**Lab Requirements**

Lab Table

-Typical big table size is 36”x96”x36” (3ft x 8ft x 3ft)

-Moveable

5-7 Workspaces

-Codex.ie “The minimum size for a freestanding office desk is 28 inches in height, 20 inches in width and 18 inches in depth.” (360 square inch desktop.) x 5-7 = 1800 – 2520 square inches minimum for workers. (12.5-17.5 square feet)

-Think of the space between the lab table and the workspaces; if they are in the same room, there must be the ability to freely move between the two.

Herbal Medicine / Sample Storage

-probably best to have the frozen samples separate from the herbal medicine (cross contamination)

From Ginger Tonic Botanicals, *5 Tips for Storing Herbs*:

1. **Invest in jars that are dark glass, or block out light.** I’ve used [SKS bottles](https://www.sks-bottle.com/), and wide mouth amber glass jars for years to store cut and sift herbs. I’ve also used [Infinity Jars](https://infinityjars.com/) for extra delicate herbs (powders especially) that I want to last a long time. I always use glass storage containers, never plastic.
2. **Keep temperature controlled and out of humidity**. Moisture is the kiss of death for most herbs in storage, and you always want cut and sift, and powdered herbs to stay *completely dry*. I sometimes keep a dehumidifier in my herb storage space in the summer months (because I live in the south), and this makes a big difference.
3. ***Always* always always label your jars** (and date them). I know you think you’ll remember what it all is…but you probably won’t. It will all start to smell the same after a while. When you’re re-packaging herbs into jars or bottling up your herbal creations, always label what’s in the formula, and date when you prepared it!
4. **When storing herbal powders, keep in air tight containers**. Herbal powders oxidize very quickly. They need to stay extra air tight so no moisture can get in, and they are less exposed to oxidation.
5. **Timeline of expiration**: Alcoholic based tinctures last the longest (about 1-3 years); Dried herbs for tea (when stored well) can last for up to 6-7 months. They should always smell aromatic!; Herbal powders have the shortest shelf life because they have been powdered. Once an herb has been processed this much, more surface area is exposed, thus leading to oxidation more quickly.

-Basically, the herbs require a dry space (<40% humidity) that is away from UV radiation.

-Deep Freezer to hold a deer: LKNCHOPPERS on Hunting.net says, “We got ours out of the paper $40. I think it is8 cubic feet. It will hold a couple of deer easily.”.

This means a space that can accommodate an 8 cubic foot freezer.

Loading Bay

 -Novalocks says that the ideal dimensions of a loading bay for large trucks is 8 feet wide by 9-10 feet high. Think garage doors.

**Main Building**

-Space for 5-10 office spaces (ft^2)

-2 Restrooms

-board room for 15 people (ft^2)

-Building Reflective of Algonquin values, with sustainable design

-Wheelchair accessibility

**Covered Area**

-holds 2 chevy silverados (approx. 2 x (10 ft x 7 ft x 7ft) or 980 cubic ft)

-has space for activities like fish cleaning, hide tanning (approx. 20 ft high ceilings)

-fits 10 people (about the same space as the trucks)

**General Considerations**

-Year-round operation (-42.5 – 38.3 Degrees Celsius)

-Daytime Operation

-Foundation capable of supporting structures on swampy terrain (psi)

-Camera coverage for vehicles / liable assets

**Lab Technical Benchmarking Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Need | Ranking | USC Engineering Research Lab | USC Chemistry Instructional Labs | Lundquist Institute Research Center |
| Big lab table | 1 | 1 | 2 | 3 |
| Moveable table | 1 | 3 | 3 | 3 |
| Computer workstations | 1 | 3 | 2 | 1 |
| Storage space for herbal medicines | 1 | 1 | 2 | 3 |
| Freezer space | 1 | 1 | 2 | 3 |
| Space to move the lab table around | 1 | 1 | 2 | 3 |
| Total (lowest number = highest ranking) | 6 | 10 | 13 | 16 |

Labs sourced from [Laboratory Design | Lionakis](https://www.lionakis.com/services/laboratory-design/)

**Main Building Benchmarking Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Need | Ranking | Roomsketcher Office Template | Bathco Office | Modern Classic CEO office |
| 10 office spaces | 3 | 2 | 1 | 3 |
| 2 restrooms | 1 | 2 | 1 | 3 |
| Board room space for 15 people | 1 | 2 | 1 | 3 |
| Sustainable design | 2 | 1 | 2 | 3 |
| Wheelchair Access | 2 | 3 | 1 | 2 |
| Year-round operation | 1 | 3 | 1 | 2 |
| Total  | 10 | 21 | 12 | 27 |

Building designs sourced from

[Office Floor Plans - Why They are Useful - RoomSketcher | Office floor plan, Office layout plan, Office space design (pinterest.com)](https://in.pinterest.com/pin/commercial-offices-office-interiors-designed-by-dian-saw-bathcos-office-layout-design-20-ch--352477108349081305/)

[Design project for Bathco's Office Layout & Design 2.0 in Switzerland | Arcbazar](https://www.arcbazar.com/commercial-building-design/project/dian-saw-bathcos-office-layout-design-20-switzerland)

[Modern classic CEO office interior on Behance](https://www.behance.net/gallery/61967137/Modern-classic-CEO-office-interior)

**Covered Area Benchmarking Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Need | Ranking | Commercial Carport | Side Carport | Simple Carport |
| Year-Round Operation | 1 | 2 | 1 | 3 |
| Foundation for swampy terrain | 1 | 1 | 3 | 2 |
| Space for 2 Chevy Silverados | 1 | 1 | 2 | 3 |
| Fits 10 people under | 1 | 1 | 3 | 2 |
| Space for cultural activities | 2 | 2 | 3 | 1 |
| Total | 6 | 9 | 15 | 11 |

Covered areas sourced from

[Covered Parking for Businesses: A Commercial Carport - Eagle Carports](https://www.eaglecarports.com/blog/covered-parking-for-businesses-a-commercial-carport)

[Garages and Buildings | Canadian Carports and Structures (canadiancs.ca)](https://canadiancs.ca/products/garages-buildings/)

[https://r.search.yahoo.com/\_ylt=AwrijHwcZSNlrcIHRBWe7olQ;\_ylu=c2VjA2ZwLWF0dHJpYgRzbGsDcnVybA--/RV=2/RE=1696847260/RO=11/RU=https%3a%2f%2ftripleasteelstructures.com%2f24x36-regular-style-double-carport-for-two-vehicles/RK=2/RS=v54DPJ3ybQ6sSaXST\_TFvcVO1t0-](https://r.search.yahoo.com/_ylt%3DAwrijHwcZSNlrcIHRBWe7olQ%3B_ylu%3Dc2VjA2ZwLWF0dHJpYgRzbGsDcnVybA--/RV%3D2/RE%3D1696847260/RO%3D11/RU%3Dhttps%3A//tripleasteelstructures.com/24x36-regular-style-double-carport-for-two-vehicles/RK%3D2/RS%3Dv54DPJ3ybQ6sSaXST_TFvcVO1t0-)