



BSUK Facilities guidance on-field

MOUND

Most baseball clubs would like to have a permanent pitching mound, if you're restricted by your venue, getting a portable mound is a really good option, see next section.

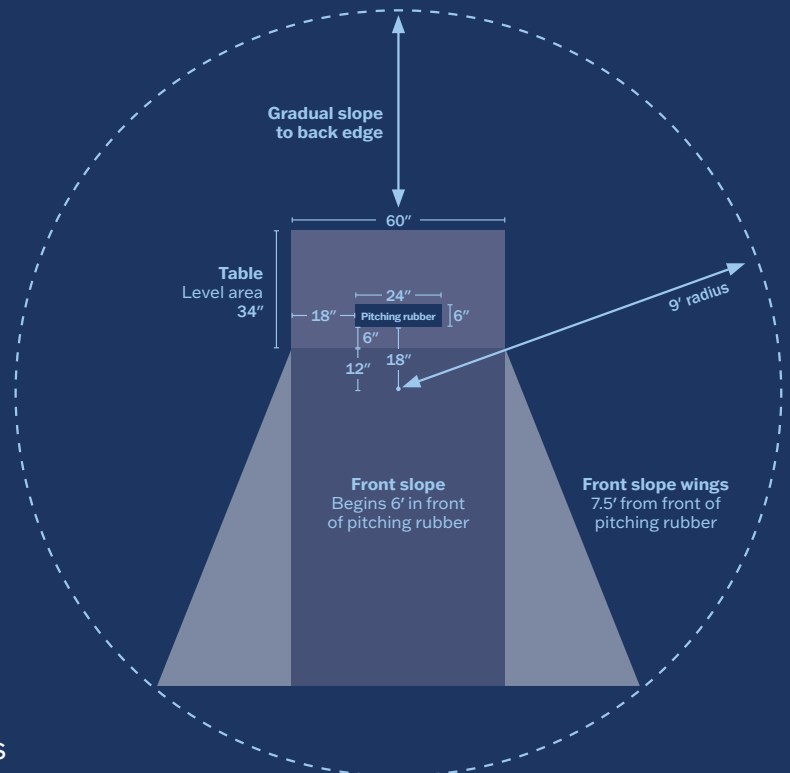
A good group of volunteers or a local builder should be able to construct a permanent baseball mound for your club. See the dirt composition section right.

MLB official rules read 'The pitcher's plate shall be 10in above the level of home plate. The degree of slope from a point 6in in front of the pitcher's plate to a point 6ft toward home plate shall be 1 inch to 1 foot, and such degree of slope shall be uniform.'

Here is a good video explaining the basics of building a baseball mound www.youtube.com/watch?v=xyjt8tCMZsA

Similarly, for Fastpitch clubs the Pitcher's circle and rubber – the radius of the pitcher's circle around the pitcher's rubber is 8ft. Of course, this makes the diameter of the pitcher's circle 16ft. As for the rubber, the rules state it should measure 24in by 6in and be level with the ground.

Dirt composition



Worcester Sorcerers Baseball Club, 2019

The building of our mound was probably a little bit different to conventional builds because we sourced the clay from a nearby drainage ditch. The mound itself is the the regulatory 10" high with a graduating slope towards HP. In terms of how much tonnage, I'm honestly not sure but, we excavated around 5ft deep, 7-8ft long and 2ft wide in amounts of clay. The clay was so good we didn't need to import or buy any from external sources. The only thing I did buy was 5 bags of builders sand to dress the top. Once the height was getting to the 7/8" level, I borrowed a whacker plate off a friend and whacked it down before adding more clay. I also installed solid clay unfired clay bricks on the landing slope and beneath the pitchers rubber to help preserve the wear and tear of it all. I got some advice from Keith Jamson too, who advised to keep it covered with a tarp when not being used so it doesn't crack and ruin, so I've instructed anyone who uses the mound to recover it when finished. I used it last night for a bullpen session and it's solid, very happy with it!

PORTABLE MOUND

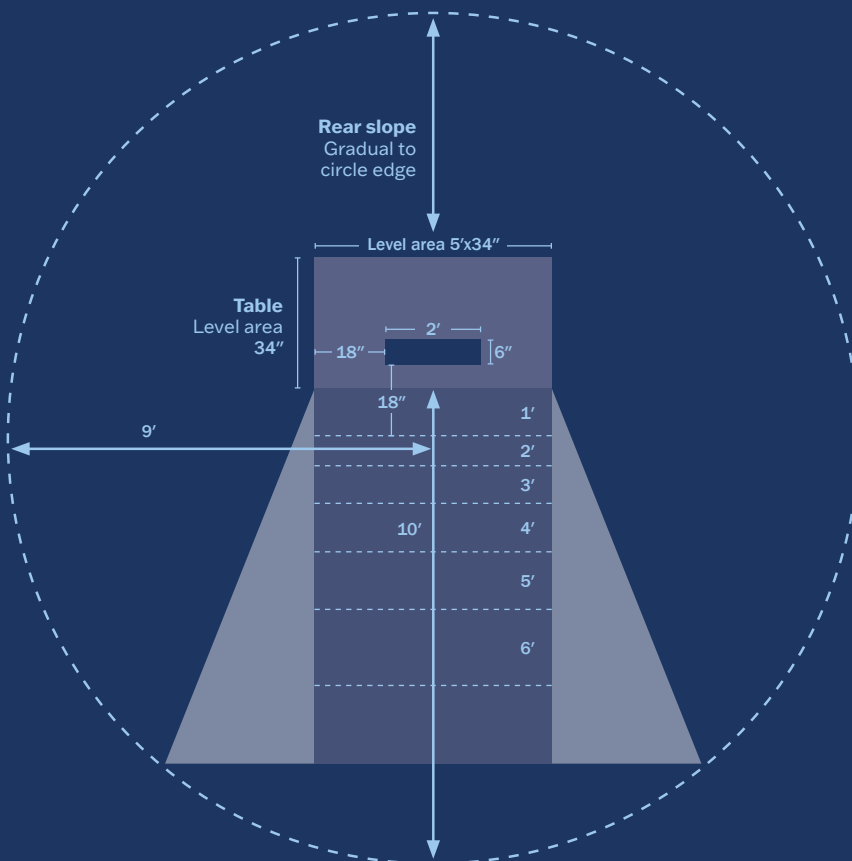
Some clubs may require a portable mound either for their main field or for the bullpen.

Portable mounds can be built by a good handyman or a carpenter. They are also available from many baseball equipment suppliers, like the ones in this link <https://baseball.covee.nl/en/training-field/field-equipment-1/pitching-mounds/>

Basic measurements are in the images below.



Portable mound composition



Johnny Creelman – from Manchester Baseball Club has experience building portable mounds. Guildford Baseball Club have also built their own. Contact your BSUK Relationship Manager who can put you in touch. See some samples in the links below

<https://bit.ly/3UzYI3t>

<https://bit.ly/3h5qulo>



DIRT COMPOSITION

Finding the right dirt, or material as it should be called, for your field could be an interesting process for your club. You'll need to consider the climate where you are based and the suppliers available to you.

Every club will decide what to use, normally the decision is based on the weather in their area, availability of materials in their area and cost.

Please ask your Relationship Manager as they will be able to send you a comprehensive document with very detailed information on dirt composition.

In brief, the Silt-to-Clay ratio is important for:

Sand – Structure, drainage

Silt – Binding/cohesion, structure

Clay – Water retention, binding/cohesion

Generally, for our climate and for infields that may not get professional maintenance, it is best to go for a high brick dust percentage i.e. 70% brick dust (0-2mm fines) and 20% clay and 10% silt. Note however, you cannot add silt to clay - and clay normally has silt within it.

A good option is a mixture of 70% brick dust and 30% sandy loam (clay and silt).

You may ask your local supplier for Topsoil blend, Cricket Loam blend, Raw Clay blend. Note that many suppliers will call this brick dust, sand and other mining clay mixes.

Clubs that are just topping up existing infields left with a high clay surface (the brick dust has been lost over time), may order brick dust fines only.

We recommend you search for a local supplier to compare costs. Below is a list of some known suppliers:

Boughton Loam Ltd

Marshall House, Cranford Road, Burton Latimer,
Northamptonshire NN15 5TB
info@boughton.co.uk
0153 651 0515

Bourne Amenity Ltd

The Wharf, Rye Woad, Newenden, Kent TN18 5QG
enquiries@bourneamenity.co.uk
0179 725 2299

We will be also updating the list below regularly on what some clubs have used:

- ▶ Newcastle Nighthawks Baseball Club / Brick dust 40%, Marine Sand 2mm grit fine sand 60%. 32 Tons. £811 / Summer 2019.
- ▶ Kent Buccaneers Baseball Club / Brick dust 50%, Surrey Loam 50%. / Summer 2019.
- ▶ Liverpool Trojans Baseball Club / £125 – £150 per tonne / March 2021 www.castleclaysales.co.uk/index.php/contact-us/



FIELD DIMENSIONS

There are MLB and other baseball and softball clubs around the world with quirky memorable fields.

The recommended baseball and softball field dimensions below may fit in the area you have available, however if you can get close to those dimensions you would be just like many.

Baseball www.baseballsoftballuk.com/resources/download/baseball-field-dimensions

Softball www.baseballsoftballuk.com/resources/download/softball-field-dimensions



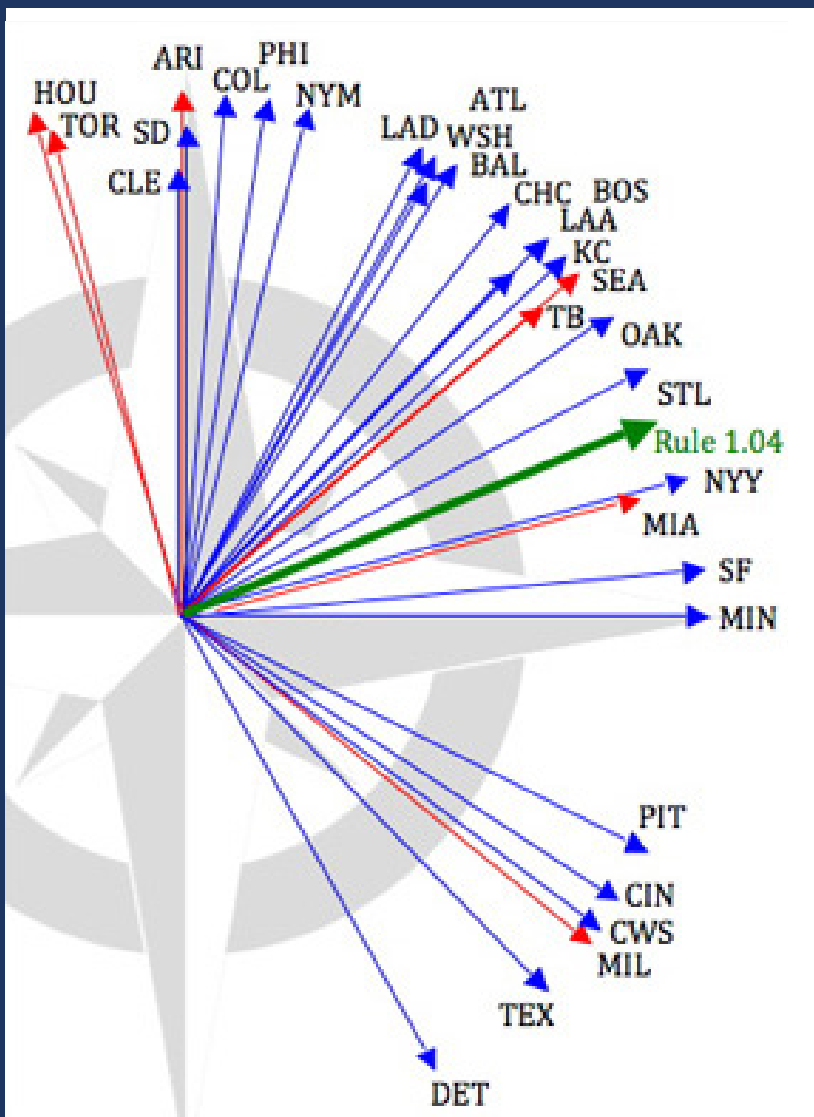
ORIENTATION GUIDE

When deciding which way the field will be oriented then it is a good idea to follow MLB advice.

MLB rule 2.01: It is desirable that the line from home base through the pitcher's plate to second base shall run East-Northeast (Northern hemisphere).

The image below, taken from *Lost in the Sun: The Physics of Ballpark Orientation*, by David Kagan, shows the orientation of all MLB fields in the USA.

The idea is to keep the sun away from the batter's eyes whilst the sun travels from the South to the North West in the afternoon. Consequentially the sun will often be in the eyes of the outfielders, in particular right field.





ARTIFICIAL TURF BATTER'S BOX, PITCHER'S CIRCLE, BASES CUT OUT

A great way to reduce maintenance of your batter's boxes and other high traffic areas is to install artificial turf. Astro turf is nowadays easily accessible from local shops and easy to install if you have some handy volunteers. There are plenty of local companies that will professionally install it.

The lip from the existing surface to the artificial turf should be levelled or slightly higher to allow for sliding. The wider the artificial turf area is regarding home plate and/or the bases the better it is for safety (tripping and sliding).

Caution: though Slowpitch may not use metal cleats, fastpitch and baseball often do. Although artificial turf it does help with maintenance, the use of metal cleats does tend to tear it in a hurry.

From Stirling University Baseball Club, Scotland

We got a quote (2019) for the artificial turf material and installation. We have decided that an artificial turf works best for what we want.

The details of how this work will be put in place are as follows:

- ▶ Dig out the two areas using turf cutter and then dig to correct depth by hand (Batting area and Pitching area)
- ▶ Put a mixture of sand with cement to create a level bed to install slabs
- ▶ Install synthetic turf to both areas fixing down to slabs by using a strong waterproof glue

Batting area 5mx3m, pitching area 2mx3m

Total cost: £2,650 + vat