15’ GROWING DOME
SELECTING YOUR SITE

SITE CONSIDERATIONS

The first step is to check local building requirements for greenhouses in your area – HOA, subdivision, county, or city. Planning and zoning departments may be consulted on this matter. Growing Spaces® has a questionnaire that you can give to your local Building Department and can also provide you with structural analysis and drawings stamped by an engineer. You will also want to contact utility companies to locate any existing water, sewer, electric, gas, phone or communication cables, below your proposed site before you start digging. In addition, immediate neighbors with visibility to the site should be informed and, hopefully, will support you and even benefit from your excess produce. The dome can usually be classified as an agricultural or temporary structure, as it bolts together and unbolts, if you choose, and does not necessarily need a concrete foundation. Also ask about any set-back requirements if the greenhouse is considered a permanent structure. If a building permit is required, it can be a long process, so it is always good to start early. Here are some other factors to consider when choosing the site for your dome:

1. Solar Horizon – Sun exposure should be preferably unrestricted to the south, east and west - in that order of preference. A solar pathfinder application, like Sun Seeker or Sun Surveyor Lite, is a useful tool to use to see the path of the sun each season. An abundance of sun in the summer may cause overheating problems. Deciduous trees, especially on the west and southwest sides of the dome, may be helpful as they lose their leaves, allowing solar gain in the winter. We also include a shade cloth, which can ease overheating in the summer. If you must choose between morning sun and afternoon sun, the plants prefer the morning sun to get them off to an early start. The dome site needs to have a minimum of 4 to 5 hours of clear sun for the dome to perform effectively. If it has less than this, the dome will still perform, but you may need to add auxiliary heat in the winter months.

2. Proximity to Dwelling – The closer the dome is to the house, the easier it is to pop in to pick dome-fresh greens or a few herbs for your salad or stir-fry. Also, it's closer to power, to water, to check on that ripening tomato, or if you need to shovel a pathway through the snow!

3. Shelter – Having trees to give some shelter from the wind is useful in reducing heat loss in the winter. Evergreen trees on the north side of the dome also help minimize heat loss. In addition, trees can reduce stress on the vents during high winds.

4. Site Grade / Soil – It is preferable to start with a level site, otherwise, use a site sloping to the south. A sloping site needs to be leveled within 2”. Most owners choose to excavate the high side in combination with building up the low side, often using a retaining wall made of landscape timbers or rocks. Make sure your site has adequate drainage around the dome. If there are areas where water can collect, consider adding drainage ditches or a french drain. Most dome owners build raised beds directly on top of finished grade and bring in good topsoil for the beds. If you choose to plant directly at grade, and your soil is poor or rocky, you may choose to excavate down a foot or two, remove the poor soil and bring in good topsoil. Also, if you have burrowing animals (gophers, mice, rabbits, squirrels, voles, etc.) you may want to consider the “Rodent Protection Option” as detailed in the Installation Manual. (Gophers have been known to tunnel under the foundation wall and pop up in the middle of a 24” raised bed!) This is considered an option and is not included in the kit.

5. Utilities – Some dome owners choose to install electricity and water supply, although these are not necessary for the dome to function and can be added later. Some owners use polyethylene water pipe, which can freeze and thaw without rupturing. Plants in the dome can also be watered directly from the above ground pond during wintertime, as water demands are usually low, and the pond can be topped off once a month or so. In the summer, the dome can be hand-watered, using a hose or a sprinkler system. Propane heat can be used for an auxiliary heat supply for those sub-zero winter nights and is preferred by most dome owners. Electric heat is helpful, but expensive. The 15’ Growing Dome® is designed to require no electricity. A solar powered cooling fan option is available for hotter climates for an extra cost.

Growing Spaces can give you personal advice on your particular location and we are more than happy to consult on any aspect of installing or maintaining your Growing Dome.