

Sustainable Materials and Affordable, Resourceful Technology

SMAART



SMAARTer homes for a smarter tomorrow

Statement of the Problem



Goals of the Project

- Self-sustaining, low-energy systems
- Cost, functionality, comfort
- New options to upcoming generations, a home based around their needs and desires
- 3rd semester of this IPRO

Organization of the Team

Group	Design	Engineering	Marketing
Leaders	Kyle Bigart	Aaron Anderson	Steph Harmon
Members	Bernardo Chapa Saul Moreno	Arjun Jani Lachezar Handzhiyski Marina Horchin Matthew Hagopian Michael Roseen	Luke Blakely Michael Sullins

Progress Toward Goals-Business

36 Median Age

70% Households: No Children

50% of those households: Currently Married

Young Digerati

- **Wealthy, Younger Family Mix**
- **Tech-savvy and live in fashionable neighborhoods on the urban fringe.**
- **Affluent, highly educated, and ethnically mixed.**

Target Price: \$350,000

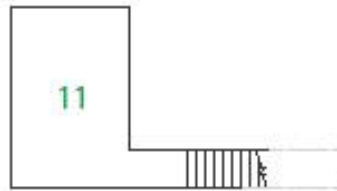
\$267,750 Median Sale Price 2009

SMART

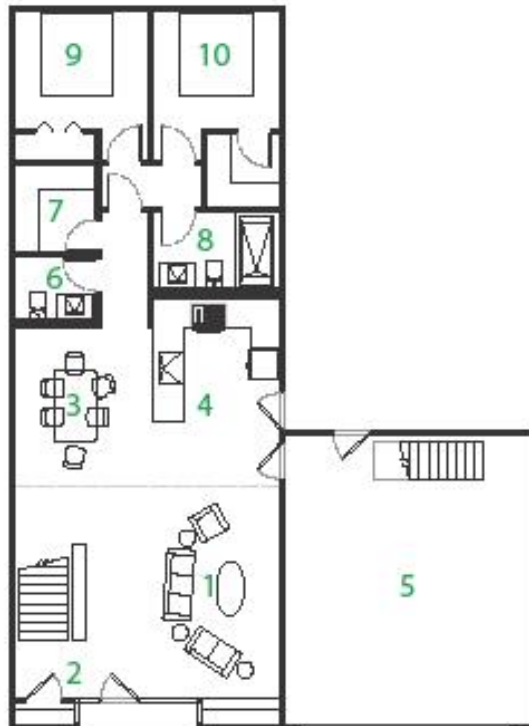
Progress Toward Goals-Design

PROGRAM

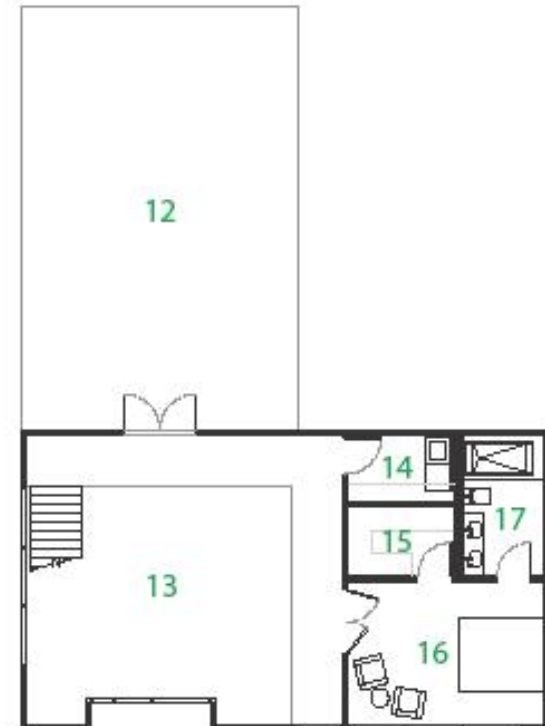
- 1 Family
- 2 Entry
- 3 Dining
- 4 Kitchen
- 5 Garage
- 6 Bath
- 7 Pantry
- 8 Bath
- 9 Bedroom 1
- 10 Bedroom 2
- 11 Mechanical
- 12 Garden Patio
- 13 Open to Below
- 14 Laundry
- 15 Walk in Closet
- 16 Master Bedroom
- 17 Master Bath



BASEMENT



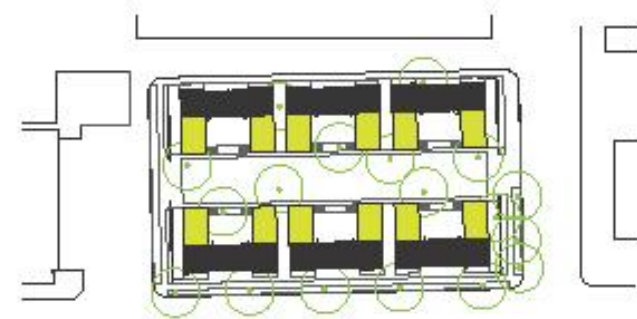
FIRST FLOOR



SECOND FLOOR



SITE CONTEXT



SITE PLAN



Home Automation

- Automated services
 - Window blinds
 - Laundry/dishes
 - Lighting
 - Security
- Room-by-room conditioning
 - Settings based on activities
 - Sleeping
 - Out of the house
 - User-friendly controls



Major Obstacles Encountered

- Architectural design - compromise
- Innovation – cost effective?
- Investment for energy efficiency – worth it?
- Cleaning up the site - environmental concerns

Anticipated Major Challenges

- Balance design, engineering, and cost to create a marketable product people desire
- Designing a home that will fit in vs. sticking out to the Evanston community
- Compromising

Questions