

# BOLDER

## *ARCHITECTURE, PLLC*

### Zero Place Design Narrative - Previous Iterations

As the design process for Zero Place began, there were a few basic design goals we held:

1. The existing parking lot would be retained, and the new building would be built where the old building was, in order to avoid waste and to take advantage of existing lighting and parking features.
2. We would remove a significant amount of the paving and other existing impervious surfaces and greatly improve the beauty and stormwater profile of the site.
3. The pedestrian bridge and bus stop and other site access and connection to the Rail Trail would be maintained and improved to encourage public use of the site and the use of public transportation.
4. We needed to scale the building sufficiently, including 4-stories, to enable significant investment in energy efficiency and to build a truly ground-breaking building in terms of energy performance and long-term sustainability.
5. The aesthetics of the building needed to be appealing and respectful of the history of New Paltz, while also acknowledging that this would be in many respects a building of the future.
6. The building could not be a simple rectangle; it needed to have indentations or other variations and scale detailing to break up the mass and please the eye. Opposing this imperative was the need for energy and cost efficiency. For example, corners add cost and have significant impacts on heat loss by creating a larger surface area to volume ratio.

When we initiated the project, we began experimenting with various concepts aligned with the goals above. Among other things, we looked at designs with a stepped-back, partial 4<sup>th</sup> floor, but found that the building lost square footage for significant added cost and structural / waterproofing complexity with higher maintenance costs and declined energy performance. The market and cost analyses indicated that these designs were not compatible with the project goals for a net-zero-energy building.

The first design we showed Village representatives a year ago in May 2015 was mostly brick with an exterior deck for each residential unit set into notches in the exterior walls, with canopies over some of the retail first floor windows and doors.



Our energy rater gave us some targeted feedback about the steel decks acting like giant radiators that would chill the concrete core of the walls in winter via the structural bolts. He said that the notches in the building façade should be reduced, as should the size of windows.

We also did more assessment of the apartment layouts and structural efficiencies, and determined that an "I"-shaped building with a narrower center section would balance the various factors best.

We did have a larger building design that fit on the site, but we reduced the size to ensure that there would be no wasted space, and to maximize the exterior space on the site.

When the decks were eliminated from the design, a wrap-around porch roof was added to create sheltered public space and articulate the elevation.

There was an earlier design that had patio doors at each apartment with a shallow railing to allow a balcony feeling for residents and give the elevation depth and shadow lines. Since these balcony railings would be structural, they would need to be bolted to the building. Again, the energy rater reminded us of the radiator effect, and the need to reduce the extent of glass with our energy goals.

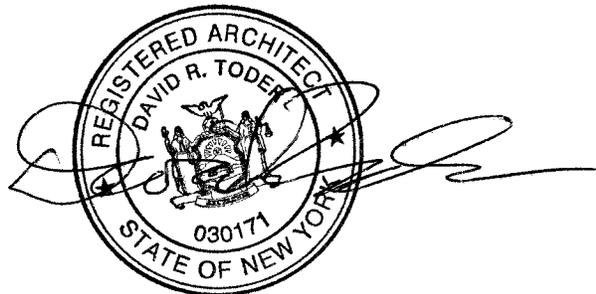
That design also had the northern photovoltaic panels on a pergola over the roof terrace. Based on planning board and public feedback, this was reduced to a "fin" at the northern roof edge, and then recently, with fire department approval, to a PV layout that lay almost flat.

The wrap-around porch roof on the 1<sup>st</sup> level initially had posts at the outside edge. Later the posts were removed and the roof was suspended from steel tie rods above to enable clear space and to improve visual appearance. Mindful of the radiator effect, the wrap-around porch roof was reduced to 5' deep to eliminate the need for tie rods. Additionally, we decided to use wood framing to reduce bolting requirements and heat transmission loss.

Effort has been made throughout to design a building that will function and please the occupants similarly to that experienced by the homeowners of Green Acres, the net-zero-energy development built behind the New Paltz Town Community Center. Simultaneously, we aimed for a pleasant variety of elevation materials and a scale appropriate to its location on a main street of New Paltz.

At this time, we are gathering input from various local groups and individuals in order to thoroughly revise the building elevations to best address stated concerns.

Respectfully,



-Dave Toder, RA  
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