



Project Proposal

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EXECUTIVE SUMMARY

Background

We are very excited to present our zero carbon footprint housing project.

We have known for years, that if the time came that we would renovate or build a house, that it would be eco-friendly, with a minimal impact on the environment and if possible help create awareness about this type of building in our locality. Since putting money down on a small local farmhouse, we have been investigating and talking to experts about the best way to go about the (re)construction of the house using hempcrete.

Why Hempcrete?

Hempcrete is lightweight cementitious, bio-composite, insulating material, weighing about one seventh of the weight of concrete, which is rapidly gaining acceptance in mainstream construction industry. It is made from hemp fibre, lime binder and water. This exceptional building material excels in its energy efficiency, temperature and humidity management. It creates a healthy living environment, because of the use of non-toxic building materials, the breathability of the structure and its resistance against pests and moulds. It is also highly fire proof.

Its energy efficiency ratings are very high and thus provide the owners with low energy bills both in summer (house stays cool) and winter (house keeps heat).

Because of its temperature and moisture regulating properties, hempcrete is currently being used by museums to protect their valuable art pieces and sensitive artefacts, such as the storage facility of the British Science museum in Wiltshire, UK.

Objective

To build a future proof house, using bio-technology, visible in the public domain. We will also put in an off-grid electricity system, solar and wind powered, and use an eco-friendly hot water system. Also the septic tank will be providing us with a grey water system, where the filtered water can be re-used for irrigation. Whenever possible, we would choose an eco-friendly option over non-environmentally friendly option. In this way it will also be possible to maintain a zero-carbon footprint once the house is finished.

Goals

To create awareness in our local environment about the need for alternative and sustainable building methods, to train local people and provide a model home open to interested visitors and in its building phase used as a training ground for workshops in bio-construction.

Project Outline

to this end we have taken the following steps:

1. Establish location and study of suitable project site (start March 2019)
2. Acquisition of the site, (15th of September 2019)
3. Development of public profile. Created website www.thehemcreteproject.net (ongoing)
4. Research of building techniques and materials (2018-2020)
5. Made contact with experienced bio-construction experts through private contacts, international hemcrete builders forum, etc. (ongoing)
6. Contact with local architect and provisional plans drawn up (Dec. 2019), appendix 2
7. Project costings estimate (Dec. 2019)
8. Financing options (ongoing)

ESTIMATE OF COSTS

Description	Cost	
Site acquisition (incl. lawyer and notary fees and taxes)	€	45,000
Land clearance	€	3,700
Hemcrete materials	€	14,512
Wooden structure	€	10,000
Plastering and rendering	€	3,000
Labour costs	€	12,000
Retaining wall	€	18,000
Interior building materials and finishings, such as kitchen and bathrooms	€	33,400
Arquitect fees	€	3,000
Total	€	142,612

Financing

We have defined different stages in which we need a certain monetary input to be able to finish the project in a timely way. Our idea is to do fundraising (through GoFundMe website), and if necessary acquire mortgage type loans from private investors.

Below you will find a detailed overview of the stages and the money input we would need in each stage. We would like to finish the construction by December 2020, and be able to live there in the 1st quarter of 2021.

Stage 0 - already financed by ourselves September 2019	Cost	
Down payment on site acquisition	€	18,000
Lawyer and agency fees	€	1,500
Arquitect fees	€	1,000
Total	€	20,500

Stage 1 - March 16th 2020 (already financed by ourselves)	Cost	
Site acquisition part 2	€	18,000
Notary	€	560
Stamp duty tax (purchase tax)	€	2,500
Total	€	21,060

Stage 2 - starting September 2020	Cost	
Land clearance	€	3,700
Inner clearing of building site (labour costs)	€	500
Wooden structure	€	10,000
Total	€	14,200

Stage 3 - by December 2020	Cost	
Hempcrete materials	€	14,512
Plumbing and electrics	€	2,500
Water installation and septic tank	€	4,600
Off grid electric system	€	6,000
Labour costs	€	6,000
Retaining wall	€	18,000
Total	€	51,612

Stage 4 - by May 2021		Cost
Plastering and rendering	€	3,000
Labour costs	€	5,500
Interior building materials and finishings, such as kitchen and bathrooms	€	20,300
Total	€	28,800