

Ron Rukenstein, PP, AICP



NJ Green Homes Office  
Solar Training

November 24, 2008



## **Consulting on 9 Homeownership Projects in Trenton**

**North Ward \$2.8 million  
Rehabilitate 15 units**

**Artisan Street \$2.3 million  
New construction 15 units**

**Fell Street \$1.5 million  
New construction 10 units**

**N. Willow Green \$5.5 million  
New construction 35 units**

**Willow Green \$3.4 million  
New construction 28 units**

**Spring Street \$3.43 million  
Rehabilitate 19 units**

**Southwest Village \$2.4 million  
New const/ rehab 19 units**

**Penn Titus \$3.1 million  
New Const/Rehab 15 units**

**Broad St Commons \$7.3 million  
New Construction 22 units**

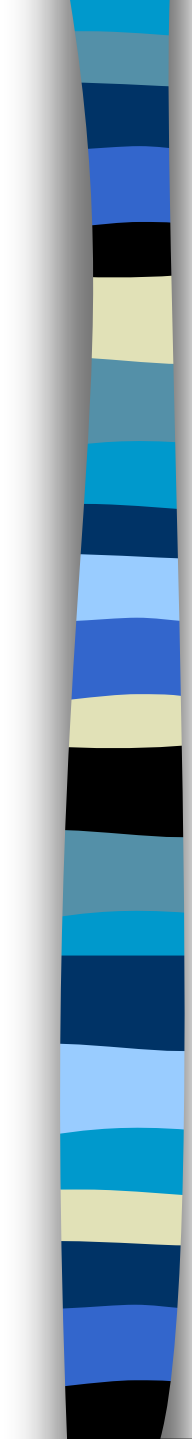


## Affordable Rental Housing Consulting Through the Tax Credit Program

1. Project Freedom at Hamilton Township - 48 units special needs housing
2. Project Freedom at Lawrence Township, 54-units special needs housing
3. Project Freedom at Trent Center, 52 Units in Trenton
4. United Cerebral Palsy, 18-unit special needs housing in Tewksbury
5. Ujima Village, 52-unit housing development for seniors and adults with disabilities in Ewing Township, \$7.2 Million
6. Acorn Straight Apts in Paterson, 50 family units
7. Pacific Apartments, 80 family units in Newark



- **Kent Avenue Apartments** – 101 unit residential apartment building for seniors (55 and over) and people with disabilities. This project provides affordable housing and Council on Affordable Housing (COAH) credits to Pennsville Township allowing them to meet their COAH unit obligation.

- 
- Financial assistance was provided from the following sources:
  - Jersey Housing and Mortgage Finance Agency (NJHMFA) – Low Income Housing Tax Credits, Home Express, Special Needs Housing Trust Fund
  - New Jersey Department of Community Affairs (NJDCA) – New Jersey Affordable Green funds, Small Cities Community Development Block Grant, Deep Subsidy
  - PNC Multifamily Capital – Tax Credit Equity and Construction Loan
  - Harvest Community Bank – FHLB NY Member and Letter of Credit for construction contract



# Green Features

- **Low VOC Paints and Sealants**
- **Insulate Slab and Slab Edge**
- **High Performance Windows**
- **High Energy Factor Water Heater**
- **Energy Star Dishwasher/Refrigerator**
- **Recycle Construction Debris**
- **Concrete with fly ash**



# Green Features

- **Recycled Aggregate Fill**
- **Wall Panel and Roof Insulation**
- **Stormwater Absorption On Site (Wet ponds)**
- **Carpet With Recycled Content**
- **Low Water Use Toilets**
- **Recycling Centers in Common Areas**
- **Recycling Areas in Kitchens**

# Recycled aggregate used for staging area and building envelope



**The set-up and crane to drive pilings and the cinched pilings. The pilings were weight tested and then cut off at a set level. The remaining steel was recycled.**





# High Efficiency Heat/Hot Water

- Hot water via gas-fired instantaneous hot water heater
- Hot water is used to heat the coil in the Air Handler
- Circuit Board within Air Handler controls the delivery of hot air to meet individual temperature controls

# Rinnai Tankless Systems provide the homeowners with hot water on-demand





# Rooftop Solar System

- We recently installed a 100 kilowatt solar rooftop system
- 462 solar panels, Sharp 216 Watt Modules, Installed on a Ballast Frame, Zantrex GT 100 Inverter, Weight 61,000 pounds
- The solar roof panel system is sized to meet the common area electric load
- Significantly reduces both consumption of non-renewable energy and operating costs significantly.
- In its life span, the system will produce 2,764,375 kWh of electricity.
- The environmental benefit is equal to 1,450 tons of avoided CO<sub>2</sub> emissions, 19,725 trees planted, or 2,193,950 miles not driven in a car.





# Solar Financing



Solar System is Residential and  
Eligible for LIHTCs

# Solar Financing



SREC's are year to year and not underwritten to support new debt

# Whispering Waters Initial Feasibility



Energy Credits

# Whispering Waters Initial Feasibility



Investors Issues