BECKER
STRUCTURAL ENGINEERS

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/04/17

February 3, 2017

Mr. Fortunat Mueller, P.E.
ReVision Energy LLC
142 Presumpscot Street
Portland, ME 04103

For Street Garage - Structural Review for Support of Solar Panel Array
Portland, Maine

Dear Fortunat,

We are providing this letter report to summarize our findings following a structural review of the Fore Street Garage. The purpose of our review was to verify the existing structure's ability to support a proposed solar panel array to be installed at the top center of the garage and to evaluate the proposed alteration with the requirements of the 2009 International Existing Building Code (IEBC). Design of the array structure is by others and we have not evaluated this proprietary system. Our review is based on reactions of the system (loads to be imparted on the existing structure) received from Quest Renewables and AO Structures on 2/1/2017.

Based on our review, we find the existing garage structure capable of supporting the imposed gravity and lateral loads associated with the proposed solar panel array. Added seismic and wind impacts on the existing structure were found to be below allowable thresholds set by the IEBC and no upgrades to the structure's lateral force resisting system are required. We are currently reviewing localized conditions at the points of array connection to the structure to verify if any localized strengthening is required. Any recommendations related to these points of connection will follow under a separate cover. Should the array design be altered from that currently proposed, such that the loading is increased we will need to revisit our analysis.

We trust this addresses your needs at this time but please do not hesitate to contact us with questions or comments.

Sincerely,
BECKER STRUCTURAL ENGINEERS, INC.

Daniel S. Burne, P.E.
Associate

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LICENSED
PROFESSIONAL ENGINEER