

关于自建房

Building your own house from scratch

# 一，选地 Chose the building lot

## 1. 地理位置：

社区，  
离公共设施距离，  
水边地，  
视野，景观

## 1. Location:

community,  
distance from public services,  
waterfront,  
view, etc.

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## 2. 土地质量：

水淹地：是否可以通过提高建筑质量解决？

斜坡地：走出式地下室。坡度过大要依山而建或加高地基

回填土：回填土的厚度，质量。

以上任何一种地都需要考虑是否要清理树木，修建车道等，

## 2. Building lot quality:

lot in flooding zone: is the problem resolvable?

Sloped lot: walk out basement . If the slope is very steep, it can be a challenge both technically and financially.

Back filled lot: clean fill and the thickness of the fill.

For uncleared wooded lot, needs to consider the cost of cutting trees, Building driveways.

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## 3.其他

从图上和实地确认边界线，  
车道入口和位置。

水电排污接口。

城外需要规划排污系统和井的大概位置；  
井离任何污染源(主要是排污系统) 要在  
50尺以上。

## 3. Other considerations

Recognize the borders on map or on site.

Start to plan where the entry of driveway,

Connecting outlet of electricity and Sewage  
system.

If the building lot is outside of city limits,  
also plan the location of well and septic  
field. Well has to be located at least fifty  
feet away from any source of contamination  
(septic field).

## 二. 草图 (draw your floor plan and sketch the outside look of your house)

1, 房子的朝向: 日照, 景观, 邻里。

2, 车库: 大小, 离入口远近, 正对入口还是弧形...

3, 各个房间的位置, 大小...

4, 地下室利用: 走出式, 非走出式...

5, 房子外形: 屋顶形状, 阳台, 露台...

1. Keep your building lot and it's surrounding in mind, plan which direction your house is going to face.

2. Garage: size, distance from the entrance, straight drive in or circular drive in...

3. Locate the rooms. Kitchen, living room, master bedroom...

4. Give some thoughts about the use of basement.

5. Exterior of the house. Style, balcony, patio, pool...

## 二. 草图 (draw your floor plan and sketch the outside look of your house)

这是一个很耗时也很有趣的过程:

听取家里所有人的意见, 知道他们想要什么。也许会有一些争论, 改变主意。尽量想到各种细节。可以上网, 开车转一转, 看看朋友家的房子…。找到好多的灵感。

This could be a very time consuming and fun process. You will need inputs from all your family members about what they want. There are probably some arguments. Lots of versions of plan. Take care of as much details as you can. Go online, drive around, visit friends house. Get lots of inspiration.

# 三 建筑材料 Building Materials

1, 地下室: 水泥, ICF, 地下室地面灌水泥前是否加2寸泡沫板。

2, 墙: 2X6 木板, 2x6 木板, 在墙板外加一层R5泡沫板, ICF.

3, 横梁: 2X10 木板, 12寸或14寸人字形工程梁, 钢梁, 木质压合工程梁...

4, 屋顶架: 三寸或者四寸三角架。

5, 外墙材料: 乙烯塑料, 水泥板, 石材... 材料的厚度, 重量会影响到地基的设计。

6, 门窗。

7, 瓦。如果要用石板瓦 要告诉绘图师, 因为房子的承重要增加。

1, Basement: concrete, ICF (insulated concrete form). inches styrofoam before pouring basement floor.

2 . Wall Frame: 2x6 lumber . 2x6 lumber plus R5 styrofoam board. ICF.

3. Beam: 2x10 lumber, I joists, open web trusses, engineered beams, steel beams.

4. Roof framing. Pre made .

5. Siding: vinyl, fiber cement board, ...

6. Windows and doors.

7. Roofing materials

## 四 工程图 Construction Plan

要有执照的专业绘图，设计师画工程图.

Required a Licensed architect to draw construction plans.

比较复杂的工程图有时要工程师介入

For a very complicated structure, an engineer might be involved.



## 四 工程图 Construction Plan

1, 地脚, 地基, 承重墙, 柱, 钢梁, 加固梁, 柱的位置, 正面图, 侧面图, 房间布局…。

2, 拿到第一稿草图后决定是否需要找室内设计师帮助规划卫生间, 厨房, 壁炉, 灯…的位置。

3, 设计师打印, 签字, 盖章。

1. Footings, foundation, all load bearing walls, posts, elevations, floor plans...

2. Decide whether you need an interior designer or not after getting the first preliminary plan from an architect. Interior designer can help you to design bathrooms, kitchen, lighting...

3. Architect shall sign and stamp the final construction plan.

# 报价 Get quotes

## 1, 自己组织工程队

要向不同的工程队要报价:

掘土, 地基, 屋架, 屋顶, 瓦, 门窗, 水暖, 电工, 外墙, 内装修, 等等。

## 1. Be your own builder

Get quotes from different contractors: excavation, foundation, framing, roofing, electrical, plumbing, interior finishing, siding etc.

# 五 报价 Get quotes

## 2. 建筑商全部承建:

报价中会注明哪些装修材料的报价有上限。超出上线的部分要另外收费。比如橱柜，灯具，卫生间设施等

## 2. Get general contractor's quote.

In their quote, it will state what materials and works are on allowances. If the spending is over the allowance, you will be charged the extra. For example: cabinet, lighting, bathroom fixtures etc.

# 六 关于建筑许可和质量监督(About building permit and building inspection)

1, 申请许可: 建筑许可可以建筑商申请也可以自己申请。城区内和城区外的要到不同的办公室申请。需要一份签字盖章的工程图纸, 填表: 标注房子离边界的距离, 建筑商, 水暖工, 电工, 造价。水, 电, 排污系统, 井的许可是承包商申请。

1. Building permit: Both homeowners and builders can apply the building permit from Regional Service Commission Office or municipality Planning office where your building lot located. Plumbing, electrical, septic field, well need separate permit.

# 六 关于建筑许可和质量监督(About building permit and building inspection)

2, 政府建筑标准和质量监管: 发建筑许可时会有一个详细的说明。分工程阶段政府的质检部门要检查验收后才能继续施工。水, 电, 污水处理设施也是分阶段验收。工程全部结束后会有一个总验收。

3, 施工过程中的个人质量监督。

2. National building Code and Inspection.

When the government office issues the permit, there will be a detailed instructions on when and at what stages of the construction the government inspectors do the inspection to enforce the building code. Electrical, plumbing ... will have different inspections.

3. Homeowner's inspection and communication during the construction.

# 七: 关于预算和支出和工期

- 1, 准备高出报价百分之十的预算。
- 2, 自己组织工程队会减少预算但不会节省超过建筑商管理费用的数额。
- 3, 自己干也会减少预算。
- 4, 做好工期拖延的心理准备。

1. Put an extra ten percent of your total budget aside.
2. Be your own builder which will be lower your budget, but won't be as much as the overhead the general contractor will charge.
3. Your own hands on involving will also save money.
4. Be prepared for delay of the schedule.

Thanks

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