1,000 GREEN SUPERS PROGRAM

1,000 Green Supers Program:
A Collaboration of Labor, Employers, Owners and Educators
SEIU Local 32BJ

• SEIU 32BJ is the largest building service workers union in the country, representing more than 100,000 building workers in New York, New Jersey, Connecticut, Pennsylvania, Maryland, Virginia and Washington, DC and Florida.

• In New York City 32BJ members work in 80% of the large residential apartment buildings

• 32BJ it is affiliated with the Service Employees International Union (SEIU), which has over 2 million members.
Realty Advisory Board on Labor Relations

• The Realty Advisory Board (RAB) is a multi-employer association serving the real estate industry in New York City, Long Island, Westchester, Connecticut and Northern New Jersey.

• The RAB negotiates collective bargaining agreements on behalf of owners and operators of real property with unions that represent their maintenance and operating employees.
The Thomas Shortman Fund

- The Training Fund is a joint labor-management organization, cosponsored by Local 32BJ and the Realty Advisory Board on Labor Relations.
- Offers training to 80,000 members of SEIU Local 32BJ
- The Training Fund provides industry, academic, and computer courses at over 20 locations in New York, New Jersey, Connecticut, Pennsylvania, Maryland, Virginia, and The District of Columbia.
- TSTF began offering Green Building Courses in 2005. Students attended on their own time.
Buildings in the US

- Account for 39% of our total energy usage
- Generate 38% of our greenhouse gas emissions
- In NYC, buildings generate 77% of greenhouse gas emissions
1 Year: 1000 Green Supers

- In 2009, the Fund convened two committees to design a program especially for superintendents.

- Employer Committee
  - Building owners and property management companies
  - Contributions
    - Train on company time
    - Customized training
    - Share energy usage data

- Labor/Member Committee
  - Superintendents and handypersons
  - Contributions
    - Finalized curriculum topics
    - Expressed desire for recognized certification
Program Goals

1. Train over 2000 Multifamily Building Service workers in 2 years.
2. Create a Green Building Plan and help supers implement changes to their buildings.
3. Track changes workers make in their buildings and document the savings that result.
4. Make a large scale Industry-wide impact.
Certification/Certificate

• Building Performance Institute-Energy Efficient Building Operator
  – Focus on Energy Efficient Operations and Maintenance

• Urban Green Council – G-PRO O&M
  – Focus on Sustainability
American Recovery and Reinvestment Act Funding

• In January 2010 the Fund received a federal DOL grant to support the “1000 Green Supers Program”
• This $2.8M DOL Grant will teach over 2000 Superintendents how to run their buildings more efficiently and sustainably
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1000 Green Superintendents Training Program
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Training Topics

1,000 Supers Training Curriculum

Day 1
a. Building Science
b. Building Envelope
c. Lighting, Electricity, and Plug Loads

Day 2
a. HVAC (Heating, Ventilation, and Air Conditioning)
b. Field Exercise: HVAC Operations and Maintenance

Day 3
a. Indoor Environmental Quality
b. Water Conservation
c. Field Exercise: Hallway, Lobby, Apartment

Day 4
a. Quantifying Energy Usage
b. Green Building Work Plan and Communications

electives
a. 1 Pipe Steam
b. 2 Pipe Steam
c. Hydronics
d. Forced Hot Air
e. District Steam
f. Co-generation
g. Renewables
h. Green Roofs
i. Retro commissioning
j. Grey/Black Water Reuse
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Instructors

1. Superintendents
2. Heating and Air Conditioning Service Technicians
3. Professional Engineers
4. Architects
5. Construction Managers
6. Multifamily Building Energy Auditors
7. Education-minded vendors
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TEACHING EXAMPLE:
Field Trip to Demonstrate Boiler Efficiency Testing
TEACHING EXAMPLE:
Light Box to Illustrate Lighting Temperature Range
TEACHING EXAMPLE:
Photos and Discussion of Lighting Scenarios

Title: Stairwell
Access: Residents & Staff
Use: Rarely Used

1) Identify the types of lighting present?
2) Is this adequate from a safety standpoint? If not, why?
3) Is this adequate from an efficiency standpoint? If not, why?
4) What should you consider doing differently? (Controls, Lamps, Fixtures, etc)
TEACHING EXAMPLE: Inexpensive Diagnostic Tools
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TEACHING EXAMPLE:
Field Training

Field Exercises – Part I
Student Form Name: __________ Date: __________

Mechanical Room / Heating Plant Evaluation

1. Conduct a general visual health and safety inspection:
   • What is the CO reading? ______ Yes ______ No
   • Are CO detectors installed? ______ Yes ______ No
   • Are smoke detectors installed? ______ Yes ______ No
   • Is access to the room area free of clutter? ______ Yes ______ No
   • Where are the shut downs and controls? ______
   • Are there any gas leaks? ______

2. Where are the chimney cowl and outdoor air intake? ______

3. Why are the chimney cowl and outdoor air intake important? ______

4. What is the source of space heating? ______

5. What is the source of domestic hot water? ______

6. How can you tell if this is a steam boiler vs. hydronic? ______

7. What type of fuel is used? ______

8. Where is the filter located (if oil burning)? ______

9. Where is the aquatherm? What is its function and importance? ______

10. Where are the mixing valves? What is its function and importance? ______

11. Were you able to operate the heating plant through a full cycle? ______ Yes ______ No
    If not, why? ______

12. When in the cycle do you perform a steady state efficiency test? ______

13. Record the data from the steady state efficiency:
    • CO2
    • NOx
    • Stack temperature
    • Stack level
    • Smoke spot

14. What do these results tell you about the efficiency of the heating system? ______
Green Building Plan

GREEN BUILDING PLAN WORKSHEET

Name: CRAIG STEVENS

Building(s): 50 (Pw) (street address)
Date: 5-19-10

Instruct:

Now that you have completed the Green Super's plan to improve your building, you will plan to develop a plan of action for your building. Your Building Manager will work with you. The GREEN BUILDING PLAN WORKSHEET makes your building(s) a Reality.

Use the ideas from the classes and from class discussions to make your building(s):

Green Improvement #1: Convert lighting
Green Improvement #2: Change to
Green Improvement #3: Replace
Green Improvement #4: Monitor

Now answer the questions below about each improvement.

GREEN IMPROVEMENT #1: Convert all bulbs to fluorescent
IMPACT: How will this improve your building(s)?
APPROVAL: Do you need owner/manager approval to start?
WORK: Can you perform the work in-house or through a contractor?
COST: How much do you think it will cost (rough estimate)?
START DATE: What date can you start?
END DATE: What date can you finish?
COMMENTS:

GREEN IMPROVEMENT #2: Replace
IMPACT: How will this improve your building(s)?
APPROVAL: Do you need owner/manager approval to start?
WORK: Can you perform the work in-house or through a contractor?
COST: How much do you think it will cost (rough estimate)?
START DATE: What date can you start?
END DATE: What date can you finish?
COMMENTS:

GREEN IMPROVEMENT #3: Monitor
IMPACT: How will this improve your building(s)?
APPROVAL: Do you need owner/manager approval to start?
WORK: Can you perform the work in-house or through a contractor?
COST: How much do you think it will cost (rough estimate)?
START DATE: What date can you start?
END DATE: What date can you finish?
COMMENTS:

GREEN IMPROVEMENT #4: Monitor water usage/fix leaks
IMPACT: How will this improve your building(s)?
APPROVAL: Do you need owner/manager approval to start?
WORK: Can you perform the work in-house or through a contractor?
COST: How much do you think it will cost (rough estimate)?
START DATE: What date can you start?
END DATE: What date can you finish?
COMMENTS:
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Onsite Coaching

• Quantifying Energy Usage/Energy Star Portfolio Manager
• Lighting advice (lamps and controls)
• Questions and demonstrations of routine boiler maintenance
• Green cleaning options
• Recycling station setup/securing receptacles for batteries, clothing etc
• Air Sealing
• Preparation for board presentations
• Water audits
• Tenant surveys
• Accessing Incentive programs
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Survey Results: Upgrades

Number of Supers who Reported Upgrades*

- Did not do any upgrade: 69%
- Made at least One Upgrade: 19%
- Made Two or more Upgrades: 12%

(* Based on 238 Follow Up Responses)

Type of Upgrade+

- Building Envelope: 27%
- Lighting: 14%
- HVAC: 9%
- Water: 17%
- IAQ: 12%
- O&M: 11%
- Others: 10%

+Based on 591 Upgrades
Progress to Date: Training  (As of February 1, 2011)

1. 1164 Students Began Training
2. 796 Completed Training*
3. 684 Earned Certification*

*211 Students Currently in Classes
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Online Community

www.1000supers.com  e-newsletter
Thank You!

James Barry
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James Barry: Biography

James Barry is the Manager of Program Development at the SEIU Local 32BJ Thomas Shortman Training Fund (TSTF). He manages a $2.8 million dollar ARRA grant for the 1000 Green Supers Program.

James joined the Fund in 2003 and soon launched Local 32BJ’s first green building course in collaboration with the New York State Energy Research and Development Authority (NYSERDA) and Steven Winter Associates, Inc. Over the next several years he launched a half dozen different green and energy efficiency classes for 32BJ members.

James has over 15 years of experience in adult education and workforce training and has helped a variety of populations to re-enter the workforce.