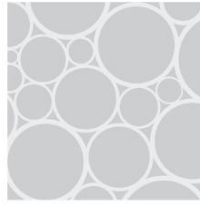




ENVIRONMENTAL



FLOOD RISK



DRAINAGE



ECOLOGY

# FA Facilities, Leicester FRA

## Leicester City Council



### Project Aims

In association with the Football Association and Sport England, Leicester City Council is developing 8 major sites across Leicester to provide senior and junior football facilities. Clear was engaged to prepare flood risk assessment and outline SuDS designs for planning submission. The potential fluvial flood risks varied considerably between sites, but the potential impact of the developments on local drainage infrastructure all required mitigation measures.

The key aspects of this study included liaison with EA and LCC, site surveys, flood risk assessment and drainage impact assessment.

### Project Summary

The 8 sites varied in size and individual sites covered up to 31ha. Three of the site were located partially within fluvial flood plains and required PPS25 flood risk assessments. While sports development is

considered acceptable development within flood plains, the proposals included 3<sup>rd</sup> Generation artificial pitches, changing facilities and car parking, which required further consideration.

Clear carried out outline flood risk assessments and drainage impact assessments at five of the sites, and detailed flood risk assessments and SuDS proposals at three sites. Mitigation measures were developed to deal with flood risks and surface water runoff.

In addition, land drainage improvements were also considered to improve the drainage at grass pitches. This was interlinked with the SuDS proposals to provide a holistic drainage system that retained shallow construction methods while providing the required design performance.

SuDS techniques included pervious pavements to car parks, subbase storage to 3G pitches, filter drains, swales and detention ponds to serve buildings and pitch drainage. The existing sites are almost entirely grassed and the sites were considered to be 100% permeable. Increases in drained area were attenuated to the existing greenfield runoff rates.

