

Lasqueti Duplex

## Project Orientation and Drawing Review

Feb 15, 10:30 to 2pm + ½ hr site walkabout

In attendance: Vic, Ray, Wendy, Gwen, Doane, Selena (Vic and Gwen left early).  
Some notes added by Selena after meeting.

These are general notes, without a full appreciation for project background and design considerations already undertaken. Some items suggest scope that is beyond existing architectural contract. Selena's role in potential extra scope yet to be discussed, so: Take all notes with a grain of salt. Suggested follow-up actions to be confirmed with Carsten and owner's rep (Vic/Ray/Doane?) before proceeding.

### General notes

- \* Update on possible funding sources – grants rather than loans. Selena could provide.
- \* What form of contract? (Consider CCDC 5a/5b?)
- \* First construction contract will be to lock-up. What more is needed to ensure that appropriate scope can be specified to establish price? The sheet-by-sheet drawing review below offers some suggestions.
- \* Once first contract is underway, another series of drawings/specs will provide more specificity on FF&E, etc. Can these be processed as changes to base contract as funding becomes available (declared as CA hours for AIBC logbook ©)? Or do we want multiple contracts/bidders for post-lockup work?

### Improving energy performance

(Selena's general notes)

Given that the project is off-grid, and that utilities on the campus are shared between multiple buildings, energy-aware design of the Duplex that focuses on **reducing demand** will be of key importance. Measures to consider:

- **Extra Insulation** Current drawings show code-minimum. Consider beefing this up. e.g. Vancouver housing projects are now often adding 2" rigid mineral wool to exterior (and much more for Passive House).
- **Better Windows.** Provide a few options (with costs) for higher-performance windows, e.g. fibreglass, argon fill.
- **Enhanced Air Barrier.** Consider adding a spec or drawing notes to require continuous air barrier with quality control, pre-drywall inspection, etc. Consider adding detail drawings such as through-wall penetrations (vents, hosebibs, etc), rim joist connection, etc. Consider tapes and membranes that are higher in performance than code minimum.
- **Reduced Thermal Bridges.** To prevent heat loss and reduce potential for condensation/mildew, details could be reviewed for potential changes to reduce TBs. New details could also be added for key TB areas such as at windows, doors and structural connections.
- **M&E Systems.** Consider how off-grid mech/elec systems can be optimized, e.g.:
  - o Heat recovery on fans or sewage pipes.
  - o O&M procedures to reduce standby loads, etc.
  - o Thermal strategies to minimize overheating in summer (especially with increasingly hot summers and more vulnerable elderly residents).

- Possible action: Review assemblies/details/sections on A101/A105/A106/A107 for thermal/air/vapour layers and thermal bridges. Provide alternate options with additional insulation (attention to dew point if using split insulation). Add additional details as necessary.
- Possible action: Look into off-grid passive houses – how do they deal with heat recovery and ventilation?
- Possible action: As-built site drawings and systems diagram, showing relationships among different buildings, systems and operational controls over the campus as a whole. LRS members indicated this would be useful for future planning, even if not vital for current phase of building.

### **Other drawings** (to supplement arch set, if available)

- \* Survey – legal, topo, trees
- \* Septic and other servicing drawings – not reviewed. Coordinate with Arch set to note location of fdn penetrations for services, etc.
- \* Shear walls – separate drawings were reviewed briefly. Consideration of ½” rather than 3/8” ply?
- \* Truss drawings – not reviewed
- \* Other previous drawings from buildings/systems on campus.

### **Drawing Review**

#### A100

- Is there a survey, plan of significant/protected trees, or other drawings that might supplement the site plan?
- Confirm location of ramped/stepped access and grades, to be accessible.
- Major occupancy is C (Residential), which has simpler code provisions than B (Care), but are there aspects of Care programming and accessibility that should be considered? e.g., 5’ radius at entry, height of counters, egress considerations for non-ambulatory residents.

#### A101

- D1 shows concrete slab-on-grade in crawlspace. Discussion indicated this might be slurry coat instead. Clarify and note thickness / coordinate with A105/A106.
- D2 shows 3 options. Should the options be assessed and agreed prior to bid?
- D3 not needed (garage fdn detail)
- D4 notes slab-on-grade. Is this correct?
- Rainwater leaders noted at North – okay at 50’ spacing? RWL noted on A103 at south, but not shown on A101.
- LRS members question if concrete pads should be 28” vs 24” and if fdn wall should be 8” vs 6” for intermediate partitions.
- Fdn anchors shown as straight, but A106 shows as hooked. Coordinate.

#### A102

(Please take notes on this sheet, in particular, with grain of salt, as it is understood that a redesign will not be taking place. These are just comments that arose during the orientation, and a few items may be quick fixes.)

- Comments that Ikea wardrobe in first cottage is flimsy. Other wood wardrobe has been added by resident. For duplex, perhaps skip the Ikea wardrobe and look for used wardrobe.
- Baseboards in first cottage are obstructed by furniture. Perhaps map out location of baseboards and other key services in advance (even if not included in first contract to lockup) to avoid future conflicts.
- Concern about daylight access in kitchen. North facing kitchen, deep overhangs, small window, facing into woods. Consider wider window, less overhang (or glass overhang) at North or extra light tube.
- Comment that caregiver has no private space while resident is receiving visitors. Thought of possibly making a little deck or patio area on the side for caregiver – e.g. turn window 1 into a door and increase the jog of the overhang to create a little sheltered area.
- Area for shower seems larger than typical accessible shower insert. Fit space to available insert, and return rest of space to bathroom and entry closet. If using insert with integral grab bars, then no plywood backing needed for grab bars?
- Daybed frame will likely interfere with 2 windows at corner (and windows may cause radiant cooling of sleeping space). Reconsider this configuration?
- Add notes on counter heights, etc specific to accessible suite. Perhaps one of the suites could have fully wheelchair accessible counters and appliances?
- WH noted in larger front closet. Consider moving to smaller closet, to separate service and storage space? Or consider shared water heater (possibly more efficient) and then could have little shared area near entry with shared laundry sink etc?
- Light tube a little closer to vanity may help with reduced electrical lighting usage.

#### A103

- Consider glass roof at covered porch area or north side? See reference photos.
- 2:12 slope okay for metal roof that will be used?

#### A104

- Roof: Noted as Galvalume (assumed silver), but LRS prefers same finish as rest of campus.
- Soffit: Aluminum is noted. LRS prefers cedar with small aluminum vents (like Health Centre).
- Cladding: LRS members prefer cedar board & batten like other buildings on campus, not horizontal siding as shown in drawing.
- Trim: 3 ½” trim noted, but drawings show larger dimension at window header.
- Windows: White vinyl noted, assume double-pane. Consider other options like fibreglass, argon fill, etc. – add any additional notes to A107.
- Posts: Noted as clad built-up structural components. No indication of transition between concrete column bases and wood posts. Is there an elevation ‘datum’ that all concrete column bases level up to, or does the concrete base end at a set height above ground?
- Railings: Not specified on this page. Shown as horizontal, but should we do vertical to match vertical cladding and to match other buildings on campus?
- Is there a simple change to roof shape that would avoid gable/fascia intersecting with subroof?

#### A105

- Consider insulating either crawlspace or floor+ducts+pipes for continuity of insulating layer + reduction of waste heat to ground.
- Call out connection details to reduce TB and ensure A/B continuity – and add details to A106.
- Railing/guard height noted in relation to grade below. Double check BCBC 2018 for changes to this. Consider keeping railing/guard height continuous irrespective of grade below?

#### A106

- Note: Maintain 6" clearance under structural members. (Similar note on A101.) Discussion of larger crawlspace needed to install services/insulation – 3'+?
- Add note to tape & seal gyp board at party wall in crawlspace?
- Coordinate these details according to option selected from D2 on sheet A101.
- A101/D1 shows concrete slab-on-grade in crawlspace. Discussion indicated this might be slurry coat instead. These details (A106) seem to include gravel floor. Clarify and note thickness of any concrete / coordinate with A101/A105.
- Should fdn walls be protected with dimple board, before back fill?
- Notes that refer to BCBC/RCABC req'ts (e.g. rainscreen, flashing and roof) could perhaps be detailed here for specificity.
- Consider better tapes and membranes than typical specs (e.g. Passive House specs for durability of air barrier).
- Consider replacing XPS insulation with rigid mineral wool, where feasible.
- Add window sill flashing detail? (and other new details called on from A105)
- Show sill gasket and other membranes consistently in these drawings and A101.
- Extra details and/or notes for gasket A/B connection details for elec boxes on exterior walls, putty pads for elec boxes at party wall, no back-to-back elec boxes in party wall etc.

#### A107

- More window specs: w/screen, white vinyl okay? Compare prices/options, durability of seals, argon?, width of space between panes?
- LRS members in meeting indicated no rainscreen, but further drawing review shows rainscreen is included.
- ½" rainscreen adequate? With board and batten siding rather than horiz lap, perhaps lath+strapping thickness will increase air gap?
- Consider beefing up party wall to be 1 hr FRR and better acoustic separation.
  - o P1 to be staggered stud instead?
  - o Acoustic sealant?
  - o Consider 5/8" gyp board (at party wall, perhaps throughout?).
  - o Note dimension of plate.
- P3 – again, is plywood backing needed at showers if inserts are being used?
- R1 – asphalt shingles noted. Should it not be standing seam metal roof? Option given to use preformed baffles. Should we specify one way or the other?
- F1 – Finish floor indicated as carpet or other. Understood not in initial contract, but should this language be updated to reflect likelihood of resilient flooring? Should we be explicit about screw spacing (to avoid squeaks)?