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SOLAR DECATHLON EUROPE

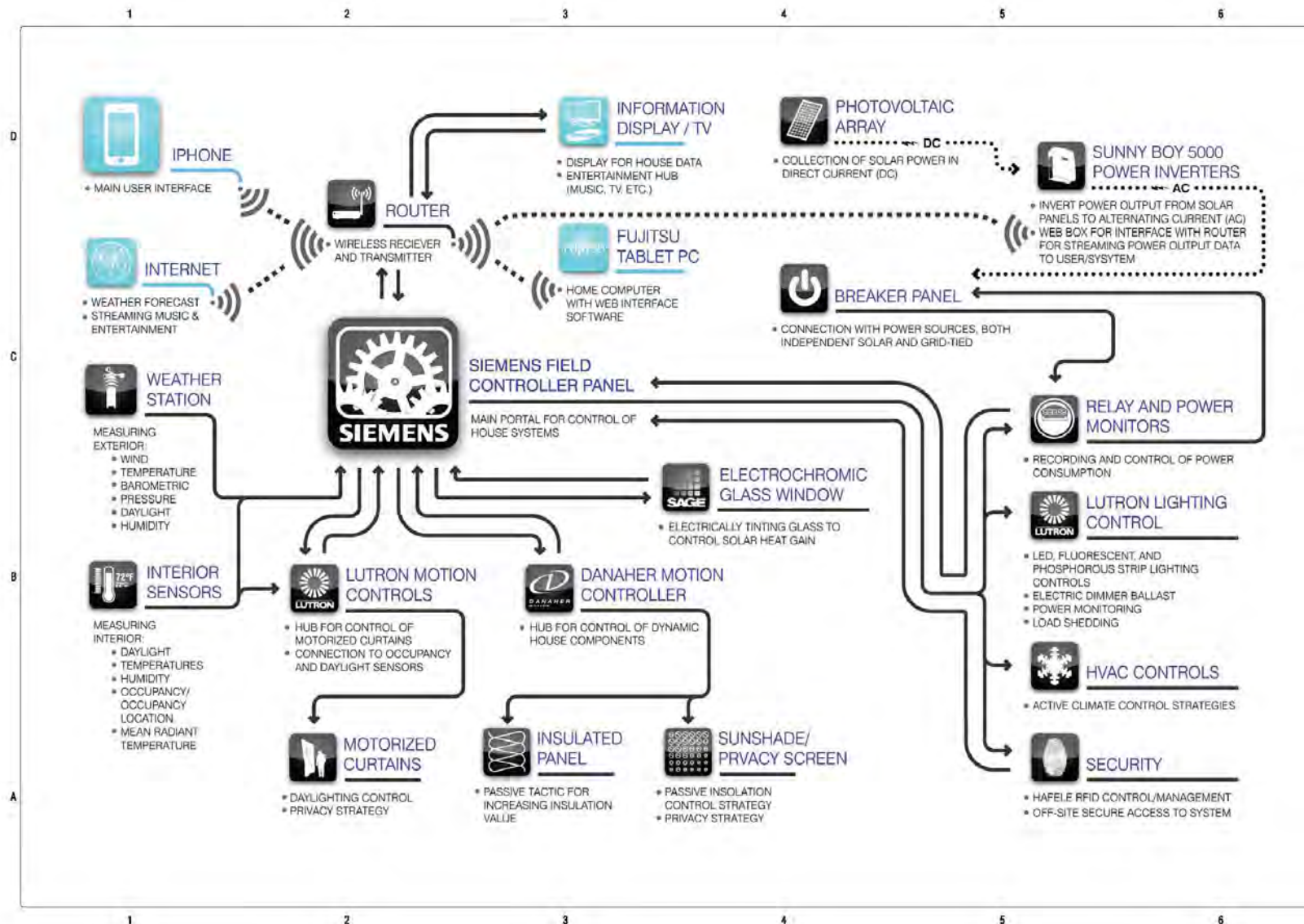
- | | |
|--|--|
| 1. Architecture | 6. Usage |
| 2. Construction and Engineering | 7. Communications and Social Media |
| 3. Solar Systems and Hot Water | 8. Industrialization and Market Viability |
| 4. Energy Balance | 9. Innovation |
| 5. Comfort Conditions | 10. Sustainability |



Jerson17





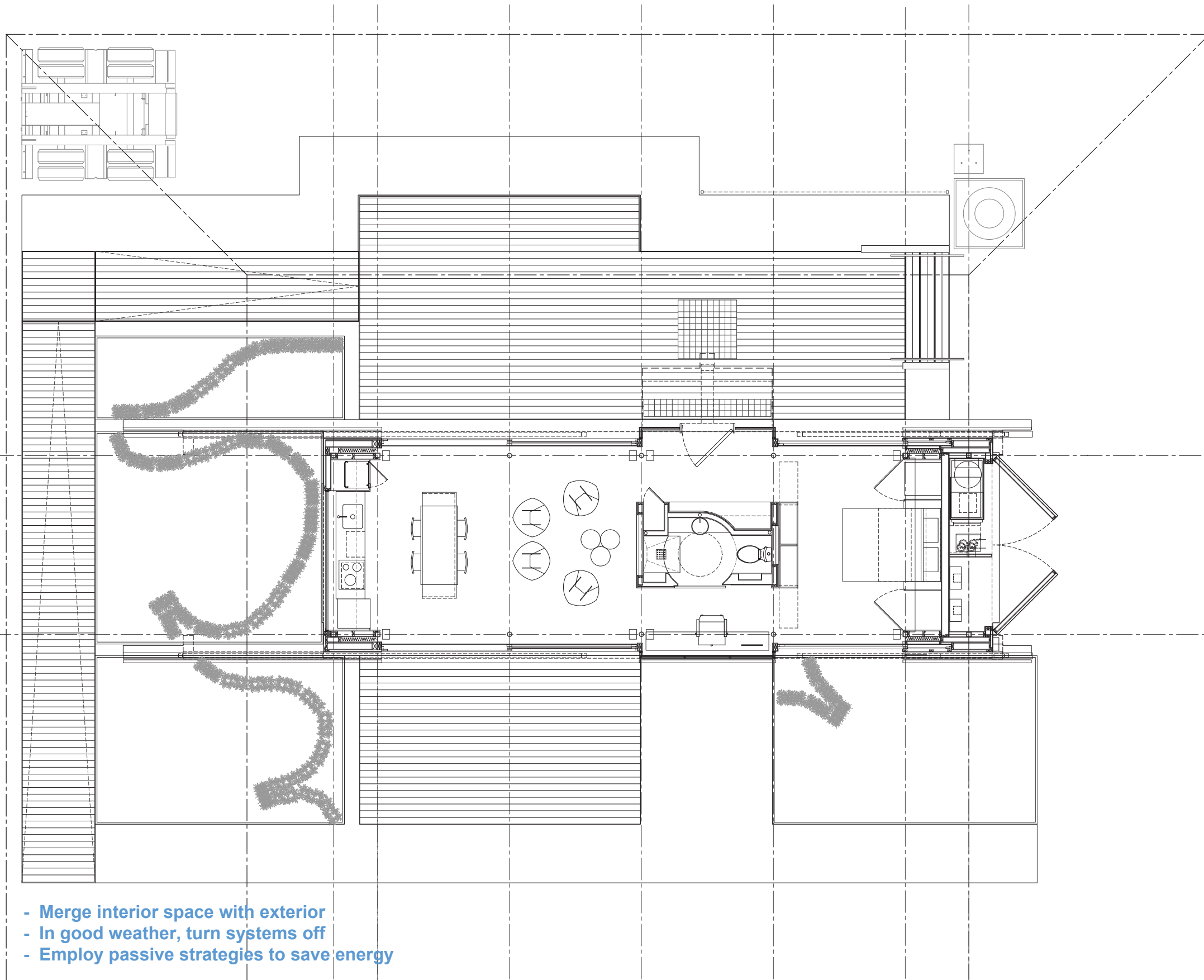


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at lumen.haus/virginiat

Virginia Tech
Solar Decathlon Europe 2010
Virginia Polytechnic Institute and State University
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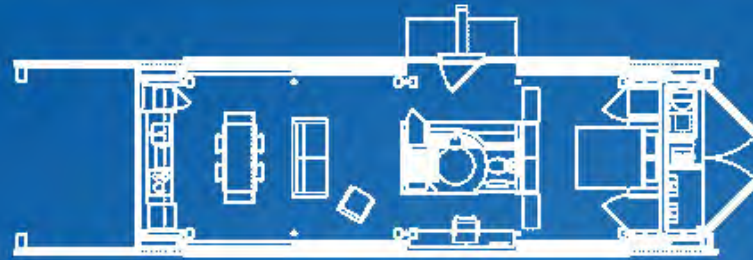
Designation	Date	Version
Final Design	05/03/10	1.0
Design Development	05/03/10	1.0
Design Development	05/03/10	1.0
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Design Development	05/03/10	1.0

SCHEMATIC DIAGRAM
BAS-101





Energy



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Current Power Production vs. Consumption

Current Daily Power Production vs. Consumption

Production vs. Demand per Month



Energy



Environmental



HVAC



Access Control



Eclipse



Lighting



Concepts of Industrialization

- Efficiency of Production
- Sustainability Practices
- Concepts for Scalability



Less is More
- Architecture of small space
- Abundance of Natural Light





















M.Cincala

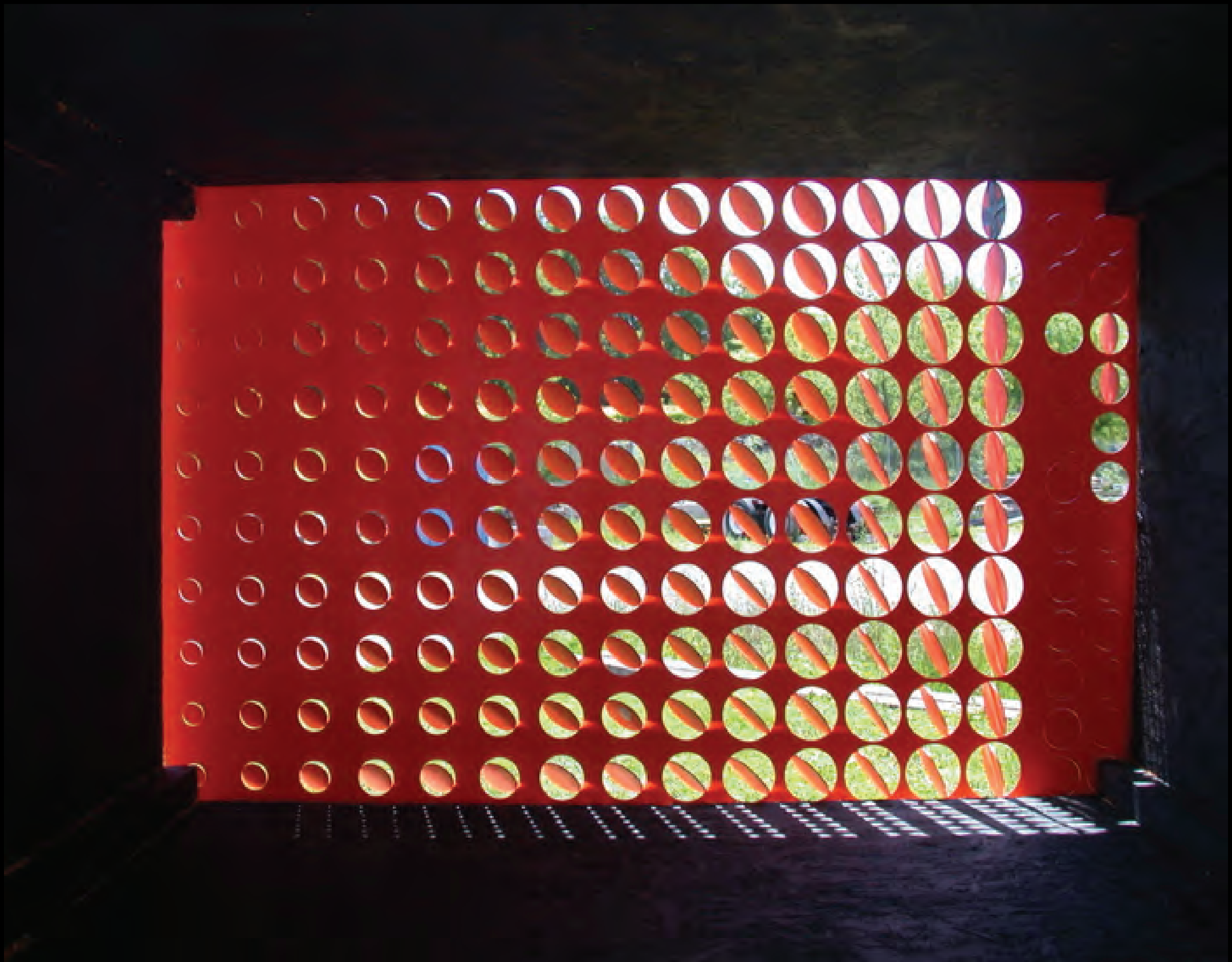




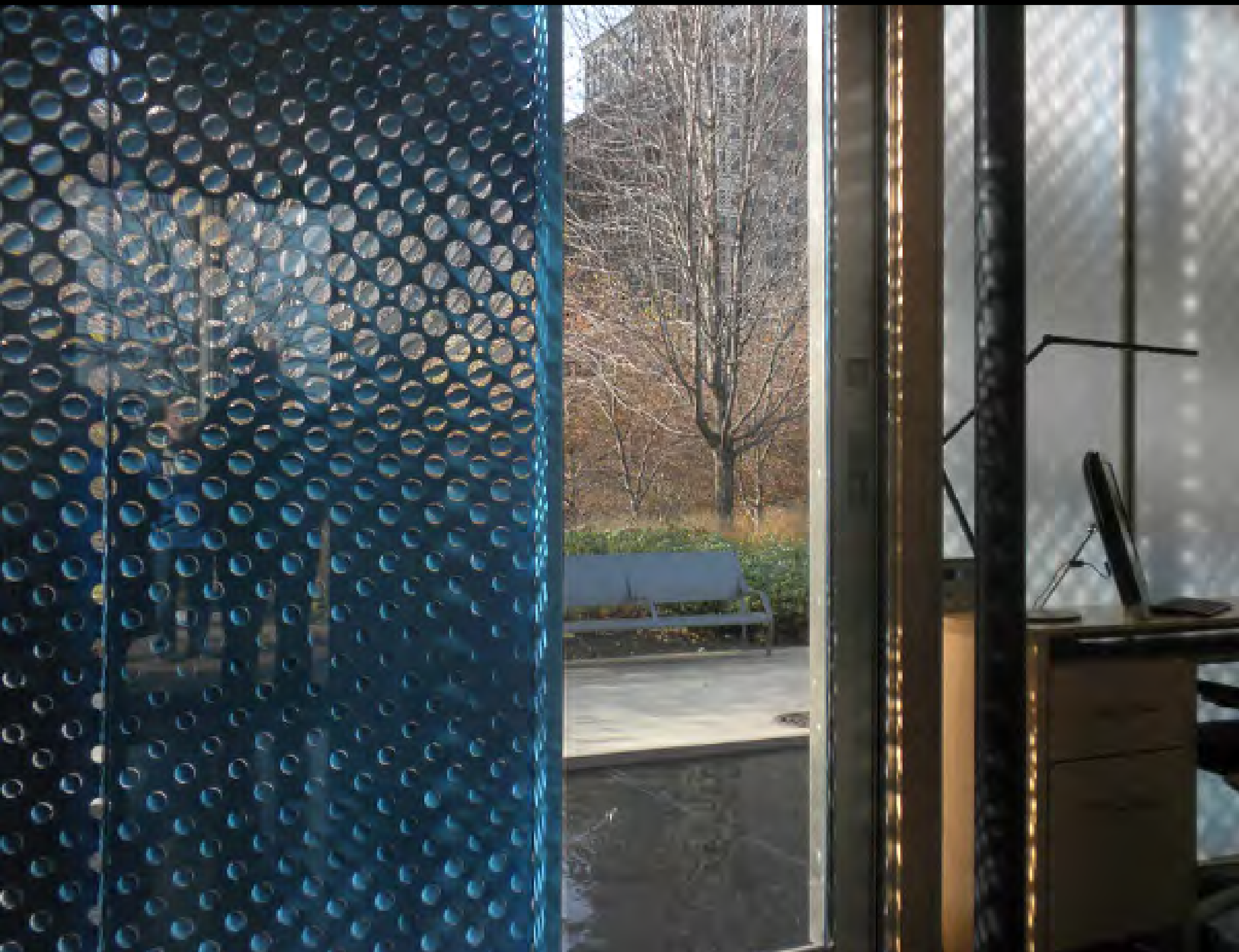




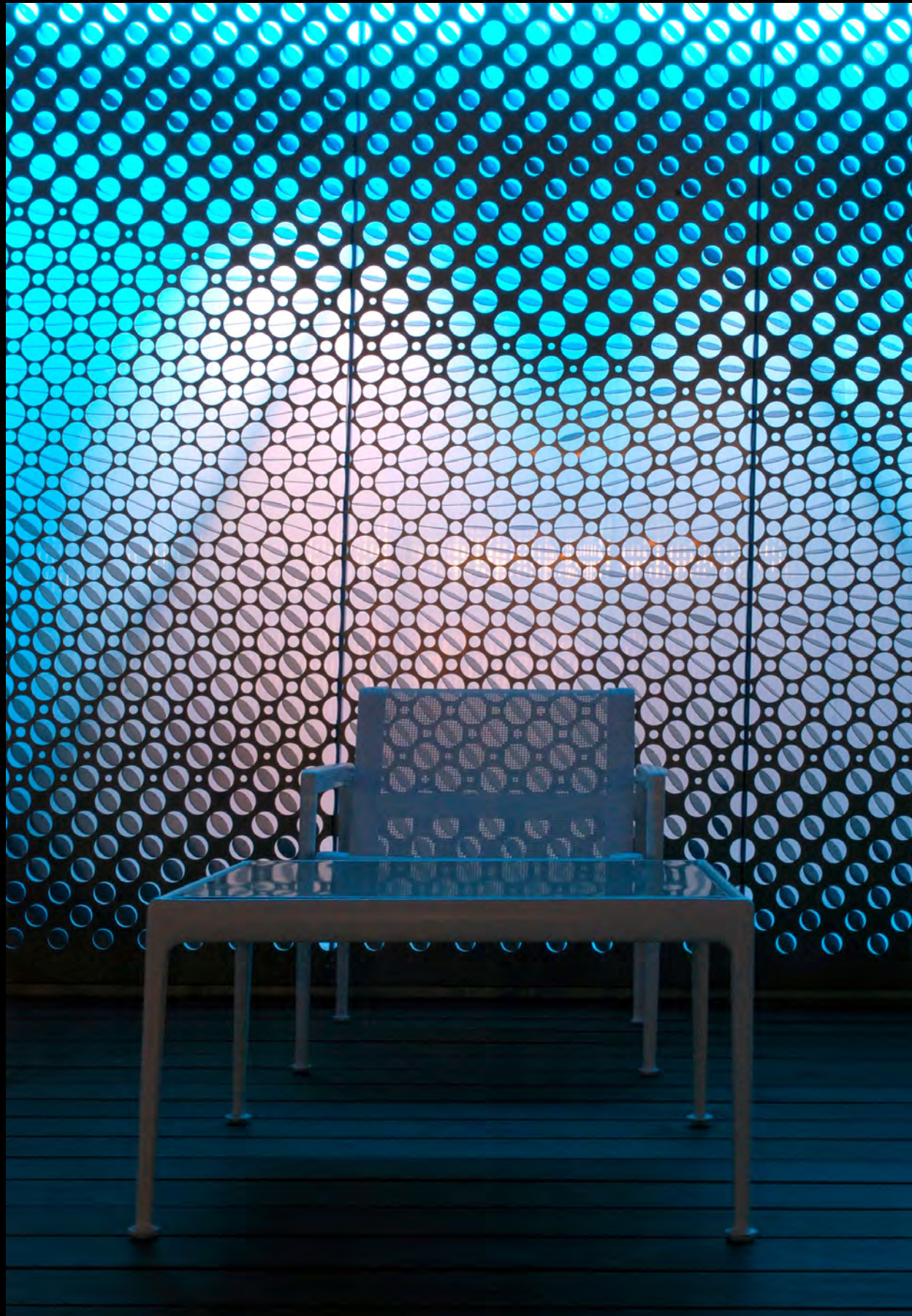










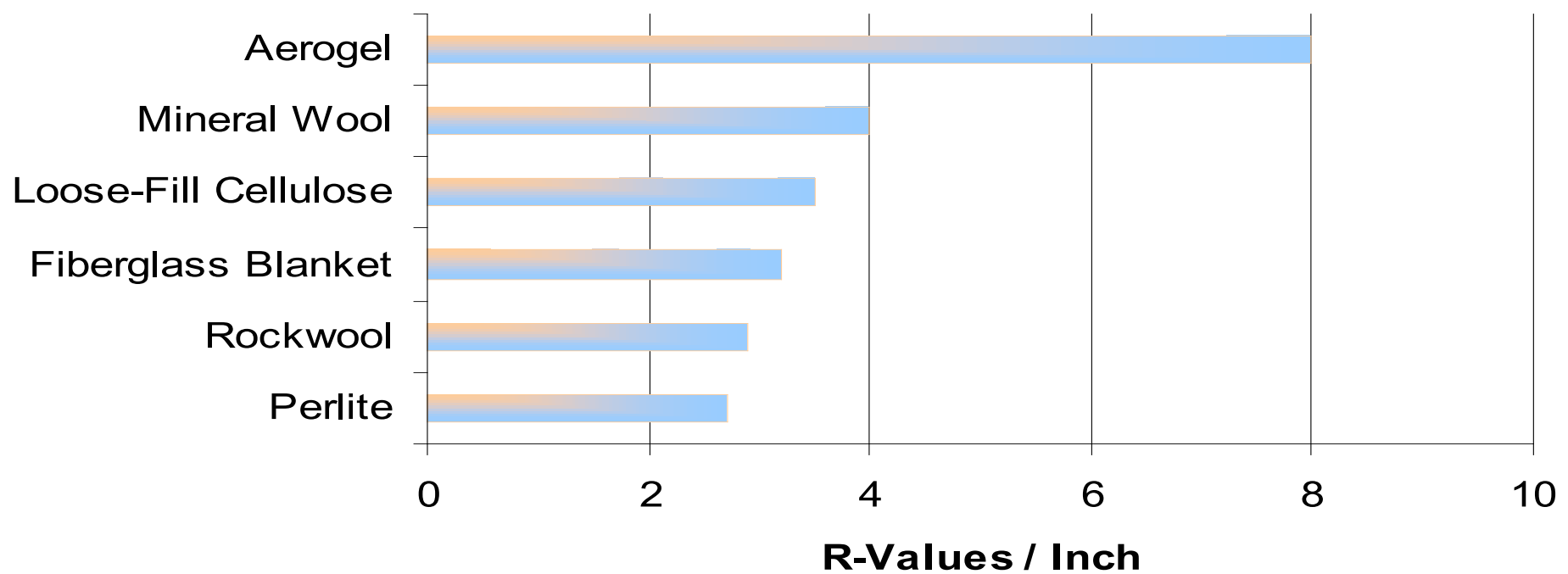


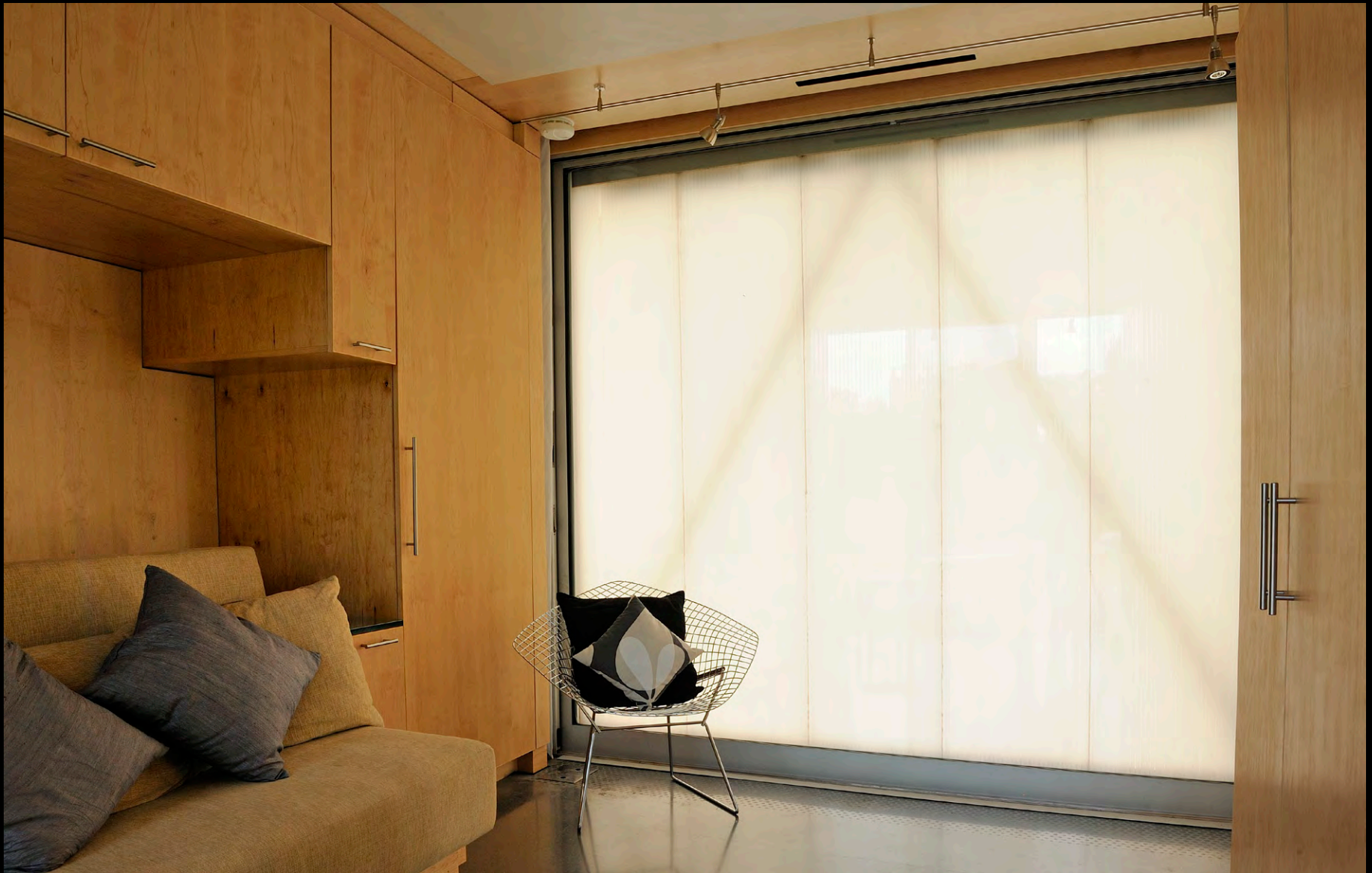






Insulation values of existing building insulation products





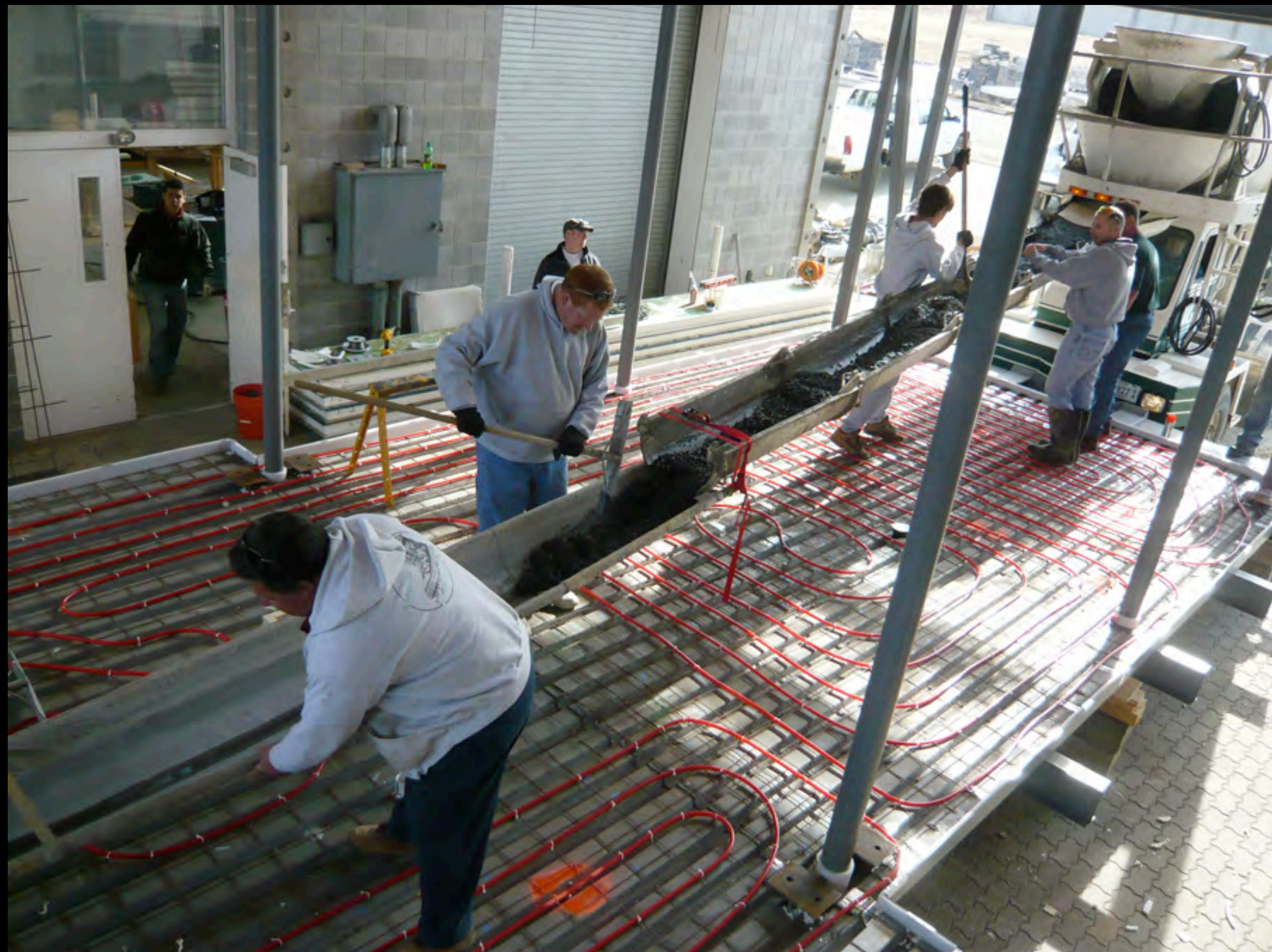


































1

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4

5

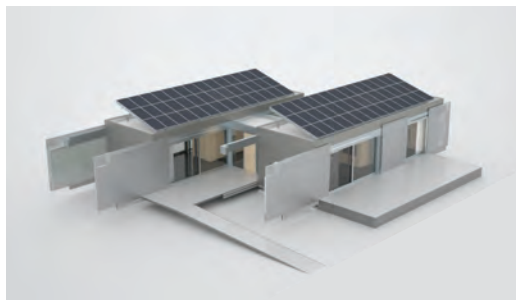
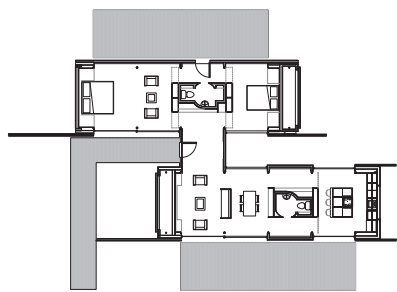
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D

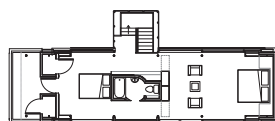
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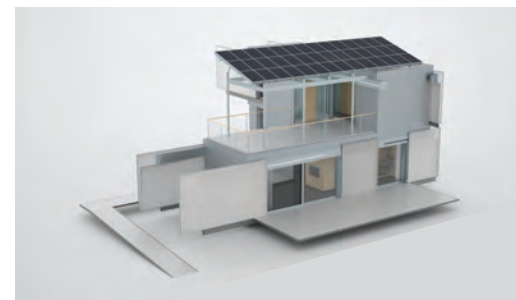
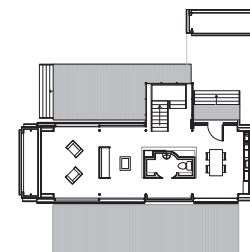
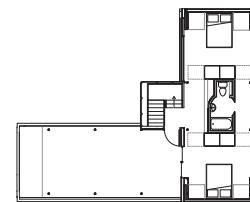
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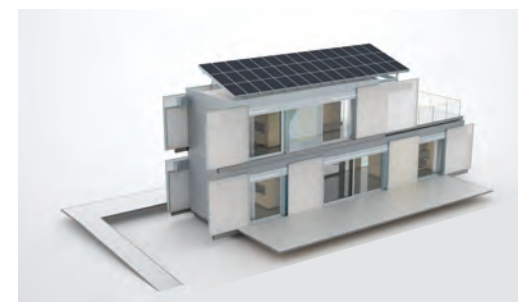
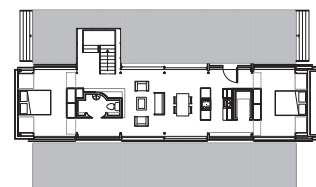
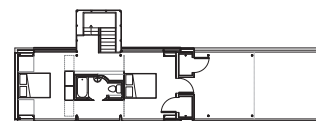
A. OFFSET HOUSE: 2 BEDROOMS, 1.5 BATHS



C. STACKED OFFSET HOUSE: 2 BEDROOMS, 2 BATHS



B. ROTATED HOUSE: 2 BEDROOMS, 1.5 BATHS



D. STACKED ELONGATED HOUSE: 4 BEDROOMS, 2 BATHS



CONCEPTUAL MODULAR STUDIES

PROPOSED MULTIPLE MODULAR ARRANGMENTS

1

2

3

4

5

6



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02.05.10	Final Deliverable	2010
03.11.09	Deliverable #2	
05.04.09	Deliverable #1	
DD	Design Development	
Mark	Date	Description

Solar Decathlon

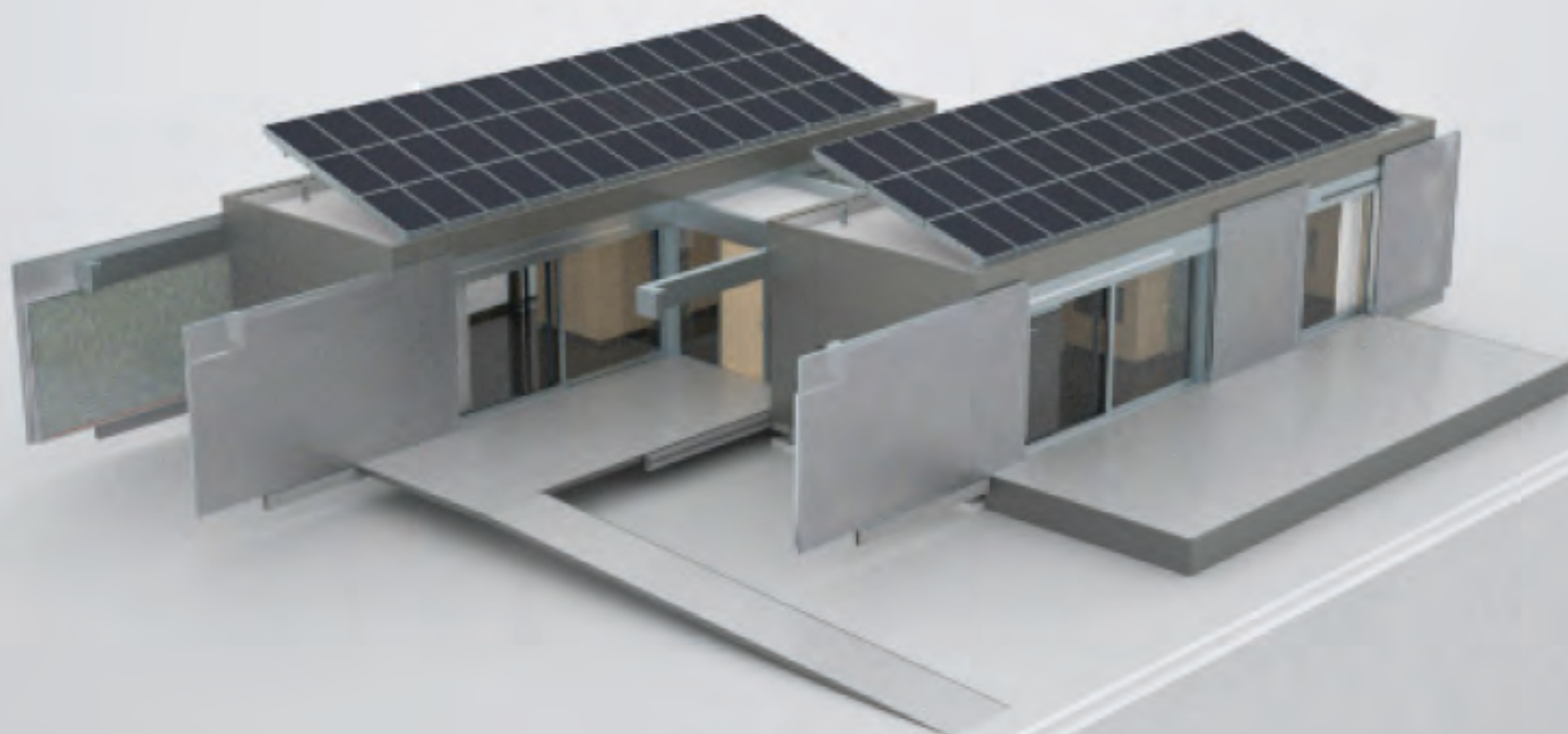
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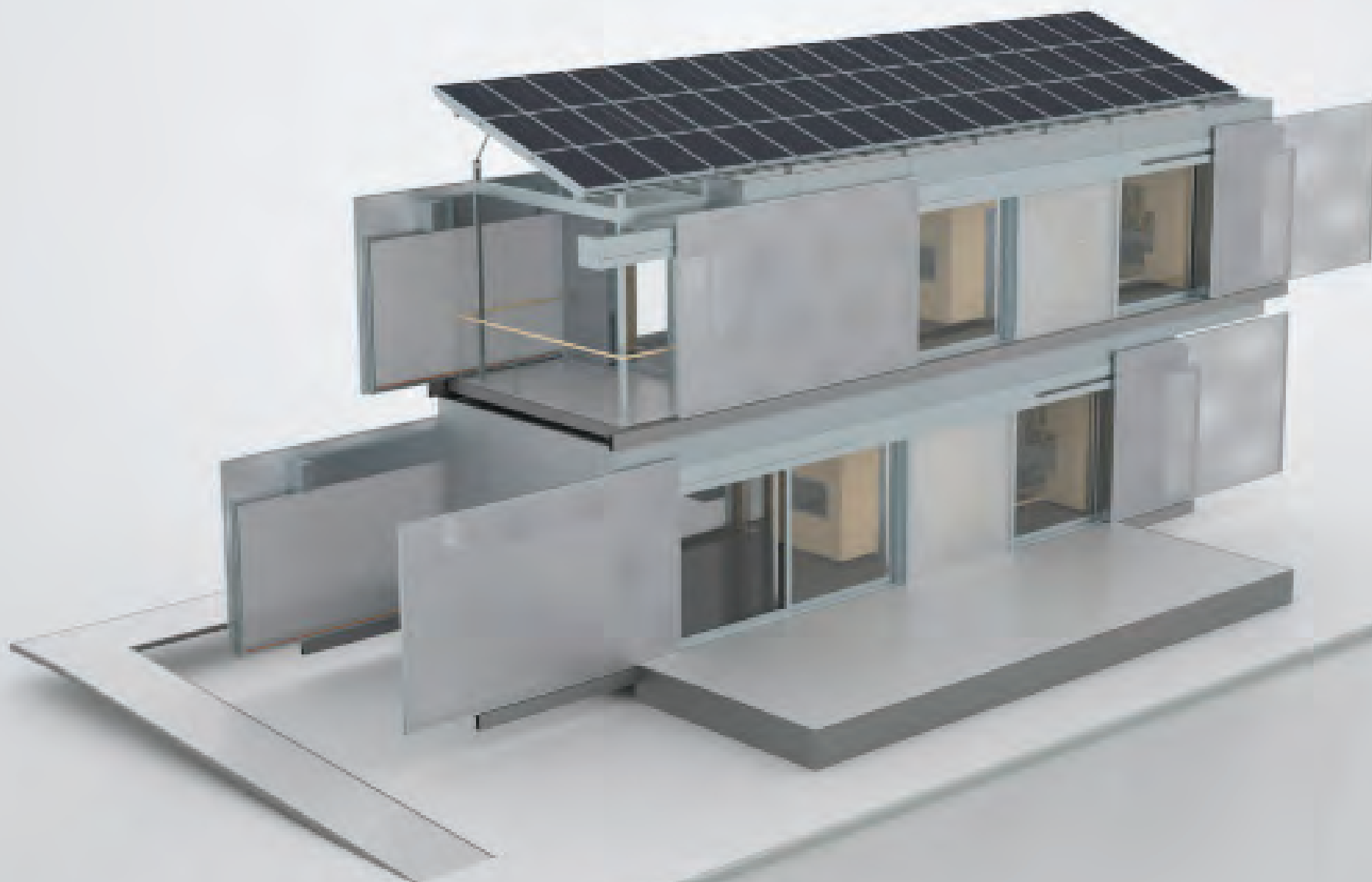
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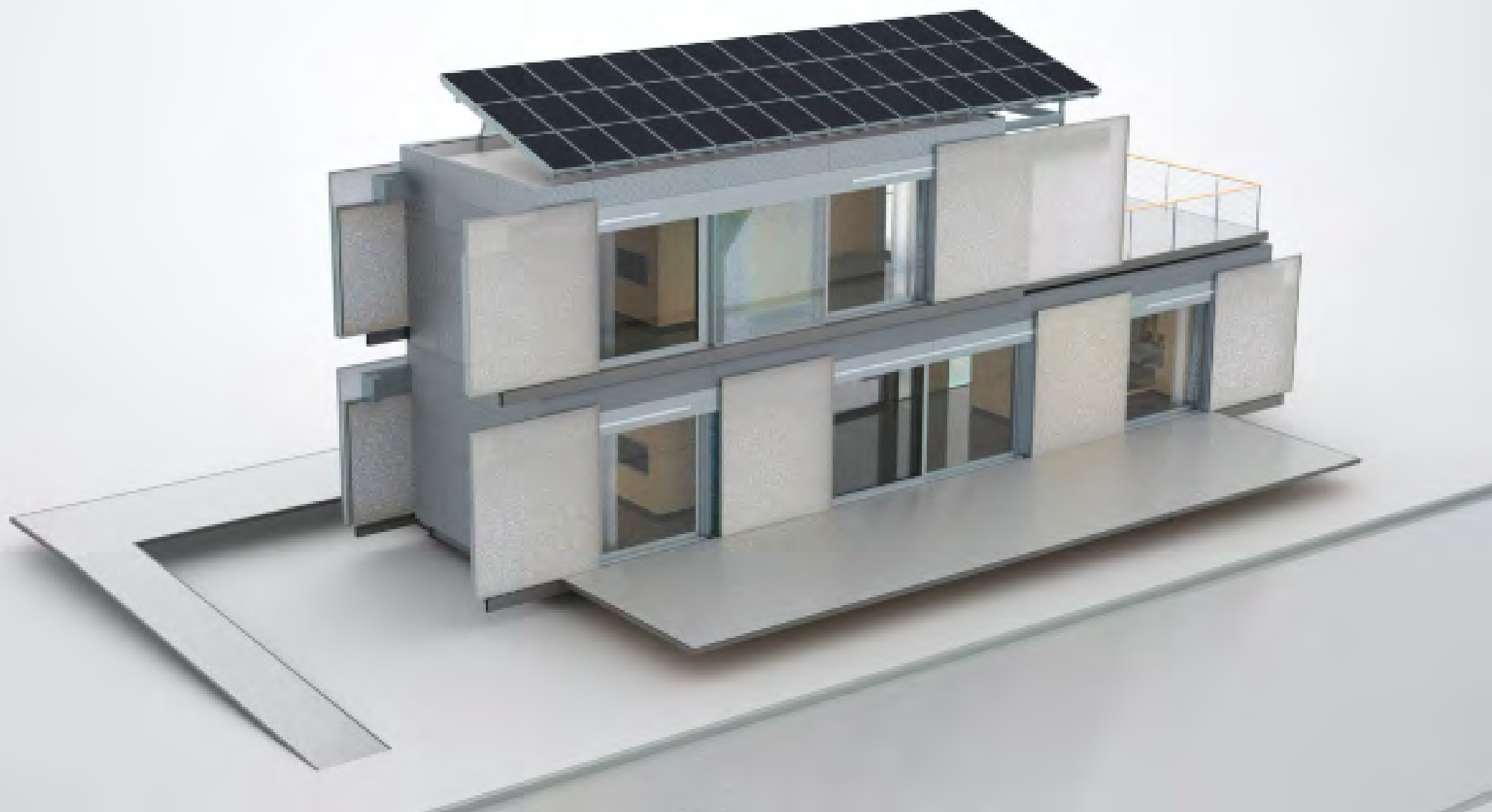
Approved: JHW

CONCEPTUAL
MODULAR STUDIES

AR-802





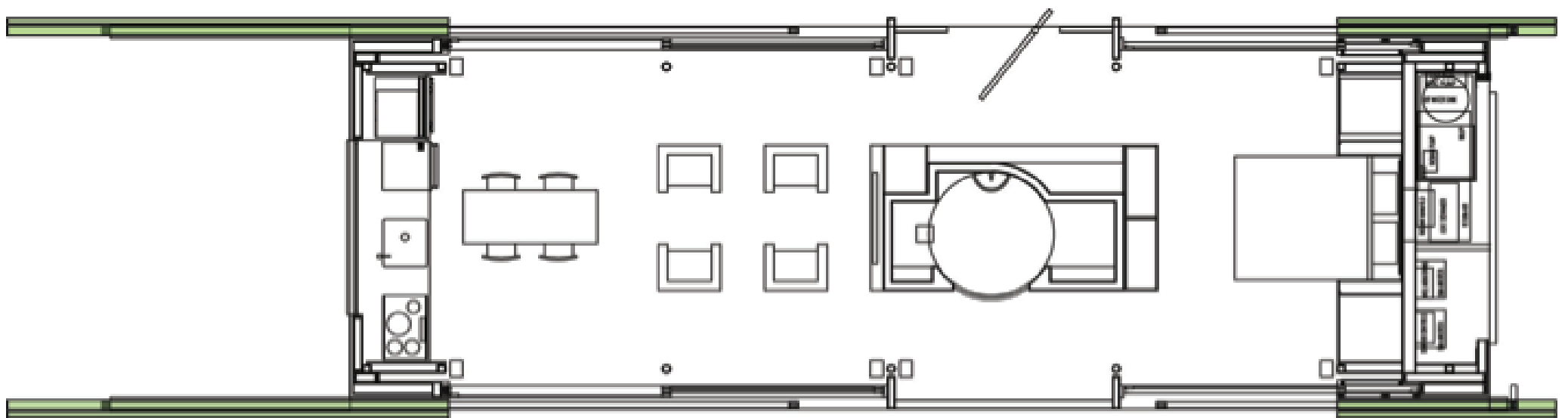




“ theres an app for that! ”

The home comes equipped with an easy to use i-pad or i-phone interface that gives you control of all systems in the house including the eclipsis system, music, lighting and draperies. It also provides access to weather station data, power production, and most importantly, power consumption. By making the homeowner easily aware of their energy consumption, he or she will become much more conscious of energy use, thus influencing their behavior and habits.





Plan showing Shutter Screens and Insulation Panels open















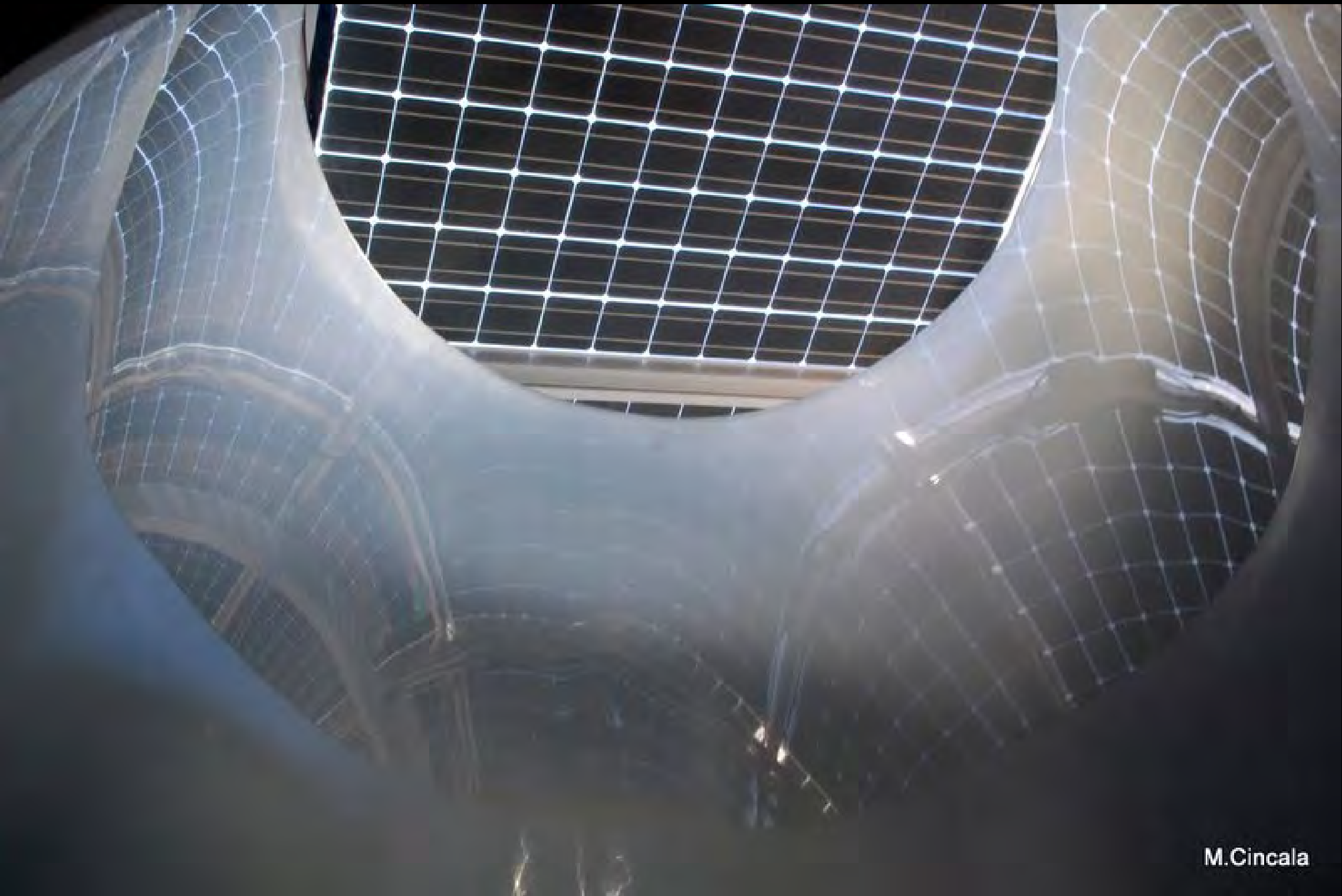








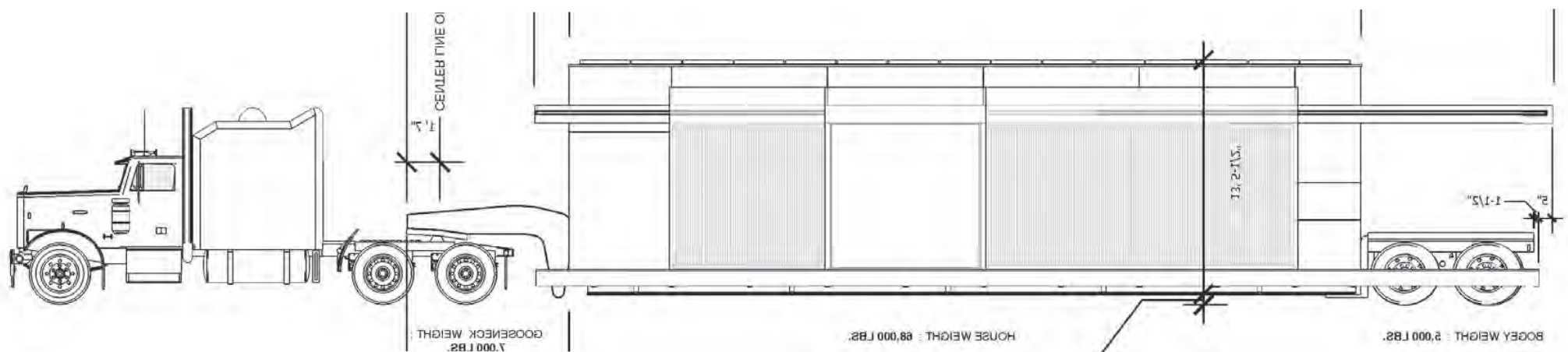


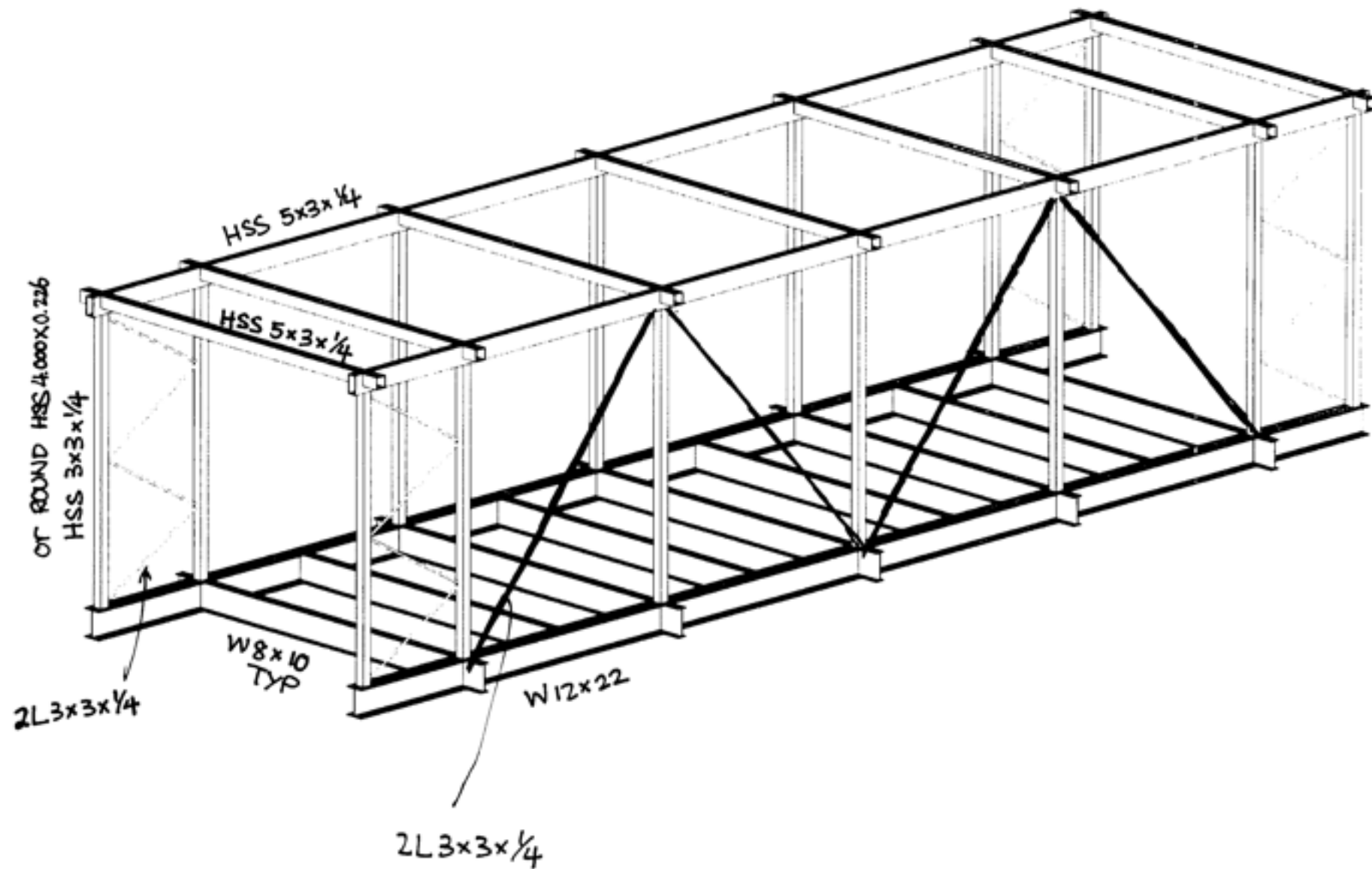


M.Cincala



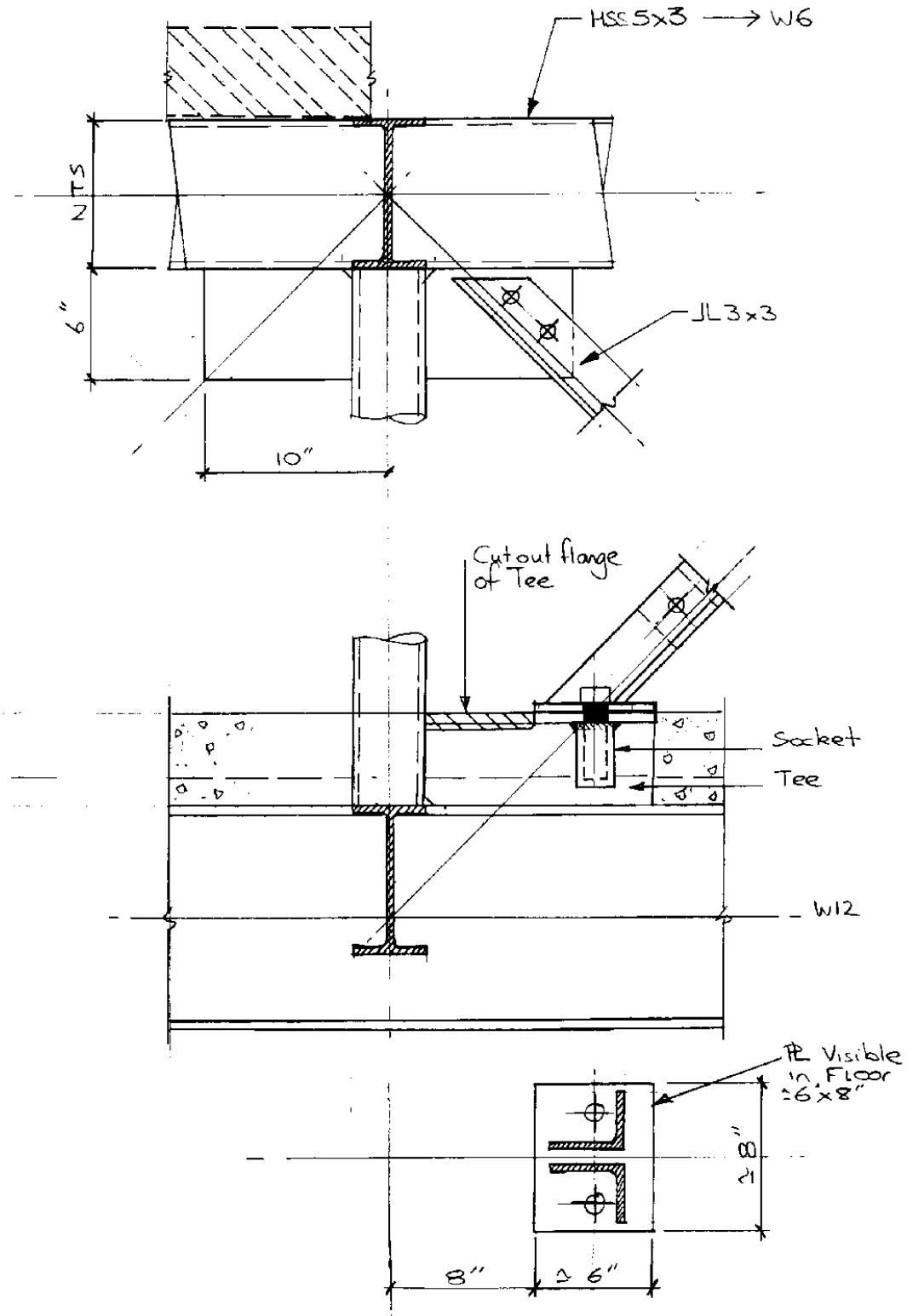






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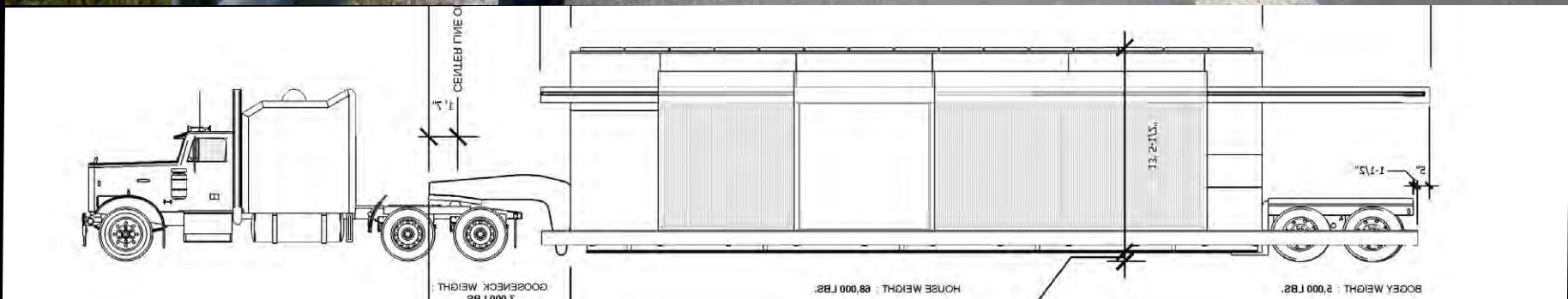
Job Title Solar Decathlon
Virginia Tech











An innovative transportation system was designed to move the house module easily ily as one piece with low clearances for road transport from the factory to the final home site.





















