

Gibsons and District Library

464 South Fletcher Road

Gibsons

Internal Building Review June 7, 2010



Public Building Assessment Report for Gibsons and District Library

This report was compiled on June 7, 2010 and addresses basic Building Code deficiencies including a commentary on the current state of the building as it stands, based on the experience of the reviewer. This report does not address hidden or latent defects in construction but serves to give the owner a basic benchmark assessment “as is where is “ for possible further qualification by Registered Professionals with specific subject matter expertise based on the summary at the end of this report. There are no warranties or guarantees implied or given in the contents of this report and the reviewer accepts the fact that no liability will stem from the contents of this report. The summary comments of this report are compiled based on local knowledge of construction of the building, records the Regional District has in their possession, and expertise of the reviewers.

Building History

Gibsons and District Public Library was built by the Sunshine Coast Regional District in 1996. This building consists of an approximate 572 square meter (6158 sq. ft.) main floor on top of a car park level. The foundation and supporting structure are reinforced concrete with a central flat roof and architecturally designed curved roof on the north and south elevations. The exterior finish is stucco with substantial amounts of double glazed glass in prefinished aluminum storefront frames.

The lower floor consists of the car park area and the sprinkler mechanical room. There are two sets of enclosed stairs which provide access up to the main floor. The car park is secured with aluminum bars due to ongoing vandalism in the past. The entry gate is left open during business hours and a man door is installed at each end of the car park.

The main floor contains a large open area, as well as a meeting room, administration office area, a staff lunchroom and washroom facilities.

Code Analysis and Building Classification

This building is currently used for assembly occupancy as a library. BC Building Code 2006 defines this building as A2. Current maximum occupancy is 216 persons.

BC Building Code allows a building of this size to be of combustible or non-combustible construction provided it is sprinklered. This building has sprinklers for both the car park, defined as a storage garage in the Code, and main floor. The floor/ceiling between the storage garage and the library is required by the Code to be a fire separation with a 2 hour fire resistance rating. The suspended slab and all of the penetrations do conform to these requirements. Emergency lighting is required, and is installed in all appropriate locations, although the emergency lighting fixtures throughout the parking area have been damaged by vandals. Fire extinguishers are required and 5 and 10 lb. extinguishers are installed adjacent to the exits.

The building is required to be accessible with accessible washrooms. Facilities meet current Code requirements.

Structure

The foundation for the building is constructed of engineered, reinforced concrete. As well, concrete columns and a suspended concrete slab form the main floor of the library. The roof is supported with reinforced concrete columns on top of the suspended slab. The main roof is a flat roof with a minimal amount of slope to direct rain water towards the four roof drains. Four emergency scuppers are also built into the roof. The roof is constructed of tar and gravel roofing on rigid insulation on steel decking on open web steel trusses. The north and south elevations have a curved architecturally designed roof consisting of metal cladding on a roofing membrane on rigid insulation on steel decking. The curved soffits are textured drywall which is deteriorating due to water migration caused by a poor drip edge detail at the base of the roof.

The main floor exterior walls consist of acrylic stucco over rigid insulation on Dens-glass sheathing, on steel studs. The steel stud cavities are filled with fibreglass batt insulation, protected with 6 mil poly vapour barrier, and finished on the interior with painted gypsum board. The walls are capped with pre-finished aluminum flashing. Double glazed windows in pre-finished aluminum frames complete the exterior cladding.

Interior

The building is completely accessible. The main entry opens into a 50 sq. m. (530 sq. ft.) entry vestibule which contains the stairs to the lower floor car park. The main open part of the library is approximately 400 sq. m. (4300 sq. ft.) A meeting room, administration office area, washrooms and electrical room complete the main floor.

The washroom facilities include a disabled washroom, a men's washroom which has 1 handicapped toilet, 2 urinals, and 2 sinks and a women's washroom which contains 1 handicapped toilet, 3 conventional toilets, and 3 sinks. There is also a two piece staff washroom.

Emergency lighting is installed in all rooms and appears to be to code. Exit lights are installed, however they are incandescent which burn out quickly and require frequent maintenance. Most bulbs were burned out at the time of the inspection. There is an alarmed emergency exit door on the south side of the building. Five and ten pound ABC fire extinguishers are present.

Accessibility

This building was built under the 1992 Building Code but substantially meets BC Building Code 2006 accessibility requirements. All public areas and washrooms are accessible. H/C parking is available at the main entrance to the building.

Compliance to Current Code and Bylaws

Current Code requires protection to the building above in the form of fire-rated spandrels or water curtain at openings in the parking garage.

Estimated Life of the Building

Given adequate routine maintenance and with minor improvements to the building envelope, the building may reasonably function for another 50 years.

- The deterioration at the soffits at the curved roof areas should be corrected with the installation of a fascia board with a drip edge.
- Exposed plumbing stacks in the parking area require protection from vehicles. In several places the stacks have been broken where a vehicle has driven into the exposed pipe.
- There appears to be corrosion happening where plumbing lines penetrate the floor/ceiling assembly.
- Sprinkler system heads require maintenance and sprinkler lines are rusted.
- All the emergency lighting in the parking area is broken and requires immediate repair.

Heating Systems

Four HVAC units are mounted on the roof and appear to be operating as normal. The maintenance records for these units should be checked to confirm they are receiving required maintenance. The diffusers and cold air returns appeared to require cleaning at the time of inspection. The duct system should be checked to see if it requires maintenance.

Plumbing Systems

The plumbing system was built to Code in 1996 and appears to be functioning normally. Some of the cast iron drain lines in the parking garage require protection. One 3 inch cast pipe is broken from being hit by a car and another pipe is vulnerable.

Electrical System

The building has a 400 amp service in a storage room in the northern corner of the building. The electrical system appears to be functioning as normal. A partition and door have been installed in front of the electrical panels since the original construction. The door should be labelled. The fire code also requires that the area in front of any electrical panel be kept clear.

Summary and Recommendations

- Plumbing stacks in the parking area require protection.
- Fascias require replacement at the curved roof area or a drip edge should be installed in order to eliminate continuing problems at the soffit in these areas.. Those areas of the soffit that have been damaged should be replaced.
- There is evidence of deterioration of the gutters at curbed roof.
- Protection against spread of fire from the parking garage to the main floor is required where there are unprotected openings in the parking garage. This is a code related item that somehow was missed during the final inspection, Code reference is BCBC 3.2.1.2 (2), BCBC 2006 and was a requirement of the 1992 and 1998 codes.
- Some of the trim flashings at windows and doors and at the bottom drip edges of the stucco panels are rusted and require replacement.
- All windows require re-caulking. Most of the caulking has cracked. Re-caulking is required on a routine basis.
- Emergency lighting in the parking requires replacement. Vandalism has been an ongoing problem therefore installing the emergency lighting in a protective cage may be a practical solution.
- The entire building requires pressure washing, re-painting and general caulking.
- Maintenance records for the HVAC system require inspection and, as previously stated, the return and supply grills as well as ducts require cleaning.
- Depending on the method and or design of remedial repairs, it is estimated that it would take a minimum of \$100, 000 to repair the building. In order to obtain an exact cost, scope of work needs to be determined and the job put to tender.

The following Table represents Building Division recommended timelines and rough budgets towards the required of this building. Please note that the timeline recommendations are only the opinion of the Building Division and may not in fact represent the actual schedules of the manager of this asset.

| Item | 1-2 years | 2-5 years | 5 plus years | Budget Cost |
|-------------------------|------------------|------------------|---------------------|--------------------|
| Sprinkler Water Curtain | ASAP | --- | --- | \$40,000 |
| Fascias and Gutters | ASAP | — | review | \$40,000 |
| Plumbing Stack pipes | --- | yes | — | \$5,000 |
| Window caulking | --- | yes | review | \$3,000 |
| Exit signage | ASAP | --- | | \$1,000 |
| HVAC and Envelope | --- | review | --- | \$10,000 |
| Total | | | | \$100,000 |