GREEN CONSTRUCTION FOCUS GROUP
SUMMARY OF PROCEEDINGS

Agenda

• Welcome and Introductions: Bob Lawrence
• Define the Green Construction Cluster: Bob Lawrence
• Duties: Identify the primary functions of the cluster
• Tasks: Brainstorm the tasks for each Duty
• Break
• Knowledge and Skills/Tools: Develop a list of knowledge, skills and tools.
• Job Titles/Wages
• Future Trends and Concerns

The Green Construction Cluster of Jobs

One of the challenges facing green construction builders and contractors is getting the carpenters to open their minds to new techniques, new materials. The mindset instead is to stick with what they know.

A second challenge is educating the customer. There are many fallacies out there about what green construction can and cannot accomplish. We are still in the early stages, but green construction is the wave of the future and building codes will be changed as time goes on.

All the manufacturers and suppliers have been caught in hype about going green. However the definition of “green” remains vague. Is a granite countertop green if it was shipped from China? How important is using local products in the design of the house? In many respects, until this has been worked out (and it will take time), green is mainly a mindset. And that is the best thing to teach, given that the products and ideas regarding “green” are changing so rapidly.

The basic tenets of green go back to Greeks and Romans. SIPS goes back to 40’s. It is a perception that the general public is more aware of, perhaps even more so than the building industry. The industry is faced with training of workers, education of customers, staying current in a rapidly changing set of technologies, and perceptions that green construction is significantly more expensive. However, the product currently produced is no more expensive than regular construction. The training factor does lower the profit margin, but only in the short run.

Vision for the Green Construction Program at Peninsula College

The vision is to develop pipeline of workers for contractors. This program will act as a transition from entry level to intermediate level construction skills.

We envision 3 hours a day of green construction for 9 months. Then, students that graduate from this first year go into the second year which is spent building the house. Thus, the two year program will have one year in class, one year in the field. We will offer short term certificates, every quarter of the first year. The second year will lead to An Associate of Applied Science degree.

Students will qualify for PEL grants, because a 2-year program allows us to go for fed financial aid. The A.S . Degree could lead to a Bachelor’s Degree in Applied Management.
The Green Construction program will do a number of things:

- Support the Historical Society and the Future Builders Program
- Provide a venue to bring in experts to focus on HVAC or solar.
- Exposure to green concepts and how it impacts what you do. It’s a system.
- Provide space for equipment such as solar photovoltaic.
- Provide a venue for students to understand that there is an orchestration aspect to building a house.

Materials and Processes are What Makes Construction Green

- Start with built green checklist
- House as a system
  - Scheduling is a way to teach this (could be the spine).
  - Outline of how the trades come in.
- Use green materials as examples
- Materials that will make your house run more efficiently and better
- Traditional components, and new components
- Create a living breathing organism
- Healthy place to live, air quality, comfort
- Healthy, clean materials. Local materials.
- Bring in manufacturers to set up and do presentations.

Sustainability: one of the main goals of green is that the house itself should last. Overall the products are stronger, straighter, less susceptible to insects, mold etc. The house should last, and also the materials that came to build the house. FSC lumber (forest stewardship certified) lumber.

Health of environment you create: Will the occupants thrive or get sick. That is directly related to the materials we use inside the building. People are becoming more sensitive to materials. (i.e.) we prefer solid surfaces over carpet. Air handling is very important too.

Buying locally—saving transportation cost, jobs locally.

Built Green of WA has developed an appraiser course on how to appraise green. Also real estate valuations on green construction property is an important concept. This is not an area that has been taken into account.

There is a green-washing marketing problem these days, calling it green when there is no certification. You can build green without having it be certified. To get it certified LEEDs it costs $5K and others coming along will be $700-$1000.
Curriculum Ideas

Overview of traditional and green construction.

Overview of site concerns: scenarios of what you will face in the future as a green builder.

Small projects like building a pump house using SIPS panels, small solar light. Make it portable so you can auction it off. Perhaps the class does a small project each year. Before they go to the 9-month build-a-house. Other ideas for projects are balance boards and projects for the Historical Society.

One concern for high school students is how to have the high school students taken care of…transporting, scheduling need to be figured out.

National Association of Home Builders could be a resource. They have a Certified Green Professional and they may have a textbook.

Marketing the Green Construction Program

Current
Go to high school and promote
College students are fewer
College sends post cards & mailers
Home school follow up

New Ideas
Summer program—we need to find someone to teach it.
Paid internship after a certain number of classes.
Waive the 16 year old requirement, by permission of the instructor. We could consider accepting students as young as 14 years old, if they can handle it.
Go into the middle schools and high schools and make a presentation. Jacob from the Skill Center is doing that now. Student ambassadors.
We could co-enroll high school and college students in the new class.
FaceBook—use that. Is there a video?
History of green-build.
The college might help with the association to offer courses to get the numbers to draw the course presenters.

Current Wages
Builder = Carpenter $15-25 after 4 years as non-union residential “apprenticeship”. $25 - $35 where more experienced.
Skilled, experienced person on the job site will generally make $25 per hour.
Apprentice Union = $17.60 going up after 6 months. Commercial. Residential is the same as laborer.
Laborer $8-10 per hour and moving to $12 – 15 after they prove themselves. Even $20. Depending on skill level and how much hustle they have.
Benefits are not usually offered to residential. They are employees, but most don’t offer benefits.
**Future Trends**

Green principles will be inserted into code – as in the example of the energy code, drainage site management, storm water LID (low impact development).

Federally funded projects will require LEED certification.

Concept of houses as energy producers (reverse metering, etc)

Continued grant funding to use and develop alternative energy methods (smart grid, retrofit, etc).

Contractors will need to show green building experience & expertise in order to qualify as bidders on projects.

Continued federal tax incentives for energy efficiency (energy star, greenhouse gases, etc., FSC certification of property)

China could take the lead on green building.

Size of homes will continue to decrease.