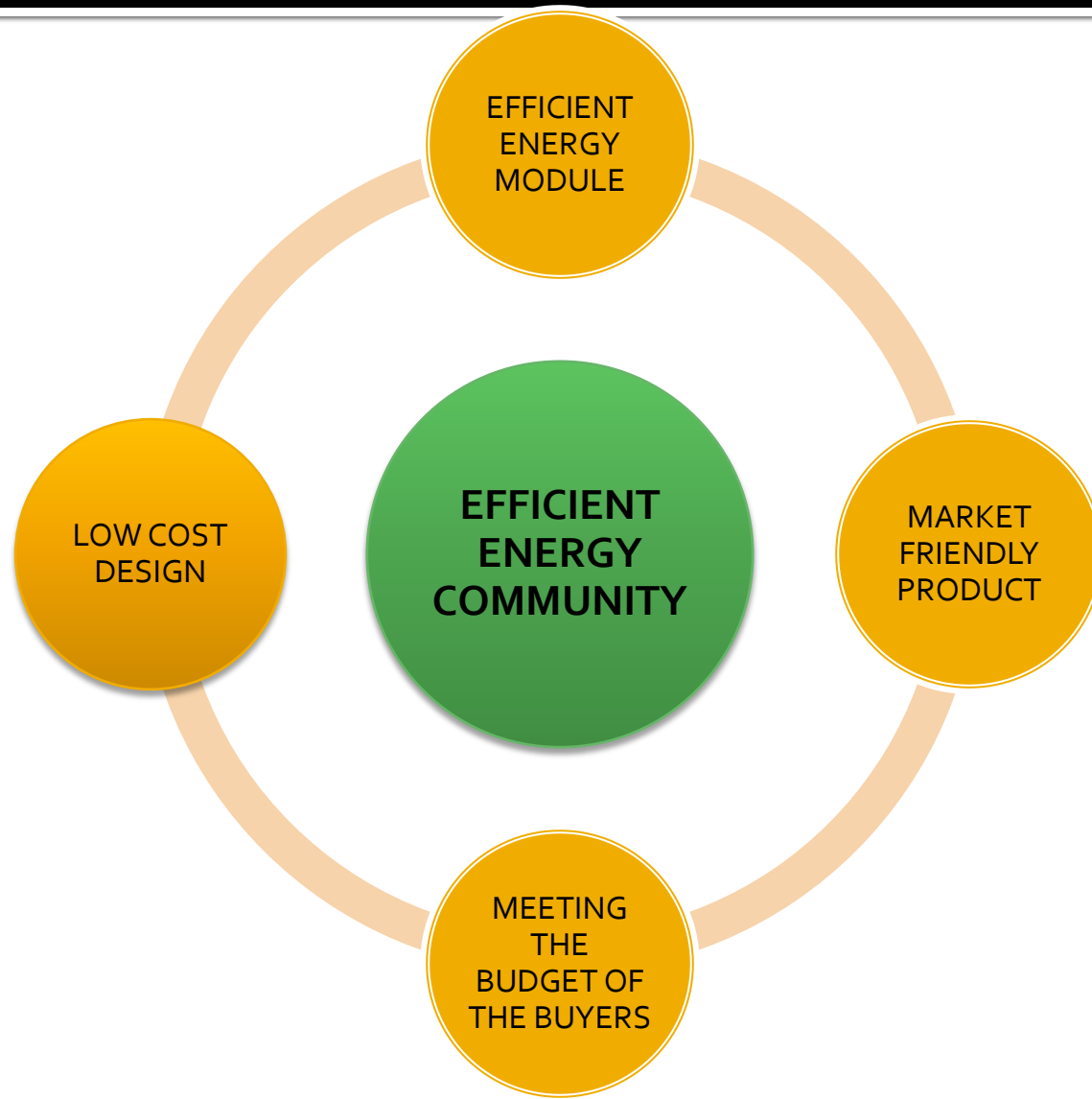


DESIGNING AN ENERGY EFFICIENT COMMUNITY

ECO – DWELLING

PRESENTERS
NAMRATA HEGDE
JORGE RUEDA

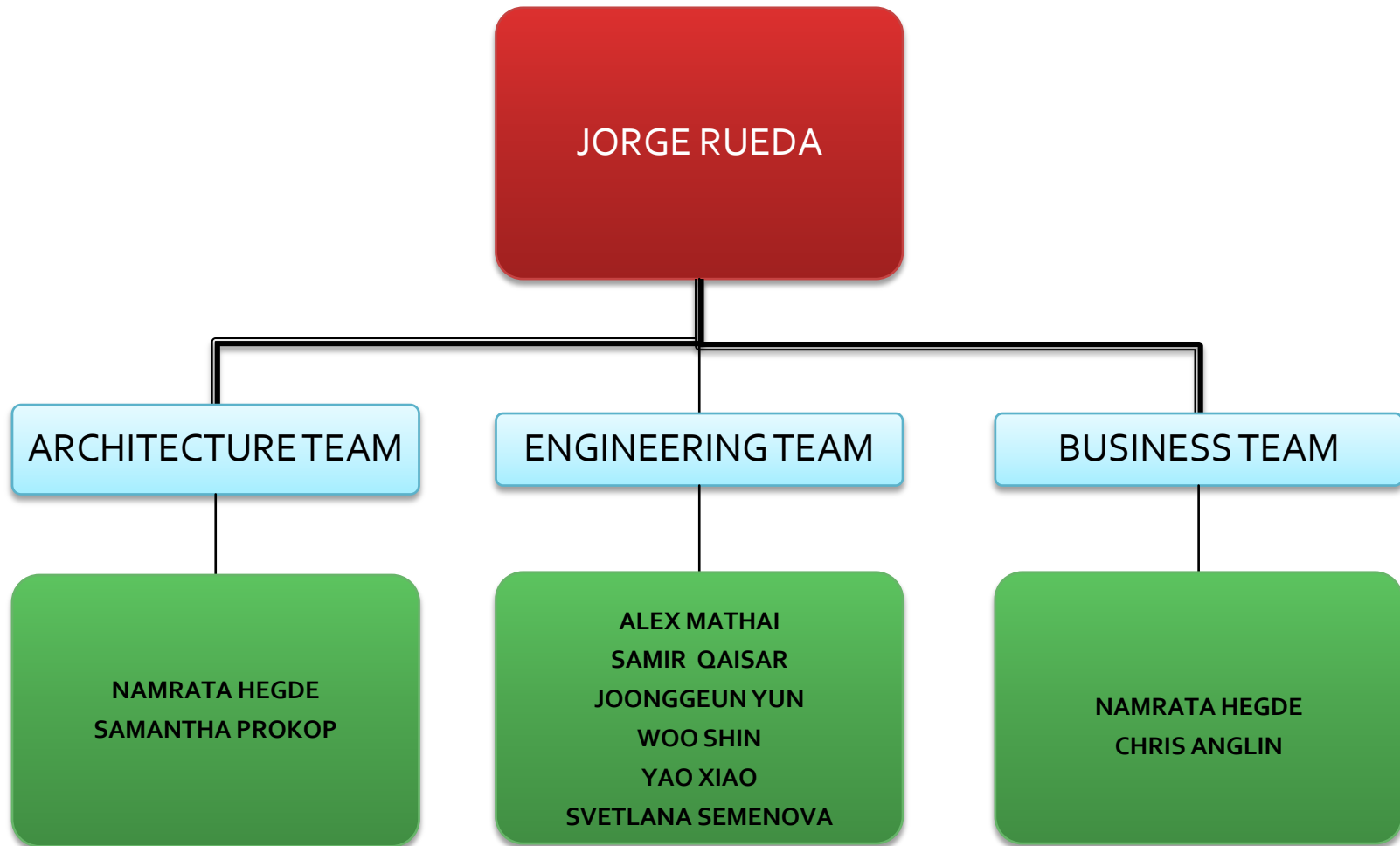
GOALS



STEPS TOWARDS THE GOALS

- RESEARCH
- DEVELOP A SYSTEMATIC PLAN AND PROCESS
- ANALYSE THE DERIVED MODEL
- MARKET AND SELL THE PRODUCT

ORGANIZATION



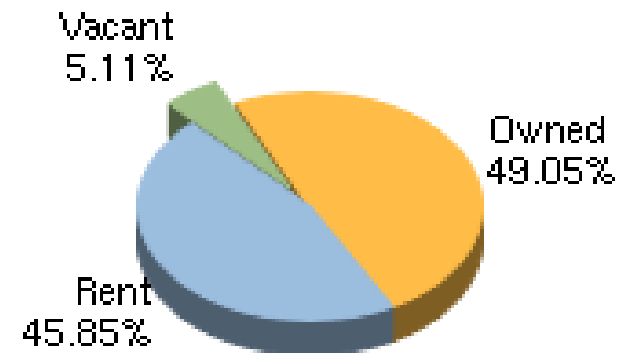
PROGRESS TOWARDS GOALS

BUSINESS TEAM

Evanston Housing

- 3000 homes sold in past year
- Average Sell Price \$282,000
- Price per Sq. Ft. \$150-\$180

Renter vs. Owner



PROGRESS TOWARDS GOALS

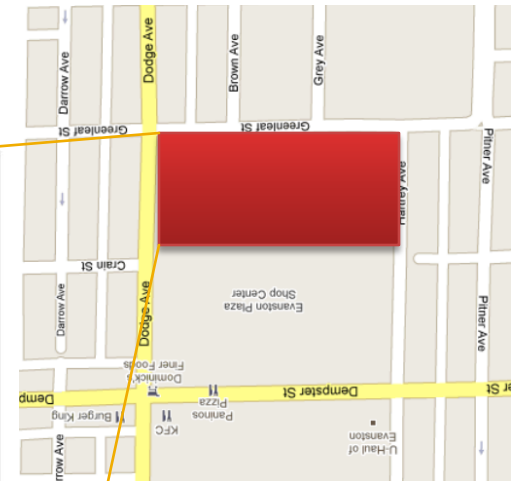
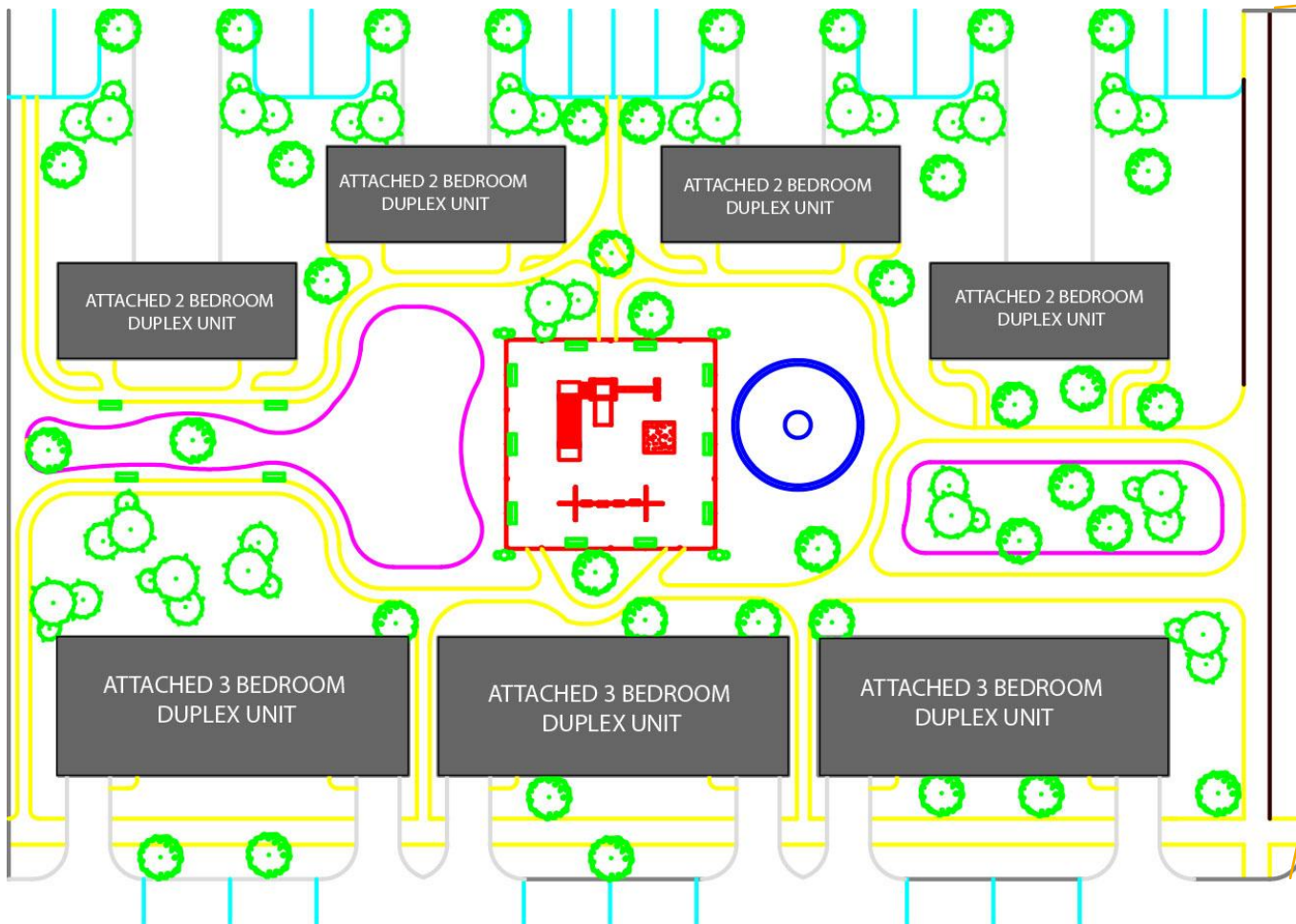
ARCHITECTURE TEAM

- Site Analysis
 - SOLAR ORIENTATION
 - SITE MODIFICATIONS
- RESIDENTIAL UNIT DESIGN
 - R-4 ZONING
 - SINGLE FAMILY ATTACHED UNIT
 - 1 UNIT – 2 BEDROOM (8 units)
 - 1 UNIT – 3 BEDROOM (6 units)

PROGRESS TOWARDS GOALS

ARCHITECTURE TEAM

SITE

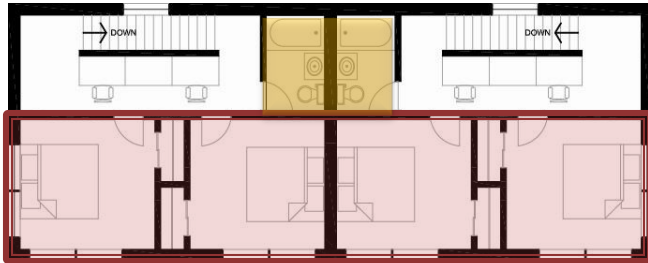


- SIDE WALKS
- HOUSES
- GARDEN AREA
- FOUNTAIN AREA
- LANDSCAPE
- PLAYGROUND
- PARKING

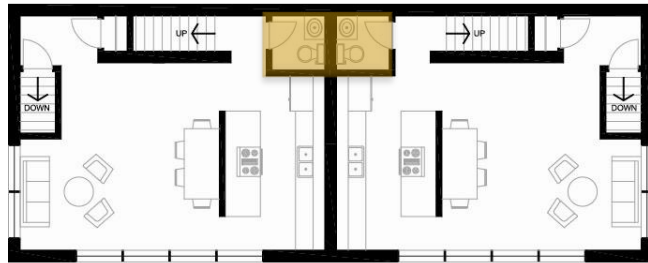


PROGRESS TOWARDS GOALS

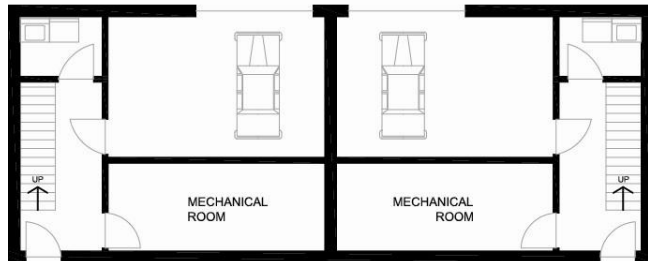
ARCHITECTURE TEAM



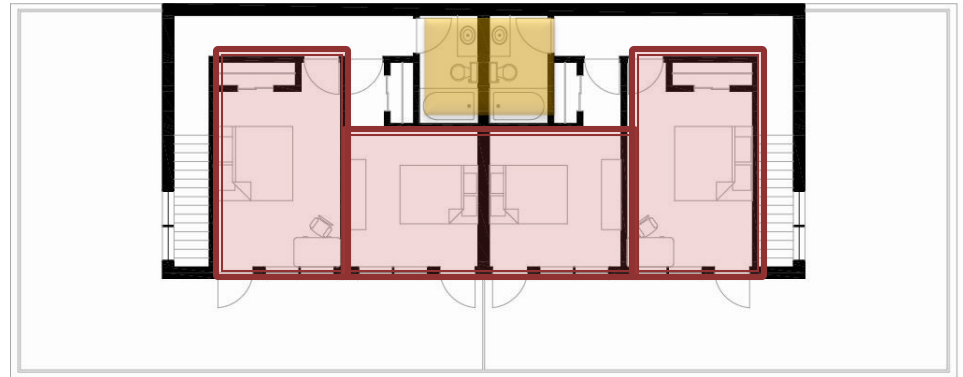
THIRD FLOOR PLAN
1210 SQUARE FEET



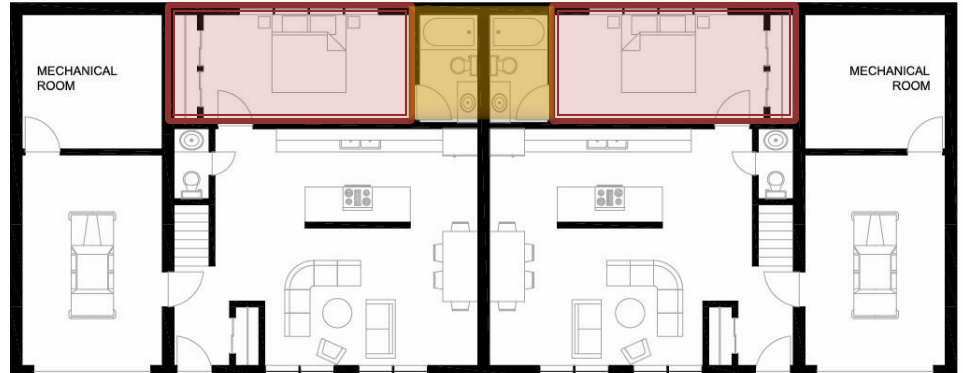
SECOND FLOOR PLAN
1210 SQUARE FEET



GROUND FLOOR PLAN
GARAGE - 528 SQUARE FEET
HOUSE - 682 SQUARE FEET



SECOND FLOOR PLAN
1292 SQUARE FEET PLUS ACCESSIBLE ROOF



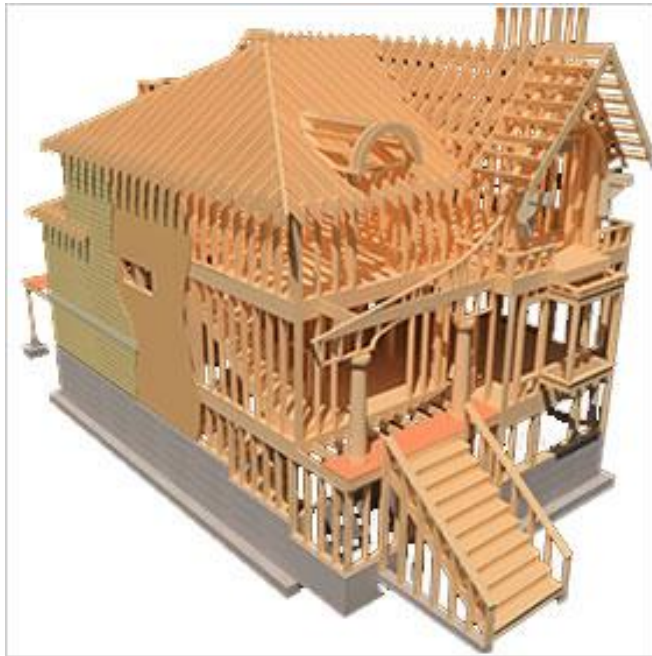
GROUND FLOOR PLAN
GARAGE - 896 SQUARE FEET
HOUSE - 1696 SQUARE FEET



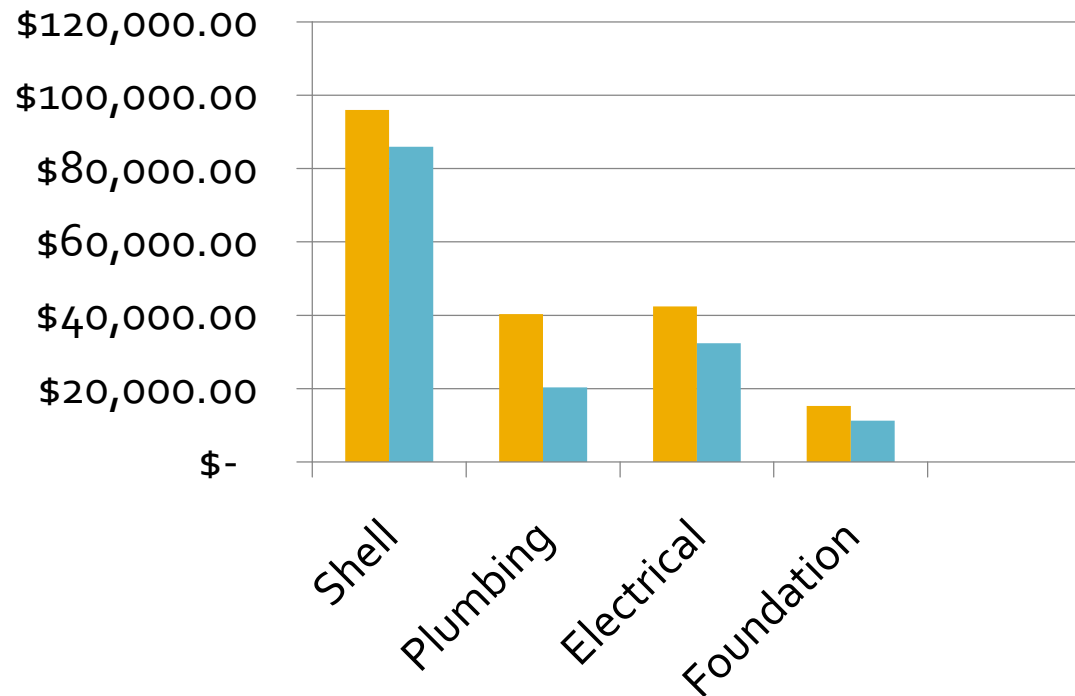
PROGRESS TOWARDS GOALS

ENGINEERING TEAM

■ Conventional Home



Conventional Home



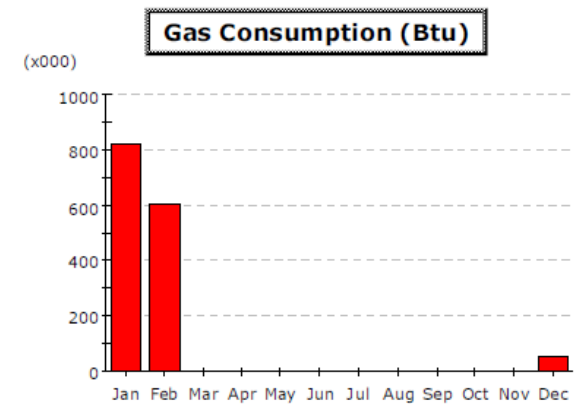
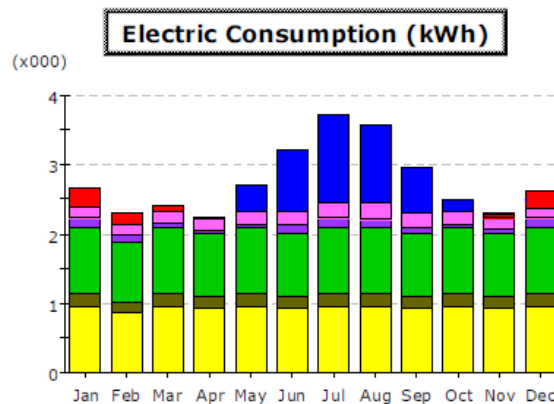
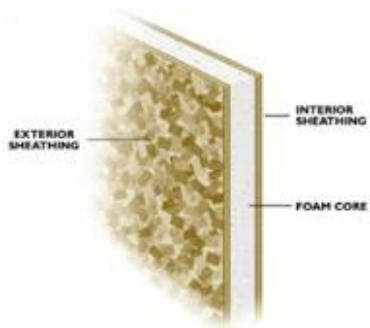
- Cost estimate of detached units
- Cost estimate of attached units

PROGRESS TOWARDS GOALS

ENGINEERING TEAM

- Energy efficient design
 - SIPS panels
 - Passive Solar

- Alternate Systems offered in AFFORDABLE packages
 - Geothermal heating and cooling
 - Photovoltaic



ANTICIPATED MAJOR CHALLENGES

- Design challenges:
 - Finding better and Cheaper alternatives
 - Finding a balance between desired design and cost constraints