



**JM ECOLOGY**

**MR AND MRS HAYER  
REAR OF 314 SPRING LANE  
MAPPERLEY TOP  
PRELIMINARY  
ECOLOGICAL APPRAISAL**

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**Verified by: Joe McLaughlin BSc (Hons) MCIEEM**

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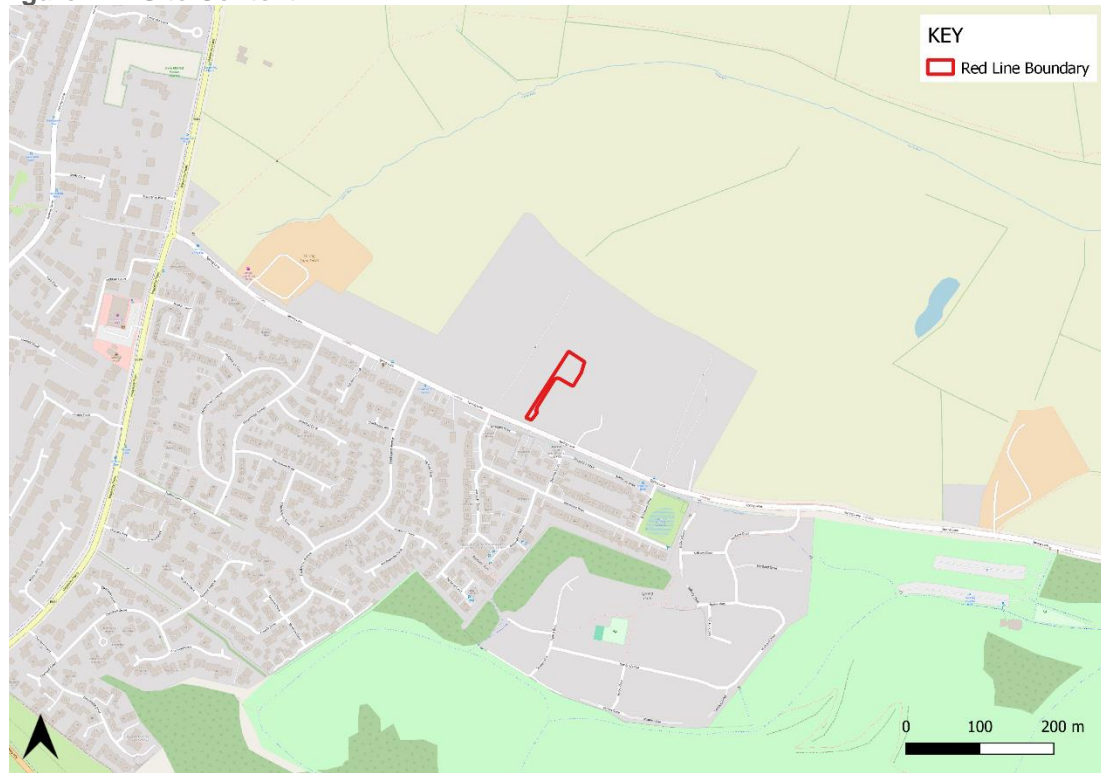
## 1. BACKGROUND INFORMATION

- 1.1 This Preliminary Ecological Appraisal (PEA) has been complete on behalf of Mr and Mrs Hayer for the Site; Land at 314 Spring Lane, Mapperley, Nottingham. It has been produced to inform the proposed re-development of the Site for holiday lets.

### Site Details

- 1.2 The Site comprises an area at the rear of an existing property with hardstanding, buildings an access track, modified grassland and soft landscaping; located off Spring Lane, Mapperley, Nottinghamshire. Adjacent habitats comprise a residential urbanised setting to the south with roads or residential gardens and rural agricultural land to the north with cropland, hedgerows, trees and woodland. The Site is located on grid reference SK 60871 44758.

**Figure 1-1: Site Context**



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### Purpose of This Report

- 1.3 This PEA provides baseline data and recommendations for mitigation, compensation and enhancements as appropriate as well as recommendations for any further surveys if necessary. It is produced with due consideration for best practice (CIEEM, 2017) and the British Standards Institution (BSI, 2013).

## **2. LEGISLATION**

2.1 Legislation relevant to this assessment are as follows:

- The Conservation of Habitats and Species Regulations 2019 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Environment Act 2021;
- The Wild Mammals Act (1996); and,
- Natural Environment and Rural Communities (NERC) Act 2006;
- Hedgerow Regulations 1997.

2.2 The National Planning Policy Framework (NPPF, 2023) informs Local Planning Authorities when developing their planning policies and when reviewing planning applications affecting features of value to nature conservation.

2.3 In respect of the natural environment, the NPPF states under Paragraph 180 that:

“Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”

2.4 The NPPF also states under Paragraph 185 that:

“To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

2.5 Paragraph 186 also states:

“When determining planning applications, local planning authorities should apply the following principles:

- i) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- ii) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the Site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- iii) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- iv) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate”.

### 3. METHODOLOGY

#### Zone of Influence

3.1 The defined Zone of Influence (ZOI) for any given proposal is related to the significance of sites and species which may be present in the surrounding landscape. For this small scale scheme the following ZOI have been established for designations:

- 2km around the Site for sites of International Importance (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site);
- 1km around the Site for sites of Local, National or Regional Importance (e.g. Local Wildlife Sites [LWS], Sites of Special Scientific Interest [SSSI] and Local Nature Reserves [LNR]); and
- Off-Site priority habitats within 50m.

#### Habitat Survey

3.2 A Site survey was undertaken in January 2024 by Joe McLaughlin BSc (hons) MCIEEM. Joe has over 10 years' experience in habitat and protected species scoping assessments, has BSBI FISC Level 4 certification<sup>1</sup> for botanical assessment and is appropriately qualified for the surveys based on the CIEEM competencies for carrying out such surveys (CIEEM, 2017). Joe is registered to use a level 2 personal bat licence (2016-26529-CLS-CLS) and great crested newt licence (2015-16947-CLS-CLS), acts as the named ecologist on numerous mitigation licences and is one of a small number of consultants nationwide registered under the Bat Mitigation Class Licence scheme (RC210); all of which further demonstrates his competence to lead this type of work.

3.3 The habitat survey was completed using UK Habitat Classification System V2.0 (UK HAB, 2023) with habitat mapping complete using the DEFRA Statutory Biodiversity Metric QGIS mapping tools.

3.4 In addition, the methodology was extended to include a search for incidental evidence of protected/notable fauna. Specific consideration was given to the following species:

- Birds;
- Bats;
- Amphibians, including great crested newts (GCN) *Triturus cristatus*;
- Reptiles;
- Badgers *Meles meles*; and
- Priority Species, such as hedgehog *Erinaceus europaeus*.

3.5 Habitats adjacent to the Site were viewed, where possible, from the Site boundaries in order to assess their potential to support protected species that could be utilising the survey Site.

<sup>1</sup> Botanical Society for Britain and Ireland. Field Identification Skills Certificate: Level 4 (competent botanist). See BSBI skills pyramid for further details: [https://bsbi.org/wp-content/uploads/dlm\\_uploads/Botanical\\_Skills\\_Pyramid.pdf](https://bsbi.org/wp-content/uploads/dlm_uploads/Botanical_Skills_Pyramid.pdf)



### **Desk Study**

- 3.6 As part of a desk-based assessment data sources listed below were searched to gather ecological data of relevance to the project, including the identification of ecologically sensitive habitats such as vegetation corridors, woodlands, watercourses, standing water and statutory designated Sites.
- Multi-Agency Geographic Information for the Countryside (MAGIC);
  - Ancient Woodland/Tree Inventory;
  - Ordnance Survey 1:25,000 mapping;
  - Aerial imagery (Google Earth Pro – imagery dated 1999 - 2024);
  - Nottinghamshire Insight Mapping (Nottingham City Council, 2024); and,
- 3.7 Magic Maps website ([MAGIC \(defra.gov.uk\)](https://defra.gov.uk)) and the Natural England Open Data Geoportal ([Natural England Open Data Geoportal \(arcgis.com\)](https://arcgis.com)) were also accessed in respect of protected species.

### **Limitations**

- 3.8 Habitat survey outside the growing season April-September can provide inadequate data for such an assessment. However, based on types of habitats found, this is not considered a major constraint with all habitats on-Site assessable at any time of the year.
- 3.9 Despite efforts made during the field survey to provide a comprehensive account of the site, it is important to acknowledge that no investigation can guarantee complete characterisation and accurate prediction of the natural environment. Moreover, it is crucial to recognise that habitats are dynamic entities prone to changes, including the potential colonisation of species subsequent to the surveys complete as part of this report.
- 3.10 In line with standard guidance, the results and recommendations within this report are valid for up to two years from the date of survey, assuming there are no significant changes to the survey Site or its immediate surroundings. Updated survey work may be required to support any future planning applications outside of this time period.
- 3.11 A formal data request to the local record centre was not complete as part of this assessment. However, given the geographical context and scale of the scheme this is not considered a major limitation.

## 4. RESULTS

### Designated Sites

- 4.1 There are no international sites within 2km of the Site. There are no national level statutory Sites within 1km of the Site and it is not within a SSSI Impact Risk zone.
- 4.2 The nearest locally designated site is Gedling Country Park LNR LWS located 0.35km south.
- 4.3 The no priority habitats are located within the Site or 100m of the Site boundary.

### Habitats

#### Urban – Developed Land; Sealed Surface

- 4.4 The dominant habitat within the Site was an area of hardstanding which comprised concrete laid in a slab formation across the Site. Some of the areas had little management or disturbance and mosses had formed. Four buildings were also located within the Site, with detailed descriptions provided within the Bats Section below.

**Figure 4-1: Hardstanding on-Site**



#### Urban – Artificial Unvegetated; Unsealed Surface

- 4.5 A gravel track into the Site was located to the south-west of the Site.

#### Modified Grassland

- 4.6 A small area of heavily disturbed modified grassland was present along the western, northern and eastern boundaries of the Site which formed part of the grassland field adjacent to the Site.

The grassland areas all supported a short managed sward of approximately 10-25cm with perennial rye-grass *Lolium perenne*, fescue *Festuca* sp. and dock *Rumex* sp.

Vacant/Derelict/ Bare Ground

- 4.7 An area of bare ground had formed along the northern Site boundary due to heavy machinery activity. The bare ground extended into the adjacent grassland field.

Trees

- 4.8 No trees were located within the Site, however three large lime *Tilia* sp. tree canopies hung over the access track into the Site along the south-western boundary of the Site.

**Figure 4-2: Off-Site Lime Trees**



Introduced Shrub

- 4.9 Small stand of staghorn sumac *Rhus typhina* L was located along the norther eastern boundary of the Site.

**Figure 4-3: Introduced Shrub**



Hedgerows

4.10 One hedgerow was present along the western Site boundary:

- H1 was a defunct native hawthorn *Crataegus monogyna* hedgerow measuring approximately 2m by 1.5m. Some small gaps were present but overall this hedgerow was intact and subject to a regular management regime. This hedgerow is considered to be a priority hedgerow due to its composition of over 80% woody native species.

**Figure 4-4: H1**



## **Protected/Notable Species**

### Amphibians

- 4.11 As GCN are widely understood to be unlikely to traverse beyond 250m from any breeding pond (Franklin 1993, Oldham and Nicholson 1986, Jehle 2000, Jehle and Arntzen, 2000) and as the scheme is extremely small scale the zone of influence for GCN is considered to be 250m for this Site.
- 4.12 No ponds were identified within 250m of the Site. As such GCN are presumed likely absent from the locality; particularly as the surrounding urbanisation to the south likely creates extensive barriers to such dispersal. As such GCN will not be discussed further in this report.
- 4.13 The Site supports habitats with scope for common amphibians such as common toad *Bufo bufo* which is a priority species under the NERC Act (2006) such as woodland, grassland, scrub and hedgerows.

### Badger

- 4.14 No evidence of badgers such as hairs, latrines, footprints or setts were recorded during the survey on-Site or within 30m of the boundary; access permitting.
- 4.15 The Site did provide suitable foraging/sett building habitat for badgers. Badgers may cross the Site and so their transient presence cannot be ruled out.

### Roosting Bats

- 4.16 Four buildings were present within the Site, as described below:
- B1 was a single storey outbuilding, located on the south-eastern corner of the hardstanding area. The structure comprised single skin wood and cement boards with singled glazed wooden windows and doors. B1 had a pitched corrugated roof. The building interior was considered to be bright and reasonably exposed furthermore, no features suited to roosting were identified. B1 was assessed as providing negligible potential to support roosting bats.

**Figure 4-5: B1**



- B2 was of a similar construction to B1, but previously used as a stable. This building was located to the west of B1 along the south-western area of hardstanding. Part of this building had an open front with the roof also comprising bitumen felt with a section corrugated. The internal structure of the roof was exposed with no void or underlining and was also considered to have negligible suitability to roosting bats.

**Figure 4-6: B2**



- B3 was an open fronted storage structure comprising of a wooden frame with single skin corrugated sides and roof located on the northern western side of the Site. This building was highly exposed and lacked features suited to roosting. It was considered to have negligible suitability to roosting bats.

**Figure 4-7: B3**



- B4 was a single storey outbuilding with single skin wooden walls and a corrugated roof. Internally the building did not support a loft void and lacked roosting opportunities for bats, as well as being highly exposed. B4 was assessed as providing negligible suitability to roosting bats.

**Figure 4-8: B4**



- 4.17 No evidence of bats was found anywhere on-Site. No other trees or structures were present within the Site boundary, as such roosting bats will not be discussed further in this report.

#### Foraging Bats

- 4.18 The hedgerow (H1) along the western Site boundary provided some value to foraging bats. Given the urban setting and small scale of the Site a diverse range of foraging bats is considered extremely unlikely.

#### Birds

- 4.19 The Site provides scope for common garden birds. Given the small scale and relative level of disturbance on-Site, it is considered extremely unlikely to support a significant bird assemblage or ground nesting species.

#### Reptiles

- 4.20 The Site provides limited opportunities for reptiles due to its overall small scale and sub-optimal habitats. It is considered extremely unlikely a population of reptiles will be present. However, potential for transient individuals cannot be entirely ruled out due to the presence of the hedgerow along the western Site boundary.

#### Invasive Species

- 4.21 No invasive species listed under Schedule 9 of the Wildlife and Countryside Act (1981) were identified on-Site.

#### Other Species

- 4.22 Potential presence of hedgehog cannot be entirely ruled out due to the hedgerows providing suitable refuge, hibernation and foraging habitats for this species and adjacent habitats which provide foraging opportunities.

## 5. EVALUATION

- 5.1 This section identifies the potential effects on ecological receptors prior to mitigation/recommendations for any further work being made.

### **Designated Sites**

- 5.2 Gedling Country Park is located within 0.5km of the Site. It is considered unlikely that the development proposals will have any impact on this designation due to the presence of intervening habitats including urbanised areas, the overall small scale of the Site and the project proposals which are unlike to cause any significant impacts even with regards to additional recreational use generated by the holiday lets.

### **Habitats**

- 5.3 H1 is a priority habitat under the NERC Act (2006) and it is understood to be proposed for retention which is considered advantageous. All of the other habitats within the Site are considered to provide limited value for biodiversity due to their limited floristic value. As such their losses are not considered a significant constraint to development.
- 5.4 All development within the UK should seek to provide biodiversity net gain in accordance with NPPF, 2023. As such any habitat losses should be offset and enhancements sought as part of landscaping of the Site.

### **Species**

#### Common Amphibians and Reptiles

- 5.5 Whilst the Site is considered unlikely to support significant population of these species (through disturbance pressures typical of a domestic property and as the habitats have limited suitability to these species); H1 does have some scope for herptiles. As such mitigation is proposed in Section 6 to protect transient individuals during construction.

#### Badger

- 5.6 It cannot be ruled out that badgers may periodically cross the Site and become injured in open excavations during the construction phase. Badgers are transient in nature and can excavate a new sett at any time. As such mitigation is provided in Section 6 for this species.

#### Foraging Bats

- 5.7 The majority of the Sites habitats are of limited value to foraging bats. However the peripheral hedgerow and adjacent off-Site habitats provide scope for foraging and commuting bats. As such mitigation is provided in Section 6 for this species.

#### Birds

- 5.8 Nesting bird could become injured, and nests could be lost when any pruning or removal of the peripheral hedgerows (or off-Site trees) is required. Prescriptions to manage this risk are therefore set out within Section 6.



Other Species

- 5.9 Other species utilising the Site for foraging and commuting purposes may become trapped or injured in open excavations such as hedgehog. As such mitigation is provided in Section 6.

## 6. RECOMMENDATIONS

### Habitats

- 6.1 To reduce pollution risks the Pollution Prevention Guidelines as listed below should be consulted to advise on pollution control practice's and to ensure construction works are undertaken responsibly:
- PPG1: General Guide to the Prevention of Pollution;
  - PPG2: Above Ground Oil Storage Tanks;
  - PPG3: Use and Design of Oil Separators in Surface Water Drainage Systems;
  - PPG6: Working at Construction and Demolition Sites; and,
  - PPG21: Pollution Incident Response Planning.
- 6.2 Any chemicals or environmentally hazardous material must be kept in dedicated stores, storage tanks will have appropriate bunding and the possibility of fuel spillages will be minimised through good site management.
- 6.3 Trees and hedgerows (canopy and root protection zone) should be protected in accordance with BS5837:2012.
- 6.4 The proposed retention of H1 is considered highly advantageous. If proposals change to include losses of H1, replanting should be conducted elsewhere on-Site at a 2:1 ratio (using native stock) in favour of replanting to achieve a net gain for biodiversity.
- 6.5 Whilst the other remaining habitats are of little floristic value and their losses are not considered a major constraint, to secure gains for biodiversity provision of the following should be included as part of development:
- Native tree planting (5-10 trees);
  - New native species rich hedgerow planting (at least 30m long and seven woody species); and,
  - Native scrub planting.
- 6.6 Other valuable additions to the Site should include bat, bird, hedgehog and invertebrate boxes. All such features should be included within a Biodiversity Net Gain strategy and/or Biodiversity Enhancement Plan for the Site.

### Protected/Notable Fauna

#### Common Amphibians and Reptiles

- 6.7 If any removal of the hedgerow is required it should be cleared using a systematic approach sensitive to the risk of these species being present. This should be completed as follows:
- Vegetation clearance of habitats listed above should only occur in temperatures above 10°C;
  - The vegetation should be reduced to 150mm using hand tools and then left overnight (allowing fauna to freely disperse as habitat becomes less favourable for refuge);
  - The following day removal can commence at the contractors discretion;

- If faunal species found at any point works should stop and a professional ecologist should be contacted for advice;
- Vegetation cleared should not be piled on-Site adjacent to H1 to avoid fauna moving into these features for refuge. They should instead be moved immediately from Site.

6.8 Other mitigation outlined below under the badger heading is also considered beneficial for these species.

#### Badgers

6.9 In order to protect animals including badger during construction phase, good practice methods should be implemented throughout works. Those prescriptions should include:

- Safe storage of chemicals;
- Covering open excavations at the end of each working day or providing an escape route for them to utilise to avoid them becoming trapped;
- Avoidance of creating rubble/earth/waste piles (particularly adjacent to H1) which badger and other small fauna could utilise for refuge or sett excavation;
- Capping open pipe work and sensible storage of building materials within a designated compound/ storage area; and,
- Avoidance of nightwork.

#### Foraging Bats

6.10 A lighting strategy sympathetic to nocturnal fauna is recommended ensuring no artificial light spill occurs towards hedgerows, trees, woodland or off-Site buildings trees or dense vegetation. Any new lighting associated with the development should follow best practice guidelines outlined in Bats and Artificial Lighting at Night (ILP, 2023).

6.11 Lighting should also avoid illuminating any newly installed bat roosting features at the Site.

#### Birds

6.12 As all species receive legal protection during nesting, it is advised to conduct any vegetation removal or pruning (trees or hedgerows) outside of the breeding bird season of March to October (inclusive). Work outside of this period (between November and February inclusive) should still be preceded by a nesting bird check carried out by contractors, as some species can nest all year round.

6.13 If it is necessary to conduct vegetation pruning/ removal within the nesting bird season, any works to suitable vegetation should be preceded by a nesting bird check conducted by a Suitably Qualified Ecologist (SQE). Where nests are encountered, a suitable standoff zone will be implemented, and all works in the area will cease until the chicks have fledged.

#### Other Species

6.14 If during construction a hedgehog is found it should be left in situ, and all works should cease within the vicinity of the area with either a professional ecologist or the Hedgehog Preservation Society contacted for further advice. In most cases the hedgehog can be moved by hand to a nearby off-Site place of safety. However, dependant on the time of year, i.e. if temperatures are

low (below 10°C) and the hedgehog was found within the hedgehog hibernation season (from November to March) then it may be necessary to take the hedgehog to a wildlife sanctuary. Moving a pregnant hedgehog or hedgehog with young can also result in mortality; so moving hedgehogs should be considered the last resort and informed by a professional ecologist.

- 6.15 Please contact the British Hedgehog Preservation Society (Tel: 01584 890801) for advice.
- 6.16 Measures, as outlined above for badger, amphibian, and reptiles, will reduce the risk to hedgehogs which is considered highly advantageous.

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## **APPENDICES**

**APPENDIX 1: Habitat Map**





**Note**

- 1. Do not scale this drawing.
- 2. This drawing is to be read in conjunction with all relevant reports

**Key**

- Red Line Boundary
- Native hedgerow
- Building
- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Introduced shrub
- Modified grassland
- Bare ground



Client

Project Title  
**314 Spring Lane**

Drawing Title  
**Habitat Map**

Drawn:	JMcL	Reviewed:	AM
Project no:	JME_2002	Date:	15/01/24
		Scale:	A3:

Drawing Number  
**JME\_2002\_DR1\_V1**



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