

## 5 Travel Impacts

### 5.1 Transport Impact - Vehicular

An assessment has been undertaken to determine the likely generation in peak hour trips that would be created by the proposed development.

An interrogation of the TRICS database has been undertaken to estimate the likely level of vehicular trips the proposed site would generate, these are presented in Tables 5 and 6, whereas the TRICS reports are presented in Appendix D.

The TRICS assessment has been based on the following criteria:

- Land use 03 – Residential A – Houses privately owned;
- Units range – 6 – 29 units;
- Retail use – Convenience Store
- Unit range – Gross floor area 70 to 600 units/sqm;
- Period between 2006 and 2013;
- Average weekday trip rates; and,
- Sites in England and Wales.

**Table 5: Predicted Trip Rates and Traffic Generation by the Proposed Mixed Use Scheme**

Land Use	Trips Rates & Generations			
	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
Residential Use – Private house Trip Rate (per unit)	0.164	0.445	0.355	0.171
Residential Use – No. of Trips based on 9 Units	2	4	3	2

**Table 6: Predicted Trip Rates and Traffic Generation by the Proposed Mixed Use Scheme**

Land Use	Trips Rates & Generations			
	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
Retail Unit Use – Convenience Store Trip Rate (Per 100sqm)	8.106	7.720	10.389	9.971
Retail Use – No. of Trips based on 380 Sqm	31	30	40	38

#### 5.1.1 Transport Impact Summary

In terms of vehicular impact, it is estimated that the proposed development will generate in the order of 67 vehicular trips during the AM peak hour period and 83 during the PM peak hour period.

It is noted that the level of trips that would be on the adjacent highway network relating to the former extant land use (Public House) has not been offset from the proposed developments trips so as to undertake a worst case assessment.

## 5.2 Local Highway Network Performance Assessment

A highway impact assessment was carried out to identify the impact of the proposed development on the adjacent highway network, and to identify whether any junctions are likely to be significantly and detrimentally impacted by the proposed development. The junctions listed in Table 7 have been assessed as part of this Transport Statement as identified within Section 2.7 of this report:

**Table 7: Extent of Junctions to be Assessed**

Junction Number	Junction Description	Junction Type
1	Birk Avenue / Colley Crescent - Site Access	Priority Junction
2	Birk Avenue / Hunningley Lane	Priority Junction

## 5.3 Scenarios for Assessment

The following scenarios have been appraised within this assessment.

- 2014 Existing Survey Flows;
- 2019 Do-Nothing, DN (baseline flows); and,
- 2019 Do-Something, DS (baseline flows plus proposed development trips).

The traffic flow diagrams are presented in Appendix E.

## 5.4 Forecast Growth Factors

The Tempro database has adopted to estimate traffic growth rates for the period 2014 to 2019. These rates are illustrated in Table 8 whilst the associated reports are provided in Appendix F.

**Table 8: Tempro Forecast Growth Rates**

Forecast year	Growth Rate	
	AM peak hour	PM Peak Hour
2014 - 2019	4.53%	4.76%

## 5.5 Step 1: Percentage Impact Assessment

In line with current industry best practice it is considered appropriate to identify the junctions that are significantly impacted by the proposed development, in terms of volumes of traffic. A significant impact is considered to be an increase in traffic flows above 2.5% over the existing 'base' flows at each junction which is considered to be of a relevant level to that of daily variation in traffic flows.

The assessment has been based on the junctions identified Section 2.7. Tables 9 summarise the results. The percentage impact assessment has been based on the 2019 'Do Nothing' and 2019 'Do Something' scenarios.

**Table 9: Percentage Impact Assessment: 2019 Do-Nothing vs Do Something Scenario**

Junction	AM Peak Flows (DS flows in brackets)	PM Peak Flows (DS flows in brackets)	%age Impact AM	%age Impact PM	Further Assessment Required
Birk Avenue / Colley Crescent - Site Access	289 (356)	361 (444)	23.2%	23.0%	✓
Birk Avenue / Hunningley Lane	1487 (1516)	1524 (1559)	2.0%	2.3%	×

In summary the percentage impact assessment concludes that one junctions within the study area is materially impacted either during the morning or evening peak hour period in terms of percentage impact.

Therefore, the following junction will require further detailed assessment:

- Birk Avenue / Colley Crescent / site access.

## 5.6 Step 2: Detailed Junction Capacity Analysis

This section assesses each junction identified in Section 5.5 that require further assessment. The junctions have been assessed in terms of operational capacity utilising the industry standard software packages of Junctions 8. These macro simulation packages provide a detailed assessment of the anticipated operation of the junctions.

The results of the assessment are summarised in Table 10 which provide the recorded RFCs on each arm of the junctions and estimated level of queuing. The full Junction 8 outputs are presented within Appendix G.

For the assessment of priority junctions the key performance indicator is the ratio of flow to capacity (RFC). A threshold RFC value of 0.85 is usually considered appropriate. Junction arms exhibiting RFC values below 0.85 are considered to be operating 'within capacity'; whereas junction arms exhibiting RFC values above 0.85 are considered to be operating over capacity'.

**Table 10: Junction Capacity Modelling Results: 2019 Do Something Scenario**

Junction	Arm	Do Something			
		AM Peak		PM Peak	
		RFC	Queue	RFC	Queue
Birk Avenue / Colley Crescent - Site Access	(A) Birk Avenue East	0.04	0.05	0.05	0.07
	(B) Colley Crescent	0.06	0.07	0.07	0.07
	(C) Birk Avenue West	0.01	0.01	0.01	0.01
	(D) Site Access	0.07	0.08	0.09	0.10

The results of the operational modelling exercise show that the Birk Avenue / Colley Crescent / Site access junction is estimated to operate with design capacity thresholds during both morning and evening peak hours appraised.

### **5.7 Step 3: Mitigations and Design Adjustments**

As part of the above analysis it has been demonstrated that all the junction appraised within the study area will not be detrimentally impacted by the proposed development. Therefore, no improvement measures to the public highway are required to mitigate operational capacity impacts.

## 6 Summary and Conclusions

### 6.1 Summary

Opus International Consultants Ltd (Opus) have been appointed to prepare a Transport Statement to support a hybrid planning application for a new mixed use (residential and retail) development within the grounds of the former Kendray Public house off Birk Avenue in Barnsley. Full planning permission is sought for the area to the front of the site with outline planning permission sought for residential area to the rear of the site.

The proposals are to include a 372sq.m retail unit at the front of the site, with nine residential dwellings to the rear.

The site is located off Birk Avenue in Barnsley.

This report has appraised key transport aspects and the findings are summarised as follows:

- **Traffic impact:** a traffic impact assessment has been undertaken and identified that the proposed development will have a minimal impact to the operations of the adjacent public highway network;
- **Pedestrian impact:** Pedestrian impact has been identified to be minimal, given the excellent adjacent facilities it is considered that there will be no impact associated with pedestrian;
- **Cycling impact:** The increase in cycle activity is anticipated to be minimal;
- **Access:** Access to the site will be gained by a reformed bellmouth arrangement utilising the former western public house access. The former eastern access point will be reformed as a vehicular crossover as per the existing land use;
- **Servicing:** Servicing arrangements associated with the retail element of the scheme are to operate in a similar fashion to that of the existing public house access will be gained via the reformed western bellmouth although egress will be limited to a vehicular crossover located at the former eastern access point. Deliveries and refuse collection for the residential element will access the site via the proposed western access point and turn within the site using a new turning head facility;
- **Parking:** The proposed parking facilities conform to the current planning policy guidance; and,
- **Road safety:** A broad review of road safety has been undertaken, and it is considered that the development proposals are unlikely to increase either the likelihood or severity of accidents occurring.

### 6.2 Conclusions

It is the view of this Transport Statement that, in transportation and highway safety terms, there are no overriding reasons for objection to the proposed development that should prevent the granting of outline planning permission.

**APPENDIX A: Traffic Surveys**

# Manual Classified Turning Counts, Barnsley

DATE: TUESDAY 4th NOVEMBER 2014

LOCATION: BIRK AVENUE / COLLEY CRESCENT

ARM: BIRK AVENUE EAST

TIME / CLASS	LEFT TO COLLEY CRESCENT						STRAIGHT TO BIRK AVENUE WEST						TOTAL MOVEMENT FROM ARM
	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
8:00 - 8:15	0	3	0	0	0	3	0	27	4	0	2	33	36
8:15 - 8:30	0	4	1	0	0	5	1	27	3	0	1	32	37
8:30 - 8:45	0	3	2	0	0	5	0	21	1	0	2	24	29
8:45 - 9:00	0	2	1	0	0	3	0	19	2	0	1	22	25
<b>HOURLY TOTAL</b>	<b>0</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>94</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>111</b>	<b>127</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>94</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>111</b>	<b>127</b>
---------------------	----------	-----------	----------	----------	----------	-----------	----------	-----------	-----------	----------	----------	------------	------------

17:00 - 17:15	0	3	0	0	0	3	0	29	4	0	1	34	37
17:15 - 17:30	0	7	1	0	0	8	0	29	0	0	2	31	39
17:30 - 17:45	0	4	1	0	0	5	0	28	1	0	2	31	36
17:45 - 18:00	0	3	1	0	0	4	0	22	2	0	2	26	30
<b>HOURLY TOTAL</b>	<b>0</b>	<b>17</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>108</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>122</b>	<b>142</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>17</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>108</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>122</b>	<b>142</b>
---------------------	----------	-----------	----------	----------	----------	-----------	----------	------------	----------	----------	----------	------------	------------

# Manual Classified Turning Counts, Barnsley

DATE: TUESDAY 4th NOVEMBER 2014

LOCATION: BIRK AVENUE / COLLEY CRESCENT

ARM: COLLEY CRESCENT

TIME / CLASS	LEFT TO BIRK AVENUE WEST						RIGHT TO BIRK AVENUE EAST						TOTAL MOVEMENT FROM ARM
	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
8:00 - 8:15	0	1	0	0	0	1	0	3	1	0	0	4	5
8:15 - 8:30	0	1	0	0	0	1	0	5	0	0	0	5	6
8:30 - 8:45	0	0	0	0	0	0	0	7	1	0	0	8	8
8:45 - 9:00	0	0	0	0	0	0	0	4	0	0	0	4	4
<b>HOURLY TOTAL</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>19</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>23</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>19</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>23</b>
---------------------	----------	----------	----------	----------	----------	----------	----------	-----------	----------	----------	----------	-----------	-----------

17:00 - 17:15	0	0	1	0	0	1	0	2	1	0	0	3	4
17:15 - 17:30	0	0	1	0	0	1	0	4	1	0	0	5	6
17:30 - 17:45	0	1	1	0	0	2	0	3	1	0	0	4	6
17:45 - 18:00	0	0	0	0	0	0	0	4	0	0	0	4	4
<b>HOURLY TOTAL</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>20</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>20</b>
---------------------	----------	----------	----------	----------	----------	----------	----------	-----------	----------	----------	----------	-----------	-----------

# Manual Classified Turning Counts, Barnsley

DATE: TUESDAY 4th NOVEMBER 2014

LOCATION: BIRK AVENUE / COLLEY CRESCENT

ARM: BIRK AVENUE WEST

TIME / CLASS	STRAIGHT TO BIRK AVENUE EAST						RIGHT TO COLLEY CRESCENT						TOTAL MOVEMENT FROM ARM
	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
8:00 - 8:15	0	23	4	0	2	29	0	0	0	0	0	0	29
8:15 - 8:30	0	24	2	0	2	28	0	0	0	0	0	0	28
8:30 - 8:45	0	19	2	0	1	22	0	0	0	0	0	0	22
8:45 - 9:00	0	18	1	0	2	21	0	0	0	0	0	0	21
<b>HOURLY TOTAL</b>	<b>0</b>	<b>84</b>	<b>9</b>	<b>0</b>	<b>7</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>84</b>	<b>9</b>	<b>0</b>	<b>7</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>
---------------------	----------	-----------	----------	----------	----------	------------	----------	----------	----------	----------	----------	----------	------------

17:00 - 17:15	0	48	4	0	2	54	0	0	0	0	0	0	54
17:15 - 17:30	0	31	2	0	1	34	0	1	0	0	0	0	35
17:30 - 17:45	0	32	3	0	1	36	0	1	0	0	0	1	37
17:45 - 18:00	0	26	2	0	1	29	0	0	0	0	0	0	29
<b>HOURLY TOTAL</b>	<b>0</b>	<b>137</b>	<b>11</b>	<b>0</b>	<b>5</b>	<b>153</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>155</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>137</b>	<b>11</b>	<b>0</b>	<b>5</b>	<b>153</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>155</b>
---------------------	----------	------------	-----------	----------	----------	------------	----------	----------	----------	----------	----------	----------	------------

# Manual Classified Turning Counts, Barnsley

DATE: TUESDAY 4th NOVEMBER 2014

LOCATION: HUMMINGLEY LANE / BIRK AVENUE

ARM: HUMMINGLEY LANE SOUTH

TIME / CLASS	LEFT TO BIRK AVENUE						STRAIGHT TO HUMMINGLEY LANE NORTH						TOTAL MOVEMENT FROM ARM
	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
8:00 - 8:15	0	12	4	0	1	17	0	80	18	5	0	103	120
8:15 - 8:30	0	18	6	0	0	24	1	87	19	4	1	112	136
8:30 - 8:45	0	15	1	0	0	16	1	92	14	4	0	111	127
8:45 - 9:00	0	13	4	0	0	17	0	77	14	5	0	96	113
<b>HOURLY TOTAL</b>	<b>0</b>	<b>58</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>74</b>	<b>2</b>	<b>336</b>	<b>65</b>	<b>18</b>	<b>1</b>	<b>422</b>	<b>496</b>

<b>PERIOD TOTAL</b>	<b>0</b>	<b>58</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>74</b>	<b>2</b>	<b>336</b>	<b>65</b>	<b>18</b>	<b>1</b>	<b>422</b>	<b>496</b>
---------------------	----------	-----------	-----------	----------	----------	-----------	----------	------------	-----------	-----------	----------	------------	------------

17:00 - 17:15	0	10	4	0	0	14	0	87	10	2	0	99	113
17:15 - 17:30	0	16	6	0	0	22	0	112	11	2	0	125	147
17:30 - 17:45	0	15	2	0	0	17	2	98	13	3	1	117	134
17:45 - 18:00	0	13	3	0	0	16	0	85	14	2	0	101	117

<b>PERIOD TOTAL</b>	<b>0</b>	<b>54</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>69</b>	<b>2</b>	<b>382</b>	<b>48</b>	<b>9</b>	<b>1</b>	<b>442</b>	<b>511</b>
---------------------	----------	-----------	-----------	----------	----------	-----------	----------	------------	-----------	----------	----------	------------	------------

# Manual Classified Turning Counts, Barnsley

DATE: TUESDAY 4th NOVEMBER 2014

LOCATION: HUMMINGLEY LANE / BIRK AVENUE

ARM: BIRK AVENUE

TIME / CLASS	LEFT TO HUMMINGLEY LANE NORTH						RIGHT TO HUMMINGLEY LANE SOUTH						TOTAL MOVEMENT FROM ARM
	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
8:00 - 8:15	0	42	5	0	0	47	0	16	0	0	0	16	63
8:15 - 8:30	1	53	4	2	0	60	0	12	4	0	3	19	79
8:30 - 8:45	0	40	6	0	0	46	0	16	0	1	0	17	63
8:45 - 9:00	0	33	7	0	0	40	0	12	1	0	1	14	54
<b>HOURLY TOTAL</b>	<b>1</b>	<b>168</b>	<b>22</b>	<b>2</b>	<b>0</b>	<b>193</b>	<b>0</b>	<b>56</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>66</b>	<b>259</b>

<b>PERIOD TOTAL</b>	<b>1</b>	<b>168</b>	<b>22</b>	<b>2</b>	<b>0</b>	<b>193</b>	<b>0</b>	<b>56</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>66</b>	<b>259</b>
---------------------	----------	------------	-----------	----------	----------	------------	----------	-----------	----------	----------	----------	-----------	------------

17:00 - 17:15	0	36	3	0	0	39	0	15	3	0	0	18	57
17:15 - 17:30	0	30	2	0	0	32	0	11	2	0	0	13	45
17:30 - 17:45	0	33	6	0	0	39	0	19	4	0	1	24	63
17:45 - 18:00	0	27	2	0	0	29	0	16	2	0	0	18	47

<b>PERIOD TOTAL</b>	<b>0</b>	<b>126</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>139</b>	<b>0</b>	<b>61</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>73</b>	<b>212</b>
---------------------	----------	------------	-----------	----------	----------	------------	----------	-----------	-----------	----------	----------	-----------	------------

# Manual Classified Turning Counts, Barnsley

DATE: TUESDAY 4th NOVEMBER 2014

LOCATION: HUMMINGLEY LANE / BIRK AVENUE

ARM: HUMMINGLEY LANE NORTH

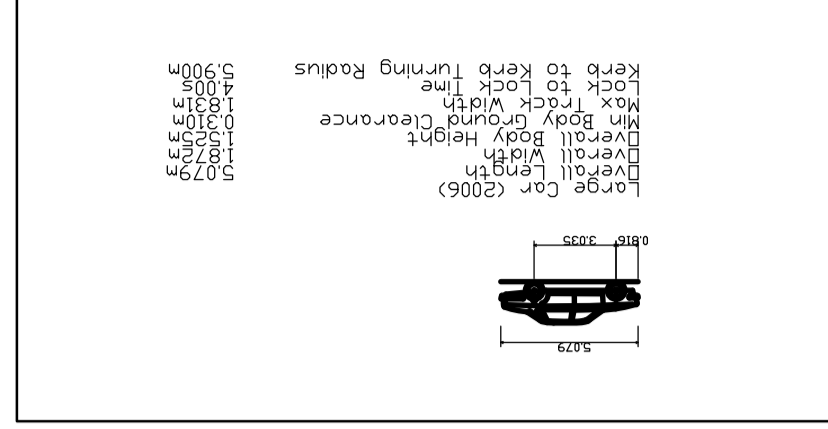
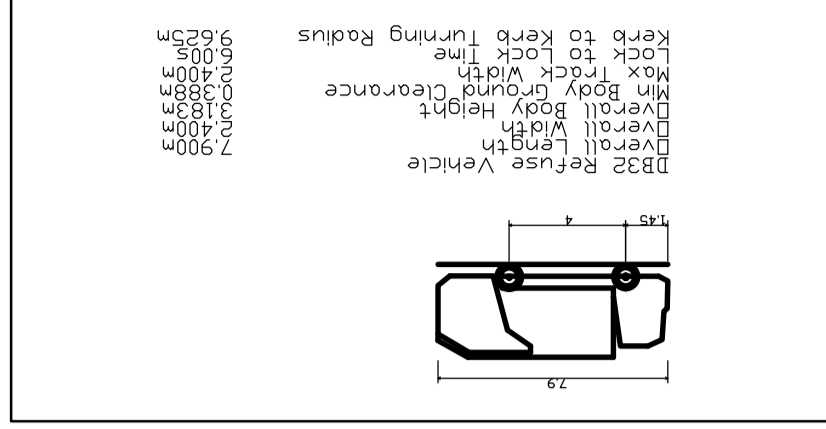
TIME / CLASS	STRAIGHT TO HUMMINGLEY LANE SOUTH						RIGHT TO BIRK AVENUE						TOTAL MOVEMENT FROM ARM
	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	M/C	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
8:00 - 8:15	0	70	12	4	0	86	0	57	0	0	0	57	143
8:15 - 8:30	1	62	12	3	0	78	1	40	1	0	2	44	122
8:30 - 8:45	0	95	19	2	2	118	0	24	3	0	0	27	145
8:45 - 9:00	2	72	14	1	1	90	0	29	4	0	0	33	123
<b>HOURLY TOTAL</b>	<b>3</b>	<b>299</b>	<b>57</b>	<b>10</b>	<b>3</b>	<b>372</b>	<b>1</b>	<b>150</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>161</b>	<b>533</b>

<b>PERIOD TOTAL</b>	<b>3</b>	<b>299</b>	<b>57</b>	<b>10</b>	<b>3</b>	<b>372</b>	<b>1</b>	<b>150</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>161</b>	<b>533</b>
---------------------	----------	------------	-----------	-----------	----------	------------	----------	------------	----------	----------	----------	------------	------------

17:00 - 17:15	0	120	16	2	2	140	0	36	7	0	1	44	184
17:15 - 17:30	0	118	12	1	1	132	0	32	8	1	0	41	173
17:30 - 17:45	0	88	14	2	1	105	0	28	9	0	0	37	142
17:45 - 18:00	0	79	8	0	1	88	0	25	7	0	0	32	120

<b>PERIOD TOTAL</b>	<b>0</b>	<b>405</b>	<b>50</b>	<b>5</b>	<b>5</b>	<b>465</b>	<b>0</b>	<b>121</b>	<b>31</b>	<b>1</b>	<b>1</b>	<b>154</b>	<b>619</b>
---------------------	----------	------------	-----------	----------	----------	------------	----------	------------	-----------	----------	----------	------------	------------

**APPENDIX B: Swept Path Analysis**



Revision	Amendment	Approved	Revision Date
R1	Updated Architects Plan	M.C.	28/11/2014
R1	Updated Refuse Vehicle Turning Head Swept Path	M.C.	28/11/2014

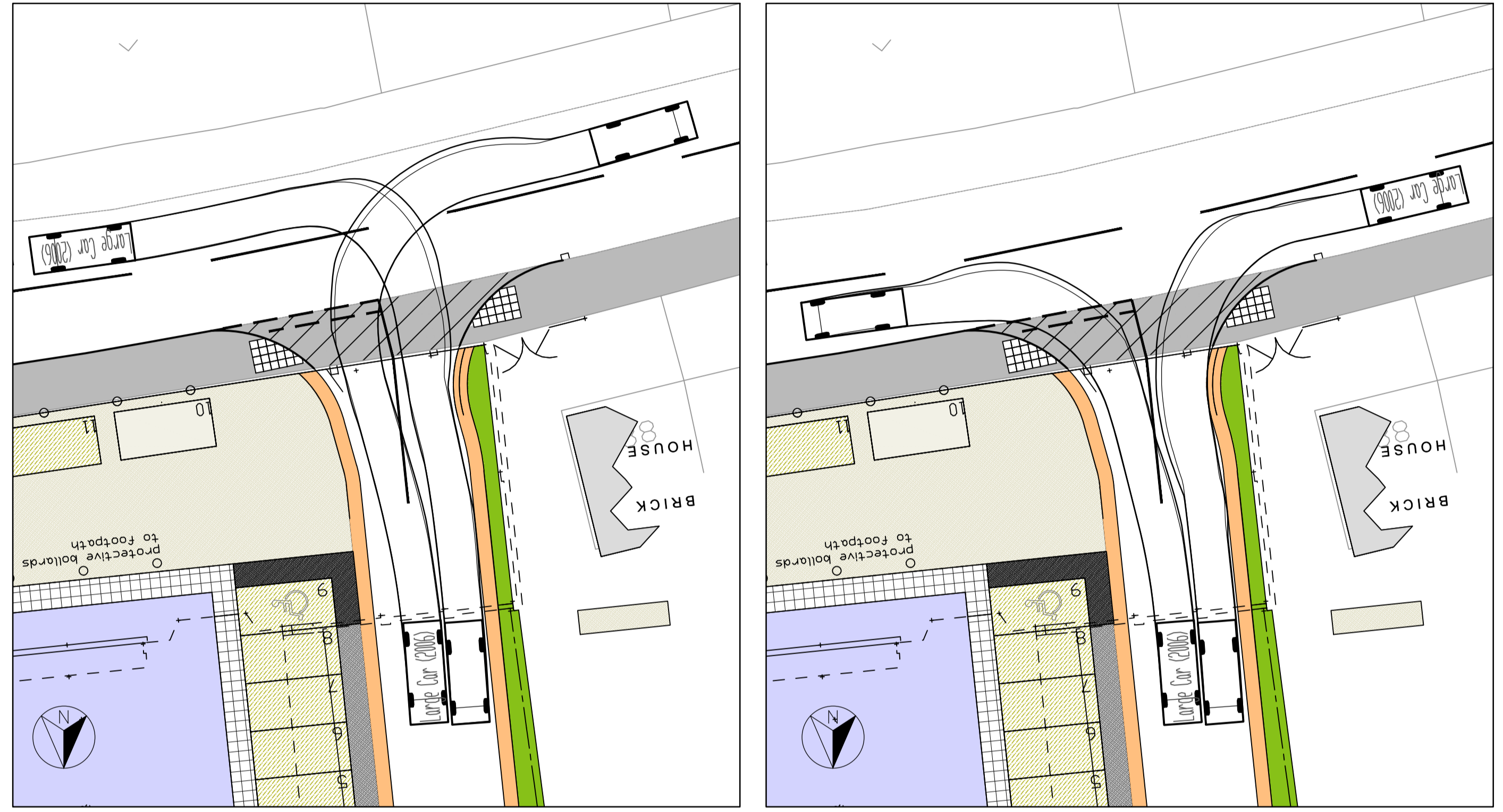
Drawn	Scales
S. Riddell	1:400 (A3)
Designed	Approved
S. Riddell	M. Clegg
14/11/2014	

Project	Project No.	Sheet
Geometric Accessibility	J-B0746/03	03
Project	Project No. <td>Revision </td>	Revision
R1		

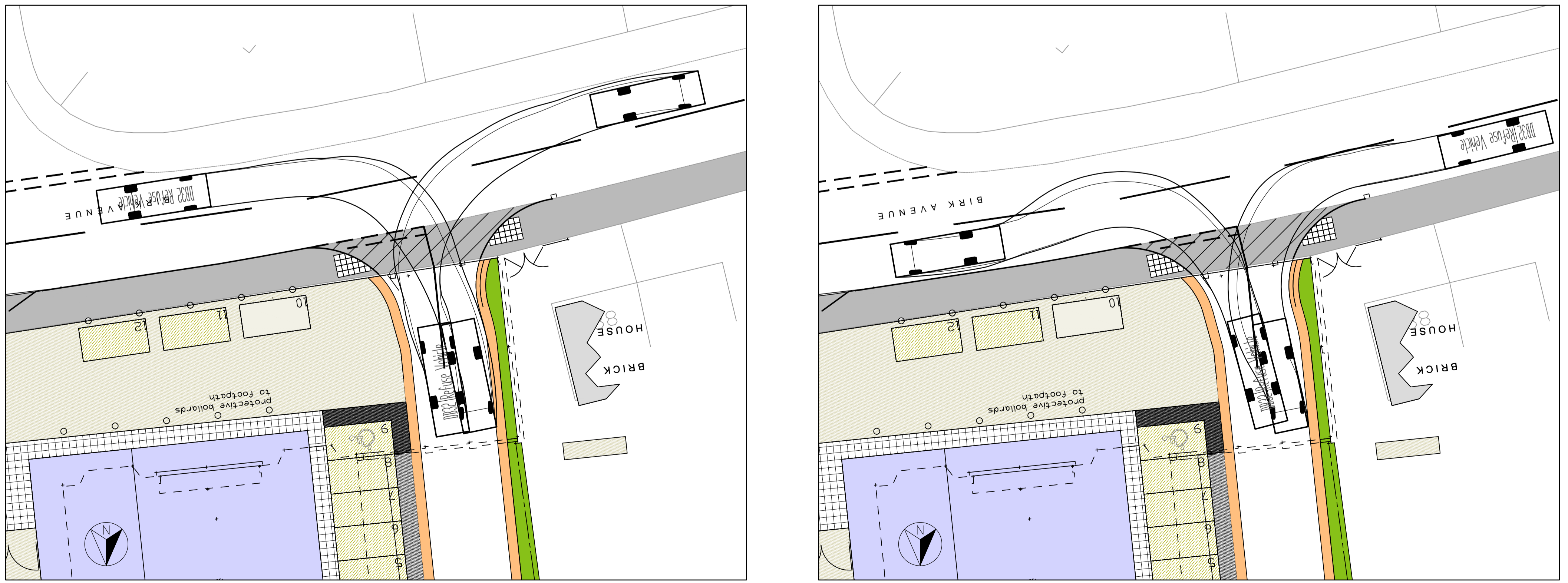
**OPUS**  
 Birmingham Office  
 +44 121 329 1560  
 Suite 3, 3800 Parkside  
 Birmingham Business Park  
 Birmingham B37 7YG

**Geometric Accessibility**  
 Swept Path Analysis  
 Knight Frank LLP  
 Mixed Use Scheme, The Kendray  
 Birk Avenue, Barnsley

Estate Car Tracking of Western Access



Refuse Vehicles Tracking of Western Access

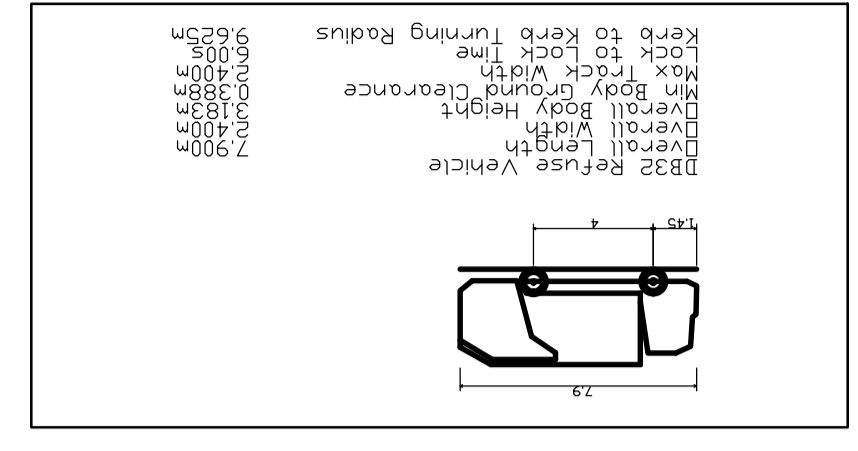


Refuse Vehicle Tracking of Turning Head



0 10 mm 50 100 200 300 mm

1:1 @ A1  
1:2 @ A3  
0 10 20 30 40 50 60 70 80 90 100 mm



Revision	Amendment	Approved	Revision Date
R1	Updated Architects Plan	M.C	28/11/2014

Project	Project No.	Project Name
Knigt Frank LLP Mixed Use Scheme, The Kendray Birk Avenue, Bamsley	J-B0746/04	Geometric Accessibility Swept Path Analysis

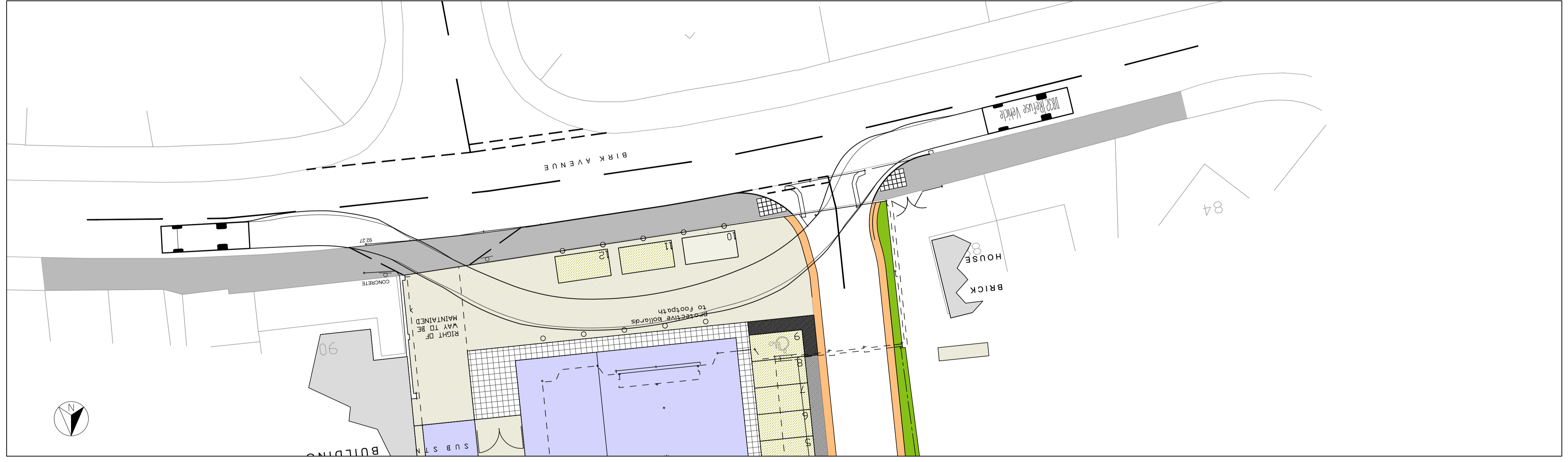
  

Design	Approved	Approved Date
Birmingham Office +44 121 329 1560 Birmingham B37 7YG	M.Cleggett	14/11/2014

Drawn	Scales
S.Riddell	1:400 (A3)

Revision	Sheet No.
R1	04



Refuse Vehicles Tracking into Western Access and Out of Eastern Access



**APPENDIX C: Masterplan**



1:200 Site Plan as Proposed

### General Notes

THIS DRAWING HAS BEEN PREPARED FROM SURVEY INFORMATION SUPPLIED BY OTHERS AND IS FOR INFORMATION PURPOSES ONLY. DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY.

© WAKE ARCHITECTS LIMITED 2014. THIS DRAWING AND ITS CONTENTS HAS BEEN PRODUCED FOR THE CLIENT ONLY AND IS NOT INTENDED FOR ANY OTHER PERSON OR FOR ANY OTHER PURPOSE THAN THE DRAWING STATUS. NO PART OF THIS DRAWING AND ASSOCIATED GRAPHICAL CONTENTS MAY BE REPRODUCED, COPIED, MODIFIED, ADAPTED OR DISTRIBUTED, WITHOUT THE PRIOR WRITTEN CONSENT OF THE AUTHOR.

ALL DIMENSIONS MUST BE CHECKED AND VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK AND ARCHITECT TO BE NOTIFIED OF ANY DISCREPANCIES.

THE PARTY WALL ETC ACT 1996 CAME INTO FORCE ON 1ST JULY 1997 THROUGHOUT ENGLAND & WALES. IF YOU INTEND TO CARRY OUT BUILDING WORK WHICH INVOLVES ONE OF THE FOLLOWING CATEGORIES:

- WORK ON AN EXG WALL OR STRUCTURE SHARED WITH ANOTHER PROPERTY (SECTION 2 OF THE ACT)
- BUILDING A FREE STANDING WALL OR WALLS OF A BUILDING UP TO OR ASTRIDE THE BOUNDARY WITH A NEIGHBOURING PROPERTY (SECTION 1 OF THE ACT)
- EXCAVATING NEAR A NEIGHBOURING BUILDING (SECTION 6 OF THE ACT)

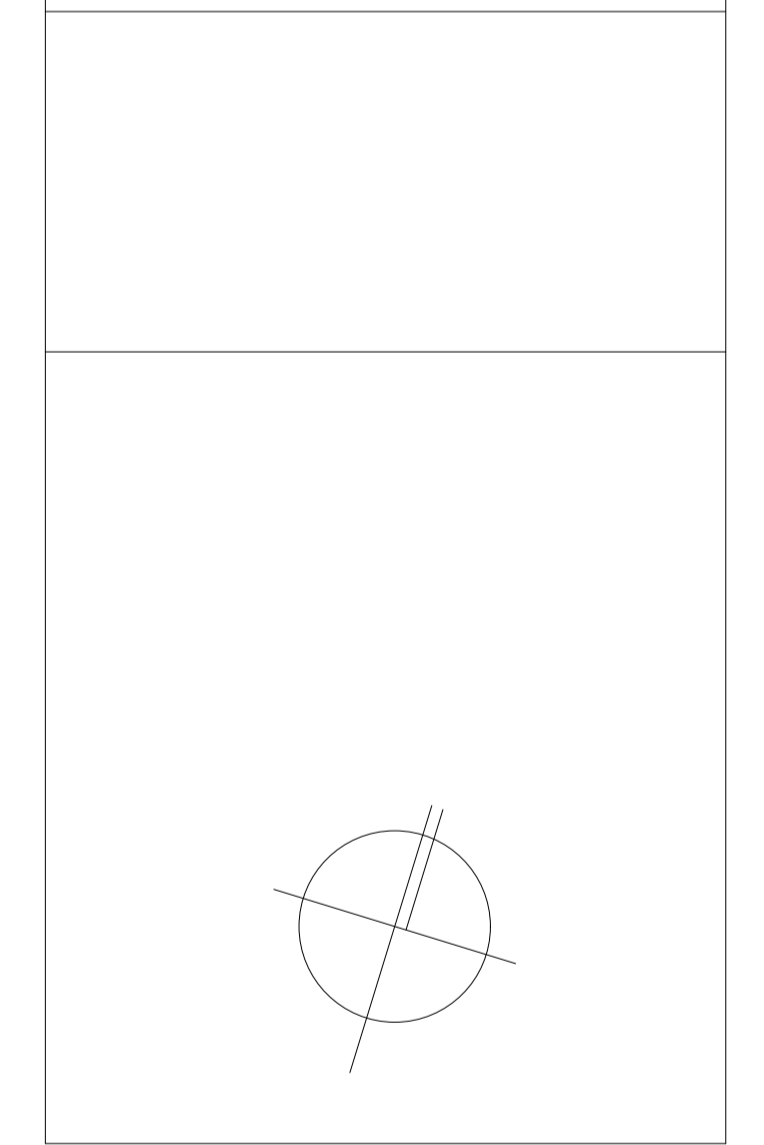
YOU MUST FIND OUT WHETHER THAT WORK FALLS WITHIN THE ACT (YOUR PROJECT MANAGER WILL BE ABLE TO ADVISE YOU ON THIS). IF IT DOES, YOU MUST NOTIFY ALL AFFECTED NEIGHBOURS. A NOTICE MUST BE GIVEN EVEN WHERE THAT WORK WILL NOT EXTEND BEYOND THE CENTRE LINE OF A PARTY WALL.

ALL CONSTRUCTION PROJECTS LARGE & SMALL ARE SUBJECT TO THE CDM REGULATIONS (1994). IF THE DEVELOPMENT WILL BE FOR A DOMESTIC CLIENT OR LESS THAN 30 DAYS IN DURATION THEN THE RESPONSIBILITY FOR HEALTH & SAFETY IS THEN PASSED ONTO THE MAIN CONTRACTOR. IN ALL CASES THE CLIENT MAY DEVOLVE THE RESPONSIBILITY TO A CDM PLANNING SUPERVISOR, WHO WILL ACT ON THE CLIENTS BEHALF. PLEASE REFER TO PLANNING SUPERVISOR FOR ADVICE.

BEFORE STARTING WORK YOU NEED TO CHECK IF ANY ASBESTOS IS PRESENT. IN COMMERCIAL PROPERTIES THERE SHOULD BE A PLAN/REGISTER-ASK TO SEE IT. YOU NEED TO CHECK THAT THE PLAN COVERS THE AREA OF THE BUILDING THAT YOU WILL BE WORKING IN AND IF YOU ARE DOING REFURBISHMENT WORK THAT IT INCLUDES A SURVEY THAT TELLS YOU WHAT TYPES OF ASBESTOS IS PRESENT AND ITS CONDITION. IF THERE IS NO REGISTER OR SURVEY OR THE REPORT IS NOT CLEAR-DO NOT START WORK.

NO WORKS ARE TO START ON SITE PRIOR TO DISCHARGE OF ANY / ALL PRE-START PLANNING CONDITIONS.

THE CLIENT IS AT RISK IF ANY WORKS ARE STARTED PRIOR TO APPROVAL BY APPOINTED BUILDING CONTROL BODY.



Drawing Status:	
Project No: 1320	Project MIXED USE DEVELOPMENT, THE KENDRAY, BIRK ROAD, BARNSELY.
Drawing No: (0-) 02	Drawing: Site Plan as Proposed.
Scale @ A1: 1:200	Date: 11/14
Drawn by: GDW	Client: COMMERCIAL DEVELOPMENT PROJECTS.
Checked by:	

**wake architects limited.**

tel +44(0)1484 681755  
 fax +44(0)1484 691765  
 e enquiry@wakearchitects.com

1 Dunford Road  
 Holmfirth  
 HD9 2DP

The Kendray Barnsley plan, 12.08, Friday, 28 November 2014, © WA Ltd 2014

**APPENDIX D: TRICS Reports**

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED  
 VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	2 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
08	NORTH WEST	
	CH CHESHIRE	2 days
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings  
 Actual Range: 6 to 29 (units: )  
 Range Selected by User: 6 to 30 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 17/10/13

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	7 days
Wednesday	4 days
Thursday	2 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	18 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	11
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Filtering Stage 3 selection:

Use Class:

C3 17 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	3 days
15,001 to 20,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days
125,001 to 250,000	3 days
250,001 to 500,000	5 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	10 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 18 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1	CA-03-A-04	DETACHED		CAMBRIDGESHIRE
	THORPE PARK ROAD PETERBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 9 Survey date: TUESDAY 18/10/11 Survey Type: MANUAL			
2	CH-03-A-05	DETACHED		CHESHIRE
	SYDNEY ROAD SYDNEY CREWE Edge of Town Residential Zone Total Number of dwellings: 17 Survey date: TUESDAY 14/10/08 Survey Type: MANUAL			
3	CH-03-A-08	DETACHED		CHESHIRE
	WHITCHURCH ROAD BOUGHTON HEATH CHESTER Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 11 Survey date: TUESDAY 22/05/12 Survey Type: MANUAL			
4	DS-03-A-01	SEMI D./TERRACED		DERBYSHIRE
	THE AVENUE HOLMESDALE DRONFIELD Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Number of dwellings: 20 Survey date: THURSDAY 22/06/06 Survey Type: MANUAL			
5	GM-03-A-10	DETACHED/SEMI		GREATER MANCHESTER
	BUTT HILL DRIVE PRESTWICH MANCHESTER Edge of Town Residential Zone Total Number of dwellings: 29 Survey date: WEDNESDAY 12/10/11 Survey Type: MANUAL			
6	LN-03-A-03	SEMI DETACHED		LINCOLNSHIRE
	ROOKERY LANE BOULTHAM LINCOLN Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 22 Survey date: TUESDAY 18/09/12 Survey Type: MANUAL			
7	MS-03-A-03	DETACHED		MERSEYSIDE
	BEMPTON ROAD OTTERSPOOL LIVERPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 15 Survey date: FRIDAY 21/06/13 Survey Type: MANUAL			



LIST OF SITES relevant to selection parameters (Cont.)

15	TW-03-A-02 WEST PARK ROAD	SEMI -DETACHED		TYNE & WEAR
	GATESHEAD Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 16 Survey date: MONDAY 07/10/13			
16	WK-03-A-01 ARLINGTON AVENUE	TERRACED/SEMI /DET.		Survey Type: MANUAL WARWICKSHIRE
	LEAMINGTON SPA Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 6 Survey date: FRIDAY 21/10/11			
17	WK-03-A-02 NARBERTH WAY POTTERS GREEN COVENTRY	BUNGALOWS		Survey Type: MANUAL WARWICKSHIRE
	Edge of Town Residential Zone Total Number of dwellings: 17 Survey date: THURSDAY 17/10/13			
18	WM-03-A-02 HEATH STREET	DETACHED & SEMI DET.		Survey Type: MANUAL WEST MIDLANDS
	STOURBRIDGE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 12 Survey date: WEDNESDAY 26/04/06			

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED  
 VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
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	18	17	0.074	18	17	0.251	18	17	0.325
08:00 - 09:00	18	17	0.164	18	17	0.445	18	17	0.609
09:00 - 10:00	18	17	0.140	18	17	0.181	18	17	0.321
10:00 - 11:00	18	17	0.144	18	17	0.151	18	17	0.295
11:00 - 12:00	18	17	0.187	18	17	0.184	18	17	0.371
12:00 - 13:00	18	17	0.187	18	17	0.154	18	17	0.341
13:00 - 14:00	18	17	0.167	18	17	0.157	18	17	0.324
14:00 - 15:00	18	17	0.174	18	17	0.211	18	17	0.385
15:00 - 16:00	18	17	0.264	18	17	0.234	18	17	0.498
16:00 - 17:00	18	17	0.298	18	17	0.194	18	17	0.492
17:00 - 18:00	18	17	0.355	18	17	0.171	18	17	0.526
18:00 - 19:00	18	17	0.247	18	17	0.161	18	17	0.408
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>2.401</b>			<b>2.494</b>			<b>4.895</b>

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 6 - 29 (units: )  
 Survey date date range: 01/01/06 - 17/10/13  
 Number of weekdays (Monday-Friday): 18  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.