



## Anglia Square, Norwich

Assessment of the Likely Significant Effects  
Resulting from Demolition Activities to be read in  
conjunction with the Draft Construction Phase Site  
Waste Management Plan Version 2 (SWMP)

Further Environmental Information sought by the  
Secretary of State under Regulation 25 of the Town  
and Country Planning (Environmental Impact  
Assessment) Regulations 2017, in relation to the  
Anglia Square development, Norwich, (LPA Ref  
18/00330/F)  
( PINS Ref APP/G2625/N/19/3225505)

Stansted Environmental  
Services Ltd on behalf of  
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## INTRODUCTION

- 1.1 This document has been prepared as Further Environmental Information on the Anglia Square Hybrid Planning Application Environmental Statement (ES), following a request by the Secretary of State dated 17 July 2019 which was augmented by the Planning Inspectorate's document titled "Inspector's Note and Agenda – Addendum", dated 1 November 2019. These both sought further information under Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended), in relation to the proposals referred to in the ES as the "Amended Scheme", at Anglia Square, Norwich, (the Development). This requested an updated Assessment of the Likely Significant Effects Resulting from Demolition Activities (ADA) and a draft Site Waste Management Plan (SWMP). This document comprises the ADA, which should be read in conjunction with the draft SWMP Version 2, dated 12 November 2019.
- 1.2 This ADA investigates the likely significant effects and the mitigation measures required to prevent, reduce or offset any significant adverse effects attributed to demolition activities associated with the Amended Scheme.
- 1.3 The Amended Scheme site covers an area of 4.51 hectares and consists of a number of large structures to be demolished, (including Sovereign House, a Multi Storey Car Park and a cinema). In addition, Gildengate House would be subject to external alterations only and conversion to residential use.
- 1.4 As such, significant demolition works will be required to enable implementation of the proposed redevelopment works for Anglia Square, which will need to be carried out in a phased approach, as set out in the programme within the ES Chapter 5 – **Development Programme, Demolition and Construction**.
- 1.5 The existing buildings to be demolished in Phase 1 of the scheme are physically attached to 100 Magdalen Street, which is outside the application boundary. Accordingly, there is a party wall which will need to be made good following demolition. This is addressed by a proposed Outline planning condition, noted below.
- 1.6 Demolition activities will also occur in Phases 2 and 3.
- 1.7 Demolition activities can introduce a number of environmental issues such as the potential for elevated levels of dust, noise and vibration. There is a known presence of asbestos within the buildings, which will need specialist removal and disposal to avoid adverse environmental effects.
- 1.8 There will also be an increase in vehicle movements during the demolition phase whilst waste materials arising from these works (which cannot be reused on site) are removed by heavy goods vehicles.
- 1.9 Therefore, mitigation measures need to be introduced as part of the demolition phase, as well as the construction phase of the development. These measures will be set out within a Construction Environmental Management Plan (CEMP).
- 1.10 It is important to firstly identify who or what will be affected by the works, namely sensitive receptors and how they will potentially be affected. This has to be established before being able to introduce control measures which will reduce any potential impact to the identified receptors.
- 1.11 In preparing this Assessment, reference has been made to the ES Chapter 5 which sets out the demolition and construction methodology and the intended programme in general terms, which was used as the basis for the ES assessments.
- 1.12 As noted above, the Norwich City Council Statement of Case includes at Appendix 4 a 'List of Planning Conditions (draft)', within which draft Outline Condition 21, which

would apply to all phases proposes: *“Prior to the commencement of any demolition works within each phase (as agreed under condition 20) a Demolition Statement shall be submitted to and approved in writing by the local planning authority. The Statement shall include a detailed methodology for the retention and protection of any retained frontages during the construction phase and be substantiated by a structural engineer’s report. In the case of phase 1 (as agreed under condition 20) the statement shall include a detailed methodology for the retention of 100 Magdalen Street and include: detailed plans indicating remediation works for the retained frontages; and details of temporary and permanent access arrangements for the premises.”*

- 1.13 This condition will ensure that there is a method in place for the LPA to agree and enforce measures to mitigate the effects of demolition on occupants and users of the retained frontages (the retail units to operate throughout or during part of the redevelopment project), and also 100 Magdalen Street.
- 1.14 In addition, draft Outline Condition 28, proposes *“No development shall take place within any phase (as agreed under condition 20), including any works of demolition, in pursuance of this permission until a Construction and Environmental Management Plan (CEMP) (which shall take account of the cumulative impact of other nearby development taking place, at the time of submission) has been submitted to, and approved in writing by, the local planning authority. The development shall only be implemented in accordance with the details and measures approved as part of the CEMP, which shall be maintained throughout the entire construction period. The CEMP should include the following: [inter alia]...b) the parking of vehicles of site operatives and visitors; d) Protocol for managing scheduling and timing of construction traffic arriving and leaving the site; e) Protocol for managing vehicles that need to wait for access to the site; j) measures for the prevention of dust, suppression of noise and abatement of other nuisance arising from development works; m) a scheme for recycling / disposing of waste resulting from demolition and construction. The details and measures included within the CEMP shall ensure pedestrian routes through the site (consisting of one east-west route and one north-south route) are provided and the Anglia Square Shopping Centre remains ‘open for business’ insofar as possible and safely accessible to members of the public and tenants throughout the entire construction period. The approved Statement shall be adhered to throughout the construction period, unless amended as approved in writing by the LPA.”*
- 1.15 This condition provides the means for the LPA to agree and enforce mitigation measures on the cumulative effects of demolition-related activities on the Anglia Square and any nearby development sites of;
- Movement and parking of site operatives vehicles,
  - HGVs movements,
  - Dust, noise and any other nuisance,
  - The disposal and recycling of demolition waste material, and
  - Those activities on the site permeability for pedestrians and the on-going operation of the shopping centre.
- 1.16 The demolition works will be carried out in accordance with the relevant legislation, policies and standards which are set out in Appendix 1 of this document.

## 2. ASSESSMENT OF SENSITIVE RECEPTORS & EFFECTS

- 2.1 Sensitive Receptors that have been identified which may be impacted upon during the demolition phase of the Development include;
- Retail tenants within Anglia Square who will continue trading during the redevelopment period, and those in surrounding streets, including Magdalen Street,
  - Visitors/shoppers to the retail units within Anglia Square and surrounding streets,
  - Pedestrians travelling through Anglia Square to access, inter alia, Edward Street, St George's Street, Magdalen Street and New Botolph Street / St Augustine's Street,
  - Cyclists using Magdalen Street, Pitt Street, Edward Street, New Botolph Street / St Augustine's Street, and Botolph Street and travelling through Anglia Square,
  - Vehicle users surrounding on the surrounding road network,
  - Occupiers/residents of buildings on Edward Street, Magdalen Street, Pitt Street, New Botolph Street / St Augustine's Street and St Crispin's Road opposite the four boundaries of Anglia Square, and those in the streets beyond,
  - Site workers,
  - Heritage assets (including 43/45 Pitt Street and the Norwich City Centre Conservation Area),
  - The surrounding environment to Anglia Square, including air quality.
- 2.2 A generic assessment of potential effects per phase has been prepared prior to introducing mitigation measures as shown in Table 1 below.

Topic	Potential Effect	Significance	Duration	Degree of effect
Demolition Activities	Noise – Demolition Impacts	Adverse	Short term	Moderate
	Vibration – Demolition Impacts	Adverse	Short term	Moderate
	Dust – Demolition Impacts	Adverse	Short term	Moderate
	Road Traffic – Demolition Impacts	Moderate	Short term	Negligible
	Asbestos	Adverse	Short term	Negligible

Table 1: Assessment of Sensitive receptors

### 3. ASSESSMENT OF CONTROLS ON DEMOLITION EFFECTS

- 3.1 **Asbestos Removal** Prior to commencement of any demolition/clearance work, a Refurbishment/Demolition survey will be carried out by a competent surveyor. Any identified Asbestos Containing Materials (ACM's) will be removed by a licenced contractor and disposed of at a licenced landfill, in accordance with the following procedures. Site Specific Risk Assessments and Method Statements will be prepared by the licensed contractor which will detail the dismantling of the ACM's, 'bagging up' of the material and disposal of the material.
- 3.2 Waste Transfer Notes will be provided for all ACM's removed from the site clearly stating the end fate of the material.
- 3.3 This will mitigate any adverse impact on any of the Sensitive Receptors from removal of ACMs as part of the demolition process, even if phased.
- 3.4 **General Demolition Nuisance including Vibration** As discussed in ES Chapter 5 the redevelopment works are proposed to be carried out in four distinct phases, which is an initial control mechanism to ensure that potential impacts on the Sensitive Receptors, including from demolition, are managed and limited in scale at any one time.
- 3.5 Demolition will only be carried out by a suitably qualified organisation that has been assessed using the Weston Homes in house Pre-Qualification Questionnaire system, which assesses the suitability of organisations and their employees in accordance with the requirements of PAS 91.
- 3.6 PAS 91 is a standardised pre-qualification questionnaire which has been developed to reduce the need for suppliers to complete a variety of different pre-qualification questionnaires for different, and in some cases, the same clients.
- 3.7 It has been developed by the British Standards Institute (BSI), with the question set having been commissioned by Government and being a recommended common minimum standard for construction procurement.
- 3.8 By delivering a standardised PQQ format, PAS 91 aims to:
- Help suppliers understand what information is required from them at pre-qualification stage
  - Increase consistency between various pre-qualification questionnaires and databases
  - Help buyers identify suitably qualified contractors
- 3.9 The site will be registered with the Considerate Constructors' Scheme, and work will be carried out in accordance with the following Code of Considerate Practice.
- 3.10 Considerate Constructors seek to improve the image of the construction industry by striving to promote and achieve the best practice under the Code below:
- Enhancing the Appearance
  - Constructors should ensure sites appear professional and well managed.
  - Respecting the Community
  - Constructors should give utmost consideration to their impact on neighbours and the public, in particular in respect of nuisance caused, such as due to vibration, noise and dust generation.
  - Protecting the Environment
  - Constructors should protect and enhance the environment.
  - Securing everyone's Safety
  - Constructors should contain the highest level of safety performance.
  - Caring for the Workplace
  - Constructors should provide a supportive and caring working environment.

- 3.11 The Code of Considerate Practice outlines the Scheme's expectations of all registered sites and companies, describing those matters that are considered fundamental by the Scheme in helping improve the image of construction.
- 3.12 The Development will be inspected by Monitors of the Scheme at regular intervals with a report and score provided in accordance with the Scheme's scoring system.
- 3.13 The Monitors will want to see evidence of controls and working practices implemented to meet the Scheme's Code of Considerate Practice.
- 3.14 The above measures will ensure sufficient mitigation of any adverse impact on any Sensitive Receptors of general activity, including vibration, created via the demolition process, even if phased.
- 3.15 **Demolition Generated Dust** The potential for dust generation during demolition works is high and therefore site specific measures need to be implemented, (as will have been previously approved by the LPA pursuant to draft Outline Condition 28 noted above), which will include;
- No demolition works are to be carried out without water suppression being available on site to dampen down demolition material as structures are brought to the ground,
  - Due to the size of each phase, stockpiling of material on site will be limited. However where stockpiles are present, these will be no higher than the phase boundary hoarding, and will be dampened down to avoid dust being generated,
  - Crushing of demolition waste is a licensed process, and the demolition contractor will ensure that the controls contained within their licence are adhered to,
  - Loading/unloading of HGVs will be on the site and loads covered prior to leaving site,
  - Wheels will be washed where required prior to vehicles leaving the site to limit trackout,
  - Burning of any waste material shall be strictly prohibited,
  - Surface water run-off from demolition activities to contained,
- 3.16 The effectiveness of normal site operation dust mitigation measures is to be monitored by the site manager via on-going routine visual site checks and recording of actions taken in the site diary, and more extensive monitoring through periods of abnormal operating conditions.
- 3.17 Continuous monitoring of PM10 airborne particulates will be carried out during the demolition phases of the project.
- 3.18 A single MCERT PM10 Aeroqual Dust Sentry (or similar) continuous monitoring device will be fitted to the hoarding of the relevant phase under construction to take into account the prevailing wind direction and nearest sensitive receptors. This will need to be agreed with the LPA Air Quality Officer, which will be secured as part of the material submitted for the discharge of draft Outline Condition 28.
- 3.19 The continuous monitor will allow for accurate real-time 15-minute logs of airborne PM10 to allow the site management to comply with agreed Air Quality trigger levels.
- 3.20 With this system the site management team will receive automatic email alerts so that when dust level trigger levels are breached, action can be taken immediately.
- 3.21 The above measures will ensure sufficient mitigation of any adverse impact on any of the Sensitive Receptors from dust created via the demolition process, even if phased.

- 3.22 **Demolition Generated Noise** The potential for the generation of noise during demolition works is also high and therefore site specific measures (as will have been previously approved by the LPA pursuant to draft Outline Condition 28 noted above), need to be implemented which will include;
- Provision of site boundary barriers as needed.
  - Adoption of the principles of “Best Practicable Means”.
  - Use of compressors that have silencers or are sound reduced models.
  - Fitting of silencers or mufflers to pneumatic tools, when necessary.
  - Programming deliveries/collections to arrive only during daylight hours, and acting carefully when loading/unloading vehicles to minimise disturbance to local residents.
  - Delivery vehicles prohibited from waiting within the site with their engines running.
  - All plant items being properly maintained and operated according to the manufacturer’s instructions.
  - Plant being sited, as far as possible, away from noise sensitive receptors.
- 3.23 A continuous noise monitoring station will be set up to monitor noise levels during the demolition phases of the development.
- 3.24 A Sonitus System EM2010 Class 1 Sound Level Meter (or similar) will be fitted to the hoarding of the relevant phase under demolition and construction to take into account the prevailing wind direction and nearest sensitive receptors. This will need to be agreed with the LPA Pollution Officer, which will be secured as part of the material submitted for the discharge of draft Outline Condition 28.
- 3.25 As with the dust monitoring station, the continuous noise monitor will allow for accurate real-time 15-minute logs of noise to allow the site management to comply with LPA agreed boundary noise trigger levels which, will be secured as part of the material submitted for the discharge of draft Outline Condition 28. The monitoring will identify any breach of the trigger levels, which in turn will enable action to be taken by the site management to address the noise source.
- 3.26 The above measures will ensure sufficient mitigation of any adverse impact on any of the Sensitive Receptors from noise created via the demolition process, even if phased.
- 3.27 **Demolition Traffic** A phased specific traffic management plan will be prepared and agreed with the LPA for each demolition phase, which will be secured as part of the material submitted for the discharge of draft Outline Condition 28. This will assess access and egress routes to the specific phase to ensure acceptable impact on the local road network.
- 3.28 Lorry movements will avoid operating during the morning and evening rush hour periods.
- 3.29 Loading and unloading of Plant will take place within the boundary of the phase under demolition/construction.
- 3.30 Mud on roads will be minimised by the use of wheel washing facilities within the operational site boundary and by the provision of a mechanical road sweeper that will visit site as necessary, and sweep the approach roads and any other local roads as necessary.
- 3.31 The above measures will ensure sufficient mitigation of any adverse impact on any of the Sensitive Receptors from traffic associated with the demolition process, even if phased.
- 3.32 **Demolition Waste and Recycling** There will be an LPA agreed Site Waste Management Plan, (SWMP), secured as part of the material submitted for the

discharge of draft Outline Condition 28. That SWMP will monitor and record waste generated from demolition and construction works and will set targets for recycling and reuse.

- 3.33 All Subcontractors will be inducted into the waste strategy requirements, and the quantity of materials will be regularly updated within the SWMP by the Waste Champion, with a copy remaining on site at all times.
- 3.34 The above measures will ensure sufficient mitigation of any adverse impact on any of the Sensitive Receptors from waste and recycling activities associated with the demolition process, even if phased.
- 3.35 **Summary** Table 2 sets out the residual effects resulting from the demolition phase of the development (per phase), based on a CEMP approved by the LPA pursuant to draft Outline condition 28, which takes account of the cumulative effects of the Anglia Square development and any other relevant nearby schemes in the demolition / construction phase. It is demonstrated that taking account of the remediation measures described above, all of which will be subject to control via monitoring and potential enforcement action by:
- the Considerate Constructors' Scheme, through the scheme's proposed registration;
  - the LPA through the draft Outline conditions noted above; and
  - the Norwich City Council Environmental Health Officer through Environmental Health legislation;

there will be negligible short term effects on the Sensitive Receptors identified.

Topic	Potential Effect	Significance	Duration	Degree of effect	Mitigation Measures	Residual Effects
Demolition Activities	Noise – Demolition Impacts	Adverse	Short term	Moderate	Implementation of best practicable means to control noise emissions	Negligible
	Vibration – Demolition Impacts	Adverse	Short term	Moderate	Implementation of best practicable means to control vibration	Negligible
	Dust – Demolition Impacts	Adverse	Short term	Moderate	Implementation of best practicable means to control dust	Negligible
	Road Traffic – Demolition Impacts	Moderate	Short term	Negligible	Implementation of best practicable means to control traffic	Negligible
	Asbestos	Adverse	Short term	Negligible	Removal of ACM's by a Licensed Contractor and disposal at a registered landfill site permitted to accept ACM's with Waste Transfer Notes provided as evidence	Negligible

Table 2: Significant Residual Effects



## Appendix 1

### LEGISLATION, POLICY & STANDARDS

Demolition works will be carried out as a minimum in accordance with the following Legislation, Policies and Standards;

- Sections 80 to 82 Building Act 1984
- BS 6187: Code of Practice for Demolition
- Asbestos (HSE Guidance EH10/EH13 & MDHS100)
- Institution of Civil Engineers - ICE Demolition Protocol
- BS5228-2:2009 +A1:2014 Code of Practice for Noise & Vibration Control on Construction & Open sites
- IAQM Guidance on the Assessment of Dust from Demolition and Construction
- The Control of Dust and Emissions during construction and demolition – SPG 2014
- Considerate Constructors Scheme