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MEADOWLANDS

Transport Statement

22/12/2014

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MEADOWLANDS

Transport Statement

22/12/2014

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1 Introduction

1.1 Background

- 1.1.1 WSP-PB has been appointed by Hampshire County Council Engineering Consultancy (HCC EC) on behalf of HCC Property Services to produce a Transport Assessment in support of a future planning application for residential development of 43 units on an allocated site in the north-west corner of Waterlooville, Havant. The site lies within the bounds of Meadowlands Infant and Junior Schools on land that is predominately used as the schools playing field. The proposed site will occupy an area of approximately 1.35 hectares. The site location is identified in **Figure 1**.
- 1.1.2 A Transport Assessment was previously produced by MVA in 2009 in support of an earlier iteration of the scheme. This report served as a basis for some of the analysis, nevertheless, appropriate update of information and a site visit the 21/07/2014 have been undertaken to reflect current TA guidance, policy requirements and 2014 baseline conditions in the assessment. The key changes since the 2009 report include:
- A reduction in residential units associated with the scheme from 55 to 43;
 - The re-location and consolidation of the school buildings on-site to facilitate the development have already been implemented; and
 - A planning application has been submitted in 2013 (APP/13/00804), and is pending approval for the development of 288 residential units on the adjacent site (Woodcroft Farm) with access gained via Eagle Avenue and is duly considered in this report.
- 1.1.3 The proposal for the development is now of a reduced scale at just 43 residential units comprising 37 houses and six flats to be located in the strip of land to the south of the Infant and Junior Meadowland Schools.
- 1.1.4 It is noted that on review of DfT's Guidance on Transport Assessments 2007, this falls below the threshold where a supporting TA (or indeed Transport Statement) is usually required, however given the background context in consultation with Havant BC on the 29/09/2014 the production of a Transport Statement has been agreed as appropriate for any future planning application for the site.

1.2 Policy Context and Methodology

- 1.2.1 This report has been prepared following consultation with Hampshire County Council (HCC) Highways Development Planning and Havant Borough Council (HBC) and is aligned with all relevant local policies.
- 1.2.2 In a meeting on 17/09/2014 with Philippa Gordon from HCC HDC, WSP-PB was advised to seek scope agreement from Havant Borough Council. The scope of the Transport Statement has thus been agreed with Peter Marshall from Havant Borough Council on 29/09/2014. Supporting email correspondence of such agreement is included in **Appendix A**. Consideration has been given within this report to the completed Transport Assessment associated with the adjacent Woodcroft Farm development.
- 1.2.3 It is intended that the 2009 TA for Meadowlands is used as reference to update and reflect 2014 baseline conditions, although as requested by HBC any pedestrian/ cyclist facilities proposed by the Woodcroft Farm have not been included in the baseline position. This Transport Statement will set out the existing accessibility and transport conditions of the site, and provide a summary of the development proposals and their proposed impact on the surrounding highway network.

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- 1.2.4 We have reviewed the relevant national and local policy documentation these include:
- National Planning Policy dated March 2012 and associated Planning Practice Guidance documents;
 - Hampshire Local Transport Plan 2011-2031; and
 - Havant Borough Core Strategy (adopted March 2011).

National Planning Policy

- 1.2.5 The National Planning Policy Framework (NPPF) was adopted in March 2012 to reduce the complexity and improve the accessibility of the planning system, whilst protecting the environment and encouraging sustainable growth. The NPPF replaces Planning Policy Guidance Notes and Statements, becoming the definitive national planning guidance.
- 1.2.6 Key to the NPPF and its success is the following statement from paragraph 14:
- “At the heart of the NPPF is a presumption in favour of sustainable development, which should be seen as golden thread running through both plan-making and decision making”*
- 1.2.7 Transport forms one of the 12 core land use planning principles layout within the NPPF. This principle directs that locations which are sustainable or which can be made sustainable should become the focus for significant development. Opportunities to utilise sustainable modes of their fullest, such as public transport, walking and cycling should be actively taken and these considerations are discussed in this Transport Statement. Paragraph 7 of the NPPF notes three ‘dimensions’ of sustainable transport:
- Economic;
 - Social; and
 - Environmental
- 1.2.8 This Transport Statement also shows how the proposed development accords with Paragraph 29 of the NPPF which details transport as having:
- “An important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives”*
- 1.2.9 As encouraged in the NPPF, the proposed development has been planned in such a way that gives people a “real choice” regarding their mode of travel. Its density and proximity to local facilities ensures that sustainable modes can be considered a favourable option for local trips.
- 1.2.10 This Transport Statement demonstrates how the proposed development fulfils the requirements set out in paragraph 32 of the NPPF, to account for:
- The opportunities for sustainable transport modes to be used, reducing the need for major transport infrastructure;
 - Provision of safe and suitable access to the site for all people; and
 - Improvements which can be undertaken within the transport network to limit the significant impacts of the development.
- 1.2.11 This Transport Statement demonstrates that the residual cumulative impacts of the proposed development are minimal as demonstrated in section 4.

Hampshire Local Transport Plan 2011-2031

- 1.2.12 LTP3 was formally approved in February 2011 and contains two main elements; a long term vision for how the county's transport network will be developed over the next 20 years, and a short term three year implementation plan.
- 1.2.13 The overall vision for LTP3 is a transport strategy that will help HCC realise:
"Safe, efficient and reliable ways to get around a prospering and sustainable Hampshire"
- 1.2.14 The strategic transport priority is to make the most of the existing transport network in light of a current environment of restricted government expenditure. Therefore over the next five years maintenance, safety and management have been prioritised. The three main priorities are listed below:
- Main Priority 1: To support economic growth by ensuring the safety, soundness and efficiency of the transport network in Hampshire.
 - Main Priority 2: Provide a safe, well-maintained, and more resilient road network in Hampshire as the basic transport infrastructure of the county on which all forms of transport directly or indirectly depend, and the key to continued casualty reduction.
 - Main Priority 3: Manage traffic to maximise the efficiency of existing network capacity, improving journey time reliability and reducing emissions, thereby supporting the efficient and sustainable movement of people and goods.
- 1.2.15 In chapter 7 of LTP3, the *South Hampshire Joint Strategy* notes that there are seven key challenges for the South Hampshire area that need to be tackled in order to deliver the overall vision, which are as follows:
"A resilient, cost effective, fully-integrated sub-regional transport network, enabling economic growth whilst protecting and enhancing health, quality of life and environment"

Havant Borough Council Core Strategy: Local Development Framework, March 2011

- 1.2.16 The Havant Borough Council Core Strategy 2011-2026 sets out the council's long term vision and objectives for what the borough will be like to live in 2026.
- 1.2.17 The Borough of Havant is made up of five distinct areas and the site at Meadowlands is in Waterlooville. The region has seen rapid growth after World War II and provides a wide range of house types and employment opportunities.
- 1.2.18 The vision for Havant Borough in 2026 is to be cleaner, safer and more prosperous place to live. The borough will continue to benefit from its excellent road and rail connections particularly the opening of the A3 Hindhead Tunnel. To deliver a full range of infrastructure that is necessary to support housing, retail and employment development.
- 1.2.19 **Policy CS20 Transport and Access Strategy:** states how development will be permitted with relevant policies for the development Meadowlands included bellows:
- Does not increase congestion and promotes better use of existing transport networks;
 - Improves accessibility to goods, services and employment and promotes equality in the transport system;
 - Provides transport management measures to ensure the safe and efficient operation of the strategic and local road network;

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- Ensures that highway design responds positively to the characteristics of the area and delivers a high quality public realm for all users;
 - Maintains or improves the range of transport modes accessible to the users of the development site; and
 - Improves highways, cycling and pedestrian links.

1.2.20 The Waterlooville district is expected to provide 2000 new homes for the borough by 2026. The site at Meadowlands is an allocated site (W130) to provide up to 52 new homes including affordable housing.

1.3 Summary

1.3.1 The above relevant policy and guidance forms the basis for undertaking this Transport Statement. The development proposals will be in full accordance with the relevant frameworks at a national and local level.

Figure 1 – Meadowlands Site Location Plan



2 Existing Conditions

2.1 Introduction

- 2.1.1 This section outlines the existing transport highway conditions, pedestrian/cyclist infrastructure and public transport services.

2.2 Site Location and Local Highway Network

- 2.2.1 The proposed site is located 3km to the north west of Waterlooville town centre. **Figure 1** shows that the development is located between Woodcroft Lane and Eagle Avenue, and at 0.25km and 0.8km west of Milton Road and the A3/London Road/Portsmouth Road respectively.
- 2.2.2 Woodcroft Lane is a local cul-de-sac with 30mph speed limit restriction. The road provides access to around 80 residential units, a Tesco Express food store and Woodcroft Primary School where 20mph is advised. The road leads west from Lovedean Lane at the eastern end via a 3-arm priority junction.
- 2.2.3 Lovedean Lane is a single carriageway road with a 30mph speed limit between the Portsmouth Road/ Lovedean Lane junction and Day Lane/ Lovedean Lane junction; north of Day Lane the speed limit increases to the national speed limit.
- 2.2.4 Eagle Avenue is a single carriageway road running along the southern boundary of the site, connecting Milton Road to Hart Plain Avenue. There are footways provided on both sides of the carriageway approximately 1.5-2.5m wide. Eagle Avenue is subject to a 30mph speed limit.
- 2.2.5 Milton Road connects Lovedean Lane to the Hambledon Road/ Milton Road/ Elettra Avenue roundabout, and is a single carriageway road subject to a 30mph speed limit. If planning permission is granted, the proposed mitigation package for the Woodcroft Farm development includes the implementation of a mini-roundabout at the Milton Road/ Lovedean Lane priority junction to increase capacity and traffic flow through the junction.
- 2.2.6 The A3/London Road/Portsmouth Road is a primary road that connects the A3 (M) Junction 2 to the north and Waterlooville town centre, Cosham and Portsmouth to the south at approximately 4km, 8km and 12km respectively.
- 2.2.7 Waterlooville town centre can be accessed by bus every 10 minutes from Eagle Avenue and comprises a range of facilities commensurate with a town of this size. The employment, education, healthcare, leisure and retail opportunities on offer will enable people to work, shop and live locally.

2.3 Pedestrian Network

- 2.3.1 Woodcroft Lane has footways and street lighting on both sides of the carriageway except on a section between the proposed site access and the access to Woodcroft Primary School, on the southern side of the road where on-street parking exists (Photo 1). There are dropped kerbs at either end of this section to facilitate access to the footway on the northern side. Footways along Woodcroft Lane are between 1.6-2.4m on both sides and have level surfaces in good condition. There are several dropped kerbs along Woodcroft Lane presenting a number of crossing opportunities.

- 2.3.2 Photo 2 shows an uncontrolled crossing facility situated on Woodcroft Lane on the approach to the Lovedean Lane junction, which facilitates pedestrian movement with dropped kerbs.



Photo 1



Photo 2

- 2.3.3 The footways on Woodcroft Lane continue onto Lovedean Lane and Milton Road in the same manner with wide paths in good condition and street lighting present. These provide access to a number of amenities on Lovedean Lane and Milton Road, including:
- Local Food Retail (Tesco Express and Costcutter);
 - Takeaway Outlets;
 - Hairdressing Salon;
 - Betting Office;
 - Pharmacy; and
 - Mobility Shop
- 2.3.4 An alternative route to these facilities would involve pedestrians using the secondary pedestrian and cyclist access, utilising footways of approximately 1.6-1.8m in width on both sides of the road. On the northern side, the route to the local shops and westbound bus stop on Eagle Avenue necessitates two crossings, at which point there are dropped kerbs provided. The route to the eastbound bus stop approximately 70 m west of the secondary access is on the northern side of the road, thereby providing direct access to bus services, as outlined below.
- 2.3.5 All of the local facilities listed above are within 400m of both pedestrian/ cyclist accesses to the site. Figure 2 presents the local facilities in the vicinity of the site, whilst Figure 3 illustrates the nearest accessible public rights of way.
- 2.3.6 Guidance given by the Institute of Highways and Transportation in their publication 'Guidelines for Providing for Journeys on Foot, 2000' suggests that in terms of commuting, walking to school and recreational journeys, walk distances of up to 2,000 metres can be considered, with the desirable and acceptable distances being 500 metres and 1,000 metres respectively.
- 2.3.7 For non-commuter journeys the guidance suggests that walk distances of up to 1,200 metres can be considered, with the desirable and acceptable distances being 400 metres and 800 metres respectively.
- 2.3.8 Assuming a 'typical' walking speed of 400m in 5 minutes, Table 2.1 below summarises the walk journey times that can be 'considered'; are 'acceptable'; and those that are 'desirable'.

Table 2.1: Walk Journey Times

IHT 'Standard'	Distance		Walk Time	
	Commuting, Walking to School and Recreational	Other 'non- commuter' Journeys	Commuting, Walking to School and Recreational	Other 'non- commuter' Journeys
'Desirable'	500m	400m	6¼ mins	5 mins
'Acceptable'	1,000m	800m	12½ mins	10 mins
'Considered'	2,000m	1,200m	25 mins	15 mins

Source: IHT 'Guidelines for Providing for Journeys on Foot, 2000'

- 2.3.9 Assuming a 'typical' walking speed of approximately 4.8 km/h, Figure 4 presents the walking isochrones which illustrates the areas that can be reached within 30 minute walk from the site using the existing pedestrian network. When looked at in conjunction with Figure 2, this shows the facilities that are accessible within 30 minute journeys by foot.

2.4 Cycle Network

- 2.4.1 Figure 3 illustrates the cycle routes in the vicinity of the site. Although there are no dedicated cycle facilities in the immediate vicinity, there are a number of routes which HBC recommend for cycling in proximity to the site. The local roads are mostly residential, quiet in nature and have good visibility of the surrounding roads and junctions, creating an environment conducive to cycling. As there are a range of employment opportunities situated within a short cycle distance, it is considered that the site is well located to encourage work based trips by bicycle.
- 2.4.2 The closest significant cycle facilities can be found along the A3 London Road, where bus priority and cycle facility improvement measures along the A3 London Road provide comfortable and dedicated cycle access along the busy A3. Cyclists are permitted to use the bus lane which is restricted to 30mph and where there are no bus lanes, on and off-road cycle routes are available. Cycle parking is also provided at local shops along this route.
- 2.4.3 Assuming a 'typical' cycling speed of 16kmph, Figure 5 shows the cycling isochrones plan illustrating the approximate cycle time in minutes from the development site. This shows that the majority of Waterloooville and Cowplain, including Waterloooville town centre, can be reached within 15 minutes, while the outskirts of Havant and Farlington, and Rowlands Caste rail station can be reached within 25 minutes.

2.5 Public Transport

- 2.5.1 This section details the current public transport provision for residents of the proposed development.

Journeys by Bus

- 2.5.2 The closest bus stop to the site is located on Eagle Avenue approximately 70m west of the secondary pedestrian and cyclist access. The bus stop is a request stop with a lay-by. Three bus services utilise the existing bus stop, routes 7, 39 and 300. A summary of the timetables are presented in Table 2.2 below whilst a plan illustrating their routes is shown on Figure 6.

Table 2.2: Bus Services

Route		Weekday Service	Weekend Service
7	Southsea – Portsmouth City Centre – Waterlooville – Wecock	First Bus 05:45, Every 10 Minutes, Last Bus 22:49.	First Bus 06:17, Every 10 Minutes, Last Bus 22:49.
39	Havant – Wecock Farm	First Bus 06:20, Every 10 Minutes, Last Bus 21:18	First Bus 07:10, Every 10 Minutes, Last Bus 21:18
300	Chichester – Waterlooville – Denmead	Wednesday (Only) 09:37 return 13:58	No Service

Source: Bus Operators, November, 2014

- 2.5.3 TRACC software has been utilised to produce a public transport isochrones plan. This plan is shown in Figure 7 and illustrates the existing accessibility of the site by rail and bus, and the areas that can be reached within a maximum 60 minute journey time from the site.

Journeys by Train

- 2.5.4 The closest railway station to the development site is Rowlands Castle which is located 6.5km east of the site. Rowlands Castle offers direct services to Havant, Portsmouth and London.
- 2.5.5 There is a ticket office available at Rowlands Castle which is open Monday to Friday between 06:35 - 09:15 hours, whilst self-service ticket machines are in operation at all other times. Rowlands Castle Station is inaccessible to wheelchair users who are encouraged to use Havant Station. Table 2.3 summarises the services available from this station.

Table 2.3: Train Services from Rowlands Castle

Destination	Journey Time		Journey Time
	AM Peak	PM Peak	Off-Peak
Portsmouth & Southsea	22 mins	25 mins	23 mins
Havant	6 mins	5 mins	5 mins
London Waterloo	111 mins	88 mins	87 mins
Woking	75 mins	59 mins	58 mins

Source: Network Rail, October 2014

2.6 Personal Safety

- 2.6.1 Personal Injury Accident (PIA) data was obtained from Hampshire County Council for the most recently available five year period up to 30th June 2014. Figure 3 shows the accident locations by severity with the full extent of data provided within **Appendix B**, and summarised within the following paragraphs.

Table 2.4: Summary of Personal Injury Accidents

Location	Severity				Vulnerable Road Users			
	Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total
Eagle Avenue	0	0	7	7	0	1	2	0
Milton Road	0	0	1	1	0	0	0	0
Lovedean Road	0	0	5	5	0	0	0	0
Woodcroft Lane	0	0	0	0	0	0	0	0
Total	0	0	13	13	0	1	2	3

Source: Personal Injury Accident Data, HCC, 2014

2.7 Committed Development

- 2.7.1 Woodcroft Farm is adjacent to the Meadowlands site and has been identified by Havant Borough Council as a strategic site to accommodate up to 340 homes. A planning application was submitted in 2013 for a development comprising 288 dwellings and is currently pending awaiting a final decision.
- 2.7.2 The Woodcroft Farm site has a residential travel plan included to reduce the number of trips undertaken by the private car by providing information to residents on walking and cycling routes, incentives for travelling by sustainable means and information on local bus and train timetables.
- 2.7.3 Mitigation measures have been proposed to deliver traffic calming with a new site access junction from Eagle Way in the form of a mini-roundabout. Additionally, two further junction mitigation schemes have been outlined by the development, including:
- Lovedean Lane/ Milton Road Junction: to provide a mini-roundabout to replace the existing priority junction; and
 - Hambledon Road/ Milton Road/ Elletra Avenue Roundabout: to increase the road width on the Milton Road approach.

3 Development Proposals

3.1 Introduction

- 3.1.1 This section provides details of the development proposals, in terms of how the site will be accessed, the level of parking that will be provided and an outline of the schedule of accommodation.
- 3.1.2 HCC Property Services is submitting an outline planning application to provide 43 residential dwellings with associated internal roads and parking, and the formation of a new access from Woodcroft Lane, approximately 200m west of the Woodcroft Lane/ Lovedean Lane priority junction. The proposed schedule of accommodation is summarised in Table 3.1, whilst the site layout can be found in HCC EC drawing 502728/001 Rev D contained in **Appendix C**.

Table 3.1 – Outline Schedule of Accommodation

Dwelling Size	Total
1 Bedroom	3
2 Bedrooms	13
3 Bedrooms	21
4 Bedrooms	6
Total	43

3.2 Development Access

- 3.2.1 Access to the development will be gained via a proposed new access from Woodcroft Lane on the eastern perimeter of the site, with the general arrangement shown in **Appendix C**.
- 3.2.2 The minimum visibility requirement for a road with speeds of 30mph according to Manual for Streets is 2.4m by 43m from the site access. It can be seen from HCC drawing 502728/SK1 Rev D contained in **Appendix D** that 2.4 by 43m visibility splays are achievable in both directions from the proposed site access junction, providing sufficient visibility. The site access also has sufficient visibility to cater for main road speeds of up to 37mph which requires 59m, although given the curvature of the road adjacent to the site access, this is unlikely to occur.
- 3.2.3 Swept path analysis has been undertaken for the proposed site access layout. Tracking of a refuse vehicle is shown to be feasible on HCC Drawing 502728/SK4 Rev A included in **Appendix E**.

3.3 Car and Cycle Parking Standards

- 3.3.1 Residential parking provision will be made in line with the HBC's 'Residential Parking and Cycle Provision' which is a supplementary planning document adopted in March 2010. Table 3.2 and 3.3 outlines the maximum and minimum parking standards for car and cycle parking respectively, with Table 3.4 presenting the calculated level of car and cycle parking permitted.

Table 3.2- Car Parking Standards for Residential Developments

Dwelling Size	Allocated Parking spaces
1 Bedroom Unit	1 space per unit
2 Bedroom Unit	2 spaces per unit
3 Bedroom Unit	2 spaces per unit
4+ Bedroom Unit	3 spaces per unit

Table 3.3- Cycle Parking Standards for Residential Developments

Dwelling Size	Long Stay
1 Bedroom Unit	1 space per unit
2 Bedroom Unit	2 spaces per unit
3 Bedroom Unit	2 spaces per unit
4+ Bedroom Unit	2 spaces per unit

Table 3.4- Havant Borough Council Parking Standards

Bedrooms	Maximum Car Parking Spaces		Minimum Cycle Parking Spaces	
	Units	Spaces Required	Units	Spaces Required
1 Bedroom	3	3	3	3
2 Bedrooms	13	26	13	26
3 Bedrooms	21	42	21	42
4+ Bedrooms	6	18	6	12
TOTAL	43	89	43	83

3.3.2 The development proposals include provision for 89 allocated car parking spaces, 32 of which are provided within garages or car ports. This provides an overall parking provision of 2 spaces per dwelling and accords with maximum car parking standards.

3.3.3 Cycle parking provision will be provided at the site in line with the HBC's minimum standards.

3.4 Pedestrian and Cyclist Access

3.4.1 Safe and convenient access for pedestrians into and throughout the site will be provided in the form of a footway incorporated into the proposed site access design and on both sides of the internal roads where access to properties is required. Dropped kerbs and tactile paving has been incorporated into the scheme as indicated on HCC drawing 502728/001 Rev D.

3.4.2 In addition, a secondary pedestrian and cycle link is proposed leading onto Eagle Avenue, which will also serve as an access point for emergency vehicles. As the site has been designed in accordance with Manual for Streets principles, the pedestrian links are designed to be attractive, well lit and with good natural surveillance. Due to short stretches of internal highway and shared road space, this will

act as a natural restriction on vehicle speeds, ensuring greater priority to non-motorised users and a safer environment.

3.5 Travel Plan

3.5.1 The adjacent Woodcroft Farm development proposals for 288 dwellings included a Residential Travel Plan (RTP) with its submission. It is envisaged that the Meadowlands development, with its small scale in comparison, could adopt the adjacent site's Residential Travel Plan and its measures. These are included in the Woodcroft TA as:

- Provision of Welcome Packs to residents;
- Appointment of a Travel Plan Coordinator (TPC);
- A Bicycle User Group (BUG);
- Promotion of local Car Share Schemes;
- Provide information on local pedestrian links to facilities; and
- Working in partnership with the TPC at the MDA / Newlands site to support measures/ initiatives.

4 Highway Impacts

4.1 Introduction

- 4.1.1 This section summarises the derivation of trip generation, distribution and assignment for the proposed development.
- 4.1.2 It is noted that given the reduced scale of development, it has not been considered necessary to undertake any impact assessments of the proposals for Meadowlands. However, in consideration of the junction capacity assessments associated with the Woodcroft Farm development, sensitivity tests have been completed at the Woodcroft Lane/Lovedean Lane and Lovedean Lane/Milton Road junctions to ascertain the performance of these junctions with proposed mitigation for Woodcroft Farm cumulatively with the Meadowlands development traffic.

4.2 Assessment Methodology

- 4.2.1 Accordingly, junction assessments have been carried out for two scenarios in the AM and PM Peak hours, as follows:
- 2018 Base with Woodcroft Farm development (extracted from Woodcroft Farm TA (APP/13/00804)); and
 - 2018 Base with Woodcroft Farm and Meadowlands development.
- 4.2.2 The junctions have been assessed using Junctions 8 which includes ARCADY and PICADY computer modelling software modules produced by Transport Research Laboratory (TRL) for the modelling of priority junction and mini-roundabouts.
- 4.2.3 Volume 6 Section 2 of Design Manual for Roads and Bridges contains the document TA23/81 Junctions and Accesses: Determination of Size of Roundabout and Major/ Minor Priority Junctions which provides advice on interpretation of Ratio of Flow to Capacity (RFC) values. The document states that if any arm has an RFC ratio of about 0.85, queuing will theoretically be avoided in five out of six cases. Therefore an RFC below 0.85 is regarded as demonstrating that the junction would work satisfactorily with minimal delays to traffic. RFC values over 1.0 indicate that the junction is over design capacity and significant delays are likely to result on at least one junction arm.

4.3 Trip Generation

- 4.3.1 The trip generation presented for Woodcroft Farm development application has been reviewed to ascertain applicability for the proposed site. The TRICS trip generation rate for 'Mixed Private Housing' for the AM and PM peak period have been adopted to calculate the expected trip generation of the site. Trip rates and generation resulting from this approach are outlined in Table 4.1.

Table 4.1: Vehicular Trip Rates and Trip Generation

	Peak Period	Arrival	Departure	Total
Trip Rates	AM Peak 08:00-09:00	0.113	0.391	0.504
	PM Peak 17:00-18:00	0.298	0.172	0.470
Trip Generation	AM Peak 08:00-09:00	5	17	22
	PM Peak 17:00-18:00	13	7	20

- 4.3.2 The trips presented in Table 4.1 highlight that peak hour movements are forecast to be in the region of 20-22, approximately one movement every three minutes (two-way) trips, well below the 30 identified in DfT's guidance document for transport assessment.

4.4 Vehicular Distribution and Assignment

- 4.4.1 Traffic distribution and assignment for the generated trips have been based upon the average for AM and PM peak period turning flows for the existing turning proportions at Lovedean Lane/ Woodcroft Lane junction. This information is summarised in Table 4.2.

Table 4.2: Vehicular Distribution and Assignment

Destination	Arrive	Depart
Lovedean Lane (E)	90%	88%
Lovedean Lane (W)	10%	12%

4.5 Vehicle Impact Assessment

- 4.5.1 As part of the submission for the adjacent Woodcroft Farm application, junction assessments were completed for the future year 2018, taking account of committed development and development traffic associated with 288 dwellings. Traffic flows for this scenario have been extracted from the Woodcroft Farm Transport Assessment for the following two junctions:
- Woodcroft Lane/ Lovedean Lane Priority Junction; and
 - Lovedean Lane/ Milton Road Mini-Roundabout (Proposed Design).
- 4.5.2 Within the Woodcroft Farm TA, Lovedean Lane/ Woodcroft Lane priority junction was assessed up to 2018 using TEMPRO growth factors to uplift the data from the 2010 surveys. The results from the assessment showed a 1.29% and 1.32% increase in traffic flows in the AM and PM peak respectively due to Woodcroft Farm development-related traffic. Given the proportionate scale of Meadowlands to Woodcroft Farm, the impact at this junction is minimal.
- 4.5.3 For the purpose of this assessment, models for these two junctions have been reproduced for the 2018 Base + Woodcroft Farm scenario and compared with the junction performance when Meadowlands development traffic is included.
- 4.5.4 Presented in Table 4.3 are the results of the assessment of the 2018 Base + Woodcroft + Meadowlands scenario and the difference between the results with and without Meadowlands development traffic included. Full model output is provided in **Appendix F**.

Table 4.3: Woodcroft Lane/ Lovedean Lane Junction with Meadowlands Development (2018)

Arm	AM Peak		PM Peak	
	RFC	Queue Length	RFC	Queue Length
Woodcroft Lane	0.16	1	0.12	1
Lovedean Lane (N)	0.02	1	0.01	1
Meadowlands Development Impact				
Woodcroft Lane	+0.05	0	+0.02	0
Lovedean Lane (N)	0.00	0	+0.01	0

- 4.5.5 The results illustrated in Table 4.3 show that the existing junction will operate within capacity in the future scenario with the Meadowlands development included, with a maximum RFC of 0.16 on the Woodcroft Lane arm during the AM Peak. The greatest impact can be seen by a minor increase in RFC value of 0.05 on the Woodcroft Lane arm during the AM Peak.
- 4.5.6 The Woodcroft Farm development suggests a range of off-site highway mitigation measures upon which to utilise developer contributions, including upgrading the current priority junction at Lovedean Lane/ Milton Road with a mini-roundabout.
- 4.5.7 Table 4.6 below shows the Junctions 8 assessment of the 2018 Base + Woodcroft Farm + Meadowlands scenario based on the model reproduced from the Woodcroft Farm TA for this junction. Also shown in Table 4.6 is the proportion of impact generated by the Meadowlands development. A drawing of these junction proposals is included in **Appendix G**, whilst full model output can be found in **Appendix H**.

Table 4.4: Lovedean Lane/ Milton Road Proposed Mini-Roundabout with Meadowlands Development (2018)

Arm	AM Peak		PM Peak	
	RFC	Queue Length	RFC	Queue Length
Lovedean Lane (W)	0.95	14	0.58	2
Milton Road	0.72	3	0.79	4
Lovedean Lane (E)	0.51	2	0.70	3
Meadowlands Development Impact				
Lovedean Lane (W)	+0.02	+3	+0.01	0
Milton Road	0.00	0	+0.01	0
Lovedean Lane (E)	+0.01	+1	0.00	0

- 4.5.8 The proposed Milton Road junction scheme to upgrade to a mini-roundabout would improve the operation of the junction, however, it is forecast to be approaching its theoretical capacity prior to the addition of Woodcroft Farm development traffic.
- 4.5.9 The modelling results of the Lovedean Lane/ Milton Road junction show the proposed mini-roundabout design would operate close to capacity in the AM peak prior to the addition of

Meadowlands development traffic. The impact of Meadowlands has a marginal increase in the RFC value of 0.02 on the Lovedean Lane (W) arm during the AM Peak, with an associated three additional vehicles in the queue.

- 4.5.10 As alluded to in paragraph 4.2.3, despite approaching saturation, a junction that is forecast to operate with RFC's on all arms of less than 1.0 can be considered to remain operating within theoretical capacity.

4.6 Summary

- 4.6.1 Junction capacity assessments have demonstrated that the existing Woodcroft Lane/ Lovedean Lane junction would operate well within its theoretical capacity in the future year with minimal impact as a result of the addition of Meadowlands development traffic.
- 4.6.2 At the proposed Lovedean Lane/ Milton Road mini-roundabout, the impact of additional traffic from Meadowlands is considered minimal, reflecting the small scale nature of the development proposals. Given that the junction is forecast to be under pressure prior to the addition of Meadowlands development traffic, it is suggested that developer's transport contributions from both Woodcroft Farm and Meadowlands developments are utilised for improvements to this junction.

5 Transport Contributions

5.1 Introduction

- 5.1.1 This chapter presents the required developer contributions as set out within Hampshire County Council's 'Transport Contributions Policy', September 2007.

5.2 Financial Contribution

- 5.2.1 The highway authority, HCC, will require a standard S106 contribution towards improving local infrastructure and sustainable transport initiatives. HCC have produced a Transport Contributions Calculator to facilitate the calculation of such contributions.
- 5.2.2 In order to calculate the contribution specific to this development, multi-modal trip rates are set by HCC according to dwelling size. The average cost of one residential trip as specified by HCC is £534, rounded up to £535 for the purpose of calculations.
- 5.2.3 Table 5.1 summarises the financial contributions calculated for a residential development comprising 43 units, according to HCC policy.

Table 5.1 – Developer S106 Contributions

Dwelling Size	Cost per Trip (£)	Household Occupancy	Multi-Modal Trips (per dwelling)	Cost per Dwelling (£)	Number of Dwellings	Total Cost (£)
1 Bedroom	535	1.3	3.7	1,980	3	5,940
2-3 Bedrooms	535	2.42	7	3,745	34	127,330
4 Bedrooms	535	3.5	10.2	5,457	6	32,742
Total Transport Contribution =						166,012

5.3 Community Infrastructure Regulation 2010

- 5.3.1 Since the 'Transport Contributions Policy' was adopted the Community Infrastructure Regulations 2010 have been enacted and planning obligations can only be imposed as a reason for granting planning permission if the obligations satisfy the criteria set out in Regulation 122. HCC EC will discuss the financial contributions set out in the 'Transport Contributions Policy' with the planning authority as part of the process and the appropriate provisions will be covered in a Section 106 Agreement.

6 Conclusions

- 6.1.1 This Transport Statement has been produced as a result of discussions between WSP-PB and Hampshire County Council Engineering Consultancy (HCC EC) and is intended to support a future planning application for residential development of 43 units on an allocated site in the north-west corner of Waterloooville, Havant.
- 6.1.2 The redevelopment of the schools playing field will require a new access from Woodcroft Lane at the north east corner of the site which will act as the primary vehicular access to the site. The visibility splays from the existing access are seen as adequate for the 30mph limit on Woodcroft Lane. A secondary access for pedestrians and cyclists is proposed for access onto Eagle Avenue and access for fire and other emergency vehicles will utilise this secondary access.
- 6.1.3 Food stores, pharmacy, sports and fitness, primary and secondary schools, GP surgery and dentist are all accessible within a 30 minute walk, 10 minute cycle or 10 minute journey by public transport.
- 6.1.4 The car and cycle parking provision will be made in line with HBC's standards, which have been calculated based on the site's schedule of accommodation.
- 6.1.5 A review of the personal injury accident data has not identified any accident clusters which would be exacerbated as a result of the development.
- 6.1.6 The closest train station to the site is Rowlands Castle, 6.5km away, and the closest bus stop is at Wecock, Curlew Gardens approximately 100m away from the secondary access providing a service every 10 minutes to local facilities in the town centre.
- 6.1.7 Commensurate with the geographic scope of the 2009 TA, junction capacity assessments have been undertaken as a sensitivity test which confirms that with the minimal increase in traffic, the Meadowlands development will have no detrimental effect on local junctions thereby it is considered that there would be no requirement for transport related improvements as a result of the development.
- 6.1.8 The local highway network as well as the local bus services, pedestrian and cycle infrastructure are all deemed appropriate to accommodate the transport needs of the development. The proposed site access will include the provision of dropped kerbs and tactile paving at the informal crossing to facilitate pedestrian movement.
- 6.1.9 In conclusion, the report has provided an assessment of the proposed development and confirmed that there are no transport reasons which would preclude the application being determined positively by the local highway authority.

Figures

Legend

★ Site Location

Health Services

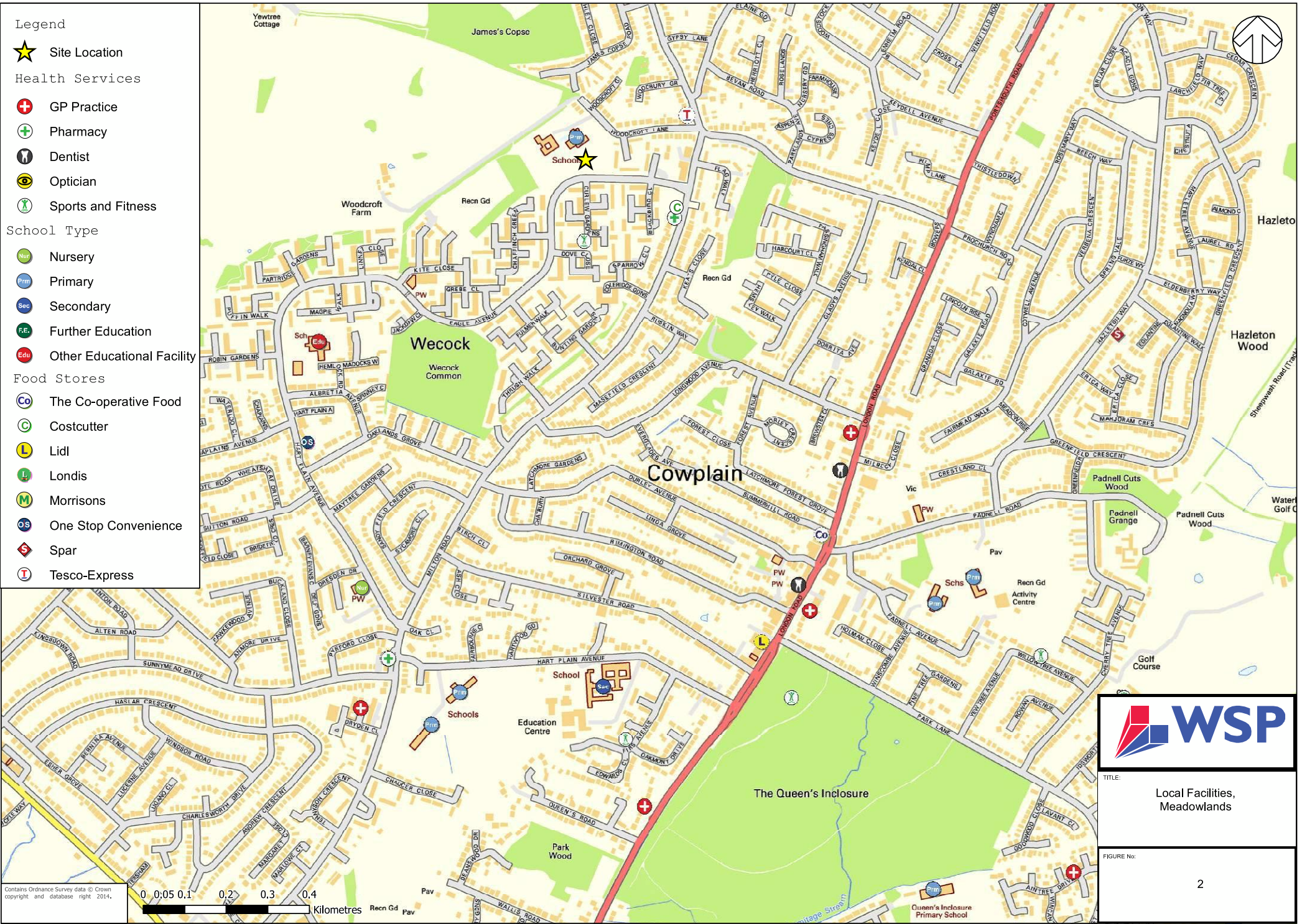
- ⊕ GP Practice
- ⊕ Pharmacy
- ⊕ Dentist
- ⊕ Optician
- ⊕ Sports and Fitness

School Type

- Nur Nursery
- Prim Primary
- Sec Secondary
- F.E. Further Education
- Edu Other Educational Facility

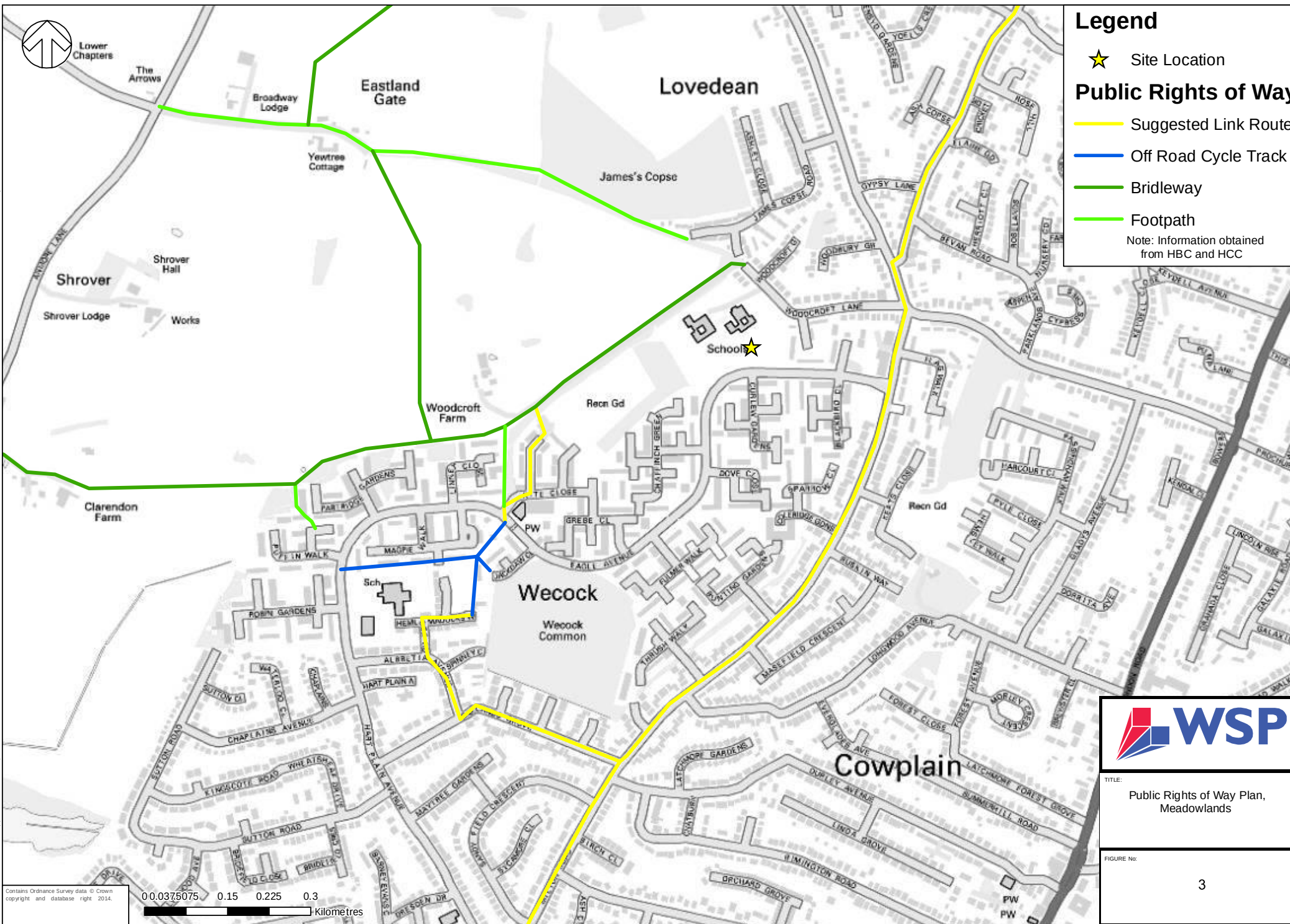
Food Stores

- Co The Co-operative Food
- C Costcutter
- L Lidl
- L Londis
- M Morrisons
- OS One Stop Convenience
- S Spar
- T Tesco-Express



TITLE:
Local Facilities,
Meadowlands

FIGURE No:
2



Legend

★ Site Location

Public Rights of Way

— Suggested Link Route

— Off Road Cycle Track

— Bridleway

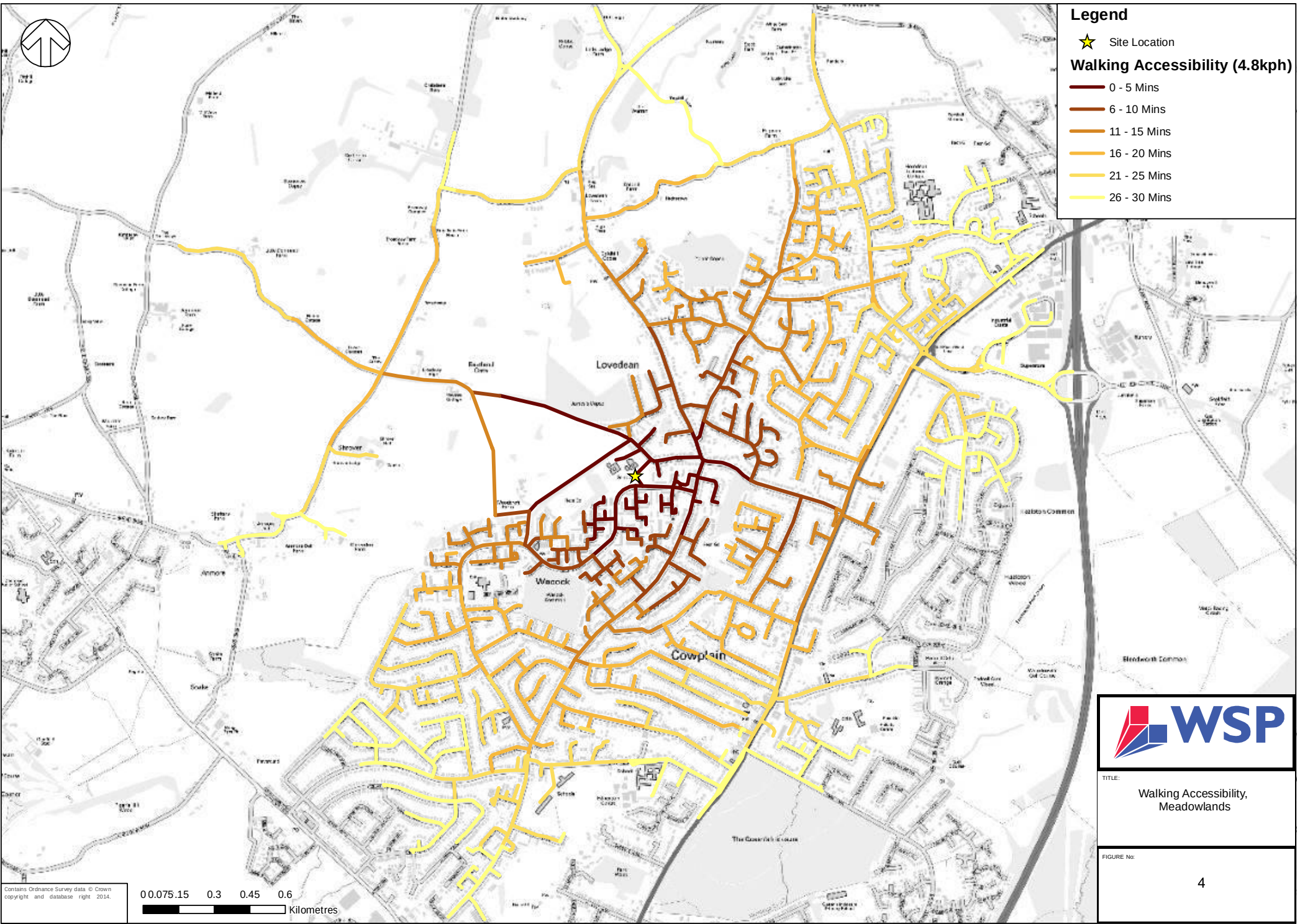
— Footpath

Note: Information obtained from HBC and HCC



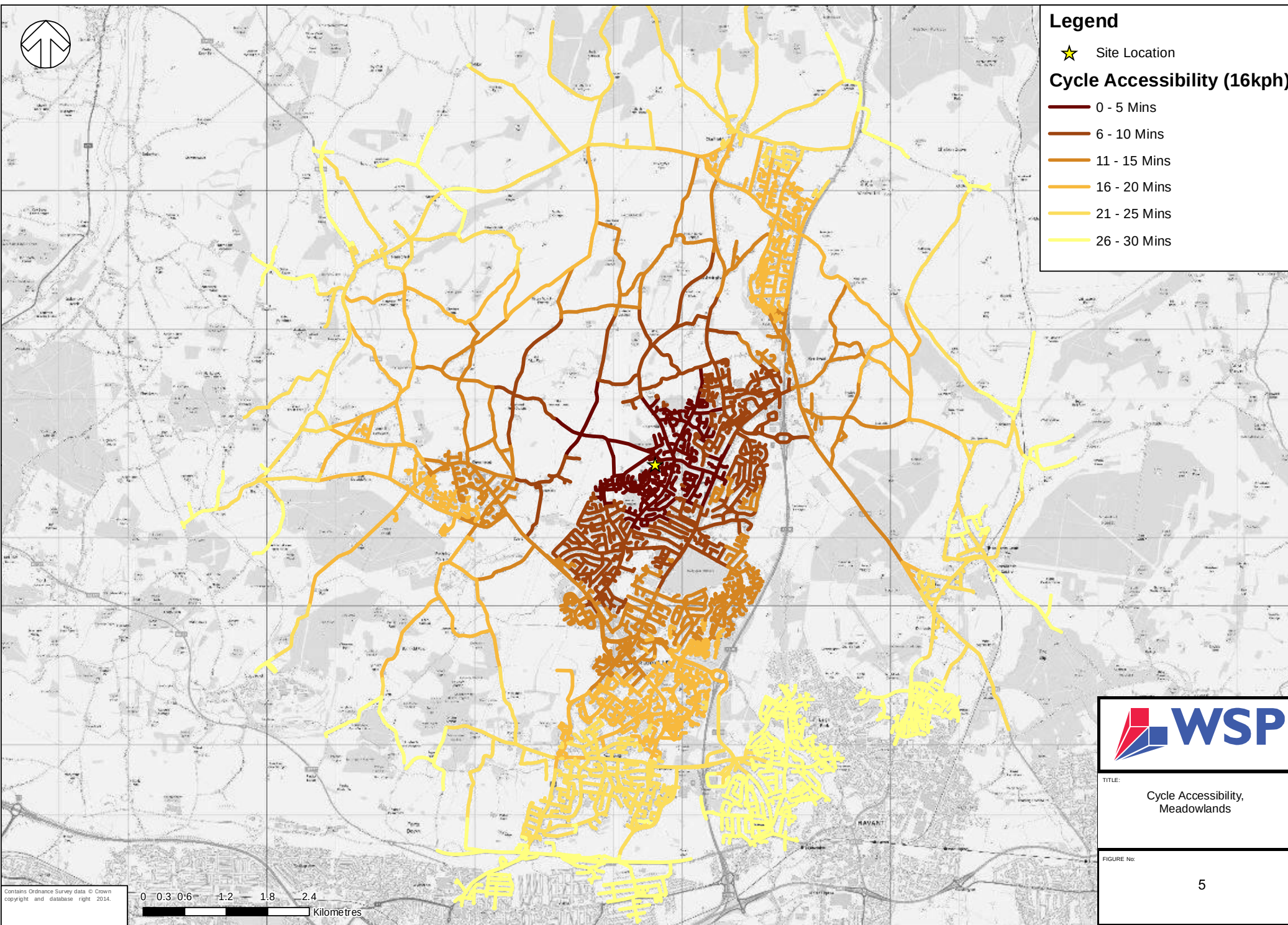
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Public Rights of Way Plan,
Meadowlands

FIGURE NO:
3



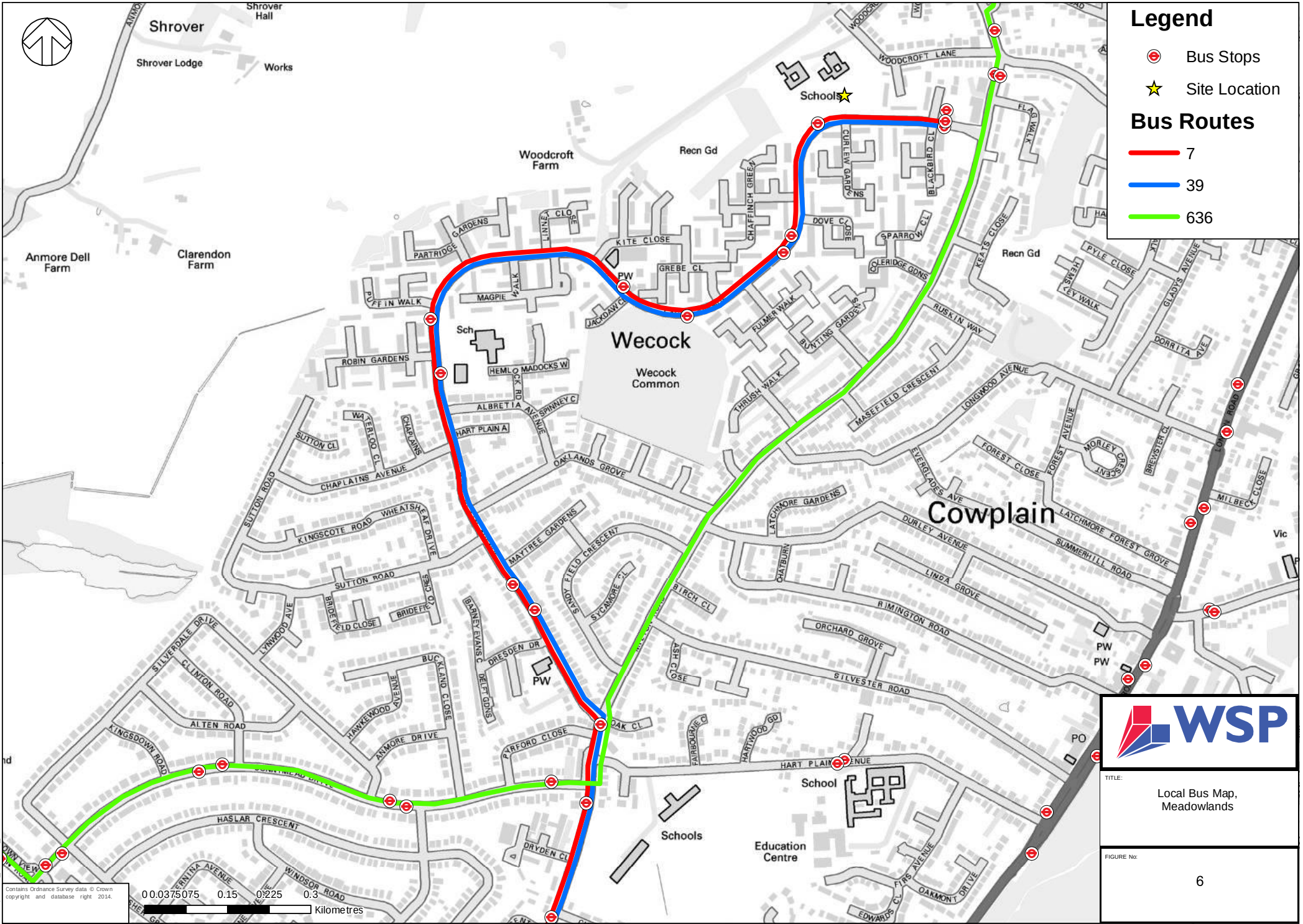
TITLE:
Walking Accessibility,
Meadowlands

FIGURE No:
4

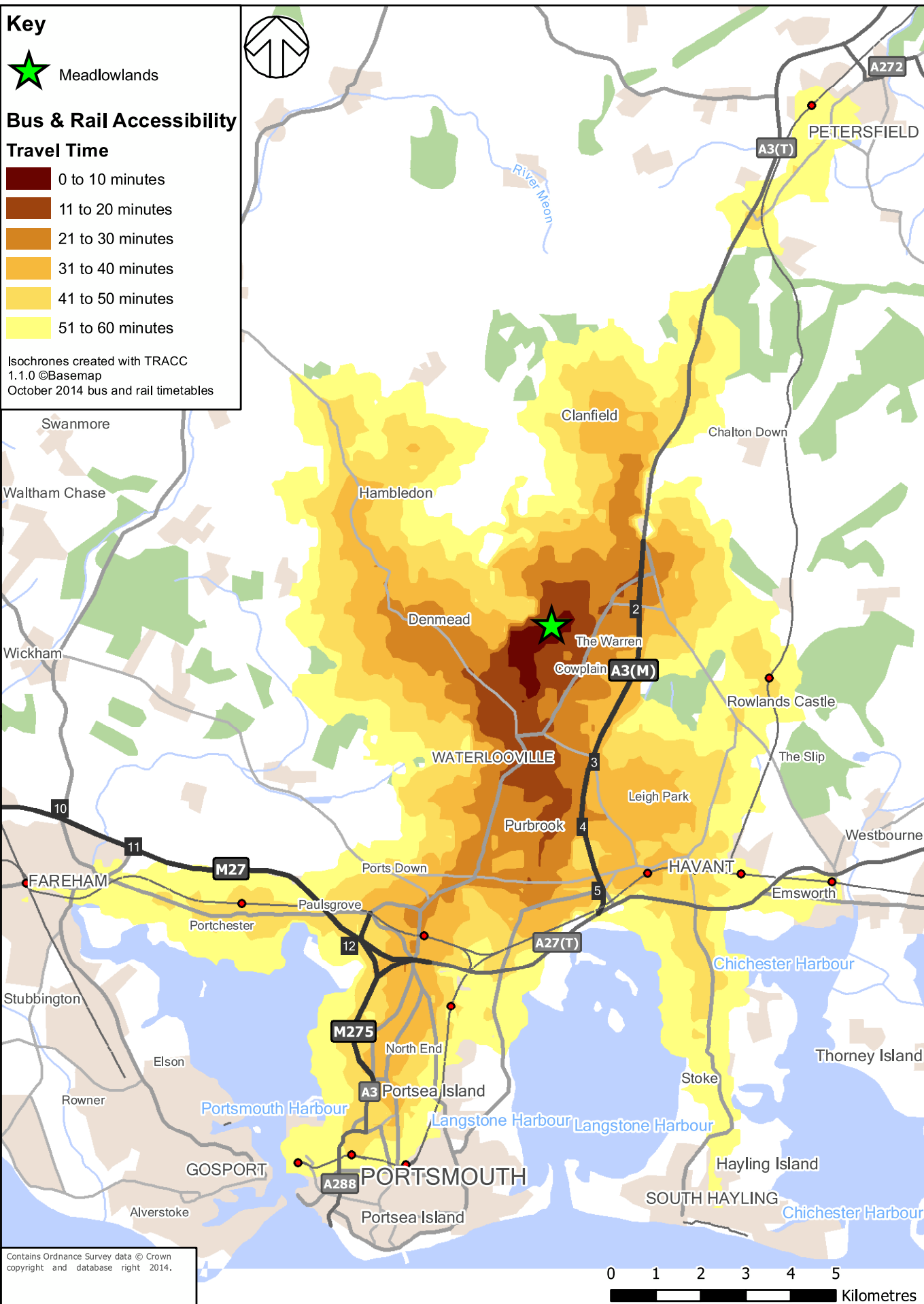


TITLE:
Cycle Accessibility,
Meadowlands

FIGURE No:
5



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Drawn By: ukmdj002 Date Modified: 21/11/2014



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