BEYOND THE BOX

COMPETITION ENTRY
The San Fernando Valley is largely covered by part of Los Angeles along with a few other cities: San Fernando, Burbank, Calabasas, Glendale and Hidden Hills along with some unincorporated communities.

The valley is defined by the Transverse Ranges and contains the start of the Los Angeles River.
As a project that falls under R3 (Areas in the red), we determined a project that has a potential retail component creates a stronger proposal depending on the final location selected for the site.

Considering about a ¼ mile walking distance if the project can be located close to a change in zoning it can be more effective in providing a service for the community
Site Analysis/Demographics

- Looking into the average salaries and rents within the area it became clear that the best approach would be to target a range of groups

- From low to medium income groups this balance of potential renters allows for some units to be more affordable and to accomplish a stronger overall project
Site Analysis/Transportation

- The main form of transportation in the Valley is by car.
- There is a small system of light transit consisting of light rail and buses.
- Public transit can be utilized by careful site selection to reduce the need for residents to use cars, a major expense.
Site Analysis/Code

- During examination of the codes we found that there were minor differences between the different cities and that the requirements of the project were more conservative than the code required.
- Using this we designed to the project requirements since that would allow construction in any municipality in the San Fernando Valley.
Case Studies

- Common themes among the case studies looked at were a central gathering space and often the innovative use of standard materials to make a lively space without extra cost.
- Top: Broadway Apartments in Santa Monica, CA by Pugh + Scarpa.
- Bottom: New Carver in Los Angeles, CA by Michael Maltzan.
Design/ Top 5 Features

1.) Movable Walls
2.) Retail vs. Non-Retail Components
3.) Balconies and Large Openings
4.) Playground Feature
5.) Circulation Space
All the plans were designed to maximize space and exceed the Fair Housing Act requirements regarding accessibility.

### General unit capacities:
- 1 bedroom: 2-3 people
- 2 bedroom: 4-5 people
- 3 bedroom: 5-6 people
Design/ Movable Walls

- The moving walls allow for a more flexible living situation, maximizing the use of space depending on needs/events.
- User-perceived space is increased beyond literal.
- Flex walls add an additional 3,282 sq. ft of usable space over the entire facility.
After going through several design iterations, two parallel structures of apartments provided the most efficient use of space, while generating a unique central volume for the playground.
Design/Model

- Both the retail and non-retail options provide a transition zone that allows integration with the larger community.
- Only the residents themselves have access to the shared spaces and inner playground courtyard.
The non-retail proposal can be used on any site, including a large gathering and community space at the front of the building.
Design/Benefits of Retail Addition

- Rent from retail can be used to offset cost of apartments
- Retail space combined with bonus accessible green roof creates a connection to surrounding community, becoming a part of its social fabric
Design/Balconies and Large Openings

- Balconies maximize unit space and while creating a connection to the central court/playground.
- Also generates natural ventilation, saving on HVAC costs.
Central playground is within sight of all of the apartments

Accessed by first floor or through the play-tower from the second floor

Access to playground is safely restricted to residents only
Design/Public Spaces

- The facility includes a variety of green space, playground space, and enclosed community rooms.
- Spaces offer residents the chance to mingle, enjoy the outdoors, and allow their children to play with a peace of mind.
- Generous options allow potential for multiple events to be held simultaneously.
The circulation (indicated in red) was positioned along the perimeter so as to preserve as much central court volume as possible.

Stairwells were located in the two major opposing corners along with an elevator off of the entry lobby.

Hallways are open air so as to save on both HVAC and construction costs.
Façade Explanation/Material Choices

- The paneling façade was designed to balance daylighting, visual connection, and privacy.
- The shifting/sliding appearance gives each unit its own personality and will surely create interest juxtaposed to neighboring buildings.
Parking was planned to accommodate the maximum number of spaces

- Sits on ground level beneath the main building, open to exterior

- Potential to reduce spaces with car sharing program and access to public transportation
Mechanical/HVAC System Used

- Rooftop Unit with in-unit VAV and Return
  - Multi-Zone System
  - Serves all units in building
  - Controls airflow into each unit
  - Re-circulates unused ventilation air back to supply
Mechanical/HVAC System Used

- Duct runs have been reduced by having air diffuse centrally in each unit.
- Central shafts allow for smaller duct dimensions as airflow is split on each floor.
- Shafts at the end of the wings provide means for return airflow and air re-circulation for greater energy savings.
- Uniform approach in combination with reduced ductwork allows contractors to minimize bids and makes the project more affordable.
As designed, the system performs on average 16.2% more efficient than a constant volume system based on energy code.
Mechanical/HVAC Costs

As designed, the system reduces HVAC costs during high demand months, allowing for owner/operator to accurately anticipate and distribute costs.
As designed, the mechanical system performs between 14.6-17.4% more efficient per month than required by energy code.
Mechanical/Solar Hot Water Heater

- Design proposes 47 Solar Hot Water Heating Panels spread across both buildings.
- Each 4’-0” X 8’-0” panel provides 600 watts of solar absorption.
- Energy benefit from panels is 28.2 kW (1,154.6 kBTU).
- Solar hot water accounts for 5.51% of total hot water supply and saves $295.12/month.
OVERVIEW SUMMARY

- Maximum efficiency in unit & utility design while creating an exciting user experience was the main focus.

- The latter was accomplished through moveable flex walls, retail/non-retail incorporated elements, balconies and large openings, central court-playground volumetric space, and perimeter circulation to maximize the court.

- Potential for serving as a model for affordable housing design throughout the San Fernando Valley and beyond.