

## 7. Service Specification

Route: 165

QC42501

This Service Specification forms section 7 of the ITT and should be read in conjunction with the ITT document, Version 1 dated 29 September 2011.

You are formally invited to tender for the provision of the bus service detailed below and in accordance with this Service Specification. Tenderers must ensure that a Compliant Tender is submitted and this will only be considered for evaluation if all parts of the Tender documents, as set out in section 11, have been received by the Corporation by the Date of Tender. The Tender must be fully completed in the required format, in accordance with the Instructions to Tenderers. A Compliant Tender must comply fully with the requirements of the Framework Agreement; adhere to the requirements of the Service Specification; and reflect the price of operating the Services with new vehicles.

<b>Terminus Points</b>	Romford, The Brewery to Rainham, Abbey Wood Lane
<b>Contract Basis</b>	Incentivised
<b>Commencement Date</b>	28 <sup>th</sup> September 2013
<b>Vehicle Type</b>	60 capacity, dual door, single deck, minimum 10.8m long
<b>Current Maximum Approved Dimensions</b>	10.6 metres long and 2.55 metres wide
<b>New Vehicles Mandatory</b>	Yes
<b>Hybrid Price Required</b>	No
<b>Sponsored Route</b>	No
<b>Advertising Rights</b>	Operator
<b>Minimum Performance Standard</b>	Average Excess Wait Time - No more than 0.90 minutes
<b>Extension Threshold</b>	Average Excess Wait Time Threshold - 0.80 minutes
<b>Minimum Operated Mileage Standard</b>	No less than 98.00%

The Date of Tender for this ITT is: No later than 12 Noon on Monday 19<sup>th</sup> November 2012

*Tenderers should refer to section 3 of Part A for the Service Specification Explanatory Notes and Appendix B of section 5 for the Example Service Specification of the ITT document.*

## **SERVICE SPECIFICATION**

- 1) SERVICE SPEC - ROUTE SPECIFICATION INFORMATION
- 2) NOTES
- 3) SCHEDULE REQUIREMENTS & PINCHPOINTS
- 4) OPERATIONAL CONSIDERATIONS
- 5) ROUTE RECORD, CURRENT PERFORMANCE, QSI BY TIME OF DAY, IBUS MILEAGE & QSI POINTS

## 2) NOTES

### **Proposed Changes:**

At this time, the Corporation expects to implement a change to the existing service prior to the commencement of the new Route Agreement for Route No. 165.

- Improvement of the current interworking with Route No. 287 between Rainham, War Memorial/Rainham, Tesco and Rainham, Abbey Wood Lane **in both directions on Sundays.**
- There will be changes to the road layout in Rainham. This includes a one-way system with an extension of Viking Way to Upminster Road South one way eastbound and a short section of Upminster Road South westbound only. From 8<sup>th</sup> October 2012, ex Romford, The Brewery, Route No. 165 is re-routed from Viking Way direct to Upminster Road South to re-join normal line of routeing. The section of routeing from Tesco Access Road via Viking Way, Bridge Road and Rainham Broadway to Upminster Road South is withdrawn. Ex Rainham, Abbey Wood Lane, there is no change to routeing. This re-routeing will also apply to Route No. 287.

Tenderers should note that the following alterations (subject to consultation) are proposed as part of this Service Specification for introduction with the new Route Agreement:

- The Mondays to Fridays Schooldays afternoon journey at 1605 ex Romford, The Brewery is withdrawn.
- 60 capacity, dual door, single deck buses of a minimum of 10.8 metres long buses will be specified, subject to a satisfactory route test.
- The Boxing Day service should match the Sunday service.
- **Tenderers must identify the cost of the Boxing Day element of this service separately.**

### 3) SCHEDULE REQUIREMENTS & PINCHPOINTS

#### 3.1) MONDAY TO FRIDAY SCHEDULE REQUIREMENTS & PINCHPOINTS

Romford, The Brewery to Rainham, Abbey Wood Lane			Rainham, Abbey Wood Lane to Romford, The Brewery#		
First departure no later than 0505.			First departure no later than 0440.		
0500 - 0705	Every 15 minutes		0435 - 0625	Every 15 minutes	
0706 - 1945	Every 12 minutes		0626 - 1905	Every 12 minutes	
1946 - 2030	Every 15 minutes		1906 - 2020	Every 15 minutes	
2031 - 0115	Every 20 minutes		2021 - 0025	Every 20 minutes	
Last departure no earlier than 0110.			Last departure no earlier than 0020.		
<b>Pinchpoints</b>					
South Hornchurch, Cherry Tree	0715 - 0745	15 minutes	Gidea Park, Drill	0700 - 0900	12 minutes
	0746 - 0900	12 minutes			
	1500 - 1635	12 minutes		1510 - 1635	12 minutes

# Buses operating towards Romford, The Brewery are diverted in Romford after 2130 (until last bus) from South Street via Victoria Road to Mercury Gardens to resume line of routeing after the junction of Mercury Gardens & Western Road. Buses will consequently not serve the stop on Western Road. Buses operating towards Rainham, Abbey Wood Lane are unaffected and remain on normal line of route.

#### 3.2) SATURDAY AND GOOD FRIDAY SCHEDULE REQUIREMENTS & PINCHPOINTS

Romford, The Brewery to Rainham, Abbey Wood Lane			Rainham, Abbey Wood Lane to Romford, The Brewery#		
First departure no later than 0505.			First departure no later than 0440.		
0500 - 0820	Every 15 minutes		0435 - 0825	Every 15 minutes	
0821 - 1900	Every 12 minutes		0826 - 1835	Every 12 minutes	
1901 - 2030	Every 15 minutes		1836 - 2020	Every 15 minutes	
2031 - 0115	Every 20 minutes		2021 - 0025	Every 20 minutes	
Last departure no earlier than 0110.			Last departure no earlier than 0020.		
<b>Pinchpoints</b>					
South Hornchurch, Cherry Tree	0855 - 1055	12 minutes	Gidea Park, Drill	0900 - 1100	12 minutes

# Buses operating towards Romford, The Brewery are diverted in Romford after 2130 (until last bus) from South Street via Victoria Road to Mercury Gardens to resume line of routeing after the junction of Mercury Gardens & Western Road. Buses will consequently not serve the stop on Western Road. Buses operating towards Rainham, Abbey Wood Lane are unaffected and remain on normal line of route.

**3) SCHEDULE REQUIREMENTS & PINCHPOINTS - continued**

**3.3) SUNDAY AND PUBLIC HOLIDAY SCHEDULE REQUIREMENTS & PINCHPOINTS**

Romford, The Brewery and Rainham, Abbey Wood Lane		Rainham, Abbey Wood Lane and Romford, The Brewery#			
First departure no later than 0600.		First departure no later than 0545.			
0555 - 0115	Every 20 minutes	0540 - 0025	Every 20 minutes		
Last departure no earlier than 0110.		Last departure no earlier than 0020.			
<b>Pinchpoints</b>					
South Hornchurch, Cherry Tree Lane	1010 - 1130	20 minutes	Gidea Park, Drill	1015 - 1135	20 minutes

**# Buses operating towards Romford, The Brewery are diverted in Romford after 2130 (until last bus) from South Street via Victoria Road to Mercury Gardens to resume line of routeing after the junction of Mercury Gardens & Western Road. Buses will consequently not serve the stop on Western Road. Buses operating towards Rainham, Abbey Wood Lane are unaffected and remain on normal line of route.**

**Tenderers must identify the cost of the Boxing Day element of this service separately.**

#### **4) OPERATIONAL CONSIDERATIONS**

- 4.1) Route No. 165 should be best separated from Route No. 287 between Rainham, War Memorial/Rainham, Tesco and Rainham, Abbey Wood Lane **in both directions during all evenings and Sundays** and be separated during other periods where possible.
- 4.2) Route No. 165 should interwork with Route Nos. 365 & N365 between Elm Park Station and South Hornchurch, Cherry Tree during all periods, where possible.
- 4.3) Route No. 165 should be separated from Route No. 372 between Hornchurch Town Centre and Rainham, Tesco during all periods, where possible.
- 4.4) Romford Market, which is held on Wednesdays, Fridays and Saturdays, can lead to traffic delays in the Romford area.
- 4.5) As a result of safety concerns, buses are currently diverted away from South Street and Western Road (towards Romford, The Brewery) every evening from 2130 hours. Route No. 165 will hence be diverted northbound (towards Romford, The Brewery) from South Street via Victoria Road and Mercury Gardens. The southbound routeing (towards Rainham, Abbey Wood Lane) will not be affected. This practice initially followed police requests but following improvements to Police resources and CCTV, meetings are on-going to encourage operators to return to serving the town centre.
- 4.6) Crossrail will connect the City, Canary Wharf, the West End and Heathrow Airport to commuter areas east and west of the capital.

#### **5) ROUTE RECORD, CURRENT PERFORMANCE, QSI BY TIME OF DAY, IBUS MILEAGE & QSI POINTS**

- 5.1) ROUTE RECORD  
As per Busnet Printout.
- 5.2) CURRENT PERFORMANCE  
As per current print out.
- 5.3) QSI BY TIME OF DAY  
As per current print out.
- 5.4) IBUS MILEAGE & QSI POINTS  
As per current print out.

# LONDON BUSES - ROUTE DESCRIPTION

## ROUTE 165: Romford Brewery - Rainham, Abbey Wood Lane

**Date of Structural Change:** 28 September 2013.

**Date of Service Change:** 28 September 2013.

**Reason for Issue:** New contract, not yet awarded.

### STREETS TRAVERSED

**Towards Rainham, Abbey Wood Lane:** Brewery Access Road, Waterloo Road, St Edwards Way, Main Road Roundabout, Mercury Gardens, Western Road, Grimshaw Way, Slaney Road, Chandlers Way, Eastern Road, South Street, Brentwood Road, The Drill Roundabout, Slewins Lane, Butts Green Road, North Street, Hornchurch High Street, Circumnavigate Town Centre Gyratory, Hornchurch High Street, Abbs Cross Lane, Elm Park Avenue, The Broadway, Rosewood Avenue, Wood Lane, Mungo Park Road, South End Road, Cherry Tree Lane, New Road, Dovers Corner, Bridge Road, Viking Way, Tesco Access Road, Viking Way, Upminster Road South, Upminster Road North, Lake Avenue, Thorn Lane, Briscoe Road, Abbey Wood Lane.

**Towards Romford Brewery:** Abbey Wood Lane, Berwick Road, Thorn Lane, Lake Avenue, Upminster Road North, Upminster Road South, Rainham Broadway, Bridge Road, Viking Way, Tesco Access Road, Viking Way, Bridge Road, Dovers Corner, New Road, Cherry Tree Lane, South End Road, Mungo Park Road, Rosewood Avenue, The Broadway, Elm Park Avenue, Abbs Cross Lane, Hornchurch High Street, Circumnavigate Town Centre Gyratory, Hornchurch High Street, North Street, Billet Lane, Butts Green Road, Slewins Lane, The Drill Roundabout, Brentwood Road, South Street, Western Road, Mercury Gardens, Main Road Roundabout, St Edwards Way, Brewery Access Road.

**Special Journey towards Romford Brewery between South Street and Mercury Gardens:** After 2130 every night buses operate from South Street, then via Victoria Road rejoining line of route at Mercury Gardens.

## **AUTHORISED STANDS, CURTAILMENT POINTS, & BLIND DESCRIPTIONS**

Please note that only stands, curtailment points, & blind descriptions as detailed in this contractual document may be used.

### **ROMFORD BREWERY**

Public stand for three buses located within Romford Brewery site, located 36m east of Waterloo Road and 18m west of Brewery exit road adjacent to bus station exit. Buses proceed from Brewery Access Road direct to stand, departing to Brewery Access Road. Set down in Brewery Access Road, at Alighting Point (BP2993 - The Brewery, Last Stop on LOR: BP2993 - The Brewery) and pick up in Brewery Access Road, at Stop O (BP2994 - The Brewery, First Stop on LOR: BP2994 - The Brewery).

AVAILABILITY: At any time.  
OPERATING RESTRICTIONS: No more than 2 buses on Route 165 should be scheduled to stand at any one time.  
MEAL RELIEFS: No meal relief vehicles to stand at any time.  
FERRY VEHICLES: No ferry vehicles to park on stand at any time.  
BLIND DISPLAY: Romford, The Brewery.  
OTHER INFORMATION: Toilet facilities available 24 hours a day.

### **ROMFORD STATION, ATLANTA BOULEVARD (from RAINHAM, ABBEY WOOD LANE)**

Private stand for 15 buses in marked bays in Bus Parking Area in Atlanta Boulevard on south side of Romford Station. Buses proceed from South Street via Atlanta Boulevard to stand, departing via Atlanta Boulevard to South Street. Set down in South Street, at Stop X (R0681 - Romford Station #, Last Stop on LOR: R0681 - Romford Station #) and pick up in South Street, at Stop Y (R0591 - Romford Station #, First Stop on LOR: R0591 - Romford Station #).

AVAILABILITY: At any time.  
OPERATING RESTRICTIONS: Unscheduled curtailments only.  
MEAL RELIEFS: No meal relief vehicles to stand at any time.  
FERRY VEHICLES: No ferry vehicles to park on stand at any time.  
BLIND DISPLAY: Romford Station.  
OTHER INFORMATION: 24-hour toilet facilities available.



## **HORNCHURCH TOWN CENTRE**

### From Rainham, Abbey Wood Lane.

Buses proceed from Hornchurch High Street departing to Station Lane. Set down in Hornchurch High Street, at stop F (8527 - Hornchurch Town Centre, Last Stop on LOR: FC05 - Billet Lane) and pick up in Station Lane, at stop G (8528 - Hornchurch Town Centre / North Street, First Stop on LOR: 8528 - Hornchurch Town Centre / North Street).

### From Romford Brewery.

Buses proceed from North Street via Hornchurch High Street departing to Station Lane. Set down in Hornchurch High Street, at stop F (8527 - Hornchurch Town Centre, Last Stop on LOR: 18266 - Queens Theatre) and pick up in Station Lane, at stop G (8528 - Hornchurch Town Centre / North Street, First Stop on LOR: 8528 - Hornchurch Town Centre / North Street).

AVAILABILITY: At any time.  
OPERATING RESTRICTIONS: **Turning Point Only - Buses must not stand**  
BLIND DISPLAY: Hornchurch Town Centre.

## **ELM PARK, ROSEWOOD AVENUE (from Romford Brewery)**

Public stand for one bus on west side of Rosewood Avenue, commencing outside Nos 68/70 on north side of roundabout.

Buses proceed from Rosewood Avenue direct to stand, departing to Rosewood Avenue. Set down in Rosewood Avenue, at Stop S (26549 - Ambleside Avenue, Last Stop on LOR: 26549 - Ambleside Avenue) and pick up in Rosewood Avenue, at Stop B (26548 - Ambleside Avenue, First Stop on LOR: 26548 - Ambleside Avenue).

AVAILABILITY: At any time.  
OPERATING RESTRICTIONS: Unscheduled curtailments only.  
MEAL RELIEFS: No meal relief vehicles to stand at any time.  
FERRY VEHICLES: No ferry vehicles to park on stand at any time.  
BLIND DISPLAY: Elm Park.

## **RAINHAM STATION INTERCHANGE (from Romford Brewery)**

Private stand in Rainham Station Interchange. Definition to be confirmed.  
Buses proceed from Tesco Access Road via Viking Way, Bridge Road, Rainham Broadway, Wennington Road, Old Station Lane and Celtic Farm Road to stand, departing via Celtic Farm Road, Ferry Lane and Wennington Road to Rainham Broadway. Set down in Tesco Access Road, at stop F (BP776 - Rainham Tesco, Last Stop on LOR: BP776 - Rainham Tesco) and pick up in Rainham Broadway, at stop C (20479 - Rainham War Memorial, First Stop on LOR: 20479 - Rainham War Memorial).

AVAILABILITY: At any time.  
OPERATING RESTRICTIONS: Unscheduled curtailments only  
MEAL RELIEFS: No meal relief vehicles to stand at any time.  
FERRY VEHICLES: No ferry vehicles to park on stand at any time.  
BLIND DISPLAY: Rainham Village.

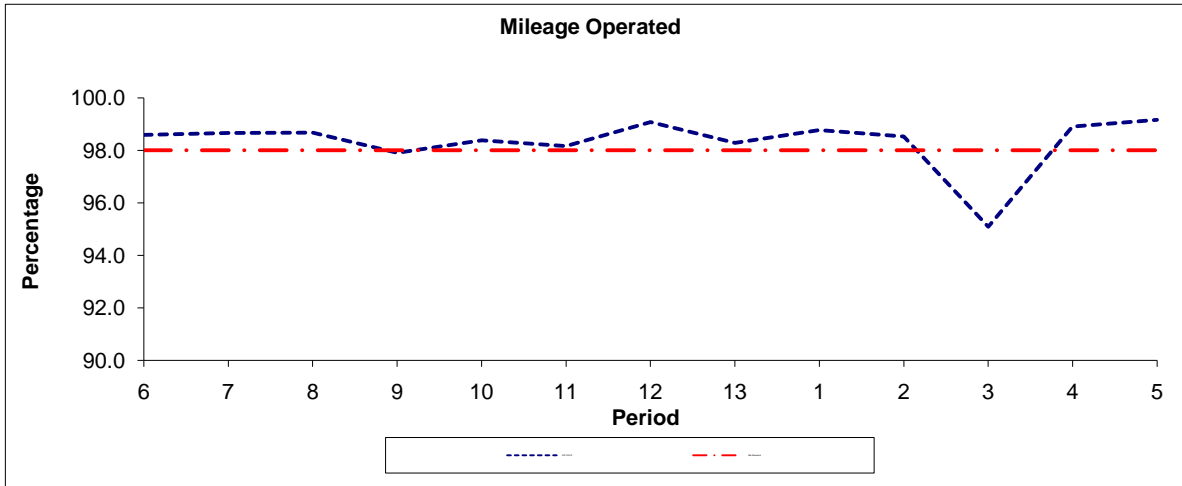
## **RAINHAM, ABBEY WOOD LANE**

Public stand for four buses at rear of bay on north side of Abbey Wood Lane, commencing opposite eastern flank wall of No. 30 and extending 45 metres west.  
Buses proceed from Abbey Wood Lane direct to stand, departing to Abbey Wood Lane. Set down in Abbey Wood Lane (33795 - Abbey Wood, Last Stop on LOR: 33795 - Abbey Wood) and pick up in Abbey Wood Lane (33795 - Abbey Wood, First Stop on LOR: 33795 - Abbey Wood).

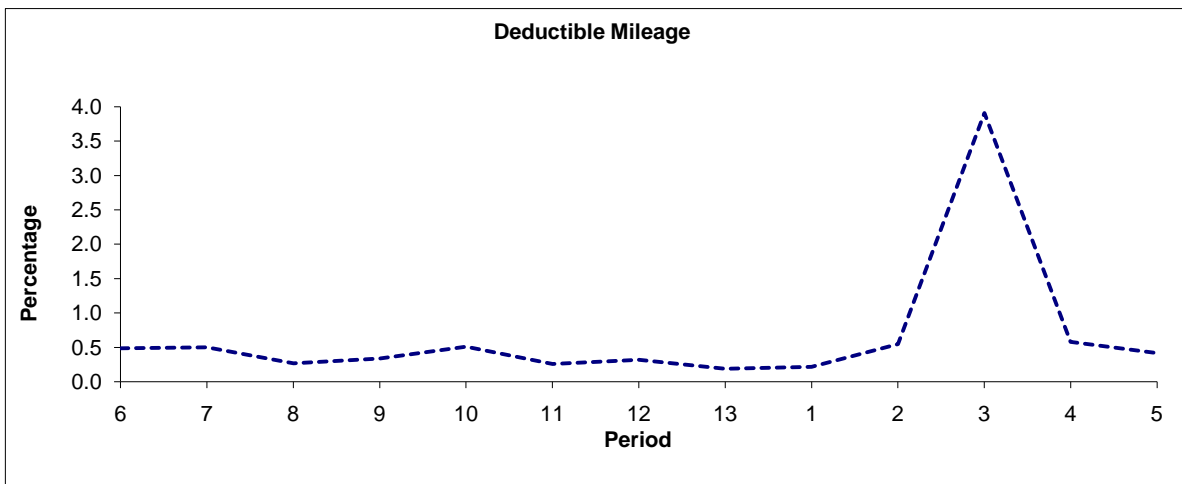
AVAILABILITY: At any time.  
OPERATING RESTRICTIONS: No more than 2 buses on Route 165 should be scheduled to stand at any one time.  
MEAL RELIEFS: No meal relief vehicles to stand at any time.  
FERRY VEHICLES: No ferry vehicles to park on stand at any time.  
BLIND DISPLAY: Rainham, Abbey Wood Lane.  
OTHER INFORMATION: No toilet facilities available.

**PART B - PERFORMANCE STATISTICS**

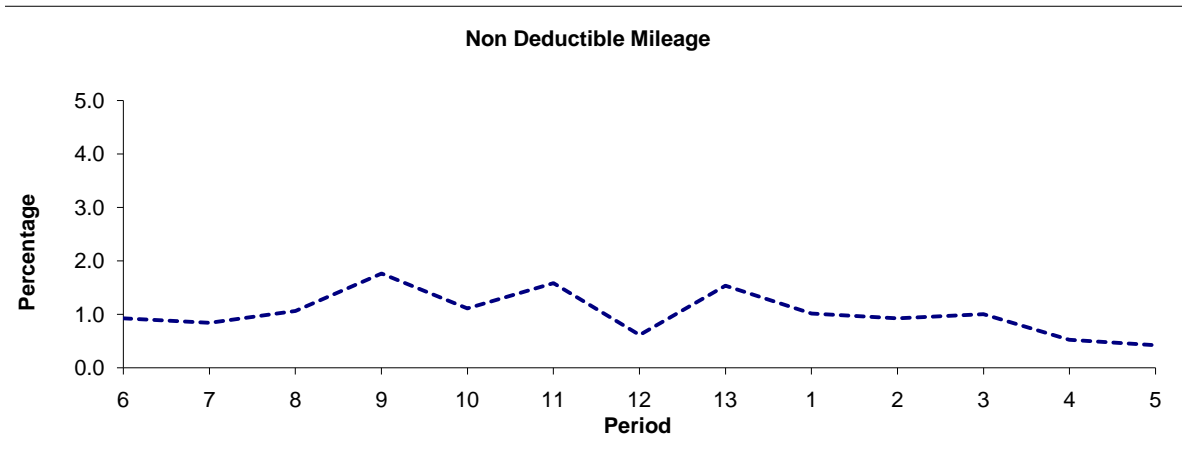
**Route 165**



Period	6	7	8	9	10	11	12	13	1	2	3	4	5
2011/2012	98.59	98.66	98.67	97.90	98.38	98.16	99.07	98.28	98.77	98.53	95.09	98.90	99.16
Min Standard	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00	98.00



Period	6	7	8	9	10	11	12	13	1	2	3	4	5
2011/2012	0.49	0.50	0.27	0.34	0.51	0.26	0.32	0.19	0.22	0.55	3.91	0.58	0.42

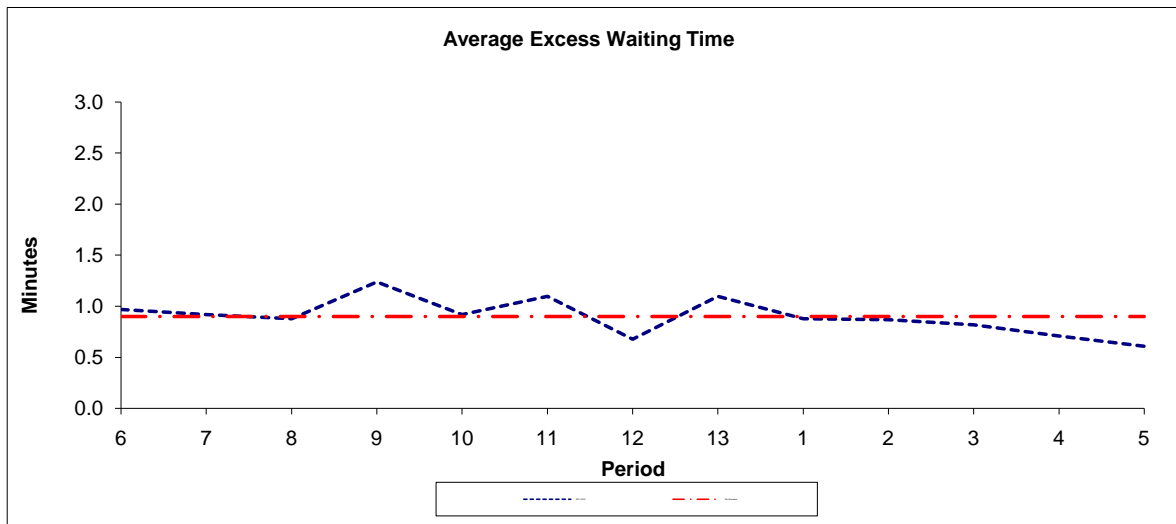


Period	6	7	8	9	10	11	12	13	1	2	3	4	5
2011/2012	0.92	0.84	1.06	1.76	1.11	1.58	0.61	1.53	1.01	0.92	1.00	0.52	0.42

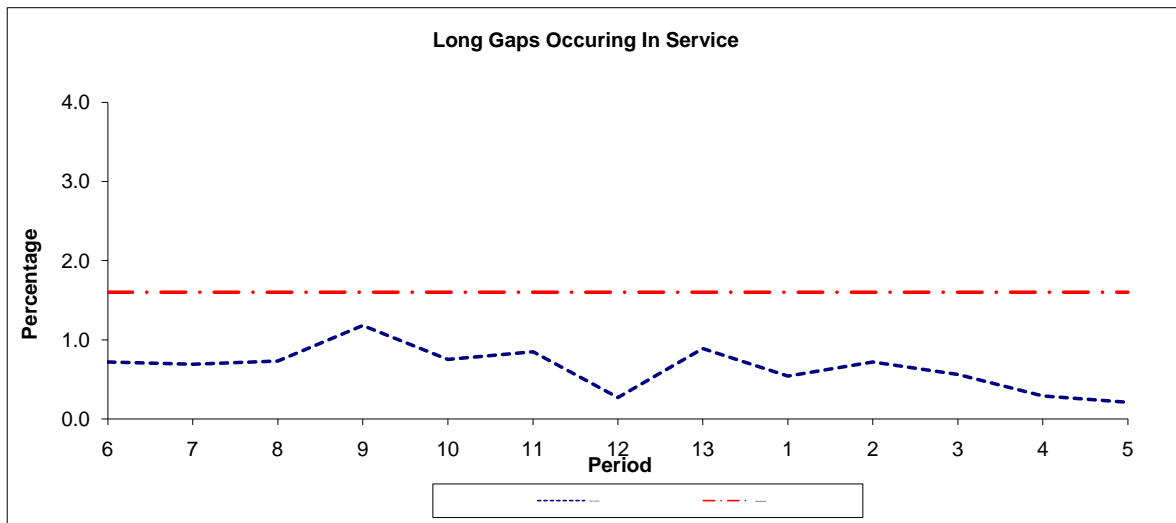
**Note :** Mileage is based on 4 weeks data  
 Performance affected by industrial action in p3 2012/13.

**PART B - PERFORMANCE STATISTICS**

**Route 165**



Period	6	7	8	9	10	11	12	13	1	2	3	4	5
2011-2012	0.97	0.92	0.88	1.24	0.92	1.10	0.68	1.10	0.88	0.87	0.82	0.71	0.61
Min Standard	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90



Period	6	7	8	9	10	11	12	13	1	2	3	4	5
2011-2012	0.72	0.69	0.73	1.18	0.75	0.85	0.27	0.89	0.54	0.72	0.56	0.29	0.21
Benchmark	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60

**Note :** Reliability is actual performance under full iBus (4 weeks data).  
 Minimum Standards and Benchmarks are those applicable under the new contract.

**ROUTE 165 - FULL iBUS RESULTS BY TIME OF DAY**  
**QUARTER 2 2011/12 TO QUARTER 1 2012/13 (25/06/11 - 22/06/12)**

**MONDAY - FRIDAY**

Time Period	Expected Buses	On AVL (%)	Scheduled Waiting Time (SWT) (mins)	Excess Waiting Time (EWT) (mins)	Actual Waiting Time (AWT) (mins)	Probability of Waiting < 10 mins (%)	Probability of Waiting 10-20 mins (%)	Probability of Waiting 20-30 mins (%)	Probability of Waiting > 30 mins (%)	Long Gaps (%)	Maximum Gap (mins)
0500 - 0700	31,197.	99.5	7.47	<b>0.37</b>	7.84	68.8	30.0	1.1	0.1	0.0	40.1
0700 - 1000	62,214.	98.3	6.20	<b>0.72</b>	6.92	75.2	23.4	1.3	0.1	0.4	58.4
1000 - 1300	63,794.	99.0	6.01	<b>0.72</b>	6.74	77.0	21.9	1.0	0.1	0.4	74.3
1300 - 1600	64,325.	96.6	5.97	<b>0.96</b>	6.92	74.5	23.5	1.9	0.1	0.7	43.4
1600 - 1900	66,174.	96.0	5.89	<b>1.61</b>	7.50	71.8	24.6	3.3	0.4	1.7	63.3
1900 - 2200	49,642.	98.3	7.30	<b>0.84</b>	8.14	64.3	31.0	4.2	0.4	0.6	87.8
2200 - 2400	22,167.	101.6	9.90	<b>0.65</b>	10.55	50.5	41.2	7.5	0.8	0.1	81.0
<b>Summary</b>	<b>359,513.</b>	<b>98.0</b>	<b>6.36</b>	<b>0.98</b>	<b>7.35</b>	<b>72.1</b>	<b>25.3</b>	<b>2.4</b>	<b>0.2</b>	<b>0.8</b>	<b>87.8</b>

**SATURDAY**

Time Period	Expected Buses	On AVL (%)	Scheduled Waiting Time (SWT) (mins)	Excess Waiting Time (EWT) (mins)	Actual Waiting Time (AWT) (mins)	Probability of Waiting < 10 mins (%)	Probability of Waiting 10-20 mins (%)	Probability of Waiting 20-30 mins (%)	Probability of Waiting > 30 mins (%)	Long Gaps (%)	Maximum Gap (mins)
0500 - 0700	6,381.	100.5	7.56	<b>0.29</b>	7.85	66.7	32.5	0.8	0.1	0.1	41.2
0700 - 1000	12,193.	99.9	6.68	<b>0.30</b>	6.97	75.4	24.1	0.5	0.0	0.0	34.4
1000 - 1300	13,500.	98.5	5.99	<b>0.65</b>	6.64	76.8	22.4	0.8	0.0	0.2	37.8
1300 - 1600	13,470.	99.7	5.99	<b>0.92</b>	6.91	75.9	22.4	1.6	0.1	0.6	39.6
1600 - 1900	13,297.	98.0	6.04	<b>0.61</b>	6.65	77.0	22.3	0.7	0.0	0.2	34.3
1900 - 2200	9,601.	99.0	7.92	<b>0.67</b>	8.59	60.7	33.7	4.9	0.8	0.5	56.9
2200 - 2400	4,776.	99.8	9.90	<b>0.93</b>	10.83	49.5	40.3	8.7	1.5	0.5	61.7
<b>Summary</b>	<b>73,218.</b>	<b>99.2</b>	<b>6.53</b>	<b>0.67</b>	<b>7.20</b>	<b>73.0</b>	<b>25.0</b>	<b>1.8</b>	<b>0.2</b>	<b>0.3</b>	<b>61.7</b>

**SUNDAY AND BANK HOLIDAYS**

Time Period	Expected Buses	On AVL (%)	Scheduled Waiting Time (SWT) (mins)	Excess Waiting Time (EWT) (mins)	Actual Waiting Time (AWT) (mins)	Probability of Waiting < 10 mins (%)	Probability of Waiting 10-20 mins (%)	Probability of Waiting 20-30 mins (%)	Probability of Waiting > 30 mins (%)	Long Gaps (%)	Maximum Gap (mins)
0500 - 0700	2,944.	100.2	9.68	<b>0.26</b>	9.94	67.6	28.1	3.8	0.4	4.0	46.5
0700 - 1000	9,060.	99.6	9.71	<b>0.33</b>	10.04	52.2	41.5	6.0	0.4	0.1	58.0
1000 - 1300	9,157.	98.9	9.71	<b>0.56</b>	10.27	51.6	40.7	6.8	0.8	0.2	57.9
1300 - 1600	9,162.	99.5	9.71	<b>0.53</b>	10.24	51.6	40.9	6.8	0.7	0.1	50.6
1600 - 1900	9,139.	99.2	9.80	<b>0.30</b>	10.10	51.3	42.6	5.9	0.2	0.0	47.8
1900 - 2200	8,867.	100.0	9.66	<b>0.51</b>	10.17	51.3	42.0	6.2	0.5	0.1	81.3
2200 - 2400	4,989.	100.5	9.99	<b>0.29</b>	10.28	50.3	43.2	6.1	0.4	0.1	102.1
<b>Summary</b>	<b>53,318.</b>	<b>99.6</b>	<b>9.74</b>	<b>0.44</b>	<b>10.18</b>	<b>51.8</b>	<b>41.4</b>	<b>6.3</b>	<b>0.5</b>	<b>0.2</b>	<b>102.1</b>

**ALL DAYS**

Time Period	Expected Buses	On AVL (%)	Scheduled Waiting Time (SWT) (mins)	Excess Waiting Time (EWT) (mins)	Actual Waiting Time (AWT) (mins)	Probability of Waiting < 10 mins (%)	Probability of Waiting 10-20 mins (%)	Probability of Waiting 20-30 mins (%)	Probability of Waiting > 30 mins (%)	Long Gaps (%)	Maximum Gap (mins)
0500 - 0700	40,522.	99.7	7.57	<b>0.35</b>	7.93	68.5	30.2	1.2	0.1	0.3	46.5
0700 - 1000	83,467.	98.7	6.41	<b>0.67</b>	7.08	74.1	24.3	1.5	0.1	0.4	58.4
1000 - 1300	86,451.	98.9	6.43	<b>0.69</b>	7.12	74.1	24.1	1.7	0.2	0.3	74.3
1300 - 1600	86,957.	97.3	6.36	<b>0.91</b>	7.27	72.3	25.2	2.4	0.2	0.6	50.6
1600 - 1900	88,610.	96.6	6.28	<b>1.38</b>	7.65	70.4	26.0	3.2	0.3	1.4	63.3
1900 - 2200	68,110.	98.6	7.64	<b>0.78</b>	8.43	62.4	32.6	4.5	0.5	0.5	87.8
2200 - 2400	31,932.	101.2	9.91	<b>0.64</b>	10.55	50.3	41.4	7.4	0.9	0.2	102.1
<b>Summary</b>	<b>486,049.</b>	<b>98.3</b>	<b>6.70</b>	<b>0.89</b>	<b>7.60</b>	<b>70.3</b>	<b>26.8</b>	<b>2.7</b>	<b>0.3</b>	<b>0.7</b>	<b>102.1</b>

## Transport for London - QSI Point and Mileage List

Route 165 (via Western Road)

Service change 30210

Date 29/09/2012

Reason for Issue

### Version Detail

QSI Points are shaded in blue

OUT DIRECTION				
Timing Point Code	Stop Number	Stop Name	Metres	Miles
ROMFBR	BP2994	The Brewery		
	R0332	Mawney Road	346	0.21
	34113	North Street	240	0.15
ROMFSE	34094	Romford Market	464	0.29
	LE135	Mercury Gardens	270	0.17
	34119	Western Road	284	0.18
ROMFSN	R0591	Romford Station	597	0.37
	18028	Thurloe Gardens	272	0.17
	18482	South Street	205	0.13
	18484	Albert Road	363	0.23
	18486	Princes Road	326	0.20
	18488	Frances Bardsley School	296	0.18
	18490	Cranham Road	297	0.18
	18492	Salisbury Road	175	0.11
GIDPDL	20084	The Drill Roundabout	463	0.29
	18256	Brooklands Gardens	383	0.24
	18257	Walden Way	374	0.23
	18260	Burntwood Avenue	200	0.12
	18261	Emerson Park Station	324	0.20
	18264	Burnway	288	0.18
	18266	Queens Theatre	323	0.20
	8527	Hornchurch Town Centre	314	0.20
HORNTC	8528	Hornchurch Town Centre / North Street	148	0.09
	9768	Billet Lane	389	0.24
	14696	Abbs Cross Gardens	301	0.19
	18423	Stanley Road	442	0.27
	18425	Suttons Avenue	339	0.21
	18428	Abbs Cross School	343	0.21
	25708	Brian Close	310	0.19
	26547	Elm Parade	204	0.13
ELMPSN	18380	Elm Park Station	231	0.14
	26549	Ambleside Avenue	294	0.18
	26551	Aldingham Gardens	362	0.22
	R0074	Wood Lane	186	0.12
	29332	Freeborne Gardens	303	0.19
	29336	Kingaby Gardens	452	0.28
	29408	Albys Close	300	0.19
	29338	Ford Lane	474	0.29
	29340	Alexandra Road	409	0.25
SHRNCT	26555	Rainham Road	261	0.16
	26556	Stanley Road South	384	0.24
	26559	Dunedin Road	339	0.21
	26560	Manor Way	150	0.09
	18384	Dovers Corner	317	0.20
RAINTS	BP776	Rainham Tesco	668	0.42
	18447	Rainham Village School	450	0.28
	18449	Brights Avenue	332	0.21
CHNDCR	9755	New Road	237	0.15
	20806	Allen Road	375	0.23
	9757	King Edward Avenue	285	0.18
	18451	Acer Avenue	285	0.18
	33791	Lake Avenue	366	0.23
	33793	King Edward Avenue	299	0.19
	33794	Briscoe Road	229	0.14
RAINAW	33795	Abbey Wood	463	0.29
Total Route Mileage - Out Direction			17731	11.02

## Tranche 425

## Re-routing at Rainham

BACK DIRECTION				
Timing Point Code	Stop Number	Stop Name	Metres	Miles
<b>RAINAW</b>	<b>33795</b>	<b>Abbey Wood</b>		
	33796	Thorn Lane	365	0.23
	33792	Lake Avenue	309	0.19
	18452	Acer Avenue	358	0.22
	9756	Lambs Lane	387	0.24
	20807	Allen Road	231	0.14
<b>CHNDCR</b>	<b>8517</b>	<b>New Road</b>	<b>310</b>	<b>0.19</b>
	18450	Brights Avenue	258	0.16
	18448	Rainham Village School	344	0.21
<b>RAINWM</b>	<b>20479</b>	<b>Rainham War Memorial</b>	<b>487</b>	<b>0.30</b>
	BP776	Rainham Tesco	268	0.17
	18385	Dovers Corner	496	0.31
	BP3551	Cherry Tree Lane	235	0.15
	29926	Dunedin Road	344	0.21
	26558	Edmund Road	167	0.10
	26557	Stanley Road South	341	0.21
<b>SHRNCT</b>	<b>26554</b>	<b>Rainham Road</b>	<b>320</b>	<b>0.20</b>
	29339	Alexandra Road	248	0.15
	29409	Ford Lane	418	0.26
	29337	Mungo Park Road / South End Road	546	0.34
	29335	Kingaby Gardens	248	0.15
	29333	Freeborne Gardens	428	0.27
	29331	Wood Lane	295	0.18
	26550	Aldingham Gardens	203	0.13
	26548	Ambleside Avenue	372	0.23
<b>ELMPSN</b>	<b>18381</b>	<b>Elm Park Station</b>	<b>306</b>	<b>0.19</b>
	26546	Elm Parade	188	0.12
	25707	Brian Close	215	0.13
	18427	Abbs Cross School	292	0.18
	18426	Suttons Avenue	237	0.15
	18424	Stanley Road	340	0.21
	9771	Abbs Cross Lane	710	0.44
	FC05	Billet Lane	120	0.07
<b>HORNTC</b>	<b>8527</b>	<b>Hornchurch Town Centre</b>	<b>384</b>	<b>0.24</b>
	8528	Hornchurch Town Centre / North Street	148	0.09
	18265	Queens Theatre	290	0.18
	18263	Burnway	287	0.18
	18269	Emerson Park Station	221	0.14
	18259	Wykeham Avenue	394	0.24
	18258	Walden Way	318	0.20
	18255	Brooklands Gardens	375	0.23
<b>GIDPDL</b>	<b>18493</b>	<b>The Drill Roundabout</b>	<b>510</b>	<b>0.32</b>
	18491	Salisbury Road	202	0.13
	18489	Cranham Road	234	0.15
	18487	Frances Bardsley School	275	0.17
	18485	Princes Road	365	0.23
	18483	Albert Road	323	0.20
	18481	South Street	311	0.19
	18029	Brentwood Road	80	0.05
<b>ROMFSN</b>	<b>R0681</b>	<b>Romford Station</b>	<b>380</b>	<b>0.24</b>
ROMFWR	BP4227	Western Road	489	0.30
ROMFSE	34118	Romford Market	504	0.31
	34115	North Street	376	0.23
	3539	Mawney Road	255	0.16
ROMFBR	BP2993	The Brewery	246	0.15
Total Route Mileage - Back Direction			17353	10.78

## Transport for London - QSI Point and Mileage List

Route 165 (via Victoria Road) Reason for  
 Service change 30210 Re-issue  
 Date

QSI Points are shaded in blue

OUT DIRECTION				
Timing Point Code	Stop Number	Stop Name	Metres	Miles
ROMFBR S	ROMFBR S	Romford, The Brewery		
ROMFBR	BP2994	The Brewery	0	0.00
	R0332	Mawney Road	346	0.21
	34113	North Street	240	0.15
ROMFSE	34094	Romford Market	464	0.29
	LE135	Mercury Gardens	270	0.17
	34119	Western Road	284	0.18
ROMFSN	R0591	Romford Station	597	0.37
	18028	Thurloe Gardens	272	0.17
	18482	South Street	205	0.13
	18484	Albert Road	363	0.23
	18486	Princes Road	326	0.20
	18488	Frances Bardsley School	296	0.18
	18490	Cranham Road	297	0.18
	18492	Salisbury Road	175	0.11
GIDPDL	20084	The Drill Roundabout	463	0.29
	18256	Brooklands Gardens	383	0.24
	18257	Walden Way	374	0.23
	18260	Burntwood Avenue	200	0.12
	18261	Emerson Park Station	324	0.20
	18264	Burnway	288	0.18
	18266	Queens Theatre	323	0.20
	8527	Hornchurch Town Centre	314	0.20
HORNTC	8528	Hornchurch Town Centre / North Street	148	0.09
	9768	Billet Lane	389	0.24
	14696	Abbs Cross Gardens	301	0.19
	18423	Stanley Road	442	0.27
	18425	Suttons Avenue	339	0.21
	18428	Abbs Cross School	343	0.21
	25708	Brian Close	310	0.19
	26547	Elm Parade	204	0.13
ELMPSN	18380	Elm Park Station	231	0.14
	26549	Ambleside Avenue	294	0.18
	26551	Aldingham Gardens	362	0.22
	R0074	Wood Lane	186	0.12
	29332	Freeborne Gardens	303	0.19
	29336	Kingaby Gardens	452	0.28
	29408	Albys Close	300	0.19
	29338	Ford Lane	474	0.29
	29340	Alexandra Road	409	0.25
SHRNCT	26555	Rainham Road	261	0.16
	26556	Stanley Road South	384	0.24
	26559	Dunedin Road	339	0.21
	26560	Manor Way	150	0.09
	18384	Dovers Corner	317	0.20
RAINTS	BP776	Rainham Tesco	668	0.42
	18447	Rainham Village School	459	0.29
	18449	Brights Avenue	332	0.21
CHNDCR	9755	New Road	237	0.15
	20806	Allen Road	375	0.23
	9757	King Edward Avenue	285	0.18
	18451	Acer Avenue	285	0.18
	33791	Lake Avenue	366	0.23
	33793	King Edward Avenue	299	0.19
	33794	Briscoe Road	229	0.14
RAINAW	33795	Abbey Wood	463	0.29
RAINAW S	RAINAW S	RAINHAM, ABBEY WOOD LANE	0	0.00

**TOTAL ROUTE MILEAGE - OUT DIRECTION** 17740 11.02  
 metres miles



## Tranche 425

## Re-routeing at Rainham

BACK DIRECTION				
Timing Point Code	Stop Number	Stop Name	Metres	Miles
RAINAW S	RAINAW S	RAINHAM, ABBEY WOOD LANE		
<b>RAINAW</b>	<b>33795</b>	<b>Abbey Wood</b>	<b>0</b>	<b>0.00</b>
	33796	Thorn Lane	365	0.23
	33792	Lake Avenue	309	0.19
	18452	Acer Avenue	358	0.22
	9756	Lambs Lane	387	0.24
	20807	Allen Road	231	0.14
<b>CHNDRC</b>	<b>8517</b>	<b>New Road</b>	<b>310</b>	<b>0.19</b>
	18450	Brights Avenue	258	0.16
	18448	Rainham Village School	344	0.21
<b>RAINWM</b>	<b>20479</b>	<b>Rainham War Memorial</b>	<b>487</b>	<b>0.30</b>
	BP776	Rainham Tesco	268	0.17
	18385	Dovers Corner	496	0.31
	BP3551	Cherry Tree Lane	235	0.15
	29926	Dunedin Road	344	0.21
	26558	Edmund Road	167	0.10
	26557	Stanley Road South	341	0.21
<b>SHRNCT</b>	<b>26554</b>	<b>Rainham Road</b>	<b>320</b>	<b>0.20</b>
	29339	Alexandra Road	248	0.15
	29409	Ford Lane	418	0.26
	29337	Mungo Park Road / South End Road	546	0.34
	29335	Kingaby Gardens	248	0.15
	29333	Freeborne Gardens	428	0.27
	29331	Wood Lane	295	0.18
	26550	Aldingham Gardens	203	0.13
	26548	Ambleside Avenue	372	0.23
<b>ELMPSN</b>	<b>18381</b>	<b>Elm Park Station</b>	<b>306</b>	<b>0.19</b>
	26546	Elm Parade	188	0.12
	25707	Brian Close	215	0.13
	18427	Abbs Cross School	292	0.18
	18426	Suttons Avenue	237	0.15
	18424	Stanley Road	340	0.21
	9771	Abbs Cross Lane	710	0.44
	FC05	Billet Lane	120	0.07
<b>HORNTC</b>	<b>8527</b>	<b>Hornchurch Town Centre</b>	<b>384</b>	<b>0.24</b>
	8528	Hornchurch Town Centre / North Street	148	0.09
	18265	Queens Theatre	290	0.18
	18263	Burnway	287	0.18
	18269	Emerson Park Station	221	0.14
	18259	Wykeham Avenue	394	0.24
	18258	Walden Way	318	0.20
	18255	Brooklands Gardens	375	0.23
<b>GIDPDL</b>	<b>18493</b>	<b>The Drill Roundabout</b>	<b>510</b>	<b>0.32</b>
	18491	Salisbury Road	202	0.13
	18489	Cranham Road	234	0.15
	18487	Frances Bardsley School	275	0.17
	18485	Princes Road	365	0.23
	18483	Albert Road	323	0.20
	18481	South Street	311	0.19
	18029	Brentwood Road	80	0.05
<b>ROMFSN</b>	<b>R0681</b>	<b>Romford Station</b>	<b>380</b>	<b>0.24</b>
	34118	Romford Market	1022	0.64
	34115	North Street	376	0.23
	3539	Mawney Road	255	0.16
	BP2993	The Brewery	246	0.15
	ROMFBR S	Romford, The Brewery	0	0.00

TOTAL ROUTE MILEAGE - BACK DIRECTION

17382  
metres10.80  
miles