HONORABLE MENTION
BEST CURB APPEAL

Randy M. Sovich, AIA, LEED® AP
Jojo Duah
RM Sovich Architecture

Phone: 410.303.2080
Email: rmsovich@rmsarchitecture.com
Website: www.rmsarchitecture.com
MINIMAL HOUSE

The best way to reduce carbon footprints is to reduce the overall quantity of construction/space used per person per dwelling.

In 1924 Le Corbusier and Pierre Jeanneret proposed Mass Production Artisan’s Dwellings designed to be ‘minimal’ houses. These houses, featured in “Towards a New Architecture”, were characterized by simplicity and clarity of the design concept. Although unbuilt their basic philosophy of minimal construction rings true 89 years later. The artisan’s dwellings were approximately 660 square feet and were planned to sleep five. Doors and built-in finishes were eliminated for economy and affordability. Interior separations were intended to be created with mass produced cabinets—furniture.

Last year Mayor Bloomberg of New York City, passed legislation reducing the minimal area for apartments in New York from 400 sf to 300 square feet. Assuming 400 square feet as a minimum for an apartment, three adults should be able to live comfortably in a 1,200 square foot dwelling, particularly if there is adequate exterior space.

This proposed minimal dwelling is a 24 by 24 by 25’6" foot cubical volume, a compact and economical shape. The design is intended to be open and loft-like. The intention is to utilize mass produced furniture in lieu of built-in closets, cabinets, and storage. The solution accommodates three adults and provides an open flexible area for living, dining, and entertaining. The ceiling height is intentionally kept low, 7’6” in the entry, kitchen, and bedrooms, and 15’-6” in the living area.

The eight dwellings are oriented on a mews or court that is shared space for the residents of the block. The residents may collectively determine the use of the shared space: lawn, community garden, etcetera and the use of the common area may change as the occupant of the houses change over time.

The house construction consists of:
- Concrete footings
- Concrete foundation
- 6 inch SIPS exterior bearing walls with exposed plywood interior finish
- Wood joists and wood floors
- Wood roof joists
- Wood interior non-bearing wall construction
- Wood windows
- Fiber cement board siding and panels

Energy considerations consist of:
- Wall insulation and roof insulation
- SIPS panels eliminate thermal bridging
- Exposed plywood interior walls eliminates gwb and paint
- Green roof
- Rooftop mounted solar photovoltaic panels

This project should be considered, even though the square footage is well below the minimum; the idea is how much carbon usage per square foot or volume of living area. The relative carbon usage for this design, 28.37, factored per square foot of enclosed livable space compared to the 1,750 square foot minimum is 38.9 tons.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>AREA/SF</th>
<th>NOTES</th>
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</thead>
<tbody>
<tr>
<td>FIRST FLOOR</td>
<td>576</td>
<td>Includes 255 sf porches and deck</td>
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<tr>
<td>SECOND FLOOR</td>
<td>342</td>
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<tr>
<td>THIRD FLOOR</td>
<td>342</td>
<td>Includes 235 sf roof terrace</td>
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<tr>
<td>TOTAL</td>
<td>1,260</td>
<td>Total construction including decks</td>
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<tr>
<td></td>
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<td>1,750</td>
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SITE PLAN

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>SITE AREA</td>
<td>16,038 SF</td>
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<tr>
<td>LOT AREA</td>
<td>1,087 SF</td>
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<tr>
<td>PERVIOUS AREA</td>
<td>5,299 SF</td>
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<tr>
<td>GREEN ROOF AREA</td>
<td>1,880 SF</td>
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<td>COVERAGE</td>
<td>0.67</td>
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B195
Carbon Challenge
Baltimore Design Competition
2013

KEY
1. Front Porch
2. Entrance
3. Stair
4. Living-Dining
5. Powder Rm
6. Kitchen
7. Back Porch
8. Back Yard
9. Parking
10. Bedroom-1
11. Bathroom
12. Open to Below
14. Bedroom-3
15. Roof Terrace

LEVEL 1 LEVEL 2 LEVEL 3

FLOOR PLANS
Roof terrace

Bedroom

Bathroom

Living/Dining
B195
Carbon Challenge
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STREETSCAPE
B195
Carbon Challenge
Baltimore Design Competition
2013

N. Bethel Street
rear alley
Mews
Sketch of North Bethel Street streetscape
N. Bethel Street and alley facades composed of recycled brick from adjacent demolition.
View of Mews looking south
View of Mews looking north