100 Questions You Should Ask Before Building Your House

Avoid mistakes and waste of time or money
by knowing what to ask before you even start.

by Indrek Kuldkepp & Andrea Bronzini

January 2019 - V1.0

1. Introduction

Building a house is a lengthy process. On top of that, dealing with all the details of the project requires specific knowledge. Unless you buy a house fully finished, you are going to have to make choices and decisions.

The quality of your house is determined by the quality of the choices you make.
The quality of the choices you make is determined by the knowledge and information you have.
The quality of the information and knowledge you have is determined by the questions you ask.

This document was written to help you make the right questions and to get the information you absolutely need in order to get to the end of your project achieving your goals without wasting precious time and money.

NOTE: *the scope of this document is NOT to give you the answers. As the answers to most of these questions depend on your specific case, it is your up to you to find out what is going to work for your house.*

2. How to Use These Questions

This list of questions shall serve you are a guide to focus your attention on the most important details in the process of building a new home.

As explained in the note above,, getting answers to these questions is in your hands..
You should ask the questions when it is appropriate and to the right party involved in the project (see the Appenxies to lean more about WHEN and WHO).

The order in which questions shall be asked is generally different from the order in which they are listed here.

For example: the “type of heating distribution system you are going to use” is listed as question nr. 83 in the section 5.13 (Systems). However this information is needed in the design phase so you shall deal with it early in the planning process.

To help you ask the questions at the right time, we indicated WHEN a question should be asked and WHO is the right person to answer (see Appendixes).

NOTEs:

- *the main list in this document is sorted by "topic" while in the appendixes you find the list sorted by WHEN you should ask and WHO can give you the answer;*
- *the most important questions (those you MUST ask or you'll end up in troubles), are marked with a star (priority 1 in the appendixes).*

Here is how we suggest proceeding:

1. print these pages on paper so you can make notes and mark things with a pen or marker;

2. read all the questions and get a general understanding of everything you should know and clarify BEFORE you start building;

3. Use the appendix to establish when you should ask the question and to whom;

4. as you clarify the answer to a question, check the question off (mark it with a pen or highlight it with a marker). This way you can make sure you don't leave anything out.

5. For each question, figure out how much it will add to your budget and write it down. A **sample budget template** can be found here: https://drive.google.com/file/d/1in6BoQDdutA1QpC9ygzgFPz4rwrsExiB/view

3. The 8 Stages of Prefab Building

Every construction project goes through the following 8 stages:

1. Pre-Planning & Budgeting ;
2. Planning & Permitting;
3. Ordering & Contracting;
4. Groundworks & Foundations ;
5. Manufacturing, Delivery, Assembly ;
6. Technical Installations;
7. Interior Finishes;
8. Landscaping.

You should keep this in mind and try to plan your building process accordingly.

4. Things You Should Know

4.1. Pre-planning & Budgeting

Most people skip this stage entirely and jump to stage 2. Don't do that.

When you start thinking of building a house, the most important question you need to answer is "*can I afford it*"?

Chances are you can afford to build something… the challenge is to figure out what that something is.

In the "pre-planning & budgeting phase" you evaluate your options and try to build a scenario that works on paper, before setting anything in motion.

4.2. Planning and Permits

To build a house you are going to need a trusted Architect.
The sooner you involve the Architect in your project, the better.

Even if you are not planning to get the design from an Architect (you might design the house yourself or get the design from your Manufacturer) you still need the Architect to answer specific questions and to deal with the paperwork at the Municipality.

A local Architect is absolutely necessary to answer correctly several of the questions in this list (see Appendix 2) and to do the siteplan (most municipalities require planned building(s) to be situated on the plan and submitted for approval).

In this phase, do not forget to adjust and improve your budget.

4.3. Ordering & Contracting

This phase is usually mixed up with the planning phase.
Except for some minor items and services, ordering & contracting should be done all at once and only when prices and details of the service and/or delivery have been clarified.

Everything you plan to order shall have a row in your budget.

Note that after this point, your budget should be considered final and you should not need to make additional changes to it.

4.4. Groundworks and Foundation

Most Manufacturers of prefabricated houses require groundworks and foundations to be made by a third party. Generally, they recommend this Company to be a local Contractor operating in your area.

IMPORTANT: *if you are told the Manufacturer does not deal with groundworks and foundations, it is pointless to insist that you want these works executed by them. This will only result in your project labeled as "not viable" with consequences on pricing and response time on their side.*

4.5. Manufacturing, Delivery, Assembly

A good Manufacturer should always be able to manufacture and deliver its product to the final destination.

The assembly of the house kit can be offered or not, depending on the type of house and on other circumstances (i.e. the capability of the buyer to execute the installation with a local crew versus the capability of the Manufacturer to offer the assembly service in the area where the house shall be installed).

4.6. Technical Installations

Technical installations are all the systems that shall be installed in the house to provide the comfort and safety we are accustomed to:

- water and sewage systems
- electrical system
- heating system
- ventilation system
- data and alarm systems

Unless you buy a modular home, technical systems are never provided by the Manufacturer.

In some cases, a Manufacturer might be able to install plastic pipes for electricity or ventilation pipes into prefabricated elements. However, wiring and connections are always done on-site by local specialized Companies.

Please keep in mind that, depending on the Country where the house is installed, it might be required that the Company supplying and installing the technical systems is equipped with authorization and license to perform such kind of works on that specific territory.

IMPORTANT: *if you are told the Manufacturer does not deal with technical installations, it is pointless to insist that you want these works executed by them. This will only result in your project labeled as "not viable" with consequences on pricing and response time on their side.*

4.7. Interior Finishes

Interior finishes are all the items and works that shall go inside the house to make it ready for occupation and usage.

Example of items for interior finish:

- stairs
- interior doors
- floors (tiles, parquet, carpet, ..)
- interior window reveals
- interior window trims
- floor trims
- bathroom tiles
- bathroomware and kitchenware
- furnitures

Example of services for interior finish:

- stair installation
- interior door installation
- interior finish of windows (reveals and trims)
- rendering and painting interior walls
- installation of floors (tiles, parquet, carpet, ..)
- waterproofing of wet rooms
- bathroom tiling
- installation of bathroomware and kitchenware
- installation of furniture

NOTE: the two lists above are not exhaustive and shall be completed keeping into consideration the specific needs and requirements of the project.

Arranging all the interior finishes will require a considerable amount of work on your side. It is recommended to use specialized local Companies and to get at least three different price offers for each item (or bundle of items) on the list (so you can save money by combining services offered by different Companies).

IMPORTANT: *if you are told the Manufacturer does not deal with interior finishes, it is pointless to insist that you want these works executed by them. This will only result in your project labeled as "not viable" with consequences on pricing and response time on their side.*

4.8. Landscaping

Most people totally forget to budget for any work to be done on the property after the house is up.

True, you can always do these work in a later time when you have some spare money. However, if you budget for it, you might be able to get the money from the Bank when you ask for the mortgage.

Items you might need to include are:

- leveling the ground and removing stones from the garden areas
- grass & garden arrangements
- driveway
- footpaths and sidewalk around the house
- lights in the garden, driveway, along footpaths
- fence around the property
- trees and plants

Try to budget this properly.

5. The 100 questions

5.1. Permits/Design

1. ★ What will be the intended use of your building? (Living house, summer/winter home, rental, ...)

   Having a clear vision for the intended use of the building is critical to setting up a proper budget and proper expectations for the project.

2. ★ Are you allowed to build that type of building on your land?

   In most Countries and Municipalities there are restrictions on what can be built on any given plot of land. You need to get this information before you begin your planning process.

3. ★ Do you need any other buildings besides the house (garage, shed, guesthouse etc)? If so, are you allowed to build them?

   In most Countries and Municipalities there are restrictions on the total area you can build on any given plot of land. You need to get this information before you begin your planning process.

4. ★ Is there any restriction on the type of house (shape, nr of floors, ...) you can build on your land?

   In most Countries and Municipalities there are restrictions on the type of house you can build on any given plot of land. Rural areas have less strict rules. You need to get this information before you begin your planning process.

5. ★ Which is the maximum foundation area you can build on your land?

   In most Countries and Municipalities there are restrictions on this. You need to get this information before you begin your planning process.

6. ★ Which is the maximum volume for a building to be built on your land?

   In most Countries and Municipalities there are restrictions on this. You need to get this information before you begin your planning process.

7. Which is the maximum height for a building to be built on your land?
   In most Countries and Municipalities there are restrictions on this. You need to get this information before you begin your planning process.

8. Which is the minimum net floor height allowed by your local building code?
   In some Countries and Municipalities there are restrictions on this. You need to get this information before you begin your planning process.

9. Are you allowed to build a 60° sloping roof on your land?
   In most Countries and Municipalities there are restrictions on this. Rural areas have less strict rules. You need to get this information before you begin your planning process.

10. Does your local building code require wheelchair access for ground floor?
    This is becoming more and more common. You need to get this information before you begin your planning process.

11. Does your local building code require special structural calculations (high winds, earthquakes, ...)?
    Some Countries and Municipalities require a full set of calculations to be submitted before obtaining construction permits. You need to get this information before you begin your planning process.

12. Do you need a structural engineer to approve your construction drawings? If so, do you have one?
    Either calculations are required or not, the Municipality might ask you to appoint a local licensed Engineer to be responsible for the structure of the house. You need to get this information before you begin your planning process. You need to clarify the details of your agreement with the Engineer, including his fee for this service.

13. Does your local building code require energy efficiency calculations or pressure test?
    In most Countries and Municipalities calculations of energy efficiency shall be submitted in order to get a construction permit.
    In some cases, one or more pressure tests are mandatory and shall be executed before obtaining the authorization to use the house.

14. Does your local building code require using a mechanical ventilation system?
    Some Countries and Municipalities require residential buildings to be equipped with a mechanical ventilation system (HVAC).

15. Does your local building code require emergency exits? How many?

Some building codes specify minimum requirements for emergency exits in case of residential buildings.

16. Do you need approvals from your neighbors (for building height or noise during the building)?

    Some Countries and Municipalities are quite flexible in terms of regulation but require mandatory approval of the building's features from the neighbors.

5.2. Design

17. Do you want to build onto a basement?

    Building onto a basement changes the type of foundation required to build the house. Moreover, building the basement itself is an undertaking that has to be planned in fine detail. A-frame houses are famous for their simplicity… if you plan to build a basement the complexity of your project is going to increase quite a bit (think excavation, water-proofing, air-tightness, ventilation, …).

18. Is your plot on sloped land? If so, how do you plan to build the foundation?

    Sloped lands always represent a challenge compared to a flat plot. There are a couple of different solutions to deal with a slope and your choice mostly depend on your budget.
    Keep in mind that building on a sloped ground is always more expensive than building on a flat land.

19. Who is going to draw your site plan?

    Some Municipalities require a preliminary draft of the project to be presented for approval.

20. Who is going to deal with presenting documentation to the Municipality and requesting construction permits?

    In most cases, a building permit is required to build an Avrame house.
    Dealing with the Municipality yourself is time consuming and error-prone. To minimize the chance of mistakes/misunderstandings, it is warmly recommended to hire a local Architect to deal with the paperwork.

21. How many people will use the house on a daily basis?

    Avoid choosing the model of your house based on "wishes". Instead, base your decisions on hard facts and actual needs: how many people will spend most of their time in the house?
    Do not count occasional visitors.

22. How many rooms (and which size) do you really need?

Avrame houses allow a certain flexibility in the floor plans. You can customize the size and number of rooms.
Think carefully which is the best solution for your family based on your habits and how you use the rooms.

23. How many bathrooms (and which size) do you really need?
    Bathrooms and toilets are very important for a comfortable living.
    Think about your habits and the needs of your family… do you need two full size bathrooms, one bathroom + toilet, just one bathroom???

24. Do you have absolute clarity on the dimensions of the house?
    Make sure you revised and understood the price offer for the house.
    You must avoid misunderstandings at all costs. Misunderstandings cost money.
    Asking clarifications does not cost you anything. If you do not ask, any Supplier or Service Provider will assume you perfectly understood what you are going to get.
    So please, ASK.

5.3. Contract Terms

25. Do you have absolute clarity on what is included in the house kit?
    A house kit generally comes with all the necessary parts to setup the structure of the house. Windows, roof cover and other additional materials might or might not be included, depending on your agreement with the Supplier.
    Make sure you revised and understood the price offer for the house.
    You must avoid misunderstandings at all costs. Misunderstandings cost money.
    Asking clarifications does not cost you anything. If you do not ask, any Supplier or Service Provider will assume you perfectly understood what you are going to get.
    So please, ASK.

26. Which are the conditions of payment and delivery (for all Suppliers/Service Providers)?
    Contract conditions are a very important part of the deal when buying a house.
    Often price offers are compared without taking into consideration the Terms of Payment and this often puts the buyer at risk of breaching the Contract once the Terms are finally clarified and understood.
    ALWAYS ask the condition of payments and delivery BEFORE considering to close the deal.

27. Can you afford to follow the payment schedule?
    Most Supplier require upfront payment for part (or for 100%) of the goods.
    Avrame also requires a certain percentage to be paid upfront. Depending on your liquidity and your financing options, this might or might not be a problem for you.
    Just keep in mind that money move faster when building with prefabricated solutions.

You must cross-check with your Bank if they are able to match the payment schedule requested by the Supplier.,

28. Is a bank guarantee required by the Manufacturer/Supplier? Can you provide it?
    In some cases a Supplier might request a Bank Guarantee instead of an advance payment.
    Before you agree to this condition, you must verify with your Bank that they will be able to issue the Bank Guarantee (especially if you are a Private Customer).
    Note that signing the Contract and finding out later that the Bank cannot issue a Guarantee for you, will put you in breach of the Contract.

5.4. External Walls

29. Does any wall of your house need to have higher fire resistance?
    Depending on the local Building Code, some walls might need to have a higher resistance to fire.
    This is generally obtained using a particular type of insulation and, in some cases, a fire retardant treatment on the exterior cover of the walls.
    Be aware that stricter requirements for fire resistance are usually in place when the house is close to a garage or other buildings.

30. Which will be the type and material of the interior surface?
    The interior side of the external walls can be finished with different materials, i.e. gypsum boards, wooden boards, chipboards, …
    The choice of the interior surface depends entirely on your taste, the feeling you want to create inside the house and your budget.

31. Which will be the type and material of the exterior surface?
    Traditional facades are made with wooden cladding. However it is possible to use different materials. Keep in mind that any other choice will result in higher cost.

32. Which will be the orientation of the exterior cladding? (Vertical, horizontal, diagonal)
    Horizontal cladding is the cheapest solution. Other options are possible in case you can afford it.

33. Which type of paint and color is going to be used on the exterior walls?
    Don't leave this choice to the last moment. Define which colors the house will be and make sure you know where to buy the paint and the tools/accessories necessary for painting.

34. Which is the desired U-value (R-value) for the external walls?
    They type of insulation you use will determine the energy performance of the building and the size of your monthly utility bill.
    Better insulation is more expensive but it will save you money on the long run.

REMEMBER: you should not save money just on the build. Your objective should be to minimize the sum of the mortgage monthly payment + utility bills. It is worth to spend more on construction if this is going to drastically decrease the running cost for energy.

5.5. Roof

35. Which is the desired U-value (R-value) for the roof?
    They type of insulation you use will determine the energy performance of the building and the size of your monthly utility bill.
    See question 34.

36. Are you allowed to use metal as roofing material?
    Some Municipalities limit the range of choices when it comes to roof cover material. You must make sure you are allowed to use the type of roof cover you are planning to buy.

37. Which color is your roof cover going to be?
    Some Municipalities limit the range of choices when it comes to the color of the roof cover material.
    You must make sure you are allowed to use the color of roof cover you are planning to buy.

38. What type of chimney will you install (metal, brick, modular, natural stone)?
    Depending on your choices for heating, the chimney might be an important part of your heating system. Even if it is not, you are probably going to need one and decision has to be made on type, color, position.

5.6. Windows

39. Which material will your windows be made of (Wood, PVC, Aluminium)?
    Windows are part of the "building envelope", the enclosure that separates you from the exterior elements. They also play a big role on the appearance of the house.
    For these reasons, they are one of the most important components of the house and they deserve particular attention.
    In terms of performance, all the materials are very similar but they come at a different price. PVC is the cheapest choice while Aluminium is the most expensive.

40. Which type of opening will your windows have (inward, outward, sliding, ...)?
    There are several types of windows and preference for one or the other vary by area. Outward opening windows and sliding windows tend to be more expensive.
    If you are on a budget consider buying inward opening windows.

41. Where is the window going to be positioned in the section of the wall? (flush with interior/exterior or in the middle)

With a thick wall - over 10" (300mm) - the position of the window in the wall is something subject to personal taste.
In some locations windows are installed aligned with the interior of the external walls while in other locations aligned with the facade. Intermediate position are also possible.
From an energy efficiency point of view, the best installation is the one leaving the most empty and accessible room on the inside of the house. In this case the windows are installed as much as possible aligned with the facade.

42. How do the exterior windows reveals and trims are going to look like?

    In case the windows are installed half way into the wall, the exterior surface needs to be finished properly to protect the window and the wall form the elements.
    This is usually done with wooden boards + a metal sill.
    The wooden boards can be installed in different ways, so make sure you define and specify to your builders which solution you like the most.

43. Which material will the interior reveal of the windows be made of?

    Interior reveals can be made out of wood, MDF, gypsum or other unusual materials.
    Whichever material you will use, make sure to define it beforehand and to budget for it.

44. Which material will the interior windows' sills be made of?

    In some Country it is common to use stone window sills. In other countries the interior see can be plastic, MDF or wood.
    Again, make your choice by time and put the materia in your budget.

45. Which type of glass are you going to use?

    Glazed areas play a very important role in the overall energy efficiency of the house.
    A good glass is about 4 times LESS energy efficient than a good wall. Therefore, even with small windows, you can expect a lot of energy to escape out of the windows.
    To contain this problem you need to invest in very good glazing for your windows.
    Do not settle for anything less than triple glass.

    Window glasses can also have special properties such as safety features (tempered or laminated) and anti-burglary.
    If necessary, they can also be "self-cleaning".
    Of course, the more features the more expensive the glass will be.

    Make sure you know which are the minimum requirements for your specific case.
    Once the requirements are set, the producer of the windows shall be able to help you with the selection of appropriate glazing.

46.  According to local norms, is there a limit in minimum dimensions for the windows? (think fire regulations)

    Some Countries and Municipalities set minimum dimensions of windows, so they can be used to escape from the building in case of emergency.

47. Which should be the average U-value (R-value) for windows?

    Depending of the target energy performance, you windows might need to be very energy efficient. The producer must be able to tell you the U-value (R-value) of each window he is offering.

48. Which color should the windows be (inside, outside)?

    Although usually offered in plain white, windows can come in different colors. You can even have the interior part of the window of one color and the exterior of another one. Usually any color other than the basic offered by the producer costs a little extra. Bicolored windows are the most expensive.

49. Are you fine with standard handles or you want to have special ones (color, material, surface finish, ...)?

    As for the color, windows come with a standard handle set in not otherwise specified. You can order handles of different shapes and color at extra cost.

50. How many skylights are you going to have?

    A-frame houses are usually equipped with one or more skylights (roof windows). The number of skylights really depends on your wishes and needs for light and air. Generally you want to have at least one skylight in each room, a couple in the larger rooms.
    NOTE that some building codes might require each room to have a window. If the window has to double as escape exit, the building code might set minimum size requirements.

51. Do you need window shutters?

    In some Countries there might be the need to shield the windows from direct solar radiation. If you need shutters you must plan them before starting to build the facade of the house as it might be difficult and more expensive to install them afterwards.

52. Do you need mosquito screens on your windows?

    Although it is possible to install mosquito screens at any time, some windows can be ordered equipped with their own mosquito "blinds". Ask your window producer about this possibility.

5.7. Interior Walls

53. What are you going to use as interior finish material (gypsum, wooden boards, ...)?

    Interior walls can be finished in different materials. The most common materials are: gypsum boards, wooden boards, plywood boards, chipboards.
    Usually the interior is painted with water-based color.

54. Are you going to install chipboards onto the structural frame to strengthen the interior surfaces?

    If you plan to use gypsum as interior finish, you might want to use a chipboard behind the gypsum board to strengthen the surface of the wall.
    This allows also to screw items directly on the wall (although in an A-frame you have mainly sloped walls).

5.8. Insulation

55. Which type of insulation will you use inside the interior walls?

    Unlike in exterior walls, the insulation of interior walls does not have to provide any thermal benefit. The insulation in the interior walls has the primary function of reducing the sound coming through the wall.
    For this reason, this type of insulation can be different from the insulation used in the exterior walls and it can be cheaper.
    One thing you should consider is the possibility to use some type of insulation that does not contain formaldehyde (chemical proven to be harmful to health).. In fact, the insulation in the interior walls is in direct contact with the interior space and particles from the insulation itself can end up in the air that you breath.

56. Which type of insulation are you going to use for the building envelope (floor at foundation, external walls, roof)?

    Although this point was covered already when talking about walls,it shall be underlined that good thermal properties (and maybe fire-resistance) are especially important for the roof and foundation ceiling (floor) as well.
    The main factors that come into play in the selection of the insulation for the exterior boundary of the house are: need for fire-resistance, thermal performance, price, sustainability (generally in this order).

57. Which thermal properties (lambda) is this insulation going to have?

    Thermal performance is one of the determining factors for the type of insulation to be used in the external walls. However, each type of insulation can come generally in a range of levels of thermal performance.
    As mentioned in a previous question, the overall energy performance of the house is very important because it will determine the size of your monthly bills for heating and the indoor comfort of your house.
    Our suggestion is to go for the lowest “heat transmission” coefficient (lambda) you can afford. This will guarantee the best energy performance.

5.9. Air-tightness

58. Which type of interior vapor membrane are you going to use?

    The vapor barrier is a tiny layer of cloth-like material (or plastic film) which is placed along all the interior surfaces of exterior components (external walls, roof, floor).

The main function of the vapor barrier is to avoid the humid air from the interior space to come in contact with the insulation material of the building envelope.
As the insulation might be much colder than the humid air, humidity condenses and it becomes water. Once in the insulation, this water reduces thermal performance and it can lead to rotting of the insulation material itself.
To avoid this, vapor barrier are used.
Vapor barriers come in different types. The right type to use depends mostly on your climate. As for the insulation, try to buy the best type you can afford.

59. Which kind of tape are you going to use to seal the membrane?

    For a correct installation, the vapor barrier should be completely sealed. Vapor barrier comes in rolls, therefore you will need to join different roll sheets in order to make a single big air-tight "bag".
    To join the roll sheets together you use a special tape. Tapes come in different sizes and types. The main difference between types are: width, elasticity, stickiness.
    As for all the other components, try to buy the best you can afford.

60. ★ Will you order one or more pressure test?

    Pressure tests are used to determine how airtight the vapor barrier is. The more the better.
    Some building codes demand a mandatory pressure test and best building practice states you should have one test at mid construction and another test when the house is finished.
    Building codes generally state a minimum performance for airtightness. If the standard is not met, the building inspector can ask the problem to be fixed.
    Fixing poor air-tightness is generally time consuming (need to find the leak first) and very expensive (need to open up the area of the leak and close it again once the problem is fixed).
    For this reason it is better to invest in the mid-construction pressure test, so that eventual leaks can be immediately identified and corrected before closing the walls.

5.10. Transport

61. ★ How are you going to transport the materials to your plot?

    Do you have to arrange for transport of the Supplier will take care of that?
    Is your construction site reachable by the delivery truck?
    Do you know the dimensions of the delivery truck?
    All these questions must be answered before ordering because they affect your logistic and your budget.

62. ★ Will your site be accessible for heavy equipment? Is there enough room for unloading them from the trailer?

    You have to make sure there is enough room on-site for the delivery trucks to maneuver and to unload the construction material.

63. ★ Do you need equipment for unloading the materials from truck/shipping container (crane, fork-lift, ...)?

    You have to make sure you have the necessary equipment to unload the truck and move the materials around.

5.11. Construction Site

64. Where are you going to store the materials on your building site? Do you need a lockable storage unit?

    Once unloaded, construction material might have to stay on-site unused for several days. This poses the problem of weather damage and theft.
    In some location you have to take preventive measures to avoid your stuff to be stolen.
    If you decide to go for a lockable storage unit, make sure to figure out which is the minimum size you need.

65. ★ Will you need insurance during construction?

    Some Municipalities require it by default while in other cases the insurance could be added just for peace of mind. In any case, if you plan to use insurance, make sure it goes into your budget.

66. ★ Do you need to rent scaffolding? For how long?

    Scaffolding is usually mandatory for building structures of more than one floor.
    Usually scaffolds are rented locally and the company renting it also takes care of its installation.
    Make sure you clarify IF scaffolding is needed on your project and for how long. Don't forget to put it into your budget.

67. ★ Do you need to hire a building control or have health & safety inspector checking your build?

    Know in advance if you are going to have an inspection and what you should expect to be checked. In some cases you have to keep some kind of documentation.

68. ★ Do you need a temporary electric/water outlet during the building phase?

    Construction works need electricity and water. Make sure you arrange these connections in advance.

69. Do you need a temporary toilet during the building phase?

    Local regulations might require your construction site to be equipped with at least one toilet for workers.

70. Do you have enough tarpaulins to cover the structure or materials in case of heavy rain?

Bad weather can be a problem during construction. Wind and rain are the most challenging weather conditions when building.
Unless you build in Spring/Summer and you are 100% sure that the weather is not going to turn bad (hard prediction to make in some Country) you need to be able to cover the A-frame structure.
This is a necessary precaution to keep the construction material dry, until the roof has been installed.

71. How are you going to solve the trash disposal during and after the building?
    Construction sites generate a considerable amount of trash. You need to collect the trash, manage it and dispose of it.
    Local regulations set the minimum requirements for trash collection, management and disposal.

5.12. Site-works

72. How deep will you have to dig your foundation (bedrock depth, freezing depth, ...)? Who will do the groundworks?
    The cost of foundation works depend on the type of soil you have on your construction site.
    Usually it is necessary to perform a geological investigation before anyone can estimate the extent of the works.
    Determining how deep you have to dig is the first step to budgeting your foundations correctly.
    Groundworks are always executed by a local Company.

73. Do you have a clear understanding of how the foundations should be made? Who will do the foundation works?
    Once you determine how deep you can find stable soil, you have to plan the details of the foundation. Unless otherwise recommended by your Engineer/Architect, A-frame house require a 3 concrete strip foundation.
    Foundation works are always executed by a local Company.

74. Do you have all connections to utilities (gas, electricity, water, sewage) available on your site? Who will do the connections?
    Unless you plan to be completely off-grid, you are going to need to connect to networks (water/sewage, electricity, maybe gas, ...).
    Planning the connection is important because some utility network might be not available on your land or you should bring it where from the closest point (additional cost).
    Also, don't forget to assign one (or more) specialized Company to the execution of connections.

75. Do you need to buy additional materials for ground leveling/backfill or will the soil on site be sufficient? Who will do the backfilling works?

    Depending on the extent of groundworks you might need to invest extra money to complete the backfilling around the house after the foundation is done.
    In some case, part of the backfilling material for the foundation has to be replaced with new material.
    Make sure you look into it.

76. Do you need to build a driveway? How much is it gonna cost? Who will do that?

    Do not forget to budget all the accessory works that will make your property accessible and enjoyable.
    Forgetting to budget for this type of works leads to living in a nice house with the view on a scrapyard.

77. Does your land have any excess water to be drained away?

    Depending on the condition of the ground, sometimes it is necessary to drain water away during groundworks and foundation works.
    Make sure you check for this and account it into your budget.

78. Do you need to drain the rainwater away from the house?

    Depending on several factors (the location of the house on the land, the slope of the land, the type of soil, ...) you might need to perform additional works on your property to make sure the water can flow freely around the house and you don't get flooded in case of heavy rain.

5.13. Systems

79. Are you going to be partially or totally off-grid? Do you understand the implications?

    If you wish to be independent of the grid and to build a house that is 100% self-sustainable, please make sure you fully understand the possible restrictions to in terms of use of electricity, heating and water.
    Generally, going 100% off-grid is possible only if you manage to reduce your energy consumption to low levels. The exact energy level depends on the renewable source you plan to use (solar, wind, wood, ...) to power your home.

80. Do you need a water well or septic tank? Do you need permission for that?

    Either you are on-grid or off-grid, you might need to build a septic tank to handle your own wastewater. Generally this is necessary if your land is not served by a public sewage system.
    If your land is in a remote location, you might need to drill a well as well (land not served by public water network).

Make sure you check if permission is necessary to build these infrastructures and remember to put everything into your budget.

81. What type of water heater will you use? Combined with heating system? Separate boiler? Tankless?

Do not leave the choice of heat generation at the last moment.
Domestic hot water (DHW) is very important for comfort and heath and it should be planned early, together with the other technical installations.
Generally, you want to plan DHW together with your main heating system.
Remember that the DHW system should work even when the heating is off (i.e. it is not a good idea to warm DHW with the same wood stove that heats the house since in summer that stove might be permanently off).
A separate boiler is in general the most convenient solution. If you need to save energy, consider solar thermal power or a dedicated small DHW heat pump..

82. Is a special license required to install water & sewage systems in your Country? Who is going to do the work?

Most Countries and Municipalities require technical systems to be installed by authorized professionals. Since you need an authorization, the Company performing the work has to be local.
Check what is required in your location and look for Companies that meet those requirements. Don't forget you should contact at least 3 Companies for each type of work to be performed.

83. What type of heating system will you have?

Choose your heating system based on the resources available in your area. Maybe you have gas nearby or maybe you have access to free (cheap) wood.
In case you do not have any cheap resource available, consider using heat-pumps since they are very energy efficient systems.
If your house does not have many rooms, a simple wall-mounted split heat-pump will do the job. The best heat-pumps can support several wall-mounted split units.

84. Will you build a underfloor heating? If yes, in which rooms?

If you like warm floors, you might want to build an underfloor heating system.
Before dimensioning the heating system, you need to have a very clear idea of the total area you want to heat with underfloor heating.
NOTE: choosing to install an underfloor heating system might affect the type of heating system you can use and it might result in increased cost.

85. Will you need to cool down the house in Summer?

If you live in an area where Summer temperature is consistently above 75-80° F (24-27° C) then you need to be able to cool the house.
The best all-in-one solution for heating and cooling is to use a heat-pump.

86. Do you want a fireplace to be installed?

    Think about the use you will make of it and how it can integrate with your planned heating system. Fireplaces are great in winter but they are quite expensive.
    Fit it into your budget.

87. Is a special license required to install heating systems in your Country? Who is going to do the work?

    Most Countries and Municipalities require technical systems to be installed by authorized professionals. Since you need an authorization, the Company performing the work has to be local.
    Check what is required in your location and look for Companies that meet those requirements. Don't forget you should contact at least 3 Companies for each type of work to be performed.

88. Which kind of stove (cooking) are you going to use (gas, electric, ...)?

    Again, to make this choice you have to consider which energy sources you have available.
    Never consider investment cost only, always take into account how much it will cost to run the system and which kind of effort is required to use the appliance (i.e. a wood stove might be expensive to buy but it is cheap to run. It might be a bad solution during summer).
    If you are off-grid, you probably cannot afford using electricity for cooking. Then consider a propane stove (if gas is not available).

89. Did you clarify your minimum needs concerning the electric system? How many light points will you need? How many power outlets? How much power do you foresee you need to run the house properly?

    Before building the electric system, someone has to design it.
    You need to clarify the position of every power socket, switch, lamp. The best way to do this is to take the floor plans and consider the rooms one by one.
    Think about the usage you make of the room and where you need electric things to be.
    Once you have a clear overview on how many lamps and appliances you'll have in the house, you can draft and energy budget and figure out how much power you need.
    NOTE: this is extremely important if you plan to be off-grid.

90. Will you use photovoltaic solar panels to produce electricity? If so, did you dimensioned the system?

    Photovoltaic solar panels are a great way to generate electricity.
    Unfortunately, they make electricity only during the day so you have either to store the energy (you need a large battery pack) or, if possible, "sell"the energy to the grid during the day and "buy" it back during the night.
    If your network operator allow exchanging energy with the network, you might be able to cover 100% of your electricity needs with clean sun energy.

The size of the installation depends on your location and consumption. Again, establishing your consumption comes first.

91. Is a special license required to install electrical systems in your Country? Who is going to do the work?

    Most Countries and Municipalities require technical systems to be installed by authorized professionals. Since you need an authorization, the Company performing the work has to be local.
    Check what is required in your location and look for Companies that meet those requirements. Don't forget you should contact at least 3 Companies for each type of work to be performed.

92. Is a special license required to install ventilation systems in your Country? Who is going to do the work?

    Most Countries and Municipalities require technical systems to be installed by authorized professionals. Since you need an authorization, the Company performing the work has to be local.
    Check what is required in your location and look for Companies that meet those requirements. Don't forget you should contact at least 3 Companies for each type of work to be performed.

5.14. Budgeting

93. Did you get at least 3 price offers for each work/service (groundworks, foundations, heating, electricity, ...)?

    Building by yourself can lead to considerable savings.
    Self-building does not mean you have to build with your own hands. The best way is to outsource the works to local specialized Companies.
    To make sure you get good quality works at a good price, you should always find at least 3 Companies for each type of work you need to execute and you should get 3 price offers.
    All offers shall quote the same services and materials. You have to be very careful when comparing 2 offers, especially if the price is very different
    The goal here is not to pick the cheapest but to get a good idea of what is the market price for those works and establish which Company you can trust to execute the works.
    If the lowest bidding Company inspire you trust and if they can guarantee to perform the works according your specifications, then go for it... otherwise it is ok to discard the lowest price to avoid unnecessary risk.

94. Did you get our budget template? Did you fill it?

    You must get a clear idea of the cost of the entire build BEFORE you decide to go for it. You must determine if you can afford it.
    Probably you'll have to ask for a mortgage and the Bank wants to see your budget.

The more details you put into the budget, the closest it will be to the reality and the more a Bank will trust the final figure.
Make sure you use our free budget templates (link above in Section 2).

95. Do you need to protect your house against any pests (rats, termites)?
    This is a very important and often overlooked detail.
    Figure out if there is any treatment which is mandatory in your area and budget for it.
    If the wood has to be treated against termites, this should be clearly communicated to the Supplier in the early stages of the project.
    Keep in mind that treated wood comes at extra cost.

5.14. Assembly

96. Who is going to assemble the house? Will they provide the necessary tools and equipment as well?
    The best solution for assembly works is to outsource them to a local Team of carpenters.
    Make sure they have experience with wooden constructions and make sure they understand the steps necessary to put together the house kit.
    Clarify if they expect you to provide tools and support.
    Everything should be accounted for in your budget.

97. How many days is the assembly going to take?
    You need to know how many days the assembly Team will be on your construction site.
    This information affects other services that might be required (crane, scaffolding, supervision, ...).
    Try to agree for a fixed time (and fee) to complete the construction. This will ensure fast-paced construction and it will avoid you extra costs.

98. Will you have to provide accommodation and/or meals for the workers?
    In some cases, if the assembly Team os not local, they expect you to provide for accommodation for the entire time of assembly.
    Clarify if this is the case and allocate the necessary money into your budget.

99. Do the workers need any permission/authorization to perform the assembly works?
    Some Countries and Municipalities are very strict when it comes to authorizations for working on a construction site.
    Make sure you investigate which are the requirements in your area and be prepared to follow them.

5.15. Interior Finish

100. What type of flooring materials do you prefer? How much is it going to cost? Who is going to install it?

Details like flooring material are often left to the very last moment… but they also are part of your budget and they should be addressed properly.
If you plan to build for renting, consider using more durable material for the floor.
Don't forget that the cost of flooring shall include the fee for installation.

101.  Do you need to paint the interior walls? How much is it going to cost? Who is going to do that?

If you plan to paint the interior surfaces you need to figure out which kind of paint you are going to use, which color and who is going to do the work.
Depending on the size of the area to be painted, this could be a relevant cost… so don't forget to add it to the budget.

102.  Do you have a clear vision for your bathroom(s)? How much is it going to cost? Who is going to do that?

One can spend a fortune in the bathroom. Make sure you select the bathroomware and tiles according to your possibilities.
Include everything in your budget.

103.  Do you have a clear vision for your kitchen? How much is it going to cost? Who is going to do that?

One can spend a fortune in the kitchen. Make sure you select the kitchen, the tile, the appliances, the lights, according to your possibilities.
Include everything in your budget.

6. About the Authors

Indrek Kuldkepp

Indrek has been working with prefabricated house kits for 21 years. He started in 1998 as a sales rep for log homes. His experience also involves running the manufacturing of log homes, timber element homes and precut kit homes.
For a while he worked as an on-site construction manager.
Currently working full time with AVRAME a-frame kits, as CEO and Founder.

Andrea Bronzini

Andrea has nearly a decade of experience in the field of prefabricated wooden houses.
In 2010 he became Passivhaus Consultant (certification by the Passivhaus Institut, Darmstadt, Germany).
As former Sales Director for one of the major house Producers in Estonia, he has personally served over one thousand Clients… and he has seen just about everything when it comes to building a house.

He now enjoys helping people to build their dream home while doubling as writer and videographer.

To contact the Authors write to grow@100questions.com

…or use the Closed Facebook Group "*Avrame Hands-on*"
https://www.facebook.com/groups/avramehandson/

Appendix 1 - WHEN to ask

In this Appendix questions are sorted by WHEN the question should be asked.
Note that the sooner you can figure out the answers, the better.

IMPORTANT: most of these answers will affect your budget, so a question shall be considered answered only after you allocated money for it in the budget.

#	Question	Priority	Topic	When	Who
1	What will be the intended use of your building? (Living house, summer/winter home, rental, ...)	1	Permits/Design	Pre-planning & Budgeting	You
2	Are you allowed to build that type of building on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
3	Do you need any other buildings besides the house (garage, shed, guesthouse etc)? If so, are you allowed to build them?	1	Permits/Design	Pre-planning & Budgeting	Architect, You
4	Is there any restriction on the type of house (shape, nr of floors, ...) you can build on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
5	Which is the maximum foundation area you can build on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
6	Which is the maximum volume for a building to be built on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
7	Which is the maximum height for a building to be built on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
8	Which is the minimum net floor height allowed by your local building code?	1	Permits/Design	Pre-planning & Budgeting	Architect
9	Are you allowed to build a 60° sloping roof on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
12	Do you need a structural engineer to approve your	1	Permits/Design	Pre-planning & Budgeting	Architect

	construction drawings? If so, do you have one?				
13	Does your local building code require energy efficiency calculations or pressure test?	1	Permits/Design	Pre-planning & Budgeting	Architect
14	Does your local building code require to use a mechanical ventilation system?	1	Permits/Design	Pre-planning & Budgeting	Architect
17	Do you want to build onto a basement?	1	Design	Pre-planning & Budgeting	Architect, You
18	Is your plot on sloped land? If so, how do you plan to build the foundation?	1	Design	Pre-planning & Budgeting	Architect, You
19	Who is going to draw your site plan?	1	Design	Pre-planning & Budgeting	Architect, You
20	Who is going to deal with presenting documentation to the Municipality and requesting construction permits?	1	Design	Pre-planning & Budgeting	Architect, You
21	How many people will use the house on a daily bases?	1	Design	Pre-planning & Budgeting	You
22	How many rooms (and which size) do you really need?	1	Design	Pre-planning & Budgeting	You
23	How many bathrooms (and which size) do you really need?	1	Design	Pre-planning & Budgeting	You
24	Do you have absolute clarity on the dimensions of the house?	1	Design	Pre-planning & Budgeting	House Manufacturer, You
25	Do you have absolute clarity on what is included in the house kit?	1	Contract Terms	Pre-planning & Budgeting	House Manufacturer, You
30	Which will be the type and material of the interior surface?	1	External walls	Pre-planning & Budgeting	Architect, You
31	Which will be the type and material of the exterior surface?	1	External walls	Pre-planning & Budgeting	Architect, You
34	Which is the desired U-value (R-value) for the walls?	1	External walls	Pre-planning & Budgeting	Architect, You

35	Which is the desired U-value (R-value) for the roof?	1	External walls	Pre-planning & Budgeting	Architect, You
36	Are you allowed to use metal as roofing material?	1	Roof	Pre-planning & Budgeting	Architect
38	What type of chimney will you install (metal, brick, modular, natural stone)?	2	Roof	Pre-planning & Budgeting	Architect, You
39	Which material will your windows be made of (Wood, PVC, Aluminium)?	2	Windows	Pre-planning & Budgeting	You
46	According local norms, is there a limit on minimum dimensions for the windows? (think fire regulations)	1	Windows	Pre-planning & Budgeting	Architect
50	How many skylights are you going to have?	1	Windows	Pre-planning & Budgeting	Architect, House Manufacturer, You
51	Do you need window shutters?	2	Windows	Pre-planning & Budgeting	Architect, You
52	Do you need mosquito screens on your windows?	2	Windows	Pre-planning & Budgeting	You
53	What are you going to use as interior finish material (gypsum, wooden boards, ...)?	1	Interior walls	Pre-planning & Budgeting	Architect, You
60	Will you order one or more pressure test?	1	Air-tightness	Pre-planning & Budgeting	Architect, You
61	How are you going to transport the materials to your plot?	1	Transport	Pre-planning & Budgeting	House Manufacturer, You
65	Will you need insurance during construction?	1	Construction-site	Pre-planning & Budgeting	Architect
66	Do you need to rent scaffolding? For how long?	1	Construction-site	Pre-planning & Budgeting	Architect, House Manufacturer
67	Do you need to hire a building control or have health&safety inspector checking your build?	1	Construction-site	Pre-planning & Budgeting	Architect
68	Do you need a temporary electric outlet during the building phase?	1	Construction-site	Pre-planning & Budgeting	Architect

71	How are you going to solve the trash disposal during and after the building?	1	Construction-site	Pre-planning & Budgeting	Architect, Assembly Team, You
72	How deep will you have to dig your foundation (bedrock depth, freezing depth, ...)? Who will do the groundworks?	1	Site-works	Pre-planning & Budgeting	Architect
73	Do you have a clear understanding of how the foundations should be made? Who will do the foundation works?	1	Site-works	Pre-planning & Budgeting	Architect, House Manufacturer
74	Do you have all connections to utilities (gas, electricity, water, sewage) available on your site? Who will do the connections?	1	Site-works	Pre-planning & Budgeting	Architect, You
75	Do you need to buy additional materials for ground leveling/backfill or will the soil on site be sufficient? Who will do the backfilling works?	1	Site-works	Pre-planning & Budgeting	Architect, You
76	Do you need to build a driveway? How much is it gonna cost? Who will do that?	1	Site-works	Pre-planning & Budgeting	Architect, You
79	Are you going to be partially or totally off-grid? Do you understand the implications?	1	Systems	Pre-planning & Budgeting	You
80	Do you need a water well or septic tank? Do you need permission for that?	1	Systems - water & sewage	Pre-planning & Budgeting	Architect, You
81	What type of water heater will you use? Combined with heating system? Separate boiler? Tankless?	1	Systems - water & sewage	Pre-planning & Budgeting	You
82	Is a special license required to install water&sewage systems in your Country? Who is going to do the work?	1	Systems - water & sewage	Pre-planning & Budgeting	Architect
83	What type of heating system will you have?	1	Systems - heating	Pre-planning & Budgeting	You

84	Will you build a underfloor heating? If yes, in which rooms?	1	Systems - heating	Pre-planning & Budgeting	You
85	Will you need to cool down the house in Summer?	1	Systems - heating	Pre-planning & Budgeting	You
86	Do you want a fireplace to be installed?	1	Systems - heating	Pre-planning & Budgeting	You
89	Did you clarify your minimum needs concerning the electric system? How many light points will you need? How many power outlets? How much power do you foresee you need to run the house proPlanning & Permitsly?	1	Systems - electricity	Pre-planning & Budgeting	Architect, You
90	Will you use photovoltaic solar panels to produce electricity? If so, did you dimensioned the system?	1	Systems - electricity	Pre-planning & Budgeting	You
94	Did you get our budget template? Did you fill it?	1	Budgeting	Pre-planning & Budgeting	You
96	Who is going to assemble the house? Will they provide the necessary tools and equipment as well?	1	Assembly	Pre-planning & Budgeting	You
100	What type of flooring materials do you prefer?	2	Interior finishes	Pre-planning & Budgeting	You
101	Do you need to paint the interior walls? How much is it going to cost? Who is going to do that?	1	Interior finishes	Pre-planning & Budgeting	You
102	Do you have a clear vision for your bathroom(s)? How much is it going to cost? Who is going to do that?	1	Interior finishes	Pre-planning & Budgeting	You
103	Do you have a clear vision for your kitchen? How much is it going to cost? Who is going to do that?	1	Interior finishes	Pre-planning & Budgeting	You
10	Does your local building code require wheelchair access for ground floor?	1	Permits/Design	Planning & Permits	Architect

11	Does your local building code require special structural calculations (high winds, earthquakes, ...)?	1	Permits/Design	Planning & Permits	Architect
15	Does your local building code require emergency exits? How many?	1	Permits/Design	Planning & Permits	Architect
16	Do you need approvals from your neighbors (for building height or noise during the building)?	1	Permits/Design	Planning & Permits	Architect
29	Does any wall of your house need to have higher fire resistance?	1	External walls	Planning & Permits	Architect
32	Which will be the orientation of the exterior cladding? (Vertical, horizontal, diagonal)	2	External walls	Planning & Permits	Architect, You
33	Which type of paint and color is going to be used on the exterior walls?	2	External walls	Planning & Permits	Architect, You
40	Which type of opening will your windows have (inward, outward, sliding, ...)?	1	Windows	Planning & Permits	You
41	Where is the window going to be positioned in the section of the wall? (flush with interior/exterior or in the middle)	2	Windows	Planning & Permits	Architect, You
42	How do the exterior windows reveals and trims are going to look like?	2	Windows	Planning & Permits	Architect, House Manufacturer, You
43	Which material will the interior reveal of the windows be made of?	2	Windows	Planning & Permits	Architect, House Manufacturer, You
44	Which material will the interior windows' sills be made of?	2	Windows	Planning & Permits	Architect, House Manufacturer, You
45	Which type of glass are you going to use?	2	Windows	Planning & Permits	Architect, You
47	Which should be the average U-value (R-value) for windows?	1	Windows	Planning & Permits	Architect

48	Which color should the windows be (inside, outside)?	2	Windows	Planning & Permits	Architect, You
54	Are you going to install chipboards onto the structural frame to strengthen the interior surfaces?	1	Interior walls	Planning & Permits	You
55	Which type of insulation will you use inside the interior walls?	1	Insulation	Planning & Permits	Architect, You
56	Which type of insulation are you going to use for the building envelope (floor at foundation, external walls, roof)?	1	Insulation	Planning & Permits	Architect, You
57	Which thermal properties (lambda) is this insulation going to have?	1	Insulation	Planning & Permits	Architect, You
58	Which type of interior vapor membrane are you going to use?	2	Air-tightness	Planning & Permits	Architect, You
59	Which kind of tape are you going to use to seal the membrane?	2	Air-tightness	Planning & Permits	Architect, You
77	Does your land have any excess water to be drained away?	1	Site-works	Planning & Permits	Architect, You
78	Do you need to drain the rainwater away from the house?	1	Site-works	Planning & Permits	Architect, You
87	Is a special license required to install heating systems in your Country? Who is going to do the work?	1	Systems - heating	Planning & Permits	Architect
88	Which kind of stove (cooking) are you going to use (gas, electric, ...)?	2	Systems - electricity/gas	Planning & Permits	You
91	Is a special license required to install electrical systems in your Country? Who is going to do the work?	1	Systems - electricity	Planning & Permits	Architect
92	Is a special license required to install ventilation systems	1	Systems - ventilation	Planning & Permits	Architect

	in your Country? Who is going to do the work?				
93	Did you get at least 3 price offers for each work/service (groundworks, foundations, heating, electricity, ...)?	1	Budgeting	Planning & Permits	You
95	Do you need to protect your house against any pests (rats, termites)?	1	Budgeting/Design	Planning & Permits	Architect
97	How many days is the assembly going to take?	1	Assembly	Planning & Permits	Assembly Team, House Manufacturer
98	Will you have to provide accommodation and/or meals for the workers?	1	Assembly	Planning & Permits	Assembly Team
99	Do the workers need any permission/authorization to perform the assembly works?	1	Assembly	Planning & Permits	Architect
26	Which are the conditions of payment and delivery (for all Suppliers/Service Providers)?	1	Contract Terms	Ordering & Contracting	Suppliers / Service Providers
27	Can you afford to follow the payment schedule?	1	Contract Terms	Ordering & Contracting	You
28	Is a bank guarantee required by the Manufacturer/Supplier? Can you provide it?	1	Contract Terms	Ordering & Contracting	House Manufacturer, You
37	Which color is your roof cover going to be?	2	Roof	Ordering & Contracting	Architect, You
49	Are you fine with standard handles or you want to have special ones (color, material, surface finish, ...)?	2	Windows	Ordering & Contracting	You
62	Will your site be accessible for heavy equipment? Enough room for unloading them from trailer?	1	Transport	Ordering & Contracting	House Manufacturer, You
63	Do you need equipment for unloading the materials from truck/shipping container (crane, fork-lift, ...)?	1	Transport	Ordering & Contracting	House Manufacturer, You

64	Where are you going to store the materials on your site? Do you need a lockable storage unit on your building site?	2	Construction-site	Ordering & Contracting	Architect
69	Do you need a temporary toilet during the building phase?	2	Construction-site	Ordering & Contracting	Architect
70	Do you have enough tarpaulins to cover the structure or materials in case of heavy rain?	2	Construction-site	Ordering & Contracting	You

Appendix 2 - WHO has the answer

In this Appendix questions are sorted by WHO has the answer.
This will allow you to "schedule" your questions more efficiently.

#	Question	Priority	Topic	When	Who
2	Are you allowed to build that type of building on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
4	Is there any restriction on the type of house (shape, nr of floors, ...) you can build on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
5	Which is the maximum foundation area you can build on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
6	Which is the maximum volume for a building to be built on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
7	Which is the maximum height for a building to be built on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
8	Which is the minimum net floor height allowed by your local building code?	1	Permits/Design	Pre-planning & Budgeting	Architect
9	Are you allowed to build a 60° sloping roof on your land?	1	Permits/Design	Pre-planning & Budgeting	Architect
10	Does your local building code require wheelchair access for ground floor?	1	Permits/Design	Planning & Permits	Architect
11	Does your local building code require special structural calculations (high winds, earthquakes, ...)?	1	Permits/Design	Planning & Permits	Architect
12	Do you need a structural engineer to approve your construction drawings? If so, do you have one?	1	Permits/Design	Pre-planning & Budgeting	Architect
13	Does your local building code require energy efficiency calculations or pressure test?	1	Permits/Design	Pre-planning & Budgeting	Architect

14	Does your local building code require to use a mechanical ventilation system?	1	Permits/Design	Pre-planning & Budgeting	Architect
15	Does your local building code require emergency exits? How many?	1	Permits/Design	Planning & Permits	Architect
16	Do you need approvals from your neighbors (for building height or noise during the building)?	1	Permits/Design	Planning & Permits	Architect
29	Does any wall of your house need to have higher fire resistance?	1	External walls	Planning & Permits	Architect
36	Are you allowed to use metal as roofing material?	1	Roof	Pre-planning & Budgeting	Architect
46	According local norms, is there a limit on minimum dimensions for the windows? (think fire regulations)	1	Windows	Pre-planning & Budgeting	Architect
47	Which should be the average U-value (R-value) for windows?	1	Windows	Planning & Permits	Architect
64	Where are you going to store the materials on your site? Do you need a lockable storage unit on your building site?	2	Construction-site	Ordering & Contracting	Architect
65	Will you need insurance during construction?	1	Construction-site	Pre-planning & Budgeting	Architect
67	Do you need to hire a building control or have health&safety inspector checking your build?	1	Construction-site	Pre-planning & Budgeting	Architect
68	Do you need a temporary electric outlet during the building phase?	1	Construction-site	Pre-planning & Budgeting	Architect
69	Do you need a temporary toilet during the building phase?	2	Construction-site	Ordering & Contracting	Architect
72	How deep will you have to dig your foundation (bedrock depth, freezing depth, ...)? Who will do the groundworks?	1	Site-works	Pre-planning & Budgeting	Architect

82	Is a special license required to install water&sewage systems in your Country? Who is going to do the work?	1	Systems - water & sewage	Pre-planning & Budgeting	Architect
87	Is a special license required to install heating systems in your Country? Who is going to do the work?	1	Systems - heating	Planning & Permits	Architect
91	Is a special license required to install electrical systems in your Country? Who is going to do the work?	1	Systems - electricity	Planning & Permits	Architect
92	Is a special license required to install ventilation systems in your Country? Who is going to do the work?	1	Systems - ventilation	Planning & Permits	Architect
95	Do you need to protect your house against any pests (rats, termites)?	1	Budgeting/Design	Planning & Permits	Architect
99	Do the workers need any permission/authorization to perform the assembly works?	1	Assembly	Planning & Permits	Architect
71	How are you going to solve the trash disposal during and after the building?	1	Construction-site	Pre-planning & Budgeting	Architect, Assembly Team, You
66	Do you need to rent scaffolding? For how long?	1	Construction-site	Pre-planning & Budgeting	Architect, House Manufacturer
73	Do you have a clear understanding of how the foundations should be made? Who will do the foundation works?	1	Site-works	Pre-planning & Budgeting	Architect, House Manufacturer
42	How do the exterior windows reveals and trims are going to look like?	2	Windows	Planning & Permits	Architect, House Manufacturer, You
43	Which material will the interior reveal of the windows be made of?	2	Windows	Planning & Permits	Architect, House Manufacturer, You
44	Which material will the interior windows' sills be made of?	2	Windows	Planning & Permits	Architect, House Manufacturer, You
50	How many skylights are you going to have?	1	Windows	Pre-planning & Budgeting	Architect, House Manufacturer, You

3	Do you need any other buildings besides the house (garage, shed, guesthouse etc)? If so, are you allowed to build them?	1	Permits/Design	Pre-planning & Budgeting	Architect, You
17	Do you want to build onto a basement?	1	Design	Pre-planning & Budgeting	Architect, You
18	Is your plot on sloped land? If so, how do you plan to build the foundation?	1	Design	Pre-planning & Budgeting	Architect, You
19	Who is going to draw your site plan?	1	Design	Pre-planning & Budgeting	Architect, You
20	Who is going to deal with presenting documentation to the Municipality and requesting construction permits?	1	Design	Pre-planning & Budgeting	Architect, You
30	Which will be the type and material of the interior surface?	1	External walls	Pre-planning & Budgeting	Architect, You
31	Which will be the type and material of the exterior surface?	1	External walls	Pre-planning & Budgeting	Architect, You
32	Which will be the orientation of the exterior cladding? (Vertical, horizontal, diagonal)	2	External walls	Planning & Permits	Architect, You
33	Which type of paint and color is going to be used on the exterior walls?	2	External walls	Planning & Permits	Architect, You
34	Which is the desired U-value (R-value) for the walls?	1	External walls	Pre-planning & Budgeting	Architect, You
35	Which is the desired U-value (R-value) for the roof?	1	External walls	Pre-planning & Budgeting	Architect, You
37	Which color is your roof cover going to be?	2	Roof	Ordering & Contracting	Architect, You
38	What type of chimney will you install (metal, brick, modular, natural stone)?	2	Roof	Pre-planning & Budgeting	Architect, You
41	Where is the window going to be positioned in the section of the wall? (flush with	2	Windows	Planning & Permits	Architect, You

	interior/exterior or in the middle)				
45	Which type of glass are you going to use?	2	Windows	Planning & Permits	Architect, You
48	Which color should the windows be (inside, outside)?	2	Windows	Planning & Permits	Architect, You
51	Do you need window shutters?	2	Windows	Pre-planning & Budgeting	Architect, You
53	What are you going to use as interior finish material (gypsum, wooden boards, ...)?	1	Interior walls	Pre-planning & Budgeting	Architect, You
55	Which type of insulation will you use inside the interior walls?	1	Insulation	Planning & Permits	Architect, You
56	Which type of insulation are you going to use for the building envelope (floor at foundation, external walls, roof)?	1	Insulation	Planning & Permits	Architect, You
57	Which thermal properties (lambda) is this insulation going to have?	1	Insulation	Planning & Permits	Architect, You
58	Which type of interior vapor membrane are you going to use?	2	Air-tightness	Planning & Permits	Architect, You
59	Which kind of tape are you going to use to seal the membrane?	2	Air-tightness	Planning & Permits	Architect, You
60	Will you order one or more pressure test?	1	Air-tightness	Pre-planning & Budgeting	Architect, You
74	Do you have all connections to utilities (gas, electricity, water, sewage) available on your site? Who will do the connections?	1	Site-works	Pre-planning & Budgeting	Architect, You
75	Do you need to buy additional materials for ground leveling/backfill or will the soil on site be sufficient? Who will do the backfilling works?	1	Site-works	Pre-planning & Budgeting	Architect, You

76	Do you need to build a driveway? How much is it gonna cost? Who will do that?	1	Site-works	Pre-planning & Budgeting	Architect, You
77	Does your land have any excess water to be drained away?	1	Site-works	Planning & Permits	Architect, You
78	Do you need to drain the rainwater away from the house?	1	Site-works	Planning & Permits	Architect, You
80	Do you need a water well or septic tank? Do you need permission for that?	1	Systems - water & sewage	Pre-planning & Budgeting	Architect, You
89	Did you clarify your minimum needs concerning the electric system? How many light points will you need? How many power outlets? How much power do you foresee you need to run the house proPlanning & Permitsly?	1	Systems - electricity	Pre-planning & Budgeting	Architect, You
98	Will you have to provide accommodation and/or meals for the workers?	1	Assembly	Planning & Permits	Assembly Team
97	How many days is the assembly going to take?	1	Assembly	Planning & Permits	Assembly Team, House Manufacturer
24	Do you have absolute clarity on the dimensions of the house?	1	Design	Pre-planning & Budgeting	House Manufacturer, You
25	Do you have absolute clarity on what is included in the house kit?	1	Contract Terms	Pre-planning & Budgeting	House Manufacturer, You
28	Is a bank guarantee required by the Manufacturer/Supplier? Can you provide it?	1	Contract Terms	Ordering & Contracting	House Manufacturer, You
61	How are you going to transport the materials to your plot?	1	Transport	Pre-planning & Budgeting	House Manufacturer, You
62	Will your site be accessible for heavy equipment? Enough room for unloading them from trailer?	1	Transport	Ordering & Contracting	House Manufacturer, You

63	Do you need equipment for unloading the materials from truck/shipping container (crane, fork-lift, ...)?	1	Transport	Ordering & Contracting	House Manufacturer, You
26	Which are the conditions of payment and delivery (for all Suppliers/Service Providers)?	1	Contract Terms	Ordering & Contracting	Suppliers / Service Providers
1	What will be the intended use of your building? (Living house, summer/winter home, rental, ...)	1	Permits/Design	Pre-planning & Budgeting	You
21	How many people will use the house on a daily bases?	1	Design	Pre-planning & Budgeting	You
22	How many rooms (and which size) do you really need?	1	Design	Pre-planning & Budgeting	You
23	How many bathrooms (and which size) do you really need?	1	Design	Pre-planning & Budgeting	You
27	Can you afford to follow the payment schedule?	1	Contract Terms	Ordering & Contracting	You
39	Which material will your windows be made of (Wood, PVC, Aluminium)?	2	Windows	Pre-planning & Budgeting	You
40	Which type of opening will your windows have (inward, outward, sliding, ...)?	1	Windows	Planning & Permits	You
49	Are you fine with standard handles or you want to have special ones (color, material, surface finish, ...)?	2	Windows	Ordering & Contracting	You
52	Do you need mosquito screens on your windows?	2	Windows	Pre-planning & Budgeting	You
54	Are you going to install chipboards onto the structural frame to strengthen the interior surfaces?	1	Interior walls	Planning & Permits	You
70	Do you have enough tarpaulins to cover the structure or materials in case of heavy rain?	2	Construction-site	Ordering & Contracting	You

79	Are you going to be partially or totally off-grid? Do you understand the implications?	1	Systems	Pre-planning & Budgeting	You
81	What type of water heater will you use? Combined with heating system? Separate boiler? Tankless?	1	Systems - water & sewage	Pre-planning & Budgeting	You
83	What type of heating system will you have?	1	Systems - heating	Pre-planning & Budgeting	You
84	Will you build a underfloor heating? If yes, in which rooms?	1	Systems - heating	Pre-planning & Budgeting	You
85	Will you need to cool down the house in Summer?	1	Systems - heating	Pre-planning & Budgeting	You
86	Do you want a fireplace to be installed?	1	Systems - heating	Pre-planning & Budgeting	You
88	Which kind of stove (cooking) are you going to use (gas, electric, ...)?	2	Systems - electricity/gas	Planning & Permits	You
90	Will you use photovoltaic solar panels to produce electricity? If so, did you dimensioned the system?	1	Systems - electricity	Pre-planning & Budgeting	You
93	Did you get at least 3 price offers for each work/service (groundworks, foundations, heating, electricity, ...)?	1	Budgeting	Planning & Permits	You
94	Did you get our budget template? Did you fill it?	1	Budgeting	Pre-planning & Budgeting	You
96	Who is going to assemble the house? Will they provide the necessary tools and equipment as well?	1	Assembly	Pre-planning & Budgeting	You
100	What type of flooring materials do you prefer?	2	Interior finishes	Pre-planning & Budgeting	You
101	Do you need to paint the interior walls? How much is it going to cost? Who is going to do that?	1	Interior finishes	Pre-planning & Budgeting	You
102	Do you have a clear vision for your bathroom(s)? How much	1	Interior finishes	Pre-planning & Budgeting	You

	is it going to cost? Who is going to do that?				
103	Do you have a clear vision for your kitchen? How much is it going to cost? Who is going to do that?	1	Interior finishes	Pre-planning & Budgeting	You