
CHAPTER 14

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14.0 SUMMARY OF EFFECTS

14.1 Introduction

14.1.1 This ES has been prepared on behalf of Applegreen plc to accompany an outline planning application, made to Harrogate Borough Council, for the development of the new Vale of York Motorway Service Area (MSA) on land between Junctions 48 and 49 of the A1(M), north of the B6265. The ES describes the Vale of York MSA (the Proposed Development) and provides an assessment of the likely significant environmental effects that may arise from its construction and operation.

14.1.2 As the application is made in outline for all matters, except means of access, a series of parameters have been set out relating to aspects of the proposals, e.g. approximate location of different scheme elements, maximum and minimum building footprints and maximum and minimum building heights. These parameters have been used to assess the likely significant environment effects of the scheme. Should outline planning permission be granted, one or more further Reserved Matters planning applications would have to be made to the Council before construction of the MSA could commence.

14.1.3 The scope of the ES was agreed through liaison with technical officers at Harrogate Borough Council and other relevant technical consultees. The likely significant environmental effects of the Proposed Development are described fully within the Main Report (Volume 1). Illustrative Figures (Volume 2) and Technical Appendices (Volume 3) provide supporting data for the assessments.

14.1.4 A Non-Technical Summary (Volume 4) is also provided, comprising a brief description of the Proposed Development and a summary of the ES, expressed in a non-technical language.

14.1.5 The likely significant effects of the Proposed Development, as assessed and reported in ES Chapters 5.0 to 13.0, are summarised below.

14.2 Landscape and Visual Effects

14.2.1 Chapter 5.0, together with the supporting Figures and Appendices, sets out an assessment of the likely significant landscape and visual effects of the Proposed Development.

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- 14.2.2 The Proposed Development would be introduced into a location already influenced by the presence of the A1(M) and A168 and the associated traffic, signage and lighting. Movement of traffic, and in particular HGVs, views of tall lighting columns and the presence of typical A road signage is a familiar presence at the A168/B6265 roundabout, immediately south-east of the Site. A long, linear belt of tree cover defines the route of the motorway (and screens views of the road from the east). Traffic on the A168 is visible to the east of this existing vegetation.
- 14.2.3 The scheme has been designed to reflect guidance set out in the *Harrogate District Landscape Character Assessment*, and with regard to previous planning decisions that relate to the Site. The design of the Proposed Development would result in new buildings and parking areas west of the motorway being set below the existing ground level and being screened by new mounds planted with hedgerows. The use of green roofs would mean that the visible sections of new buildings would not detract from the surrounding landscape. The new bridge over the motorway, the associated approach roads and associated traffic, signage and lighting would be more visible from the surrounding area, due to their elevation above the surrounding ground level.
- 14.2.4 The Proposed Development would result in an increase of the established influence of the A1(M)/ A168 corridor upon the surrounding landscape and upon views. The design of the Proposed Development would limit this influence, but there would nevertheless be adverse change, resulting chiefly from the visibility of traffic, signage and lighting columns associated with the bridge over the motorway. Effects upon landscape character would not be significant due to the limited scale of the change that would occur. Visual effects would also not be significant due to the incremental nature of the change in view, and the continued prominence of other features associated with the motorway corridor.
- 14.2.5 Proposed lighting would be sensitively designed so as to minimise light spillage, and the location of the Site in relation to surrounding visual receptors would mean that any hard surfaces illuminated by new lighting would be unlikely to be visible beyond the Site boundary. There would be some night-time effects experienced along the stretch of the B6265 immediately west of the Site and from adjacent residential properties, but these effects would not be significant.

14.3 Ecology and Nature Conservation

- 14.3.1 Chapter 6.0, together with the supporting Appendices, sets out an assessment of the likely significant effects of the Proposed Development upon ecology and nature conservation
- 14.3.2 The assessment included consideration of existing biological records from the Site and of a 2km radius around it, including a 2008 ecological survey undertaken at the Site. Additional surveys were undertaken in spring and summer 2017, including a habitat survey, bat survey and breeding bird survey. These were all undertaken by experienced and licensed ecologists in accordance with recommended survey methods, during an appropriate season.
- 14.3.3 The data search did not reveal any statutory or locally designated nature conservation sites within the 2km search area. The Site comprises arable fields, hedgerows, and habitats such as immature plantations and grassland associated with the A1(M) motorway and nearby road system.
- 14.3.4 Surveys investigated potential bat roosts in trees on the Site boundary, but did not locate any evidence of roosts, and recorded a low level of bat activity.
- 14.3.5 Bird surveys showed a number of species of farmland birds present on or around the Site, together with birds of woodland edge and hedgerow habitats.
- 14.3.6 The impact assessment considered a range of potential ecological effects, in the context of mitigation measures designed into the scheme to avoid or reduce environmental effects. The assessment concluded that there would be no adverse effects on legally protected species, subject to appropriate timing of removal of habitats used by breeding birds.
- 14.3.7 No significant effects were predicted on important ecological features. In order to maximise potential ecological benefits a range of measures have been proposed to be incorporated into the detailed design. These include measures to create wetland habitats in flood attenuation areas, and measures to ensure the design and management of grasslands, trees and hedgerows provide maximum ecological benefit.
- 14.3.8 In summary, the Proposed Development would not result in any significant adverse environmental effects in EIA terms and would potentially deliver significant biodiversity benefit, on a local scale, when compared to the current situation.

14.4 Surface Water and Flood Risk

- 14.4.1 Chapter 7.0, together with the supporting Appendices, sets out an assessment of the likely significant effects of the Proposed Development upon surface water, groundwater, flood risk, land drainage and wastewater.
- 14.4.2 The assessment has been informed by the findings of a Flood Risk Assessment and a Foul and Surface Water Drainage Strategy produced specifically for the Proposed Development.
- 14.4.3 Potential effects on the water environment during construction would be managed by a range of control and monitoring measures. Details would be incorporated within the Construction Environmental Management Plan (CEMP) to be produced prior to commencement of development. Mitigation measures would include the careful management and storage of soils to reduce sediment laden water from flowing offsite, use of dedicated fuel and chemical storage facilities, provision of emergency spill kits and application of best practice site management measures.
- 14.4.4 During the operational period surface water runoff from the Site would be controlled through the use of infiltration ponds, designed to provide adequate storage for storm events. There would be no discharges into local watercourses. In relation to flooding the Site lies within a low risk flood zone and there are no records of historical flood events at the Site.
- 14.4.5 In relation to foul water a new connection would be made from the Site to an existing sewer in Leeming Lane, which links to the Boroughbridge Wastewater Treatment Works (WwTW). Yorkshire Water have been consulted to ensure that there is sufficient treatment capacity available at the WwTW accommodate the Proposed Development.
- 14.4.6 No significant effects were identified in relation to surface or ground water quality or flood risk.

14.5 Air Quality

- 14.5.1 Chapter 8.0, together with the supporting Figures and Appendix, sets out an assessment of the likely significant effects of the Proposed Development upon air quality associated with dust and vehicle exhaust emissions arising during the construction and operational phases of the Proposed Development.

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- 14.5.2 The assessment has predicted potential changes in air quality resulting from vehicle movements associated with users of the MSA, as well as staff and delivery vehicle trips. These changes have been considered in relation to best practice guidance and legislative thresholds relating to air quality standards. Overall, the effects on air quality are not predicted to be significant, and no unacceptable impacts on human health, amenity or ecological receptors have been identified.
- 14.5.3 Construction activities would be controlled through the implementation of standard best practice in respect of dust control and site management. Details would be incorporated within the Construction Environmental Management Plan (CEMP) to be produced prior to commencement of development. Measures would include, managing operations with regard to wind speed and direction, use of designated haul routes and appropriate site speed limits, installation of a wheel wash system, and other standard good practice.
- 14.5.4 Once operational, the Proposed Development would include the provision of electric vehicle charging points within the parking areas. This is likely to contribute to encouraging use of electric vehicles, which would make a wider contribution to the future reduction of vehicle emissions, and can be considered as an enhancement measure.

14.6 Noise and Vibration

- 14.6.1 Chapter 7.0, together with the supporting Figures and Appendices, sets out an assessment of the likely significant effects of the Proposed Development in relation to noise and vibration potentially experienced at the nearest sensitive receptors to the Site.
- 14.6.2 Relevant and appropriate noise and vibration guidance and standards have been followed in order to determine the effects. Surveys have been undertaken during the daytime and night-time weekday and weekend operating periods to establish the representative background sound levels. It was noted during the baseline survey that the noise environment is dominated by traffic on the surrounding road network.
- 14.6.3 During the construction phase there would be a variety of noise sources in use at different times, and their associated activities would vary from day to day. The highest noise levels relative to nearest receptors are likely to occur during site preparation activities, particularly during the main earthworks operations. The peak

noise activities would not normally occur over long periods of time and measures would be employed to control the noise being generated. It is concluded that the increase in noise, as a result of construction, including from construction traffic is likely to be negligible. Effects would not be significant.

14.6.4 In terms of construction related, ground borne vibration there would be a neutral level of effect that would not be significant, lying well within guidance limits for nuisance and cosmetic damage.

14.6.5 During the operational period there is potential for noise to be generated from vehicle movements (including the A1(M) slip roads and overbridge), the operation of fuel filling station (including compressors and pumps), fixed plant operation, door closing, service vehicle movement/offloads and HGV chiller units. There would also be the potential for noise impacts to arise from staff and delivery vehicles travelling along local roads and for the realignment of the A168 to alter the local noise conditions.

14.6.6 The noise assessment considered all of these potential noise sources and concluded that with appropriate mitigation measures in place, the Proposed Development would be likely to result in a negligible change in noise levels during the daytime and night-time periods, at all nearby residential receptors. Effects would not be significant.

14.6.7 In relation to the operational period, ground borne vibration from plant and HGVs would be below the level of perceptibility, resulting in a neutral level of effect that would not be significant.

14.7 Cultural Heritage

14.7.1 Chapter 10.0, together with the supporting Figures and Appendices, sets out an assessment of the likely significant effects of the Proposed Development in relation to potential effects upon archaeological and cultural heritage assets at the site and within the surrounding landscape.

14.7.2 The assessment has identified a total of 149 heritage assets within a 3 km study area including six scheduled monuments, 55 listed buildings, one Registered Park and Garden and one Registered Battlefield. The Conservation Areas of Boroughbridge and Roecliffe are also located within the 3 km study area. Eighty-six non-designated assets (including Historic Landscape Character Areas, Archaeological Events and Protected Military Remains) have been identified and

are either recorded on the North Yorkshire Historic Environment Record or have been identified during the course of this assessment. The assessment identified three heritage assets within the Site. These include the former location of a number of Neolithic pits (identified during a watching brief and removed via excavation), prehistoric flint scatters and Leeming Lane.

14.7.3 The assessment identified potential for direct effects during the construction period on previously unrecorded finds and deposits dating from the prehistoric, Roman and modern periods. Potential for direct effects upon World War II remains to the north of the Site were also identified.

14.7.4 To mitigate these effects it is proposed to undertake an archaeological investigation prior to construction to establish the extent of any surviving archaeological remains that might be affected. As a result of these investigations it is concluded that the effects on buried archaeology would be negligible and not significant.

14.7.5 In relation to the operation of the MSA the assessment considered indirect effects on the setting of designated heritage assets in the surrounding landscape. This included potential effects on Skelton Windmill (Grade II Listed) and the Church of All Saints at Kirby Hill (Grade I Listed). The assessment concluded that there would be limited effects on the setting of some assets in the local area, including Skelton Windmill and the Church of All Saints. However, those effect would not be significant and the harm to the assets was judged to be 'less than substantial' in relation to the policy test required as part of the National Planning Policy Framework.

14.8 Traffic and Transportation

14.8.1 Chapter 11.0, together with the supporting Appendices, sets out an assessment of the likely significant effects of the Proposed Development in relation to transport related environmental impacts. The assessment considers the effects of the construction and operational phases on:

- Severance;
- Driver Delay;
- Pedestrian delay and amenity;
- Accidents and safety;
- Hazardous loads; and
- Fear and intimidation.

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- 14.8.2 The assessment has been informed by the Transport Assessment undertaken to support the planning application. Surveys of vehicle numbers on the local road network as well as data of traffic flows on the A1(M) has been gathered and analysed. In addition, data on road accidents has been considered.
- 14.8.3 The traffic that would arise as a result of the Proposed Development has been compared with the conditions that would occur at 2027 and 2032 operational years, taking account of traffic growth over this period.
- 14.8.4 The assessment has determined that there would be a major benefit to highway safety due to the provision of an additional MSA, which would meet the need for such a facility on this stretch of motorway. The MSA would prevent drivers from having to travel further before taking a break, helping to reduce fatigue related accidents.
- 14.8.5 The local highway network would experience a small change in traffic flow due to the employee and delivery trips associated with the Proposed Development. However, such effects would be limited and there are relatively few receptors close to the Site. Effects such as severance, driver delay, pedestrian and cyclist amenity and intimidation would be negligible and not significant.
- 14.8.6 A Construction Traffic Management Plan (CTMP) would be put in place prior to construction works commencing. The CTMP would include a number of measures that could be used to mitigate the impacts of construction vehicle movements including vehicle routing, restricted working hours, consolidation of deliveries and avoiding deliveries during network peak hours. The CTMP would also prohibit construction-related HGVs from travelling through Marton le Moor, Kirby Hill and Boroughbridge.

14.9 Socio Economic Effects

- 14.9.1 Chapter 12.0, together with the supporting Figure, set out an assessment of the likely significant effects of the Proposed Development in relation to the socio-economic impacts of the Proposed Development.
- 14.9.2 The assessment has identified that there would be a beneficial effect on construction employment, having a clear positive influence upon the continued viability of a range of construction companies and their employees, as well of other businesses forming part of the construction supply chain. Construction is a sector that is dependent upon the availability of continued opportunities to undertake built

development, and the Proposed Development would provide such an opportunity. As such the construction works would be of general benefit to the wider economy, in terms of retention and possible upgrading of skilled workers, and in terms of the viability of construction sector businesses.

- 14.9.3 Once operational, the Proposed Development would directly create approximately 300 jobs. A further 63 jobs are likely to be created or supported by indirect or induced expenditure (e.g. services bought-in to the Site, or spending outside the Site by employees). This would add an estimated £6.2 million to the economy of the local area annually (Hambleton District and Harrogate Borough). The Proposed Development would also be beneficial in terms of reducing unemployment levels, particularly as the MSA offers a broad range of job types and skill levels.
- 14.9.4 The job creation and financial benefit to the local economy arising from the Proposed Development, together with the training to be provided by the Applicant, would result in significant beneficial socio-economic effects.

14.10 Agricultural Land Use

- 14.10.1 Chapter 13.0, together with the supporting Figures and Appendices, sets out an assessment of the likely significant effects of the Proposed Development in relation to agricultural land resource.
- 14.10.2 The assessment has involved a detailed desk study and sampling of soils at the Site. It has been concluded that the Proposed Development would result in an irreversible loss of circa 9.8 ha and a reversible loss of circa 4.3 ha of Grade 2 agricultural land.
- 14.10.3 Implementation of proposed mitigation measures would reduce the impact on the soil resource and would ensure that the vast majority of the topsoil affected by the Proposed Development would retain its functional properties. These measures would include the development of a Soil Management Strategy, which would include details of how soil should be stripped, stored and re-used.
- 14.10.4 Overall, whilst there would be a loss in agricultural land, when this is considered in the context of the wider agricultural resource in the region and the potential to preserve the function of the topsoil affected by the scheme, it has been concluded that effects on agricultural land would not be significant.

14.11 In-Combination and Cumulative Effects

- 14.11.1 There is potential for the Proposed Development to give rise to multiple effects upon individual receptors, these are referred to as in-combination effects. Such effects could affect both human and ecological receptors.
- 14.11.2 The ecological assessment has considered in-combination effects. The assessment has taken into account effects arising from changes to water quality, air quality, noise, lighting and disturbance upon the various ecological receptors identified within the study area. The assessment concluded significant environmental effects are unlikely to occur from the Proposed Development following implementation of identified mitigation measures.
- 14.11.3 Human beings can be affected by a number of different environmental effects. For example, a local resident could be affected by some or all of the noise, air quality, traffic and visual effects of the Proposed Development. However, as summarised above none of these would be significant and recognised noise and air quality standards and guidance thresholds would not be breached. As such, it is unlikely that any of the effects would interact to such a degree that significant in-combination effects upon human receptors would result.
- 14.11.4 No projects were identified during the scoping stage of the EIA which were considered likely to give rise to significant environmental effects.

14.12 Conclusion

- 14.12.1 In considering the findings of this ES it can be stated that the Proposed Development would comprise a new Motorway Service Area on the A1(M), on a stretch of the motorway where government guidance recognises that there is a need for such a facility. As such, the Proposed Development is likely to make a significant contribution to road safety.
- 14.12.2 The ES has assessed and evaluated all potential significant, direct, in-direct, cumulative and in-combination environmental effects of the Proposed Development. Where adverse effects have been assessed, measures envisaged to prevent, reduce, and if appropriate offset these have been identified where practicable. There would be no residual significant adverse effects that would result from the Proposed Development. However, a number of potential significant benefits have been identified including effects on road safety, socio-economic

effects on the local area and the potential to deliver significant biodiversity benefit, on a local scale, when compared to the current situation.