

Earthquake Proofing the Beach Club

SEAP Report – March 7, 2011

This report covers the earthquake proofing of non-structural elements of the Beach Club, cottages and pump houses. Evaluation of structural elements requires someone with seismic expertise to assess concerns such as ground stability and anchoring of the structure to the foundation.

Should the Beach Club be structurally sound after an earthquake, the proofing outlined here can increase the chance of a functional Beach Club. Post-quake, it would probably take three days or longer for outside help to reach our community. In the interim, the Beach Club may be central to providing information and assistance to Craig Bay residents. This report outlines ways to reduce injuries and damage to the Beach Club, and help to keep it functional for relief efforts.

A. Preparedness Checklist

Structural

1. Is the structure anchored to the foundation?
2. Is the site (soil/ground) stable or is the structure likely to shift during an earthquake?

Nonstructural Building Components

1. Are building contents such as light fixtures, water heaters, heavy furnishings and pictures anchored properly?
2. Are heavy items stored on top of cabinets or above head or seat height and liable to topple over and injure anyone?
3. Are evacuation routes clearly marked and exits for employees established?

B. Assessment

Structural

1. Beach Club anchored to its foundation – not determined

Recommendation: Assessment required by appropriate professional.

2. Beach Club likely to shift during an earthquake – not determined

Recommendation: Assessment required by appropriate professional.

Nonstructural Building Contents

1. Stability of the lobby chandeliers – not determined

Recommendation: Assessment required by appropriate professional.

2. Pictures/artwork on the walls properly secured – most are secure

Recommendation: Secure remaining items – see list below.

3. Items in each room which may fall and injure someone

Recommendation: Properly secure items listed below or have items which are above head height moved to another location. Use skid mats under electronic appliances and other items, as appropriate, to lessen movement.

Upper Level

Deck

-BBQs

Conservatory

-stored chairs above head height

-wall speakers

Lobby

-large fossil in metal frame

-wooden chest of drawers

Kitchen

-fridge

-stove

-cupboards (latches)

-boxes of glassware above cabinets

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Lounge

Mantle

- metal frame holding large ceramic jug
- 3 metal candle holders
- TV and TV cupboard (latches)

Bar

- 2 lighthouse candleholders
- coffee maker
- metal anchor

Library

- books above head height
- computer

Lower Level

Gym

- rack of weights
- water cooler
- wall speakers
- some exercise machines

Lobby Counter

- 2 metal lamps

Arts and Crafts Room

- shelving on 1 side of room
- kiln

Woodworking Room

- boxes stored on top of cabinets
- cabinets – latches
- various saws/sanders/drill/joiner bolted to frames but not to floor
- rack of metal clamps on wall (above head height)
- storage of boards (above head height)
- vacuum system

Recommendation: The Woodwork room co-ordinator should be involved in determining the securing of machinery due to limited space and the requirement to move machinery for safe use.

Furnace Room
-furnaces
-hot water tank

Beachcomber
-coffee machine
-microwaves
-fridges
-metal candle holder
-picture

Storage/Electrical Room
-shelving unit

Office
-printer on top of cabinet
-file cabinets
-photocopier

3 Pumphouses
-5 machines

Cottages
-pictures
-kitchen cabinets – latches
-microwave
-water heaters
-TVs
-metal table lamps

Evacuation Routes

1. Exits are clearly marked.
2. Employer/Employee -The office person only has 1 emergency exit route through the downstairs lobby and either out the lobby door or upstairs. The employee should have two possible exits. Earthquakes may result in the destruction of electronic door locks, staircases, fires, and/or live electrical wires blocking an exit.

Recommendation: Develop an alternate emergency exit for the office person.

C. Additional Recommendations

1. Instructions for what to do in an earthquake be posted on both levels of the Beach Club e.g. storage of water, unplug appliances, shut-off valves and their locations etc.
2. Lists of hazards (including location of access keys and tools for shut-off valves) be posted on both floors of the Beach Club.

Beach Club

- propane tanks on BBQs
- gas fireplace and gas main shutoffs. Note, once shut off, it requires a licensed technician to restore gas.
3 gas meters – one outside gardener’s washroom entrance to the right and two are behind the pump houses with access from the Cape Cod Drive side – shutoff is at ground level and requires a wrench – turn it to the left.
- water shutoff (red lever in Arts & Crafts Room out of sight behind furnace on back right); both pump houses contain individual isolation valves.
- 3 electrical panels (2nd floor hall closet across from Men’s Washroom; lower level storage/electrical room next to gardeners’ washroom, and in the Beachcomber.)
- list of appliances to unplug to ensure a fire doesn’t start when power is returned e.g. kiln in craft room, kitchen appliances etc.

Cottages

- 2 outside gas meters between 2 facing patios.
 - water shutoff valve
3. A First Aid kit be kept on each level of the Beach Club. Note, as there may be up to 200 people in the building, and it is also a likely gathering place in the event of an emergency, extra first aid supplies are recommended.
 4. Staff and all key holders be informed/trained on earthquake preparation so that safety precautions are ongoing.

Information Sources:

Sources reviewed were "Earthquakes What to do?" www.getprepared.gc.ca
and the Emergency MangementBC's website www.pep.bc.ca

Prepared by Carol Chilton