

Hemel Hempstead  
Waterhouse Square

# Benchmark Standard

Thornfield Properties

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**thornfield**  
*properties plc*

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## **1. Introduction**

- 1.1. This document is intended to provide the benchmark for the quality of design, building, landscaping and materials to be introduced in regeneration of Waterhouse Square, for incorporation in the Development Agreement.
- 1.2. This document is divided into three sections. The first considers the agreed benchmark for the design of the proposed development. The second describes the sustainability terms and the third details the deleterious materials that are not to be used as part of the development.
- 1.3. Whilst this document is not intended to be unduly prescriptive it is intended to provide a clear indication of the quality of the development and building forms to be included in Waterhouse Square. Its purpose is to serve as a guide to expectations for the different scheme elements whilst also specifying minimum requirements where possible.

## **2. Design**

### 2.1. General Design Philosophy

2.1.1. Central to the design philosophy for Waterhouse Square is the concept of balance. This implies a town where:

- Young and old have a shared sense of pride and optimism
- All ages and backgrounds mix happily in a town centre that is vibrant, lively and contemporary;
- the mix between the rural and urban is celebrated in a unique town centre riverside setting;
- the vitality and vibrancy of an enhanced Marlowes is offset by the peace and charm of the waterside environment running through the town;
- the quality of the new replaces the memories of the past;
- the Old Town and the modern town centre complement one another increasing the appeal of the whole;
- residents can move freely through and across the town by a combination of modes of transport – and where walking and cycling are a joy not a nuisance;
- new residents of all ages feel a pride and comfort in knowing that they have made the right choice in Hemel Hempstead as a place to live, work, shop, enjoy leisure time, to bring up a family or to retire.

2.1.2. The design philosophy breaks Waterhouse Square into primary and secondary blocks naturally established by improving east-west connectivity across the site and responding to the existing river landscape.

2.1.3. The built fabric will be designed to respond to the unique presence of the River Gade and its setting, such as by creating garden courts opening onto the riverside public open space.

2.1.4. The level of quality, detailing of architecture, materials uses, the feel of the public realm, of lighting, landscape and signage will need to respect the townscape context of the site (including listed buildings); and be planned comprehensively through the entire development area.

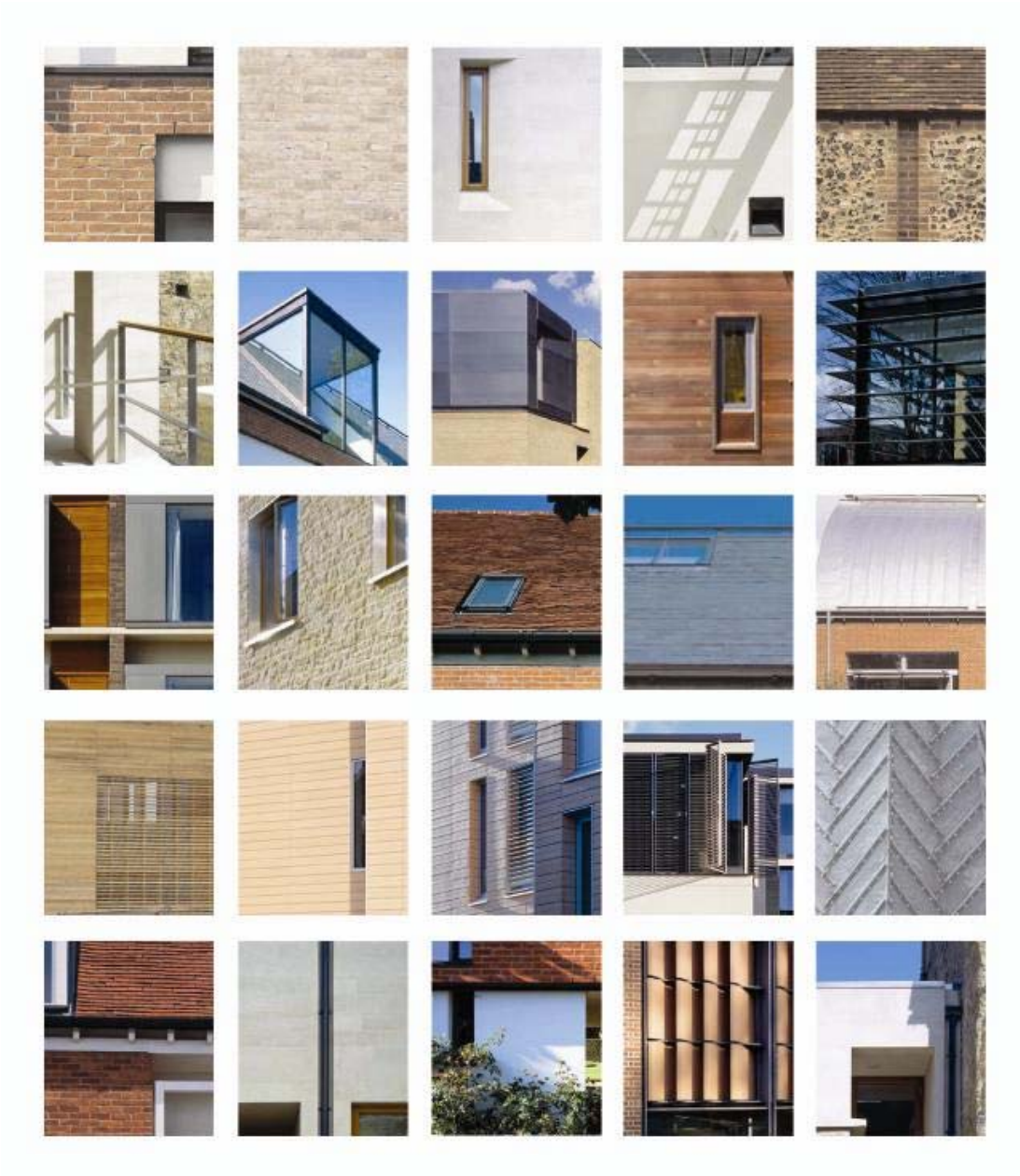
2.1.5. The overriding aim is to provide a development that is of the highest quality and which will significantly boost the wider regeneration of Hemel Hempstead. The design of the development is intended to revive and reinvigorate the town centre, whilst having regard to its overall landscape and context.

2.1.6. For ease of reference we have divided this section into five sub-sections: General Materials; Civic Buildings and Office Buildings; Retail; Residential and Public Realm

2.1.7. In each sub-section we summarise the broad principles of the design standard and provide illustrative images of recent similar high quality developments and materials to indicate the type, style and standard of development that is envisaged.

## 2.2. General Materials

- 2.2.1. The site and its surrounds are generally characterised by two different architectural periods. The “New Town” architecture of the 1950’s and 1960’s and the “Old Town” architecture of the 18<sup>th</sup> and 19<sup>th</sup> Century. There are also a number of listed buildings of various periods, styles and materials immediately outside the area.
- 2.2.2. Across these different building styles there is no predominant building material which characterises the area. The proposals will adopt therefore a combination of the palette of materials which are currently used across the town centre plus appropriate additional materials that reflect modern building techniques, rather than a single homogenous approach that is appropriate for the particular building(s) proposed.
- 2.2.3. The composition and details of each of the individual buildings or, where appropriate, group of buildings on site will use a set of materials to reinforce its relationship with its neighbours, its street context and the context of adjacent listed buildings.
- 2.2.4. Wherever appropriate materials are available and produced locally, their use will be promoted. This encourages a sense of continuity rather than disjuncture and underpins a sound approach to urban design.



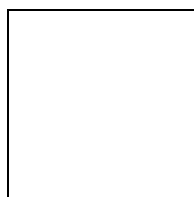
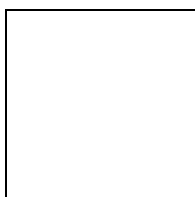
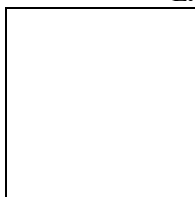
Building materials to be used on the site are to be comparable to or an improvement on the examples shown here.

### 2.3. Civic and Office Buildings

- 2.3.1. Subject to proper planning consideration, it is envisaged that the new West Herts College, Dacorum Civic Offices and Hertfordshire County Council Library, shall be located on the western bank of the River Gade in place of an existing decked car park and in the vicinity of the new Performance Arts Venue.
- 2.3.2. These will be prominent buildings at the heart of the new development. Their design will therefore be of a high quality and in keeping with the surrounding new development along the River Walk and the Civic Square.
- 2.3.3. The initial design work suggests buildings set amongst mature trees, with a close visual connection between the park-side façade and their river setting.



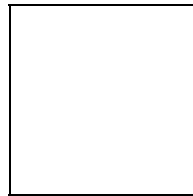
Example external facades of civic and office buildings



Quality of finish for civic and office buildings are to be comparable to or an improvement on the examples shown here.

## 2.4. Retail

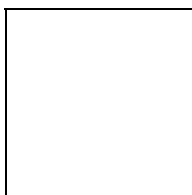
- 2.4.1. There are two main retail areas in the development: Old Town Place and the Civic Core.
- 2.4.2. Old Town Place will draw from and add to the benefits of the Old Town. The building design and use of plant and materials will respect the Old Town character and help to define the centre of the new retail location. Canvas awnings may be appropriate to create a high quality environment for shoppers and residents. Granite setts or other suitable high quality durable materials may be appropriate to define a more relaxed pavement character.
- 2.4.3. A civic core is envisaged that will accommodate the new council offices and other public buildings together with a public square/piazza.
- 2.4.4. The Performance Venue and public piazza should where possible be closely associated with retail and restaurant uses with residential above, where appropriate and shall be of good quality design .

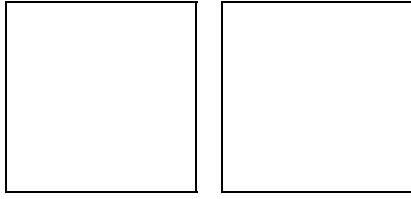


Where A3 uses at ground level are associated with residential uses at upper floors the quality of finish and design approach are to be comparable to or an improvement on the example shown here



The quality of finish and design approach for retail uses are to be comparable to or an improvement on the examples shown here.

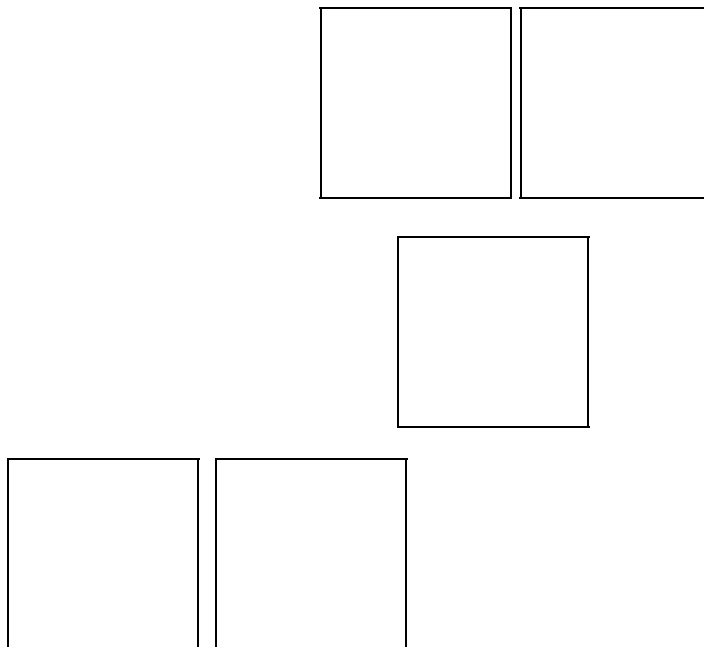




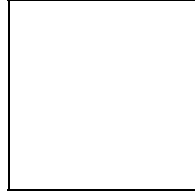
The quality of finish and design approach for retail/A3 uses are to be comparable to or an improvement on the examples shown here

## 2.5. Residential

- 2.5.1. There will be a range of residential development types and styles situated throughout the development that will relate to and respect the location and surrounding uses.
- 2.5.2. The bulk and massing will be designed to respect the existing surroundings and be subject to proper planning considerations taking account of topography, orientation, etc. A height strategy will be prepared as part of the Masterplan process. For example it may be appropriate for there to be a general and gradual increase of building heights in the north-south direction from Queensway to the Civic Quarter from 3 to 8 or more storeys. New buildings will need to be respond to the relatively small scale of the Old Town and the landscape of Gadebridge Park to the north and the intensity of the existing retail centre of Marlowes to the south.
- 2.5.3. Houses and apartments to the north near Gadebridge Park and west along the River Walk will have strong relationship with new parkland and will, in the main, enjoy river views. Where possible mature trees and planting will be retained to maintain a mature landscaped character.
- 2.5.4. Housing and apartments above retail could be located south of Combe Street utilising the same language of design and materials as the rest of site. These buildings however could have a more civic scale and be designed to reflect the nearby listed buildings and to enhance the visual importance of Marlowes as the primary shopping street in the town.



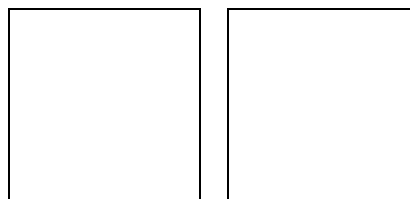
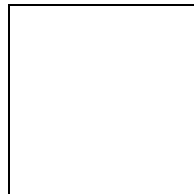
The quality finish and design approach for residential uses of 3 or more storeys are to be comparable to or an improvement on the examples shown here



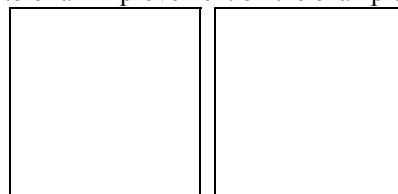
The quality of finish and design approach for residential uses are to be comparable to or an improvement on the examples shown here

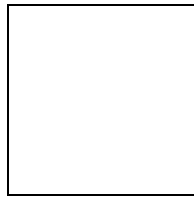
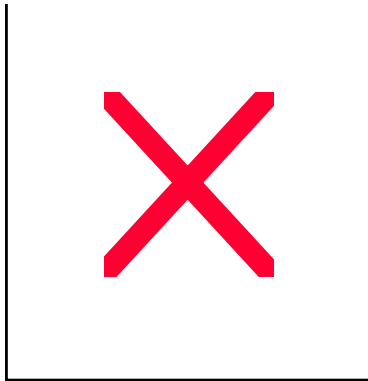
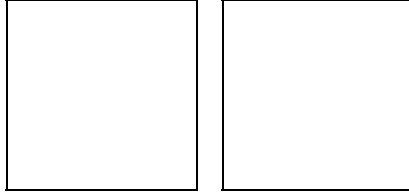
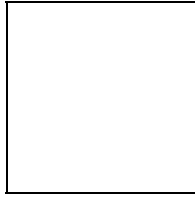
## 2.6. Landscape and Public Realm

- 2.6.1. The landscape of the public piazza within the Civic Core will encompass and connect the public buildings and Marlowes, creating an urban landscape of the highest quality.
- 2.6.2. The design, materials and street furniture will be best utilised to create a vibrant and active public space.
- 2.6.3. By comparison, the landscape and terraces between the public buildings and the river shall be softer and more intimate in character.
- 2.6.4. To the north, at Old Town Place the building design and use of landscaping and materials will respect the Old Town character and help to define the centre of the new retail location.
- 2.6.5. New traffic planning and highway surfacing techniques shall be used across the site to better integrate motor vehicular traffic, bicycles and pedestrians, and to improve the pedestrian link between Gadebridge Park and River Walk.
- 2.6.6. New walkways, planting and attractive lighting will be introduced to upgrade the current river environment. This will include pedestrian bridges and play equipment installed at convenient points along River Walk.
- 2.6.7. River Walk shall run into the Civic Quarter and link up with the enhanced Water Gardens.



The quality of finish and design approach to the new public square/piazza are to be comparable to or an improvement on the examples shown here





The quality of finish and design approach to the public realm are to be comparable to or an improvement on the examples shown here

### **3. Sustainability**

- 3.1. The Building Works are to reflect exemplar development in sustainability terms, incorporating where practically and financially possible the following standards:
- 3.2. The development shall aim to meet the recommendations and requirements of Planning Policy Statement (PPS) 1: Delivering Sustainable Development, 22: Renewable Energy (2004) regarding the use of renewable energy; improving energy efficiency and reducing carbon dioxide emissions.
- 3.3. The Building Works shall incorporate design proposals for minimising the carbon footprint of the development as a whole with the aim of being carbon neutral. This will be achieved through effective integration of the energy, water and waste infrastructure of the site, as well as the implementation of energy efficient measures of the buildings amongst other measures.
- 3.4. The energy and sustainable master planning strategy will focus on the development of high level demand and supply options aimed to deliver low carbon and environmentally responsive buildings.
- 3.5. Site wide energy demand profiles will be analysed under alternative scenarios to establish the most viable technologies. This will include a microclimate review and site appraisal; followed by investigating the options to improve energy efficiency in the buildings (including passive heating/cooling options and ways to reduce energy demand); considering all energy supply options, such as renewable energy, low carbon technologies and energy efficient building services; and then developing a sustainable strategy for the development.
- 3.6. The process will conclude with a high level assessment of the Carbon Footprint of the site and a business case for sustainability that considers Government policy, the capital expenditure; operating expenditure and life cycle costing of the various sustainable options that will have presented themselves.
- 3.7. Renewable energy options will be reviewed to satisfy (or exceed where financially possible) a 10% renewable energy target as a baseline position. The GLA Renewables Toolkit will be used as a guidance to evaluate a range of technologies.
- 3.8. All new residential units are to comply with the Code for Sustainable Homes prevailing mandatory standards; all units constructed by 2013 to meet or better Code Level 4 and all units constructed by 2016 to meet or better Code Level 6.
- 3.9. As part of the above process, we shall consider all environmentally sustainable development tools such as:
  - 3.9.1. a comprehensive rainwater harvesting and SUDS system;
  - 3.9.2. low carbon dioxide emitting Combined Heat and Power (CHP) system such as a district heating and cooling system;
  - 3.9.3. solar water heating;

- 3.9.4. photovoltaic cells (where appropriate);
  - 3.9.5. wind energy (including off-site provision);
  - 3.9.6. geothermal sources such as ground source heat pumps and energy from waste/biofuels
  - 3.9.7. off-setting electricity use via a green provider;
  - 3.9.8. passive ventilation systems
  - 3.9.9. maximising the benefits of passive solar gain through building orientation;
  - 3.9.10. greywater recycling;
  - 3.9.11. cool roofs, building and pavement materials or other similarly low U-Value systems to ensure minimal temperature diffusion and energy consumption costs,;
  - 3.9.12. maximising the design life of the buildings;
  - 3.9.13. renewable materials shall be from a certified source
  - 3.9.14. the entire life cycle of all materials shall be considered with respect to manufacture, transportation and performance.
- 3.10. As part of assessing the viability of each of the above consideration will be given to the following factors:
- 3.10.1. capital cost verses revenue saving potential;
  - 3.10.2. risk and return on investment;
  - 3.10.3. investment/financial asset value;
  - 3.10.4. long term fit for purpose and maintenance enhanced capital allowance issues;
  - 3.10.5. Climate Change Levy (CCL) and Enhanced Capital Allowance (ECA) considerations.
- 3.11. The Building Works are to be subject to a site waste management plan.

#### **4. Other Considerations**

- 4.1 Car Parks to meet or better where possible the “Park Mark® Safer Parking Standards – see separate annex”.
- 4.2 All construction to be undertaken under the aegis of the Considerate Constructors Scheme.

## **5 Deleterious Materials**

- 5.1 The Building Works are to be built to a high quality standard and in accordance with all current building regulations. They are to exclude all of the the following materials:
- 5.1.1 High Alumina cement or concrete
  - 5.1.2 wood wool slabs in permanent framework
  - 5.1.3 calcium chloride admixtures for use in reinforced concrete
  - 5.1.4 asbestos or asbestos-containing products as defined in the Asbestos Regulations 1987 or any statutory modification or re-enactment thereof
  - 5.1.5 asbestos substitutes or any naturally occurring or man-made fibres for example rock-wool or slag wool with a thickness of 3 microns or less and a length of 200 microns or less unless they are appropriately sealed to prevent migration of fibres
  - 5.1.6 Crocidolite asbestos (Blue asbestos)
  - 5.1.7 materials which are generally composed of fibres either man-made or naturally occurring which have a diameter of 3 microns or less and a length of 200 microns or less or which contain fibres not sealed or otherwise stabilised to ensure that fibre migration is prevented
  - 5.1.8 aggregates for use in reinforced concrete which do not comply with British Standard Specification 882: 1992 and aggregates for use in concrete which do not comply with British Standard Specification 8110:1985
  - 5.1.9 lead paint or any other materials containing lead which may be ingested inhaled or absorbed except where copper alloy fittings containing lead are specifically required in drinking water pipework by any relevant statutory requirements
  - 5.1.10 urea formaldehyde foam or other materials which may release formaldehyde in quantities which may be hazardous with reference to any limits set by the Health and Safety Executive
  - 5.1.11 vermiculite unless it is established as being fibre-free
  - 5.1.12 any of the products containing cadmium that are referred to in the Environmental Protection (Controls on Injurious Substances) (No. 2) Regulations 1993
  - 5.1.13 any timber treated with pentachlorophenol
  - 5.1.14 calcium silicate or sandlime bricks or tiles
  - 5.1.15 silicate bricks or tiles

- 5.1.16 slipbricks
- 5.1.17 vermiculite plaster
- 5.1.18 polyisocyanurate foam
- 5.1.19 polyurethane foam
- 5.1.20 extruded polystyrene other than low ozone depletion materials
- 5.1.21 Spanish artificial slates concrete blocks and concrete products made with aggregates from rock types such as slate shales and sandstones with a high proportion of clay material and in particular pyritic slates
- 5.1.22 Woodcrete or chipcrete
- 5.1.23 fibre reinforced glass
- 5.1.24 tricovite concrete
- 5.1.25 any other materials not in accordance with statutory requirements British Standards Code of practice and good building practice current at the time of specification
- 5.1.26 other substances generally known in the architecture profession at the time of their specification to be deleterious to the durability of the Building Works or health and safety whether in themselves in the quantities used or in conjunction with other substances
- 5.1.27 Pitch Polymer dpc
- 5.1.28 Materials in which CFC's, HCFC's or HFA's have been used as blowing agents.
- 5.1.29 The source of species of hardwood from the tropical rainforest is not permitted unless they are obtained from a sustainable source.
- 5.1.30 Chloroflouorocarbons or any goods and/or materials containing the same.
- 5.1.31 Polychlorinated biphenyls or any goods and/or materials containing the same.
- 5.1.32 CFC Based refrigerants.
- 5.1.33 Sea dredged aggregates
- 5.1.34 Lindane – wood treatment/insecticidal spray.
- 5.1.35 Pentachlorophenol – biocide/wood preservative.
- 5.1.36 Tributyltin (TBT)
- 5.1.37 PVC.