



Proposed Sports Development: Light & Noise

The key considerations for the lighting design will be:

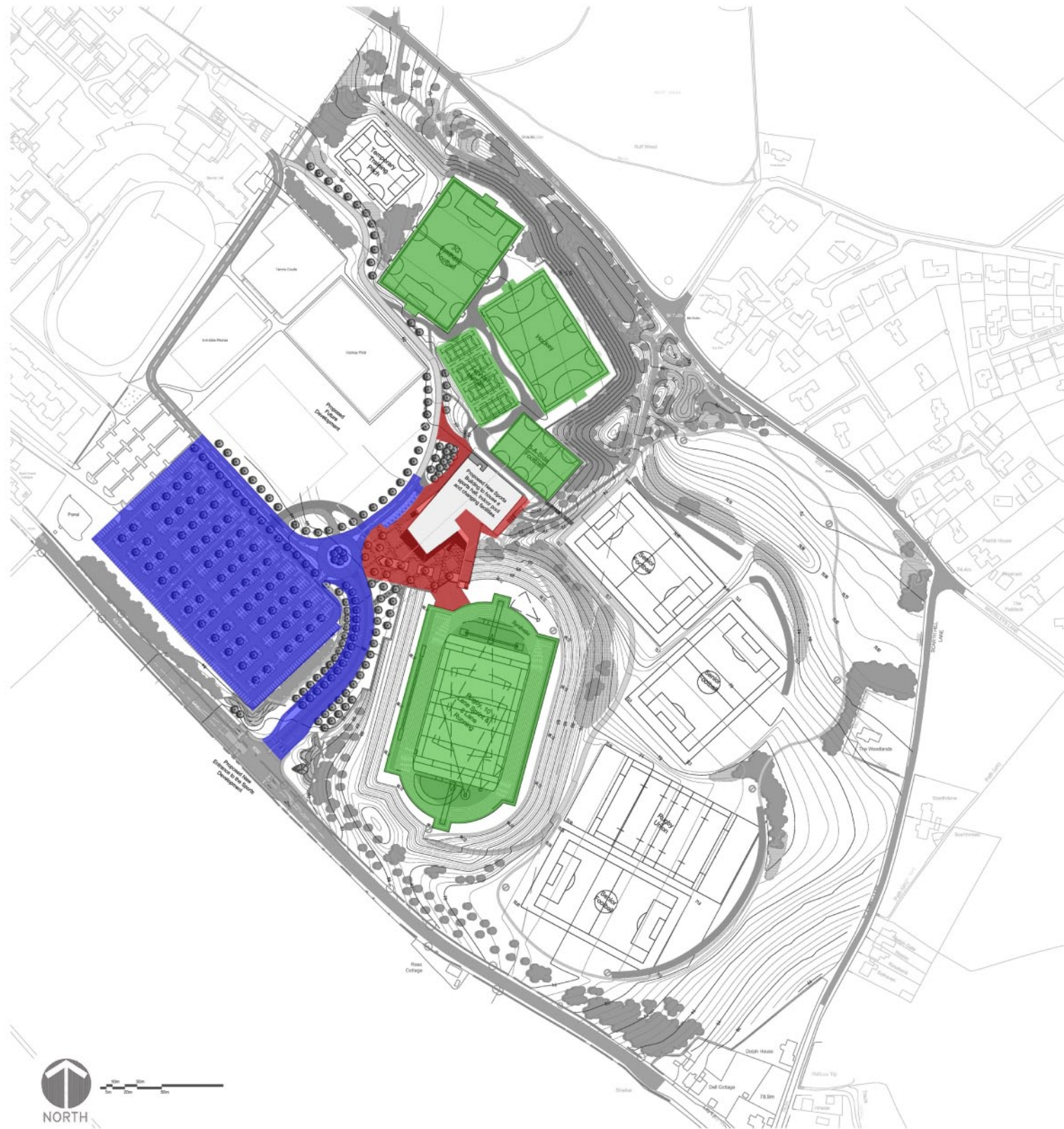
- Ensuring that the facilities can be enjoyed in safety at all times
- Minimising the effects on the surrounding areas
- Reducing the site's carbon footprint.

These contrasting requirements will be met by using advanced lighting technology, intelligent control systems and innovative design features.

Lighting key

- Lighting to roadways and car parking areas
- Lighting to pedestrian areas around the sports centre
- Lighting to sports pitches and running track

The sports pitches at the Scarth Hill Lane end of the site will not be illuminated



Example of roadway and carpark lighting



Example of pedestrian lighting

Light pollution will be a key element of the design. In accordance with the IE guidances notes for the reduction of light pollution, the following criteria will be restricted:

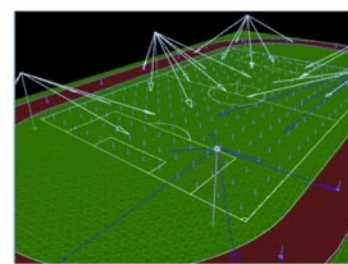
- sky glow
- light into residential windows
- light source glare
- building luminance



Example of sports pitch lighting conditions



An intelligent lighting control system will monitor daylight levels so that the lighting is only used when needed. This will maximise energy efficiency and minimise disruption to the surrounding areas. The control system will enable the lighting to each pitch to be switched off when that pitch is not in use.



The lighting will be designed to achieve the required lighting levels without over-designing. Advanced lighting simulation software will be used to provide the optimum lighting solution with the minimum number of masts and lamps. This will reduce light pollution and maximise energy efficiency.

The lighting will be mounted on specialised hinged columns. This will enable maintenance and repair work to be carried out quickly and unobtrusively. In addition, the design team is currently reviewing the possibility of the use of telescopic sports lighting. This would be retracted when the sports pitches are not in use, reducing the visual impact to the surrounds.

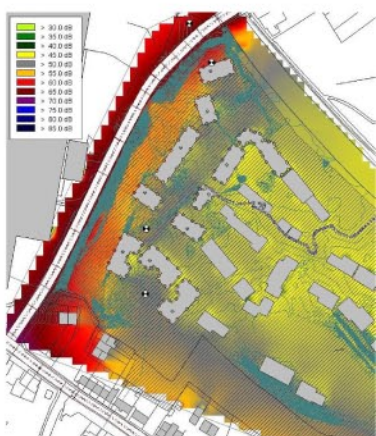


Noise



Acoustics and noise will be controlled to limit the impact of noise from new buildings and sporting activities on local residents. Likewise, traffic noise must not interfere with the enjoyable use of the facility. The acoustic design will protect the amenity of local residents in accordance with the requirements and recommendations of Lancashire Borough Council. The Design Team have carried out noise surveys to assess the existing noise climate and the impact of noise resulting from current sporting activities.

Advanced acoustic modeling techniques will be used to identify where specific solutions are required. The acoustic design will influence the layout and design of the project to minimise the negative impact of noise. This will be further enhanced by utilising the natural topographical features of the site. The appropriate acoustic technologies will be identified and used to further control noise from new building plant equipment. This may include the latest in efficient, effective attenuation and acoustic enclosures. Acoustic screens and barriers will also be considered to limit noise break-out from the site. Where noise sources cannot be removed they will be intelligently located to minimise disruption.



An environmental impact assessment will be carried out, including a water quality assessment. This will identify key surface water features and review existing water quality data to determine and mitigate against impacts on water quality which might occur during construction and use of the facilities.