

Minutes of Meeting 6

Project: Yellowknife Eco Housing
Project #: 2012- 008
Date: Thursday February 7th, 2013
 5:30- 7:30
Location: City Hall Lower Board Room

Attendees:

| | | |
|-------------|------------------|---------------------------------------|
| Task Force: | Mayor Mark Heyck | Chair of Task force |
| | Jeff Humble | City of Yellowknife-Dir of Planning |
| | Delia Nitu | Mgr. Bldg Inspections, City of YK |
| | Phil Moon Son | Counselor |
| | Dan Wong | Counselor |
| | Niels Konge | NWT Construction Association |
| | John Carr | Arctic Energy Alliance |
| | Sandra Turner | CMHC |
| | Devin Lake | Planning City of Yellowknife |
| | Chris Clarke | NWTHC |
| | Jim Sparling | GNWT ENR, Climate Change Prog. |
| | Gino Pin | Pin Taylor Architects |
| | Steve Outlet | Program Coord. Arctic Energy Alliance |

Eco-Housing
 Team:

| | |
|------------------|---|
| R. Wayne Guy | Guy Architects Ltd, Principal |
| Mark Gumienny | Guy Architects Ltd, Associate |
| Sofia Dobrev | Guy Architects Ltd |
| Elaine Carr | Williams Engineering Inc |
| Jon Neuert | Principal Baird Sampson Neuert – <i>via phone</i> |
| Drew Adams | Baird Sampson Neuert – <i>via phone</i> |
| Gabriel Friedman | Baird Sampson Neuert – <i>via phone</i> |
| Dr. Ted Kesik | Energy Specialist – <i>via phone</i> |

| 6.0: <u>Agenda</u> | <u>Action</u> |
|--|---------------|
| 1. Approve minutes of Meeting #5, January 31 st , 2013- | All |
| 2. Presentation of Construction Progress | GA/BSN |
| 3. Schedule | GA/BSN |
| 4. Next Meeting | All |

6.1 **Approve Minutes:**
 Meeting #5 dated Jan 31st, 2012

Motion made to approve minutes: Niels Konge- Seconded by Sandra Turner

Approved

6.2 **Approval of Construction Progress:**

1. Architectural: Questions regarding how the air-barrier, siding and firestopping was to be made continuous after on-site assembly of pre-fabricated modules. Wayne had the following response which he illustrated with the use of a sketch on the whiteboard:
 - a. The vertical gaps between the building would be sealed with a backer rod and foam in the joint which would be about 1" wide.

- b. To maintain the continuity of the air barrier, a peel & stick membrane would be installed over the vertical joint noted in "a". This membrane would be sealed to same material on the face of the sheathing which would be factory-applied on the exterior face of the module sheathing.
- c. Rigid insulation is then applied to the exterior of the patch.
- d. Then field-applied sifing and flashings are installed to "stitch" the units together. As a rainscreen is being used, the panelized siding has spacings which provide construction tolerances for installation.
- e. For the horizontal joints between the modules, a continuous rubber gaskets is placed prior to the installation of the module above to provide a continuous air barrier at this juncture.
- f. The modules are to have factory-installed spray foam insulation and the envelope periodically tested for air tightness on-site.
- g. The building exterior will feature a Pro-dema rainscreen with 19mm spacings.
- h. Hilti Fire Stopping material will be used for fire stops between floors.

2. Water Saving & Windows:

- a. The Water Saving Strategy to reach 60-70% reduction in water is to use cost-neutral, off-the-shelf appliances, low-flush toilets and aeration. Also by installing a 5000 litre rain harvesting tank gravity fed to garden from the terrace. Rain water will have a hand pump for non-motorized solution which will encourage wise water use. The tank system will be drained annually.
- b. Windows: insulated inline fiberglass frame-triple pane low-e has the best performance and payback.
- c. Fibreglass patio doors will be used.

3. Mechanical:

- a. Solar DHW: Solar collector heated glycol vacuuated tubes supply and return pass through a heat exchanger thus recycling energy. There will be several solar water pre-heat tanks – mechanical to specify flow-rates. In the summer, the lines allow for heat rejection below building. Each suite will be metered separately in mechanical room, allowing for independent long-term energy performance monitoring.
- b. All HVAC unit servicing is through the corridors.
- c. Energy Recovery Ventilators will be located in the bathrooms with air intake on the South-side of the building.
- d. Drain/ grey water will also heat glycol tubes to recycle low-grade heat.
- e. Exterior parking will have glycol sprinkler system as the parking roof is to be 1.5hr fire rating, and exposed to the ambient exterior temperatures. Alternatively, a forced air/dry sprinkler system could be used, but it requires a large, costly compressor.
- f. Building will feature a solar-ready vertical riser so that condominium residents have the the option to install PV panels in the future.

4. Building Specifications

- a. The architectural team is compiling a list of researched materials and finishes which are cost-effective, renewable, low-VOC, formaldehyde-free, non-off-gassing, and have low impact environmental footprint.
- b. A/E team will prepare 2 tender packages :
- c. Tender Package I: Performance-based specification package with drawings for the Module manufacturers

- d. Tender Package II: Prescriptive-based specification package for site development of the foundation as well as the provision of water, sewer and power to the building.

Taskforce were satisfied with answer provided.

6.4 Schedule

- 1. The schedule was reviewed. It was noted that the schedule is currently 2 months behind as the TF was not sitting the summer of 2012. It is anticipated that tenders, and marketing to be issued in 2013 with a construction start in 2014.

6.5 Next Meeting

- 1. This being the last Task Force meeting, Wayne took the opportunity on behalf of the A/E team to acknowledge the significance of what had been achieved and what a pleasure it was to receive and incorporate the Task Force's contribution towards this; Yellowknife's first carbon neutral project.
- 2. Next meeting, a Public Meeting, will be the last meeting in Part A of the proposal. This will showcase the Innovation of this project and present the unit-design to the community. This is anticipated to be held in the summer/fall of 2013

Approved

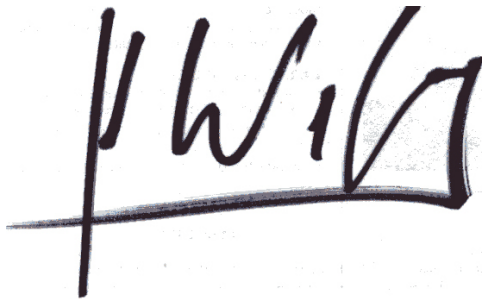
6.6 Adjournment of meeting:

Motion made Chris Clarke:

Approved

End of the meeting

If there are any errors or omissions please contact the undersigned within 2 days.



R. Wayne Guy
NWTAA/PP, MOAQ, MAIBC, AIBC, RA. Arizona, FRAIC
Principal Guy Architects LTD.

Cc Williams Engineering, Holmes Group, Dr. Kesik, BSN, Tony Chang