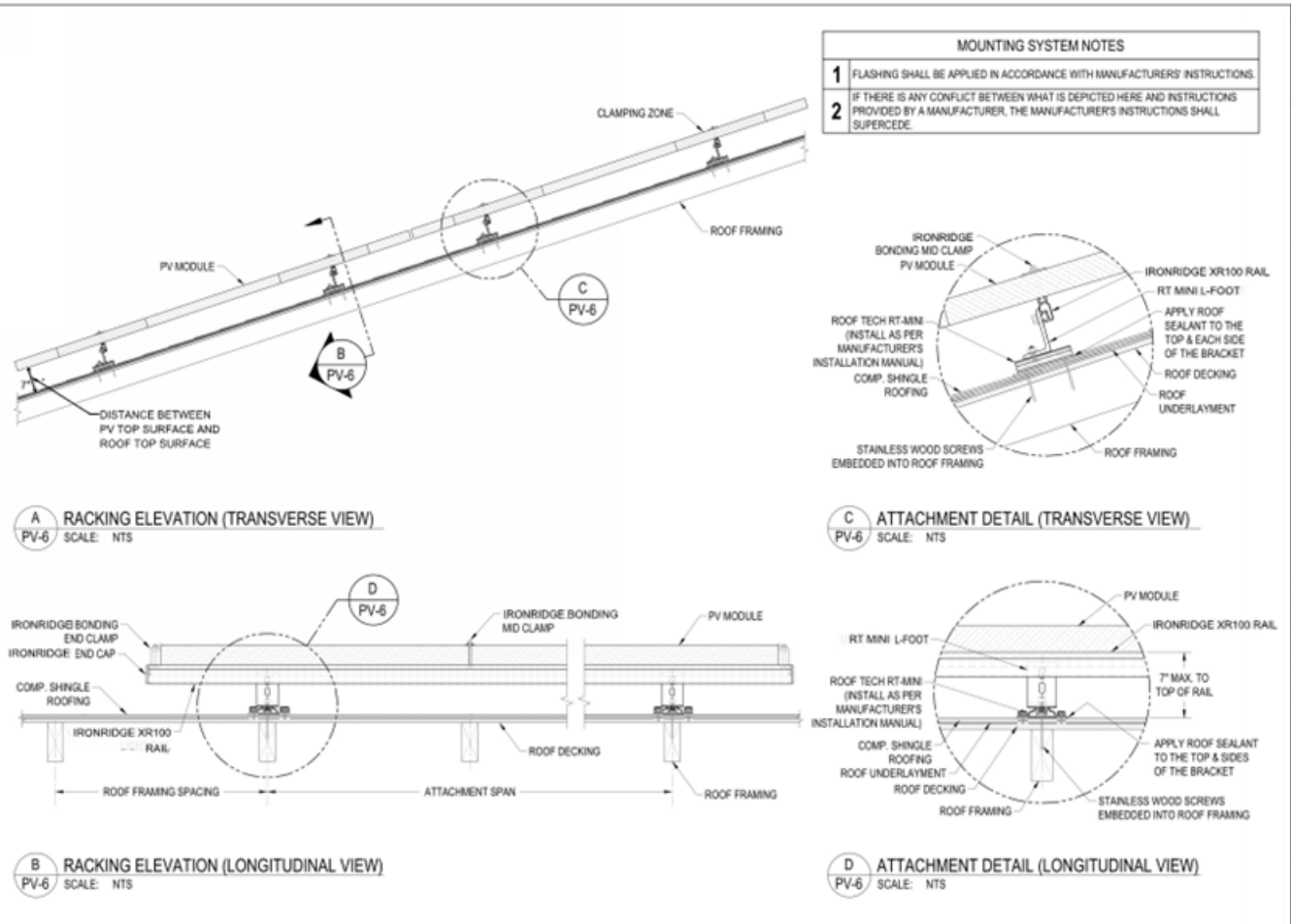


Street View (Google Imagery)



Roof Plan (Applicant)

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Proposed Attachment Details (Applicant)

Applicable Guidelines:

Section 3.10 – Solar Energy and Energy Improvements

3.10.1 Conduct an energy audit to understand the building's thermal performance. This helps the new system perform most efficiently and can identify other minor building repairs to reduce energy loss.

3.10.2 Preserve the historic character of a building when planning a solar or alternative energy system. Avoid removing, covering, or altering significant and character-defining features of a building to accommodate solar energy systems, including roof slopes, dormers, chimneys, windows, and exterior wood and masonry walls.

3.10.3 Minimize visibility of solar panels, mounting equipment, and necessary mechanical equipment from the public right-of-way. For pitched roofs, locate solar collectors on rear roof slopes whenever possible. For pitched roofs where all slopes are visible, locate collectors as far back from the street as possible. For flat roofs, locate collectors as far back from the top of street-facing facades as possible.

3.10.4 Attach solar collectors or other equipment in the least invasive method feasible so that the alteration is reversible in the future.

3.10.5 Install solar collectors or equipment as flat as possible to the surface where they are installed. Placement parallel to the roof surface is encouraged. If a horizontal or vertical tilt is required for functionality, adjust the pitch to use the smallest angle possible.

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3.10.6 Choose energy systems, mounting equipment, and necessary mechanical equipment in a color compatible with existing roof materials whenever possible and with non-reflective finishes.

3.10.7 For architecturally integrated solar systems, choose low profile materials in a compatible and non-reflective color and that match historic materials as closely as possible. Such systems include solar shingles or integrated into standing seam metal roofs. Installation on primary facades may be appropriate where metal roofing exists and no visual change occurs; other systems must be evaluated on a case-by-case basis based on visual impact and physical characteristics.

Observations & Comments:

While solar panel installation is typically a staff-level review, staff recommended this application is reviewed by the HARB, given the extent of roof coverage. The application indicates that the 24 solar panels would be installed over the front and rear roof slopes, with nearly full roof surface coverage. Guidelines Section 3.10.3 states to minimize visibility of solar panels, locating collectors on rear roof slopes whenever possible, and/or as far back from the street as possible, and to avoid locating panels on roofs facing the street or the main façade. In reviewing view angles from the public right-of-way, the existing roof surface is not visible. This visibility may change when the panels are installed. The proposed installation calls for mounting the panels parallel to the roof surface, which is appropriate per the Guidelines, and that there is a maximum 7" from the existing roof surface to the top rail of the panel installation.

Considering the installation parallel to the roof, and low visibility of the rooftop itself from the public right of way, the visual impact of the installed panels on the streetscape may be minimal.

Additional information which may be helpful in evaluating this proposal include:

- In the submitted drawings, the "top rail" does not appear to align with the top of the solar panel itself. What is the expected total height of the system from the surface of the existing roof?
- Was there consideration for installing panels on the rear slope of the roof only?

Staff Recommendation: Staff recommend approval for the full roof installation if the total height of the solar panel system does not adversely affect the streetscape.

Presenters:

- Ms. Baade presented the application.
- Yasel Corporan and Jose Amarante represented the application.

Discussion: The applicant noted they submitted revised plans for the project that address some of the staff recommendations related to the visibility of the panels from the front of the structure. They reduced the number of panels from 24 to 15. The applicant noted 6" is the distance between the roof and panels (7" is the maximum distance permitted.) They are also proposing to move the electrical equipment indoors to the basement, instead of at the northeast corner of the property on the exterior. The applicant would like to know if solar panels are acceptable on the front slope of the building; the applicant thinks visibility will be minimal, due to the footprint of the building. The power disconnect will be located on the exterior of the building per NEC rules and the conduit will run up the side of the house. Mr. Huber noted that the preference would be to run this on the back of the house, which is not visible from the right-of-way. The applicant noted that they will also replace the roof to provide a solid foundation for the panels. Mr. Jordan asked what the existing roof material is; it was noted that slate is the current material that will be replaced with shingles. It was noted that roof replacement was not part of the application, so a separate application for the roof replacement will be needed.

Actions:

Mr. Jordan moved to approve, with conditions, the application presented on November 4, 2024 for the installation of solar panels at 728 Liberty Street with the following conditions agreed to by the applicant following the Guidelines for Historic Districts: Chapter 3, Section 10 – Solar Energy and Energy Improvements and find no circumstances unique to the property:

- Conduit placed on the back of the house, not the along side.

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- Alternate configuration utilizing only the rear surface of the roof, as presented, be installed.

Mr. Huber seconded the motion, which passed unanimously.