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Chatham Maritime Interface Land Sustainable Transport Strategy

May 2010

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1 Introduction

1.1 INTRODUCTION

1.1.1 WSP Development and Transportation has been commissioned by the South East of England Development Agency (SEEDA) to prepare a Sustainable Transport Strategy (STS) which will inform a Development Brief Supplementary Planning Document (SPD) for the Chatham Maritime Interface Land development site in Medway. The site is located on the corner of Dock Road and Western Avenue, as shown on ***Figure 1***.

1.1.2 Medway Council is the Local Planning Authority and the Local Highway Authority.

1.1.3 The site was historically part of the working Chatham Dockyard, some remaining elements of which are now operated as a tourist attraction. The site is currently partly disused, and partly used for car parking associated with the tourist elements of the Historic Dockyard attraction.

1.1.4 This report does not consider any specific development proposals, but does broadly consider an outline Masterplan which identifies land use and massing recommendations. The STS seeks only to identify the context of the development, the constraints (in terms of transportation and movement), and the transportation provisions which should be considered as part of future development.

1.1.5 The site lies within an area which has been the focus of a significant amount of development over the past decade, much of which was led by SEEDA, and a significant amount of proposed local development is still to be completed.

1.1.6 A previous Masterplan for the site was prepared on behalf of City Loft Developments, but this was never taken to planning application, or implemented. This previous Masterplan considered a development comprising principally residential uses, (some 1200 dwellings) plus commercial space and other ancillary land uses.

1.1.7 Discussions with Medway Council took place at the time of the preparation of the initial strategy, and further consultation has taken place more recently to assess surrounding constraints, current proposals and strategies, and the likely requirements for future assessments.

1.2 SCOPE OF REPORT

1.2.1 The remainder of this report is set out as follows:

- Section 2 reviews the existing Accessibility and Sustainability of the site;
- Section 3 considers Highway Access Issues;
- Section 4 identifies Committed Development in the local area; and
- Section 5 sets out the Transport Strategy for the site, based on the identified constraints and opportunities.

2 Accessibility and Sustainability

2.1 BASELINE LOCAL TRAVEL CHARACTERISTICS

Introduction

2.1.1 To identify the principal routes and opportunities for travel by sustainable modes, the baseline travel characteristics and facilities in the local area have been identified. As the type of proposed development is currently undefined, the key origins and destinations, and therefore routes, for travel for multiple purposes have been considered. The accessibility of the site by foot is shown in ***Figure 2***, accessibility by cycle is shown in ***Figure 3*** with designated cycle routes show on ***Figure 4***, key local destinations and facilities are summarised on ***Figure 5***, and local bus services are summarised on ***Figure 6***.

Employment

2.1.2 The 2001 census data provides origin and destination data for work based trips, for Census Output Areas (COAs), which are groupings of around 100 dwellings within a Ward. This data provides an indication of the origins of employment trips which might travel to employment development at the site, and the destinations of trips which might be generated by residential development at the site. The key destinations are summarised below for a collection of COAs in the local area which includes areas with a variety of employment opportunities and variety of socio-economic characteristics:

Trip Origin / Destination	Destination of Employment Trips Generated by the Area [(a)]	Origin of Employment Trips attracted to the Area [(b)]
Inner London	14%	1%
Outer London	4%	3%
London Total	19%	4%
Canterbury, Kent	1%	2%
Dartford, Kent	2%	2%
Gravesham, Kent	2%	3%
Maidstone, Kent	6%	5%
Swale, Kent	3%	6%
Tonbridge and Malling, Kent	4%	3%
Other Districts in Kent	6%	3%
Kent Total	21%	24%
Chatham Central, Ward	1%	3%
Gillingham North, Ward	9%	10%
Gillingham South, Ward	7%	6%
Rainham Central, Ward	1%	4%
River, Ward	24%	7%
Rochester South, Ward	2%	3%
Strood Rural, Ward	3%	2%
Strood South, Ward	2%	2%
Twydall, Ward	1%	4%
Watling, Ward	2%	4%
Other Wards in Medway	6%	25%
Medway Total	58%	70%
Other Authorities	2%	2%

Note (a) Applicable to Residential development on the site

(b) Applicable to Employment uses on the site

2.1.3 Clearly, London is an important destination for employment trips generated by the site, which suggests that rail would be an attractive travel mode for residents of the site. The desire to travel to London may be higher for any residents of the proposed development as the high speed services to London St Pancras available from Chatham and Gillingham rail stations will significantly reduce journey times to central London, attracting a greater number of people employed in London to the area.

2.1.4 Kent is a similarly important destination, but destinations within Kent are far more widely distributed, although there are bus services available from Chatham Town Centre to some of these destinations, including Maidstone which is the single most attractive area in Kent for employment trips form the area.

2.1.5 Some 58% of employment trips generated by the area are to Wards within Medway. It will therefore be important to optimise the attractiveness of the Medway Bus Network, which centres on Chatham. A great many employment trips generated by the site are to River Ward (within which the site is located), and Gillingham North Ward which is immediately adjacent to the site, indicating a great potential for these journeys to be made by foot. Many of the recent nearby developments have included significant employment opportunities, and a development which offers both residential and employment opportunities may further increase the potential for short, internalised, employment trips.

2.1.6 Key employment areas within Medway, in addition to Medway Maritime, include the Medway City Estate, Gillingham Business Park, the Knight Road Industrial Estate in Strood, and the Rochester Road Commercial Estate in Rochester.

2.1.7 Employment trips attracted to the site are attracted principally from within Medway (70%) and are generally spread across the authority. It would therefore be important to provide a strong link to Chatham Town Centre bus interchange, where bus services are focussed.

2.1.8 This data must be read bearing in mind the significant amount of development which has taken place in the Chatham Maritime Area since 2001 which has increased the amount on local employment opportunity.

Education

2.1.9 The bulk of education trips are principally attracted to primary and secondary schools. Given the significant amount of further and higher education available in the Chatham Maritime area, this may be a significant attraction for trips, if uses include student residential accommodation, or mainstream residential uses rented privately as student accommodation. The bulk of such trips would typically be very local and made by foot to the nearby campuses.

2.1.10 There are four primary schools in the immediate vicinity, all around 20 minutes walk from the site. These are St. Mary's Island Primary School, Skinner Street Primary School, and Burnt Oak Primary School. The current or proposed capacities of these schools are not known and would need to be reviewed with the education authority depending on the scale of any residential development proposed on the site.

2.1.11 In spite of the relatively good accessibility of the nearby primary schools, and opportunity for journeys to be made by foot, primary school trips are often made by car, partly because of trip linkage with other journeys (to work for example), but partly because journeys with children are often more awkward than journeys without. Minimising the primary school journey distance, to the point of internalising trips, would serve to reduce the number of car journeys generated by the site.

2.1.12 There are a number of secondary schools in Medway, the closest to the site being New Brompton College which is around a 25 minute walk from the site. St John Fisher Catholic School and Fort Pitt Girls Grammar School are around 30 minutes walk from the site. A number of other secondary schools, including single and mixed sex schools and selective and non selective, are within an acceptable 5km cycle distance, and are served by bus routes which can be accessed from Chatham Town Centre, or closer to the site. Accessibility to these services should therefore be optimised.

2.1.13 A nursery school is located immediately adjacent to the site, the Jigsaw Day Nursery, and a number of others are located within a 10-15 minute walk.

Retail

2.1.14 Shopping can be split into two main categories, convenience shopping and comparison shopping.

2.1.15 The closest convenience retailing is a Costcutter on Brompton High Street which is less than 10 minutes from the site, and a Co-op on Maritime Way which is around 10 minutes walk from the site. Other convenience shopping facilities are located further from the site.

2.1.16 Larger convenience retailing is available at Sainsbury in the Pentagon Centre in Chatham Town Centre and Tesco also in the town centre. These are 15 and 25 minutes walk from the site respectively, but larger convenience retail trips are more likely to be made by bus or car than by foot, given the weight of shopping.

2.1.17 Further afield in Medway there is a wide range of choice in bulk food shopping facilities including a Morrisons store in Strood, Tesco stores in Strood and Gillingham, a Somerfield store in Gillingham, a Sainsbury's Savacentre in Hempstead Valley Shopping Centre and an Asda store in Chatham. A new Sainsbury's store is proposed at Anthony's Way in Strood, which could be a 20 minute walk from the site, but pedestrians and cyclists are prohibited in Medway Tunnel.

2.1.18 There are comparison shopping opportunities within close proximity of the site. The Dockside Factory Outlet Shopping Centre which is adjacent to the site to the north offers a range of comparison retailers, including a Choice (Next), Marks & Spencer, and a The Range department store.

2.1.19 The nearest major town centre offering a wide range of mainstream comparison shopping opportunity is Chatham Town Centre (around 15-25 minutes walk from the site) which includes the Pentagon shopping centre. Gillingham Town centre provides a less attractive range of comparison retail shops and is slightly further from the site (20-30 minutes walk from the site), and is therefore likely to be a less attractive destination. Hempstead Valley Shopping Centre is accessible by bus from Chatham Town Centre and offers shopping opportunities which are not available in Chatham Town Centre. The large regional shopping centre Bluewater is accessible by bus from Chatham Town Centre, as is Maidstone Town Centre.

2.1.20 Should the site be developed for a substantial level of residential development, it may be beneficial to provide a local convenience store to serve the needs of both the site and adjacent residents and businesses within the Historic Dockyard.

Recreation

2.1.21 There are a number of green open spaces within close proximity of the site, the nearest being on St Mary's Island around 15 minutes from the site.

2.1.22 Within walking distance of the site there is an abundance of leisure facilities. At the Dockside Shopping Complex / Dickens World, a mix of restaurants and bars are provided, together with a multiplex cinema in addition to the retail opportunities already discussed.

2.1.23 In Chatham Town Centre, the Pentagon Shopping Centre (around 15 minutes walk, or up to 6 minute bus ride, from the site) provides restaurants, cafés, a bowling alley, a ladies' fitness centre and a supervised play area. Around half an hour walk from the site, The Strand provides outdoor leisure facilities including swimming, pitch and putt, miniature golf, and equipped play areas.

2.1.24 Around 15 minutes walk, or 2 minute bus ride, from the site the Black Lion Leisure Centre, which is currently being expanded to provide improved facilities, linked to the 2012 Olympics, offers facilities such as swimming pools, a fully equipped gym, crèche, badminton courts, indoor and outdoor basketball courts, indoor football pitches and squash courts.

2.1.25 Via the bus services and rail services available from Chatham Town Centre, other leisure facilities are available further afield.

Healthcare

2.1.26 Medical Centres / GP Surgeries, Pharmacies, and Dentist Surgeries are all accessible within a 10 minute walk, at Brompton High Street. Other facilities are available on St Mary's Island at a similar distance from the site and further afield.

2.1.27 The Medway Maritime Hospital, which includes an Accident and Emergency (A&E) department, is located in Gillingham around a 30 minute walk from the site, or an 8 minute bus ride.

Key Facilities Assessment

2.1.28 SEEDA sets out sustainability criteria for residential development including a checklist for accessibility to key facilities. This is considered below.

TABLE 2.1 SEEDA SUSTAINABILITY CHECKLIST

Facility/Desirable Distance	Threshold	Nearest Facility	Distance
Shop selling food and fresh groceries	500m	Costcutter, High Street, Brompton	≈700m
Post Box	500m	Post Office, Maritime Way	≈900m
Children's Playground/amenity area	500m	St Mary's Island	≈1200m
Postal facility	1000m	Chatham	≈1600m
Bank or cash point machine	1000m	Cash point within the Dockside Outlet Centre	≈500m
Pharmacy	1000m	Brompton Pharmacy, High Street, Brompton	≈700m
Primary School	1000m	St Mary's Island	≈1400m
Medical Centre	1000m	Brompton Medical Centre, Garden Street, Brompton	≈700m
Leisure facilities	1000m	Cinema, Bars, Restaurants adjacent to Dockside Outlet Centre	≈500m
Local meeting place/community centre	1000m	St Mary's Island	≈1400m
Public House	1000m	In Dickens World	≈500m
Public park or village green	1000m	St Mary's Island	≈1200m
Childcare facilities (nursery/crèche)	1000m	Jigsaw Day Nursery	≈100m

2.1.29 Based on the above assessment, if a significant residential development is included at in the final scheme, it may be appropriate to supplement this with convenience store (although there are two existing facilities slightly over 500m from the site), a post box, children's playground/amenity area and other community uses. Further leisure facilities could also be considered, such as a health and fitness centre. Additional ancillary facilities should be considered dependent on the final development proposals.

Conclusion

2.1.30 From the above review of baseline conditions, it is evident that the principal routes which are key to maximising the potential for sustainable travel from the development, are the routes between the site and:

- Chatham Bus Station
- Chatham Railway Station
- Chatham Town Centre

2.1.31 The assessment also identifies that there may be potential to reduce the need to travel outside of the site by providing the following facilities if a large component of residential or student accommodation is included in the scheme:

- a convenience store;
- a post box;
- children's playground/amenity area
- other community uses; and
- a health and fitness centre

2.1.32 Other uses which might assist with improving travel patterns, and reduce the need to travel outside of the site could include:

- Additional healthcare facilities within the site, such as a medical centre and pharmacy, potentially linked to a community centre use

2.1.33 As the development of the Interface land is being progressed there may be opportunities to accommodate some short term park and ride facilities to assist in the regeneration of Chatham Town centre or to assist where events are being held within the town centre. It is not however considered to be a viable or practical long term use on the site.

2.2 PUBLIC TRANSPORT

2.2.1 The key destinations for travel from the site are considered above. The key public transport routes from the site, which provide access across the Medway Towns and beyond to these destinations, are considered below.

Bus Services

2.2.2 The bus routes available in the vicinity of the site are shown on ***Figure 5***. There are two principal locations from which bus services are available in close proximity to the site; these are near the Dock Road / Western Avenue roundabout (less than 5 minutes from the site) on the north east corner of the site, and close to the Dock Road / Wood Street junction (around 5 minutes from the site). Services in both directions are available at both these locations. The typical weekday frequencies and routes of these bus services are summarised below.

TABLE 2.2 BUS SERVICES FROM WESTERN AVENUE / DOCK ROAD

	Frequency[a]	
	Northbound	**Southbound**
Service:140 / 141 Route: Chatham - Chatham Maritime	3 (every 20 minutes)	3 (every 20 minutes)
Service: 100 Route: Chatham - Chatham Maritime	3 (every 20 minutes)	3 (every 20 minutes)
Service: 151 Route: Strood - Chatham - St Mary's Island	Irregular Service	Irregular Service
Service: 196 Route: Chatham - Rochester - Grain	Irregular Service	Irregular Service
Service: 796 Route: Chatham - Rochester - Grain	Irregular Service	Irregular Service
Service: Dockside Shuttle Route: Chatham Town Centre - Chatham Dockside	6 (every 10 minutes)	6 (every 10 minutes)

Note: (a) Typical weekday frequency (services per hour) in the direction specified

2.2.3 The above table identifies that an average of 12 buses per hour (one bus every 5 minutes) in each direction pass the site on Dock Road. The table below, identifies that a further 14 buses per hour (one bus every 4.3 minutes) are available in each direction from Dock Road by Wood Street; this is a total of 26 buses per hour at this location.

TABLE 2.2 BUS SERVICES FROM WOOD STREET / DOCK ROAD

	Frequency[a]	
	Eastbound	**Southbound**
Service:113/114 Route: Chatham (exc rail station) - Gillingham - Wigmore - Hempstead Valley	1 (every hour)	1 (every hour)
Service: 101 Route: Gillingham - Chatham - Maidstone	4 (every 15 minutes)	4 (every 15 minutes)
Service: 116 Route: Chatham - Gillingham - Medway Maritime Hospital - Hempstead Valley	3 (every 20 minutes)	3 (every 20 minutes)
Service: 182 Route: Chatham - Brompton - Gillingham - Twydall	6 (every 10 minutes)	6 (every 10 minutes)
Service: 121 Route: Chatham - Gillingham - Rainham - Otterham Park	Irregular Service	Irregular Service
Service: 327 Route: Sittingbourne - Gillingham - Chatham	0.5 (every 2 hours)	0.5 (every 2 hours)
Service: 156 Route: Hospital - Chatham - Queen Mother Court - Rochester Esplande	Irregular Service	Irregular Service
Service: 197 Route: Medway Hospital - Chatham - Upnor - Lower Stoke	Irregular Service	Irregular Service
Service: 711 Route: Medway Towns – Lakeside – Romford	Irregular Service	Irregular Service

Note: (a) Typical weekday frequency (services per hour) in the direction specified

(b) Excludes those services which are also available from Western Avenue / Dock Road

2.2.4 There are a significant number of services within the vicinity of the site linking to Chatham town centre bus station for a wider range of services, or directly providing services to destinations such as Hempstead Valley, Gillingham and Maidstone.

2.2.5 From immediately adjacent to the site at the Western Avenue / Dock Road stops, there is, on average, 1 service every 5 minutes in each direction between the site and Chatham Town Centre. It is understood, from Medway Council, that the Dockside shuttle is currently provided through a financial contribution delivered through a planning consent. However, Medway Council have advised that this service will run in perpetuity. All of these services also run to the Chatham rail station.

2.2.6 From the Wood Street / Dock Road stop, a further 14 services per hour are provided between the site and Chatham Town Centre (only 1 of which does not also serve the rail station). On average therefore, there is a service every 2.3 minutes in each direction between the site and the Chatham bus and rail stations (so an average wait time of 1.2 minutes).

2.2.7 The average journey time between the Dockside and Chatham Town Centre is 7 minutes, so probably 6 minutes from the Western Avenue / Dock Road stops, and 5 minutes or less from Wood Street / Dock Road. To/from Chatham rail station is typically 11-12 minutes.

Rail Services

2.2.8 The High Speed 1 Rail line now runs though Chatham and Gillingham rail stations (as of 13th December 2009) providing 2 services per hour in each direction to Faversham to the east and London St Pancras to the west. Average journey times to these terminal destinations are only 26 minutes and 42 minutes respectively using these high speed services from Chatham.

2.2.9 Regular services provide further travel opportunities to key London interchanges at Victoria, London Bridge, Cannon Street, Charing Cross and Waterloo East. Rail access to the Medway towns is generally good with connections to Dartford, Gravesend, Bromley and London to the west and Sittingbourne, Faversham, Canterbury and Dover to the east.

2.3 PEDESTRIAN AND CYCLE ACCESSIBILITY

2.3.1 Pedestrian and cycle infrastructure in the immediate vicinity of the development is modern and constructed to a high standard. There is limited scope for improving facilities in the immediate vicinity of the development. Land ownership issues immediately south of the development, combined with the level differences between the site and the local pedestrian/cycle networks, further limit the scope for local improvement.

2.3.2 National Cycle Route 1 runs east to west through Medway via the Gillingham Northern Relief Road and passes by the site along Dock Road. The route includes off road cycle lanes along the relief road and there are extensive toucan facilities at the Gillingham Gate junction to allow accesses to this route from Medway Road. On Dock Road there are existing on road cycle lanes.

3 Highway Access Issues

3.1 INTRODUCTION

3.1.1 Any development will generate vehicular traffic, and whilst the above assessment has identified a great potential for travel by sustainable modes, there will also be a need to consider the residual impact on the Highway network. The local highway network is shown on ***Figure 7*** and key local junctions are shown on ***Figure 8***.

3.2 TRAVEL DEMAND FOR DEVELOPMENT

3.2.1 Travel demand for the development can only be determined once the development mix has been defined. This distribution of the final trip generation should be based on the characteristics of the trip attractors and generators on the site.

3.3 HIGHWAY CAPACITY AND CONSTRAINTS

3.3.1 It is envisaged that the following junctions would have to be assessed for capacity as part of a Transport Assessment, but this should be finalised following an initial assessment of trip generation and distribution, to quantify the impact at these and other junctions:

- Western Avenue Site Access roundabout junction;
- Western Avenue / Dock Road / Maritime Way roundabout junction;
- Maritime Way / Pier Road grade separated roundabout;
- A289 Medway Tunnel / Anthony's Way roundabout; and
- Dock Road / Wood Street roundabout.

3.3.2 It may be appropriate to assess other junctions dependent on the expected degree of impact. It may also be appropriate to refine the trip distribution based on the identified congestion at surrounding junctions to balance journey times between trip origins and destinations.

3.3.3 It is not currently expected to be necessary to consider junctions further east on the A289, further south on Dock Road and into the Town Centre, or any further beyond the Anthony's Way roundabout.

3.3.4 The Anthony's Way roundabout may be subject to proposals for a retail development (Sainsbury's) which may change the form of control if permitted to traffic signal control. Peak period delays occur at the existing roundabout partly due to traffic generated by the Medway City Estate to the south of the roundabout.

3.3.5 Further north of St Anthony's roundabout traffic flows dissipate only slowly (because the available routes are more limited). Once the development proposals have been reviewed and distribution of the development traffic assessed, it may be necessary to review whether further junctions on this route need to be assessed. This could be required if the distribution of development traffic is significantly weighted in this direction.

3.3.6 There is a PARAMICS model of Chatham Town Centre built in support of the ongoing development of this network. It is not expected that the development of the Chatham Interface land would require the model to be run.

3.3.7 The Chatham Town Centre road network was recently reverted to a two way operation, following many years of operating as a one way loop. Phase two of these upgrades is expected to be implemented within the next year, which will reconnect the town centre with the river, and accommodate a significant amount of future regeneration

in the area. This will have the effect of further re-routing traffic flows within the town centre.

3.3.8 The Wood Street roundabout is currently expected to operate at or over capacity once all committed development has been completed. No current improvement plans for this junction have been identified, but given the land constraints, signalisation is the only viable solution to potentially provide greater capacity. This may need to be considered dependent on capacity modelling results.

3.3.9 Further afield, the impact on the Strategic Road Network should be considered and the proposals should be discussed with the Highways Agency. It has been identified earlier that the majority of person trips would be local to Medway, however there are still some residual trips to destinations for which there is no alternative to the car, which may impact the M2.

3.3.10 In respect of highway access and congestion, the main constraints are:

- to the east on A289 including the Church Street Roundabout which is understood to be at capacity,
- possible changes to the network and major new development to the west, and capacity issues at the Anthony's Way roundabout
- congested junctions to the south of the site (Wood Street roundabout) and congestion within Chatham Town Centre.

3.3.11 The highway network is subject to constraints in all directions and whilst the distribution of development trips is to be confirmed, reducing the need to travel, and reducing travel by car will be a key aspect of a proposed development. It is hoped that the active implementation of demand management measures would minimise impact at these junctions and reduce the need for highway improvements.

4 Committed Development

4.1.1 The development of the wider Chatham Maritime area was the subject of a Traffic Impact Assessment (TIA) commissioned by SEEDA and produced by Parkman in September 2003. The area was subsequently allocated in the Local Plan. The Chatham Maritime area was expected to be developed significantly by 2013. According to the Parkman report it was anticipated that 13 individual projects would be completed between 2003 and 2013. Much of this development has now been completed, and is summarised below:

■ Quayside restaurant and residential development;	Currently under construction, expected to be fully operational within 6 months
■ 700 additional residential units on St Mary's Island;	A significant area on St Mary's Island remains undeveloped
■ Re-let of Colonial Mutual Building with 650 staff;	Status Currently Unknown
■ 200 additional berths at the Marina; and	Status Currently Unknown

4.1.2 Further afield, other committed developments were previously identified and considered, and included:

■ Gillingham Riverside Residential and Commercial	Under Construction, and partly operational, timeframe for completion unknown
■ St Anthony's Way Retail Park & Ride and B&Q Warehouse	This site is now proposed to be developed as a Sainsbury's superstore, but no application has been submitted
■ Chatham Town Centre Regeneration	Ongoing

4.1.3 A final scheme will need to consider all of the outstanding committed developments and any new commitments, to be agreed with the local authority. This may require a detailed review of trip generation and trip distribution associated with these developments.

5 Transport Strategy

5.1 INTRODUCTION

5.1.1 The Transport Strategy for the site should seek to:

- Minimise the need to travel outside of the site;
- Maximise the potential for travel by non-powered modes (foot and cycle) to key local destinations outside of the site;
- Optimise access to sustainable transport networks (bus and rail) and key routes which give access to important nearby areas;
- Minimise the need to travel by car, and especially for single occupancy car journeys;
- Deliver a site layout which provides sufficient parking to meet demand for car ownership at residential uses, and which provides an appropriate amount of car parking at commercial elements of the development, taking into account the other elements of the Transport Strategy; and
- Minimise the impact of the proposed development of the surrounding highway infrastructure through the implementation of the Transport Strategy, and mitigation measures to off set residual impacts.

5.2 REDUCING THE NEED TO TRAVEL – DEVELOPMENT MIX

5.2.1 To minimise the need to travel off site, and to maximise the attractiveness of travel to key 'every day' facilities by foot, the proposed development should seek to include key ancillary facilities which are not available in the immediate vicinity of the site. Also, to further reduce the need to travel out side of the site and to minimise travel distances, additional facilities to compliment those facilities which are already available outside of the site could be provided. If a large residential element is included in the final scheme, the following facilities should be considered:

- a convenience store;
- a post box;
- children's playground/amenity area
- other community uses; and
- a health and fitness centre

5.2.2 Other uses which might assist with improving travel patterns, and reduce the need to travel outside of the site could include:

- Additional healthcare facilities within the site, such as a medical centre and pharmacy, potentially linked to a community centre use

5.2.3 As the development of the Interface land is being progressed there may be opportunities to accommodate some short term park and ride facilities to assist in the regeneration of Chatham Town centre or to assist where events are being held within the town centre. It is not however considered to be a viable or practical long term use on the site.

5.3 PEDESTRIANS AND CYCLISTS

5.3.1 Travel on foot or by cycle has the potential to form either whole journeys, or to form part of larger journeys made by public transport. Planning Policy Guidance 13 Transport advises that:

> *"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres"*; and that
>
> *"Cycling also has potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport".*

5.3.2 The key destinations for pedestrian and cycle trips can therefore be separated into two categories; those to destinations in their own right, and those to bus stops and rail stations.

5.3.3 The most important single destination, offering the greatest range of facilities not offered in the immediate vicinity of the site is Chatham Town Centre. The proposed, and ongoing, regeneration of the town centre makes this an even more important route.

5.3.4 To minimise diversion from the desire line between the site and the town centre, and other destinations to the south of the site, a pedestrian access into the site could be provided from Dock Road in the most south easterly corner of the site. Due to the differences in level between the site and Dock Road in this location, it may not be possible to provide a cycle access at this location, but a shared pedestrian / cycle access should be pursued if possible.

5.3.5 It may be appropriate to undertake an audit of pedestrian and cyclist facilities on the corridor between the site and Chatham Town Centre, to identify any barriers to travel by these modes along this route, and any other factors which might discourage such travel which can be mitigated. This may include the provision of a continuous single style shared use route (avoiding changing between shared and segregated pedestrian and cycle routes) which can be confusing, and providing off road cycle facilities where possible. Improvements to junction crossing facilities may also be considered, and the existing signage and street furniture should be reviewed to ensure this is safe and consistent, and does not affect the attractiveness of the route.

5.3.6 The attractiveness of the facilities on Brompton High Street and St Mary's Island will be dependent on the final development mix. The facilities recommended for inclusion within the development mix would provide more attractive alternatives reducing the importance of the routes to these locations. If these facilities are not provided on site these routes should be reviewed in more detail.

5.3.7 The most attractive bus stops are located on Dock Road at two locations, close to the junctions with Western Avenue and Wood Street; with each location providing stops in both directions. The Western Avenue bus stops are both easily accessible via the local footway network, and the northbound stop is accessible via a signal controlled crossing.

5.3.8 At the stops on Dock Road close to the Wood Street junction, the northbound stop is easily accessible, but a controlled crossing point (puffin or toucan) should be considered across Dock Road to provide improved access to the southbound stop. This would also improve the attractiveness of the route to the facilities on Brompton High Street.

5.3.9 Key to providing access to the Wood Street junction bus stops and the Brompton High Street facilities, is a new access from the site, as close to the southern corner of the development site as possible. Given the challenging topography in this location, it may not be possible to deliver a convenient step free solution, but the convenience of this route must be maximised.

5.3.10 Generally, it is recommended that a strategic approach is adopted, in which the pedestrian and cycle links between the site and key destinations are established, and infrastructure is reviewed along the entire route.

5.4 PUBLIC TRANSPORT STRATEGY

5.4.1 The quality of the bus services to Chatham are excellent, providing one service in each direction around every 2-3 minutes on average. The proposed scheme should seek to optimise access to these services, around half of which are available from Dock Road by Western Road, and all of which are available from Dock Road by Wood Street.

5.4.2 Some consolidation of services and improvement of frequencies may be needed if this would materially reduce the traffic flows into the town and through the Wood Street junction, or to other destinations. However, given the currently available excellent service, this is not expected to be necessary.

5.4.3 In addition to the conventional measures, consideration could be given to making use of the river as a mode of travel, although this may be a very long term solution to be considered with the Chatham Regeneration in the waterfront area.

5.4.4 To optimise the potential for sustainable travel, consideration could be given to additional bus priority measures on the route between the site and the Chatham Town Centre (and rail station), specifically bus lanes. It would be necessary to investigate existing link capacities and lane usage on this route, and to identify the effect that bus lanes may have on the operation the relevant links and junctions. Improvements to the four key bus stops identified may also be appropriate, such as the provision of bus shelters, seats, bus clearway markings, and possibly real-time information.

5.4.5 While it has been identified that there is a generally excellent bus service, at a more detailed stage once the final trip distribution profile has been determined, consideration may be given to providing additional bus connections, or route diversions to increase the potential for sustainable travel to/from specific major destinations / origins, although this is not expected to be necessary.

5.4.6 Dependent on the nature of travel demand at the site, it may be beneficial to review bus service provision across the whole day. The review should seek to provide a reasonable level of service from the morning through to the evening, to maximise flexibility and attractiveness of bus as a travel mode for journeys other than work only or retail only journeys.

5.5 TRAVEL PLAN INITIATIVES

5.5.1 To further reduce the demand for car travel at the proposed development site, further measures should be implemented as part of a Travel Plan. Possible Travel Plan measures include:

- An Introductory Travel Pack to advertise the available local routes and facilities
- A Travel and Community Website to encourage ongoing information sharing

- A Car Sharing Scheme to minimise single occupancy car journeys, especially for journeys to work
- A Car club, possibly including the use of electric cars, to reduce the need to own a car, or the need to own a second car
- Possible car free elements, where there is minimal demand (such as at single bedroom flats, student accommodation etc) and where this can be achieved without leading to displacement parking to the detriment of the development and surrounding area
- A Taxi Rank

5.6 PARKING

5.6.1 The proposed development should seek to deliver a car parking strategy which accommodates the existing demand for car parking on the site, together with the demand generated by the additional development.

5.6.2 Local car parking policy is currently under revision, but interim standards for residential development have been published by Medway Council and require minimum provisions based on unit size. There is scope in the interim guidance to reduce these standards based on local circumstances, including level of access to sustainable transport, which is excellent at the proposed development site.

5.6.3 A demand based approach to car parking, would be appropriate at this location. The level of demand can be influenced by the way in which car parking is provided; unallocated car parking is more efficient and flexible than allocated parking for example. The development should seek to minimise the demand as far as practicable through good design but provide sufficient parking to cater for demand.

5.6.4 Appropriate parking for visitors should be provided, and all parking should be convenient, to ensure the provided car parking is utilised as intended. Reductions in car parking provision associated with the level of sustainable travel accessibility should be considered carefully, as the relationship between sustainable travel accessibility and car use is not the same as the relationship between sustainable travel accessibility and car ownership, as car ownership does not solely define car use.

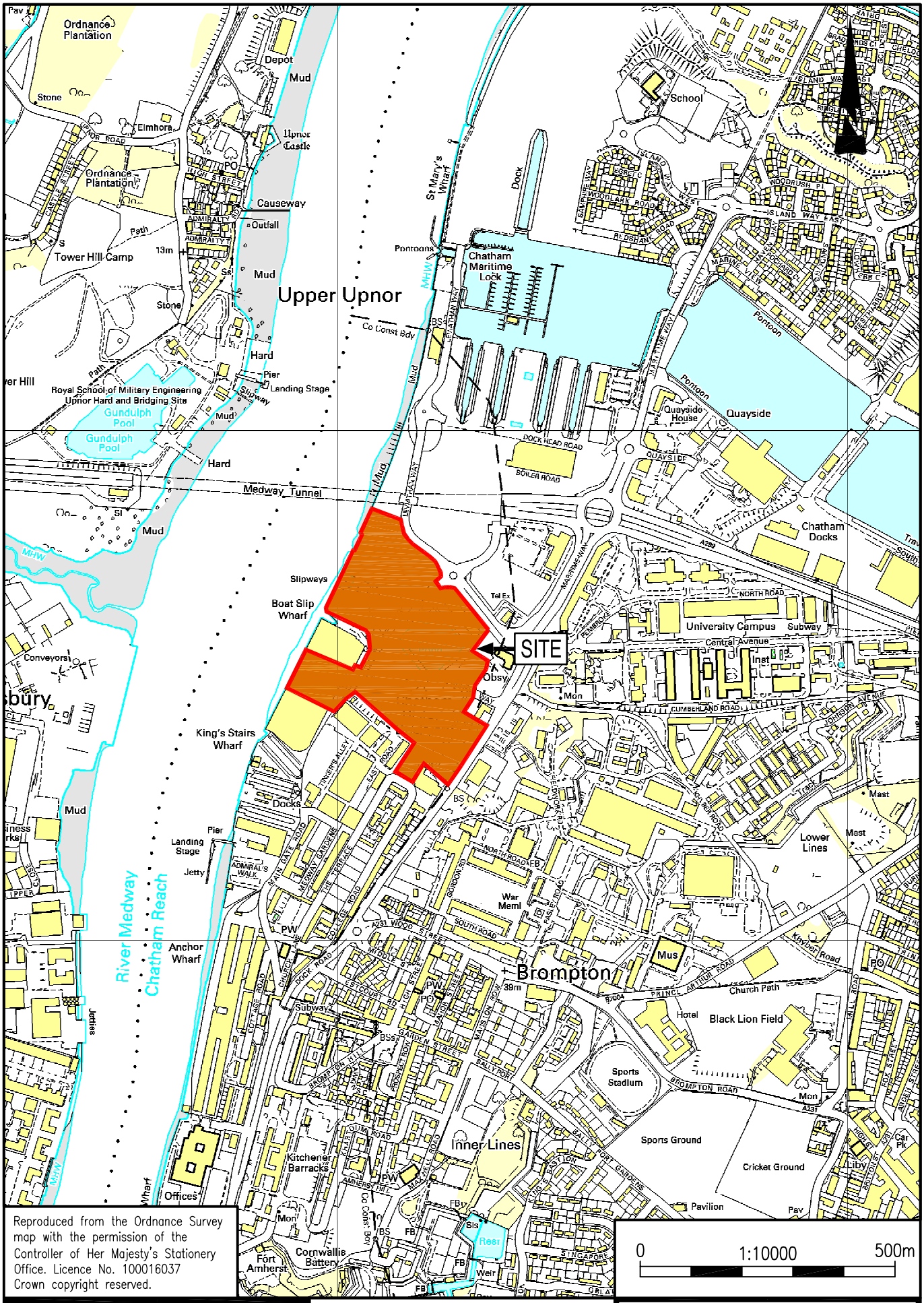
5.6.5 Parking provision for employment, ancillary, retail, and other employee and visitor controlled development should be demand based where possible; and should account for the expected travel modes to the development. Shared facilities could be considered to further optimise the flexibility in the use of parking spaces.

5.6.6 At present, car parking for the adjacent Historic Dockyard is provided on the site, totalling some 400 spaces. These must continue to be accommodated within the site with the proposed development in place. A previous scheme had proposed the relocation of this parking to a decked car park within the existing covered slips 5 and 6 on the site, which could be considered for a future scheme.

5.6.7 In addition to the car parking requirement there is a requirement for 12 coach parking spaces to accommodate larger parties visiting the Historic Docks. These coach spaces could also be accommodated within slip building 5 and 6. Manoeuvring into the coach spaces should be kept separate from areas of pedestrian activity and walk routes from the parking areas.

5.6.8 The Hotel, which borders the site, is accessed via the site and a collection / drop off area is provided within the site some distance from the Hotel. A proposed scheme may seek to relocate this facility closer to the hotel, to remove the constraint to the Masterplan, and to provide a net betterment for the Hotel.

Appendices, Figures & Tables



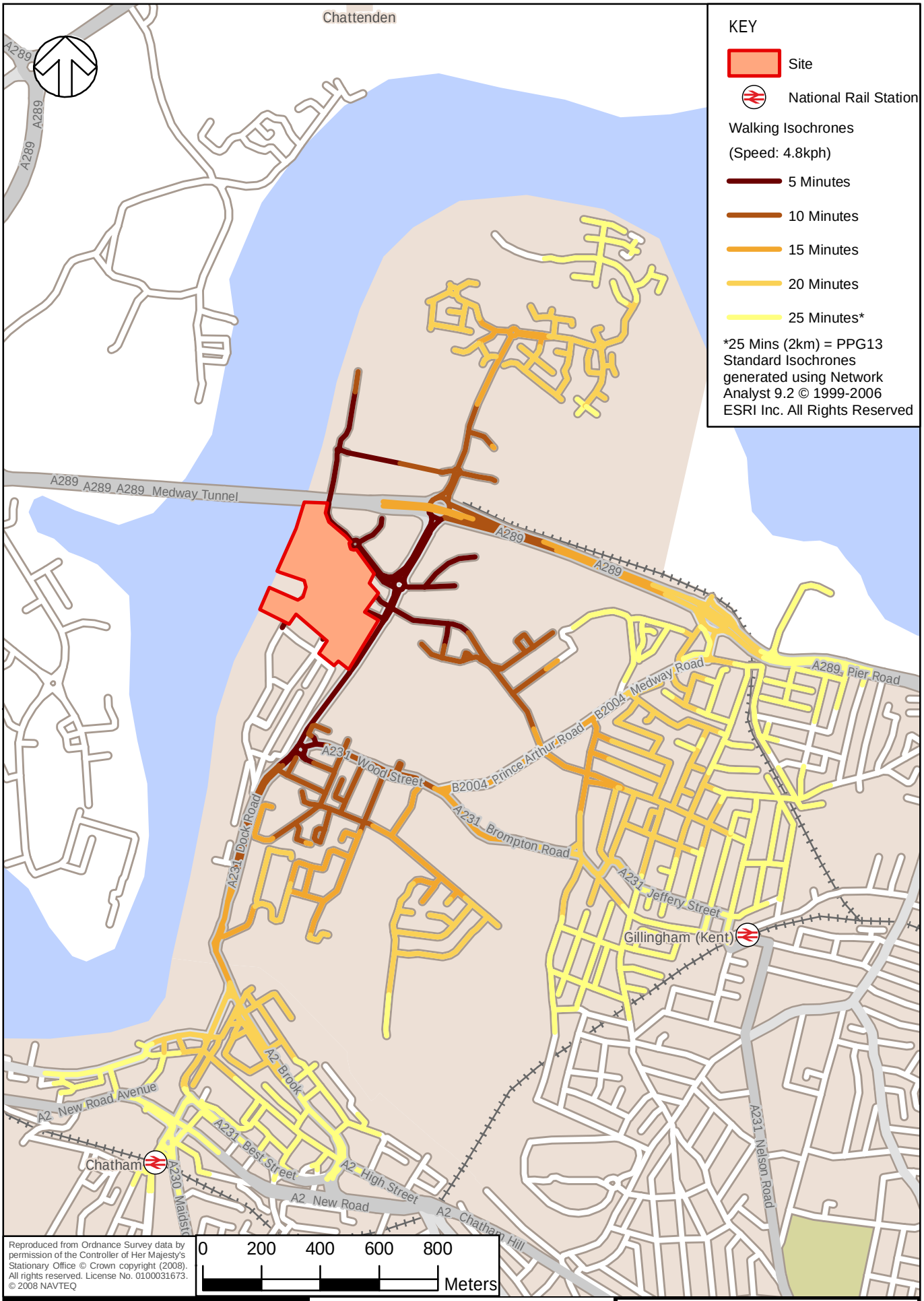
WSP

TITLE:

SITE LOCATION

FIGURE No:

FIGURE 1



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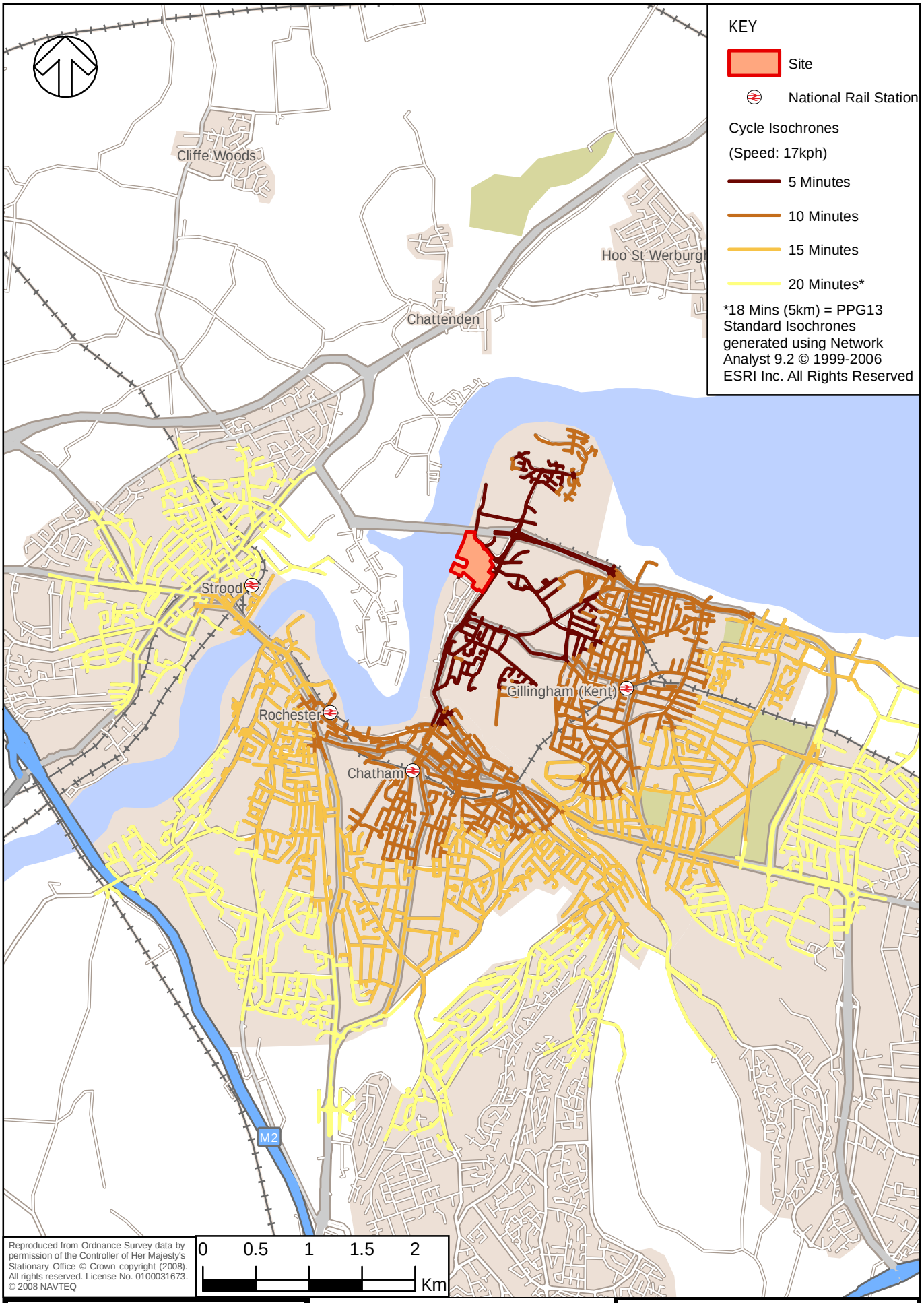
WSP

TITLE:

WALKING ISOCHRONES

FIGURE No:

FIGURE 2



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TITLE:

CYCLE ISOCHRONES

FIGURE No:

FIGURE 3

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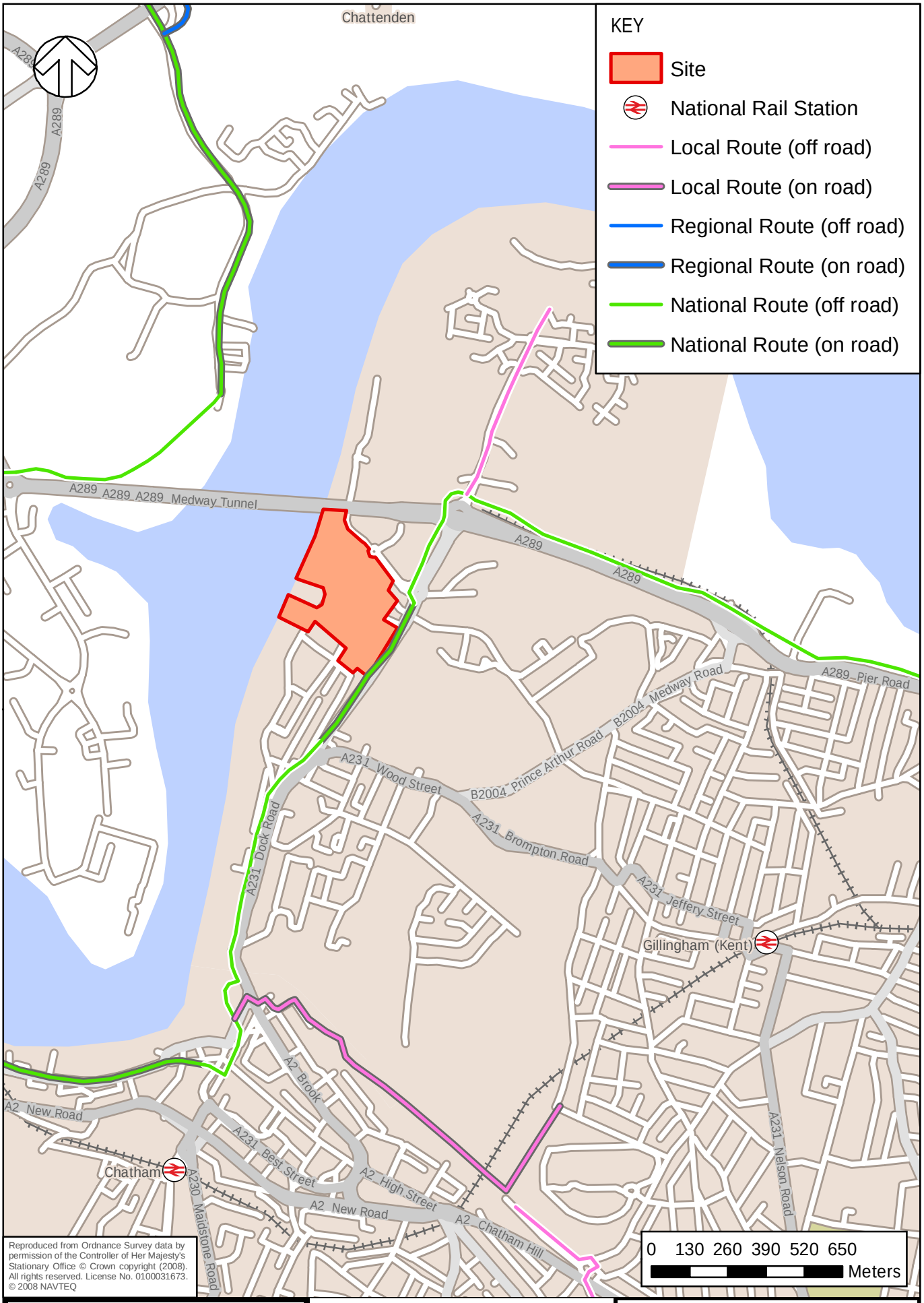

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TITLE:

CYCLE ROUTES

FIGURE No:

FIGURE 4

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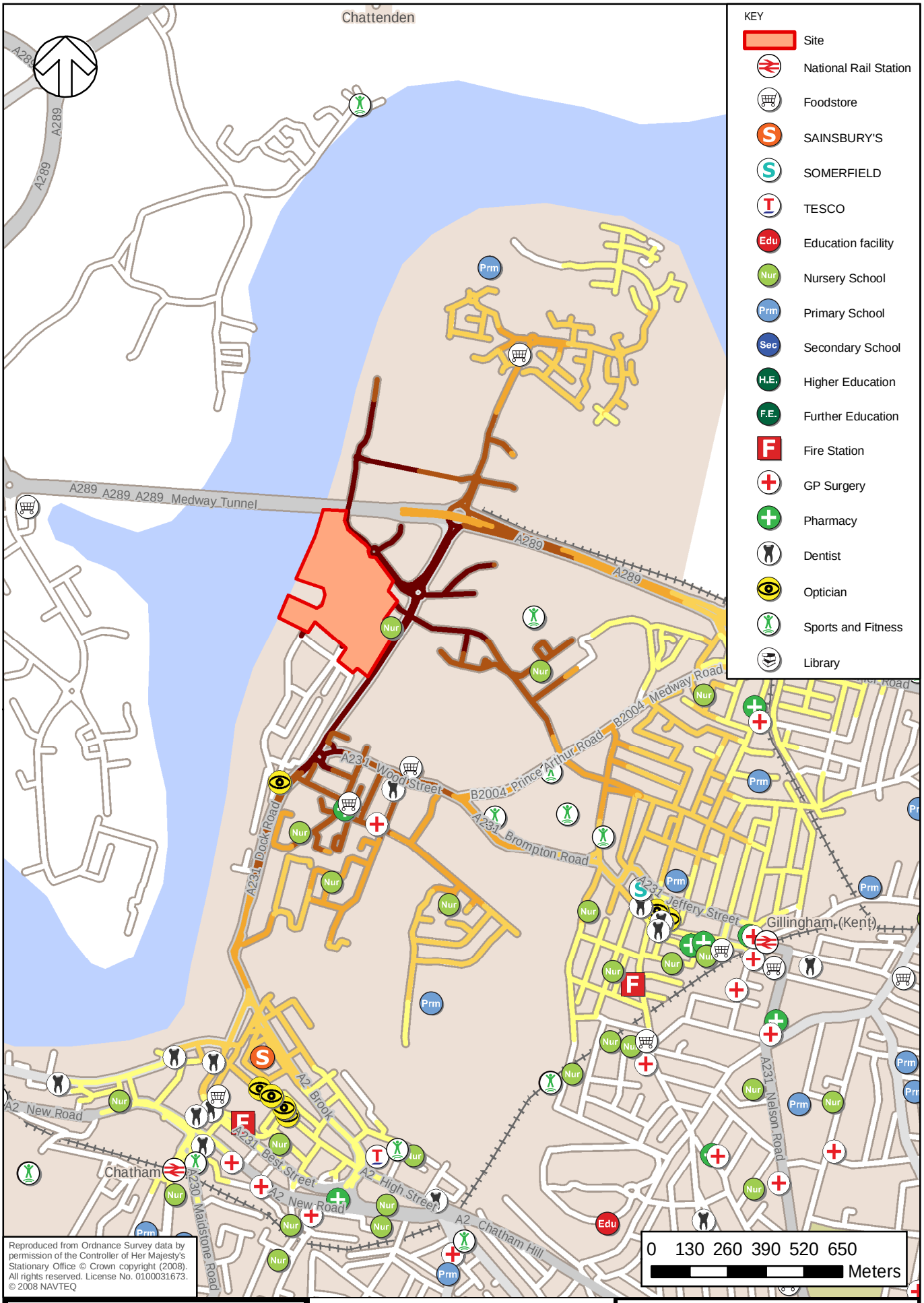

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TITLE:

LOCAL AMENITIES AND FACILITIES

FIGURE No:

FIGURE 5

Drawn By: ukpad002 Date Modified: 25/03/2010

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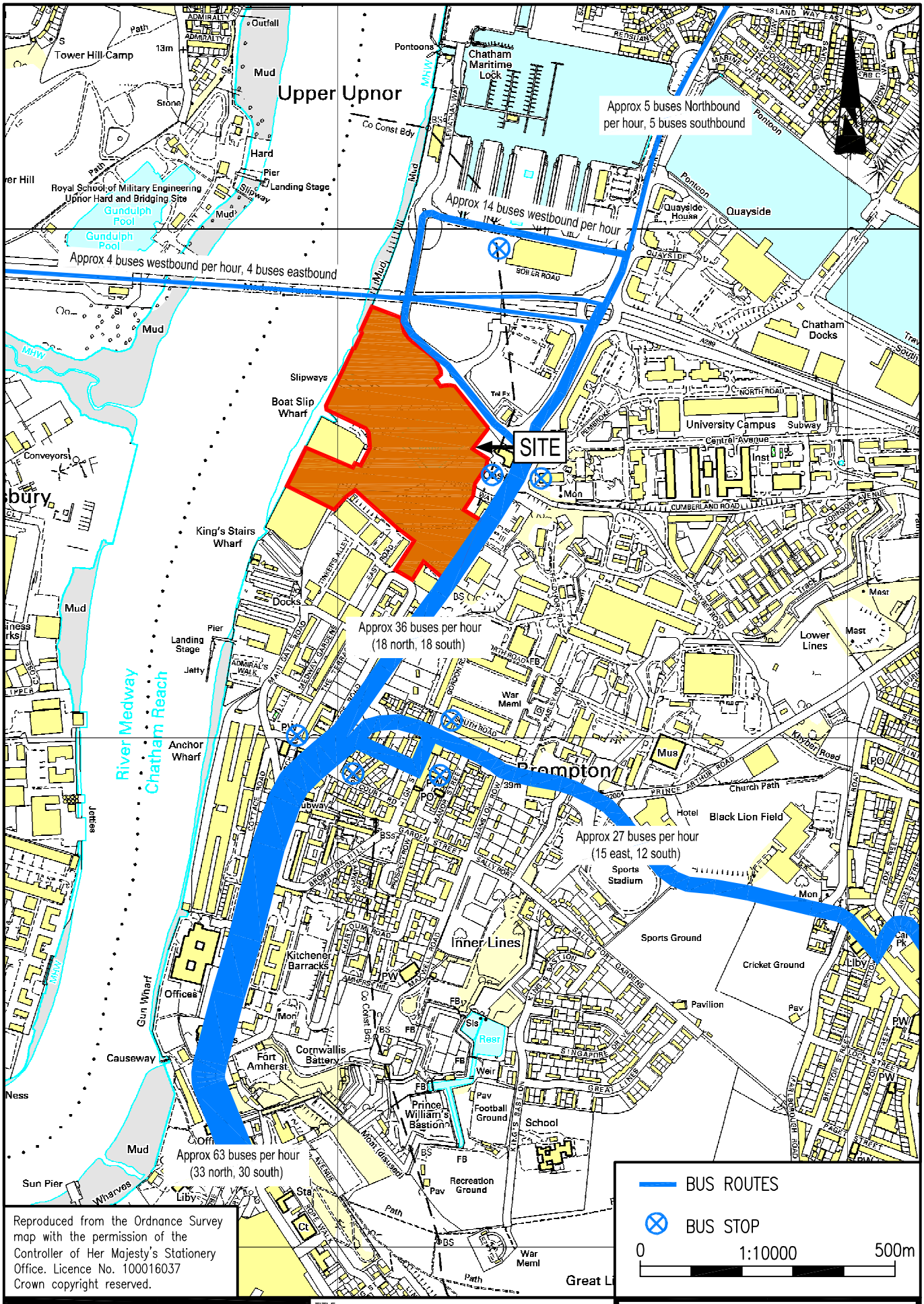

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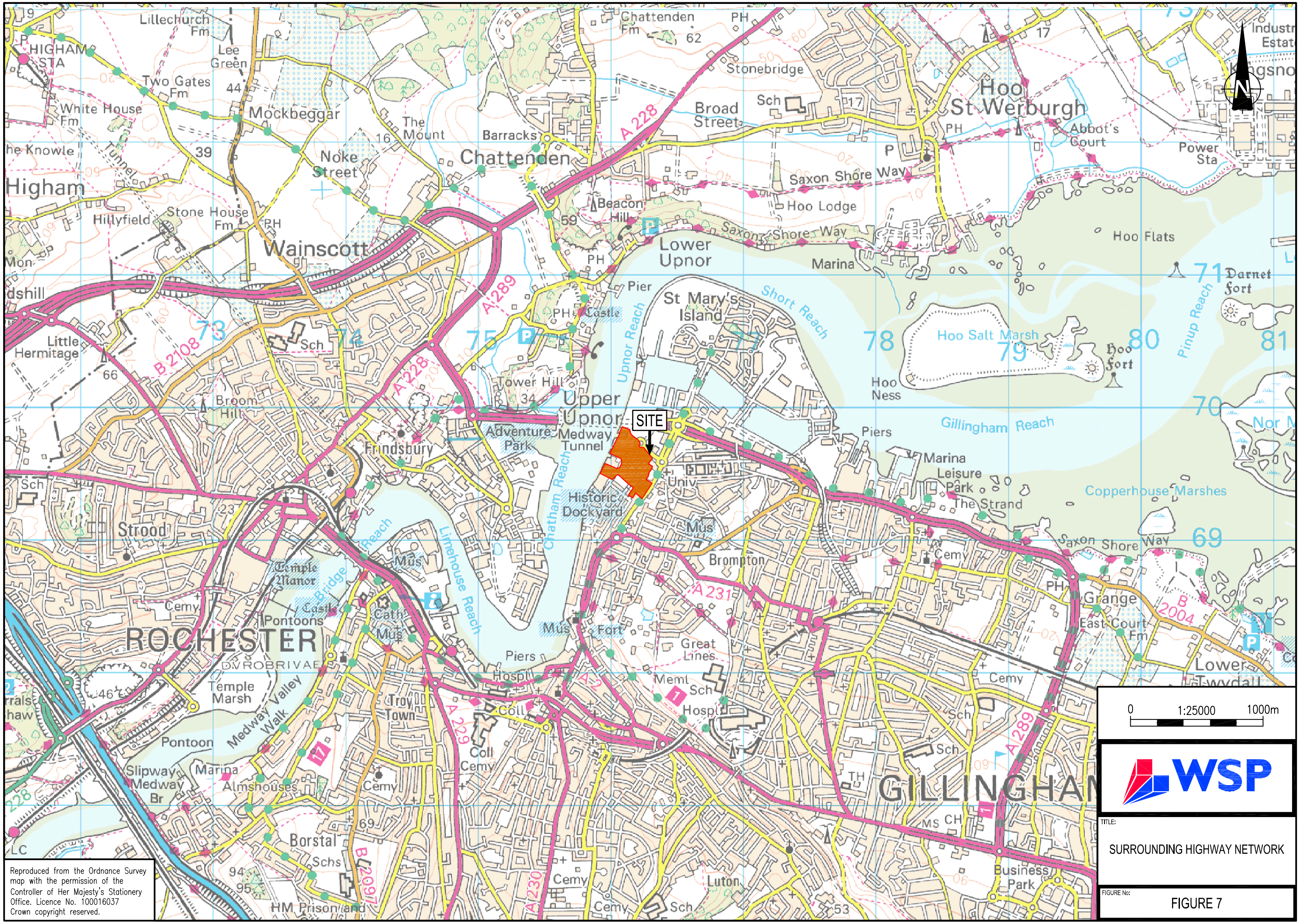
TITLE:

BUS ROUTES

FIGURE No:

FIGURE 6


SITE
HIGHAM STA
Lillechurch Fm
Lee Green
Two Gates Fm
White House Fm
Mockbeggar
Higham
Tunnel
Hillyfield
Stone House Fm
RH
Noke Street
Wainscott
Little Hermitage
B 2108
Sch
Broom Hill
Chattenden
Barracks
The Mount
Chattenden Fm
PH
Stonebridge
Broad Street
Sch
A 228
Beacon Hill
Lower Upnor
Pier
PH
Castle
A 289
Upper Upnor
Tower Hill
Adventure Park
Medway Tunnel
Frindsbury
Upnor Reach
Short Reach
St Mary's Island
Chatham Reach
Historic Dockyard
Mus
Univ
Marina
Leisure Park
The Strand
Piers
Gillingham Reach
Hoo Flats
Darnet Fort
Hoo Salt Marsh
Hoo Fort
Hoo Ness
Pinup Reach
Copperhouse Marshes
Hoo St Werburgh
Abbot's Court
Power Sta
Saxon Shore Way
Hoo Lodge
Industr Estat
Strood
Temple Manor
Castle
Cemy
Pontoons
ROCHESTER
DVROBRIVAE
Temple Marsh
Medway Valley Walk
Pontoon
Slipway
Medway Br
Almshouses
Borstal
Schs
HM Prison and
Limehouse Reach
Cath
Troy Town
Coll
Hospl
Meml
Great Lines
Fort
Brompton
A 231
A 229
A 230
A 2
Luton
Business Park
GILLINGHAM
MS
CH
TH
Grange
East Court Fm
B 2004
Lower Twydall
Saxon Shore Way
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0
1:25000
1000m
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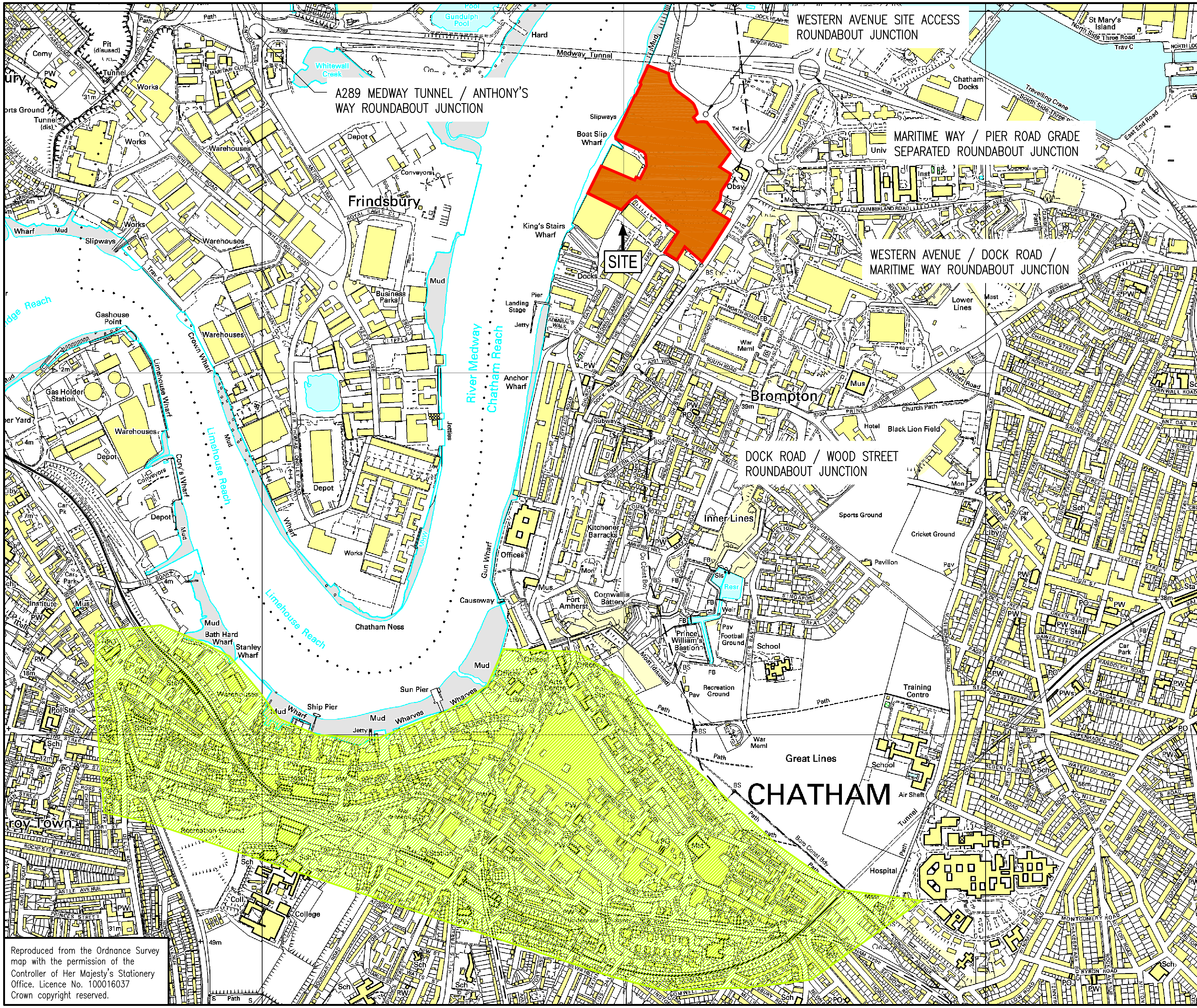
TITLE:
SURROUNDING HIGHWAY NETWORK
FIGURE No:
FIGURE 7



AREA COVERED BY PARAMICS MODEL

0 1:10000 500m

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TITLE:

LOCAL JUNCTIONS

FIGURE No:

FIGURE 8