

Tom Petersen

Architects • Planners

NYC Department of Buildings
Staten Island Borough Office
10 Richmond Terrace
Staten Island, NY 10301

September 26, 2022

Re: Solar Panel Installation
Caron Residence
319 East 238th Street
Bronx, NY 10470

Dear Sirs,

I've reviewed the proposed solar panel installation at this location to evaluate the existing roof structure and the connection of the panels to the roof.

Criteria: Applicable codes: 2014 NYC Construction Code (w/ amendments)
 Design roof load: 20 psf live load, 10 psf dead load, 30 psf total load
 Design wind load: 120 mph, 35 psf; Exposure Category 'B'

My findings are as follows.

1. The new solar panels will imply an additional dead load of 3 psf. The existing roof structure (residence hip roof: assumed 2x6 roof rafters @ 24" o.c., with 2x8 ridge, span = +/- 14'-2"; detached garage roof: assumed 2x6 roof rafters @ 24" o.c., span = +/- 7'-0") is overspanned at the residence roof at spans exceeding 11'-6" and not sufficient to bear this additional load. In order to supplement the existing structure we will sister new 2x6 rafters alongside each existing residence roof rafter with a span exceeding 11'-6", at the roof planes receiving new solar panels. Connection to existing rafters shall be 10d common nails (3" x 0.148") staggered @ 16" o.c. Rafters can be sistered in two sections with a minimum 4' long, 2x6 splice board.
Any assumed, inaccessible or concealed structural members not documented during the initial site analysis will be verified by the solar panel system installers prior to the system installation, and any discrepancies will be reported to the Architect in writing.
2. The solar panels are attached to the roof with the rack system, connectors and components as shown on the attached drawings. The rack system, roof connections and connection spacing are rated for 120 mph.

It is a violation of NYSED 7209 for any person, unless acting under the direction of a licensed professional, to alter an item in any way. If an item bearing the seal of a licensed professional is altered, the altering licensed professional must attach the notation 'altered by' with his seal, signature, date of alteration, and description of the alteration.

I therefore certify that this installation complies with the applicable codes and design loads mentioned above, as well as ASCE 7-16, and is acceptable for approval. Please let me know if you have any questions on this information. Thanks!

Sincerely yours,



Tom Petersen

Cc: Swapnil Prabhu, Surf Clean Energy
6 Country Lane • Howell, New Jersey 07731 • Telephone 732-730-1763, Fax 732-730-1783

