

Technical Note – WAFC Temporary Spectator Stand

Project name **Wrexham Association Football Kop Development**
Project no. **1620012485**
Client **Wrexham AFC**
Memo no. **RAM-AE-WAFC-TN01**
Prepared by **Ryan McNulty**
Checked by **Craig Barson**
Approved by **Craig Barson**

Date 18/12/2023

1 Introduction

1.1 Consented Permanent Stand

Wrexham County Borough Council (WCBC) planning application P/2022/0725 was granted permission 04/08/2022. The development comprises Kop Development for 5,500 seats, inclusive of a 500 capacity hospitality area, with a 600 capacity non-match day exhibition space, new public realm and associated works.

Ramboll
Arkwright House
Parsonage Gardens
Manchester M3 2LF
United Kingdom

T +44 161 827 1890
<https://uk.ramboll.com>

1.2 Proposed Temporary Stand

Planning consent is now sought for the proposed construction of a temporary spectator stand, interim to full construction of the consented permanent development. The temporary stand will accommodate 2,289 seats plus space for 20 additional wheelchairs. No hospitality / exhibition space is proposed as part of the temporary construction.

Drawing 31547-AFL-Z4-ZZ-DR-A-20006 P1 illustrates the proposed temporary development.

1.3 Previous Acoustic Assessment

The consented Kop Development was supported by a noise impact assessment prepared by Ramboll in 2022: RUK2021N00485-RAM-RP-00004.

The Ramboll noise assessment sets limits for external plant and machinery serving the Kop Development, as well as assessing the noise levels from the 5,500 spectator seats.

Ramboll UK Limited
Registered in England & Wales
Company No: 03659970
Registered office:
240 Blackfriars Road
London
SE1 8NW

1.4 Noise Modelling of Consented Kop Development

In the 2022 Ramboll assessment, noise modelling was used to compare the existing noise levels from the stadium with and without the existing Kop stand in use, as well as with the now consented new Kop stand in use.

The modelling was based on crowd noise data measured as Wrexham AFC at a home game.

The purpose of creating these prediction models was to demonstrate the change in noise levels at the nearest properties. The results are summarised in the following table:

Table 1-1 - Comparison of stadium noise breakout for different capacities

Receptor Location	8,242 Attended Home Game (dB LAeq,1hr)		15,500 Full Capacity Home Game (dB LAeq,1hr)	
	Existing (Kop Stand not in use)	Proposed (Kop Stand not in use)	Existing (with existing Kop Stand in use)	Proposed (with proposed Kop Stand in use)
Wrexham Village Student Accommodation	81	81 (0)	82	82 (0)
The Turf (Pub)	72	72 (0)	79	76 (-3)
Houses along Mold Road*	71	70 (-1)	80	74 (-6)
Glyndwr University	73	73 (0)	73	73 (0)

The report concluded that:

'Overall, the mode of operation of the stadium during matches is unlikely to significantly change when compared to existing operations. As a result, noise impacts during match day activities will generally be at or below the noise levels currently experienced at the nearest sensitive receptors. The same applies to road traffic and pedestrian access to the grounds.'

1.5 Temporary Stand

The temporary stand will have a seating capacity of 2,289, which is approximately 50% of the consented Kop stand (5,500 seats)

Whilst the consented permanent stand will be operational on non-match days (e.g. for exhibitions), the proposed temporary stand will only be operational on match days only.

2 Comparison of Temporary Proposals with Consented Development

2.1 Differences between Consented and Proposed Temporary Stand

The temporary stand will be used for seating only, with some facilities such as toilets provided behind the stand for welfare. As a result, noise levels from the crowd are the main noise source and there will be no additional noise due to breakout from hospitality/exhibitions. A small generator will be included in the scheme proposals to provide power to the toilets.

AFL drawing WRX-AFL-ZZ-ZZ-DR-A-00201 shows an elevation of the existing Kop stand as reproduced below. This shows that the existing stand, when in use, included a canopy.

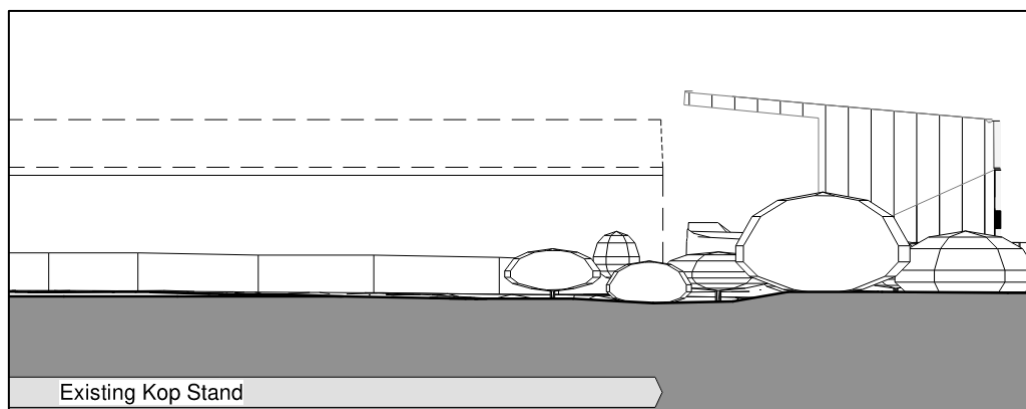


Figure 1 – Existing Kop Stand (Elevation)

By Comparison, the Temporary stand will not include a canopy.

Table 2-1 summarises a comparison of the acoustic features of the temporary spectator stand to the consented development.

Table 2-1 – Comparison of Temporary Proposals with Consented Development

Feature	Consented Development	Temporary Stand Proposals
Seats	5,500 seats.	2,289 seats plus space for 20 additional wheelchairs.
Canopy	Yes	No
Hospitality / exhibition space	500 person hospitality area / 600 person non-match day exhibition space.	None.
New plant	Roof top plant, including air source heat pumps and air handling plant	Generator to power toilets

2.2 Increase in Spectator Noise

Table 1-1 identifies the predicted noise levels at the closest receptors to the stadium during a match where 8,242 spectators attended.

The Temporary stand will be closest to the receptors of Wrexham Village Student Accommodation, The Turk Pub, and houses along Mold Road. Based on a crude logarithmic decibel change, the difference between 8,242 spectators and 10,551 spectators ($8,242 + 2,309$) is 1.1dB.

This level is likely to be marginally higher since the Temporary stand does not include a canopy, but not expected to be more than 3dB.

Therefore, the Temporary stand is expected to result in a marginal change from the existing noise levels at the closest receptors. This is like the expected change with the new Kop stand, which also only result in a marginal increase of noise levels at the closest properties.

As with the consented Kop stand, the noise levels at existing receptors are already high and limited to home match games. Therefore, it is expected the Temporary stand will have no effect on the current noise levels experienced by receptors closest to the stand.

2.3 New Plant

Ramboll has previously discussed plant noise limits with WCBC and understand WCBC require noise from proposed plant to be assessed using *British Standard:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'* (BS4142).

Using the assessment methodology of BS4142, the 'rating' noise level of proposed plant must be no greater than pre-existing background levels at the nearest sensitive properties.

This requirement has also been provided as a Condition (17) of the consented scheme.

3 Conclusion

Planning consent is sought by Wrexham Association Football Club for the proposed construction of a temporary spectator stand, interim to full construction of the consented permanent development.

The temporary stand will accommodate 2,289 seats plus space for 20 additional wheelchairs. No hospitality / exhibition space is proposed as part of the temporary construction.

This technical note identifies that noise levels during home matches are expected to be marginally greater than those currently experienced at the nearest receptors, as is also the case with the consented Kop stand predictions. Noise levels at existing receptors are already high and limited to home match games. Therefore, it is expected the Temporary stand will have no effect on the current noise levels experienced by receptors closest to the stand.

Plant noise levels from any plant serving the Temporary stand must comply with the requirements of WCBC as also set out in Condition 17 of the consented Lop Stand.