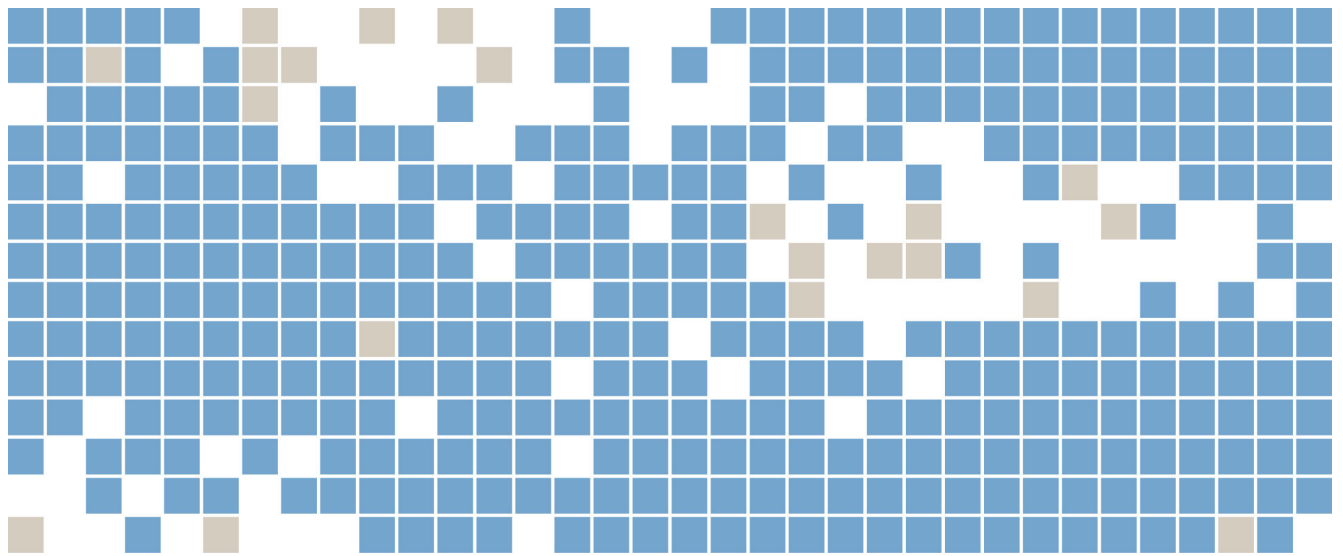




Land at Dyers Road, Stanway

Deliverability Report

Taylor Wimpey UK Ltd

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QM

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1 Introduction

1.1 FOREWORD

1.1.1 This report has been prepared to explain the deliverability issues associated with the potential development site at Dyers Road, Stanway to the south west of Colchester, which is proposed to contain about 250 dwellings.

1.1.2 The site is situated in a reasonably sustainable location, close to a range of local facilities and services which are accessible by modes of transport other than the car.

1.1.3 From research undertaken to date, the site is capable of being drained using SUDS principles. The local and public utilities, which have sufficient capacity to service the development, are available from sources close to the site's boundary. A vehicular access is capable of being implemented without undue delay from Dyers Road.

1.1.4 The Dyers Road site is capable of being developed for 250 dwellings without undue delay.



2 Flood Risk/ Drainage

2.1 INTRODUCTION

2.1.1 This section summarises the main conclusions of the Flood Risk Assessment dated December 2007.

2.2 FLOOD RISK

2.2.1 The site lies within Flood Zone 1 which means that it is at a low risk of fluvial flooding. In accordance with Table D3 of PPS25, the site is therefore suitable for residential development.

2.2.2 Flood risks to the development from sources such as groundwater, sewers, and water mains are deemed to be negligible. There are no watercourses within the vicinity of the site that would pose a significant flood risk.

2.3 DRAINAGE

2.3.1 At present, an indicative masterplan has been prepared for the site, but these outline proposals are subject to change during the LDF process.

2.3.2 The proposed development will result in an increase in impermeable area compared to the existing situation; therefore, it will be necessary to attenuate and control runoff generated from the site. Sustainable Drainage Systems (SUDS) will be implemented throughout the development scheme; infiltration drainage systems will be used where subsoil and groundwater conditions permit, and attenuated positive drainage systems, where not possible. A SUDS hierarchy will be followed, which encourages the use of 'soft' engineering solutions which seek to mimic natural drainage regimes.

2.3.3 The geology of the site indicates that the site is underlain by sands and gravels. It is not possible to say at this stage conclusively whether or not infiltration of surface water will be possible and to what extent. However, the underlying geology indicates that at least some infiltration will be possible.

2.3.4 If infiltration is determined as feasible, it is proposed that roof areas would discharge to lined soakaways and/ or infiltration trenches, while hardstandings and car park areas would discharge via porous paving and geo-cellular infiltration box storage systems. If infiltration rates are deemed insufficient to dispose of all surface water generated then supplementary underground and / or above ground storage may be required to enable runoff to be held on site for up to and including the 1 in 100 year event, with an outfall to the public sewerage system. Porous paving as sealed systems, oversized and / or geo-cellular tanks would be utilised under car park areas.

2.3.5 At this stage the surface water drainage strategy assumes that a positive outfall may also be required to dispose of surface water. Anglian Water have stated that there is the potential to discharge into the private surface water sewer system adjacent to the north western boundary. Consent would be required from the private sewer owner to discharge to that sewer.

2.3.6 On-site sewers will be designed in accordance with Sewers for Adoption 6th Edition, Building Regulations Part H 2002 edition and best practice procedures. Any on-site drainage system will incorporate appropriate pollution control measures such as petrol interceptors and interceptor catch pit manholes upstream of storage areas to minimise the risk of diffuse and point source pollution entering existing public surface water sewers.



2.3.7 Surface water discharge rates will be restricted to the existing 'Greenfield' run-off rate for the site for up to and including the 1 in 100 year critical storm event.

2.3.8 A SUDS methodology will be followed in relation to the site, whereby it is proposed that the predicted storage required for the 1 in 30 year event will be stored below ground. For events exceeding the 1 in 30 and for up to and including the 1 in 100 year event, overland flows will be routed and stored in above ground areas such as infiltration basins or similar areas.

2.3.9 A conservative storage volume for the 1 in 100 year plus climate change event (1 in 100 plus 30%) would be approximately 2,000m³; this assumes that infiltration would not be feasible. If infiltration is feasible then approximately 1,400m³ of storage would be required. Assuming a depth of one metre storage, the approximate area required to provide for the (1 in 100 plus 30%) volume would be 2,000m². This on-site storage could be provided within wet or dry ponds, swales, wetlands or landscaped areas within the development boundary; reference should be made to the EA's SUDS hierarchy.

2.3.10 Unless the drainage system is to be privately maintained, the attenuation and SUDS storage systems will be offered for adoption under a maintenance agreement to the Local Drainage Authority or to a maintenance company set up by the developers.

2.3.11 Details of all proposals for the disposal of foul water from the development site will be defined at a later date as part of the detailed design process.

2.3.12 The impact of climate change on peak rainfall will be assessed with an increase in rainfall intensity of 30% (in line with the requirements of PPS25 table B.2 for the period up to the year 2115).

2.3.13 The development will seek to store overland flows created by a climate change event within the site curtilage. This storage will be provided by ponds, swales, landscaped areas or within the car parking and highway network. Safe/dry pedestrian access will be maintained throughout the lifetime of the development.

2.3.14 In summary, the site is not at risk of fluvial flooding, and SUDS principles will be used to drain the surface water run-off from the site; infiltration drainage systems will be applied where subsoil and groundwater conditions allow, and where not possible the surface water run-off will be attenuated within a positive drainage system.



3 Transport

3.1 INTRODUCTION

3.1.1 This section summarises the main deliverability issues identified within the Transport Assessment that has been prepared for the site.

3.2 VEHICULAR ACCESS

3.2.1 The Transport Assessment contains an indicative access arrangement for a mini-roundabout onto Dyers Road, which would form the main vehicular access to the proposed development site. This roundabout would be constructed on highway land and land within the proposed development site.

3.2.2 There is also potential to provide a vehicular access onto Warren Lane, at a roundabout junction proposed as part of the Stanway Western Bypass. The Transport Assessment shows illustrative access options onto this roundabout. The traffic assessments have not pursued an access onto this roundabout, primarily because the roundabout is to be constructed by others. Consequently, there is no guarantee that the roundabout would be suitable for providing an access.

3.2.3 The Transport Assessment has addressed comments from Essex County Council and the Highways Agency in response to the contents of the preliminary Transport Assessment dated 26 July 2007.

3.3 PEDESTRIAN/ CYCLE ACCESS

3.3.1 The Transport Assessment also identifies three potential locations for pedestrian and/or cycle access from the site, as follows:

- i) extension of the western footway on Dyers Road southwards towards the site, where a link could be provided either into the north-eastern corner of the site, and / or for the footway to be extended to the site access;
- ii) extension of the eastern footway on Warren Lane southwards, with a pedestrian access into the site into its north-west corner; and
- iii) a pedestrian link between the northern site boundary and Egremont Way.

3.3.2 The pedestrian route to Egremont Way would offer the shortest route to the shops and bus stops on Blackberry Road, however it would need to pass through an area of open space where the land ownership is currently unknown.

3.4 OFF-SITE HIGHWAYS

3.4.1 In the local area, the road network is currently congested, particularly around the Tollgate Retail Park, and at the Eight Ash Green interchange on the A12 to the north of the site. A scheme to alleviate this congestion, the Stanway Western Bypass, is currently under construction by others. The northern section of the Bypass has recently been completed, and the southern section appears to be associated with the allocated development site to the west of Warren Lane. The Bypass is scheduled for completion in the next few years.



3.4.2 As a result of the traffic relief that the new Bypass will bring, it is not considered that any off-site junctions would require improvement works to accommodate the traffic generated by the proposed development.

3.4.3 The situation regarding off-site highway improvements will be confirmed following Essex County Council's and the Highways Agency's reviews of the Transport Assessment.

3.5 PARKING AND LAYOUT

3.5.1 Parking will need to be provided in accordance with the Essex Vehicle Parking Standards. The design of the street layout will need to comply with the guidance contained in the Essex Design Guide and the Manual for Streets.

3.6 TRAVEL PLAN

3.6.1 A framework for a Travel Plan is contained in the Transport Assessment which provides details on the developer's intentions to promote the use of sustainable transport modes such as those listed below:

- Welcome packs including travel information for each new dwelling;
- Details of local cycle routes;
- Cycle purchase vouchers;
- Bus and train timetables and route maps;
- Bus travel vouchers; and
- Details of local facilities.

3.7 SUMMARY

3.7.1 In summary there are no transport constraints that inhibit the delivery of the site for residential development.



4 Public Utilities

4.1 INTRODUCTION

4.1.1 This section summarises the findings of the Preliminary Utilities Investigation report, dated December 2007.

4.2 TELECOMS

4.2.1 There is currently a British Telecom overhead line which runs into the centre of the proposed development site from Warren Lane. This overhead line will need to be diverted, however it is not considered that this will be a constraint on the development of the site.

4.3 GAS

4.3.1 No gas mains cross the proposed development site. The nearest gas mains are located in the residential area to the north of the site, and in Warren Lane.

4.3.2 Discussions with the local gas delivery provider confirm that a gas supply is available for the site.

4.4 POTABLE WATER SUPPLY

4.4.1 Anglian Water advise that off-site reinforcement works will be required to the potable water network to accommodate the proposed development. The potential connection to the existing water network would be to the proposed water main in the "Lakelands" development to the west of Warren Lane. A connection to this water main could be made from the north western corner of the site, or along the Warren Lane site frontage.

4.4.2 Potable water is available to the site, and therefore its availability is not a constraint on the development of the site.

4.5 ELECTRICITY

4.5.1 There is an overhead electricity cable that passes across the site which will need to be diverted. The diversion of this cable will not impose a development constraint.

4.5.2 A new substation will need to be provided for the proposed development, which will require a 4m by 4m parcel of land and a vehicular access.

4.5.3 Land for this substation will be made available within the site, and therefore ensure the availability of an electrical supply to the site.

4.6 FOUL WATER

4.6.1 The nearest foul water sewer to the proposed development site is located in Egremont Way to the north of the site. Anglian Water has not carried out a detailed assessment of the capacity of the network to accommodate the development, but will do



so once the development is included in the Local Development Framework consultation documents.

4.7 SUMMARY

4.7.1 From the enquiries that have been made to the utility supply companies, there do not appear to be any constraints on the availability of utilities to supply the development , either in terms of capacity or timescale.



5 Summary

5.1 FLOOD RISK/ DRAINAGE

5.1.1 The proposed development site is identified as having a low risk of fluvial, flooding. Flood risk to the development from sources such as groundwater, sewers and water mains are deemed to be negligible. There are no watercourses within the vicinity of the site that would pose a significant flood risk.

5.1.2 Sustainable Drainage Systems (SUDS), to control runoff at source, will be implemented throughout the development scheme. These will take the form of infiltration drainage systems, where subsoil and groundwater conditions allow, and the surface water will be attenuated within a positive drainage system where not possible.

5.1.3 Surface water runoff will be attenuated on-site for up to and including the 1 in 100 year annual probability event including climate change. There is sufficient land available within the development layout to provide the volume of attenuation storage required to achieve this.

5.2 HIGHWAYS

5.2.1 Vehicular access is proposed from Dyers Road, in the form of a mini-roundabout, which would be constructed on land within the public highway and land within the proposed development site. Potentially an additional vehicular access could also be gained from the proposed roundabout at the southern end of the proposed Stanway Western Bypass.

5.2.2 Footpaths are proposed to be provided alongside Dyers Road and Warren Lane within highway land to provide pedestrian accesses to the site. A third pedestrian access, from the northern boundary of the site could be provided through the existing public open space.

5.2.3 There appear to be no off-site highway works required to accommodate the traffic from the proposed development, subject to the completion of the Stanway Western Bypass, other than the provision of the mini-roundabout access onto Dyers Road.

5.2.4 A Travel Plan will be prepared to accompany a planning application for the development.

5.3 PUBLIC UTILITIES

5.3.1 From discussions held with the public utility supply companies, there would appear to be no constraint on the availability of supplies, or the timescales for their delivery.



Figures

