



**PERSIMMON HOMES THAMES VALLEY
NORTH LITTLEHAMPTON
(TODDINGTON)
PHASE 2 RESIDENTIAL DEVELOPMENT
BY PERSIMMON HOMES, COMPRISING
PARCEL C1 AND PART PARCELS B2, B4
AND C2**

TRANSPORT STATEMENT

SEPTEMBER 2017

the journey is the reward

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SEPTEMBER 2017

Project Code:	PHLittlehampton.1
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Approved by:	Paul Stocker
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**Persimmon Homes Thames Valley
North Littlehampton (Toddington)
Phase 2 Residential Development by Persimmon Homes, Comprising Parcel C1
and Part Parcels B2, B4 and C2
Transport Statement**

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1 Introduction

- 1.1 Mayer Brown has been commissioned by Persimmon Homes Thames Valley to produce this Transport Statement in support of the proposed application to redevelop further plots of the North Littlehampton (Toddington) site, creating 126 residential dwellings, as part of a permitted larger scheme to create a sustainable urban extension to the town, known as 'the North Littlehampton Strategic Development Area' (NLSDA) (see app. ref. LU/47/11).
- 1.2 The location of the site in relation to the local highway network is shown in Figure 1.1 below:

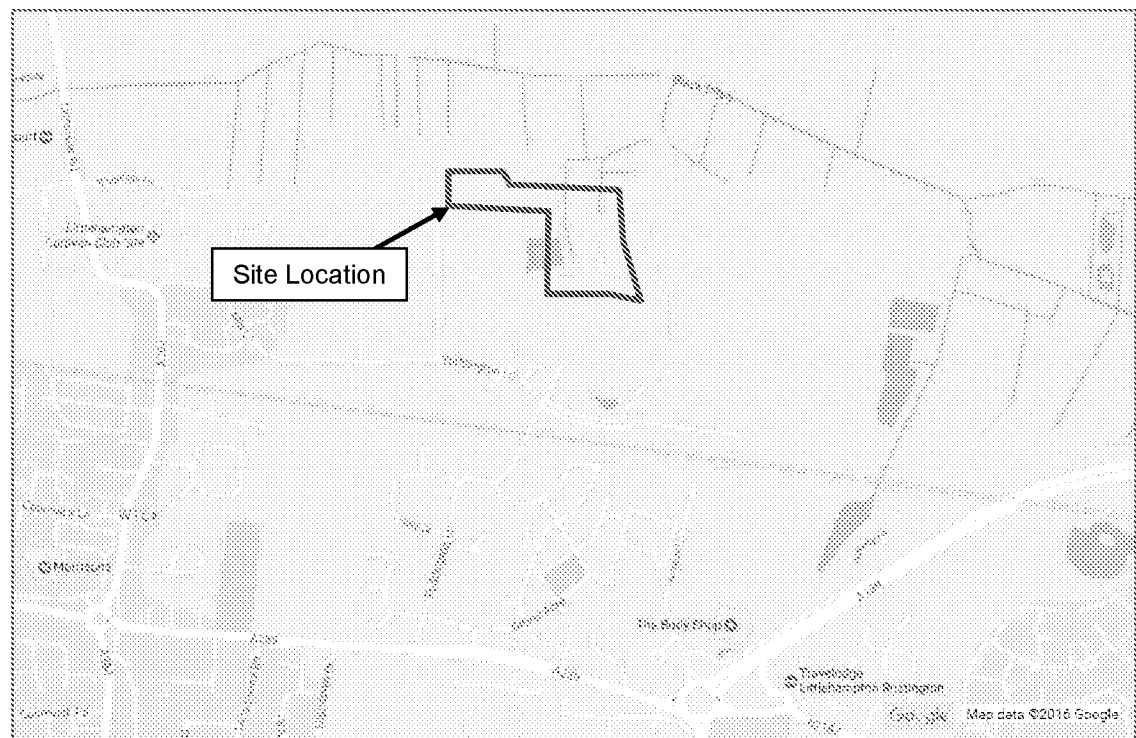


Figure 1.1: Site in Relation to the Local Highway Network

- 1.3 The location of the site in relation to the North Littlehampton Strategic Development Area proposals masterplan is shown in Figure 1.2 below:

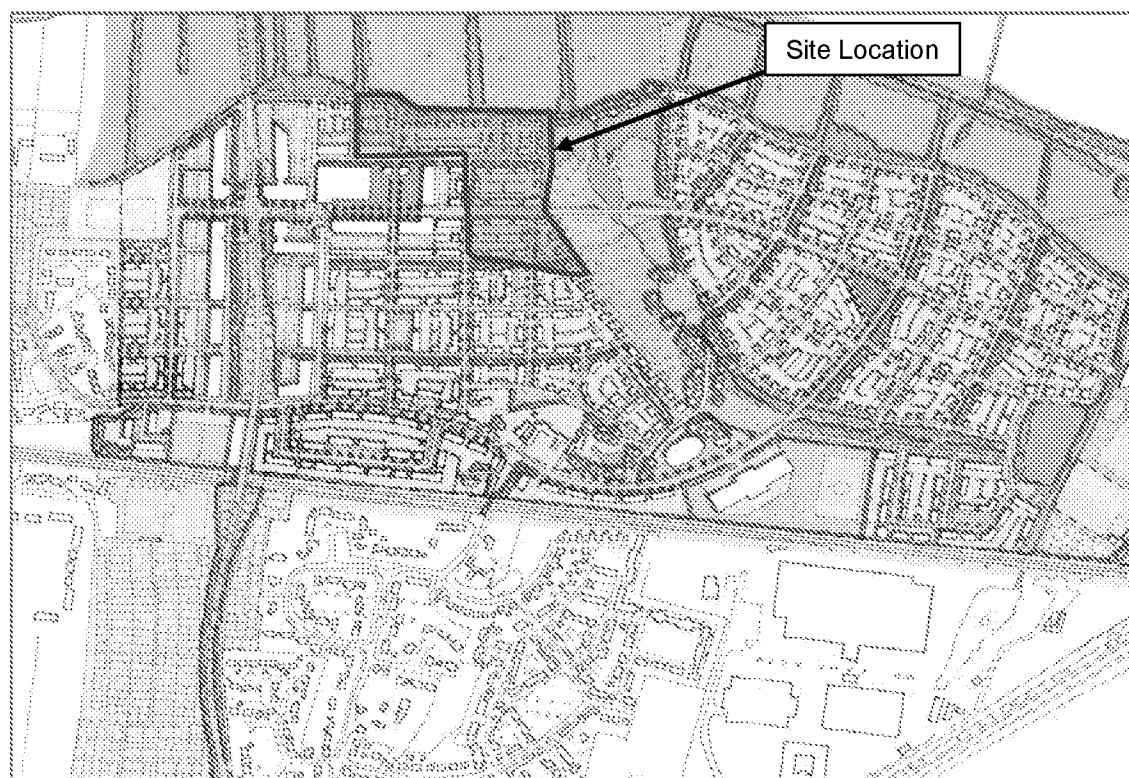


Figure 1.2: Site in Relation to the Proposed North Littlehampton Strategic Development Area

- 1.4 The site was previously part of a nursery.
- 1.5 The residential zones within the NLSDA have been divided into land parcels with alphanumeric names (e.g. E1, B5, etc). For cross-reference between this document and NLSDA documents, sites C1, C2, B2 and the northern side of B4 form what is referred to as 'the site' in this report.
- 1.6 The creation of these dwellings and the supporting infrastructure on the site is known as 'Phase 2' of the development of the NLSDA. Phase 1 (A1 site) is already approved and under construction, comprising of the creation of 114 residential dwellings north of Toddington Lane, to the west of the proposed bypass. Phase 1 (B3 & B5 sites) is also under construction and is located to the south of the site.

1.7 The NLSDA approved outline application was subject to a comprehensive multi-modal Transport Assessment and the traffic impact of the proposals has already been considered in detail. Taking this into account and due to the predicted minimal traffic impact of the proposals, this assessment has been set out in the format of a Transport Statement providing:

- » a detailed sustainability and accessibility assessment of the site
- » a detailed examination of the development proposals
- » an assessment of the net highways and transportation impacts of the proposed scheme

1.8 The remainder of the report consists of the following sections:

- » Site Location & Existing Conditions
- » Accessibility
- » Development Proposals
- » Traffic Impact
- » Summary and Conclusions

1.9 This report concludes that the proposed development:

- » is located within walking/cycling distance of key services in the area
- » is easily accessible on foot or by cyclists, with public/communal transport links to be installed soon after completion
- » will provide suitable access, parking and servicing arrangements
- » will have no material impact on the operation of the local highway network

1.10 It is therefore concluded that there are no reasons why the proposed development should not be permitted on highways or transportation grounds.

2 Site Location and Existing Conditions

- 2.1 The site is located to the north of Littlehampton, and will lie directly to the east of the proposed Lyminster Bypass. This bypass will improve north-south access to Littlehampton by removing delays associated with the existing A284 Lyminster Road and the Wick level crossing
- 2.2 Once constructed, the bypass will provide access to and from the A259 to the south and the A27 to the north.
- 2.3 The site lies just north of Toddington Lane, which itself runs parallel to the railway line running east-west from Ford to Angmering (additionally, a rail junction connecting Littlehampton to the south and Arundel to the north is a further 2km west). Toddington Lane crosses the railway at a level crossing to the southeast of the site, and connects, via Mill Lane, to Lyminster Road (A284) to the southwest, which in turn also crosses the railway at the Wick level crossing.
- 2.4 Recent improvement works to Toddington Lane have involved the installation of street lighting and the creation of a short one-way section of this otherwise two-way single carriageway. Toddington Lane is subject to a 30mph speed limit, and is the subject of an approved improvement scheme involving carriageway widening and the provision of additional street lighting and footways.
- 2.5 Mill Lane, connecting Toddington Lane to Lyminster Road, is a two-way single carriageway residential road subject to a 30mph speed limit and benefits from street-lit footways along either side of the carriageway. It feeds into a number of smaller residential roads, including a caravan club site. This road will also be improved as part of the Toddington Lane works.
- 2.6 Prior to the bypass' completion, most journeys from the site to amenities or local facilities will be via Toddington Lane/Mill Lane and Lyminster Road (A284).
- 2.7 A number of shops and facilities are located along the A284 further south towards Littlehampton, including:
- ✧ Morrisons supermarket and petrol filling station
 - ✧ Post Office
 - ✧ Primary schools
 - ✧ Takeaway restaurants
 - ✧ Pubs

Accident Statistics

- 2.8 The road traffic accident data recorded over the past 5 years on the local highway network in the vicinity of the site has been assessed by reference to the CrashMap website, which provides information about recorded injury collisions on the roads of Great Britain. CrashMap only uses official data from incidents reported to the police so the results are the most reliable available.
- 2.9 The accident data provided identifies that over the period analysed, there has not been a recorded accident on Toddington Lane or Mill Lane, the main roads closest to the site. The data also shows that only one slight severity accident has occurred at the Mill Lane/A254 junction.

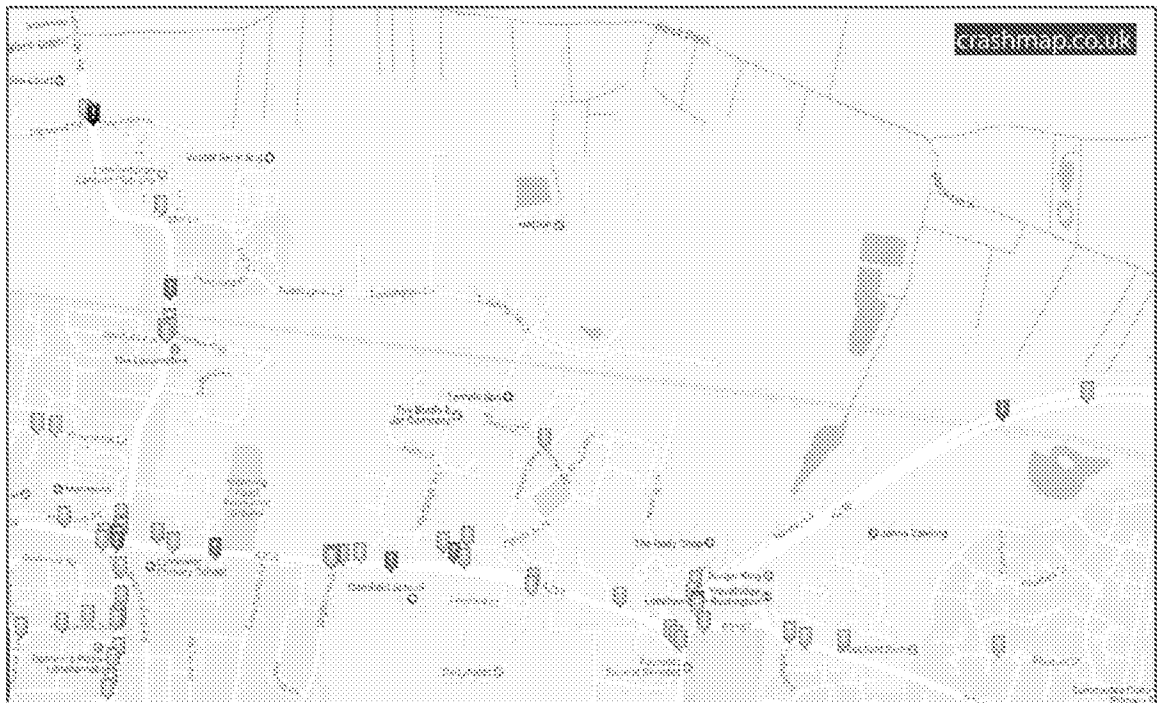


Figure 2.1: Accident Map

- 2.10 It is therefore evident that there are no significant road safety issues related to the existing roads serving the site. As set out later in this report, the proposals will have a beneficial impact in terms of traffic attraction compared to the consented use of the site and it can therefore be concluded that the proposals have no road safety implications.

3 Accessibility

Bus Accessibility

- 3.1 The nearest bus stops to the site are the Six Bells bus stops, which lie on Lyminster Road, 270m north of where Mill Lane meets Lyminster Road. Mill Lane is a short road connecting Lyminster Road to Toddington Lane.
- 3.2 The Six Bells bus stops are situated approximately 1,100m from the site via present road access routes, which represents a 14-minute walk, assuming a comfortable walking speed of 80m/min.
- 3.3 The Seaton Road bus stops lie slightly further south on Lyminster Road and are virtually equidistant to the site as the Six Bells bus stops are.
- 3.4 Two bus services run from these stops, the 602 and the 700 Coastliner.
- 3.5 The 602 bus route is a school bus running to St Philip Howard School, and calls at the Six Bells bus stop northbound at 08:00 and southbound at 15:39, on weekdays during term time only. The route serves Barnham, Walberton, Arundel, Littlehampton and Rustington.
- 3.6 The 700 Coastliner bus service is a series of three bus routes, all known as 700 Coastliners, that together link Brighton to Littlehampton, Littlehampton to Chichester and Chichester to Portsmouth.
- 3.7 The Brighton to Littlehampton route stops at the Six Bells and Seaton Road bus stops, and provides access to Arundel to the north (with a stop at Arundel Rail Station), and Littlehampton town to the south. Further en route to Brighton, the bus has stops in East Preston, Goring-by-Sea, Worthing, Shoreham-by-Sea, Southwick, Hove and Brighton.
- 3.8 The 700 Coastliner is scheduled to stop at the Six Bells bus stop every half an hour, however additional 700 Coastliner services run from Selwyn Avenue bus stop, just two stops further on Brighton-bound (one stop further than Seaton Road bus stop). Selwyn Avenue bus stop is a further 500m from Seaton Road, or an approximately 6-minute walk.
- 3.9 From the Anchor Springs bus stops, which lie just 370m from Littlehampton Rail Station, 700 Coastliner buses run every 10 minutes.

- 3.10 A summary of the 700 Coastliner bus service from Littlehampton towards Brighton is provided in the following table:

Bus Stop	First Bus	Subsequent Bus Frequency	Last Bus
Jarvis Road	06:27	2 per hour	18:43
The Six Bells	06:39	2 per hour	18:54
Selwyn Avenue	06:02	3 per hour until 07:52, then 2 per hour	18:57
Anchor Springs	06:10	3 per hour until 07:44, then 6 per hour until 19:30, then 1 per hour	22:30

Table 3.1: 700 Coastliner bus service from Littlehampton towards Brighton

- 3.11 The above has shown that the site is accessible by bus from Arundel – and Arundel Rail Station - to the north, and Littlehampton town to the south, with services continuing east along the south coast to Brighton.
- 3.12 In addition, a dedicated bus service will serve the NLSDA by the time the whole scheme is completed, with a stop proposed to be situated less than 150m west of the site.
- 3.13 The 2013 S106 document relating to the NLSDA details in Schedule 11 that a 'Bus Service Contribution' shall be paid by the owners to Arun District Council '*prior to the Occupation of more than 100 Dwellings*'. It is understood that this payment will occur before the completion of the proposals at the site, as over 200 dwellings are already consented to be built on other sites in the NLSDA.
- 3.14 Paragraph 3.59 of the NLSDA Transport Assessment states that '*The new [bus] service will operate 7 days a week and will provide a half hourly service operating 0600- 2100 on weekdays and 0900 to 1600 at weekends*'.
- 3.15 It is therefore evident that bus travel to the site from local areas is possible and will improve as the NLSDA is developed.

Rail Accessibility

- 3.16 The site is situated between Arundel Rail Station (2.37km north-west) and Littlehampton Rail Station (2.2km south-west) – the 700 Coastliner bus service calls at both of these stations, providing easy multi-modal public transport to further afield.
- 3.17 The now superseded Planning Policy Guidance 13 (Transport) had set out that cycling offers an attractive alternative to the car for trips of less than 5km, and this distance

remains a useful indicator of appropriate cycling distances. With these guidelines in mind, it is clear that the site's vicinity to Arundel and Littlehampton stations allows for the possibility of combined cycle and rail multi-modal journeys to and from the site.

- 3.18 Arundel station has 24 storage spaces for bicycles, in the form of stands located at platform 1 and in the carpark.
- 3.19 Littlehampton has 82 storage spaces for cycles, in the form of stands and wheel racks in the car park.
- 3.20 Travel to either station from the site will involve joining the A284 from Mill Lane. From this junction, the journey to Arundel Rail Station is 3.1km north, via traversing the A284 until its end at a roundabout junction with the A27, whereat Arundel Rail Station is 700m westbound.
- 3.21 From the Mill Lane/A284 junction to Littlehampton Rail Station, the 2.2km journey must be made south, continuing along the A284 until its southernmost point, where it joins Franciscan Way/Arundel Road, just 170m from the station.
- 3.22 Both Arundel and Littlehampton Rail Stations are served by exclusively Southern Rail train services. Both stations provide access to a wide range of destinations across the South-East, including Worthing, Hove, Brighton, London Bridge, London Victoria, Bognor Regis, Portsmouth Harbour and Southampton Central.
- 3.23 The peak hour rail services accessible from Littlehampton and Arundel are summarised in the following tables:

Terminus	Other Notable Stops On Route	AM Peak	PM Peak	Weekend Peak
Chichester	Barnham	2 per hour	1 per hour	1 per hour
Brighton	Worthing, Shoreham-by-Sea, Hove	2 per hour	1 per hour	1 per hour
London Bridge	Gatwick Airport, East Croydon	1 per hour	-	-
London Victoria	Worthing, Shoreham-by-Sea, Hove, Brighton, Gatwick Airport, East Croydon, Clapham Junction	2 per hour	2 per hour	2 per hour
Bognor Regis	Barnham	1 per hour	2 per hour	1 per hour
Portsmouth Harbour	Barnham, Southbourne, Portsmouth & Southsea	1 per hour	-	1 per hour
Portsmouth & Southsea	Barnham, Southbourne	1 per hour	1 per hour	1 per hour

Table 3.2: Direct Train Services from Littlehampton

Terminus	Other Notable Stops On Route	AM Peak	PM Peak	Weekend Peak
Chichester	Barnham	2 per hour	-	1 per hour
London Bridge	Horsham, Crawley, Gatwick Airport, East Croydon	1 per hour	-	-
London Victoria	Horsham, Crawley, Gatwick Airport, East Croydon, Clapham Junction	2 per hour	2 per hour	2 per hour
Bognor Regis	Barnham	2 per hour	3 per hour	2 per hour
Littlehampton	-	1 per hour	-	-
Southampton Central	Barnham, Chichester, Southbourne, Havant, Cosham	1 per hour	-	1 per hour

Table 3.3: Direct Train Services from Arundel

Walking and Cycling Accessibility

- 3.24 Toddington Lane has a footway provision along its southern side and will be further improved as part of the approved improvement scheme referred to previously.
- 3.25 There is a Premier Supermarket Express 50m south of the Wick level crossing, placing it approximately 950m from the site by road (a 12-minute walk, assuming a leisurely walking speed of 80m/min). The Locomotive public house is situated across the road from the Premier Supermarket Express.
- 3.26 A further 370m from the Premier Supermarket Express south (a 5-minute walk) is a Morrisons supermarket.
- 3.27 The now superseded Planning Policy Guidance Note 13 describes 2km as a reasonable commuting walking distance, and this guideline still provides a useful indication of acceptable pedestrian trip length. The above local amenities are well within that range, and thus some shopping excursions can be made by foot from the site.
- 3.28 Part of the NLSDA involves making improvements to Toddington Lane, including the installation of additional street lighting and footways alongside the road with intent on making Toddington Lane much more accessible by foot or cycle, and preventing its use as a 'rat run'.
- 3.29 Littlehampton is a cycling destination, lying on Route 2 of the National Cycle Network, between Dover and St. Austell, and boasting stunning seafront views from the cycle route on the prom by the beach.
- 3.30 The now superseded Planning Policy Guidance Note 13 provides useful indications of acceptable journey lengths via sustainable modes of transport and recognises a cycle journey length of 5km as a recommended maximum for judging the viability of local journeys. Lyminster Primary School, Cornfield School, The Littlehampton Academy,

White Meadows Primary Academy, St Catherine's Catholic Primary School and Riverbeach Primary School are all within 3km of the site, and so clearly within cycling distance.

- 3.31 The seafront is approximately 3.8km (or a 15-minute cycle, assuming an average cycling speed of 260m/min) from the site, and is therefore also within comfortable cycling distance.
- 3.32 With most, if not all, of Littlehampton within cycling distance of the site, including the station, it is reasonable to assume that many journeys to local amenities – or the daily commute for residents working in Littlehampton – could be made by cycle.

Accessibility Summary

- 3.33 It can be seen that the site is accessible by bus or cycle locally, with a bus/rail and cycle/rail multi-modal trip combination possible for visitors from further afield.
- 3.34 The close proximity of two stations with frequent services across the South-East allows the site to be accessed from further afield destinations such as Brighton, Bognor Regis and Chichester.
- 3.35 Given the proximity of the site to rest of the town, many journeys to amenities by the site's residents can be made by cycle, which will further contribute to keeping car use at the site to a minimum.

4 Development Proposals

- 4.1 The proposed site layout is illustrated in Appendix A of this report.
- 4.2 The development proposed is for the construction of 126 dwellings, the vast majority houses, along with the associated roads, gardens and parking spaces.
- 4.3 16 of these dwellings will be socially rented, and a further 20 will have shared ownership. The remaining will be privately owned.
- 4.4 The 126 dwellings are comprised of:
- ✧ 6 socially rented flats
 - ✧ 23 detached private houses
 - ✧ 14 end terrace houses
 - ✧ 9 mid terrace houses
 - ✧ 74 semi-detached houses (including 10 socially rented houses)
- 4.5 This is one part of a much larger scheme to develop the land just north of the railway tracks that lie to the north of Littlehampton (the North Littlehampton Strategic Development Area - NLSDA), which will include further residential dwellings, two schools, a library, office space and shops, amongst other amenities.

Site Access

- 4.6 The main access to the site currently is from two private access roads with entry points from Toddington Lane – one heads directly north to the site from a central point along Toddington Lane, whilst the other begins at the most eastern point of Toddington Lane and curves anti-clockwise until it terminates at the site, at a more western point than where the road meets Toddington Lane.
- 4.7 Until the southern section of the bypass is completed, access to the site from Toddington Lane will be provided via the Internal Distributor Road (IDR), to be constructed parallel and to the east of the proposed bypass, connecting Toddington Lane, the Main Avenue through the site and the B3 access road – replacing, and in almost the same location, as the currently existing private road that provides access to the now-defunct nursery. Once the bypass has been completed, the main road through the site (Main Avenue) will be connected to the bypass by a roundabout. This highway network is illustrated in Appendix B.
- 4.8 As set out above, improvement works are planned for Toddington Lane. The 2013 S106 document relating to the NLSDA details in schedule 10, paragraph 7 that the Toddington

Lane improvements will be completed prior to the occupation of more than 100 dwellings. This is likely to occur before the completion of the proposed at the site, as over 200 dwellings are already consented to be built on other sites in the NLSDA.

- 4.9 To the southeast of the site, Toddington Lane crosses the railway line at a level crossing.

On-Site Parking Provision

- 4.10 A diagram of the proposed parking layout within the site is provided in Appendix C.
- 4.11 In the proposed site developments, allocated parking is provided adjacent – or in very close proximity – to the dwellings to which they are associated.
- 4.12 Most houses have 2 designated parking bays nearby. Houses 1, 2, 11, 91 and 92 (numeric labels as given in Appendix C) have only 1 allocated parking bay, however an extra unallocated space is provided adjacent to these bays (except for house 11).
- 4.13 Each of the six flats has 1 designated parking bay, though an additional 2 visitor parking spaces are provided within the flats' car park, as are 4 unallocated parking spaces.
- 4.14 The site is located within the ward Wick with Toddington. The Office for National Statistics provides online data from the 2011 census, revealing a ratio of 1.3 vehicles available to each household within the ward. Given the ratio of 249 allocated parking spaces for 126 properties (an average of 2.0 allocated parking bays per household), and the additionally provided visitor and unallocated parking bays, it is believed there will be ample parking capacity within the site upon its completion.
- 4.15 Further to the allocated parking bays, 8 houses will be built with garages, providing vehicle storage.
- 4.16 Arun District Council provides guidance for the recommended maximum provision of parking spaces for new developments in its 2000 parking standards supplementary planning guidance document. This guidance recommends providing 2 designated spaces per small dwelling (3 or less bedrooms and a floor area not exceeding 120sqm) and 3 spaces per large dwelling, in addition to 0.2 spaces per dwelling for visitors and service vehicles.
- 4.17 In total, this guidance recommends a maximum of 294.2 vehicle parking spaces for the site.
- 4.18 More recently, parking provision guidance comes from West Sussex County Council, who in their 2010 'Guidance for Parking in New Residential Development' document, provide a calculation tool that determines the recommended parking for a new

development based upon factors including location, habitable rooms and number of units of each size. Its purpose is to *'calculate the number of parking spaces required at new residential development on a site specific basis'*.

- 4.19 Based solely on information sourced from the August 2017 draft plans (Appendices A-C), the calculator believes there is a parking demand of 282 spaces, of which 249 are the already allocated residential parking bays and garages. In addition to these, the guidelines calculator requires another 8.2 unallocated spaces for residents and 24.4 unallocated spaces for visitors.
- 4.20 The current plans closely reflect these requirements, providing 14 unallocated parking spaces and 18 visitor parking spaces.
- 4.21 Appendix D contains the calculations and methodology employed to obtain the parking space requirement figures for all requirement models presented in this report.
- 4.22 Within age ranges 55-64, 65-74 and 75+, Wick with Toddington ward has proportionally higher populations than the average in the South-East or in England as a whole. As such, parking has been provided with disabled access in mind.
- 4.23 West Sussex Parking Standards 2010 (WSPS10) Principle F 2.11 d reads 'Spaces for disabled people – *Provision should be consistent with guidance in "Manual for Streets"*'. Manual for Streets (MfS) 8.3.25 reads *'It is preferable to provide these spaces in unallocated areas, including on-street, as it is not normally possible to identify which properties will be occupied by or visited by disabled people. It is recommended that spaces for disabled people are generally located as close as possible to building entrances.'*
- 4.24 89 allocated and unallocated bays have been designed with accessibility as a priority, and these bays are marked on the parking schedule in Appendix C of this report. All parking bays in the development are off-street and are generally behind footways with flush kerbs, allowing easier access for wheelchair or disability scooter users.
- 4.25 All parking bays are a minimum of 2.4m wide and 4.8m long and approximately two thirds are not directly bound by parking spaces on either side, in accordance with MfS' requirements in paragraph 8.3.58 – *'The recommended dimensions of off street parking bays are that they are laid out as a rectangle at least 4.8 m long by 2.4 m wide for the vehicle, along with additional space as set out in Inclusive Mobility.'*

- 4.26 WSPS10 provides guidance on the provision that ought to be made for cycles on new developments. It recommends 1 or 2 cycle spaces per house, depending on size, and 0.5 cycle spaces per flat.
- 4.27 With these guidelines, the proposed development requires 210 cycle parking spaces.
- 4.28 As all new dwellings in the proposed development have gardens – bar the flats – cycles are recommended to be kept inside a shed in the back garden. Assuming each shed could store 2 bicycles, cycle parking space requirements are easily met.
- 4.29 Parking provision for 4 cycles for the flats is provided in a bike and bin storage outbuilding within the flats' car park.
- 4.30 West Sussex Parking Standard 2003 (WSPS03) recommends one visitor cycle parking space per 8 dwellings, requiring 16 visitor cycle parking spaces for the development. This is provided by way of 4 sets of public cycle stands throughout the development, each with capacity for 4 cycles.
- 4.31 WSPS10 Principle F 2.11 e reads '*Motorcycle parking - Provision should be consistent with guidance in "Manual for Streets"*'. MfS 8.4.6 reads '*In planning for private residential parking, in most situations motorcycles will be able to use car parking spaces, but in some situations it will be appropriate to provide designated motorcycle parking areas...*'.
- 4.32 MfS gives no specific figure for the level of motorcycle parking provision, but highlights in paragraph 8.4.1 that motorcycles comprise approximately 5% of motor vehicles and that adequate parking must be provided.
- 4.33 The development will provide 10 motorcycle parking spaces on the site, with adequate fixed features to provide security. Garages also provide an ideal location for motorcycle parking, and with this considered, the development will provide 18 suitable motorcycle parking spaces - 6% of motor vehicle parking provision.
- 4.34 MfS 8.4.3 recommends a footprint of 2.0m by 0.8m for motorcycle parking bays, and this requirement is met in the development plans.
- 4.35 Parking has been designed on the site such that there should be no need for on-street or footway parking, which can reduce visibility, thus decreasing road safety both for drivers and pedestrians, and increasing journey times.

Servicing

- 4.36 The scheme has been designed to accommodate a large refuse vehicle with turning heads provided at the end of cul-de-sacs where appropriate. There are some locations

where a refuse vehicle is required to reverse up to 25m in a clear unobstructed straight line due to some turning heads being brought in at a later phase.

- 4.37 Details of refuse vehicle tracking are provided in Appendix E. This confirms that service vehicles can negotiate the proposed site layout.
- 4.38 It is known that emergency vehicles are smaller than refuse lorries and, as refuse vehicle tracking has been shown to have satisfactory manoeuvrability within the proposed site layout, it is understood that emergency vehicles can also access the site without issue.

5 Traffic Impact

- 5.1 As mentioned above, the site is a former nursery, currently in disuse awaiting redevelopment. The proposals comprise the creation of 23 detached houses, 74 semi-detached houses, 23 terraced houses and 6 flats, in addition to a supporting road network to serve these new residential dwellings.
- 5.2 To further mitigate any traffic impact, the site will also operate a Travel Plan containing measures and incentives to promote the use of sustainable travel and reduce single occupancy car use.
- 5.3 The projected traffic impact of the whole NLSDA has already been assessed in prior reports and determined as acceptable, subject to improvement works being undertaken. Given that Phase 2 is compliant with the outline consent in terms of the number of dwellings and access arrangements, further assessment has been done only for robustness and the integrity of this report.

Existing Traffic Attraction Potential

- 5.4 The site itself is currently generating negligible traffic, as a disused nursery awaiting transformation, but the other facilities accessible from Toddington Lane are still creating traffic demand.

Proposed Traffic Attraction Potential

- 5.5 The TRICS database is a well-recognised method of establishing the traffic impact of land uses. The following projections are based on models derived from this database.
- 5.6 Due to the nature of the development – a mixture of both private and publicly owned houses and flats – there are multiple categories of model in the TRICS database that correspond. As such, for robustness, models were run for all the potential categories and the highest possible traffic generation applied.
- 5.7 The TRICS raw data results and relevant calculations can be found in Appendix F of this report.
- 5.8 The TRICS models used for weekdays were:
- ✧ Houses, Privately Owned
 - ✧ Houses, Privately Owned + Affordable/Local Authority Houses + Affordable/Local Authority Flats
 - ✧ Mixed Private (Flats and Houses)

» Mixed Private/Affordable Housing

- 5.9 The Mixed Private/Affordable Housing model resulted in lower trip rates than all other models at any point, so can be ignored henceforth.
- 5.10 Only Houses, Privately Owned could supply adequate data for estimating trip rate increases on weekends.
- 5.11 The resulting predicted weekday trips likely to be generated by the proposals are set out in the following table:

Time Period	Arrivals	Departures	Total
AM Peak: 0800-0900	18	52	70
PM Peak: 1700-1800	45	26	72

Table 5.2: Proposed Predicted Weekday Traffic Flows

- 5.12 It can be seen from Table 5.2 that the proposed development will generate 45 arrivals and 26 departures during the evening weekday peak hour (17:00 – 18:00), which averages out as 1.18 vehicles per minute. This level of traffic will have a negligible impact, and will not cause any capacity issues on Toddington Lane, even before the bypass is operational.
- 5.13 Due to the closure of the Toddington Lane level crossing, it is expected traffic will decrease significantly along this route, which will offset any increase in traffic caused by the development.

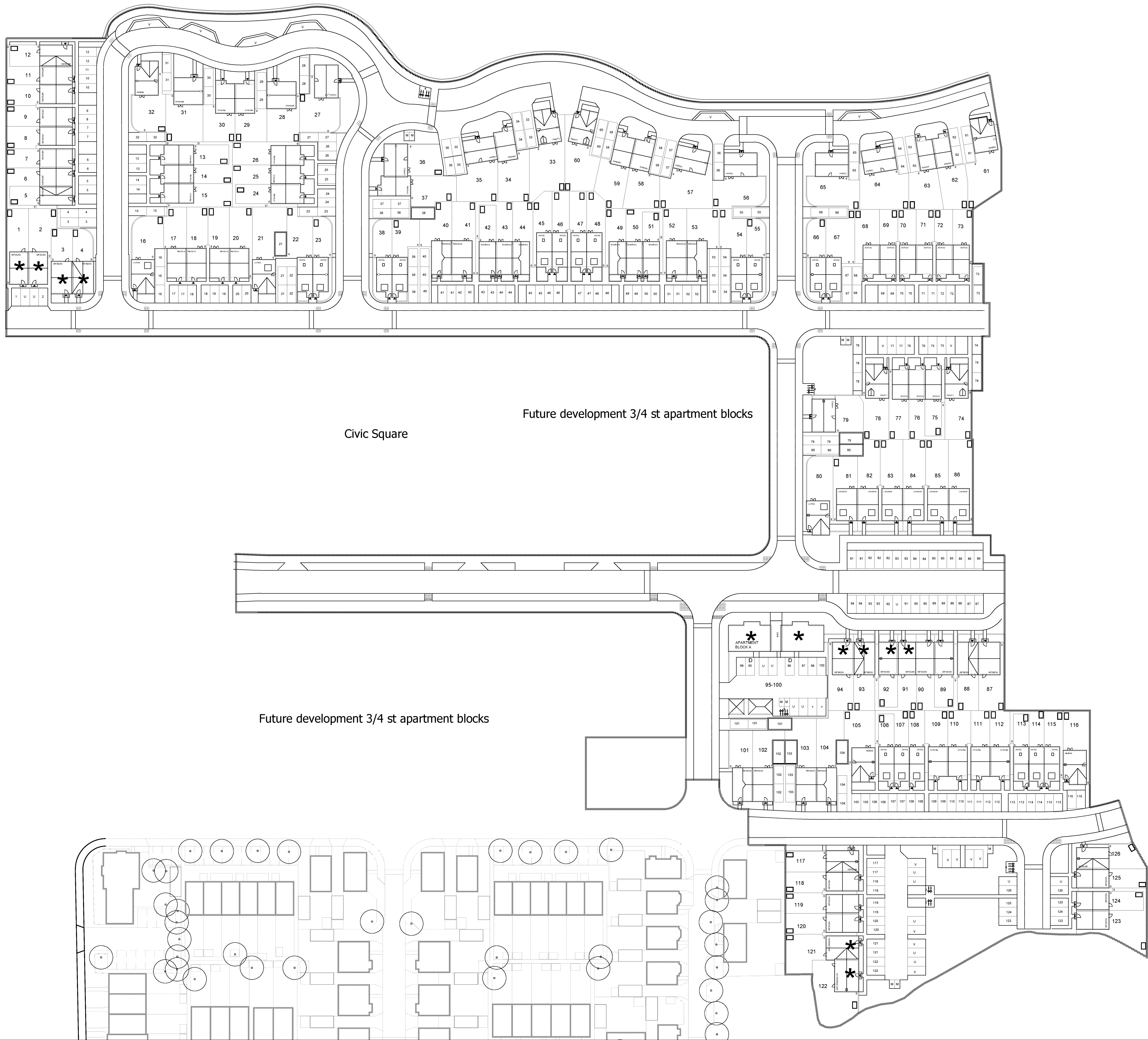
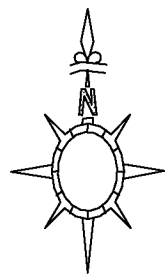
Traffic Impact Summary

- 5.14 The above traffic impact assessments demonstrate that the traffic generated by the proposals will be minimal and will be offset by the restructuring of the local highway network under the various plans in the NLSDA.
- 5.15 Additionally, the site's Travel Plan will reduce the development's impact on local highway infrastructure by promoting sustainable travel.

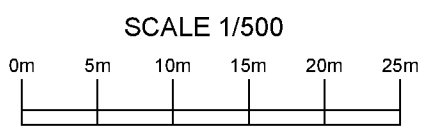
6 Summary and Conclusions

- 6.1 Mayer Brown has been commissioned by Persimmon Homes Thames Valley to produce this Transport Statement in support of the proposed application to redevelop land parcel C1 and parts of land parcels C2, B2 and B4 in the North Littlehampton Strategic Development Area, near Toddington, creating 126 residential dwellings.
- 6.2 The proposals to which this report relates are just one phase (Phase 2) of the wider North Littlehampton Master Plan, which has been approved in outline - including access and scale - but with all other matters reserved.
- 6.3 The site is currently a defunct plant nursery, without adequate road or utility services needed for a residential area. As such, the proposals also include building the infrastructure required for these houses and flats.
- 6.4 Due to the predicted minimal traffic impact of the proposals, this assessment has been set out in the format of a Transport Statement providing:
- » a detailed sustainability and accessibility assessment of the site
 - » a detailed examination of the development proposals
 - » an assessment of the net highways and transportation impacts of the proposed scheme
- 6.5 This report concludes that the proposed development:
- » is located within walking/cycling distance of key services in the area
 - » is easily accessible on foot or by cyclists, with public/communal transport links to be installed soon after completion
 - » will provide suitable access, parking and servicing arrangements
 - » will have no material impact on the operation of the local highway network
- 6.6 It is therefore concluded that there are no reasons why the proposed development should not be permitted on highways or transportation grounds.

APPENDIX A: Proposed Site Layout



REV B Littlehampton Phase 2				
	SQF	Bedrooms	NO ON SITE	TOTAL SQF
Market:				
Ainwick	638	2	11	7018
Hanbury	761	3	20	15220
Souter	932	3	18	16776
Hartfield	939	3	4	3876
Clayton	999	3	8	7992
Whitehall	1013	4	2	2026
Greyfriars	1068	3	6	6408
Leicester	1162	4	6	6972
Lumley	1220	4	7	8540
Wolvesey	1339	4	8	10712
Total Market			90	85540
HA Shared Ownership				
W/P2420A	803	2	15	12045
W/P3620C	909	3	3	2727
W/P3625A	1200	3	2	2400
			20	17172
HA Affordable				
W/P2420A	803	2	4	3212
W/P3625A	1200	3	4	4800
W/P1-TH3520A	1014	3	1	1014
W/P1-TH3520C-01	1014	3	1	1014
HA-F, 2bed, 4 person	740	2	4	2960
HA-F-VH, 2 bed, 3 person	779	2	2	1558
			16	14558
Total HA (28.5%)			36	31730
TOTAL ON SITE			126	117270



-	-	-
B	Drawing revised to reflect layout changes. Turning heads to plots 33, 60 & 61 extended as advised by Engineer.	05.09.17
A	Site layout revised to accommodate LA comments.	07.07.2017
Rev		Date

**PERSIMMON**
Together, we make a home

Persimmon Homes Thames Valley
Persimmon House, Knoll Road,
Camberley, Surrey GU15 3TQ
Tel: 01276 808080

Site:
Phase 2
Littlehampton

Date:
February 2017

Scale:
1:500 @ A1

Orig No:
543_PL_SITE LAYOUT_100

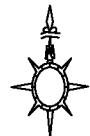
Drawing Title:
Site Layout - INFORMATION

Drawing Status:
SUBMITTED

Drawn:
KJ

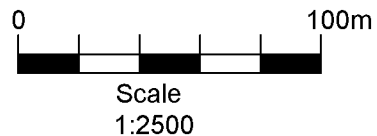
Rev:
B

APPENDIX B: Site in Relation to Other Proposed Developments in the NLSDA



LEGEND - LOCATION PLAN

 RMA RED LINE BOUNDARY



-	-	-
-	-	-
A	Red Line Boundary revised to accommodate revised layout.	09.08.2017
Rev		Date

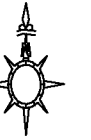
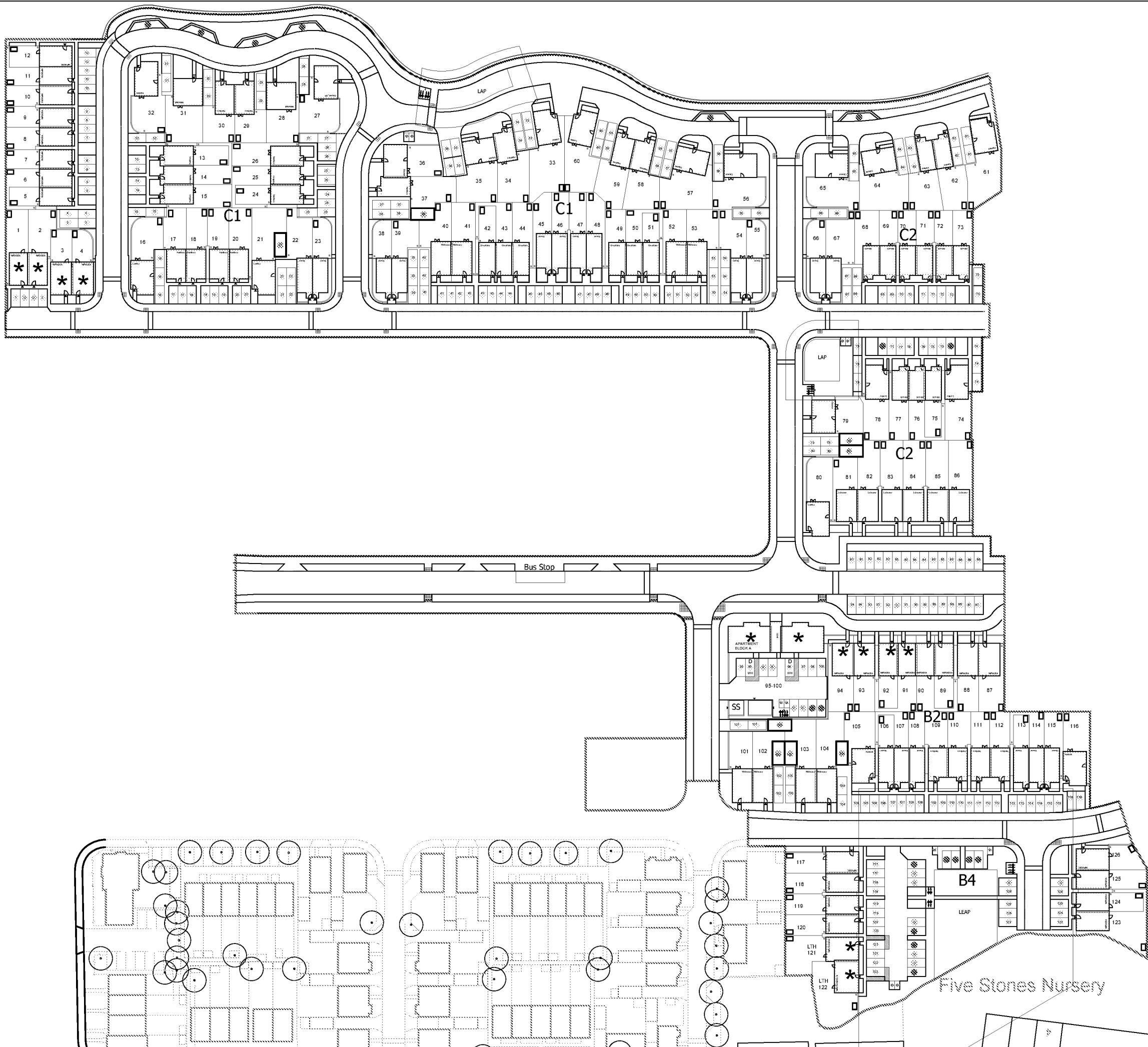
**PERSIMMON**
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Persimmon Homes Thames Valley
Persimmon House, Knoll Road,
Camberley, Surrey GU15 3TQ
Tel: 01276 808080

Site:	Date:
Phase 2 Littlehampton	February 2017
Scale:	1:2500 @ A3
Org No:	543_PL_SITE LAYOUT_001

Drawing Title:	LOCATION PLAN
Drawing Status:	Drawn: KJ
SUBMITTED	Rev: A

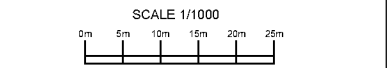
APPENDIX C: Proposed Site Parking



UNALLOCATED				ALLOCATED			
NO.	TYPE	AREA (sqm)	NO. OF SPACES	NO.	TYPE	AREA (sqm)	NO. OF SPACES
1	UNALLOCATED VISITORS PARKING	18	18	1	ALLOCATED PARKING	249	249
2	UNALLOCATED RESIDENT PARKING	14	14	2	ALLOCATED GARAGE	8	8
3	UNALLOCATED VISITOR MOTORCYCLE PARKING	10	10	3	CYCLE VISITOR PARKING	20	20
4	CYCLE VISITOR PARKING	20	20	4	HATCHING / 'D' MARK MOBILITY IMPAIRED PARKING SPACES	10	10
5	HATCHING / 'D' MARK MOBILITY IMPAIRED PARKING SPACES	10	10	5	TOTAL	299	299

LEGEND - PARKING ALLOCATION

- Allocated Parking
249 spaces total
- Allocated Garage
8 spaces total
- Unallocated Visitors Parking
18 spaces total
- Unallocated Resident Parking
14 spaces total
- Unallocated Visitor Motorcycle Parking
10 spaces total
- Cycle Visitor Parking
20 spaces total
(min required 16)
- Hatching / 'D' mark
Mobility impaired parking
spaces



Rev	Description	Date
B	Drawing revised to reflect layout changes	30.08.2017
A	Site layout revised to accommodate LA comments	07.07.2017

PERSIMMON
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Persimmon Homes Thames Valley
Persimmon House, Knoll Road,
Camberley, Surrey GU15 3TQ
Tel: 01276 808080

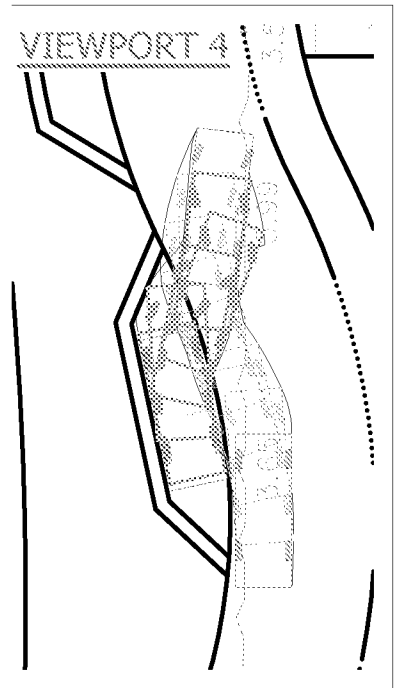
Site:	Phase 2 Littlehampton	Date:	February 2017
Scale:	1:1000 @ A3	Org No:	543_PL_SITE LAYOUT_105

Drawing Title:	Site Layout - PARKING STRATEGY	Drawn:	KJ
Drawing Status:	SUBMITTED	Rev:	B

APPENDIX D: Parking Space Calculations

Plot	Name	Bedrooms	Parking Spaces (allocated)	Garages	Ft²	sqm	Large/Small Source:	Required Parking Provision					
								Car Arun 2000	Cycle		Car West Sussex 2003	Cycle	
									West Sussex 2003	West Sussex 2010		Car West Sussex 2010	Car West Sussex 2010
1	WP2420A	2	1		803	74.6	Small	2.2		4	2	#REF!	Based on West Sussex's Parking Calculator 249 Allocated 8.21 Unallocated for residents 24.4 Unallocated for visitors
2	WP2420A	2	1		803	74.6	Small	2.2		2	2	#REF!	
3	WP3625A	3	2		1200	111.5	Small	2.2		2	2	#REF!	
4	WP3625A	3	2		1200	111.5	Small	2.2		2	2	#REF!	
5	WP2420A	2	2		803	74.6	Small	2.2		2	2	#REF!	
6	WP2420A	2	2		803	74.6	Small	2.2		2	2	#REF!	
7	WP2420A	2	2		803	74.6	Small	2.2		2	2	#REF!	
8	WP2420A	2	2		803	74.6	Small	2.2		2	2	#REF!	
9	WP2420A	2	2		803	74.6	Small	2.2		4	2	#REF!	
10	WP2420A	2	2		803	74.6	Small	2.2		2	2	#REF!	
11	WP2420A	2	1		803	74.6	Small	2.2		2	2	#REF!	
12	WP3520C	3	2		909	84.4	Small	2.2		2	2	#REF!	
13	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
14	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
15	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
16	Lumley	4	3		1220	113.3	Large	3.2		2	3	#REF!	
17	Hanbury	3	2		761	70.7	Small	2.2		4	2	#REF!	
18	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
19	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
20	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
21	Lumley	4	2	1	1220	113.3	Large	3.2		0	3	#REF!	
22	Souter	3	2		951	88.4	Small	2.2		2	2	#REF!	
23	Souter	3	2		951	88.4	Small	2.2		2	2	#REF!	
24	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
25	Hanbury	3	2		761	70.7	Small	2.2		4	2	#REF!	
26	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
27	Clayton	3	2		999	92.8	Small	2.2		2	2	#REF!	
28	Whitehall	4	2		1013	94.1	Large	3.2		2	3	#REF!	
29	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
30	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
31	Whitehall	4	2		1013	94.1	Large	3.2		2	3	#REF!	
32	Hatfield	3	2		969	90.0	Small	2.2		2	2	#REF!	
33	Lumley	4	2		1220	113.3	Large	3.2		4	3	#REF!	
34	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
35	Clayton	3	2		999	92.8	Small	2.2		2	2	#REF!	
36	Clayton	3	2		999	92.8	Small	2.2		2	2	#REF!	
37	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
38	Souter	3	2	1	951	88.4	Small	2.2		0	2	#REF!	
39	Souter	3	3		951	88.4	Small	2.2		2	2	#REF!	
40	Wolvesey	4	3		1339	124.4	Large	3.2		2	3	#REF!	
41	Wolvesey	4	2		1339	124.4	Large	3.2		4	3	#REF!	
42	Greyfriars	3	2		1068	99.2	Small	2.2		2	2	#REF!	
43	Greyfriars	3	2		1068	99.2	Small	2.2		2	2	#REF!	
44	Greyfriars	3	2		1068	99.2	Small	2.2		2	2	#REF!	
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46	Souter	3	2		951	88.4	Small	2.2		2	2	#REF!	
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48	Souter	3	2		951	88.4	Small	2.2		2	2	#REF!	
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50	Greyfriars	3	2		1068	99.2	Small	2.2		2	2	#REF!	
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52	Wolvesey	4	2		1339	124.4	Large	3.2		2	3	#REF!	
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57	Clayton	3	2		999	92.8	Small	2.2		4	2	#REF!	
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59	Hanbury	3	2		761	70.7	Small	2.2		2	2	#REF!	
60	Lumley	4	2		1220	113.3	Large	3.2		2	3	#REF!	
61	Hatfield	3	2		969	90.0	Small	2.2		2	2	#REF!	
62	Alnwick	2	2		638	59.3	Small	2.2		2	2	#REF!	
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64	Clayton	3	2		999	92.8	Small	2.2		2	2	#REF!	
65	Clayton	3	2		999	92.8	Small	2.2		4	2	#REF!	
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79	Clayton	3	2	1	999	92.8	Small	2.2		0	2	#REF!	
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81	Leicester	4	2		1162	108.0	Large	3.2		4	3	#REF!	
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97	HA-F	2	1		756	70.2		1.2		4	2	#REF!	
98	HA-F	2	1		756	70.2		1.2		2	2	#REF!	
99	HA-F	2	1		756	70.2		1.2		2	2	#REF!	
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103	Wolvesey	4	2	1	1339	124.4	Large	3.2		0	3	#REF!	
104	Wolvesey	4	2	1	1339	124.4	Large	3.2		0	3	#REF!	
105	Hatfield	3	2		969	90.0	Small	2.2		4	2	#REF!	
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APPENDIX E: Vehicle Tracking, Sweep Paths



FOR CONTINUATION REFER TO DRAWING A/PHLITTLE-INT.1/XX-2

ROAD THREE (20MPH)

MAIN AVENUE (30MPH)

An aerial photograph of a residential area. A road labeled "PRIVATE DRIVE TWO (20MPH)" runs diagonally from the top left towards the center. Another road labeled "PRIVATE DRIVE THREE (20MPH)" runs diagonally from the bottom left towards the center. The two roads intersect. Several houses are visible, some with white roofs and others with darker roofs. There are trees and green spaces between the houses. The map is oriented vertically.

VIEWPORT 1

ROAD SEVEN (20 MPH)

ROAD SIX (20MPH)

VIEWPORT 2

ROAD SEVEN (20MPH)

ROAD SIX (20 MPH)

VIEWPORT 1

IMPH

VIEWPORT 2

ROAD SIX (20MPH)

VIEWPORT 3

A0 ORIGINAL

KEY

EXISTING KERB LINE

PROPOSED KERB/EDGE

PROPOSED DROPPED HERE

PROPOSED BLUE COLOURED TACTILE PAVING

PROPOSED CORDUROY HAZARD WARNING PAVING

10m REFUSE DRAG DISTANCE OFFSET

STEE BOUNDARY

Large Car (2000+ cc)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock to lock turn
Kerb to Kerb Turn

5.079r
1.872r
1.525r
0.310r
1.831r
4.00s
5.900r

9.860m
2.450m
3.814m
0.366m
2.450m
4.00s
9.500m

NOTES:

1. Based on topographic survey by WYG drawing numbered GGL/A044029/LAY/01.
2. Site layout taken from PHTV drawing numbered 543_PL_SITE LAYOUT_REV B.

PRELIMINARY
NOT FOR CONSTRUCTION

P6	Drawing amended following updated site layout received from PHTV dated 08/09/2017. (Q3N)	AB	11/09/2017
P5	Drawing amended and swept paths updated following updated layout received from PHTV dated 05/09/2017. (Q3N)	AB	05/09/2017
P4	Drawing amended and swept paths updated following updated layout received from PHTV dated 22/08/2017. (Q3N)	AB	31/08/2017
P3	Drawing updated following Stage 1 Road Safety Audit received 17/03/2017. (Q3N)	SF	24/03/2017
P2	Drawing updated following new site layout received from PHTV dated 13/03/2017. (Q3N)	AB	17/03/2017
P1	Initial issue. (Q3N)	AB	28/02/2017

rev.	amendment	checked	date
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wokingoffice@mayerbrown.co.uk www.mayerbrown.co.uk

client
PERSIMMON HOMES THAMES VALLEY

project

NORTH LITTLEHAMPTON PHASE 2
PARCEL C1 AND PART PARCELS, B2, B4 & C2

scale	1:250	drawn by	OJN	checked by	AB
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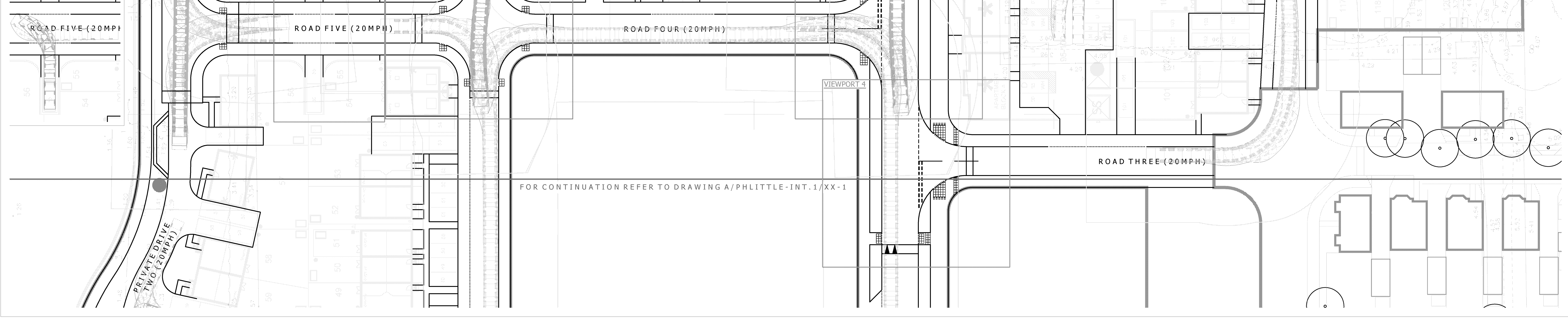
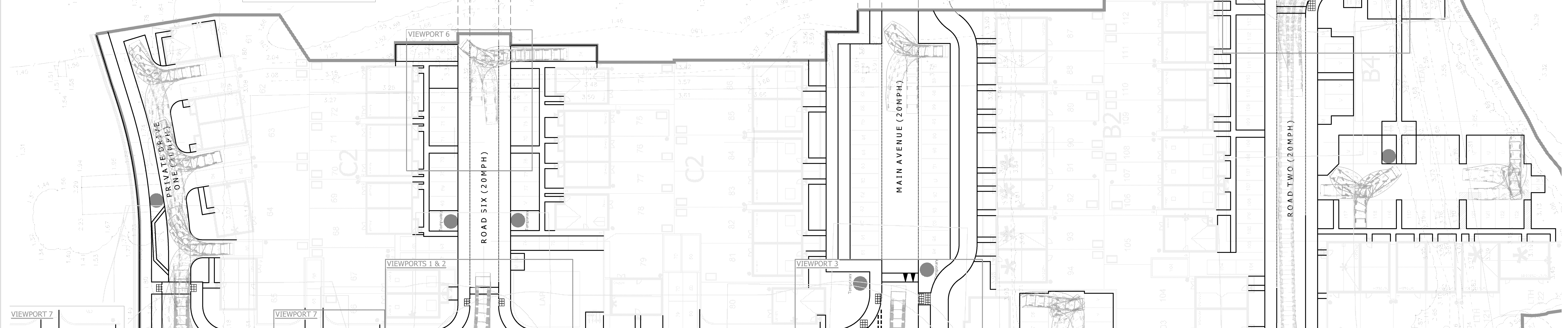
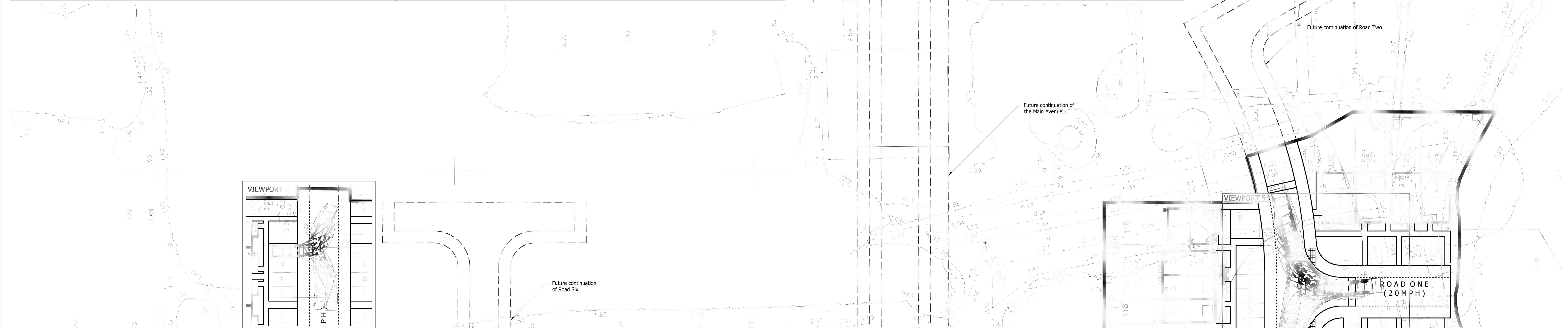
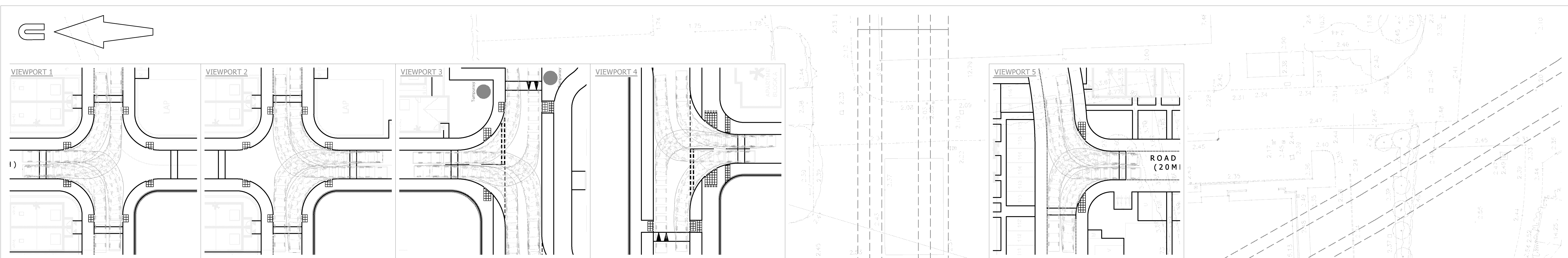
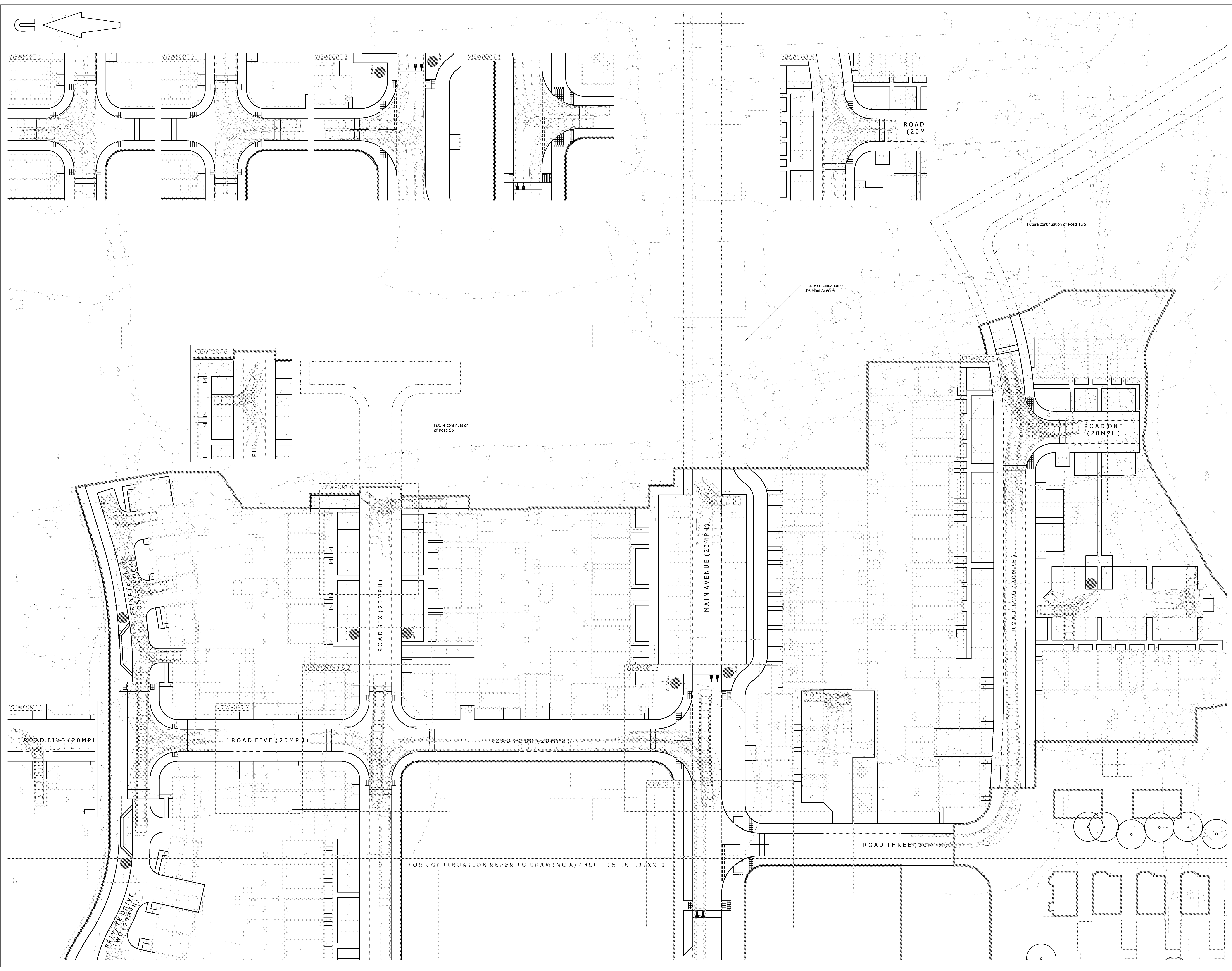
date	FEBRUARY 2017	cad file	MASTER.DWG
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title

ANTICIPATED SWEEPED PATH OF A LARGE REFUSE
VEHICLE & LARGE CAR ACCESSING THE SITE (1 c

drawing number	rev.
A/PHLITTLE-INT.1/TK-1	P6

— (= 0.1 =)



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A0 ORIGINAL

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KEY

- EXISTING KERB LINE
- PROPOSED KERB/EDGING LINE
- PROPOSED DROPPED KERB
- PROPOSED ROAD MARKING
- PROPOSED BUFF COLOURED TACTILE PAVING
- PROPOSED CORDUROY HAZARD WARNING PAVING
- 10m REFUSE DRAG DISTANCE OFFSET
- REFUSE COLLECTION POINT
- LIMIT OF WORKS

Large Car (2006)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

5.079m
1.822m
1.525m
0.310m
1.831m
4.006
5.500m

Large Refuse Vehicle (3 axle)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock to lock time
Kerb to Kerb Turning Radius

9.960m
2.450m
2.450m
0.366m
2.500m
4.006
5.500m

NOTES:

- Based on topographic survey by WYG drawing numbered GGL/ADH029/LAY/01.
- Site layout taken from PHTV drawing numbered 543_PL SITE LAYOUT_REV 6.

PRELIMINARY
NOT FOR CONSTRUCTION

	AB	11/09/2017
P6	Drawing amended following updated site layout received from PHTV dated 08/09/2017. (CON)	
P5	Drawing amended and swept paths updated following updated layout received from PHTV dated 09/09/2017. (CON)	05/09/2017
P4	Drawing amended and swept paths updated following updated layout received from PHTV dated 12/09/2017. (CON)	31/08/2017
P3	Drawing updated following Stage 1 Road Safety Audit received 17/03/2017. (CON)	24/03/2017
P2	Drawing updated following new site layout received from PHTV dated 13/03/2017. (CON)	17/03/2017
P1	Initial issue. (CON)	28/02/2017

rev.	amendment	checked	date

m3
mayer brown

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client
PERSIMMON HOMES THAMES VALLEY

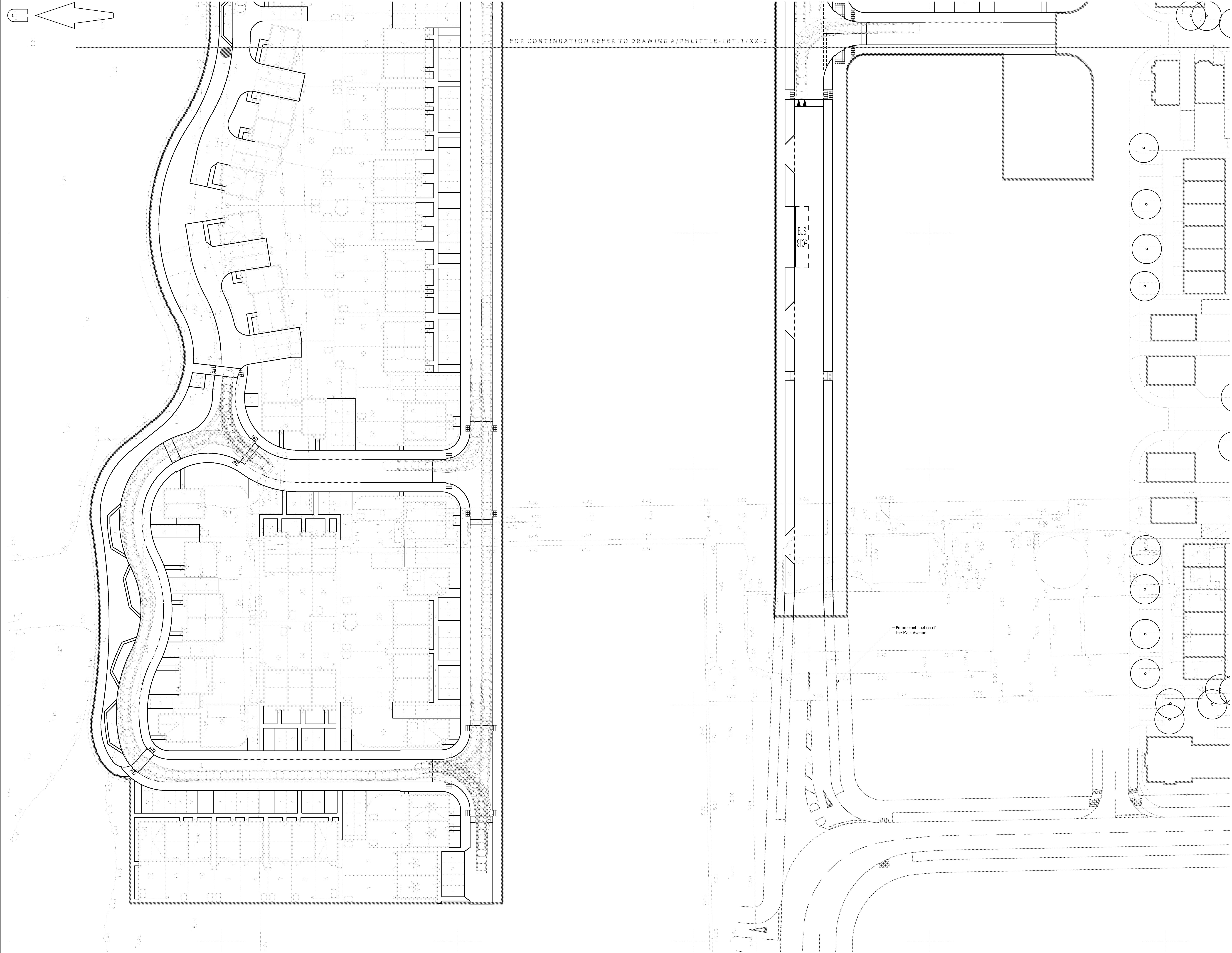
project
NORTH LITTLEHAMPTON PHASE 2
PARCEL C1 AND PART PARCELS, B2, B4 & C2

scale
1:250 drawn by QJN checked by AB

date
FEBRUARY 2017 cad file MASTER.DWG

title
ANTICIPATED SWEEP PATH OF A LARGE REFUSE VEHICLE & LARGE CAR ACCESSING THE SITE (2 of 2)

drawing number	rev.
A/PHLITTLE-INT.1/TK-2	P6



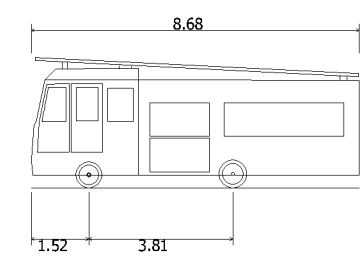
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A0 ORIGINAL

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KEY

- EXISTING KERB LINE
- PROPOSED KERB/EDGING LINE
- PROPOSED DROPPED KERB
- PROPOSED ROAD MARKING
- PROPOSED BUFF COLOURED TACTILE PAVING
- PROPOSED CORDUROY HAZARD WARNING PAVING
- SITE BOUNDARY



D832 Fire Appliance
Overall Length 8.690m
Overall Width 2.250m
Overall Body Height 2.250m
Min Body Ground Clearance 0.331m
Max Track Width 6.000m
Lock to back time 6.000m
Kerb to Kerb Turning Radius 7.910m

- NOTES:
- Based on topographic survey by WYG drawing numbered GGL/A044029/LAY/01.
 - Site layout taken from PHTV drawing numbered 543_PL_SITE LAYOUT_REV B.

PRELIMINARY
NOT FOR CONSTRUCTION

P2	Drawing amended following updated site layout received from PHTV dated 08/09/2017. (CON)	AB	11/09/2017
P1	Initial issue. (CON)	AB	05/09/2017
rev.	amendment	checked	date

m3 mayer brown

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client
PERSIMMON HOMES THAMES VALLEY

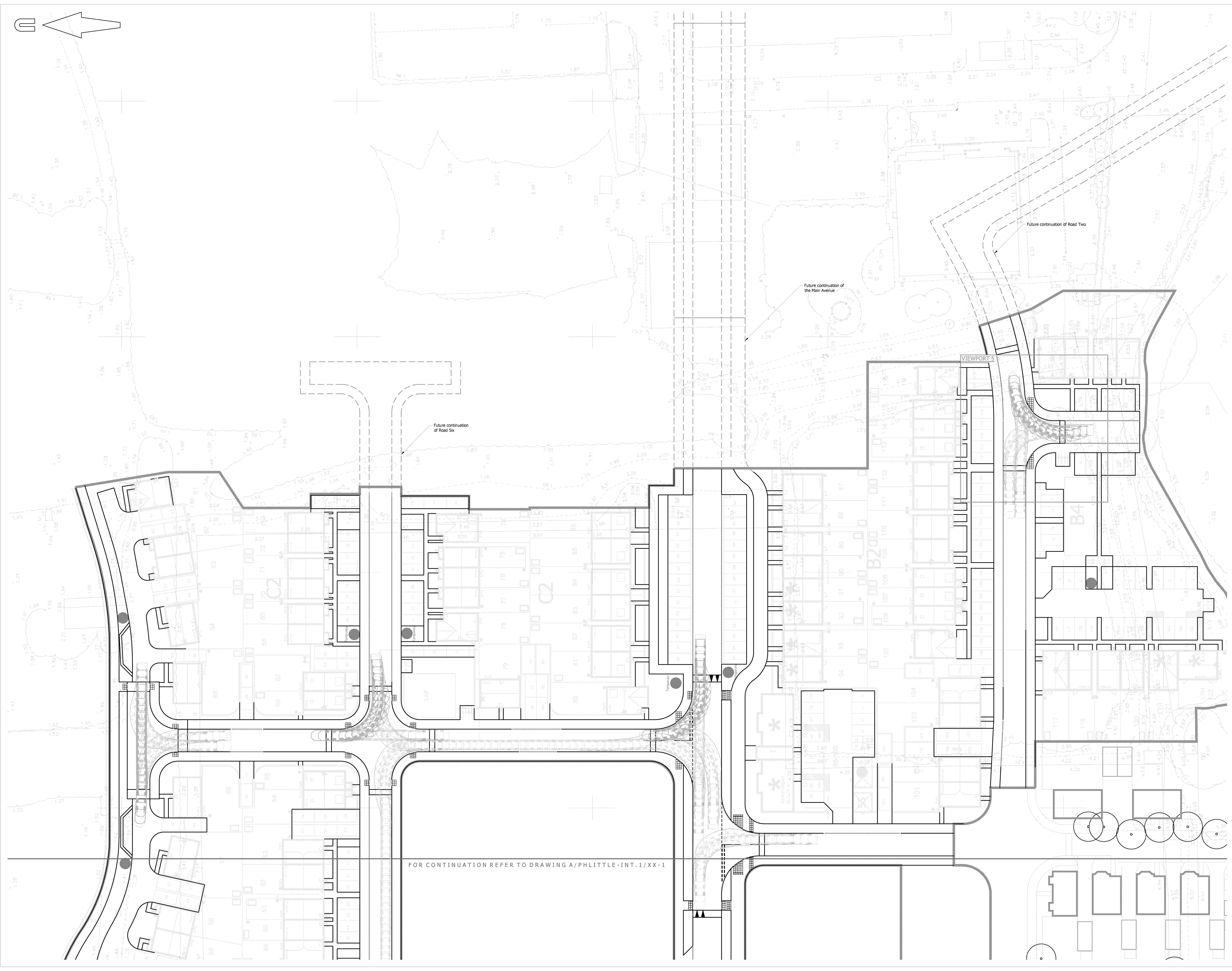
project
NORTH LITTLEHAMPTON PHASE 2
PARCEL C1 AND PART PARCELS, B2, B4 & C2

scale 1:250 drawn by QJN checked by AB

date SEPTEMBER 2017 cad file MASTER.DWG

title
ANTICIPATED SWEEP PATH OF A FIRE TENDER
ACCESSING THE SITE (1 of 2)

drawing number A/PHLITTLE-INT.1/TK-3 rev. P2



A0 ORIGINAL

KEY

EXISTING KERB LINE

PROPOSED KERB/EDGING LINE

PROPOSED ROAD MARKING

PROPOSED BUFF COLOURED TACTILE PAVING

PROPOSED CORDUROY HAZARD WARNING PAVING

LIMIT OF WORKS

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EXISTING KERB LINE

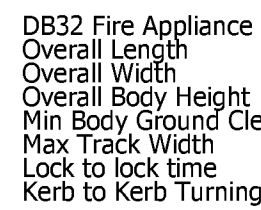
PROPOSED KERB/EDGING LINE

PROPOSED ROAD MARKING

PROPOSED BUFF COLOURED TACTILE PAVING

PROPOSED CORDUROY HAZARD WARNING PAVING

LIMIT OF WORKS



NOTES:

1. Based on topographic survey by WYG drawing numbered GGL/A044029/LAY/01.
2. Site layout taken from PHTV drawing numbered 543_PL_SITE LAYOUT_REV B.

PRELIMINARY
NOT FOR CONSTRUCTION

P2	Drawing amended following updated site layout received from PHTV dated 08/09/2017. (OJN)	AB	11/09/2017
P1	Initial issue. (OJN)	AB	05/09/2017

rev.	amendment	checked	date
------	-----------	---------	------



PERSIMMON HOMES THAMES VALLEY

project

NORTH LITTLEHAMPTON PHASE 2
PARCEL C1 AND PART PARCELS, B2, B4 & C2

scale	1:250	drawn by	OJN	checked by	AB
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date	SEPTEMBER 2017	cad file	MASTER.DWG
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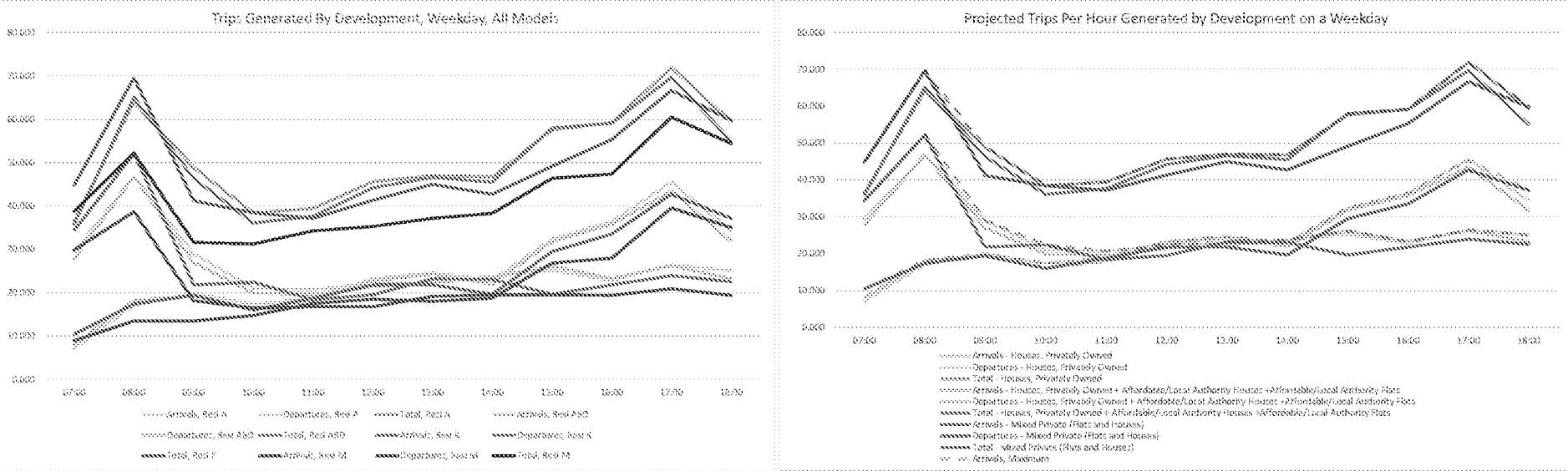
title

ANTICIPATED SWEEPED PATH OF A FIRE TENDER
ACCESSING THE SITE (2 of 2)

drawing number	rev.
A/PHLITTLE-INT.1/TK-4	P2

APPENDIX F: TRICS Results and Calculations

Collected Data From All TRICS Models Used



Resi A - Houses, Privately Owned

Resi B - Affordable/Local Authority Houses

Resi D - Affordable/Local Authority Flats

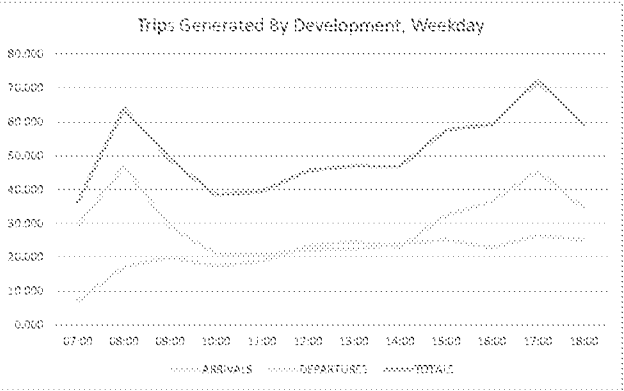
Resi K - Mixed Private (Flats and Houses)

Resi M - Mixed Private/Affordable Housing

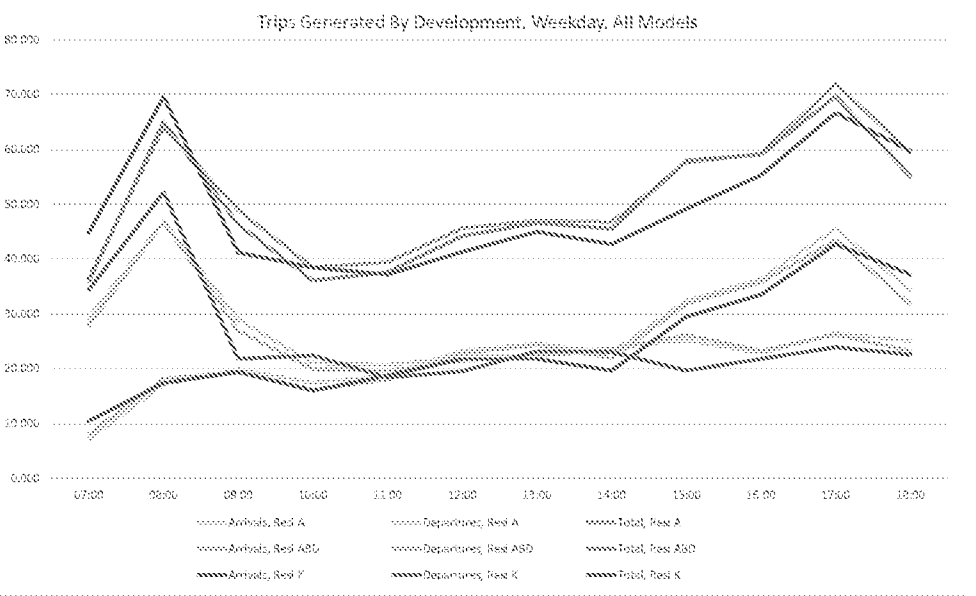
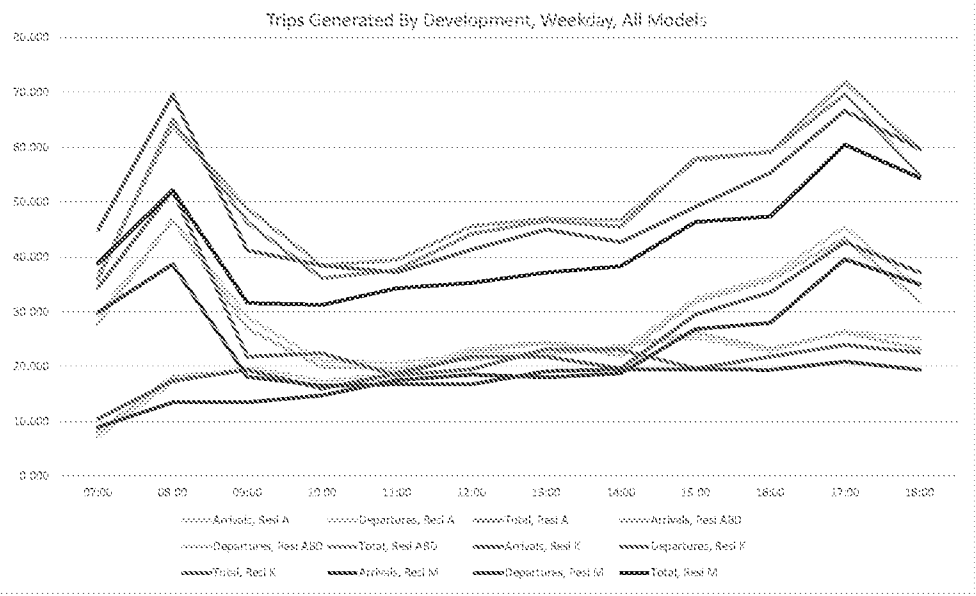
Time Range	Resi A			Resi ABD			Resi K			Resi M			MAX		
	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	7,182	29,358	36,540	8,064	27,864	35,928	10,498	34,386	44,884	9,490	29,802	39,292	10,498	34,386	44,884
08:00 - 09:00	17,136	46,872	64,008	18,192	46,836	65,028	17,280	42,164	59,444	17,482	38,062	55,544	18,192	42,164	59,444
09:00 - 10:00	19,908	28,98	48,888	19,368	26,94	46,308	19,404	24,748	44,152	17,412	18,144	35,556	19,908	28,98	48,888
10:00 - 11:00	17,388	21,042	38,430	16,152	19,944	36,096	16,092	17,428	33,520	14,762	16,100	30,862	17,388	21,042	38,430
11:00 - 12:00	18,774	20,664	39,438	18	19,62	37,62	18,774	19,990	38,764	17,714	16,760	34,474	18,774	20,664	39,438
12:00 - 13:00	23,31	22,302	45,612	22,776	21,42	44,196	21,798	19,51	41,308	17,722	16,760	34,482	23,31	22,302	45,612
13:00 - 14:00	24,57	22,428	46,998	24,312	22,272	46,584	23,736	21,184	44,920	18,418	18,152	36,570	24,57	22,428	46,998
14:00 - 15:00	22,932	23,814	46,746	21,96	23,568	45,528	19,686	23,058	42,744	18,794	18,52	37,316	22,932	23,814	46,746
15:00 - 16:00	32,382	25,2	57,582	31,812	26,16	57,972	29,804	19,694	49,498	28,818	18,55	47,368	32,382	26,16	57,972
16:00 - 17:00	36,414	22,806	59,220	35,76	23,304	59,064	33,414	21,792	55,206	27,892	21,404	49,296	36,414	23,304	59,220
17:00 - 18:00	45,486	26,46	71,946	43,44	26,232	69,672	42,714	23,94	66,654	38,184	20,718	58,902	45,486	26,46	71,946
18:00 - 19:00	34,398	25,074	59,472	31,788	23,244	55,032	30,12	21,964	52,084	25,62	18,404	44,026	34,398	25,074	59,472
19:00 - 20:00															
20:00 - 21:00															
21:00 - 22:00															
22:00 - 23:00															
23:00 - 24:00															

Resi A (Houses, Privately Owned) Weekday TRICS Analysis

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	105	0.057	7.162	25	105	0.233	29.358	25	105	0.290	36.540
08:00 - 09:00	25	105	0.136	17.136	25	105	0.372	46.872	25	105	0.508	64.008
09:00 - 10:00	25	105	0.158	19.908	25	105	0.230	28.980	25	105	0.388	48.888
10:00 - 11:00	25	105	0.138	17.388	25	105	0.167	21.042	25	105	0.305	38.430
11:00 - 12:00	25	105	0.149	18.774	25	105	0.164	20.664	25	105	0.313	39.438
12:00 - 13:00	25	105	0.185	23.310	25	105	0.177	22.302	25	105	0.362	45.612
13:00 - 14:00	25	105	0.195	24.570	25	105	0.178	22.428	25	105	0.373	46.998
14:00 - 15:00	25	105	0.182	22.932	25	105	0.189	23.814	25	105	0.371	46.746
15:00 - 16:00	25	105	0.257	32.382	25	105	0.200	25.200	25	105	0.457	57.582
16:00 - 17:00	25	105	0.289	36.414	25	105	0.181	22.806	25	105	0.470	59.220
17:00 - 18:00	25	105	0.361	45.486	25	105	0.210	26.460	25	105	0.571	71.946
18:00 - 19:00	25	105	0.273	34.398	25	105	0.199	25.074	25	105	0.472	59.472
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates			2.380	299.880			2.500	315.000			4.880	614.880

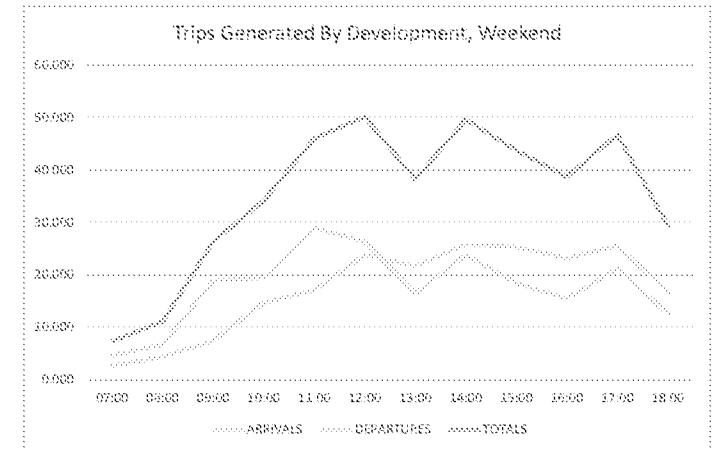


Resi A - Houses, Privately Owned
Resi B - Affordable/Local Authority Houses
Resi D - Affordable/Local Authority Flats
Resi K - Mixed Private (Flats and Houses)
Resi M - Mixed Private/Affordable Housing



Resi A (Houses, Privately Owned) Weekend TRICS Analysis

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	102	0.021	2.646	5	102	0.037	4.662	5	102	0.058	7.308
08:00 - 09:00	5	102	0.035	4.410	5	102	0.053	6.678	5	102	0.088	11.088
09:00 - 10:00	5	102	0.059	7.434	5	102	0.150	18.900	5	102	0.209	26.334
10:00 - 11:00	5	102	0.117	14.742	5	102	0.154	19.404	5	102	0.271	34.146
11:00 - 12:00	5	102	0.135	17.010	5	102	0.230	28.980	5	102	0.365	45.990
12:00 - 13:00	5	102	0.189	23.814	5	102	0.209	26.334	5	102	0.398	50.148
13:00 - 14:00	5	102	0.172	21.672	5	102	0.131	16.506	5	102	0.303	38.178
14:00 - 15:00	5	102	0.205	25.830	5	102	0.189	23.814	5	102	0.394	49.644
15:00 - 16:00	5	102	0.201	25.326	5	102	0.146	18.396	5	102	0.347	43.722
16:00 - 17:00	5	102	0.184	23.184	5	102	0.123	15.498	5	102	0.307	38.682
17:00 - 18:00	5	102	0.203	25.578	5	102	0.168	21.168	5	102	0.371	46.746
18:00 - 19:00	5	102	0.133	16.758	5	102	0.100	12.600	5	102	0.233	29.358
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates			1.654	208.404			1.690	212.940			3.344	421.344



Mixed Models A, B and D (Houses, Privately Owned + Affordable/Local Authority Houses + Affordable/Local Authority Flats) Weekend TRICS Analysis

resi a - houses privately owned

108 units

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELL'S	Trip Rate	Trips	No. Days	Ave. DWELL'S	Trip Rate	Trips	No. Days	Ave. DWELL'S	Trip Rate	Trips
00:00												
01:00												
02:00												
03:00												
04:00												
05:00												
06:00												
07:00	25	105	0.057	6.156	25	105	0.233	25.164	25	105	0.290	31.320
08:00	25	105	0.136	14.688	25	105	0.372	40.176	25	105	0.508	54.864
09:00	25	105	0.158	17.064	25	105	0.230	24.840	25	105	0.388	41.904
10:00	25	105	0.138	14.904	25	105	0.167	18.036	25	105	0.305	32.940
11:00	25	105	0.149	16.092	25	105	0.164	17.712	25	105	0.313	33.804
12:00	25	105	0.185	19.980	25	105	0.177	19.116	25	105	0.362	39.096
13:00	25	105	0.195	21.060	25	105	0.178	19.224	25	105	0.373	40.284
14:00	25	105	0.182	19.656	25	105	0.189	20.412	25	105	0.371	40.068
15:00	25	105	0.257	27.756	25	105	0.200	21.600	25	105	0.457	49.356
16:00	25	105	0.289	31.212	25	105	0.181	19.548	25	105	0.470	50.760
17:00	25	105	0.361	38.988	25	105	0.210	22.680	25	105	0.571	61.668
18:00	25	105	0.273	29.484	25	105	0.199	21.492	25	105	0.472	50.976
19:00												
20:00												
21:00												
22:00												
23:00												
Total			3.380	257.040			2.500	270.000			4.880	527.040

resi d - affordable/local authority flats

6 units

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELL'S	Trip Rate	Trips	No. Days	Ave. DWELL'S	Trip Rate	Trips	No. Days	Ave. DWELL'S	Trip Rate	Trips
00:00												
01:00												
02:00												
03:00												
04:00												
05:00												
06:00												
07:00	4	12	0.042	0.504	4	12	0.125	1.500	4	12	0.167	2.004
08:00	4	12	0.125	1.500	4	12	0.188	2.256	4	12	0.313	3.756
09:00	4	12	0.042	0.504	4	12	0.042	0.504	4	12	0.084	1.008
10:00	4	12	0.021	0.252	4	12	0.042	0.504	4	12	0.063	0.756
11:00	4	12	0.042	0.504	4	12	0.042	0.504	4	12	0.084	1.008
12:00	4	12	0.083	0.996	4	12	0.042	0.504	4	12	0.125	1.500
13:00	4	12	0.104	1.248	4	12	0.104	1.248	4	12	0.208	2.496
14:00	4	12	0.042	0.504	4	12	0.063	0.756	4	12	0.104	1.248
15:00	4	12	0.021	0.252	4	12	0.063	0.756	4	12	0.083	0.996
16:00	4	12	0.229	2.748	4	12	0.063	0.756	4	12	0.291	3.492
17:00	4	12	0.104	1.248	4	12	0.063	0.756	4	12	0.166	1.992
18:00	4	12	0.042	0.504	4	12	0.063	0.756	4	12	0.104	1.248
19:00	1	6	0.000	0.000	1	6	0.333	3.996	1	6	0.333	3.996
20:00	1	6	0.167	2.004	1	6	0.000	0.000	1	6	0.167	2.004
21:00	1	6	0.000	0.000	1	6	0.000	0.000	1	6	0.000	0.000
22:00												
23:00												
Total			1.054	12.768			1.233	14.756			2.292	27.504

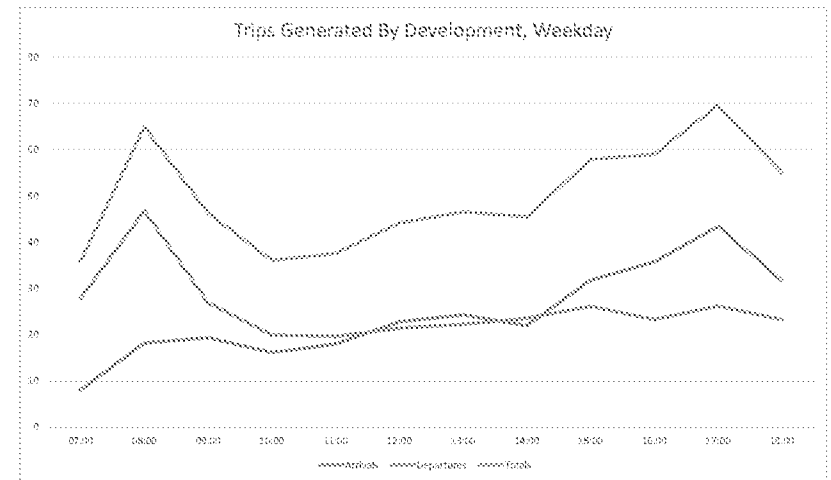
resi b - affordable/local authority houses

12 units

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELL'S	Trip Rate	Trips	No. Days	Ave. DWELL'S	Trip Rate	Trips	No. Days	Ave. DWELL'S	Trip Rate	Trips
00:00												
01:00												
02:00												
03:00												
04:00												
05:00												
06:00												
07:00	3	20	0.117	1.404	3	20	0.100	1.200	3	20	0.217	2.604
08:00	3	20	0.167	2.004	3	20	0.367	4.404	3	20	0.534	6.408
09:00	3	20	0.150	1.800	3	20	0.133	1.596	3	20	0.283	3.396
10:00	3	20	0.083	0.996	3	20	0.117	1.404	3	20	0.200	2.400
11:00	3	20	0.117	1.404	3	20	0.117	1.404	3	20	0.234	2.808
12:00	3	20	0.150	1.800	3	20	0.150	1.800	3	20	0.300	3.600
13:00	3	20	0.167	2.004	3	20	0.150	1.800	3	20	0.317	3.804
14:00	3	20	0.150	1.800	3	20	0.200	2.400	3	20	0.350	4.200
15:00	3	20	0.317	3.804	3	20	0.317	3.804	3	20	0.634	7.608
16:00	3	20	0.150	1.800	3	20	0.250	3.000	3	20	0.400	4.800
17:00	3	20	0.267	3.204	3	20	0.233	2.796	3	20	0.500	6.000
18:00	3	20	0.150	1.800	3	20	0.083	0.996	3	20	0.233	2.796
19:00												
20:00												
21:00												
22:00												
23:00												
Total			1.985	23.820			2.217	26.604			4.202	50.424

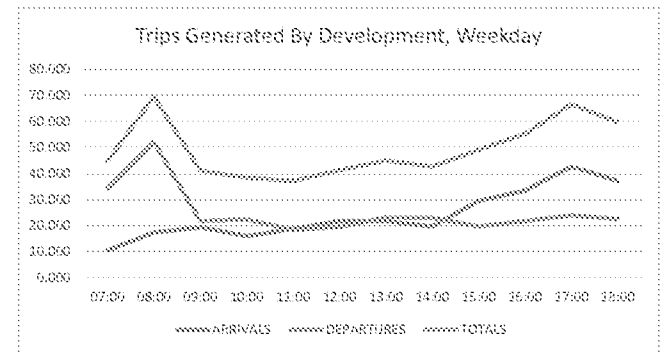
cumulative

	Arrivals	Departures	Totals
00:00	0	0	0
01:00	0	0	0
02:00	0	0	0
03:00	0	0	0
04:00	0	0	0
05:00	0	0	0
06:00	0	0	0
07:00	8.064	27.864	35.928
08:00	18.192	46.836	65.028
09:00	19.368	26.94	46.308
10:00	16.152	19.944	36.096
11:00	18	19.62	37.62
12:00	22.776	21.42	44.196
13:00	24.312	22.272	46.584
14:00	21.96	23.568	45.528
15:00	31.812	26.16	57.972
16:00	35.76	23.304	59.064
17:00	43.44	26.232	69.672
18:00	31.788	23.244	55.032
19:00	0	3.996	3.996
20:00	2.004	0	2.004
21:00	0	0	0
22:00	0	0	0
23:00	0	0	0
Total	293.628	311.400	605.028



Resi K (Mixed Private, Flats and Houses) Weekday TRICS Analysis

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	12	90	0.083	10.458	12	90	0.273	34.398	12	90	0.356	44.856
08:00 - 09:00	12	90	0.138	17.388	12	90	0.414	52.164	12	90	0.552	69.552
09:00 - 10:00	12	90	0.154	19.404	12	90	0.173	21.798	12	90	0.327	41.202
10:00 - 11:00	12	90	0.127	16.002	12	90	0.178	22.428	12	90	0.305	38.430
11:00 - 12:00	12	90	0.149	18.774	12	90	0.146	18.396	12	90	0.295	37.170
12:00 - 13:00	12	90	0.173	21.798	12	90	0.155	19.530	12	90	0.328	41.328
13:00 - 14:00	12	90	0.173	21.798	12	90	0.184	23.184	12	90	0.357	44.982
14:00 - 15:00	12	90	0.156	19.656	12	90	0.183	23.058	12	90	0.339	42.714
15:00 - 16:00	12	90	0.234	29.484	12	90	0.156	19.656	12	90	0.390	49.140
16:00 - 17:00	12	90	0.266	33.516	12	90	0.173	21.798	12	90	0.439	55.314
17:00 - 18:00	12	90	0.339	42.714	12	90	0.190	23.940	12	90	0.529	66.654
18:00 - 19:00	12	90	0.295	37.170	12	90	0.179	22.554	12	90	0.474	59.724
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total	2.287	288.162			2.404	302.904			4.691	591.066		



Resi M (Mixed Private/Affordable Houses) Weekday TRICS Analysis

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)	No. Days	Ave. DWELLS	Trip Rate	Traffic gen (*126)
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	16	117	0.071	8.946	16	117	0.237	29.862	16	117	0.308	38.808
08:00 - 09:00	16	117	0.107	13.482	16	117	0.307	38.682	16	117	0.414	52.164
09:00 - 10:00	16	117	0.107	13.482	16	117	0.144	18.144	16	117	0.251	31.626
10:00 - 11:00	16	117	0.117	14.742	16	117	0.131	16.506	16	117	0.248	31.248
11:00 - 12:00	16	117	0.139	17.514	16	117	0.133	16.758	16	117	0.272	34.272
12:00 - 13:00	16	117	0.147	18.522	16	117	0.133	16.758	16	117	0.280	35.280
13:00 - 14:00	16	117	0.143	18.018	16	117	0.152	19.152	16	117	0.295	37.170
14:00 - 15:00	16	117	0.149	18.774	16	117	0.155	19.530	16	117	0.304	38.304
15:00 - 16:00	16	117	0.213	26.838	16	117	0.155	19.530	16	117	0.368	46.368
16:00 - 17:00	16	117	0.222	27.972	16	117	0.154	19.404	16	117	0.376	47.376
17:00 - 18:00	16	117	0.314	39.564	16	117	0.166	20.916	16	117	0.480	60.480
18:00 - 19:00	16	117	0.278	35.028	16	117	0.154	19.404	16	117	0.432	54.432
19:00 - 20:00	1	76	0.105		1	76	0.132		1	76	0.237	
20:00 - 21:00	1	76	0.132		1	76	0.079		1	76	0.211	
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total				2,244				2,232				4,476
				252,862				254,646				507,528

