Request for Proposal:
Private residence renovation/re-development

Executive summary

This Request for Proposal (RFP) is directed to architects and design–build organizations for a conceptual statement on a major renovation/re-development of a private residence located north-east of Durham, Ontario (Grey county, Municipality of West Grey). See Figures 1 & 2 below for an aerial photo of the subject property and residence. We are seeking expressions of interest from a partner to provide design and construction management services.

The property is currently zoned as a recreational property and is winterized for year-round use. We want to enhance the property for use as a permanent home. We envision a separate garage for vehicles and workshop, and a four-season house. See residence features for a discussion of the desired basic parameters of the residence.

The new design must be in harmony with the surrounding environs. Vertical development (adding a storey over the existing building footprint) is a possibility. A "tear-down" followed by new construction will be considered as long as it does not complicate regulatory requirements.

We would like to start construction of the garage/workshop in the summer of 2016.

Support systems like water-well, septic system and HVAC will need to be evaluated to determine if they will support the future residence. The property is currently serviced with a 200a, 240v electric service. There is a 1,000-litre propane tank supplying a forced-air propane heating system and other household appliances.

There are planning and other regulatory constraints and permits required, so proposals must discuss expertise and experience in navigating the bureaucracies involved in the (re-)development process.

Residence features

Overview

It is the intention of this project to create a modern permanent home suitable for full-time occupancy year-round. The home should be energy efficient and utilize appropriate "green" technologies. It must be complementary with surrounding natural environment and exploit the vistas of the river setting.

The floor area requirements are in the range of 2,000ft^2 to 2,500 ft^2. A one-storey structure is preferred; two-storey would be acceptable provided that accommodations are made for mobility-restricted individuals (e.g. ramps, stair-lifts, piston elevator). Storage requirements are modest, as the out-building will be used for most large storage requirements.

Exterior style

The style and elevations of the new building are reasonable unconstrained, but should incorporate the following features.

- A two- or three-sided wrap-around porch, with a screened & storm-windowed area (not winterized).
- Simple rooflines that are better suited to the snow conditions (i.e. designed to eliminate the need to shovel snow off the roof). Some variation of a hip roof or gable roof would be appropriate.
- Extended porches over all egress points (if not covered by the wrap-around porch). Overhangs must be of sufficient depth to mitigate problems from snow accumulation
- Exterior walls covered in low-maintenance or maintenance-free materials.
- Picture windows facing the river vista.
- Exterior walls that can withstand the snow-pack that accumulates, especially if the roof design causes snow-piling at the base of walls.

Basic living features

- Three or four modest bedrooms, one of which is a "master" with an en-suite bathroom, another two of which are "Jack & Jill" bedrooms sharing a common bathroom.
- One additional three-piece bathroom.
- Multi-purpose great room with views of the river.
- Large kitchen adjacent to or integrated with the great room.
- Additional lounge area, separated from the great room.
- Laundry room, including a laundry sink.

Technologies

The building must be built to the highest standards of energy efficiency, using technologies such as:

- Geo-thermal heating & cooling

- Auxiliary heating from high efficiency wood stove(s)/fireplace insert(s)
- Photo-voltaic solar power co-generation
- Dual water supply (potable, non-potable), with appropriate use of cisterns and purification systems
- R100 insulation
- Conformance with LEED standards

A secondary goal is to make the property as close to being "off the grid" as possible (recognizing that it is likely not completely 100% achievable).

Outbuildings

Currently, the property contains a small shed/garage that is unsuitable going forward. It is to be removed and a new structure created as part of the project. The location will be adjacent to the existing structure. Thus, it is anticipated that the new structure will be completed to a level where the contents of the existing building can be relocated, after which the existing structure can be removed.

The new outbuilding will be a combination storage shed, workshop and garage. It needs to accommodate:

- Indoor parking for two full-size passenger vehicles with garage door(s)
- Indoor parking for a small farm tractor and associated implements.
- A separate workshop area with 10ft to 12ft ceilings, electric service fed from main house and space for machine-shop and woodworking tools
- An isolated mechanical room with outside venting, to house the backup generator.

A 1,200-ft^2 to 1,500 ft^2 (e.g. 30x40 or 30x50) building with a three-bay garage would be appropriate. A "drive through" bay (doors front and back) is an interesting design feature.

The roof slope and orientation should be of sufficient slope and orientation to simplify snow management (garage doors should not be blocked by accumulating snow). A simple gambrel roof would have the advantage of facilitating a loft area for storage.

Details of the current Property

Residence

The existing building is a mixture of styles, materials and technologies. In broad terms, the residence consists of five very small bedrooms (typically 6'x8'), a bathroom and laundry area, and a large (30'x30' "great room", one corner of which is the kitchen area. This great room has no interior walls, and is surrounded by floor-to-ceiling windows on three sides.

The building was built and owned by multiple generations of the same family until the mid-1990s, when the current owners bought the property and an adjacent farm property [redacted].

The original building on the site was built in the 1930s as a rustic hunting cabin. That structure was mostly destroyed by fire in the 1940s and rebuilt in place.

In the 1970s an addition was erected putting in place the current building footprint, along with a well and septic system.

In the 1990s, the current owners undertook moderate restorative work to repair damage and enhance the residence, including:

- Installation of a propane infrastructure and conversion of the HVAC from forced-air electric to force-air propane
- Replacement of 40% of the exterior walls, which had rotted though poor snow-load management
- Addition of porches and decking
- Replacement of all flooring (carpet to hardwood, tile & linoleum)
- "gut" and rebuild of the bathroom
- Addition of laundry facilities (with propane-heated clothes dryer)
- Connection of the kitchen waste-water to the existing septic (previously was a gray-water system that simply discharged onto the ground).
- Remediation of electrical wiring, with the addition of a backup generator, transfer switch and dedicated "generator-connected" wiring for critical systems

It is recognized that much, if any, of the current building may not be reusable. Thus, a "bulldoze & start again" is not out of the question. However, as committed conservationists we are willing to consider novel, imaginative and creative designs that can reuse (at least) some of the current building.

Figure 1: The residence is located on a 27.5 hectare estate spanning the Rocky Saugeen River, west of Grey County Concession2 EGR. The geo-reference for the subject residence is (44.249591°N, 80.812347°W)

Figure 2: Detail aerial view of residence site. The open area north of the building is a parking lot. The existing out-building (to be removed) can be seen at the left-centre.

Outbuildings

There are two outbuildings of consequence around the subject residence:

1. A three-sided shed on the north edge of the parking lot used to store firewood. It is of recent construction and unless there is a compelling reason to remove it, it should remain as is.
2. A small single-garage structure with an attached storage/workshop shed. As noted, this building is unsuitable going forward, and must be replaced.

Laneway from road

The current laneway from the road to the parking area beside the subject residence is an asphalt hard surface in good repair. It is not anticipated that the placement of this lane will be dramatically changed.

Photographs

From north-west, looking south-east at the original 1940's structure:	

Front the same location, looking east-south-east at the newer part built in the 1970s and renovated in the 1990s:	
From the north, looking south at the current front door	
From the south-west, looking north-east:	
Front the same position, looking east-north-east:	

From the south-east, looking north-west:	
From the east, looking westward:	

Constraints

Rocky Saugeen River

The property on which the subject residence is located, spanning the Rocky Saugeen River, is subject to the jurisdiction of the Saugeen Valley Conservation Authority (SVGA). It is assumed (but not confirmed) that any major redevelopment will require SGVA approval, especially if the existing septic system needs to be modified.

The Rocky Saugeen has been subject of study by both the SGVA and the Trout Unlimited Canada organization. The renovation must be sensitive to the water-quality goals and objectives of these organizations.

MNR – ANSI designation

The property has been designated as an Area of Natural and Scientific Interest (ANSI) for the presence of the rare plant species *Harts' Tongue Fern*. This Ministry of Natural Resources (MNR) designation provides for a significant reduction in property tax provided that the property remains in a natural state (with the exception of a one-acre site around the current residence). This designation is to be maintained and thus any development must adhere to the ANSI regulations.

Site physical constraints

The current building is built on the limestone bedrock that is characteristic of the Rocky Saugeen river valley. The partial cellar under the existing building has rock outcroppings and the building footprint follows the contours of the rock. Excavation is difficult.

There is a buried propane supply line from the 1,000-litre propane storage tank (placed near the road for ease of access by fuel suppliers) that runs along one side of the existing lane, so any work on the laneway will need to ensure no damage to the supply line).

Environmental considerations

The subject property is located in a "snow-belt" area, subject to lake-effect snow from the west & north-west (Lake Huron) and north & north-east (Georgian Bay). The nearest major centre for which snowfall statistics are available is Owen Sound, which shows[1] an average annual snowfall of 330 cm.

As such, roof designs must accommodate this snow-load. The current roof-lines for the "new" section of the property are not suitable, requiring manual intervention to remove snow (at least a couple of times each winter).

Wildlife constraints

As a rural property, there is the usual exposure to rodents and other vermin. Thus, foundations and the building envelope should be constructed to minimize opportunities for infiltration.

Responses

The project described herein is being undertaken by the current owners of the property:

[redacted]
[redacted]
Waterloo, ON N2L 4L5

[redacted]

Thank you for your interest in our project. At this stage, a statement of interest with a one- to –two page outline is sufficient. Please send responses to us by November 30, 2015, either by email or post.

Any questions regarding the project may be directed to the email address above. If desired, a site visit can be arranged.

[1] https://en.wikipedia.org/wiki/Owen_Sound#Geography_.26_climate