

To: CORPORATE SERVICES (LICENSING) SUB-COMMITTEE		Subject: SAFETY OF SPORTS GROUNDS CERTIFICATION ARRANGEMENTS - BROADWOOD STADIUM, CUMBERNAULD
From: HEAD OF CENTRAL SERVICES		
Date: 24 May 2011	Ref: CLM/EH	

## 1. Introduction

- 1.1. The Council has adopted practices in relation to its responsibilities for the certification of "Designed Sports Grounds" in North Lanarkshire and agreed to the establishment of a Safety of Sports Grounds Officer Working Group representing a variety of disciplines which assist the process of certification.
- 1.2. The Council has also agreed that a programme of annual inspections be established and over the past few months, officers of the Working Group have carried out inspections at Broadwood Stadium and met with representatives of the stadium management to discuss a number of issues relating to the General Safety Certificate for the ground.

## 2. Current Position

As a result of these inspections, the undernoted matters have been identified as requiring attention, details of which have been passed to the Stadium Manager for attention:-

- 2.1. The annual periodic electrical inspection report requires to be provided.
- 2.2. The certificate of risk assessment of barriers, claddings and structural elements requires to be provided.
- 2.3. The certificate of risk assessment of Broadwood Stadium's adequacy requires to be provided.
- 2.4. An alternative method of identifying seats which are out of commission should be considered and you should provide me with proposals for a fixed solution to identifying those together with a seating plan for those out of commission.
- 2.5. All exit and internal stairwells require to have their nosings highlighted.
- 2.6. All exit doors within the Broadwood Suite require to be fitted with a full length panic bar.
- 2.7. With regard to the structural integrity of the stadium I attach, at Appendix 1, a list of matters which have been identified which require comment individually or as part of the annual certification arrangements.
- 2.8. The push pad on the fire escape door from the main stand function suite should be replaced with a full width push bar complete with a "push bar to open" notice conforming to the Safety Signs and Signal Regulations 1996 and be attached to the door.

### 3. **Recommendation**

It is recommended that the Sub-Committee hear verbal updates on any outstanding issues by the appropriate officers and from the stadium management of Broadwood Stadium and consider the renewal of the General Safety Certificate accordingly.



**Head of Central Services**

# North Lanarkshire Council Safety at Sports Grounds

## APPENDIX 1

### Annual Inspection Report 2011

Design Services Division  
Addendum for Broadwood Stadium, Cumbernauld

Annual Inspection 15th March 2011

#### Sheet No. 1 - List of Structural Observations

##### East Stand (Main Stand):

Steelwork forming Roof Structure and Frame

- Small isolated Areas of Flaking Paint and Corrosion  
The Annual Inspection & Structural Appraisal should comment on this.

Steel Base plates to Crush Barriers

- Some base plates corroded. Take appropriate remedial action as necessary.  
The Barriers & Annual Risk Assessment should comment on this aspect.

Steel frames to seats

- Isolated damaged and broken seats. Numerous frames affected by corrosion.  
Replace badly corroded seats immediately or otherwise put them out of use in a safe manner - the stadium may wish to consider removing the tipper from the affected seats.  
The structural inspection & Structural Appraisal should comment on this.

##### South Stand:

Steel members to underside of roof soffit

- Small isolated Areas of Flaking Paint and Corrosion  
The Annual Inspection & Structural Appraisal should comment on this.

Steel frames to seats

- Isolated damaged and broken seats. Numerous frames affected by corrosion.  
Replace badly corroded seats immediately or otherwise put them out of use in a safe manner - the stadium may wish to consider removing the tipper from the affected seats.  
The structural inspection & Structural Appraisal should comment on this.

##### West (Away) Stand:

Steel frame forming roof structure and steel frame on external rear face of stand.

- Small isolated areas of Flaking Paint and Corrosion  
The Annual Inspection & Structural Appraisal should comment on this.

Steel Base plates to Crush Barriers

- Some baseplates corroded. Take appropriate remedial action as necessary.  
The Barriers & Annual Risk Assessment should comment on this aspect.

Steel frames to seats

- Isolated damaged and broken seats. Numerous frames affected by severe corrosion.  
Replace badly corroded seats immediately or otherwise put them out of use - the stadium may wish to consider removing the tipper from the affected seats.  
The structural inspection & Structural Appraisal should comment on this.

# North Lanarkshire Council Safety at Sports Grounds

## Annual Inspection Report 2011

Design Services Division  
Addendum for Broadwood Stadium, Cumbernauld

Annual Inspection 15th March 2011

### Sheet No. 2 - List of Structural Observations

#### Annual Inspection:

Management should arrange a detailed annual inspection of all structures, components and installations and provide appropriate certification in support of the same.

The Report should:

- a. ensure that all standing surfaces, seats, stairs, ramps, doors, gates, boundary walls, fences and claddings are fit for their intended purpose.
- b. ensure that load-bearing elements are capable of withstanding the loads to which they are likely to be subjected and that they perform properly their required functions.
- c. assess which barriers should be tested in accordance with the guidance found in chapter 11 of the Guide.

The annual inspection should be carried out by a chartered engineer of the appropriate skill and experience. It should clearly state which parts of the stadium are fit for purpose and which parts of the stadium are not fit for purpose.

#### Structural Appraisal:

Management should arrange a structural appraisal of all existing structures and provide appropriate certification in support of the same.

The extent to which a detailed structural appraisal is necessary for existing structures cannot be prescribed. Much will depend upon the type of structure, its size, condition, location, the materials used in its construction and the standard of maintenance. The Standing Committee on Structural Safety (SCOSS) advises that an interval between appraisals of 6-10 years is likely to be appropriate for most large structures at sports grounds. In view of the fact that no such appraisal has been issued previously for this stadium we believe that a Structural Appraisal is now appropriate.

Risk assessment should form an integral part of the appraisal process, with structures being categorised according to complexity and risk. The risk assessment should be used to supplement the criteria for the annual inspection (see 5.13 of the Guide) where appropriate. The more complex structures should be subject to independent checking.

Structural appraisal criteria should be established taking account of:

- a. load factors used in the original design
- b. the degree of redundancy present
- c. the risk of disproportionate collapse
- d. the consequence of failure

The acceptability of the current condition of the structure should be determined on the basis of inspection (and testing where necessary) and analysis. If the condition is found to be unacceptable that part of the sports ground should be taken out of use. Work to remedy the situation should be specified and undertaken and then inspected before the affected structure or part of the sports ground is brought back into use.

The appraisal methods described by the Institution of Structural Engineers in the publication *Appraisal of Existing Structures* are recommended. The appraisal should be carried out by a competent chartered engineer of the appropriate skills and experience.

*It should be noted that the Annual Inspection Report submitted for the 2010/2011 season was deficient, in that, it was limited to the external steelwork and roof steelwork forming the Main Stand, South Stand and Away Stand only. It failed to comment on any other structural elements of the stadium: including those items which are highlighted in Section 5.13 of the Green Guide.*

# North Lanarkshire Council Safety at Sports Grounds

## Annual Inspection Report 2011

Design Services Division  
Addendum for Broadwood Stadium, Cumbernauld

Annual Inspection 15th March 2011

### Sheet No. 3 - List of Structural Observations

#### **Barriers and Risk Assessment:**

Management should arrange a Barriers Risk Assessment and provide appropriate certification in support of the same.

*All barriers (including crush barriers) should be subject to an annual risk assessment to determine the time period or periods at which all barriers should be tested. Every barrier identified by the risk assessment as a potential risk should be tested immediately.*

The risk assessment (which in practice, will be carried out in a similar fashion to an annual inspection) should be conducted and recorded by a chartered engineer, architect or surveyor of the appropriate skill and experience. It should take into account all relevant recommendations in the Guide, combined with a detailed appraisal of each of the following specific considerations:

- a. any available recorded information concerning the barriers design compliance.
- b. the adequacy of the barriers construction.
- c. the age of the barrier.
- d. any visual evidence of weakening or general deterioration of the barrier, including signs of corrosion, cracks, holes, misalignment, undue distortion, missing bolts or fittings.
- e. the barriers exposure to moisture.
- f. the possibility of water or moisture ingress into hollow steel sections.
- g. the barrier's location within the sports ground.

Those barriers which need to be tested immediately might include those whose theoretical strength is indeterminable, those which have suffered visible decay, and those where there is a potential for undetected deterioration.

Responsibility for appointing a competent person to undertake and record the results of a risk assessment of barriers lies with the management of the sports ground.