

One of your first concrete accomplishments when opening a craft brewery will be choosing a location. Raising sufficient funds and forming business entities are important steps, but they do not provide you with the tangible, hands-on sort of pride you get from having a physical building to call your own. There are a number of elements that must be considered when designing a brewery, however. Frequently, home brewers turned craft brewers underestimate the resources and specifications required for the art of making beer at a commercial level.

# Using Existing Structures Versus Building from Scratch

The first real decision the aspiring craft brewer must make in terms of location is whether to adapt an existing structure or build a new structure from scratch. Obviously, the geographic area in which you wish to set up shop will play a large role in this decision. If you are located in a relatively underdeveloped region, you may

have no choice but to develop a new building from the ground up. Alternatively, if you have the option to adapt an existing building, doing so may be a better option, and it is almost always more affordable. The main considerations here are the usual suspects: time and money. Many brewers seem enamored of the idea of building their own structure from the ground up. Usually this stems from the desire to make it all their own, exactly as they wish. This is a perfectly valid desire. However, it is important to note that building from scratch is a much slower process and much more expensive. Owning the land beneath your floors can be a good investment, but

for a start-up craft brewery at least, that money is generally better spent on brewing equipment and hops. And as with any business, time is always of the essence.

No matter which path you go down—building from scratch or adapting an existing structure—there are certain considerations that must be accounted for, the most prevalent Note that this book will point you in the DIY direction whenever possible. Brewers tend to be the DIY type, and we realize money is tight. That being said, sometimes bringing in an expert is the most cost-efficient decision you can make.

of which are listed below. By no means is this a comprehensive list, especially considering the ever-changing complexities and peculiarities of any given region.

## **Primary Considerations**

### **Obtaining Vital Information**

The most important piece of advice in this arena is invariably to consult an expert. So who constitutes an expert in these waters? Frequently, your best bet will be to

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speak to an architect. Again, this is true whether you are building from scratch or adapting an existing structure. Contractors are also valuable resources, real estate consultants have been helpful, and craft beer consultants have become more numerous as the industry grows. No matter whom you find, the key is to find someone with craft beer experience. This industry is full of quirks, so the only way to get your money's worth is by hiring someone with personal know-how. And because information is power, always demand a Phase I Environmental Site Assessment (ESA). This analysis acts as your due diligence with regard to environmental liability and will spot costly concerns before you invest. Most of the issues that would be spotted in a Phase I ESA are the types of fixes that are extremely cost-prohibitive, so finding out about them ahead of time is well worth the investment. Similarly, be sure to investigate the historic status of any building or site before committing to it. Historic renovations add character to your brewery but can become costly quickly, plus processing the approvals to renovate a historic structure can add significant time to your schedule. If you have the funds and time available, this option is worth considering, but it is important to see those costs coming and plan accordingly. Architectural surprises can be budget killers.

### **Regulatory Considerations**

Your next considerations tend to be regulatory in nature. To begin, legally alcohol is a bottom-up rather than topdown system. This remains true for your location as well. Several jurisdictions will lay down the law, and not always consistently. It is important to remember that simply because the California *Alcoholic Beverage Control Act (ABC Act)* gives you the right to do something in a

general sense, this does not mean that your particular zoning ordinances will allow it. This crops up frequently with tasting rooms. Many licenses available to craft breweries allow for tasting rooms on the manufacturing premises; some zoning ordinances, however, do not. Hence, it is vital to check the zoning of any site that you are considering to ensure that the space will allow your specific venture. This is especially true for craft breweries that set up shop in an industrial area. Industrial zones are fantastic options for reasons of space and adaptability. Brewing is a manufacturing business, after all, and is therefore eligible for industrially zoned spaces. However, a tasting room is considered retail space and may not be allowed.

If you have already set your heart on a particular site, there is a process to change what is and is not allowed via a *change of use permit*. Alternatively, a *conditional use permit (CUP)* may be required, but that is a different creature altogether. Occasionally when it comes time for the CUP filing, we have seen the standard retrofitting spill over to become a responsibility of the whole building (rather than the individual brewery). These permits are, again, costly and rather complicated, so be sure to consult an expert to determine which, if any, you need and how best to go about the process of getting and using them.

Another regulatory consideration worthy of note is the *Americans with Disabilities Act (ADA)*. The ADA was originally adopted in 1990, but the sections most relevant here were adopted in 2010 as part of the Standards for Accessible Design. These laws mandate the scoping (determining what part of the premises must be compliant) and technical requirements for new construction and alterations to give people with disabilities equal access to the community. Like everything else in this chapter, ADA compliance can be costly. If you are building from scratch, the costs can generally be accounted for

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efficiently. If adapting an existing building, be sure to investigate before signing a lease. Leases almost always provide no warranty that the premises are ADA compliant or have even been inspected for such, then proceed to put the cost of ADA compliance on the tenant rather than the landlord. Chapter 10 on contracting will note that you should negotiate any such clause.

This chapter will merely emphasize the potential cost of bringing a building up to ADA codes. Parking spaces are perhaps the most recognizable ADA fixes, but even these are more expensive than you might think. The need for certain sloping and space adds up quickly; it is not unheard of to pay \$60,000 to convert four standard parking spaces so they are accessible to people with disabilities. Drinking fountains are another common target of ADA, and their cost can rise exponentially should water lines need rerouting. One trick to keep in mind is that the ADA is designed to promote equal access. By way of example, one brewery that will remain nameless simply removed its existing water fountain rather than convert it to be ADA compliant. If no one has access to a water fountain, then the access is equal. Though this was far from an ideal solution, it was the only affordable one for that brewery at the time. Hence, it is important to hire an expert to help you budget appropriately.

On a final, more general note, California has obviously experienced a substantial craft beer boom in the last several years. While the majority of the action has been located in San Diego, other cities have taken note of the potential for growth. To that end, some cities have made an active effort to become more craft friendly as part of their overall economic development plan. So educate yourself on the fee structures in surrounding cities; some may be more competitive than others.

### **Environmental Considerations**

Environmental considerations manifest primarily in two contexts: the environment that you start with and the environment that you create. The environment that you create will inevitably be governed and regulated by a variety of agencies. However, the touchstone inquiry will essentially be one of safety—safety for your employees and for the community at large. The most obvious considerations deal with waste and water. Breweries use a tremendous amount of water and, like most manufacturing endeavors, create a great deal of waste. Spent grain is considered *industrial waste* and must be handled accordingly.

Furthermore, water is at a premium, especially in drought-ravaged California. The treatment of water usage will vary by your specific location, but the recent trend is to convert the water used by brewing operations to that used by private residences via *equivalent dwelling units (EDUs)*. Breweries, unsurprisingly, use far more water than do standard households, and certain cities have been less than friendly to breweries in this regard. The law of supply and demand tells us that a change is necessarily coming even in the friendlier cities. Unless more sustainable water resources are found for the Golden State, water will become increasingly expensive. Hence, the start-up brewer would be wise to keep an eye on these issues when choosing a location.

Another created environmental consideration focuses on pollutants. The four offenders that most commonly crop up include nitrogen oxide (NO<sub>x</sub>), carbon dioxide (CO<sub>2</sub>), dust, and noise. The wastewater created by boilers, referred to as effluent, is regulated by the *Environmental Protection Agency (EPA)* for nitrogen oxide (NO<sub>x</sub>) levels. Per the usual, different regions will have different requirements. Some offer exceptions, but others will require your boiler to have a flue or a specific design; these adaptations can easily triple costs.

Carbonation is another significant aspect of breweries, so it comes as no surprise that another common pollutant in brewing is carbon dioxide ( $CO_2$ ). Carbonation

### Pro Tip

Never build near an airport or a sinkhole.

has a variety of purposes in the brewhouse, but it is important to remember that  $CO_2$  is considered a hazardous material and thus requires specific permits. These permits in particular are

often overlooked, and if caught by the fire marshal in an inspection, this oversight can result in extraordinary fines.

A less obvious pollutant is the dust created around silos. Again, a very specific permit is necessary from the *Air Pollution Control District (APCD)* in this regard if you plan to have a silo. Lastly, noise abatement measures are frequently required as well. Manufacturing is a noisy business in any industry, and brewing is no exception. Employee health and safety is the primary concern here, and a variety of measures can be implemented to mitigate these issues, including enveloping the structure and making acoustic evaluations. When evaluating a candidate building or site location, note the proximity of any residential development. Oftentimes, the installation of industrial enterprises next to existing residential developments can result in copious noise complaints.

### Structural and Site-Specific Considerations

Hopefully, the environment that you begin with will be shaped by the professional advice and testing that was discussed earlier in this chapter under "Existing Struc-

tures Versus Building from Scratch." Additional information is necessary to make smart decisions, however. *Soil testing* is needed to establish tank placement, *concrete analysis* must be completed to ensure adequate support, and sufficient height clearance must be established before settling on a location. Remember that developing potential locations is a top-to-bottom endeavor. Fixes such as sloped floors and trenched drains may seem straightforward enough, but the devil is ever in the details. If you need to cut through the concrete, be sure to avoid cutting any structural posttension cables; remedial efforts are pricey.

Especially in California, doing seismic analyses is vital when choosing a location. *Seismic zoning* will affect where you place anything that you anchor to the floor

such as your coldbox, tanks, and silos. This is yet another area in which the need to retrofit your space can spill over to an entire building, adding time and money to your dream.

Next are the myriad considerations pertinent to the particular building you are considering. Is it sprinklered? Is it accessible for deliveries? Note that zoning may also regulate the inflow and outflow of delivery trucks. Is it conducive

### Pro Tip

Height clearances are also required for silos. This is another frequently forgotten permission that breweries need. The form must be filed with the Federal Aviation Administration (FAA). No one wants an air traffic disaster on their hands.

to rigging? A rigging plan is necessary for bringing in vital brewing equipment. Will you have adequate storage space? Many zoning areas prohibit exterior storage. Are there any *easements* that need to be addressed? An easement is a legal right to cross someone else's land for a particular purpose, and dealing with one can be a

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headache requiring professional advice. Several breweries have encountered roadblocks when tapping through a main street for utility purposes. Railroads and utility companies frequently have exclusive rights in this regard, and rarely do they relinquish such exclusive rights without a fight. Rerouting your utilities can be extremely costly, so this is something to look into sooner rather than later.

### Sustainability

As fees rise for sewer, waste, water, and other brewing inevitabilities, it is wise to consider sustainability practices where possible. Though they can seem costly on the front end, they may very well be a financial savior down the road. Solar energy is well suited to brewing, especially in sunny California, as is capturing heat from boilers and reverse osmosis. Note that, as a general rule of thumb, it takes eight pints of water to create one pint of beer; hence, recycling wastewater (remember that drought we spoke of) is another fantastic option. Some breweries have proudly reduced their water-to-beer ratio to as low as 2.5 to 1. Similarly, spent yeast and grain can be reused to a certain extent. The downside to these measures is generally the amount of space required to accommodate the additional equipment and raw materials. But there are several government incentives to look into that may ease that financial burden.

### **Expansion**

On the other side of the equation is expansion. We will repeatedly note the need to plan for expansion in this book. It is by far one of the most frequent pitfalls we hear from emerging craft breweries: "We are doing great *except* that we are out of space and need more capacity." This is practically the calling card of a healthy craft brewery in today's market. Breweries plan to start small

and stay small, but even small communities can develop a large thirst for the right brew. Generally speaking, it pays to leave some wiggle room in the design should you want addi-

Utility yards house your boilers, chillers,  $CO_2$ , water filtration, etc.

tional capacity down the road. We noted above that you should look at spaces that are conducive to rigging; this will remain important as you grow. *Utility yards* will also need room to grow; the closer the yard is to your brewhouse, the more cost efficient it will be, but if it is at capacity on day one, you will likely regret your choice of location sooner rather than later. Certain aspects of a brewery are more moveable than others, of course. The cellar is the most expensive to move, followed closely by your packaging line. The coldbox, alternatively, is the easiest asset to relocate. A good rule of thumb is to expand once with the space you have, then relocate to a new facility.

Speaking of packaging lines, most breweries begin without them. This makes sense for most operations, but packaging should be part of the plan from the get-go. Debate the pros and cons of bottles versus cans all you like, but keep the finances and space needed for growth available no matter which you prefer. Similarly, many breweries have begun **barrel-aging** at an impressive rate. While this makes delicious beer, if it is part of your eventual expansion plan, keep in mind the space that barrels occupy as they work their magic.