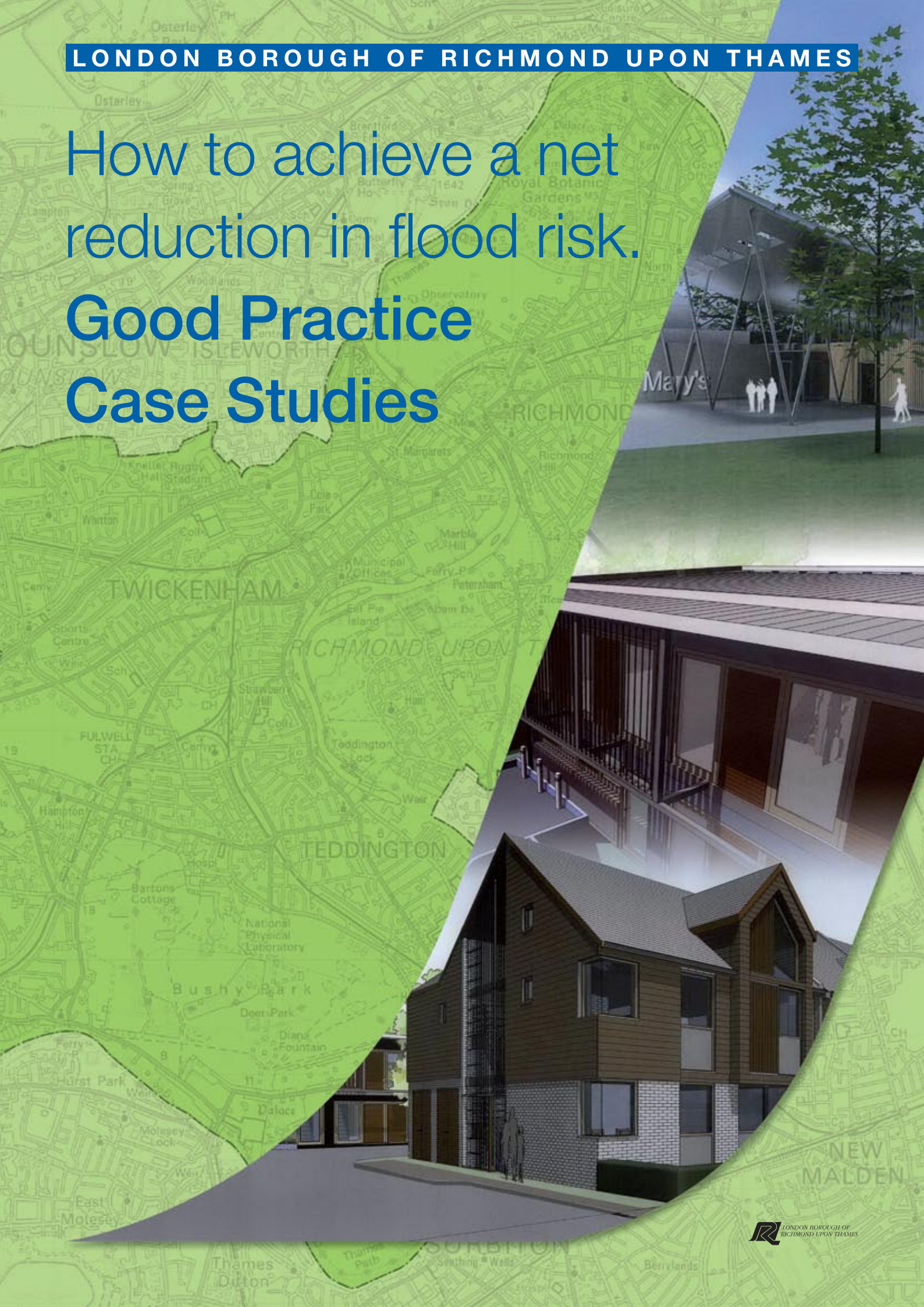


How to achieve a net reduction in flood risk.

Good Practice Case Studies



INTRODUCTION

The following sites have been selected as good practice sites to demonstrate how a net reduction in flood risk can be achieved with good partnership working and positive planning.

This is just a small selection of projects within the London Borough of Richmond upon Thames, where a net reduction in flood risk has been achieved.

The following case studies are intended as guidance for planning applicants and developers and demonstrate how net flood risk can be reduced as part of a redevelopment proposal. The principles set out within these case studies can be applied to other development proposals, all of which can collectively lead to an overall reduction in flood risk within the borough.

1



GOOD PRACTICE SITES

1. 9-23 THIRD CROSS ROAD,
TWICKENHAM

2. ST. MARY'S UNIVERSITY
COLLEGE, TWICKENHAM

2



GOOD PRACTICE SITE I

9-23 THIRD CROSS ROAD, TWICKENHAM – WYNNSTAY PROPERTIES PLC

Third Cross Road lies approximately one mile south of Twickenham centre and is one of the residential streets linking the busy Hampton Road and Staines Road leading into Twickenham. The road contains both educational and commercial sites but is primarily residential in character.

Number 9-23 Third Cross Road is occupied by a single storey double height warehouse constructed in the 1970s, which are now nearing the end of their useful life, and an open tarmac parking forecourt. The existing use provides limited employment and the site is underused in this provision.

The site has now planning permission for a mixed-use development. The redevelopment will include a new commercial building for employment with BREEAM “excellent” and residential development built to code level 4, whilst at the same time protecting local amenity.

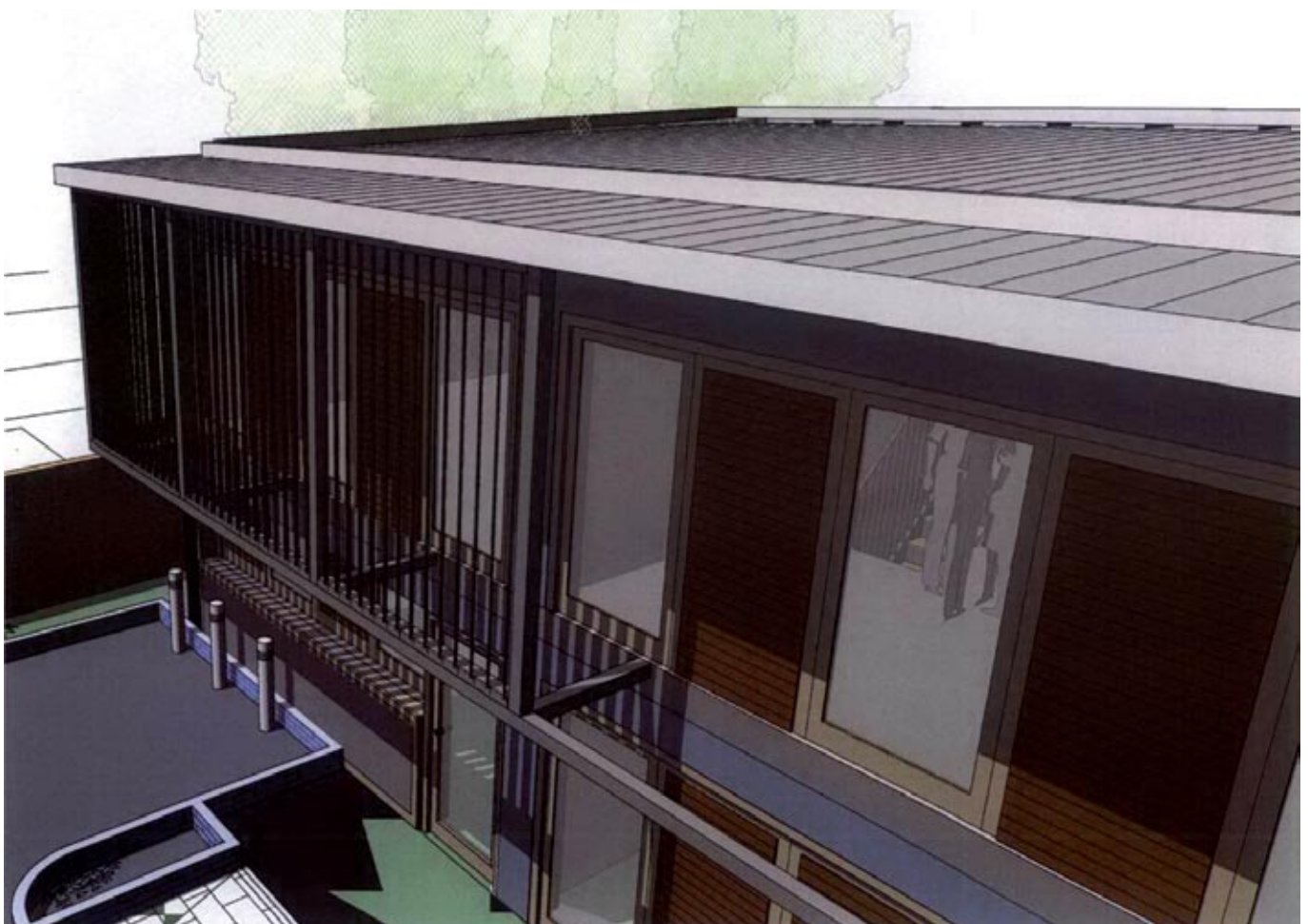
The area is located within a low probability flood risk area, with a less than 1 in 1000 annual probability of flooding. However, the map showing areas susceptible to surface water flooding indicates that there is a less to intermediate risk of surface water flooding.

Flood risk management benefits and net reduction in flood risk

- Much of the existing site was tarmac; permeable surfaces for the new access road and parking will aid sustainable drainage and reduce surface water runoff
- Removal of hard landscaping to be replaced with green landscaped areas to increase infiltration and reduce surface water runoff
- Installation of a green roof on the commercial building which will contribute to a reduction in surface water runoff and reduce potential risk of flash flooding
- There will be a reduction in surface water runoff from the site as a result of the development and hence a net reduction in flood risk

Other sustainable benefits

- BREEAM Office “excellent” rating for the commercial building
- Code for Sustainable Homes Level 4 for residential element





- Incorporation of a range of energy efficiency measures, including low energy lighting and control, community heating and combined heat and power
- Reduction in predicted CO2 emissions by at least 20% through the use of on site renewable energy; installation of a ground-source heat pump and solar thermal system
- Water saving and recycling techniques; rainwater harvesting by means of rain water collection will be implemented in all private gardens and commercial open space
- Use of environmentally-friendly materials, such as timber from sustainable sources
- Wider benefits (i.e. biodiversity) through the incorporation of a green roof on the commercial building
- Passive design to minimise overheating in the summer and retain heat in the winter
- Biodiversity benefits through the introduction of landscaping, private gardens, trees, planting and green roofs



Link to planning application 08/2651/FUL – 9-23 Third Cross Road, Twickenham:
http://www2.richmond.gov.uk/PlanData2/planning_caseno.aspx?strCaseNo=08/2651/FUL

GOOD PRACTICE SITE 2

ST. MARY'S UNIVERSITY COLLEGE, TWICKENHAM – ST. MARY'S COLLEGE

St. Mary's University College is located off Waldgrave Road in Strawberry Hill, Twickenham. It is a high performance centre for sport and the largest and busiest centre in London for the English Institute of Sport. The successful London bid for the 2010 Olympic Games means that the demand for places on sport-related programmes and the pressure on accommodation is increasing.

The site to the south west of the campus adjacent to the existing sports hall, gymnasium and Waldegrave Road will be redeveloped. This is currently an area of hard standing, previously a redgra (a hard court surface) all weather pitch that has been used as an overspill car park for the college. The existing buildings are considered inadequate and dilapidated.

The site has now planning permission to improve and enlarge the existing accommodation for sport with the aim of enhancing the appearance of the campus to

make it a more attractive place to study and visit. The redevelopment involves the provision of approximately 1,950m² of new build accommodation and 2,050m² of remodelled space.

The majority of the site is located within a medium probability flood risk area, which has between a 1 in 100 and 1 in 1000 annual probability of flooding. The south west corner of the site is located within a low probability flood risk area, which also includes the existing pitch that has not been used as such for a few years due to poor drainage.

Flood risk management benefits and net reduction in flood risk

- All existing hard standings including new access road and parking will be replaced with permeable surfaces which will aid sustainable drainage, increase infiltration and reduce surface water runoff
- There will be a reduction in surface water runoff from the site as a result of the development and hence a net reduction in flood risk

Other sustainable benefits

- BREEAM Schools "excellent" rating
- Planting of trees and hedges



- Incorporation of energy efficiency measures
- Reduction in predicted CO2 emissions by at least 20% through the use of on site renewable energy; installation of a ground-source heat pump and solar panels
- Incorporation of water saving techniques, including rainwater harvesting
- Biodiversity benefits through the introduction of landscaping, trees and hedges

Link to planning application 07/4107/FUL - St Marys University College:

http://www2.richmond.gov.uk/PlanData2/planning_caseno.aspx?strCaseNo=07/4107/FUL



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or minicom 020 8831 6001

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اگر در فهمیدن این نشریه مشکلی دارید لطفاً به میز پذیرش
در آدرس قید شده در زیر مراجعه نمایید تا ترتیب ترجمه
تلفنی برایتان فراهم آورده شود:

Farsi

إذا كانت لديك صعوبة في فهم هذا المنشور، فنرجو زيارة الإستقبال في
العنوان المعطى أدناه حيث بإمكاننا أن نرتب لخدمة ترجمة شفوية
هاتفية.

Arabic

ਜੇਕਰ ਤੁਹਾਨੂੰ ਇਸ ਪਰਚੇ ਨੂੰ ਸਮਝਣ ਵਿਚ ਮੁਸ਼ਕਲ ਪੇਸ਼ ਆਉਂਦੀ ਹੈ ਤਾਂ ਹੇਠਾਂ
ਦਿੱਤੇ ਗਏ ਪਤੇ ਉੱਪਰ ਰਿਸੈਪਸ਼ਨ 'ਤੇ ਆਓ ਜਿੱਥੇ ਅਸੀਂ ਟੈਲੀਫੋਨ ਤੇ ਗੱਲਬਾਤ
ਕਰਨ ਲਈ ਇੰਟਰਪ੍ਰਿਟਰ ਦਾ ਪ੍ਰਬੰਧ ਕਰ ਸਕਦੇ ਹਾਂ।

Punjabi

LONDON BOROUGH OF RICHMOND UPON THAMES

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