

## **APPENDIX G**

### **Journey Time Validation**

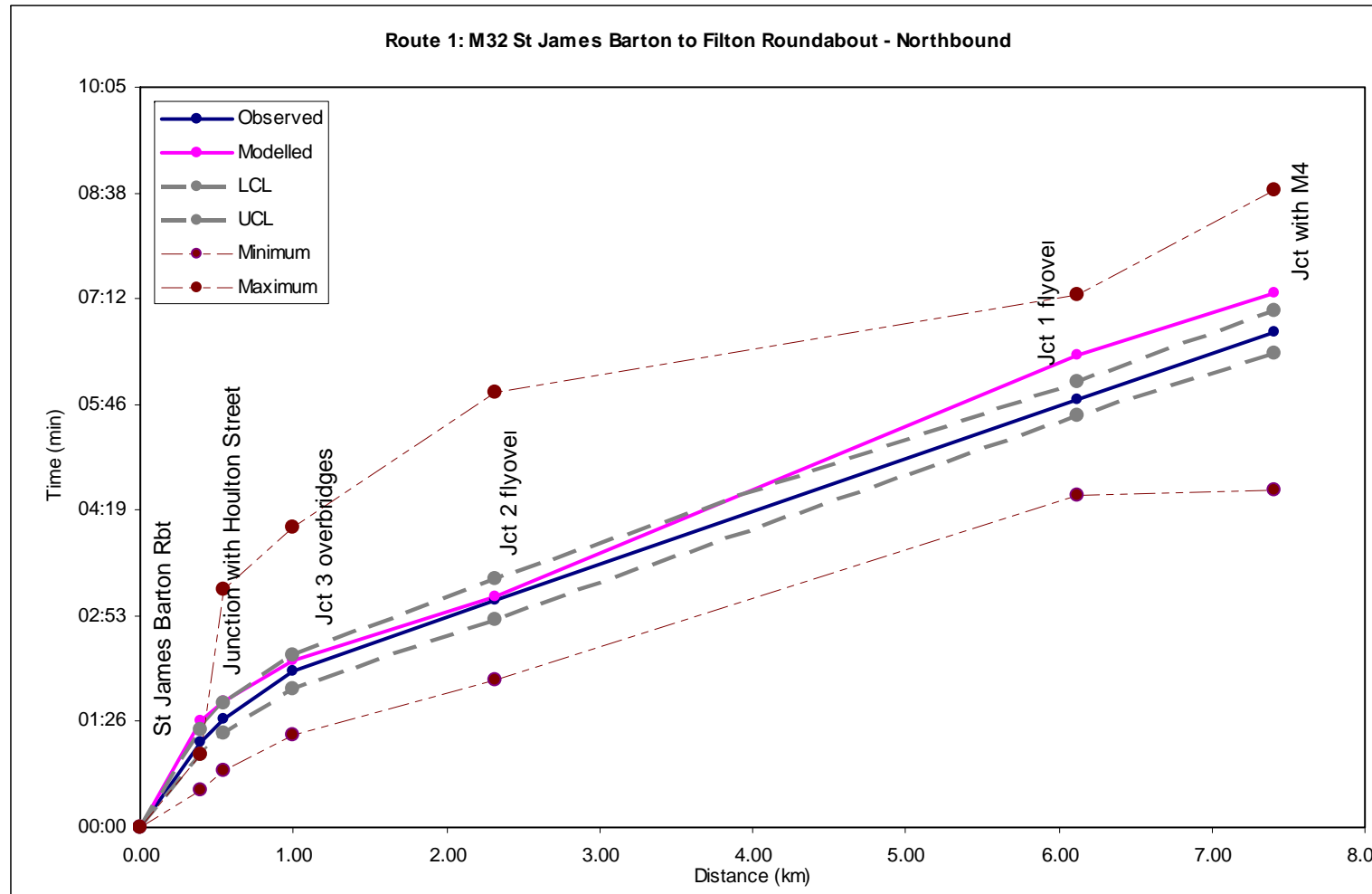
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## **AM Peak**

**Table G.1 - Route 1: M32 St James Barton to Filton Roundabout - Northbound (AM Peak)**

| Route  |                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 1: M32 St James Barton to Filton Roundabout - Northbound |                              |              |       |       |       |       |                       |                       |
| NB   | St James Barton Rbt          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| NB   | Jct with Bond Street South   | 01:10        | 00:30 | 01:00 | 01:19 | 01:00 | 01:28                 | 0.39                  |
| NB   | Junction with Houlton Street | 01:29        | 00:46 | 01:16 | 01:42 | 03:15 | 01:43                 | 0.54                  |
| NB   | Jct 3 overbridges            | 02:07        | 01:16 | 01:53 | 02:21 | 04:05 | 02:17                 | 1.00                  |
| NB   | Jct 2 flyover                | 03:06        | 02:01 | 02:50 | 03:22 | 05:55 | 03:08                 | 2.32                  |
| NB   | Jct 1 flyover                | 05:50        | 04:31 | 05:36 | 06:04 | 07:15 | 06:26                 | 6.12                  |
| NB   | Jct with M4                  | 06:45        | 04:36 | 06:27 | 07:02 | 08:40 | 07:16                 | 7.41                  |

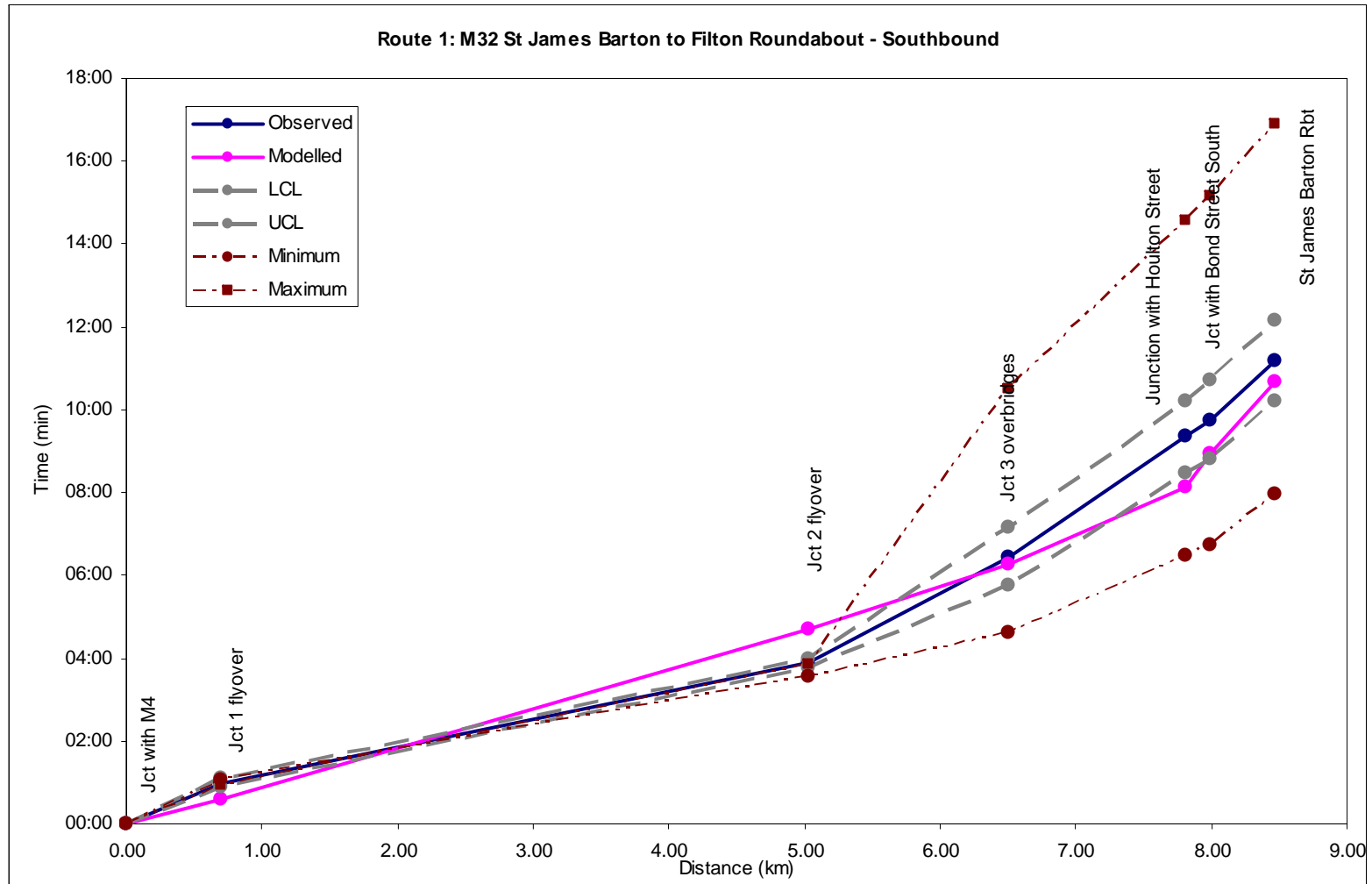
**Figure G.1 - Route 1: M32 St James Barton to Filton Roundabout - Northbound (AM Peak)**



**Table G.2 - Route 1: M32 St James Barton to Filton Roundabout – Southbound (AM Peak)**

|  | Route                        | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 1: M32 St James Barton to Filton Roundabout - Southbound |                              |              |       |       |       |       |                       |                       |
| SB   | Jct with M4                  | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| SB   | Jct 1 flyover                | 01:00        | 01:04 | 00:53 | 01:06 | 00:57 | 00:35                 | 0.70                  |
| SB   | Jct 2 flyover                | 03:53        | 03:34 | 03:46 | 04:00 | 03:52 | 04:41                 | 5.03                  |
| SB   | Jct 3 overbridges            | 06:27        | 04:36 | 05:45 | 07:08 | 10:30 | 06:16                 | 6.50                  |
| SB   | Junction with Houlton Street | 09:21        | 06:30 | 08:28 | 10:13 | 14:35 | 08:08                 | 7.81                  |
| SB   | Jct with Bond Street South   | 09:45        | 06:45 | 08:49 | 10:42 | 15:11 | 08:55                 | 7.99                  |
| SB   | St James Barton Rbt          | 11:11        | 07:59 | 10:11 | 12:10 | 16:55 | 10:39                 | 8.47                  |

**Figure G.2 - Route 1: M32 St James Barton to Filton Roundabout - Southbound**

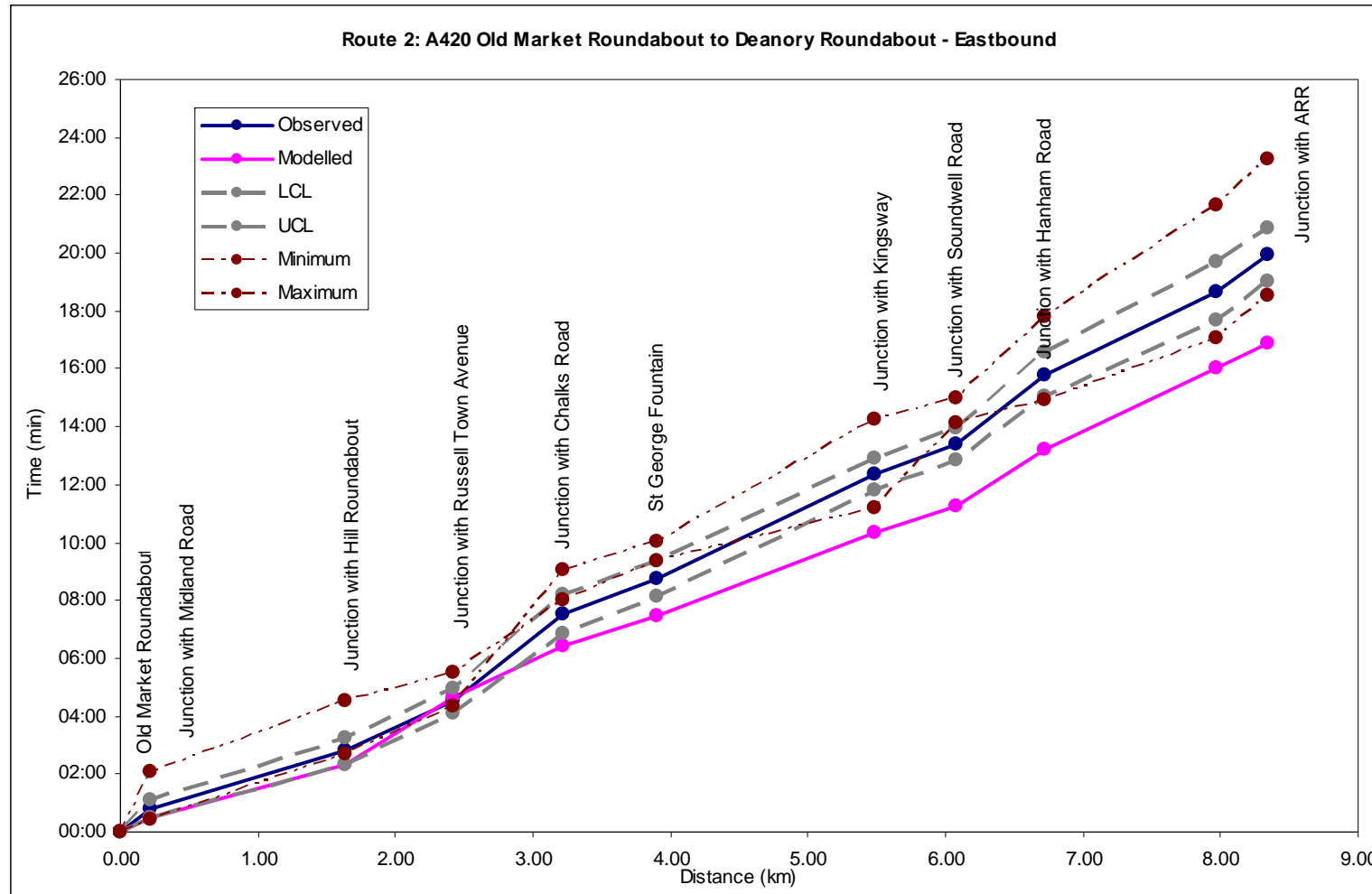


**Table G.3 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound (AM Peak)**

|   | Route                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound |                                   |              |       |       |       |       |                       |                       |
| EB  | Old Market Roundabout             | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| EB  | Junction with Midland Road        | 00:47        | 02:03 | 00:28 | 01:06 | 00:26 | 00:29                 | 0.22                  |
| EB  | Junction with Hill Roundabout     | 02:48        | 04:30 | 02:20 | 03:16 | 02:41 | 02:20                 | 1.63                  |
| EB  | Junction with Russell Town Avenue | 04:32        | 05:30 | 04:05 | 04:58 | 04:21 | 04:40                 | 2.43                  |
| EB  | Junction with Chalks Road         | 07:33        | 08:00 | 06:53 | 08:13 | 09:02 | 06:27                 | 3.22                  |
| EB  | St George Fountain                | 08:46        | 09:20 | 08:09 | 09:23 | 10:01 | 07:27                 | 3.90                  |
| EB  | Junction with Kingsway            | 12:22        | 11:10 | 11:49 | 12:56 | 14:17 | 10:22                 | 5.48                  |
| EB  | Junction with Soundwell Road      | 13:22        | 14:08 | 12:49 | 13:55 | 14:58 | 11:15                 | 6.08                  |
| EB  | Junction with Hanham Road         | 15:48        | 14:57 | 15:03 | 16:33 | 17:49 | 13:14                 | 6.72                  |
| EB  | Junction with Tennis Court Road   | 18:41        | 17:03 | 17:40 | 19:42 | 21:39 | 16:00                 | 7.97                  |
| EB  | Junction with ARR                 | 19:57        | 18:31 | 19:02 | 20:52 | 23:14 | 16:51                 | 8.35                  |



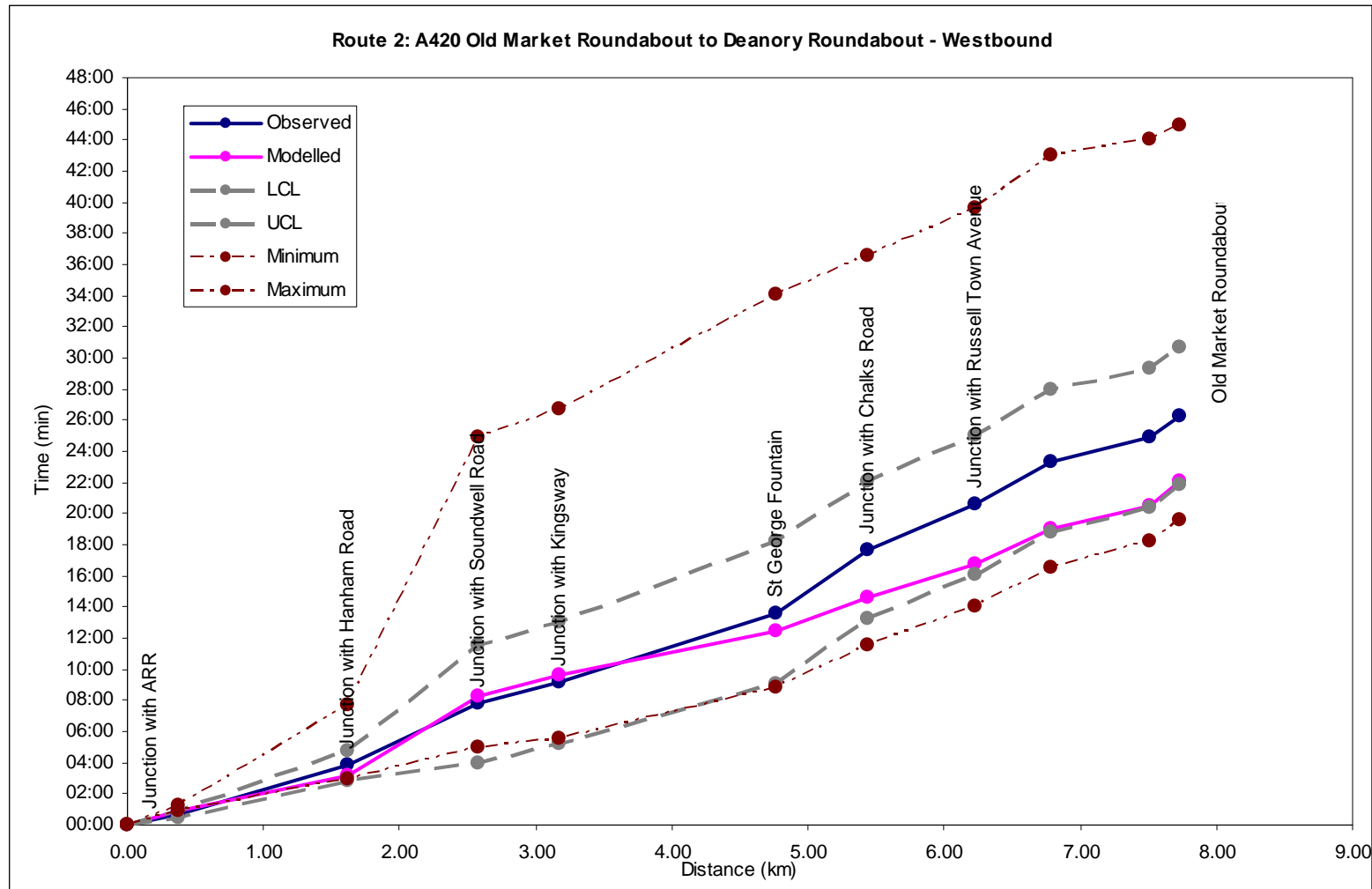
**Figure G.3 - Route 2: A420 Old Market Roundabout to Deanery Roundabout - Eastbound (AM Peak)**



**Table G.4 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound (AM Peak)**

| Route   |                                   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound |                                   |              |       |       |       |       |                       |                       |
| WB  | Junction with ARR                 | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| WB  | Junction with Tennis Court Road   | 00:40        | 00:57 | 00:28 | 00:52 | 01:15 | 00:52                 | 0.38                  |
| WB  | Junction with Hanham Road         | 03:49        | 02:58 | 02:50 | 04:47 | 07:41 | 03:12                 | 1.63                  |
| WB  | Junction with Soundwell Road      | 07:47        | 04:59 | 03:59 | 11:34 | 24:55 | 08:16                 | 2.58                  |
| WB  | Junction with Kingsway            | 09:09        | 05:31 | 05:13 | 13:04 | 26:42 | 09:38                 | 3.18                  |
| WB  | St George Fountain                | 13:37        | 08:47 | 09:02 | 18:11 | 34:05 | 12:29                 | 4.76                  |
| WB  | Junction with Chalks Road         | 17:41        | 11:36 | 13:16 | 22:06 | 36:34 | 14:34                 | 5.44                  |
| WB  | Junction with Russell Town Avenue | 20:34        | 13:59 | 16:08 | 25:00 | 39:37 | 16:44                 | 6.23                  |
| WB  | Lawrence Hill Roundabout          | 23:23        | 16:33 | 18:50 | 27:55 | 42:58 | 19:04                 | 6.78                  |
| WB  | Junction with Midland Road        | 24:52        | 18:13 | 20:22 | 29:22 | 44:05 | 20:32                 | 7.51                  |
| WB  | Old Market Roundabout             | 26:16        | 19:34 | 21:50 | 30:42 | 44:55 | 22:01                 | 7.73                  |

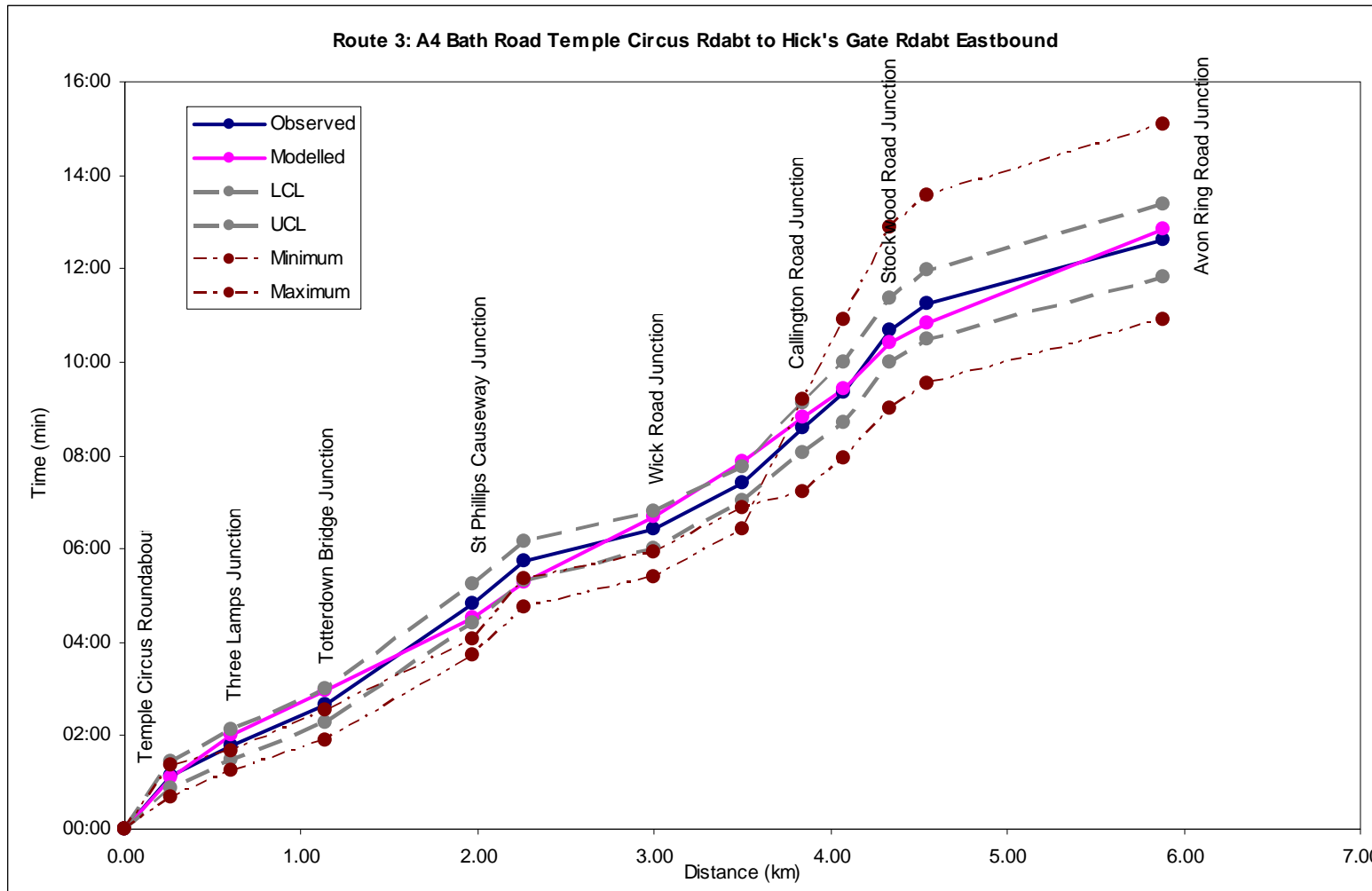
Figure G.4 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound (AM Peak)



**Table G.5 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound (AM Peak)**

|  | Route                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound |                                    |              |       |       |       |       |                       |                       |
| EB   | Temple Circus Roundabout           | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| EB   | Bath Bridge Roundabout             | 01:09        | 01:21 | 00:52 | 01:26 | 00:41 | 01:07                 | 0.27                  |
| EB   | Three Lamps Junction               | 01:48        | 01:41 | 01:30 | 02:07 | 01:16 | 02:01                 | 0.60                  |
| EB   | Totterdown Bridge Junction         | 02:39        | 02:33 | 02:18 | 02:59 | 01:54 | 02:58                 | 1.14                  |
| EB   | St Phillips Causeway Junction      | 04:49        | 04:03 | 04:24 | 05:14 | 03:43 | 04:31                 | 1.98                  |
| EB   | Tramway Road Junction              | 05:44        | 05:21 | 05:20 | 06:09 | 04:45 | 05:18                 | 2.27                  |
| EB   | Wick Road Junction                 | 06:25        | 05:55 | 06:01 | 06:49 | 05:24 | 06:41                 | 3.00                  |
| EB   | Church Hill Junction               | 07:24        | 06:52 | 07:01 | 07:46 | 06:25 | 07:52                 | 3.51                  |
| EB   | Callington Road Junction           | 08:36        | 07:14 | 08:03 | 09:08 | 09:11 | 08:48                 | 3.85                  |
| EB   | Flower Hill Junction               | 09:21        | 07:57 | 08:43 | 09:59 | 10:55 | 09:25                 | 4.08                  |
| EB   | Stockwood Road Junction            | 10:40        | 09:00 | 09:59 | 11:22 | 12:54 | 10:25                 | 4.33                  |
| EB   | Brislington Park and Ride Junction | 11:14        | 09:32 | 10:30 | 11:59 | 13:34 | 10:50                 | 4.55                  |
| EB   | Avon Ring Road Junction            | 12:36        | 10:54 | 11:50 | 13:23 | 15:06 | 12:51                 | 5.89                  |

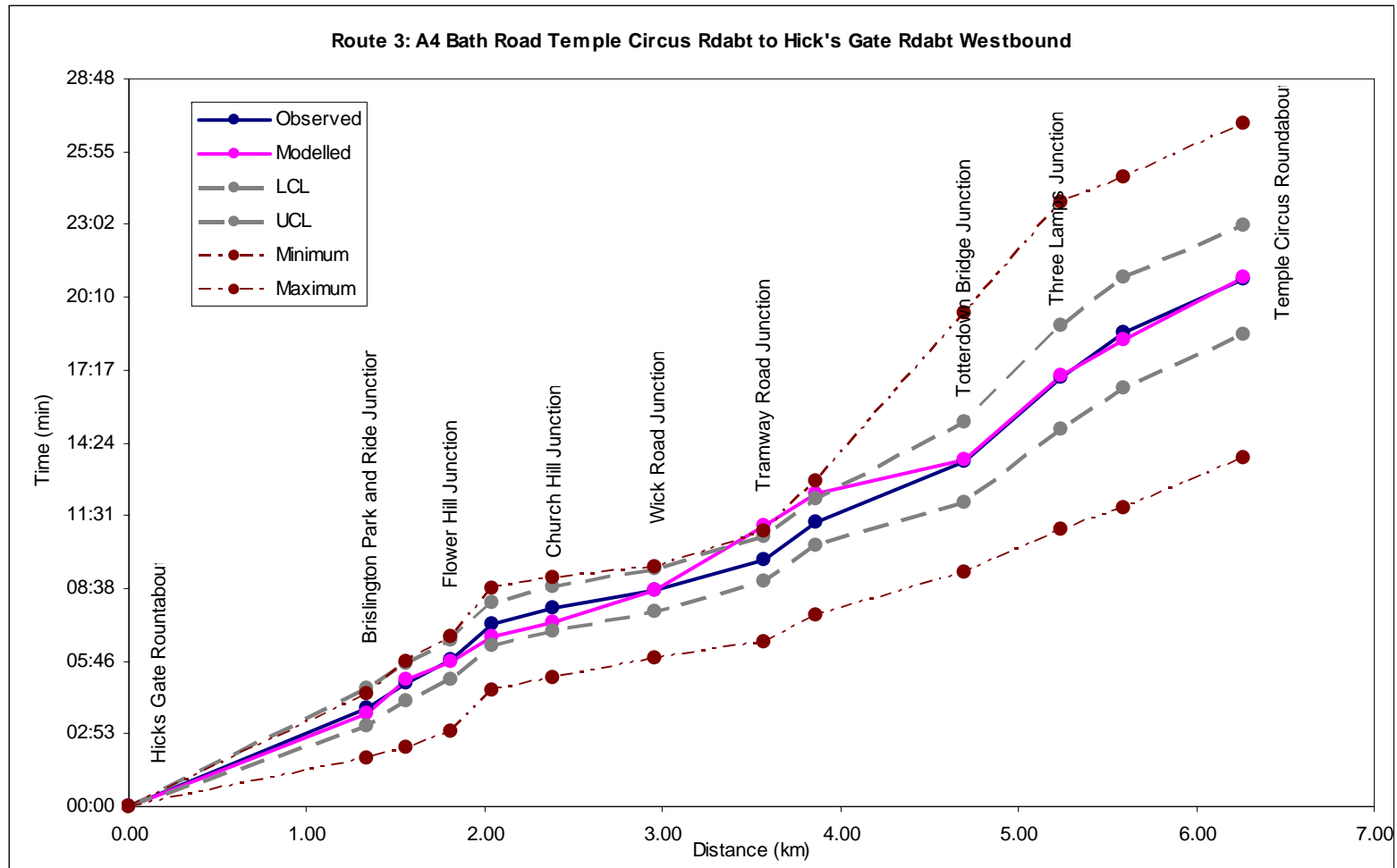
**Figure G.5 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound (AM Peak)**



**Table G.6 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound (AM Peak)**

| Route  |                                    | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound |                                    |              |       |       |       |       |                       |                       |
| WB   | Hicks Gate Roundabout              | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| WB   | Brislington Park and Ride Junction | 03:54        | 01:56 | 03:10 | 04:39 | 04:28 | 03:41                 | 1.34                  |
| WB   | Stockwood Road Junction            | 04:55        | 02:19 | 04:10 | 05:39 | 05:42 | 05:02                 | 1.56                  |
| WB   | Flower Hill Junction               | 05:48        | 02:57 | 05:00 | 06:36 | 06:44 | 05:42                 | 1.81                  |
| WB   | Callington Road Junction           | 07:11        | 04:36 | 06:20 | 08:03 | 08:36 | 06:41                 | 2.04                  |
| WB   | Church Hill Junction               | 07:50        | 05:04 | 06:58 | 08:42 | 09:05 | 07:18                 | 2.38                  |
| WB   | Wick Road Junction                 | 08:34        | 05:52 | 07:44 | 09:23 | 09:29 | 08:35                 | 2.96                  |
| WB   | Tramway Road Junction              | 09:48        | 06:29 | 08:56 | 10:39 | 10:52 | 11:07                 | 3.57                  |
| WB   | St Phillips Causeway Junction      | 11:15        | 07:33 | 10:19 | 12:10 | 12:52 | 12:21                 | 3.86                  |
| WB   | Totterdown Bridge Junction         | 13:38        | 09:17 | 12:01 | 15:14 | 19:31 | 13:45                 | 4.70                  |
| WB   | Three Lamps Junction               | 16:59        | 10:58 | 14:56 | 19:03 | 23:53 | 17:03                 | 5.24                  |
| WB   | Bath Bridge Roundabout             | 18:45        | 11:47 | 16:34 | 20:55 | 24:54 | 18:29                 | 5.59                  |
| WB   | Temple Circus Roundabout           | 20:51        | 13:46 | 18:42 | 23:01 | 27:01 | 20:56                 | 6.26                  |

**Figure G.6 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound (AM Peak)**

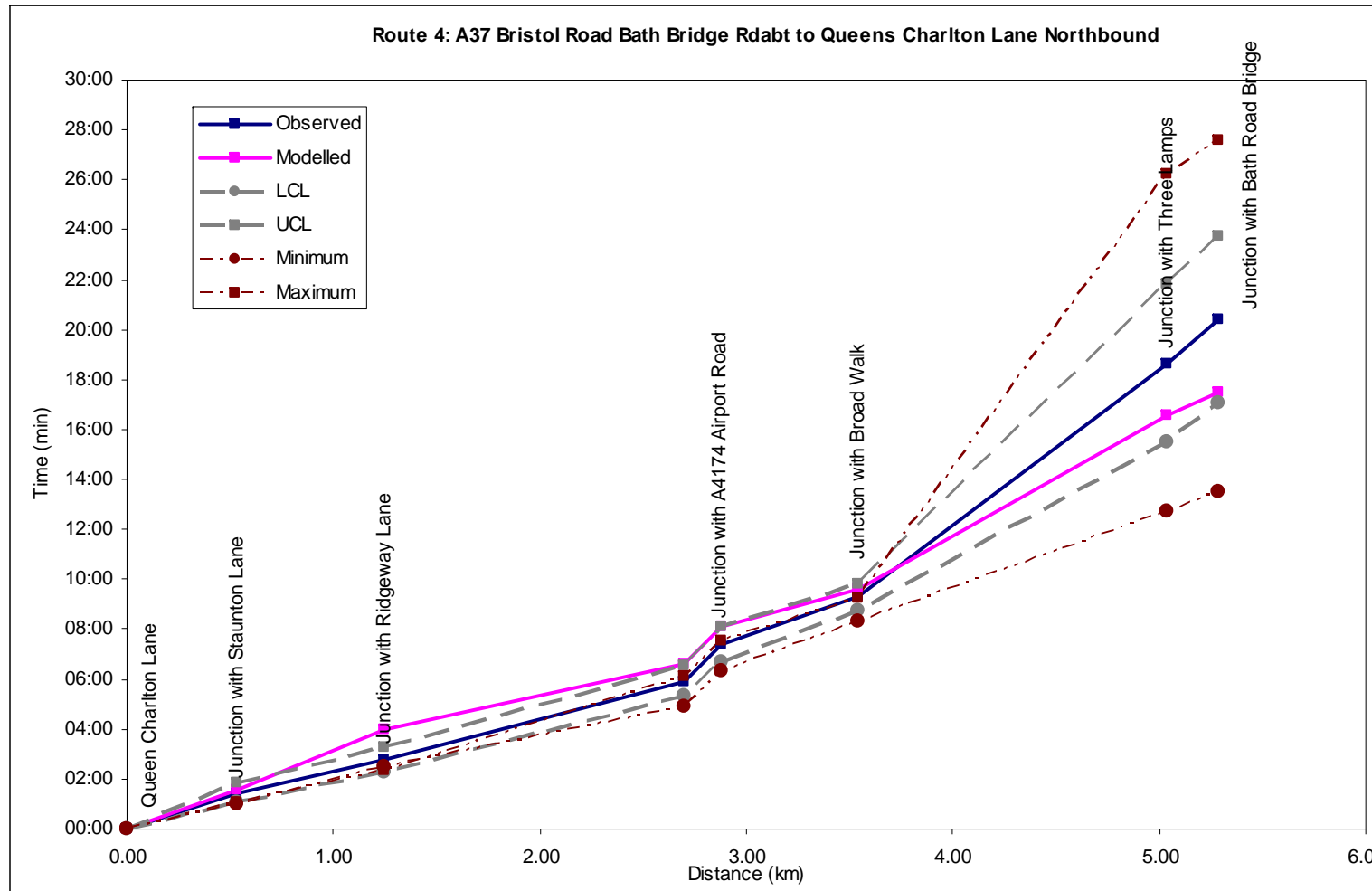


**Table G.7 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound (AM Peak)**

| Route   |                                  | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound |                                  |              |       |       |       |       |                       |                       |
| NB  | Queen Charlton Lane              | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| NB  | Junction with Staunton Lane      | 01:27        | 00:59 | 01:04 | 01:50 | 01:06 | 01:34                 | 0.54                  |
| NB  | Junction with Ridgeway Lane      | 02:47        | 02:31 | 02:17 | 03:17 | 02:22 | 03:58                 | 1.25                  |
| NB  | Junction with West Town Lane     | 05:55        | 04:55 | 05:18 | 06:32 | 06:05 | 06:38                 | 2.70                  |
| NB  | Junction with A4174 Airport Road | 07:24        | 06:21 | 06:40 | 08:07 | 07:33 | 08:06                 | 2.88                  |
| NB  | Junction with Broad Walk         | 09:17        | 08:21 | 08:46 | 09:49 | 09:13 | 09:35                 | 3.55                  |
| NB  | Junction with Three Lamps        | 18:39        | 12:43 | 15:29 | 21:48 | 26:14 | 16:36                 | 5.04                  |
| NB  | Junction with Bath Road Bridge   | 20:25        | 13:29 | 17:05 | 23:45 | 27:34 | 17:31                 | 5.29                  |



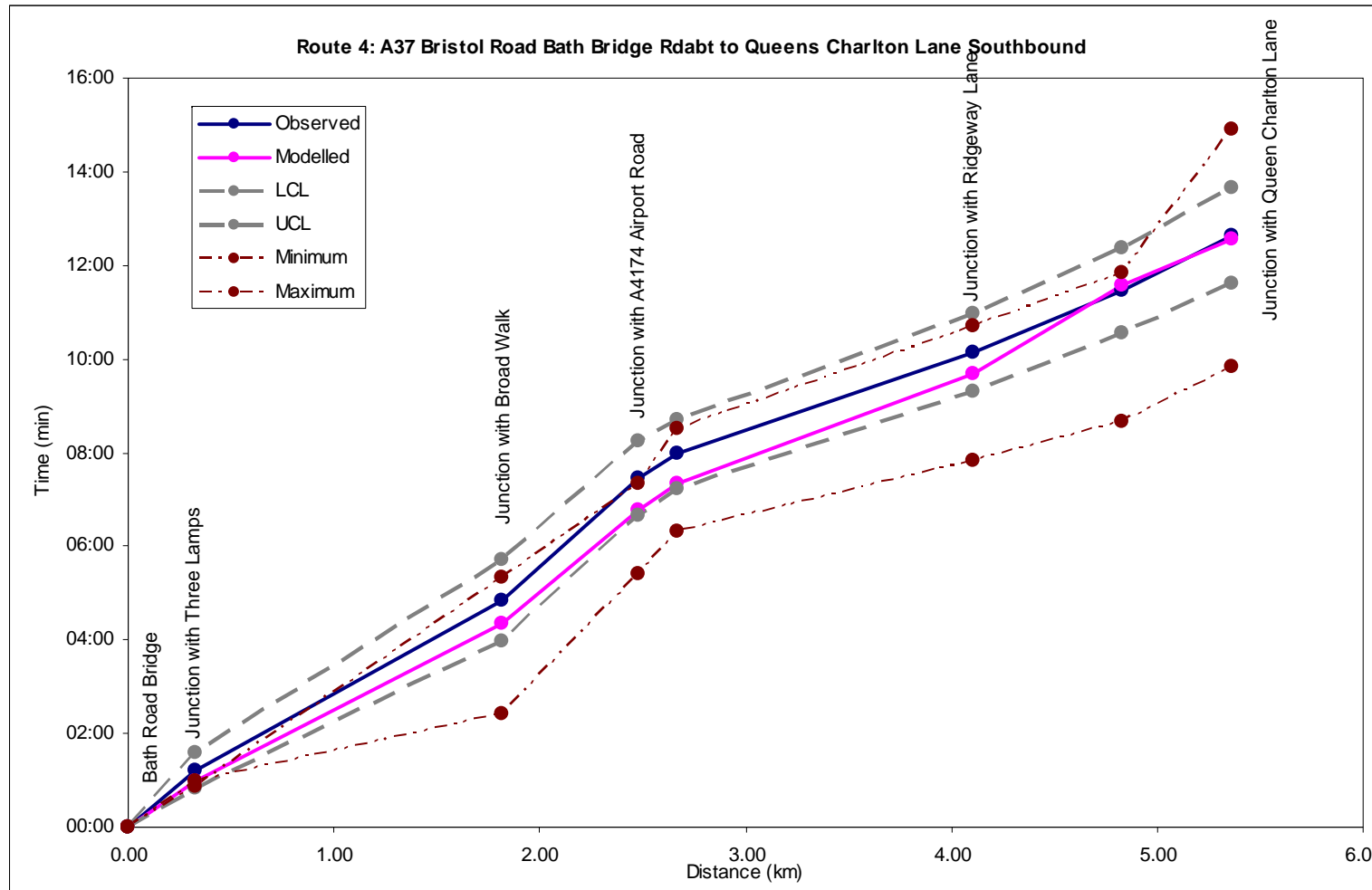
**Figure G.7 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound (AM Peak)**



**Table G.8 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound (AM Peak)**

|   | Route                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound |                                   |              |       |       |       |       |                       |                       |
| SB  | Bath Road Bridge                  | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| SB  | Junction with Three Lamps         | 01:13        | 01:00 | 00:51 | 01:35 | 00:52 | 01:00                 | 0.33                  |
| SB  | Junction with Broad Walk          | 04:50        | 02:26 | 03:58 | 05:42 | 05:20 | 04:20                 | 1.82                  |
| SB  | Junction with A4174 Airport Road  | 07:28        | 05:25 | 06:40 | 08:15 | 07:20 | 06:46                 | 2.48                  |
| SB  | Junction with West Town Lane      | 07:58        | 06:19 | 07:13 | 08:43 | 08:30 | 07:21                 | 2.67                  |
| SB  | Junction with Ridgeway Lane       | 10:08        | 07:49 | 09:18 | 10:59 | 10:42 | 09:42                 | 4.11                  |
| SB  | Junction with Staunton Lane       | 11:27        | 08:39 | 10:32 | 12:21 | 11:50 | 11:35                 | 4.83                  |
| SB  | Junction with Queen Charlton Lane | 12:38        | 09:49 | 11:37 | 13:39 | 14:54 | 12:34                 | 5.36                  |

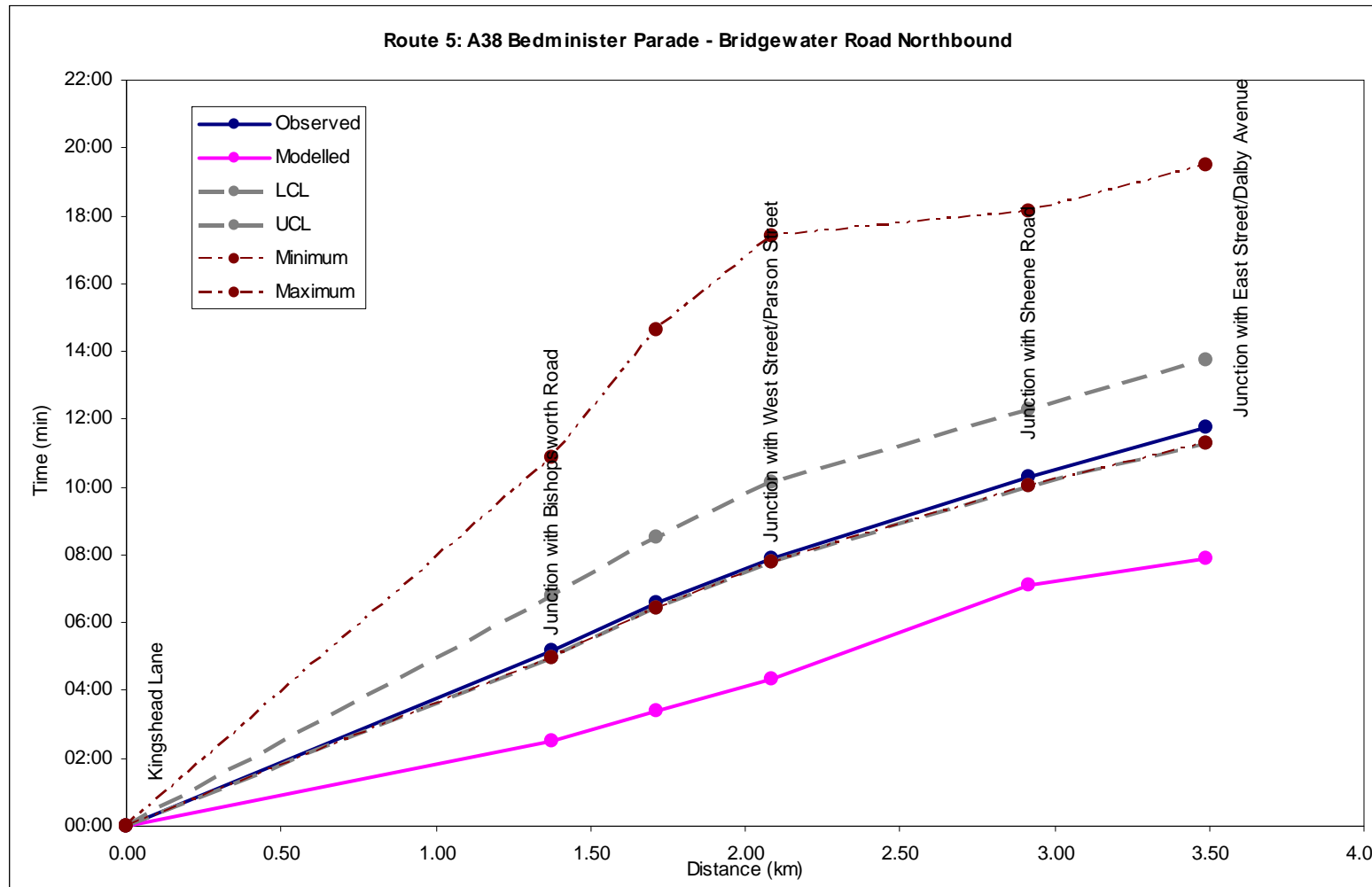
**Figure G.8 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound (AM Peak)**



**Table G.9 - Route 5: A38 Bedminster Parade - Bridgewater Road Northbound (AM Peak)**

| Route  |   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|---|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 5: A38 Bedminster Parade - Bridgewater Road Northbound |   |              |       |       |       |       |                       |                       |
| NB   | Kingshead Lane                          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| NB   | Junction with Bishopsworth Road         | 05:11        | 04:58 | 04:58 | 06:48 | 10:51 | 02:30                 | 1.38                  |
| NB   | Junction with Bedminster Down Road      | 06:34        | 06:25 | 06:25 | 08:32 | 14:37 | 03:24                 | 1.72                  |
| NB   | Junction with West Street/Parson Street | 07:55        | 07:46 | 07:46 | 10:08 | 17:25 | 04:22                 | 2.09                  |
| NB   | Junction with Sheene Road               | 10:18        | 10:02 | 10:02 | 12:16 | 18:09 | 07:06                 | 2.92                  |
| NB   | Junction with East Street/Dalby Avenue  | 11:44        | 11:16 | 11:16 | 13:45 | 19:30 | 07:54                 | 3.49                  |
| NB   | A38/A370 roundabout - Bedminster Bridge | 14:15        | 11:34 | 11:34 | 17:13 |       | 08:35                 | 3.84                  |

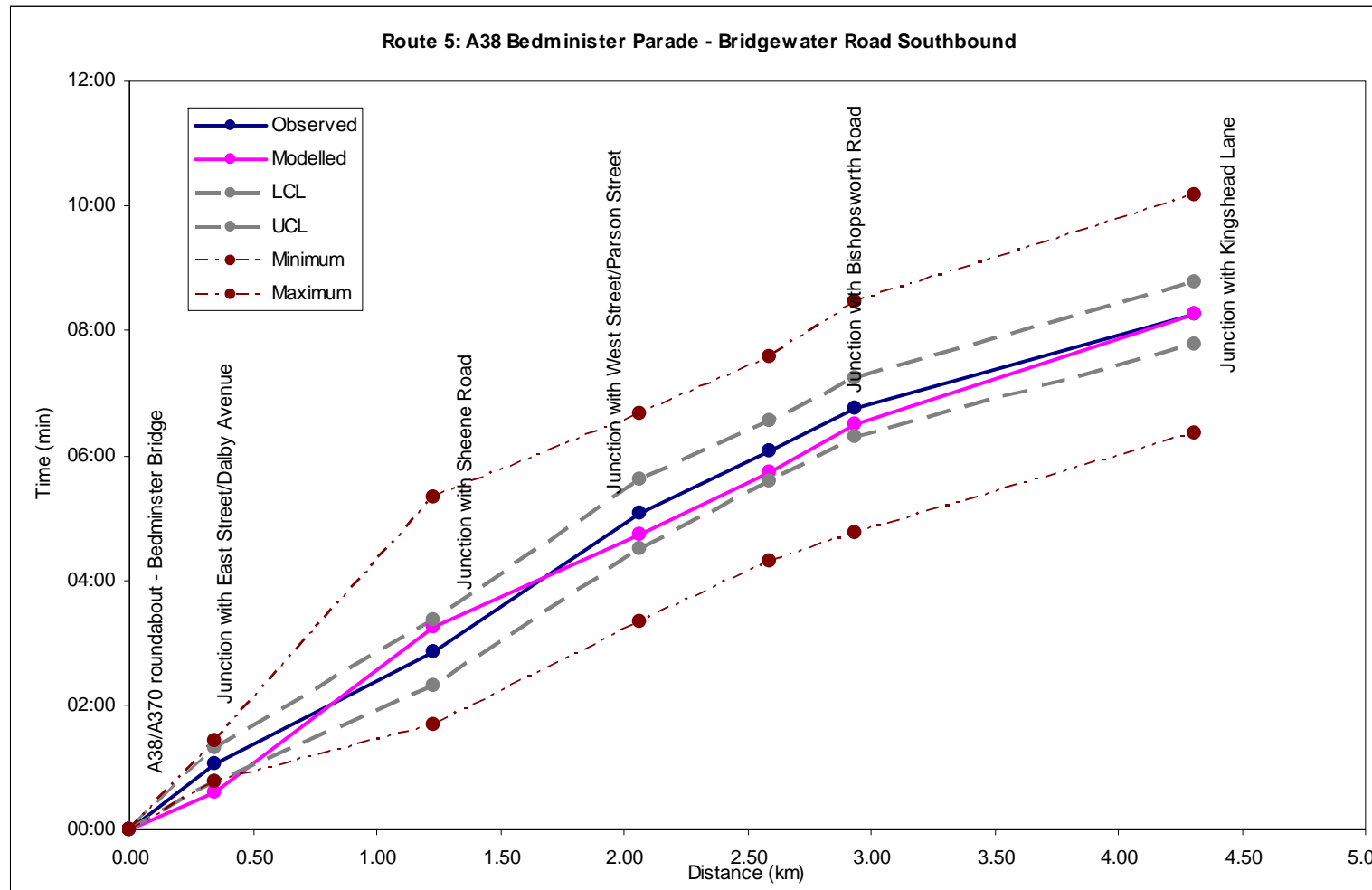
**Figure G.9 - Route 5: A38 Bedminster Parade - Bridgewater Road Northbound (AM Peak)**



**Table G.10 - Route 5: A38 Bedminster Parade - Bridgewater Road Southbound (AM Peak)**

|  | Route                                   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|---|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 5: A38 Bedminster Parade - Bridgewater Road Southbound |   |              |       |       |       |       |                       |                       |
| SB   | A38/A370 roundabout - Bedminster Bridge | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| SB   | Junction with East Street/Dalby Avenue  | 01:03        | 00:46 | 00:47 | 01:18 | 01:25 | 00:35                 | 0.35                  |
| SB   | Junction with Sheene Road               | 02:50        | 01:41 | 02:19 | 03:22 | 05:20 | 03:14                 | 1.23                  |
| SB   | Junction with West Street/Parson Street | 05:04        | 03:20 | 04:30 | 05:37 | 06:40 | 04:45                 | 2.06                  |
| SB   | Junction with Bedminster Down Road      | 06:04        | 04:18 | 05:35 | 06:33 | 07:35 | 05:43                 | 2.59                  |
| SB   | Junction with Bishopsworth Road         | 06:46        | 04:45 | 06:17 | 07:15 | 08:28 | 06:30                 | 2.93                  |
| SB   | Junction with Kingshead Lane            | 08:16        | 06:22 | 07:46 | 08:46 | 10:10 | 08:17                 | 4.31                  |

**Figure G.10 - Route 5: A38 Bedminster Parade - Bridgewater Road Southbound (AM Peak)**

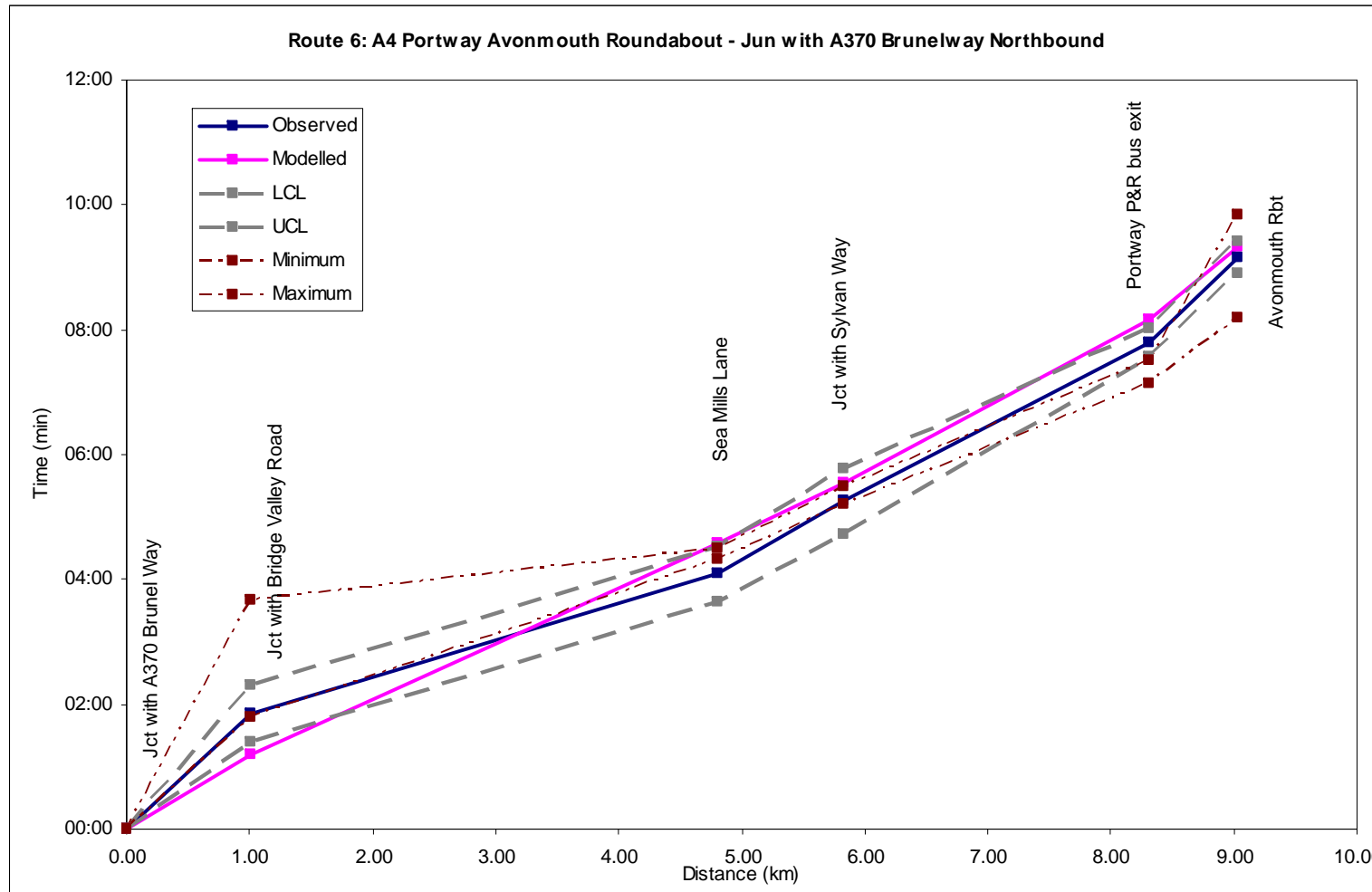


**Table G.11 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound (AM Peak)**

| Route  |                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound |                             |              |       |       |       |       |                       |                       |
| NB   | Jct with A370 Brunel Way    | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| NB   | Jct with Bridge Valley Road | 01:51        | 01:47 | 01:23 | 02:19 | 03:40 | 01:11                 | 1.01                  |
| NB   | Sea Mills Lane              | 04:05        | 04:19 | 03:39 | 04:31 | 04:30 | 04:34                 | 4.81                  |
| NB   | Jct with Sylvan Way         | 05:15        | 05:12 | 04:44 | 05:46 | 05:30 | 05:32                 | 5.83                  |
| NB   | Portway P&R bus exit        | 07:47        | 07:09 | 07:34 | 08:01 | 07:30 | 08:10                 | 8.31                  |
| NB   | Avonmouth Rbt               | 09:10        | 08:11 | 08:55 | 09:25 | 09:50 | 09:20                 | 9.03                  |



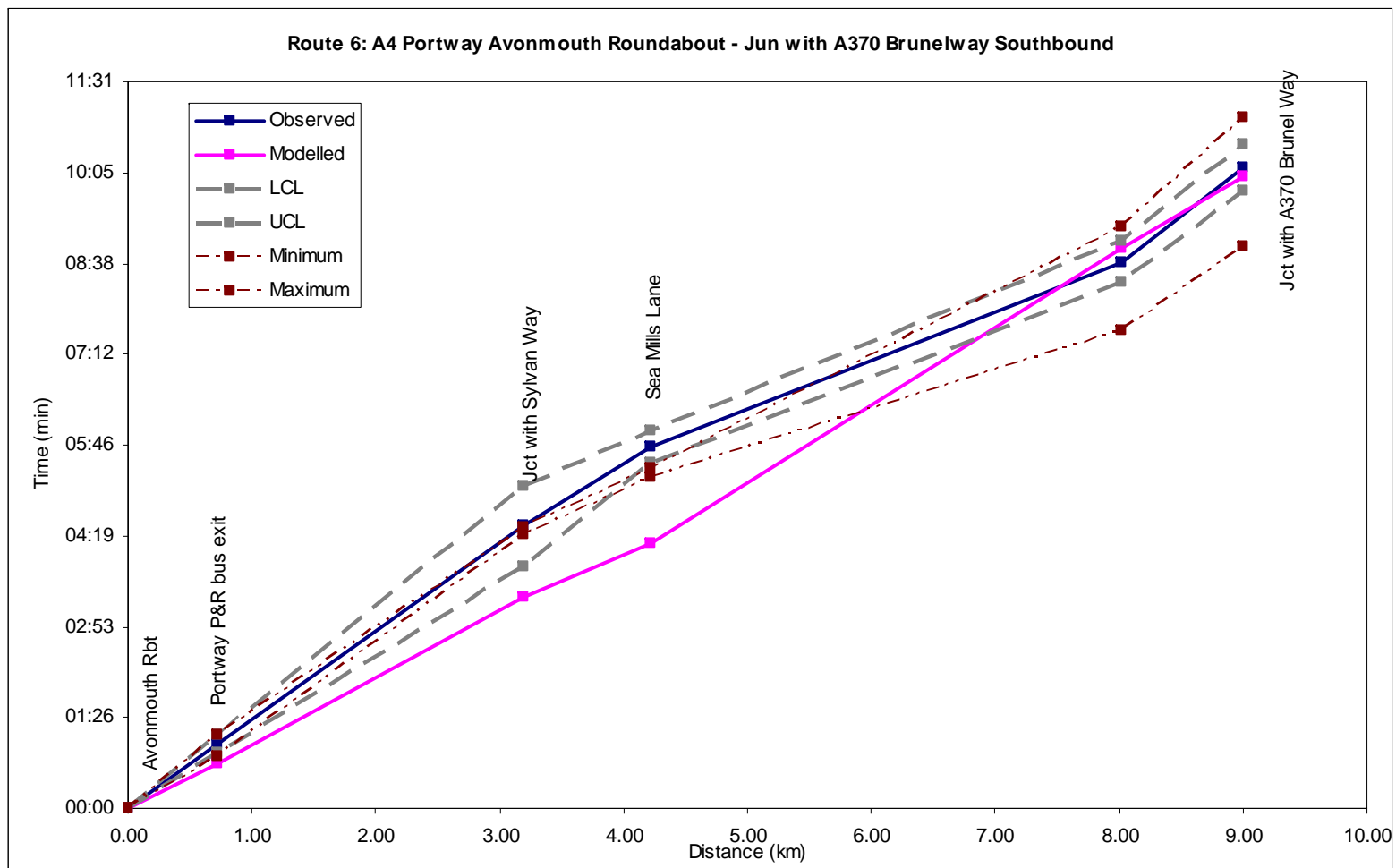
**Figure G.11 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound (AM Peak)**



**Table G.12 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound (AM Peak)**

|  | Route                       | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound |                             |              |       |       |       |       |                       |                       |
| SB   | Avonmouth Rbt               | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| SB   | Portway P&R bus exit        | 01:01        | 00:50 | 00:52 | 01:09 | 01:10 | 00:43                 | 0.73                  |
| SB   | Jct with Sylvan Way         | 04:28        | 04:20 | 03:51 | 05:06 | 04:28 | 03:22                 | 3.20                  |
| SB   | Sea Mills Lane              | 05:44        | 05:15 | 05:29 | 05:59 | 05:24 | 04:12                 | 4.23                  |
| SB   | Jct with Bridge Valley Road | 08:40        | 07:35 | 08:20 | 08:59 | 09:14 | 08:52                 | 8.03                  |
| SB   | Jct with A370 Brunel Way    | 10:09        | 08:55 | 09:47 | 10:32 | 10:58 | 10:01                 | 9.01                  |

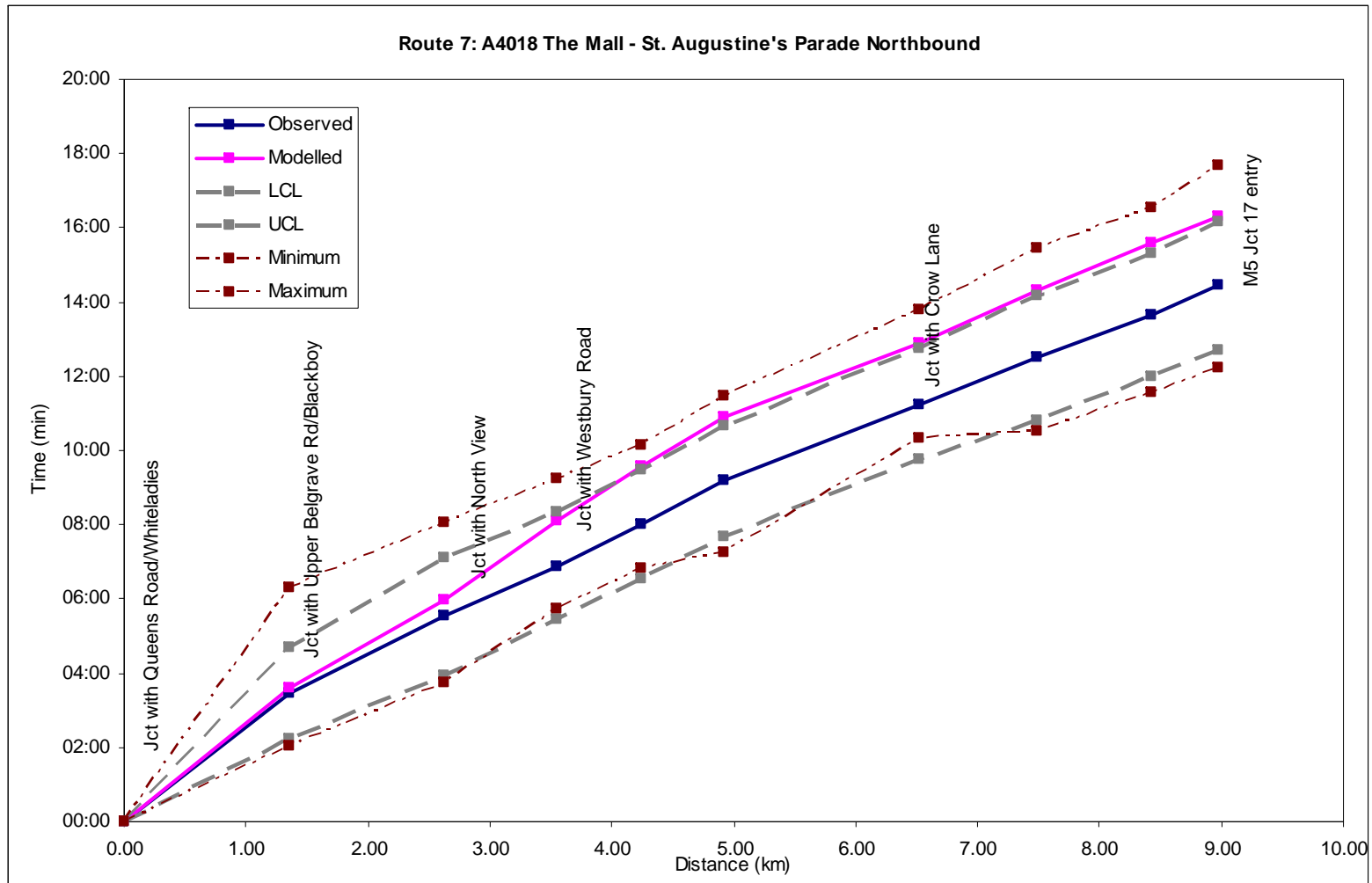
**Figure G.12 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound (AM Peak)**



**Table G.13 - Route 7: A4018 The Mall - St. Augustine's Parade Northbound (AM Peak)**

| Route   |                                     | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 7: A4018 The Mall - St. Augustine's Parade Northbound |                                     |              |       |       |       |       |                       |                       |
| NB  | Jct with Queens Road/Whiteladies    | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| NB  | Jct with Upper Belgrave Rd/Blackboy | 03:27        | 02:02 | 02:13 | 04:42 | 06:18 | 03:35                 | 1.36                  |
| NB  | Jct with North View                 | 05:32        | 03:45 | 03:57 | 07:07 | 08:03 | 05:58                 | 2.63                  |
| NB  | Jct with Westbury Road              | 06:53        | 05:45 | 05:26 | 08:20 | 09:14 | 08:05                 | 3.55                  |
| NB  | Jct with Canford Lane               | 08:01        | 06:50 | 06:31 | 09:30 | 10:09 | 09:35                 | 4.25                  |
| NB  | Jct with Henbury Road               | 09:10        | 07:15 | 07:42 | 10:39 | 11:29 | 10:53                 | 4.92                  |
| NB  | Jct with Crow Lane                  | 11:15        | 10:20 | 09:46 | 12:44 | 13:47 | 12:54                 | 6.52                  |
| NB  | Jct with Station Road               | 12:29        | 10:30 | 10:49 | 14:10 | 15:27 | 14:19                 | 7.50                  |
| NB  | Jct with A4018/Lysander Rd          | 13:39        | 11:35 | 11:59 | 15:19 | 16:33 | 15:36                 | 8.42                  |
| NB  | M5 Jct 17 entry                     | 14:26        | 12:15 | 12:42 | 16:10 | 17:41 | 16:17                 | 8.97                  |

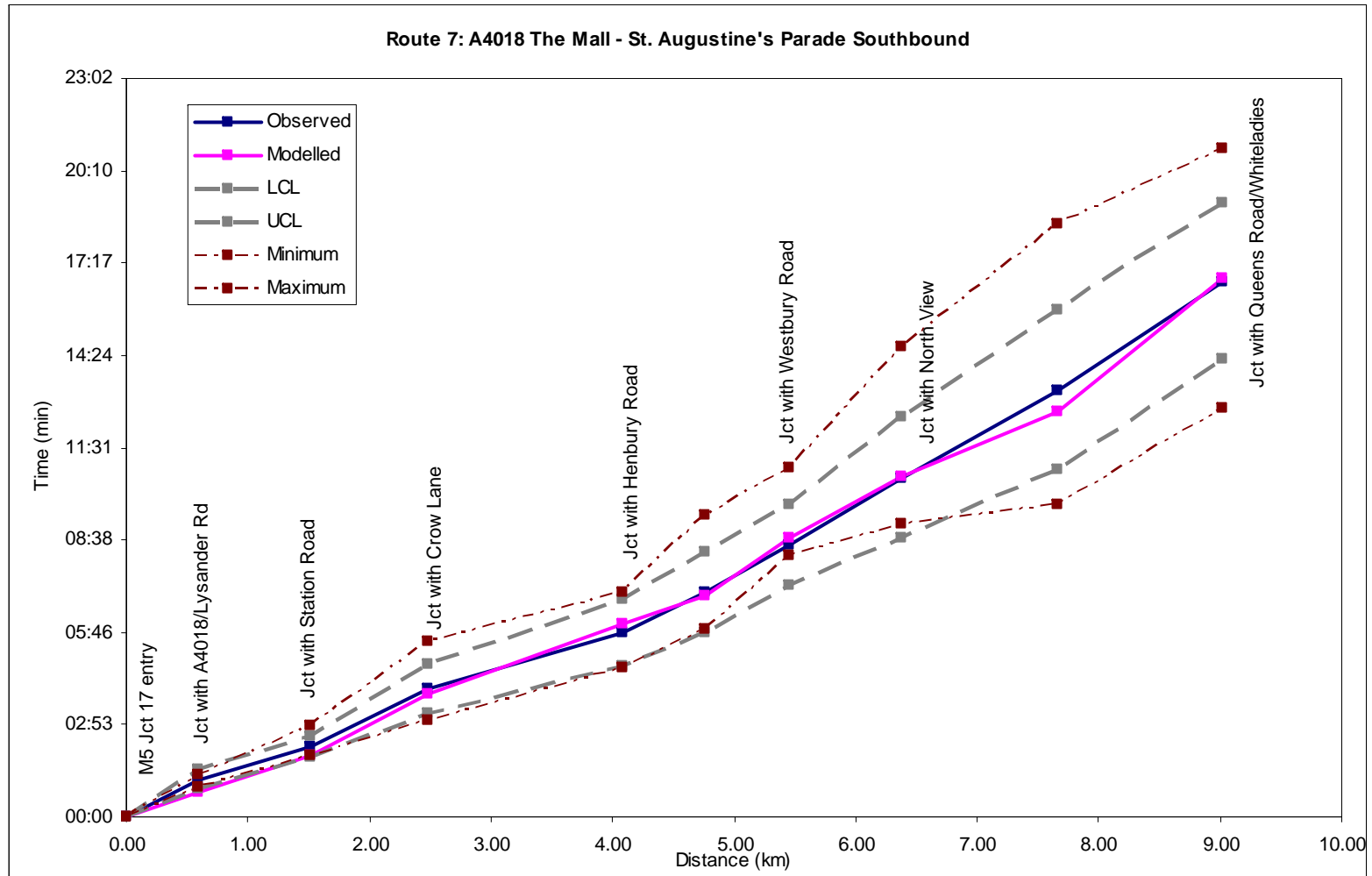
**Figure G.13 - Route 7: A4018 The Mall - St. Augustine's Parade Northbound (AM Peak)**



**Table G.14 - Route 7: A4018 The Mall - St. Augustine's Parade Southbound (AM Peak)**

|   | Route                               | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 7: A4018 The Mall - St. Augustine's Parade Southbound |                                     |              |       |       |       |       |                       |                       |
| SB  | M5 Jct 17 entry                     | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| SB  | Jct with A4018/Lysander Rd          | 01:10        | 00:55 | 00:53 | 01:27 | 01:20 | 00:44                 | 0.59                  |
| SB  | Jct with Station Road               | 02:11        | 01:55 | 01:51 | 02:31 | 02:50 | 01:56                 | 1.51                  |
| SB  | Jct with Crow Lane                  | 03:59        | 03:00 | 03:13 | 04:45 | 05:30 | 03:50                 | 2.49                  |
| SB  | Jct with Henbury Road               | 05:44        | 04:40 | 04:41 | 06:48 | 07:00 | 06:00                 | 4.09                  |
| SB  | Jct with Canford Lane               | 07:01        | 05:50 | 05:45 | 08:17 | 09:25 | 06:55                 | 4.76                  |
| SB  | Jct with Westbury Road              | 08:29        | 08:10 | 07:14 | 09:44 | 10:55 | 08:43                 | 5.46                  |
| SB  | Jct with North View                 | 10:35        | 09:10 | 08:42 | 12:29 | 14:40 | 10:36                 | 6.38                  |
| SB  | Jct with Upper Belgrave Rd/Blackboy | 13:20        | 09:45 | 10:51 | 15:48 | 18:30 | 12:38                 | 7.67                  |
| SB  | Jct with Queens Road/Whiteladies    | 16:42        | 12:44 | 14:16 | 19:08 | 20:50 | 16:47                 | 9.03                  |

**Figure G.14 - Route 7: A4018 The Mall - St. Augustine's Parade Southbound (AM Peak)**

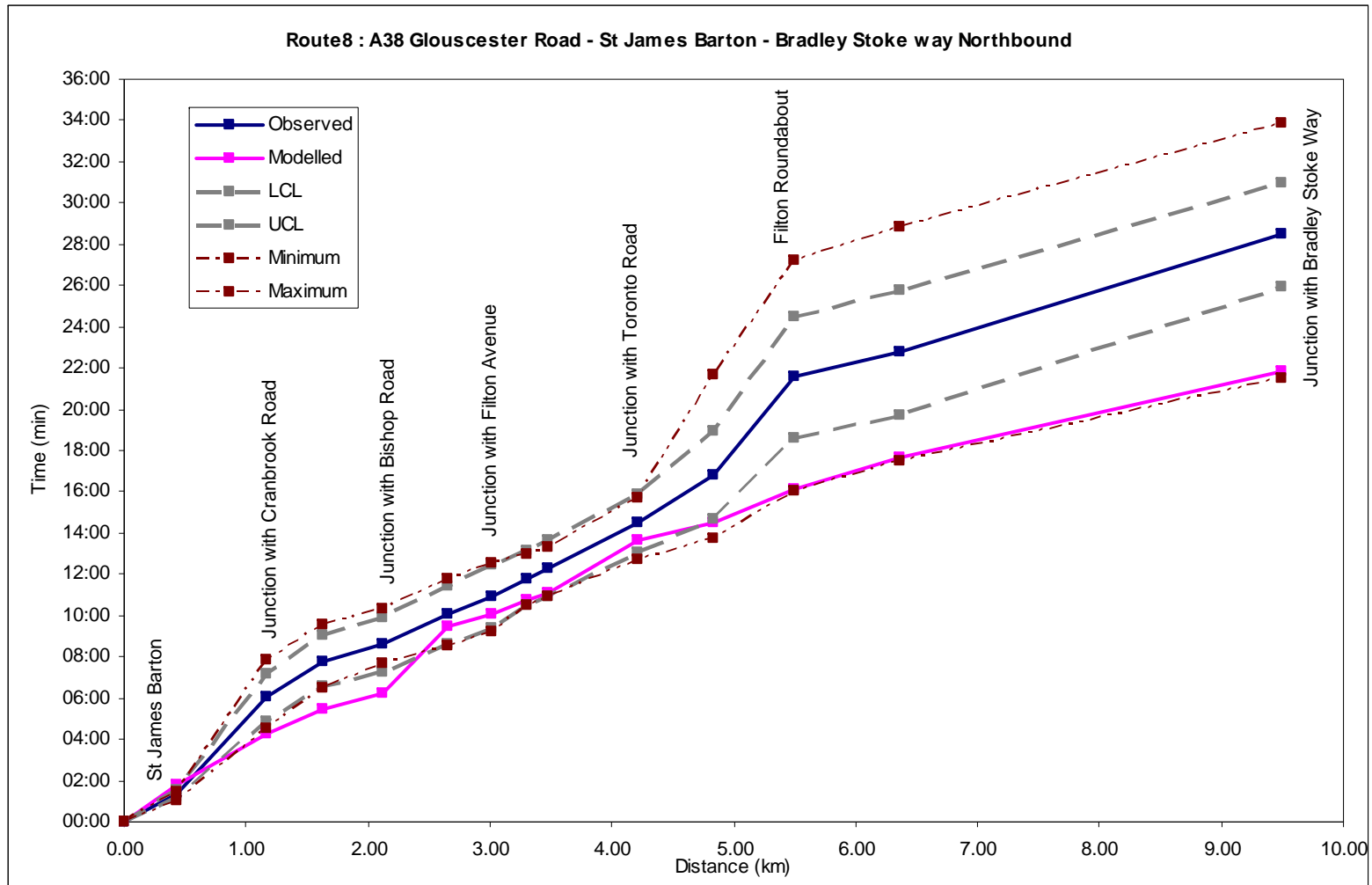


**Table G.15 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke way Northbound (AM Peak)**

| Route  |                                 | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| Route 8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Northbound |                                 |              |       |       |       |       |                        |                       |
| NB   | St James Barton                 | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| NB   | Junction with Ashley Road       | 01:24        | 01:00 | 01:14 | 01:33 | 01:28 | 01:50                  | 0.43                  |
| NB   | Junction with Cranbrook Road    | 06:01        | 04:30 | 04:54 | 07:09 | 07:51 | 04:15                  | 1.17                  |
| NB   | Junction with Sommerville Road  | 07:48        | 06:30 | 06:33 | 09:02 | 09:31 | 05:29                  | 1.63                  |
| NB   | Junction with Bishop Road       | 08:35        | 07:40 | 07:18 | 09:52 | 10:19 | 06:11                  | 2.13                  |
| NB   | Junction with Ashley Down Road  | 10:02        | 08:30 | 08:35 | 11:28 | 11:44 | 09:29                  | 2.66                  |
| NB   | Junction with Filton Avenue     | 10:55        | 09:15 | 09:24 | 12:26 | 12:30 | 10:05                  | 3.02                  |
| NB   | Junction with Muller Road       | 11:48        | 10:30 | 10:29 | 13:07 | 12:59 | 10:46                  | 3.31                  |
| NB   | Junction with Kellaway Avenue   | 12:17        | 10:55 | 10:56 | 13:39 | 13:18 | 11:06                  | 3.48                  |
| NB   | Junction with Toronto Road      | 14:29        | 12:45 | 13:05 | 15:53 | 15:41 | 13:39                  | 4.21                  |
| NB   | Junction with Northville Road   | 16:46        | 13:45 | 14:39 | 18:54 | 21:39 | 14:31                  | 4.84                  |
| NB   | Filton Roundabout               | 21:33        | 16:00 | 18:35 | 24:30 | 27:15 | 16:07                  | 5.50                  |
| NB   | Junction with Filton Avenue     | 22:44        | 17:30 | 19:43 | 25:46 | 28:50 | 17:38                  | 6.36                  |
| NB   | Junction with Bradley Stoke Way | 28:28        | 21:30 | 25:56 | 31:00 | 33:50 | 21:50                  | 9.49                  |



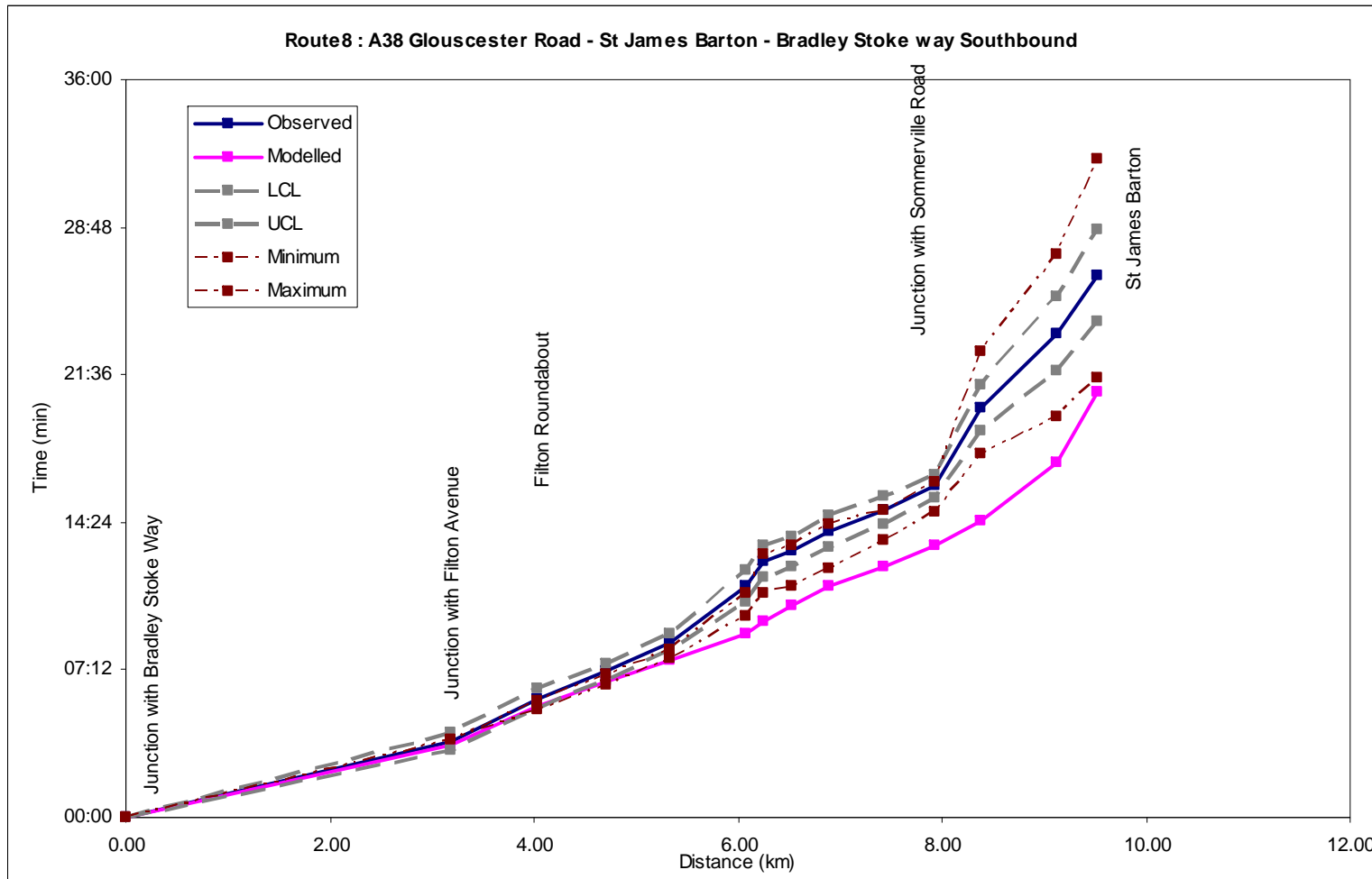
**Figure G.15 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke Way Northbound (AM Peak)**



**Table G.16 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound (AM Peak)**

|   | Route                           | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|---------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound |                                 |              |       |       |       |       |                       |                       |
| SB  | Junction with Bradley Stoke Way | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| SB  | Junction with Filton Avenue     | 03:40        | 03:45 | 03:15 | 04:06 | 03:45 | 03:33                 | 3.19                  |
| SB  | Filton Roundabout               | 05:48        | 05:15 | 05:18 | 06:18 | 05:42 | 05:24                 | 4.03                  |
| SB  | Junction with Northville Road   | 07:07        | 06:25 | 06:43 | 07:31 | 06:58 | 06:40                 | 4.72                  |
| SB  | Junction with Toronto Road      | 08:34        | 07:45 | 08:11 | 08:56 | 08:13 | 07:42                 | 5.34                  |
| SB  | Junction with Kellaway Avenue   | 11:17        | 09:50 | 10:30 | 12:04 | 10:55 | 08:57                 | 6.07                  |
| SB  | Junction with Muller Road       | 12:29        | 10:55 | 11:44 | 13:14 | 12:48 | 09:33                 | 6.25                  |
| SB  | Junction with Filton Avenue     | 12:58        | 11:15 | 12:13 | 13:43 | 13:15 | 10:18                 | 6.53                  |
| SB  | Junction with Ashley Down Road  | 13:58        | 12:10 | 13:12 | 14:43 | 14:20 | 11:19                 | 6.89                  |
| SB  | Junction with Bishop Road       | 15:00        | 13:30 | 14:17 | 15:43 | 14:59 | 12:12                 | 7.43                  |
| SB  | Junction with Sommerville Road  | 16:09        | 14:55 | 15:35 | 16:44 | 16:22 | 13:15                 | 7.93                  |
| SB  | Junction with Cranbrook Road    | 19:58        | 17:45 | 18:51 | 21:06 | 22:45 | 14:27                 | 8.38                  |
| SB  | Junction with Ashley Road       | 23:35        | 19:35 | 21:48 | 25:22 | 27:30 | 17:18                 | 9.12                  |
| SB  | St James Barton                 | 26:26        | 21:25 | 24:14 | 28:39 | 32:10 | 20:47                 | 9.53                  |

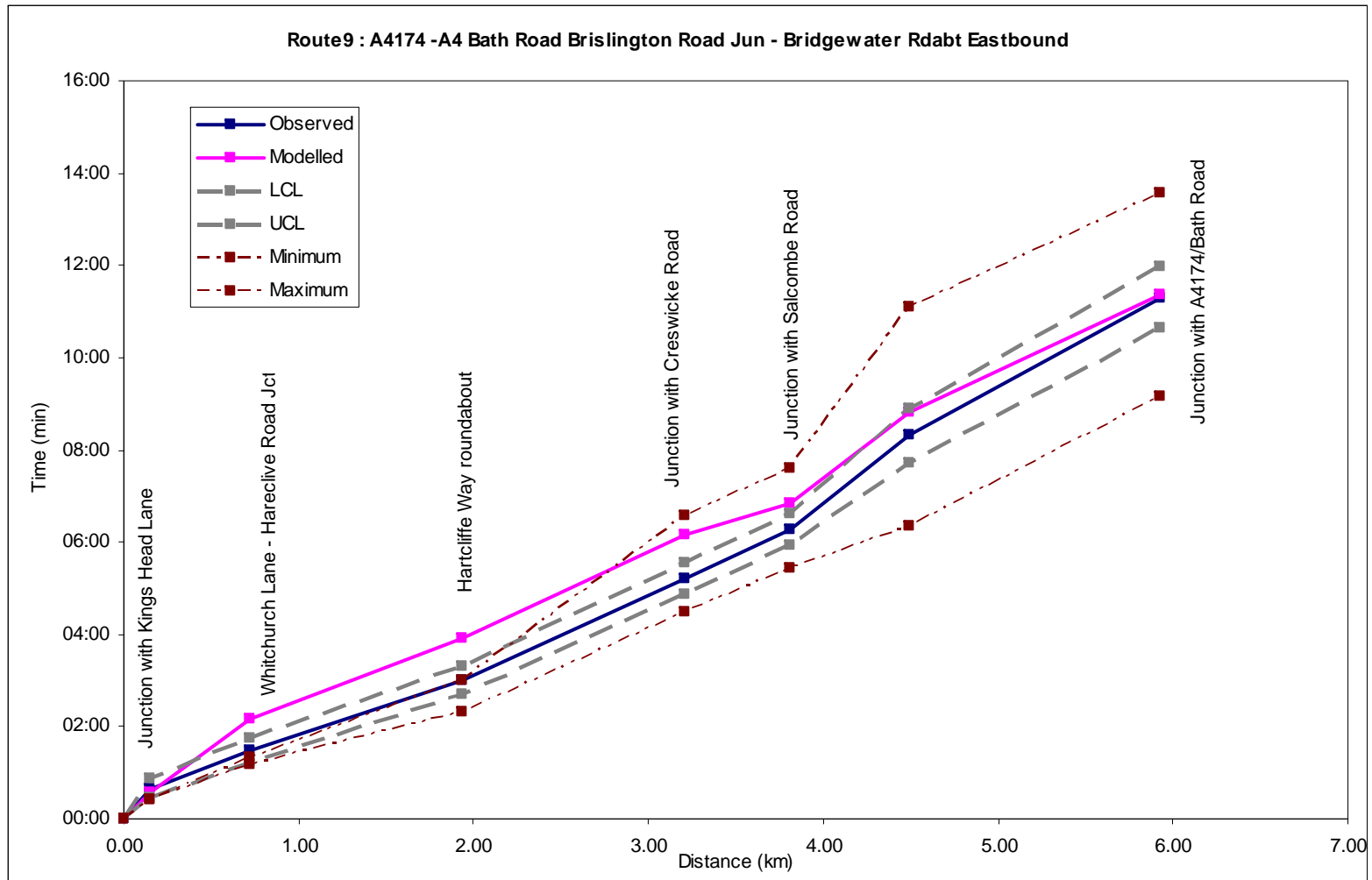
**Figure G.16 - Route 8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound (AM Peak)**



**Table G.17 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound (AM Peak)**

|   | Route                                | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|--------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound |                                      |              |       |       |       |       |                       |                       |
| EB  | Junction with Kings Head Lane        | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| EB  | Junction with Bishopsworth Road      | 00:40        | 00:25 | 00:26 | 00:53 | 00:25 | 00:34                 | 0.15                  |
| EB  | Whitchurch Lane - Hareclive Road Jct | 01:29        | 01:10 | 01:14 | 01:44 | 01:20 | 02:10                 | 0.73                  |
| EB  | Hartcliffe Way roundabout            | 02:59        | 02:20 | 02:41 | 03:18 | 03:00 | 03:56                 | 1.94                  |
| EB  | Junction with Creswicke Road         | 05:13        | 04:30 | 04:52 | 05:33 | 06:35 | 06:10                 | 3.21                  |
| EB  | Junction with Salcombe Road          | 06:16        | 05:25 | 05:55 | 06:36 | 07:35 | 06:49                 | 3.81                  |
| EB  | Junction with A37 Wells Road         | 08:19        | 06:20 | 07:44 | 08:54 | 11:05 | 08:48                 | 4.50                  |
| EB  | Junction with A4174/Bath Road        | 11:18        | 09:10 | 10:39 | 11:58 | 13:35 | 11:21                 | 5.93                  |

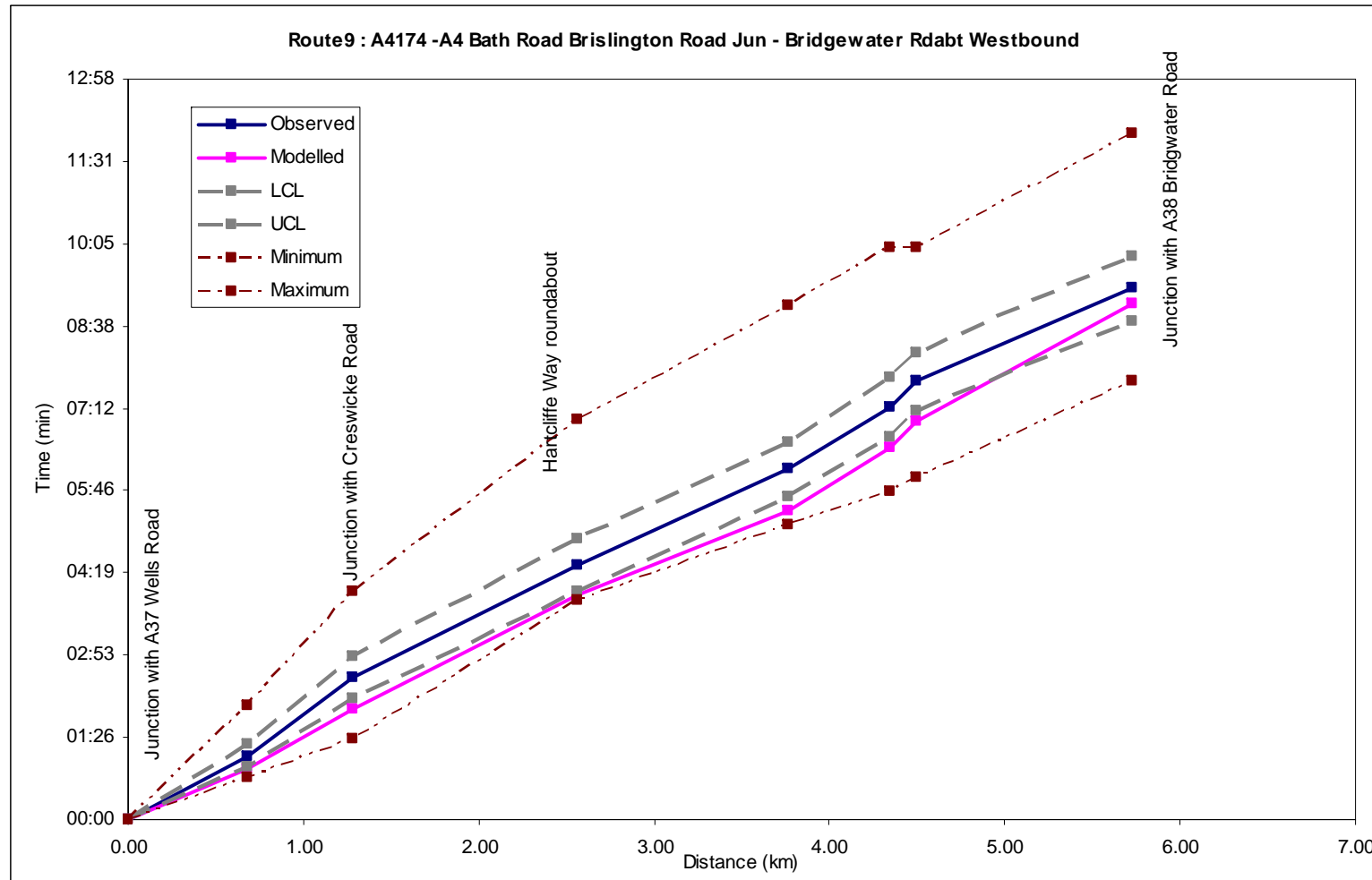
**Figure G.17 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound (AM Peak)**



**Table G.18 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound (AM Peak)**

| Route   |                                      | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|--------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound |                                      |              |       |       |       |       |                       |                       |
| WB  | Junction with A37 Wells Road         | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| WB  | Junction with Salcombe Road          | 01:07        | 00:45 | 00:55 | 01:20 | 02:00 | 00:54                 | 0.69                  |
| WB  | Junction with Creswicke Road         | 02:29        | 01:25 | 02:07 | 02:51 | 04:00 | 01:56                 | 1.29                  |
| WB  | Hartcliffe Way roundabout            | 04:27        | 03:50 | 03:59 | 04:55 | 07:00 | 03:57                 | 2.56                  |
| WB  | Whitchurch Lane - Hareclive Road Jct | 06:08        | 05:10 | 05:39 | 06:37 | 09:00 | 05:24                 | 3.77                  |
| WB  | Junction with Bishopsworth Road      | 07:13        | 05:45 | 06:41 | 07:45 | 10:00 | 06:30                 | 4.35                  |
| WB  | Junction with Kings Head Lane        | 07:40        | 06:00 | 07:10 | 08:11 | 10:00 | 06:59                 | 4.50                  |
| WB  | Junction with A38 Bridgewater Road   | 09:18        | 07:40 | 08:43 | 09:52 | 12:00 | 09:02                 | 5.73                  |

**Figure G.18 - Route 9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound (AM Peak)**



**Table G.19 - Route 10: Avon Ring Road (Using HOV Lanes) (AM Peak)**

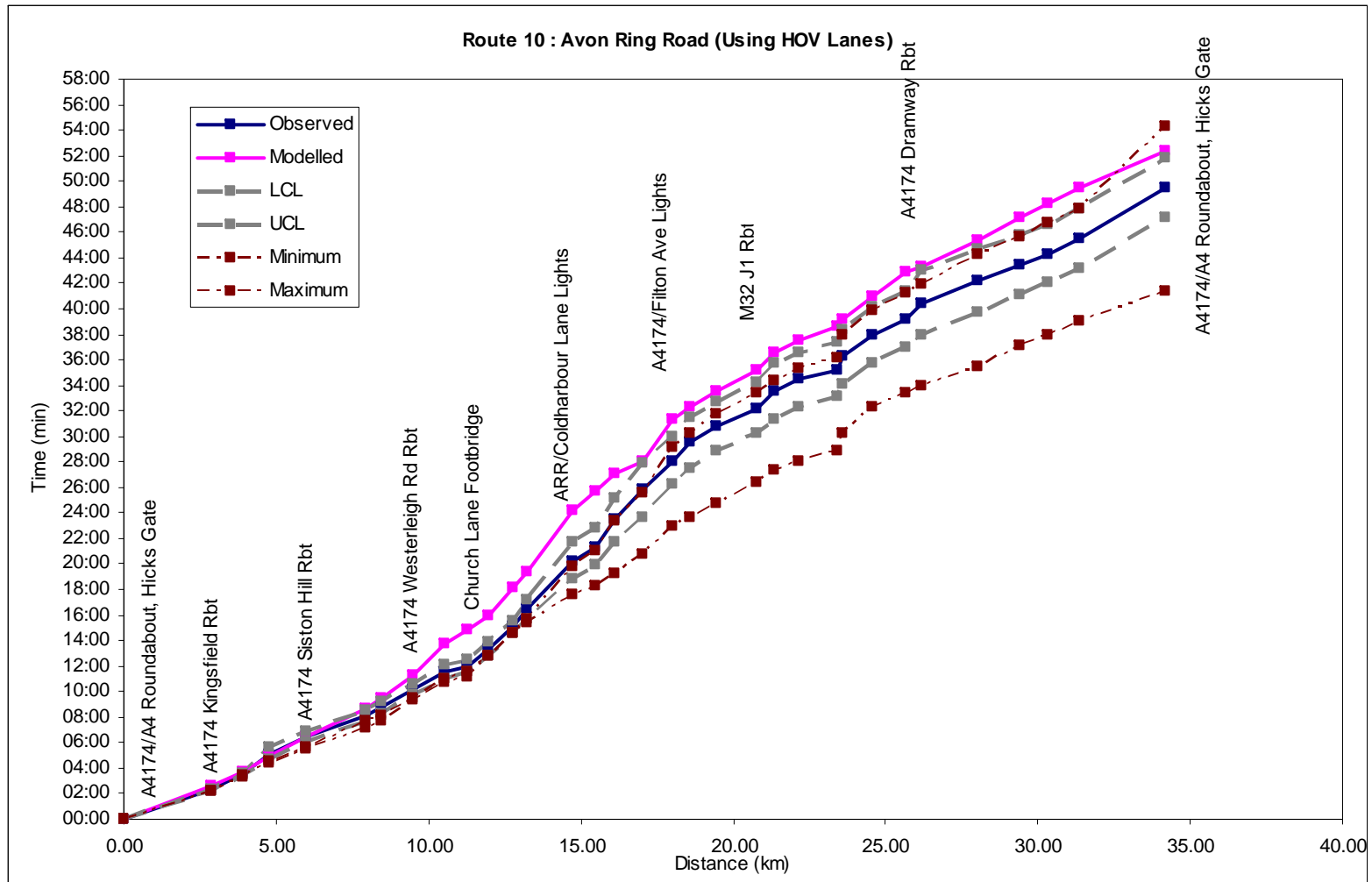
|    | Route                                       | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|----|---|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
|    | Route 10 : Avon Ring Road (Using HOV Lanes) |              |       |       |       |       |                       |                       |
| OB | A4174/A4 Roundabout, Hicks Gate             | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| OB | A4174 Kingsfield Rbt                        | 02:19        | 02:13 | 02:15 | 02:23 | 02:16 | 02:35                 | 2.86                  |
| OB | A4174/Wraxall Rd Rbt                        | 03:31        | 03:15 | 03:24 | 03:38 | 03:23 | 03:45                 | 3.90                  |
| OB | A4174/A420 Deanery Rd Rbt                   | 05:08        | 04:35 | 04:40 | 05:36 | 04:25 | 04:58                 | 4.77                  |
| OB | A4174 Siston Hill Rbt                       | 06:26        | 05:36 | 05:59 | 06:54 | 05:31 | 06:24                 | 5.99                  |
| OB | A4174 Dramway Rbt                           | 08:07        | 07:38 | 07:41 | 08:33 | 07:10 | 08:41                 | 7.97                  |
| OB | A4174/Emersons Way Rbt                      | 08:45        | 08:07 | 08:18 | 09:12 | 07:42 | 09:32                 | 8.46                  |
| OB | A4174 Westerleigh Rd Rbt                    | 10:09        | 09:31 | 09:42 | 10:35 | 09:24 | 11:16                 | 9.51                  |
| OB | Badminton Rd Rbt                            | 11:31        | 10:58 | 11:00 | 12:03 | 10:47 | 13:45                 | 10.51                 |
| OB | Church Lane Footbridge                      | 11:58        | 11:32 | 11:29 | 12:27 | 11:10 | 14:53                 | 11.28                 |
| OB | Bromley Heath Rbt                           | 13:16        | 12:44 | 12:43 | 13:50 | 12:51 | 15:53                 | 11.95                 |
| OB | Hambrook Signals                            | 15:03        | 14:33 | 14:33 | 15:33 | 14:36 | 18:12                 | 12.77                 |
| OB | M32 J1 Rbt                                  | 16:26        | 15:25 | 15:42 | 17:10 | 15:38 | 19:25                 | 13.23                 |
| OB | ARR/Coldharbour Lane Signals                | 20:15        | 17:33 | 18:46 | 21:43 | 19:50 | 24:14                 | 14.75                 |
| OB | MOD Rbt                                     | 21:21        | 18:18 | 19:52 | 22:50 | 21:01 | 25:42                 | 15.46                 |
| OB | A4174/Filton Ave Signals                    | 23:29        | 19:18 | 21:45 | 25:13 | 23:24 | 27:06                 | 16.14                 |
| OB | A38/A4174 Filton Rbt                        | 25:46        | 20:48 | 23:42 | 27:51 | 25:31 | 28:00                 | 17.03                 |
| OB | A4174/Filton Ave Signals                    | 28:06        | 22:56 | 26:17 | 29:55 | 29:06 | 31:17                 | 18.03                 |
| OB | MOD Rbt                                     | 29:29        | 23:38 | 27:32 | 31:26 | 30:16 | 32:22                 | 18.61                 |
| OB | ARR/Coldharbour Lane Signals                | 30:46        | 24:48 | 28:48 | 32:43 | 31:43 | 33:34                 | 19.43                 |
| OB | M32 J1 Rbt                                  | 32:12        | 26:20 | 30:12 | 34:11 | 33:26 | 35:08                 | 20.79                 |
| OB | Hambrook Signals                            | 33:30        | 27:17 | 31:19 | 35:41 | 34:21 | 36:36                 | 21.38                 |
| OB | Bromley Heath Rbt                           | 34:29        | 28:05 | 32:21 | 36:37 | 35:19 | 37:28                 | 22.16                 |
| OB | Church Lane Footbridge                      | 35:15        | 28:55 | 33:06 | 37:24 | 36:10 | 38:36                 | 23.40                 |



|    |                                 |       |       |       |       |       |       |       |
|----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|
| OB | Badminton Rd Rbt                | 36:13 | 30:18 | 34:05 | 38:22 | 37:59 | 39:07 | 23.58 |
| OB | Westerleigh Rd Rbt              | 37:54 | 32:17 | 35:43 | 40:05 | 39:55 | 40:59 | 24.56 |
| OB | A4174/Emersons Way Rbt          | 39:09 | 33:22 | 36:58 | 41:19 | 41:10 | 42:56 | 25.69 |
| OB | A4174 Dramway Rbt               | 40:26 | 33:57 | 37:54 | 42:59 | 41:58 | 43:20 | 26.17 |
| OB | A4174 Siston Hill Rbt           | 42:11 | 35:28 | 39:43 | 44:40 | 44:19 | 45:19 | 28.06 |
| OB | A4174/A420 Deanery Rd Rbt       | 43:27 | 37:06 | 41:04 | 45:49 | 45:39 | 47:10 | 29.44 |
| OB | A4174/Wraxall Rd Rbt            | 44:19 | 37:59 | 41:59 | 46:38 | 46:43 | 48:11 | 30.31 |
| OB | A4174 Kingsfield Rbt            | 45:28 | 39:04 | 43:07 | 47:49 | 47:53 | 49:32 | 31.35 |
| OB | A4174/A4 Roundabout, Hicks Gate | 49:30 | 41:19 | 47:10 | 51:50 | 54:16 | 52:25 | 34.21 |



**Figure G.19 - Route 10: Avon Ring Road (Using HOV Lanes) (AM Peak)**



**Table G.20 - Route 10: Avon Ring Road (Using Non-HOV Lanes) (AM Peak)**

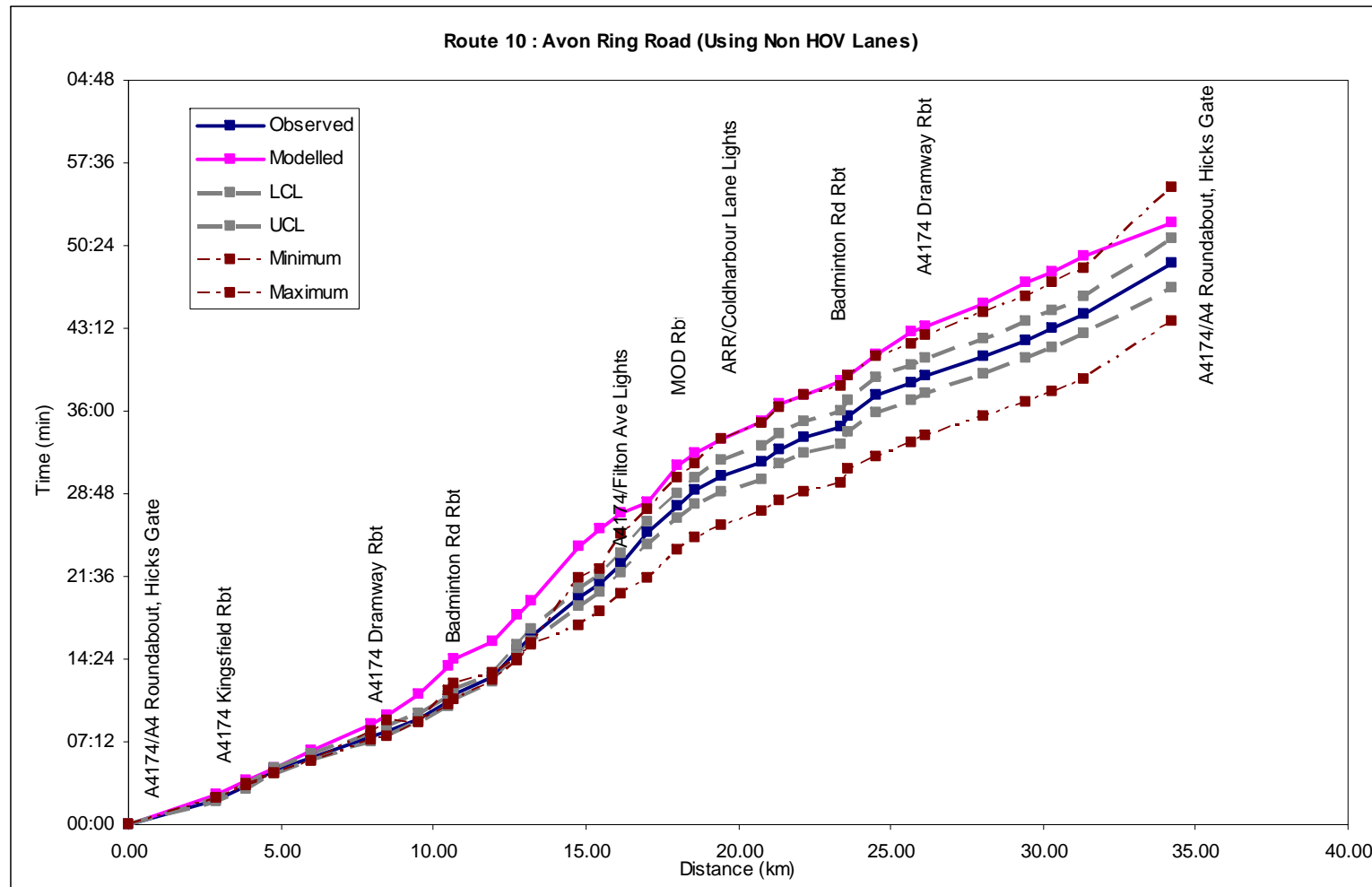
|   | Route                           | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|---------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| Route 10 : Avon Ring Road (Using Non-HOV Lanes) |                                 |              |       |       |       |       |                       |                       |
| OB  | A4174/A4 Roundabout, Hicks Gate | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| OB  | A4174 Kingsfield Rbt            | 02:09        | 02:22 | 02:01 | 02:16 | 02:22 | 02:35                 | 2.86                  |
| OB  | A4174/Wraxall Rd Rbt            | 03:18        | 03:22 | 03:06 | 03:30 | 03:32 | 03:45                 | 3.90                  |
| OB  | A4174/A420 Deanery Rd Rbt       | 04:41        | 04:27 | 04:26 | 04:55 | 04:27 | 04:58                 | 4.77                  |
| OB  | A4174 Siston Hill Rbt           | 05:52        | 05:28 | 05:37 | 06:07 | 05:28 | 06:24                 | 5.99                  |
| OB  | A4174 Dramway Rbt               | 07:37        | 07:17 | 07:16 | 07:58 | 08:10 | 08:41                 | 7.97                  |
| OB  | A4174/Emersons Way Rbt          | 08:09        | 07:37 | 07:48 | 08:31 | 08:59 | 09:32                 | 8.46                  |
| OB  | A4174 Westerleigh Rd Rbt        | 09:14        | 08:49 | 08:51 | 09:38 | 08:49 | 11:16                 | 9.51                  |
| OB  | Badminton Rd Rbt                | 10:44        | 10:22 | 10:17 | 11:10 | 11:43 | 13:45                 | 10.51                 |
| OB  | Church Lane Footbridge          | 11:19        | 10:53 | 10:51 | 11:48 | 12:17 | 14:22                 | 10.71                 |
| OB  | Bromley Heath Rbt               | 12:49        | 12:33 | 12:27 | 13:11 | 13:10 | 15:53                 | 11.95                 |
| OB  | Hambrook Signals                | 15:13        | 14:16 | 14:45 | 15:41 | 14:25 | 18:11                 | 12.77                 |
| OB  | M32 J1 Rbt                      | 16:27        | 15:34 | 15:56 | 16:59 | 15:50 | 19:24                 | 13.23                 |
| OB  | ARR/Coldharbour Lane Signals    | 19:45        | 17:21 | 19:00 | 20:31 | 21:25 | 24:13                 | 14.75                 |
| OB  | MOD Rbt                         | 20:57        | 18:36 | 20:12 | 21:42 | 22:17 | 25:41                 | 15.46                 |
| OB  | A4174/Filton Ave Signals        | 22:45        | 20:05 | 21:55 | 23:35 | 25:13 | 27:05                 | 16.14                 |
| OB  | A38/A4174 Filton Rbt            | 25:22        | 21:23 | 24:20 | 26:24 | 27:26 | 27:59                 | 17.03                 |
| OB  | A4174/Filton Ave Signals        | 27:42        | 23:53 | 26:38 | 28:47 | 30:12 | 31:16                 | 18.03                 |
| OB  | MOD Rbt                         | 29:02        | 25:00 | 27:52 | 30:13 | 31:25 | 32:21                 | 18.61                 |
| OB  | ARR/Coldharbour Lane Signals    | 30:18        | 26:04 | 28:56 | 31:40 | 33:31 | 33:33                 | 19.43                 |
| OB  | M32 J1 Rbt                      | 31:29        | 27:12 | 30:06 | 32:52 | 34:55 | 35:06                 | 20.79                 |
| OB  | Hambrook Signals                | 32:41        | 28:08 | 31:20 | 34:03 | 36:18 | 36:35                 | 21.38                 |
| OB  | Bromley Heath Rbt               | 33:43        | 28:58 | 32:19 | 35:07 | 37:21 | 37:27                 | 22.16                 |
| OB  | Church Lane Footbridge          | 34:33        | 29:43 | 33:09 | 35:56 | 38:09 | 38:35                 | 23.40                 |

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|    |                                 |       |       |       |       |       |       |       |
|----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|
| OB | Badminton Rd Rbt                | 35:34 | 31:00 | 34:11 | 36:58 | 39:01 | 39:05 | 23.58 |
| OB | Westerleigh Rd Rbt              | 37:19 | 32:03 | 35:46 | 38:52 | 40:43 | 40:58 | 24.56 |
| OB | A4174/Emersons Way Rbt          | 38:23 | 33:12 | 36:51 | 39:55 | 41:51 | 42:55 | 25.69 |
| OB | A4174 Dramway Rbt               | 39:03 | 33:51 | 37:31 | 40:34 | 42:33 | 43:19 | 26.17 |
| OB | A4174 Siston Hill Rbt           | 40:47 | 35:32 | 39:14 | 42:20 | 44:38 | 45:18 | 28.06 |
| OB | A4174/A420 Deanery Rd Rbt       | 42:12 | 36:50 | 40:37 | 43:47 | 45:59 | 47:09 | 29.44 |
| OB | A4174/Wraxall Rd Rbt            | 43:08 | 37:41 | 41:31 | 44:45 | 47:13 | 48:10 | 30.31 |
| OB | A4174 Kingsfield Rbt            | 44:23 | 38:42 | 42:46 | 46:01 | 48:26 | 49:31 | 31.35 |
| OB | A4174/A4 Roundabout, Hicks Gate | 48:52 | 43:51 | 46:45 | 50:59 | 55:25 | 52:23 | 34.21 |



**Figure G.20 - Route 10: Avon Ring Road (Using Non HOV Lanes) (AM Peak)**

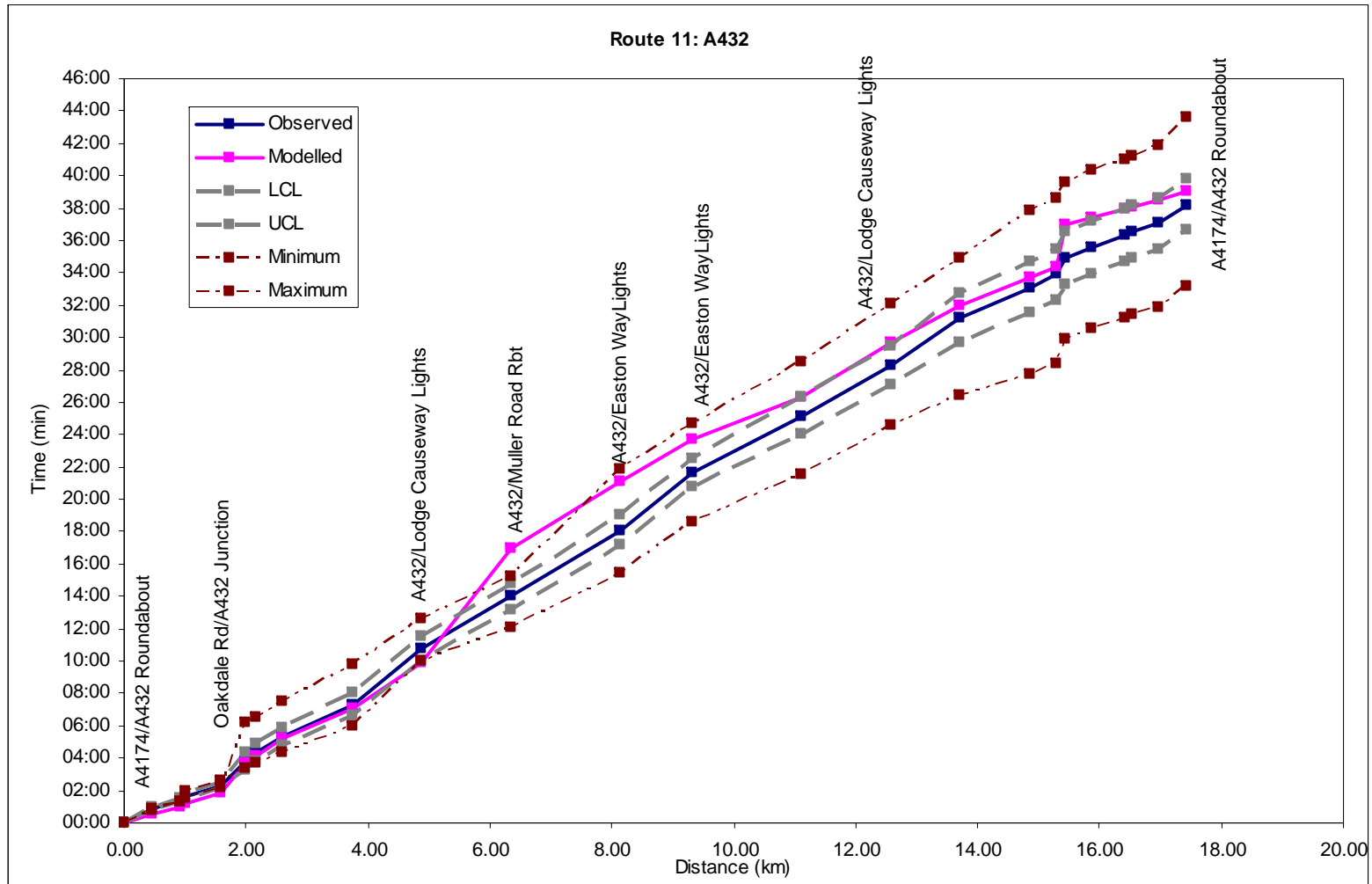


**Table G.21 - Route 11: A432 from A4174 to Easton Way & Return (AM Peak)**

|    | Route  | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|----|--|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
|    | Route 11: A432 :                               |              |       |       |       |       |                       |                       |
| OB | A4174/A432 Roundabout                          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| OB | A432/Blackhorse Lane junction                  | 00:51        | 00:50 | 00:45 | 00:57 | 00:48 | 00:32                 | 0.47                  |
| OB | Entry from service road opposite Westbourne Rd | 01:23        | 01:19 | 01:17 | 01:28 | 01:21 | 01:00                 | 0.91                  |
| OB | A432/Four Acre Road Junction                   | 01:40        | 01:57 | 01:32 | 01:48 | 01:34 | 01:10                 | 1.01                  |
| OB | Oakdale Rd/A432 Junction                       | 02:18        | 02:39 | 02:09 | 02:27 | 02:12 | 01:49                 | 1.58                  |
| OB | Cleeve Hill/A432 Signals                       | 03:50        | 03:20 | 03:18 | 04:22 | 06:09 | 03:43                 | 2.00                  |
| OB | Downend Rbt                                    | 04:20        | 03:44 | 03:48 | 04:52 | 06:32 | 04:05                 | 2.16                  |
| OB | A432/Croomes Hill Signals                      | 05:18        | 04:18 | 04:44 | 05:53 | 07:27 | 05:13                 | 2.61                  |
| OB | A432/Staple Hill Road junction                 | 07:19        | 06:00 | 06:38 | 08:00 | 09:50 | 07:06                 | 3.74                  |
| OB | A432/Lodge Causeway Signals                    | 10:47        | 10:00 | 10:00 | 11:34 | 12:39 | 09:57                 | 4.89                  |
| OB | A432/Muller Road Rbt                           | 14:00        | 12:07 | 13:10 | 14:49 | 15:14 | 16:59                 | 6.34                  |
| OB | A432/Easton Way Signals                        | 18:05        | 15:27 | 17:09 | 19:02 | 21:49 | 21:05                 | 8.14                  |
| OB | A432/Easton Way Signals                        | 21:41        | 18:38 | 20:49 | 22:33 | 24:43 | 23:44                 | 9.32                  |
| OB | A432/Muller Road Rbt                           | 25:09        | 21:32 | 24:02 | 26:17 | 28:28 | 26:20                 | 11.12                 |
| OB | A432/Lodge Causeway Signals                    | 28:17        | 24:34 | 27:03 | 29:31 | 32:02 | 29:39                 | 12.58                 |
| OB | A432/Staple Hill Road junction                 | 31:10        | 26:25 | 29:40 | 32:41 | 34:52 | 31:58                 | 13.72                 |
| OB | A432/Croomes Hill Signals                      | 33:06        | 27:47 | 31:34 | 34:39 | 37:49 | 33:44                 | 14.85                 |
| OB | Downend Rbt                                    | 33:52        | 28:24 | 32:19 | 35:26 | 38:34 | 34:21                 | 15.30                 |
| OB | Cleeve Hill/A432 Signals                       | 34:52        | 29:57 | 33:15 | 36:30 | 39:35 | 36:57                 | 15.44                 |
| OB | Oakdale Rd/A432 Junction                       | 35:35        | 30:36 | 33:57 | 37:13 | 40:18 | 37:22                 | 15.86                 |
| OB | A432/Four Acre Road Junction                   | 36:17        | 31:14 | 34:39 | 37:56 | 41:00 | 37:57                 | 16.43                 |
| OB | Exit from service road opposite Westbourne Rd  | 36:30        | 31:23 | 34:51 | 38:08 | 41:16 | 38:05                 | 16.53                 |
| OB | A432/Blackhorse Lane junction                  | 37:02        | 31:51 | 35:25 | 38:39 | 41:50 | 38:32                 | 16.97                 |
| OB | A4174/A432 Roundabout                          | 38:13        | 33:09 | 36:37 | 39:48 | 43:34 | 39:04                 | 17.44                 |



**Figure G.21 - Route 11: A432 from A4174 to Easton Way & Return (AM Peak)**



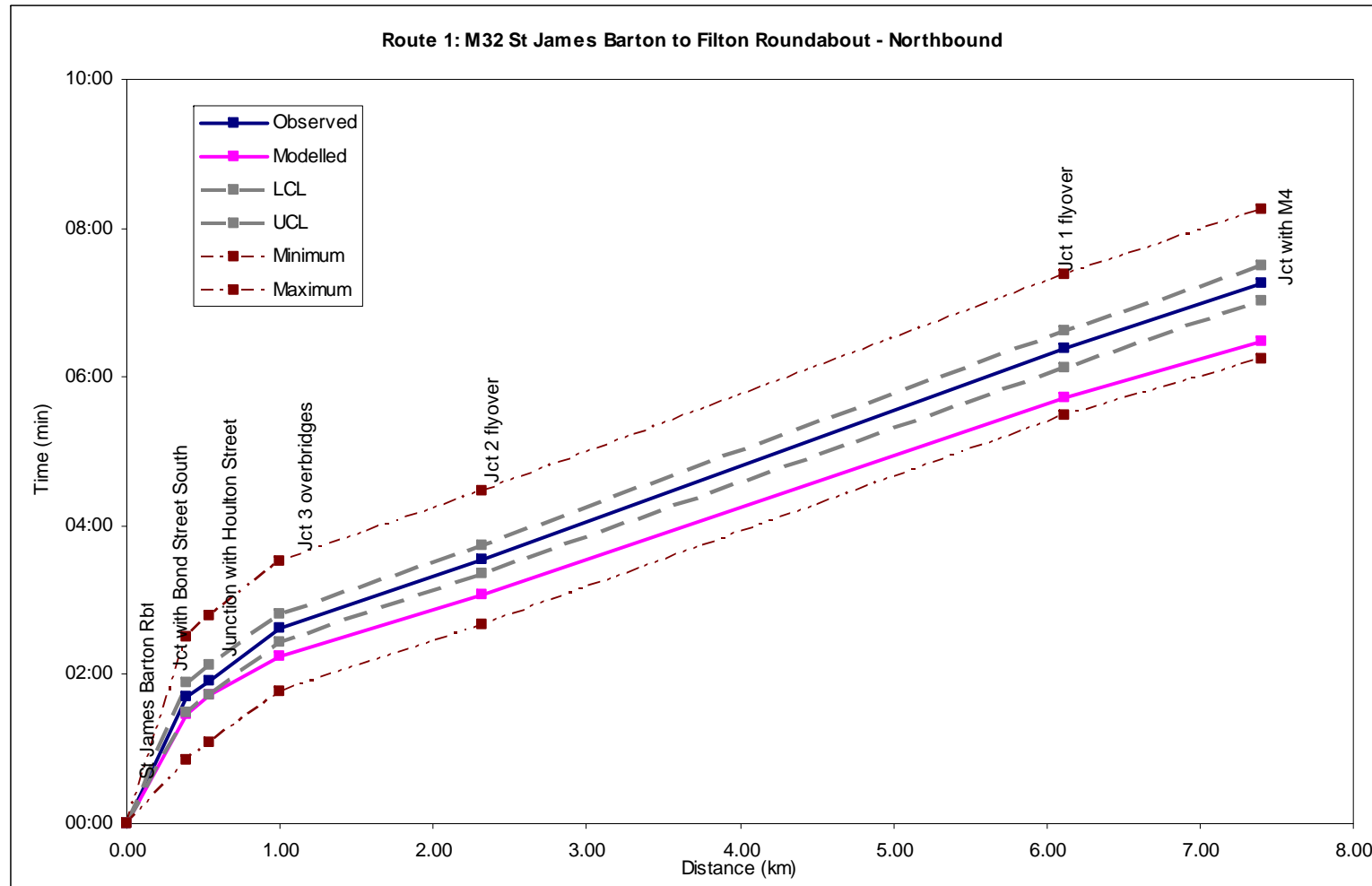


## **Inter Peak**

**Table G.22 - Route 1: M32 St James Barton to Filton Roundabout - Northbound (Inter Peak)**

|   | Route                        | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 1: M32 St James Barton to Filton Roundabout - Northbound</b> |                              |              |       |       |       |       |                       |                       |
| <b>NB</b>   | St James Barton Rbt          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>   | Jct with Bond Street South   | 01:42        | 00:51 | 01:29 | 01:54 | 02:30 | 01:28                 | 0.39                  |
| <b>NB</b>   | Junction with Houlton Street | 01:55        | 01:05 | 01:43 | 02:07 | 02:47 | 01:43                 | 0.15                  |
| <b>NB</b>   | Jct 3 overbridges            | 02:37        | 01:46 | 02:25 | 02:48 | 03:32 | 02:15                 | 0.46                  |
| <b>NB</b>   | Jct 2 flyover                | 03:33        | 02:40 | 03:21 | 03:45 | 04:28 | 03:04                 | 1.33                  |
| <b>NB</b>   | Jct 1 flyover                | 06:22        | 05:29 | 06:08 | 06:37 | 07:22 | 05:43                 | 3.80                  |
| <b>NB</b>   | Jct with M4                  | 07:16        | 06:14 | 07:01 | 07:30 | 08:15 | 06:29                 | 1.29                  |

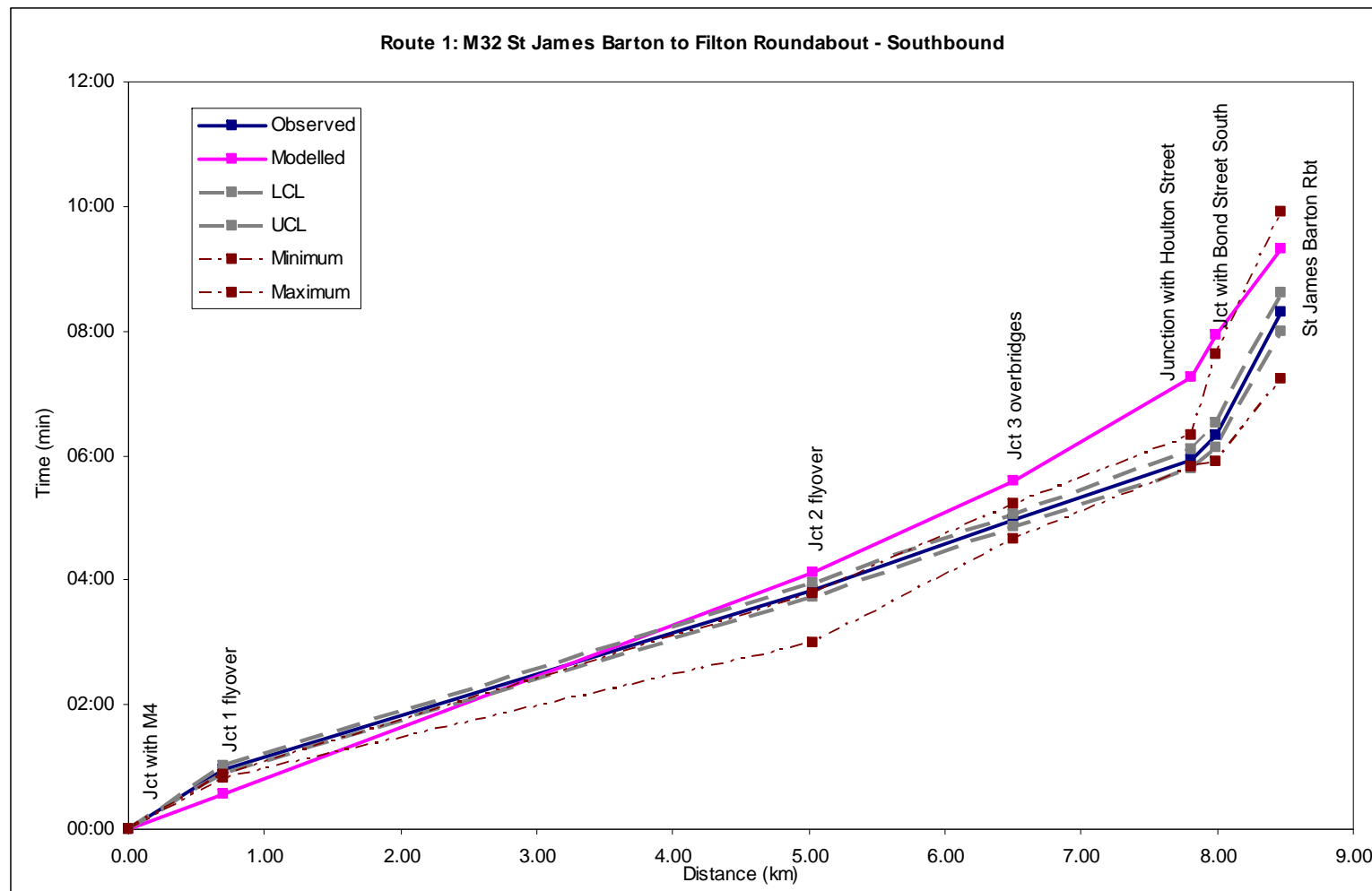
**Figure G.22 - Route 1: M32 St James Barton to Filton Roundabout - Northbound (Inter Peak)**



**Table G.23 - Route 1: M32 St James Barton to Filton Roundabout – Southbound (Inter Peak)**

| Route   |                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 1: M32 St James Barton to Filton Roundabout - Southbound</b> |                              |              |       |       |       |       |                       |                       |
| <b>SB</b>   | Jct with M4                  | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>   | Jct 1 flyover                | 00:58        | 00:49 | 00:55 | 01:02 | 00:52 | 00:33                 | 0.70                  |
| <b>SB</b>   | Jct 2 flyover                | 03:50        | 02:59 | 03:43 | 03:57 | 03:47 | 04:08                 | 4.33                  |
| <b>SB</b>   | Jct 3 overbridges            | 04:58        | 04:39 | 04:52 | 05:04 | 05:14 | 05:35                 | 1.48                  |
| <b>SB</b>   | Junction with Houlton Street | 05:56        | 05:49 | 05:47 | 06:06 | 06:20 | 07:16                 | 1.31                  |
| <b>SB</b>   | Jct with Bond Street South   | 06:19        | 05:54 | 06:07 | 06:31 | 07:38 | 07:57                 | 0.18                  |
| <b>SB</b>   | St James Barton Rbt          | 08:18        | 07:14 | 07:59 | 08:36 | 09:55 | 09:20                 | 0.49                  |

**Figure G.23 - Route 1: M32 St James Barton to Filton Roundabout - Southbound (Inter-Peak)**

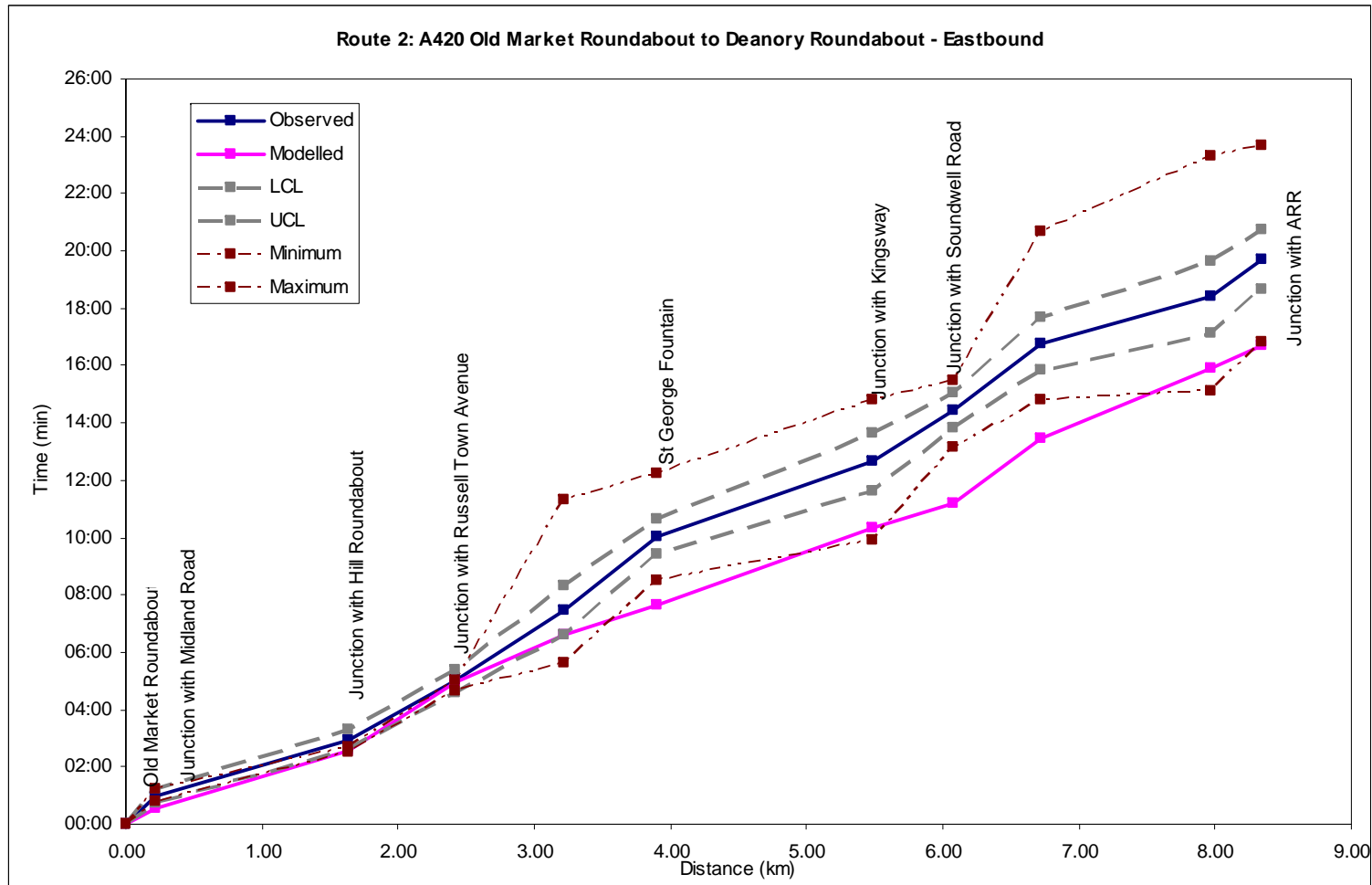


**Table G.24 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound (Inter Peak)**

|  | Route                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound</b> |                                   |              |       |       |       |       |                       |                       |
| <b>EB</b>  | Old Market Roundabout             | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>EB</b>  | Junction with Midland Road        | 00:58        | 00:49 | 00:43 | 01:13 | 01:15 | 00:31                 | 0.22                  |
| <b>EB</b>  | Junction with Hill Roundabout     | 02:57        | 02:29 | 02:37 | 03:17 | 02:40 | 02:35                 | 1.41                  |
| <b>EB</b>  | Junction with Russell Town Avenue | 05:00        | 04:38 | 04:36 | 05:24 | 05:00 | 04:57                 | 0.80                  |
| <b>EB</b>  | Junction with Chalks Road         | 07:28        | 05:39 | 06:35 | 08:21 | 11:20 | 06:36                 | 0.79                  |
| <b>EB</b>  | St George Fountain                | 10:03        | 08:31 | 09:26 | 10:39 | 12:15 | 07:38                 | 0.68                  |
| <b>EB</b>  | Junction with Kingsway            | 12:38        | 09:56 | 11:38 | 13:38 | 14:50 | 10:22                 | 1.59                  |
| <b>EB</b>  | Junction with Soundwell Road      | 14:27        | 13:09 | 13:49 | 15:04 | 15:30 | 11:14                 | 0.60                  |
| <b>EB</b>  | Junction with Hanham Road         | 16:47        | 14:48 | 15:52 | 17:42 | 20:40 | 13:29                 | 0.64                  |
| <b>EB</b>  | Junction with Tennis Court Road   | 18:23        | 15:06 | 17:07 | 19:39 | 23:20 | 15:54                 | 1.25                  |
| <b>EB</b>  | Junction with ARR                 | 19:42        | 16:48 | 18:39 | 20:46 | 23:40 | 16:41                 | 0.38                  |



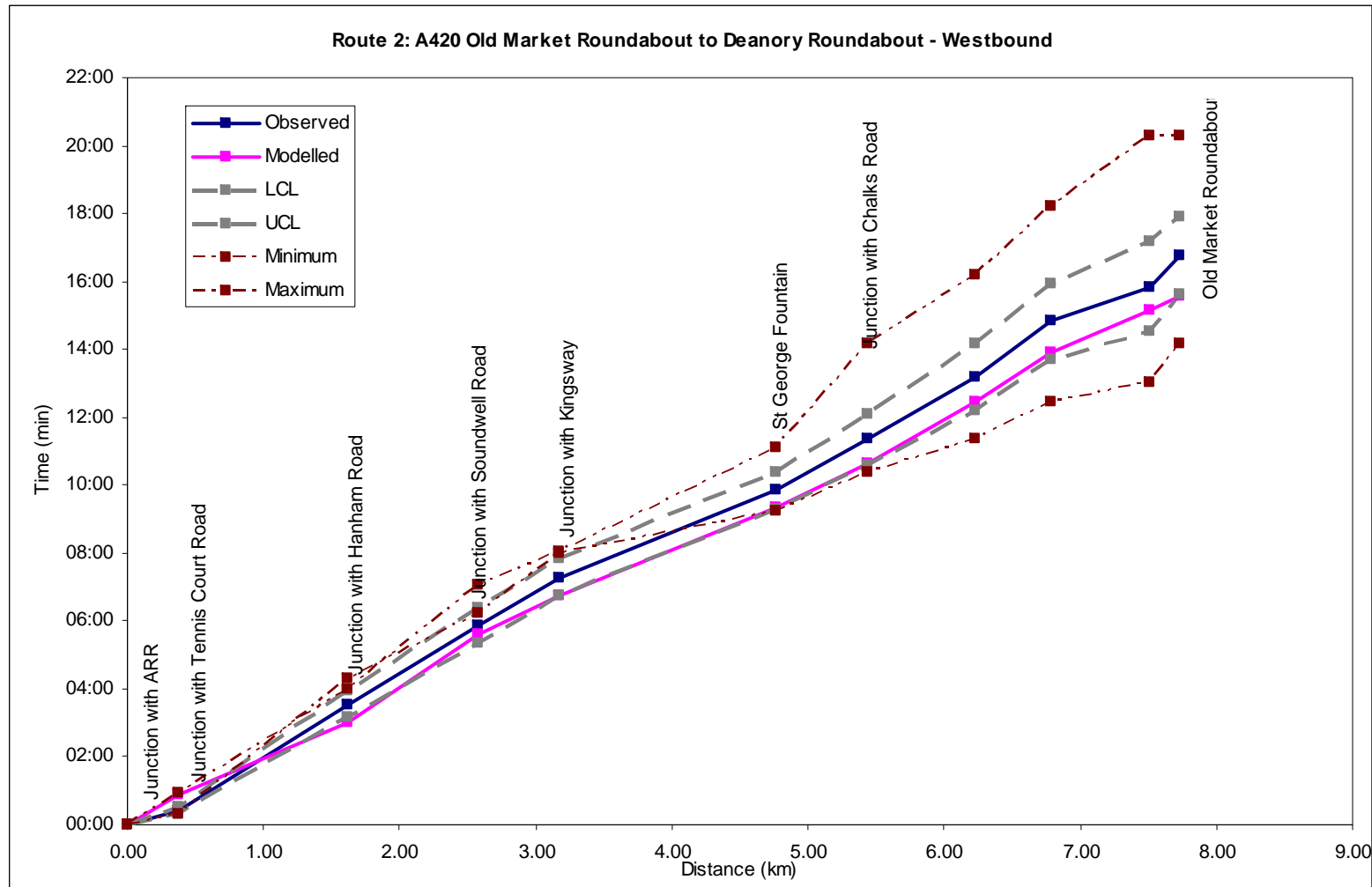
**Figure G.24 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound**



**Table G.25 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound (Inter Peak)**

|  | Route                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound</b> |                                   |              |       |       |       |       |                       |                       |
| <b>WB</b>  | Junction with ARR                 | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>WB</b>  | Junction with Tennis Court Road   | 00:25        | 00:20 | 00:19 | 00:32 | 00:57 | 00:52                 | 0.38                  |
| <b>WB</b>  | Junction with Hanham Road         | 03:32        | 04:18 | 03:09 | 03:56 | 04:00 | 03:01                 | 1.25                  |
| <b>WB</b>  | Junction with Soundwell Road      | 05:52        | 06:15 | 05:21 | 06:24 | 07:03 | 05:37                 | 0.95                  |
| <b>WB</b>  | Junction with Kingsway            | 07:17        | 07:59 | 06:43 | 07:50 | 08:04 | 06:44                 | 0.60                  |
| <b>WB</b>  | St George Fountain                | 09:51        | 09:14 | 09:19 | 10:23 | 11:07 | 09:20                 | 1.59                  |
| <b>WB</b>  | Junction with Chalks Road         | 11:21        | 10:23 | 10:36 | 12:06 | 14:10 | 10:39                 | 0.68                  |
| <b>WB</b>  | Junction with Russell Town Avenue | 13:11        | 11:23 | 12:12 | 14:10 | 16:12 | 12:27                 | 0.79                  |
| <b>WB</b>  | Lawrence Hill Roundabout          | 14:49        | 12:28 | 13:43 | 15:54 | 18:14 | 13:56                 | 0.55                  |
| <b>WB</b>  | Junction with Midland Road        | 15:50        | 13:01 | 14:31 | 17:10 | 20:16 | 15:10                 | 0.73                  |
| <b>WB</b>  | Old Market Roundabout             | 16:45        | 14:10 | 15:37 | 17:53 | 20:16 | 15:35                 | 0.22                  |

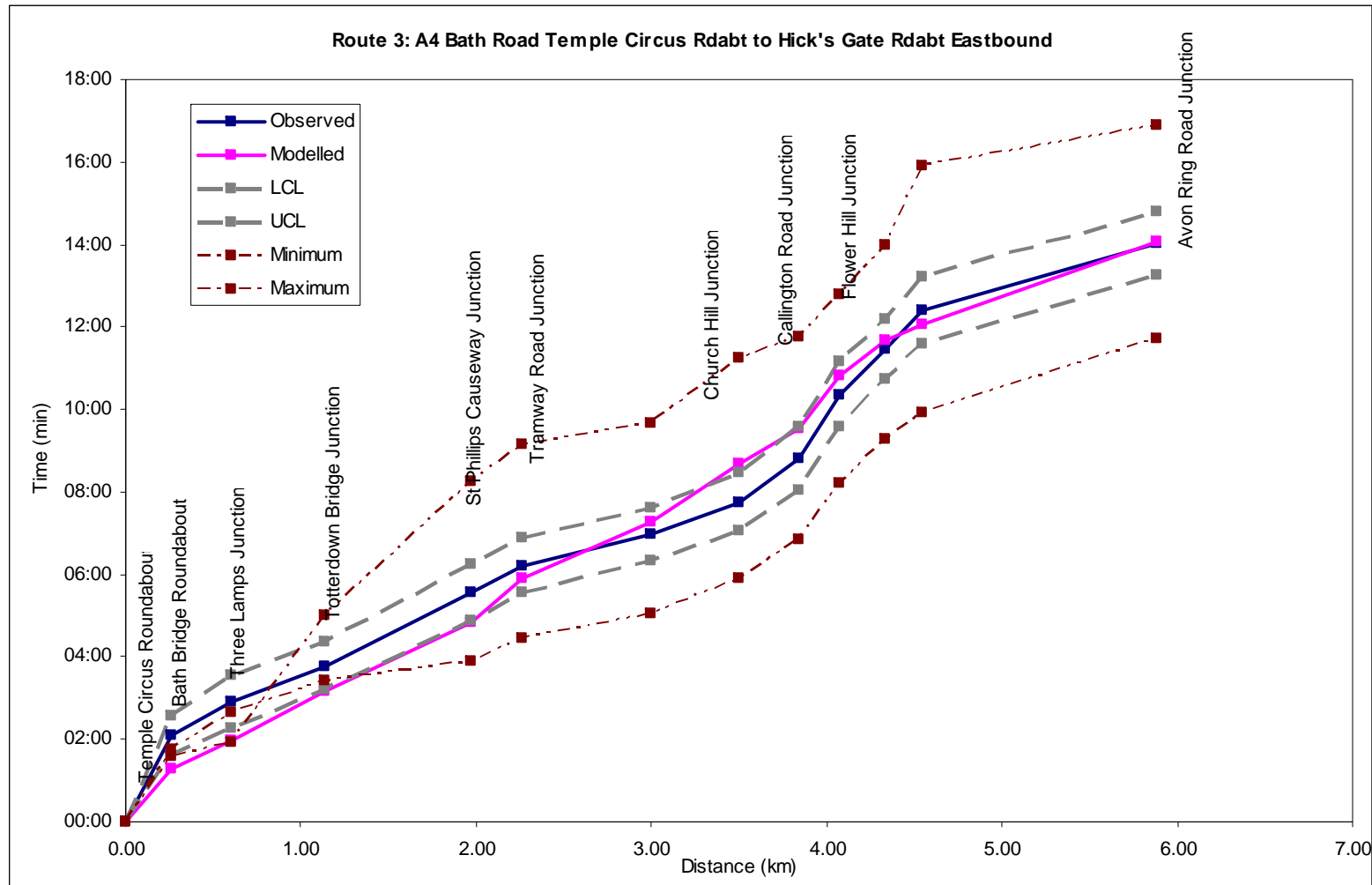
**Figure G.25 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound (Inter Peak)**



**Table G.26 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound (Inter Peak)**

|   | Route                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound</b> |                                    |              |       |       |       |       |                       |                       |
| <b>EB</b>   | Temple Circus Roundabout           | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>EB</b>   | Bath Bridge Roundabout             | 02:06        | 01:45 | 01:38 | 02:33 | 01:35 | 01:16                 | 0.27                  |
| <b>EB</b>   | Three Lamps Junction               | 02:55        | 02:40 | 02:17 | 03:33 | 01:55 | 01:58                 | 0.34                  |
| <b>EB</b>   | Totterdown Bridge Junction         | 03:46        | 03:26 | 03:11 | 04:22 | 05:01 | 03:09                 | 0.54                  |
| <b>EB</b>   | St Phillips Causeway Junction      | 05:33        | 03:53 | 04:52 | 06:14 | 08:15 | 04:51                 | 0.84                  |
| <b>EB</b>   | Tramway Road Junction              | 06:13        | 04:27 | 05:34 | 06:52 | 09:08 | 05:53                 | 0.29                  |
| <b>EB</b>   | Wick Road Junction                 | 06:59        | 05:02 | 06:20 | 07:38 | 09:40 | 07:17                 | 0.74                  |
| <b>EB</b>   | Church Hill Junction               | 07:45        | 05:55 | 07:02 | 08:28 | 11:15 | 08:40                 | 0.51                  |
| <b>EB</b>   | Callington Road Junction           | 08:48        | 06:51 | 08:02 | 09:35 | 11:45 | 09:32                 | 0.34                  |
| <b>EB</b>   | Flower Hill Junction               | 10:22        | 08:12 | 09:34 | 11:09 | 12:47 | 10:49                 | 0.23                  |
| <b>EB</b>   | Stockwood Road Junction            | 11:27        | 09:16 | 10:44 | 12:10 | 14:00 | 11:39                 | 0.26                  |
| <b>EB</b>   | Brislington Park and Ride Junction | 12:24        | 09:55 | 11:35 | 13:13 | 15:55 | 12:03                 | 0.22                  |
| <b>EB</b>   | Avon Ring Road Junction            | 14:02        | 11:42 | 13:15 | 14:49 | 16:54 | 14:04                 | 1.34                  |

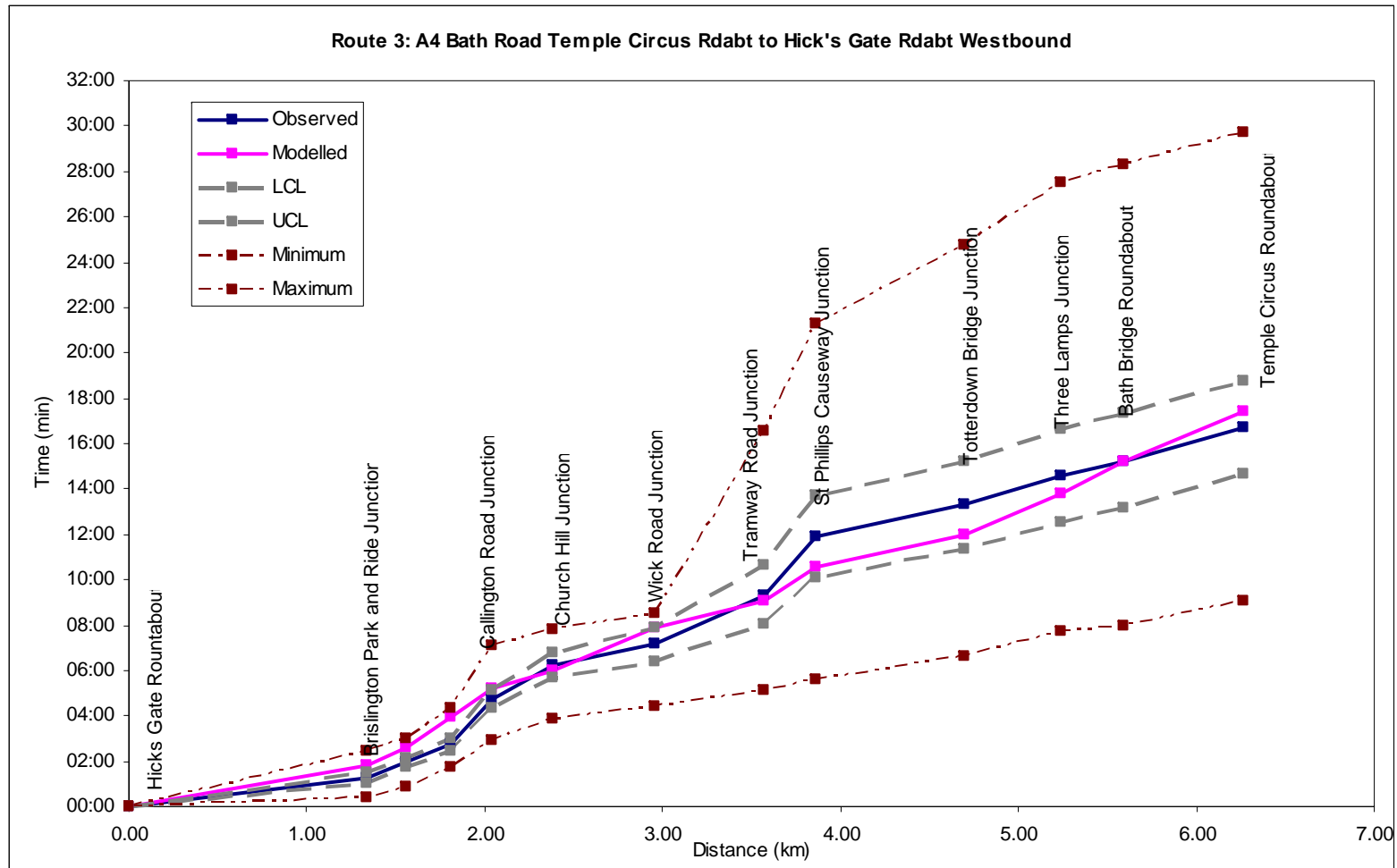
**Figure G.26 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound (Inter Peak)**



**Table G.27 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound (Inter Peak)**

|   | Route                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|---|------------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound</b> |                                    |              |       |       |       |       |                        |                       |
| <b>WB</b>   | Hicks Gate Rountabout              | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>WB</b>   | Brislington Park and Ride Junction | 01:16        | 00:23 | 01:02 | 01:29 | 02:28 | 01:47                  | 1.34                  |
| <b>WB</b>   | Stockwood Road Junction            | 01:56        | 00:53 | 01:43 | 02:10 | 02:58 | 02:37                  | 0.22                  |
| <b>WB</b>   | Flower Hill Junction               | 02:44        | 01:44 | 02:28 | 03:00 | 04:22 | 03:55                  | 0.26                  |
| <b>WB</b>   | Callington Road Junction           | 04:43        | 02:55 | 04:20 | 05:07 | 07:06 | 05:11                  | 0.23                  |
| <b>WB</b>   | Church Hill Junction               | 06:15        | 03:50 | 05:42 | 06:48 | 07:46 | 05:57                  | 0.34                  |
| <b>WB</b>   | Wick Road Junction                 | 07:08        | 04:24 | 06:23 | 07:53 | 08:33 | 07:52                  | 0.58                  |
| <b>WB</b>   | Tramway Road Junction              | 09:19        | 05:08 | 08:01 | 10:37 | 16:35 | 09:03                  | 0.61                  |
| <b>WB</b>   | St Phillips Causeway Junction      | 11:54        | 05:35 | 10:06 | 13:43 | 21:18 | 10:34                  | 0.29                  |
| <b>WB</b>   | Totterdown Bridge Junction         | 13:19        | 06:38 | 11:23 | 15:14 | 24:47 | 11:59                  | 0.84                  |
| <b>WB</b>   | Three Lamps Junction               | 14:35        | 07:42 | 12:31 | 16:38 | 27:29 | 13:48                  | 0.54                  |
| <b>WB</b>   | Bath Bridge Roundabout             | 15:14        | 07:58 | 13:09 | 17:20 | 28:16 | 15:13                  | 0.35                  |
| <b>WB</b>   | Temple Circus Roundabout           | 16:42        | 09:06 | 14:39 | 18:46 | 29:42 | 17:26                  | 0.68                  |

**Figure G.27 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound (Inter Peak)**

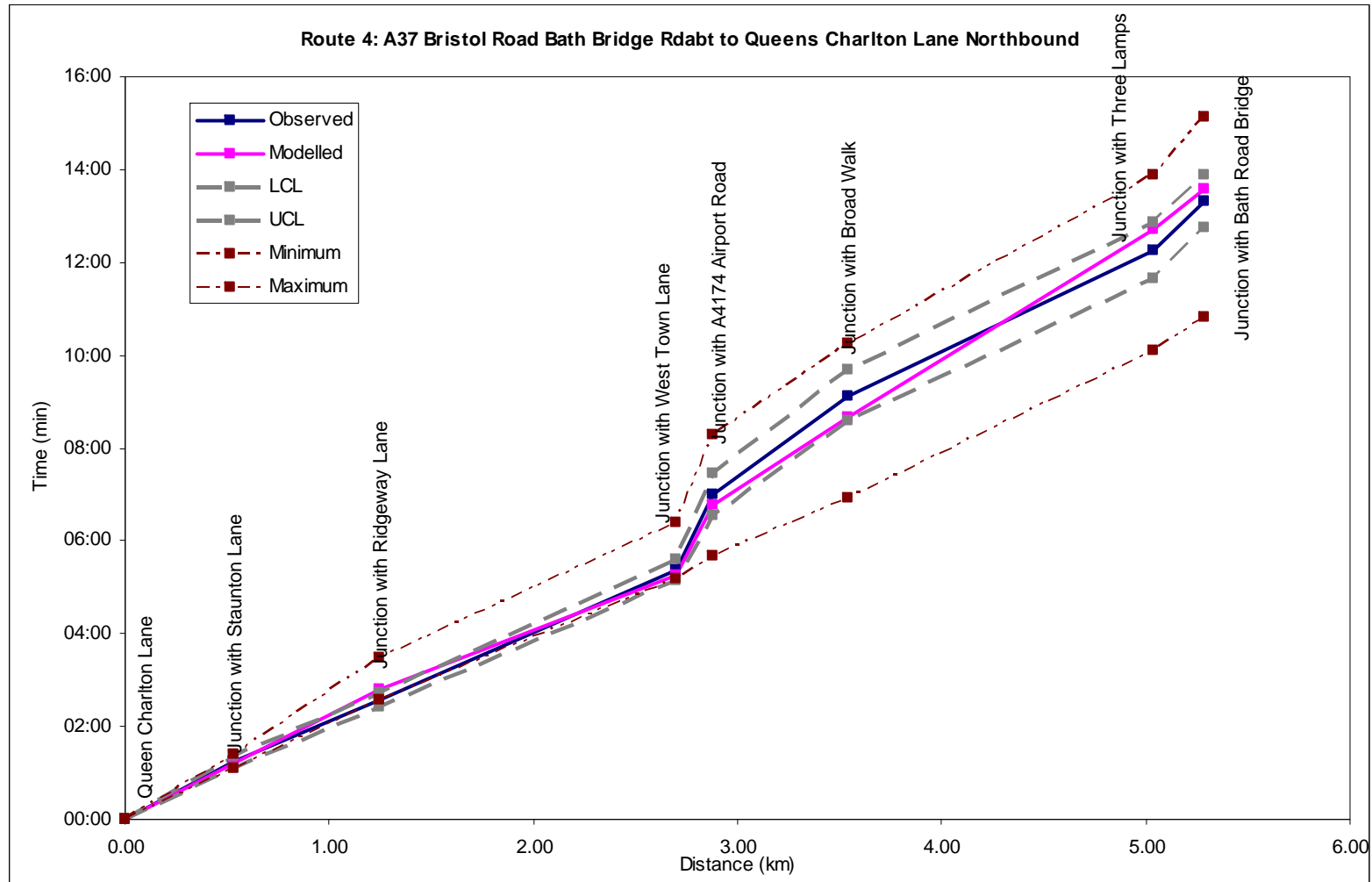


**Table G.28 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound (Inter Peak)**

|  | Route                            | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound</b> |                                  |              |       |       |       |       |                       |                       |
| <b>NB</b>  | Queen Charlton Lane              | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>  | Junction with Staunton Lane      | 01:14        | 01:06 | 01:06 | 01:22 | 01:25 | 01:13                 | 0.54                  |
| <b>NB</b>  | Junction with Ridgeway Lane      | 02:34        | 02:35 | 02:25 | 02:44 | 03:28 | 02:49                 | 0.72                  |
| <b>NB</b>  | Junction with West Town Lane     | 05:23        | 05:10 | 05:10 | 05:36 | 06:23 | 05:17                 | 1.45                  |
| <b>NB</b>  | Junction with A4174 Airport Road | 07:00        | 05:41 | 06:34 | 07:26 | 08:17 | 06:47                 | 0.19                  |
| <b>NB</b>  | Junction with Broad Walk         | 09:08        | 06:56 | 08:34 | 09:42 | 10:16 | 08:41                 | 0.67                  |
| <b>NB</b>  | Junction with Three Lamps        | 12:15        | 10:07 | 11:38 | 12:51 | 13:54 | 12:44                 | 1.49                  |
| <b>NB</b>  | Junction with Bath Road Bridge   | 13:19        | 10:48 | 12:45 | 13:53 | 15:07 | 13:36                 | 0.25                  |



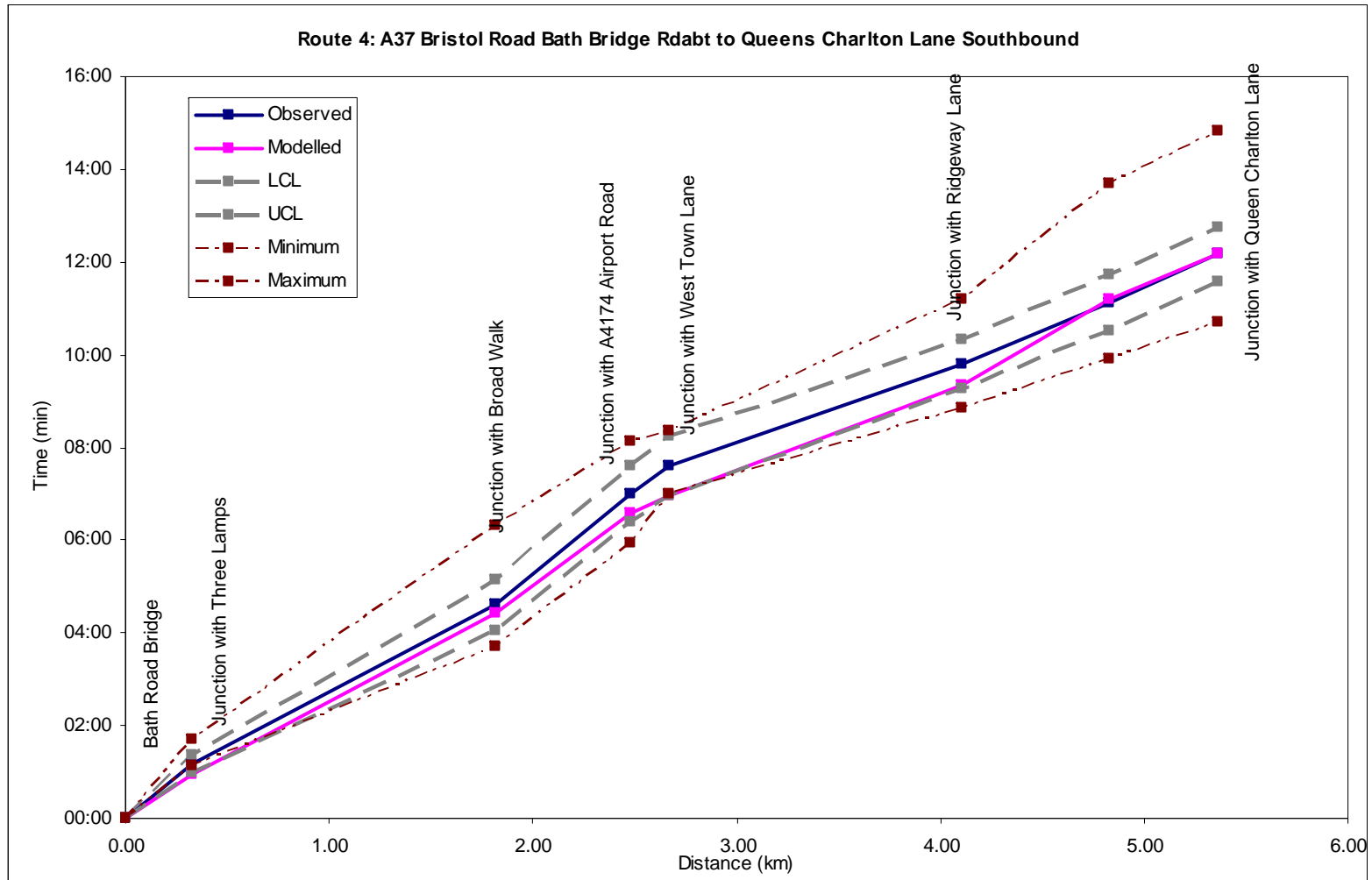
**Figure G.28 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound (Inter Peak)**



**Table G.29 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound (Inter Peak)**

| Route  |                                   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound</b> |                                   |              |       |       |       |       |                       |                       |
| <b>SB</b>  | Bath Road Bridge                  | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>  | Junction with Three Lamps         | 01:10        | 01:07 | 00:58 | 01:22 | 01:41 | 00:57                 | 0.33                  |
| <b>SB</b>  | Junction with Broad Walk          | 04:36        | 03:43 | 04:03 | 05:09 | 06:20 | 04:27                 | 1.49                  |
| <b>SB</b>  | Junction with A4174 Airport Road  | 07:00        | 05:57 | 06:24 | 07:35 | 08:07 | 06:34                 | 0.67                  |
| <b>SB</b>  | Junction with West Town Lane      | 07:35        | 07:00 | 06:57 | 08:14 | 08:22 | 06:58                 | 0.19                  |
| <b>SB</b>  | Junction with Ridgeway Lane       | 09:47        | 08:50 | 09:15 | 10:19 | 11:11 | 09:20                 | 1.45                  |
| <b>SB</b>  | Junction with Staunton Lane       | 11:08        | 09:54 | 10:32 | 11:44 | 13:42 | 11:12                 | 0.72                  |
| <b>SB</b>  | Junction with Queen Charlton Lane | 12:10        | 10:42 | 11:35 | 12:45 | 14:49 | 12:11                 | 0.54                  |

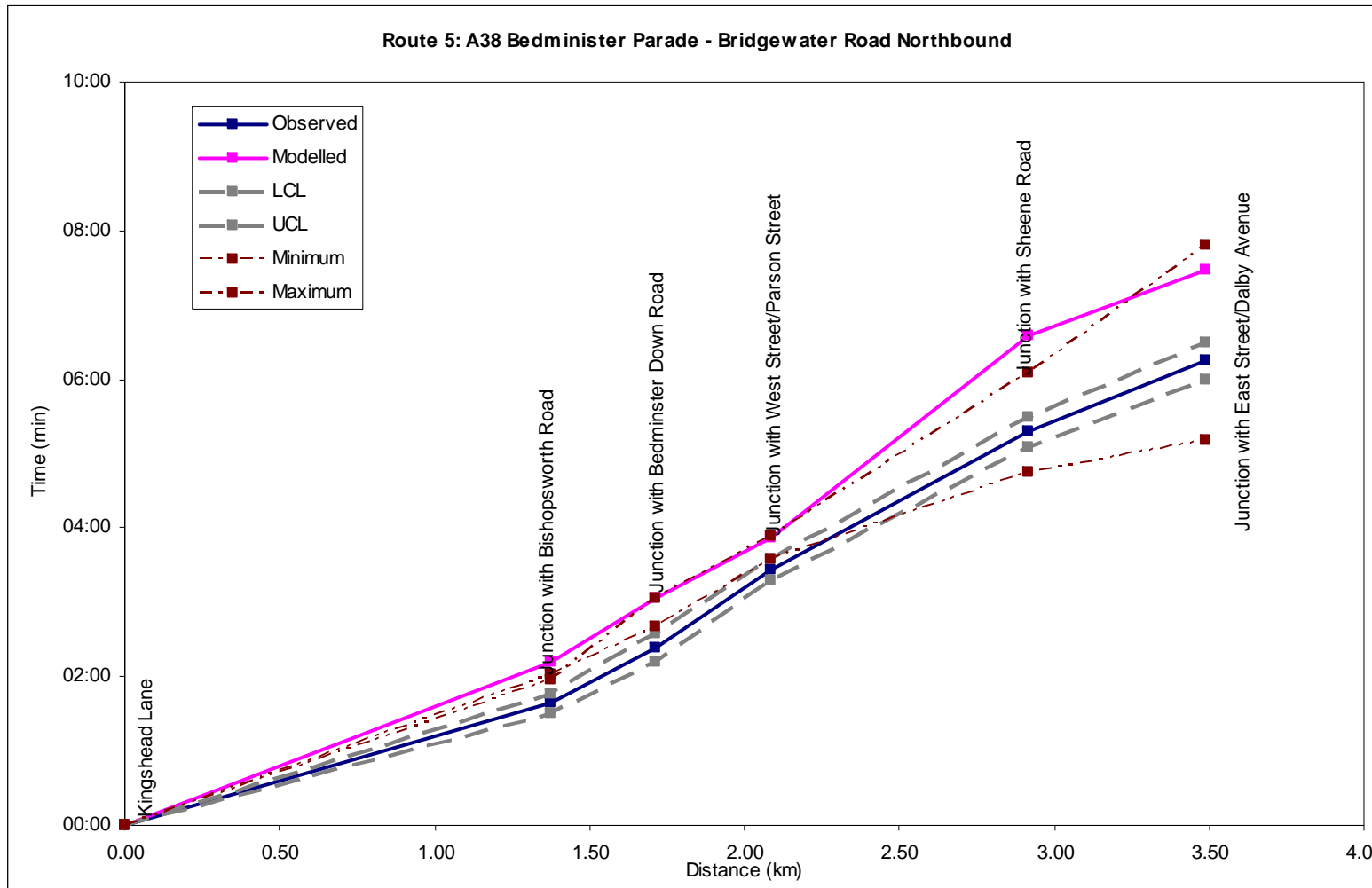
**Figure G.29 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound (Inter Peak)**



**Table G.30 - Route 5: A38 Bedminster Parade - Bridgewater Road Northbound (Inter Peak)**

| Route   |   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|---|---|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 5: A38 Bedminster Parade - Bridgewater Road Northbound</b> |   |              |       |       |       |       |                        |                       |
| <b>NB</b>   | Kingshead Lane                          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>NB</b>   | Junction with Bishopsworth Road         | 01:38        | 02:02 | 01:30 | 01:46 | 01:58 | 02:12                  | 1.38                  |
| <b>NB</b>   | Junction with Bedminster Down Road      | 02:23        | 02:41 | 02:12 | 02:34 | 03:04 | 03:04                  | 0.34                  |
| <b>NB</b>   | Junction with West Street/Parson Street | 03:26        | 03:35 | 03:17 | 03:35 | 03:53 | 03:51                  | 0.37                  |
| <b>NB</b>   | Junction with Sheene Road               | 05:17        | 04:45 | 05:05 | 05:30 | 06:05 | 06:35                  | 0.83                  |
| <b>NB</b>   | Junction with East Street/Dalby Avenue  | 06:14        | 05:11 | 05:59 | 06:30 | 07:48 | 07:28                  | 0.58                  |
| <b>NB</b>   | A38/A370 roundabout - Bedminster Bridge |              |       |       |       |       |                        |                       |

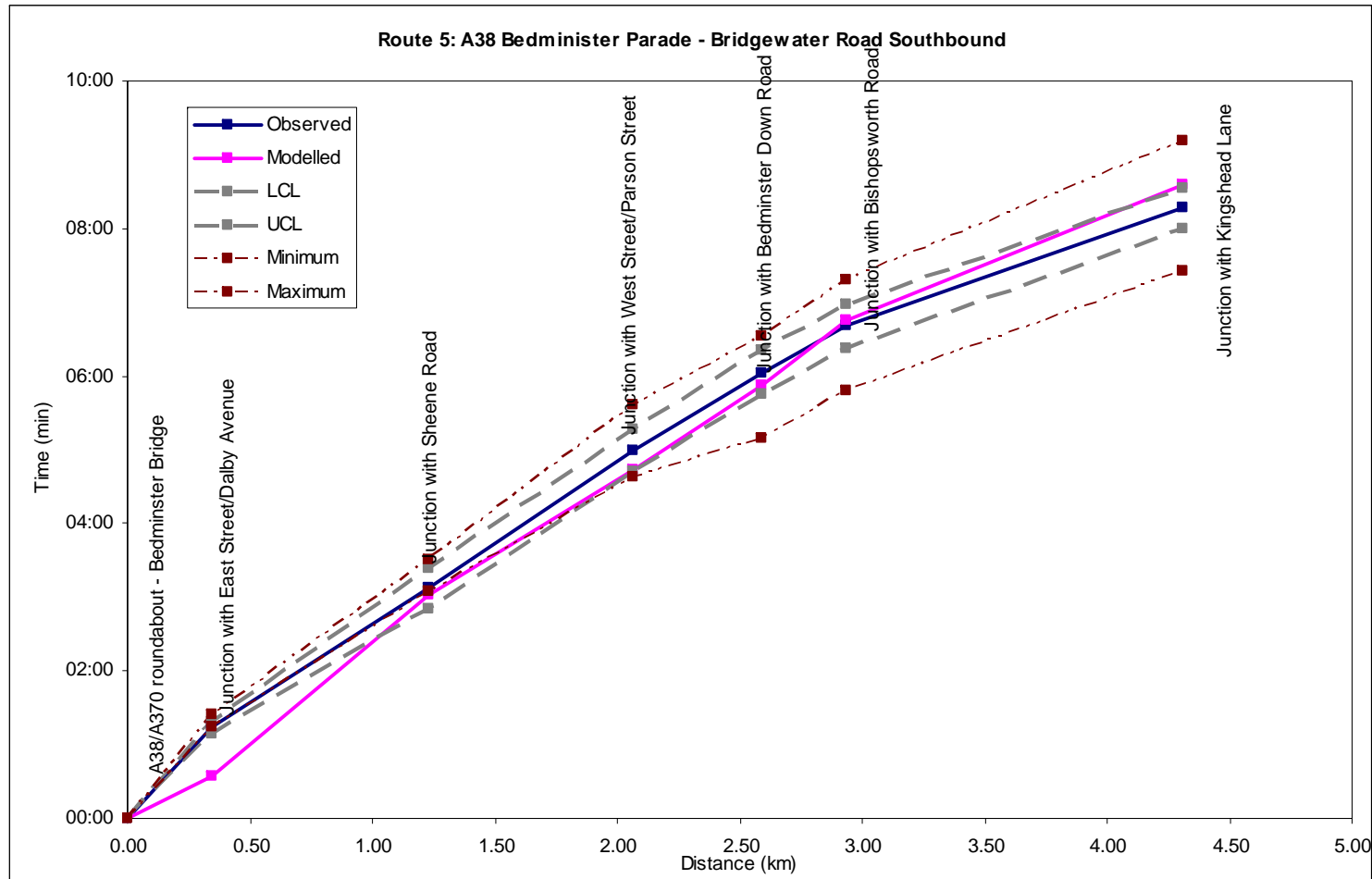
**Figure G.30 - Route 5: A38 Bedminster Parade - Bridgewater Road Northbound (Inter Peak)**



**Table G.31 - Route 5: A38 Bedminster Parade - Bridgewater Road Southbound (Inter Peak)**

| Route   |   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|---|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 5: A38 Bedminster Parade - Bridgewater Road Southbound</b> |   |              |       |       |       |       |                       |                       |
| <b>SB</b>   | A38/A370 roundabout - Bedminster Bridge | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>   | Junction with East Street/Dalby Avenue  | 01:14        | 01:14 | 01:09 | 01:19 | 01:25 | 00:35                 | 0.35                  |
| <b>SB</b>   | Junction with Sheene Road               | 03:07        | 03:05 | 02:51 | 03:23 | 03:30 | 03:02                 | 0.89                  |
| <b>SB</b>   | Junction with West Street/Parson Street | 05:00        | 04:38 | 04:42 | 05:17 | 05:36 | 04:44                 | 0.83                  |
| <b>SB</b>   | Junction with Bedminster Down Road      | 06:03        | 05:09 | 05:45 | 06:20 | 06:33 | 05:52                 | 0.53                  |
| <b>SB</b>   | Junction with Bishopsworth Road         | 06:40        | 05:48 | 06:22 | 06:58 | 07:18 | 06:46                 | 0.34                  |
| <b>SB</b>   | Junction with Kingshead Lane            | 08:16        | 07:25 | 07:59 | 08:33 | 09:11 | 08:35                 | 1.38                  |

**Figure G.31 - Route 5: A38 Bedminster Parade - Bridgewater Road Southbound (Inter Peak)**

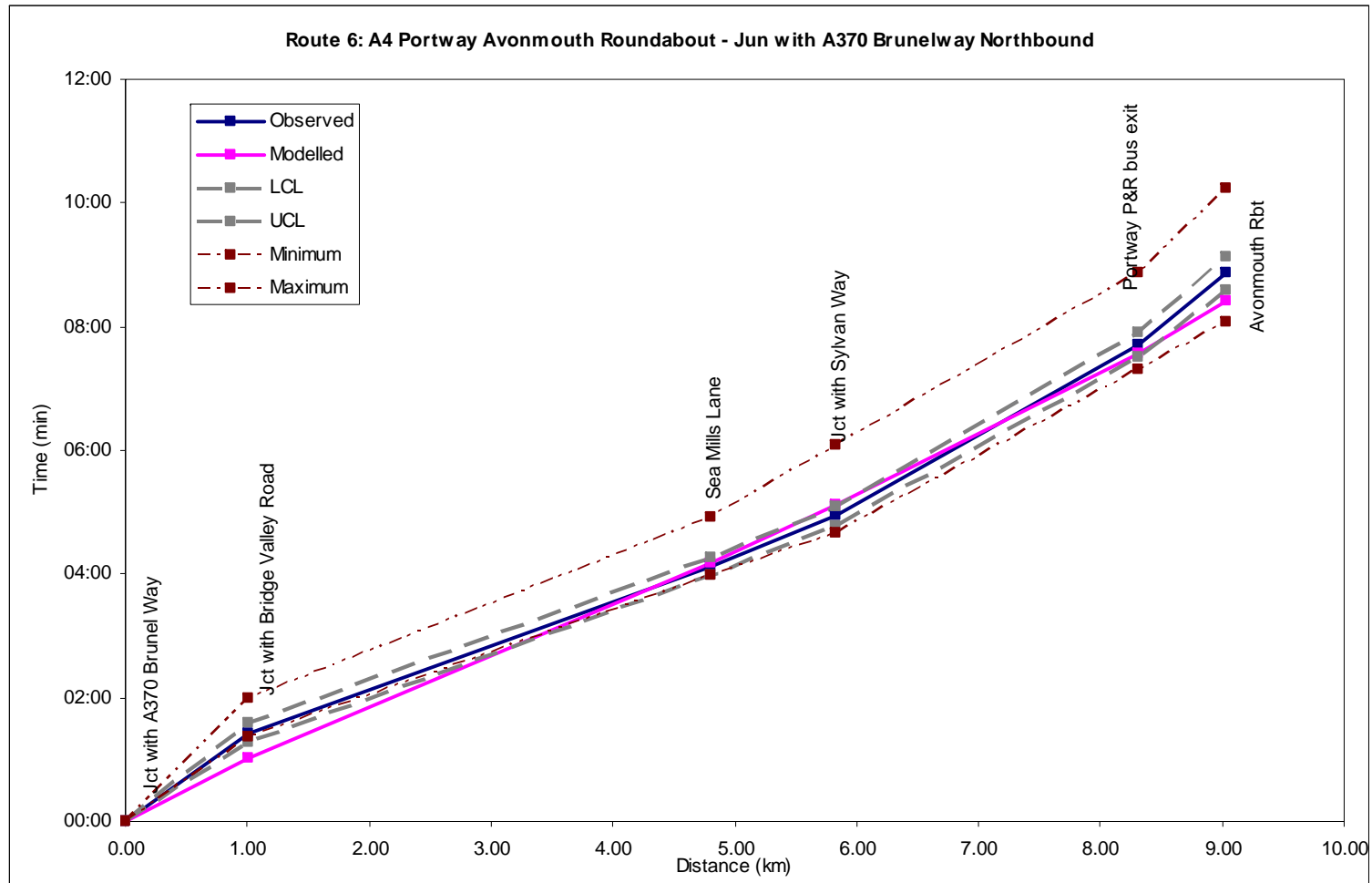


**Table G.32 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound (Inter Peak)**

|   | Route                       | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound</b> |                             |              |       |       |       |       |                       |                       |
| <b>NB</b>   | Jct with A370 Brunel Way    | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>   | Jct with Bridge Valley Road | 01:26        | 01:22 | 01:16 | 01:35 | 02:00 | 01:01                 | 1.01                  |
| <b>NB</b>   | Sea Mills Lane              | 04:08        | 03:59 | 03:59 | 04:16 | 04:55 | 04:12                 | 3.80                  |
| <b>NB</b>   | Jct with Sylvan Way         | 04:56        | 04:39 | 04:47 | 05:06 | 06:05 | 05:08                 | 1.03                  |
| <b>NB</b>   | Portway P&R bus exit        | 07:42        | 07:19 | 07:30 | 07:54 | 08:53 | 07:34                 | 2.48                  |
| <b>NB</b>   | Avonmouth Rbt               | 08:52        | 08:04 | 08:36 | 09:08 | 10:14 | 08:25                 | 0.73                  |



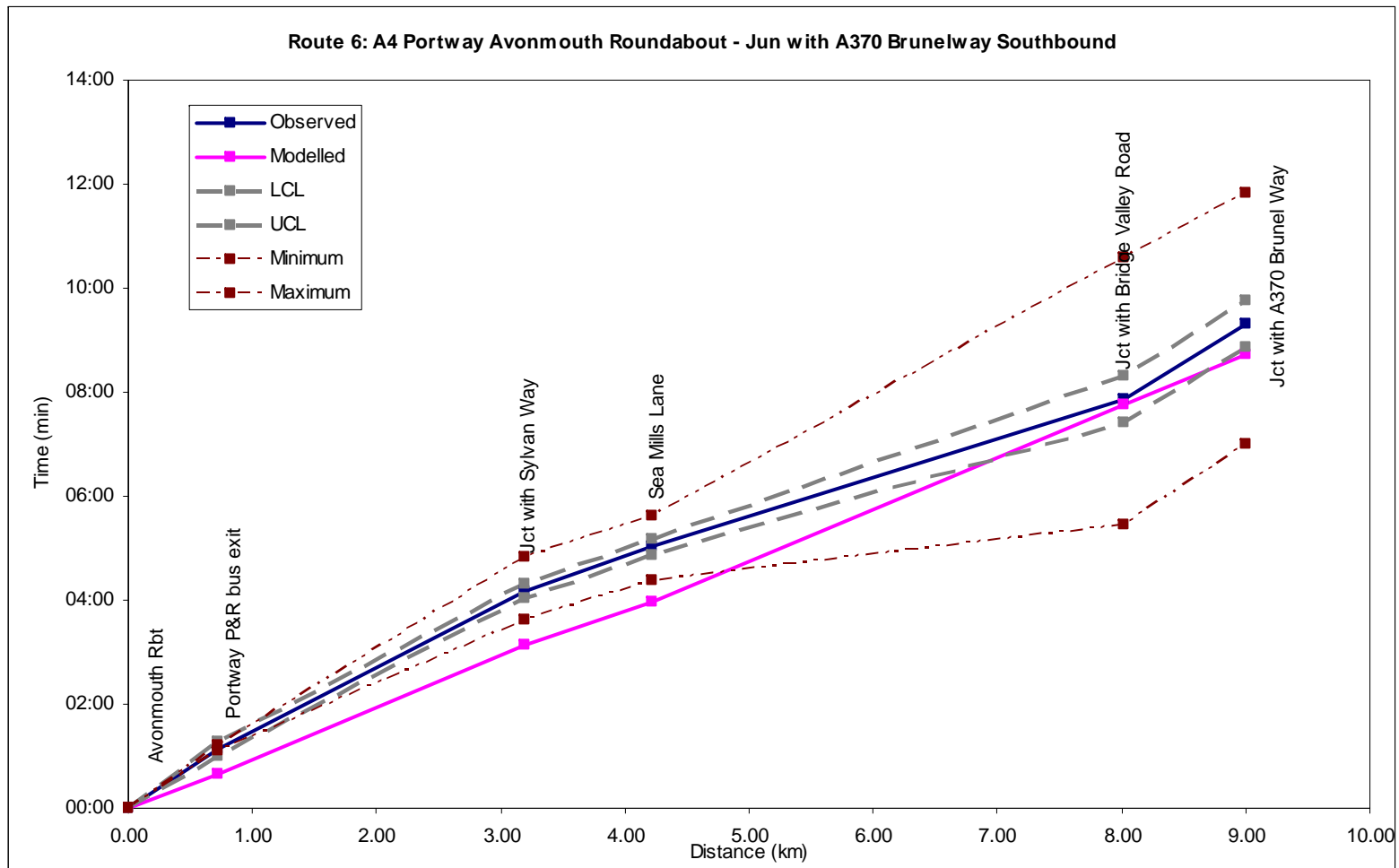
**Figure G.32 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound (Inter Peak)**



**Table G.33 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound (Inter Peak)**

| Route   |                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound</b> |                             |              |       |       |       |       |                       |                       |
| <b>SB</b>   | Avonmouth Rbt               | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>   | Portway P&R bus exit        | 01:08        | 01:06 | 00:59 | 01:17 | 01:12 | 00:39                 | 0.73                  |
| <b>SB</b>   | Jct with Sylvan Way         | 04:10        | 03:37 | 04:02 | 04:19 | 04:50 | 03:09                 | 2.48                  |
| <b>SB</b>   | Sea Mills Lane              | 05:01        | 04:23 | 04:53 | 05:10 | 05:37 | 03:57                 | 1.03                  |
| <b>SB</b>   | Jct with Bridge Valley Road | 07:52        | 05:27 | 07:26 | 08:18 | 10:35 | 07:45                 | 3.80                  |
| <b>SB</b>   | Jct with A370 Brunel Way    | 09:19        | 07:01 | 08:53 | 09:46 | 11:49 | 08:44                 | 0.98                  |

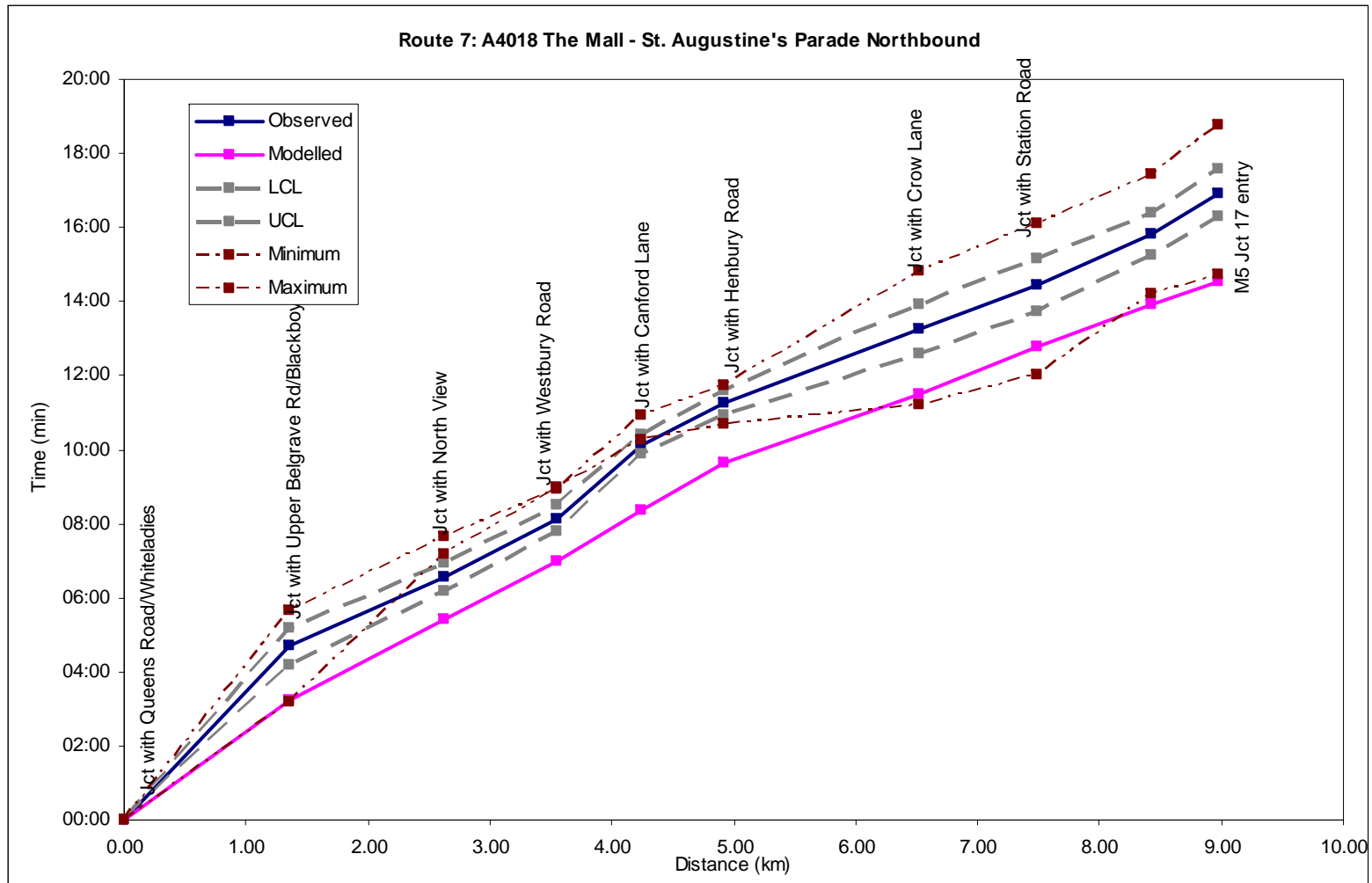
**Figure G.G.33 – Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound (Inter Peak)**



**Table G.34 - Route 7: A4018 The Mall - St. Augustine's Parade Northbound (Inter Peak)**

| Route  |                                     | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|--|-------------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 7: A4018 The Mall - St. Augustine's Parade Northbound</b> |                                     |              |       |       |       |       |                        |                       |
| <b>NB</b>  | Jct with Queens Road/Whiteladies    | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>NB</b>  | Jct with Upper Belgrave Rd/Blackboy | 04:42        | 03:11 | 04:11 | 05:12 | 05:40 | 03:14                  | 1.36                  |
| <b>NB</b>  | Jct with North View                 | 06:34        | 07:11 | 06:11 | 06:56 | 07:40 | 05:25                  | 1.27                  |
| <b>NB</b>  | Jct with Westbury Road              | 08:08        | 09:00 | 07:48 | 08:29 | 08:55 | 06:58                  | 0.92                  |
| <b>NB</b>  | Jct with Canford Lane               | 10:08        | 10:15 | 09:53 | 10:24 | 10:55 | 08:23                  | 0.70                  |
| <b>NB</b>  | Jct with Henbury Road               | 11:16        | 10:42 | 10:55 | 11:36 | 11:45 | 09:38                  | 0.68                  |
| <b>NB</b>  | Jct with Crow Lane                  | 13:16        | 11:12 | 12:36 | 13:57 | 14:50 | 11:29                  | 1.60                  |
| <b>NB</b>  | Jct with Station Road               | 14:27        | 12:01 | 13:43 | 15:10 | 16:05 | 12:47                  | 0.98                  |
| <b>NB</b>  | Jct with A4018/Lysander Rd          | 15:48        | 14:12 | 15:14 | 16:23 | 17:25 | 13:55                  | 0.93                  |
| <b>NB</b>  | M5 Jct 17 entry                     | 16:55        | 14:45 | 16:17 | 17:34 | 18:45 | 14:31                  | 0.55                  |

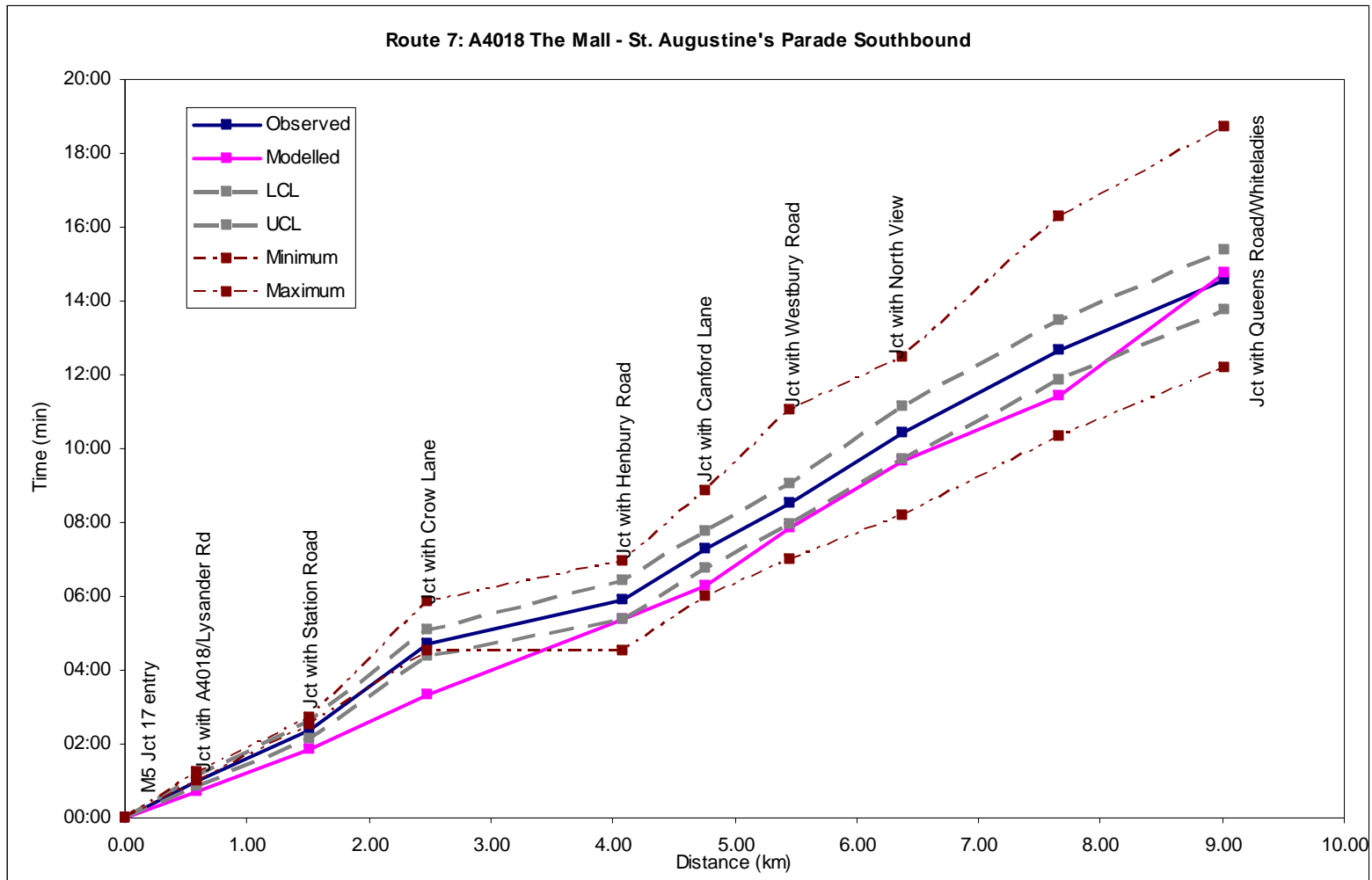
**Figure G.34 - Route 7: A4018 The Mall - St. Augustine's Parade Northbound (Inter Peak)**



**Table G.35 - Route 7: A4018 The Mall - St. Augustine's Parade Southbound (Inter Peak)**

| Route  |                                     | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|--|-------------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 7: A4018 The Mall - St. Augustine's Parade Southbound</b> |                                     |              |       |       |       |       |                        |                       |
| <b>SB</b>  | M5 Jct 17 entry                     | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>SB</b>  | Jct with A4018/Lysander Rd          | 01:00        | 00:59 | 00:51 | 01:09 | 01:13 | 00:42                  | 0.59                  |
| <b>SB</b>  | Jct with Station Road               | 02:23        | 02:30 | 02:08 | 02:38 | 02:43 | 01:50                  | 0.93                  |
| <b>SB</b>  | Jct with Crow Lane                  | 04:44        | 04:32 | 04:22 | 05:06 | 05:51 | 03:21                  | 0.98                  |
| <b>SB</b>  | Jct with Henbury Road               | 05:53        | 04:30 | 05:22 | 06:25 | 06:56 | 05:23                  | 1.60                  |
| <b>SB</b>  | Jct with Canford Lane               | 07:16        | 05:59 | 06:47 | 07:45 | 08:51 | 06:16                  | 0.68                  |
| <b>SB</b>  | Jct with Westbury Road              | 08:30        | 06:59 | 07:57 | 09:04 | 11:03 | 07:52                  | 0.70                  |
| <b>SB</b>  | Jct with North View                 | 10:26        | 08:10 | 09:42 | 11:09 | 12:28 | 09:41                  | 0.92                  |
| <b>SB</b>  | Jct with Upper Belgrave Rd/Blackboy | 12:39        | 10:20 | 11:51 | 13:28 | 16:18 | 11:27                  | 1.29                  |
| <b>SB</b>  | Jct with Queens Road/Whiteladies    | 14:34        | 12:11 | 13:45 | 15:23 | 18:43 | 14:47                  | 1.36                  |

**Figure G.35 - Route 7: A4018 The Mall - St. Augustine's Parade Southbound (Inter Peak)**

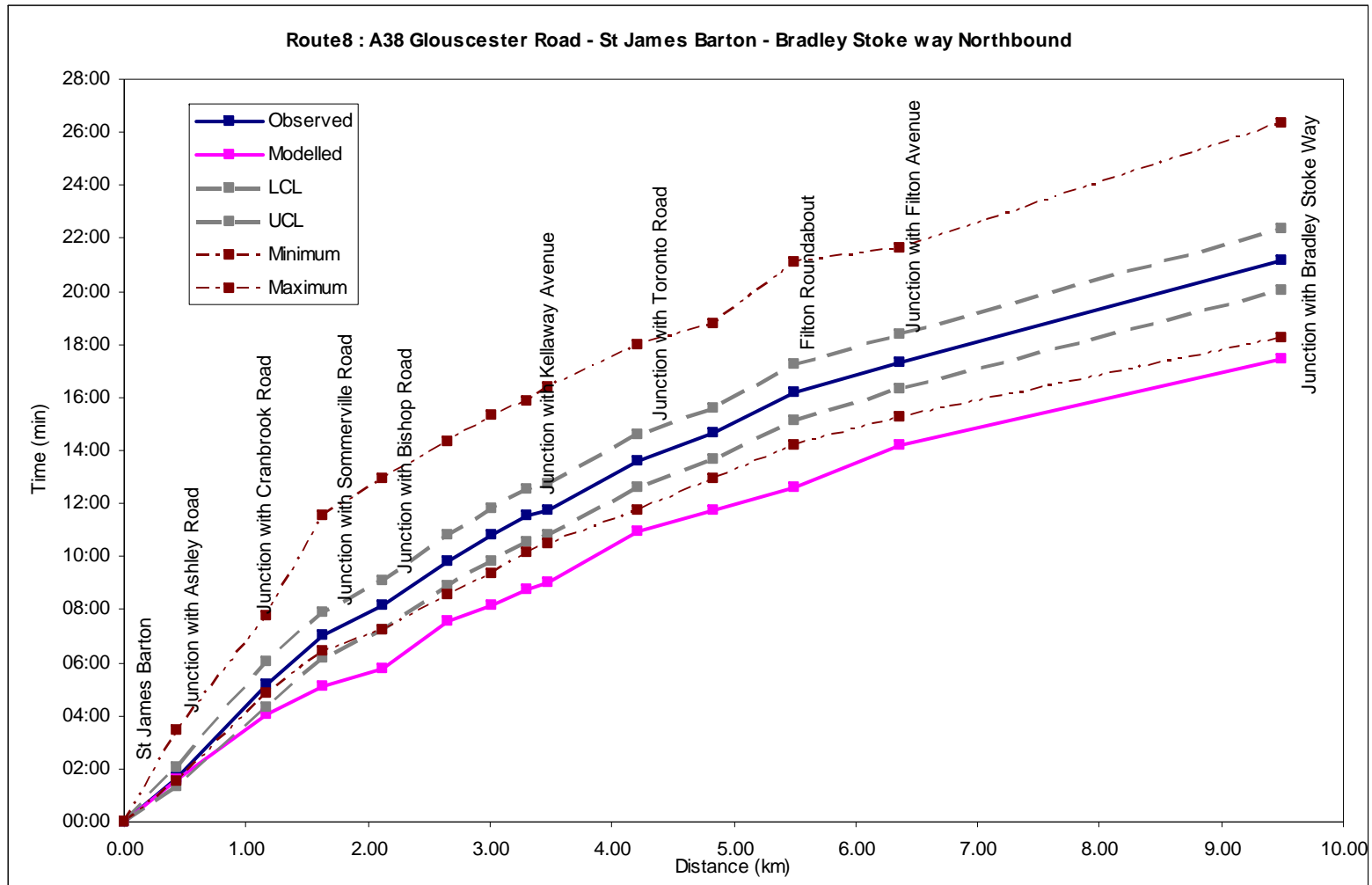


**Table G.36 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke way Northbound (Inter Peak)**

|  | Route                           | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Northbound</b> |                                 |              |       |       |       |       |                        |                       |
| <b>NB</b>  | St James Barton                 | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>NB</b>  | Junction with Ashley Road       | 01:41        | 01:31 | 01:18 | 02:05 | 03:28 | 01:37                  | 0.43                  |
| <b>NB</b>  | Junction with Cranbrook Road    | 05:11        | 04:52 | 04:18 | 06:04 | 07:47 | 04:02                  | 0.74                  |
| <b>NB</b>  | Junction with Sommerville Road  | 07:02        | 06:27 | 06:11 | 07:53 | 11:34 | 05:05                  | 0.46                  |
| <b>NB</b>  | Junction with Bishop Road       | 08:09        | 07:14 | 07:14 | 09:03 | 12:58 | 05:45                  | 0.50                  |
| <b>NB</b>  | Junction with Ashley Down Road  | 09:51        | 08:34 | 08:52 | 10:50 | 14:19 | 07:34                  | 0.54                  |
| <b>NB</b>  | Junction with Filton Avenue     | 10:48        | 09:21 | 09:48 | 11:49 | 15:20 | 08:10                  | 0.36                  |
| <b>NB</b>  | Junction with Muller Road       | 11:32        | 10:10 | 10:34 | 12:31 | 15:52 | 08:45                  | 0.29                  |
| <b>NB</b>  | Junction with Kellaway Avenue   | 11:46        | 10:28 | 10:47 | 12:46 | 16:22 | 09:01                  | 0.18                  |
| <b>NB</b>  | Junction with Toronto Road      | 13:35        | 11:46 | 12:36 | 14:34 | 17:57 | 10:56                  | 0.73                  |
| <b>NB</b>  | Junction with Northville Road   | 14:38        | 12:56 | 13:39 | 15:37 | 18:47 | 11:46                  | 0.63                  |
| <b>NB</b>  | Filton Roundabout               | 16:11        | 14:12 | 15:07 | 17:16 | 21:07 | 12:37                  | 0.67                  |
| <b>NB</b>  | Junction with Filton Avenue     | 17:20        | 15:14 | 16:18 | 18:22 | 21:37 | 14:13                  | 0.86                  |
| <b>NB</b>  | Junction with Bradley Stoke Way | 21:11        | 18:13 | 20:01 | 22:21 | 26:22 | 17:26                  | 3.13                  |



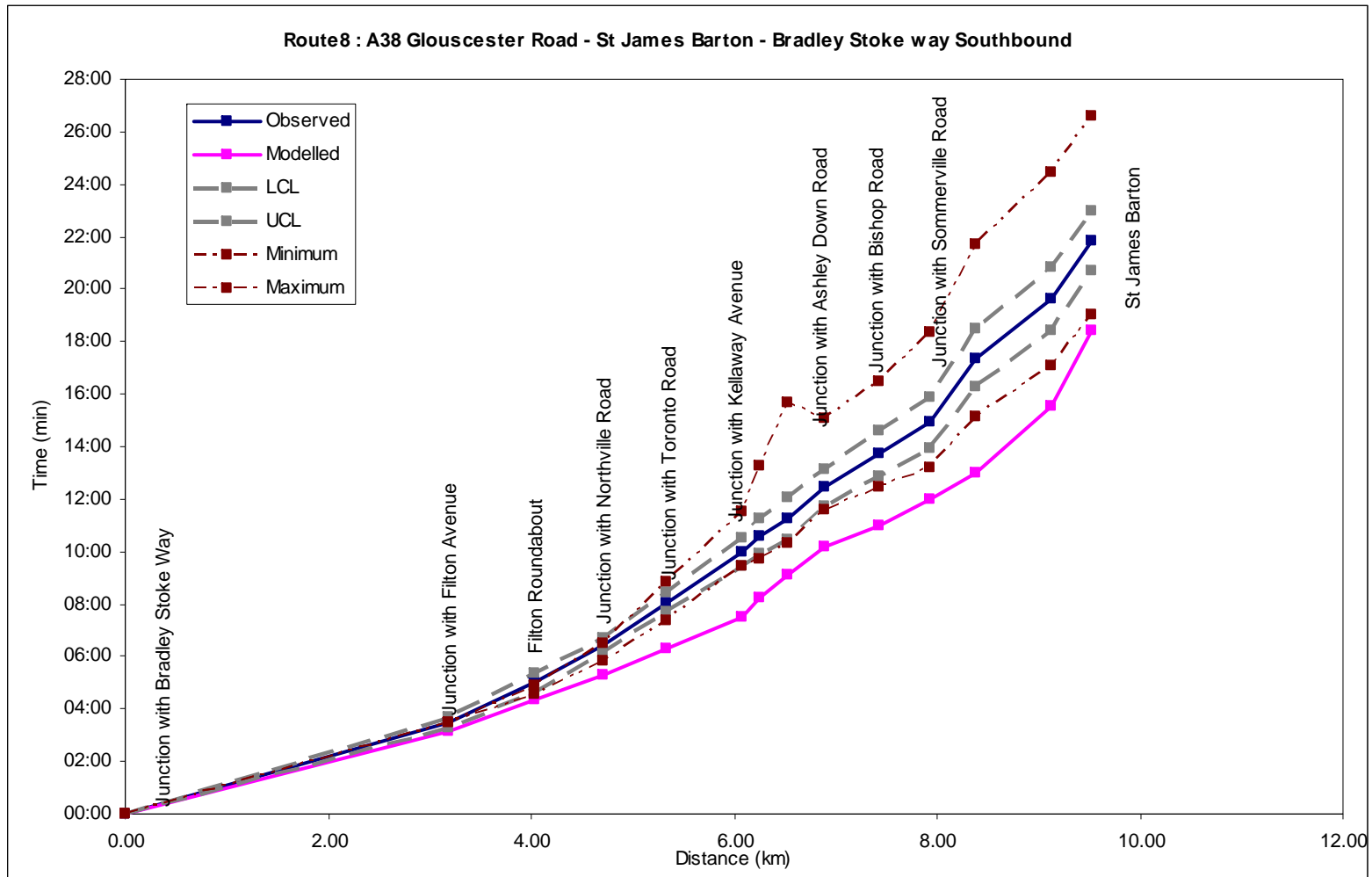
**Figure G.36 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke Way Northbound (Inter Peak)**



**Table G.37 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke Way Southbound (Inter Peak)**

|  | Route                           | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound</b> |                                 |              |       |       |       |       |                        |                       |
| <b>SB</b>  | Junction with Bradley Stoke Way | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>SB</b>  | Junction with Filton Avenue     | 03:29        | 03:27 | 03:18 | 03:40 | 03:27 | 03:09                  | 3.19                  |
| <b>SB</b>  | Filton Roundabout               | 05:00        | 04:33 | 04:39 | 05:22 | 04:52 | 04:19                  | 0.84                  |
| <b>SB</b>  | Junction with Northville Road   | 06:25        | 05:48 | 06:08 | 06:42 | 06:29 | 05:18                  | 0.69                  |
| <b>SB</b>  | Junction with Toronto Road      | 08:03        | 07:24 | 07:42 | 08:25 | 08:50 | 06:19                  | 0.63                  |
| <b>SB</b>  | Junction with Kellaway Avenue   | 10:00        | 09:27 | 09:28 | 10:32 | 11:32 | 07:32                  | 0.73                  |
| <b>SB</b>  | Junction with Muller Road       | 10:35        | 09:42 | 09:53 | 11:17 | 13:14 | 08:16                  | 0.18                  |
| <b>SB</b>  | Junction with Filton Avenue     | 11:15        | 10:18 | 10:26 | 12:05 | 15:41 | 09:06                  | 0.29                  |
| <b>SB</b>  | Junction with Ashley Down Road  | 12:26        | 11:34 | 11:42 | 13:09 | 15:06 | 10:11                  | 0.36                  |
| <b>SB</b>  | Junction with Bishop Road       | 13:44        | 12:28 | 12:53 | 14:35 | 16:27 | 11:01                  | 0.54                  |
| <b>SB</b>  | Junction with Sommerville Road  | 14:55        | 13:12 | 13:58 | 15:52 | 18:23 | 12:00                  | 0.50                  |
| <b>SB</b>  | Junction with Cranbrook Road    | 17:22        | 15:10 | 16:16 | 18:29 | 21:43 | 13:00                  | 0.46                  |
| <b>SB</b>  | Junction with Ashley Road       | 19:37        | 17:04 | 18:26 | 20:48 | 24:26 | 15:33                  | 0.74                  |
| <b>SB</b>  | St James Barton                 | 21:49        | 19:00 | 20:40 | 22:57 | 26:37 | 18:25                  | 0.41                  |

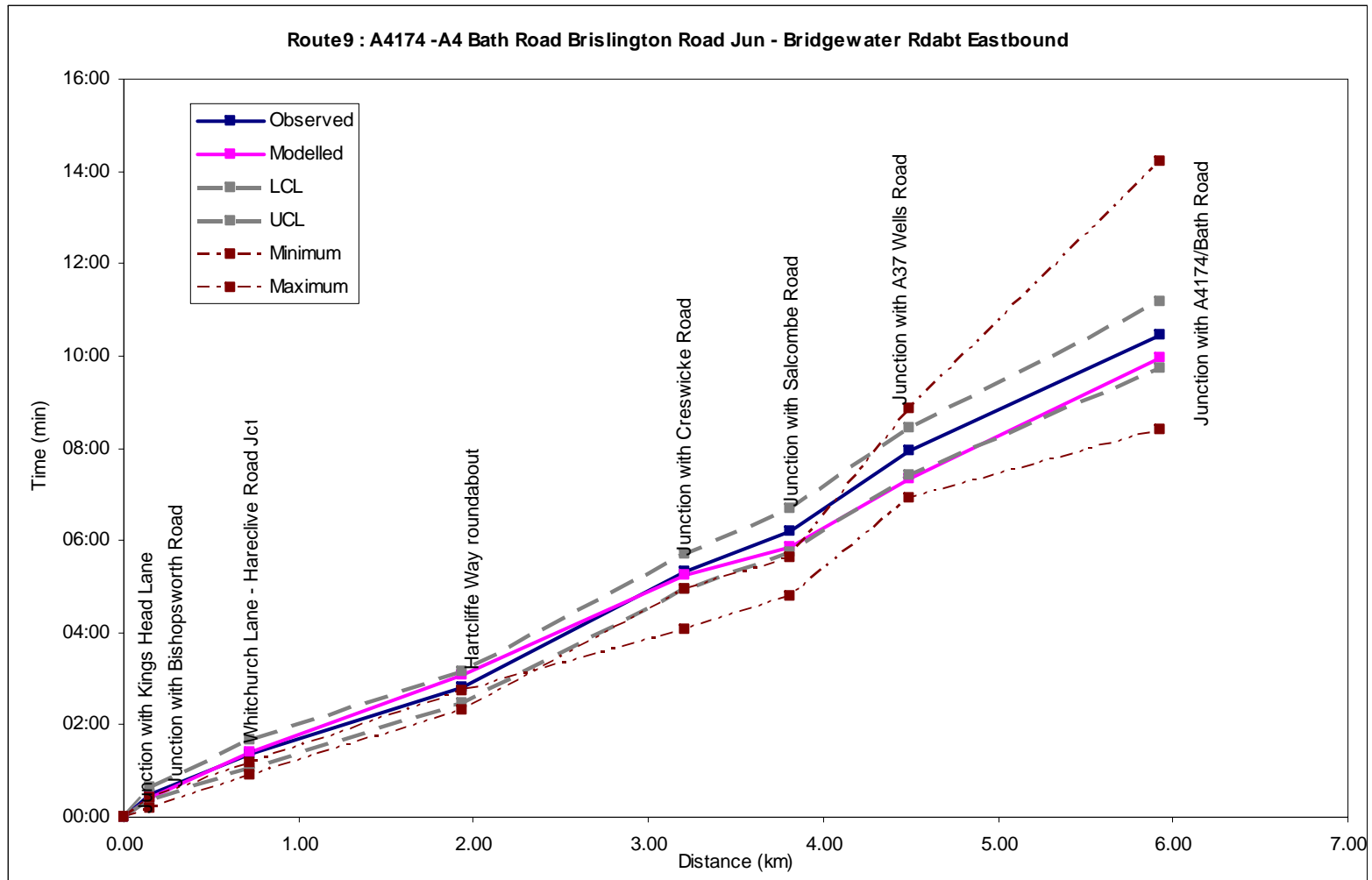
**Figure G.37 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke Way Southbound (Inter Peak)**



**Table G.38 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound (Inter Peak)**

|   | Route                                | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|---|--------------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound</b> |                                      |              |       |       |       |       |                        |                       |
| <b>EB</b>   | Junction with Kings Head Lane        | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>EB</b>   | Junction with Bishopsworth Road      | 00:31        | 00:25 | 00:22 | 00:40 | 00:12 | 00:24                  | 0.15                  |
| <b>EB</b>   | Whitchurch Lane - Hareclive Road Jct | 01:22        | 01:10 | 01:04 | 01:41 | 00:55 | 01:24                  | 0.58                  |
| <b>EB</b>   | Hartcliffe Way roundabout            | 02:49        | 02:45 | 02:28 | 03:10 | 02:19 | 03:04                  | 1.21                  |
| <b>EB</b>   | Junction with Creswicke Road         | 05:19        | 04:05 | 04:56 | 05:43 | 04:57 | 05:15                  | 1.28                  |
| <b>EB</b>   | Junction with Salcombe Road          | 06:13        | 04:48 | 05:43 | 06:42 | 05:38 | 05:51                  | 0.60                  |
| <b>EB</b>   | Junction with A37 Wells Road         | 07:55        | 06:55 | 07:25 | 08:26 | 08:52 | 07:21                  | 0.69                  |
| <b>EB</b>   | Junction with A4174/Bath Road        | 10:27        | 08:25 | 09:45 | 11:10 | 14:12 | 09:58                  | 1.44                  |

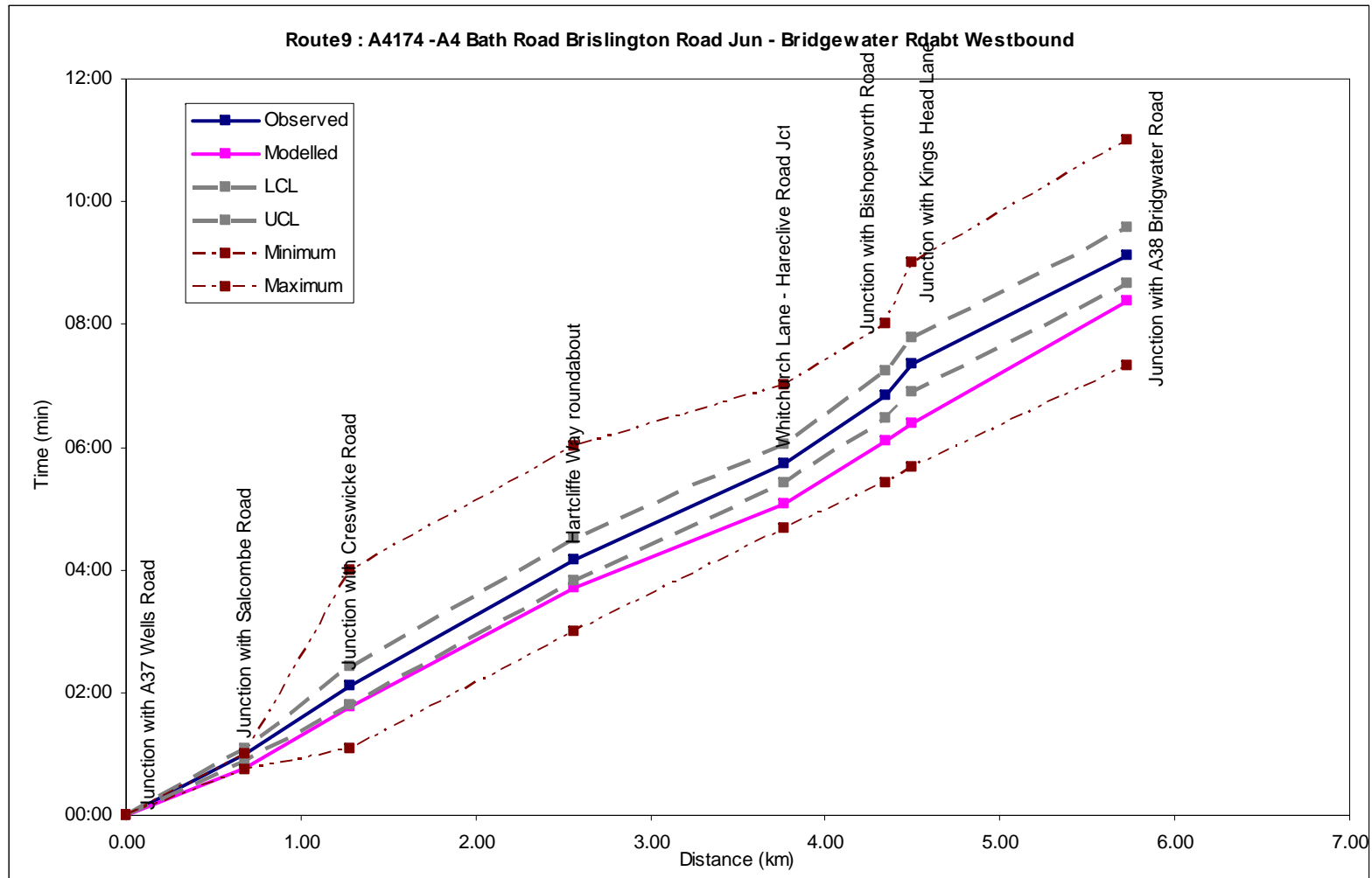
**Figure G.38 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound (Inter Peak)**



**Table G.39 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound (Inter Peak)**

| Route   |                                      | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|---|--------------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound</b> |                                      |              |       |       |       |       |                        |                       |
| <b>WB</b>   | Junction with A37 Wells Road         | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>WB</b>   | Junction with Salcombe Road          | 00:59        | 00:45 | 00:54 | 01:05 | 01:00 | 00:47                  | 0.69                  |
| <b>WB</b>   | Junction with Creswicke Road         | 02:07        | 01:05 | 01:47 | 02:26 | 04:00 | 01:47                  | 0.60                  |
| <b>WB</b>   | Hartcliffe Way roundabout            | 04:09        | 03:00 | 03:49 | 04:30 | 06:00 | 03:42                  | 1.28                  |
| <b>WB</b>   | Whitchurch Lane - Hareclive Road Jct | 05:44        | 04:40 | 05:25 | 06:03 | 07:00 | 05:04                  | 1.21                  |
| <b>WB</b>   | Junction with Bishopsworth Road      | 06:51        | 05:25 | 06:28 | 07:15 | 08:00 | 06:06                  | 0.58                  |
| <b>WB</b>   | Junction with Kings Head Lane        | 07:21        | 05:40 | 06:54 | 07:48 | 09:00 | 06:24                  | 0.15                  |
| <b>WB</b>   | Junction with A38 Bridgewater Road   | 09:07        | 07:20 | 08:40 | 09:34 | 11:00 | 08:23                  | 1.23                  |

**Figure G.39 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound (Inter Peak)**



**Table G.40 - Route 10: Avon Ring Road (Using HOV Lanes) (Inter Peak)**

|  | Route                           | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 10 : Avon Ring Road (Using HOV Lanes)</b> |                                 |              |       |       |       |       |                        |                       |
| <b>OB</b>  | A4174/A4 Roundabout, Hicks Gate | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>OB</b>  | A4174 Kingsfield Rbt            | 02:19        | 02:21 | 02:10 | 02:27 | 02:32 | 02:38                  | 2.86                  |
| <b>OB</b>  | A4174/Wraxall Rd Rbt            | 03:39        | 03:26 | 03:23 | 03:55 | 03:45 | 03:45                  | 1.04                  |
| <b>OB</b>  | A4174/A420 Deanery Rd Rbt       | 04:43        | 04:14 | 04:22 | 05:03 | 04:52 | 04:46                  | 0.88                  |
| <b>OB</b>  | A4174 Siston Hill Rbt           | 05:55        | 05:15 | 05:31 | 06:19 | 06:13 | 06:01                  | 1.22                  |
| <b>OB</b>  | A4174 Dramway Rbt               | 07:34        | 06:56 | 07:13 | 07:56 | 07:49 | 08:04                  | 1.98                  |
| <b>OB</b>  | A4174/Emersons Way Rbt          | 08:16        | 07:34 | 07:54 | 08:38 | 08:32 | 08:52                  | 0.49                  |
| <b>OB</b>  | A4174 Westerleigh Rd Rbt        | 09:37        | 08:56 | 09:13 | 10:01 | 09:49 | 09:57                  | 1.05                  |
| <b>OB</b>  | Badminton Rd Rbt                | 11:17        | 10:30 | 10:50 | 11:44 | 12:10 | 11:41                  | 1.01                  |
| <b>OB</b>  | Church Lane Footbridge          | 12:04        | 11:05 | 11:29 | 12:39 | 13:22 | 12:40                  | 0.77                  |
| <b>OB</b>  | Bromley Heath Rbt               | 13:05        | 12:20 | 12:33 | 13:37 | 14:04 | 13:33                  | 0.67                  |
| <b>OB</b>  | Hambrook Signals                | 14:41        | 14:06 | 14:11 | 15:10 | 14:57 | 15:23                  | 0.83                  |
| <b>OB</b>  | M32 J1 Rbt                      | 15:36        | 14:59 | 15:06 | 16:06 | 16:26 | 16:10                  | 0.46                  |
| <b>OB</b>  | ARR/Coldharbour Lane Signals    | 17:24        | 16:20 | 16:40 | 18:09 | 18:55 | 18:30                  | 1.52                  |
| <b>OB</b>  | MOD Rbt                         | 18:37        | 17:21 | 17:57 | 19:17 | 19:57 | 19:27                  | 0.71                  |
| <b>OB</b>  | A4174/Filton Ave Signals        | 19:57        | 17:52 | 19:06 | 20:47 | 21:23 | 20:46                  | 0.68                  |
| <b>OB</b>  | A38/A4174 Filton Rbt            | 21:23        | 19:17 | 20:33 | 22:13 | 22:50 | 21:39                  | 0.90                  |
| <b>OB</b>  | A4174/Filton Ave Signals        | 23:28        | 21:27 | 22:32 | 24:23 | 24:57 | 24:06                  | 1.00                  |
| <b>OB</b>  | MOD Rbt                         | 24:43        | 22:16 | 23:44 | 25:42 | 26:04 | 25:03                  | 0.59                  |
| <b>OB</b>  | ARR/Coldharbour Lane Signals    | 25:51        | 23:24 | 24:49 | 26:54 | 27:38 | 26:16                  | 0.82                  |
| <b>OB</b>  | M32 J1 Rbt                      | 27:22        | 24:50 | 26:14 | 28:29 | 29:44 | 27:51                  | 1.36                  |
| <b>OB</b>  | Hambrook Signals                | 28:43        | 25:37 | 27:25 | 30:00 | 31:23 | 29:20                  | 0.60                  |
| <b>OB</b>  | Bromley Heath Rbt               | 29:41        | 26:26 | 28:21 | 31:01 | 32:18 | 30:16                  | 0.78                  |
| <b>OB</b>  | Church Lane Footbridge          | 30:31        | 27:10 | 29:08 | 31:54 | 33:32 | 31:23                  | 1.24                  |

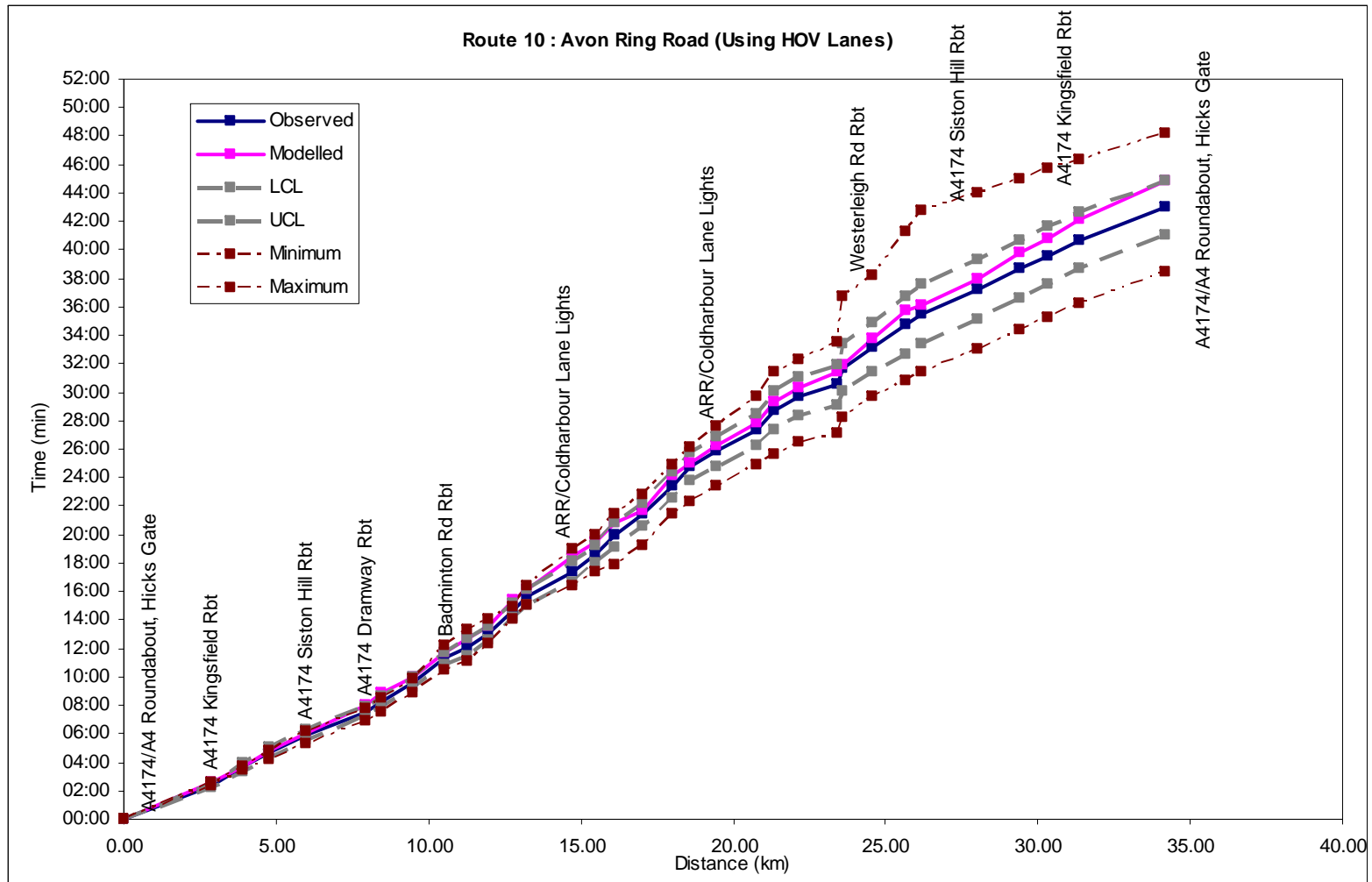


G-BATS3 v2.3 Highway Local Model Validation Report – Appendix G

|           |                                 |       |       |       |       |       |       |      |
|-----------|---------------------------------|-------|-------|-------|-------|-------|-------|------|
| <b>OB</b> | Badminton Rd Rbt                | 31:43 | 28:10 | 30:02 | 33:24 | 36:44 | 31:53 | 0.19 |
| <b>OB</b> | Westerleigh Rd Rbt              | 33:11 | 29:44 | 31:28 | 34:54 | 38:15 | 33:47 | 0.98 |
| <b>OB</b> | A4174/Emersons Way Rbt          | 34:42 | 30:52 | 32:43 | 36:42 | 41:18 | 35:41 | 1.14 |
| <b>OB</b> | A4174 Dramway Rbt               | 35:29 | 31:29 | 33:21 | 37:36 | 42:42 | 36:04 | 0.48 |
| <b>OB</b> | A4174 Siston Hill Rbt           | 37:14 | 33:01 | 35:10 | 39:18 | 44:02 | 37:59 | 1.89 |
| <b>OB</b> | A4174/A420 Deanery Rd Rbt       | 38:39 | 34:20 | 36:36 | 40:42 | 45:00 | 39:48 | 1.38 |
| <b>OB</b> | A4174/Wraxall Rd Rbt            | 39:35 | 35:12 | 37:34 | 41:36 | 45:40 | 40:47 | 0.88 |
| <b>OB</b> | A4174 Kingsfield Rbt            | 40:40 | 36:17 | 38:42 | 42:38 | 46:21 | 42:06 | 1.04 |
| <b>OB</b> | A4174/A4 Roundabout, Hicks Gate | 42:58 | 38:27 | 41:04 | 44:53 | 48:12 | 44:51 | 2.86 |



**Figure G.40 - Route 10: Avon Ring Road (Using HOV Lanes) (Inter Peak)**



**Table G.41 - Route 10: Avon Ring Road (Using Non-HOV Lanes) (Inter Peak)**

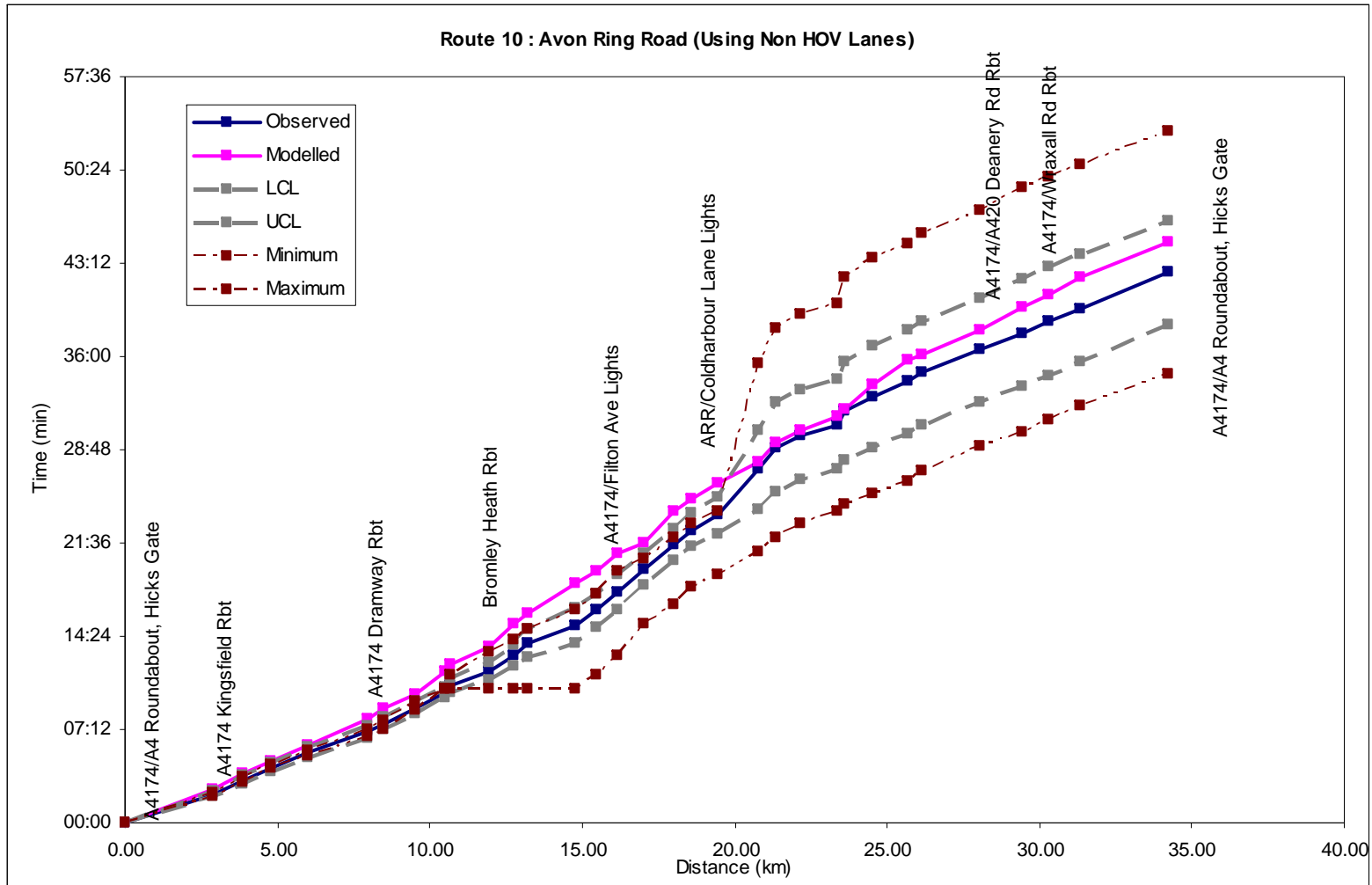
| Route   |                                 | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|---|---------------------------------|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 10 : Avon Ring Road (Using NonHOV Lanes)</b> |                                 |              |       |       |       |       |                        |                       |
| <b>OB</b>   | A4174/A4 Roundabout, Hicks Gate | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>OB</b>   | A4174 Kingsfield Rbt            | 02:11        | 02:06 | 02:00 | 02:23 | 02:17 | 02:38                  | 2.86                  |
| <b>OB</b>   | A4174/Wraxall Rd Rbt            | 03:19        | 03:09 | 03:02 | 03:36 | 03:28 | 03:45                  | 1.04                  |
| <b>OB</b>   | A4174/A420 Deanery Rd Rbt       | 04:16        | 04:11 | 03:57 | 04:36 | 04:27 | 04:46                  | 0.88                  |
| <b>OB</b>   | A4174 Siston Hill Rbt           | 05:24        | 05:10 | 04:59 | 05:50 | 05:32 | 06:01                  | 1.22                  |
| <b>OB</b>   | A4174 Dramway Rbt               | 07:00        | 06:40 | 06:34 | 07:26 | 07:12 | 08:04                  | 1.98                  |
| <b>OB</b>   | A4174/Emersons Way Rbt          | 07:39        | 07:13 | 07:08 | 08:10 | 07:51 | 08:52                  | 0.49                  |
| <b>OB</b>   | A4174 Westerleigh Rd Rbt        | 08:52        | 08:40 | 08:23 | 09:21 | 09:19 | 09:57                  | 1.05                  |
| <b>OB</b>   | Badminton Rd Rbt                | 10:02        | 10:16 | 09:36 | 10:28 | 10:20 | 11:41                  | 1.01                  |
| <b>OB</b>   | Church Lane Footbridge          | 10:37        | 10:16 | 10:07 | 11:07 | 11:25 | 12:11                  | 0.20                  |
| <b>OB</b>   | Bromley Heath Rbt               | 11:38        | 10:16 | 10:56 | 12:21 | 13:12 | 13:32                  | 1.24                  |
| <b>OB</b>   | Hambrook Signals                | 12:52        | 10:16 | 12:04 | 13:40 | 14:04 | 15:22                  | 0.83                  |
| <b>OB</b>   | M32 J1 Rbt                      | 13:51        | 10:16 | 12:46 | 14:56 | 15:00 | 16:10                  | 0.46                  |
| <b>OB</b>   | ARR/Coldharbour Lane Signals    | 15:13        | 10:16 | 13:52 | 16:34 | 16:29 | 18:30                  | 1.52                  |
| <b>OB</b>   | MOD Rbt                         | 16:23        | 11:28 | 15:03 | 17:43 | 17:40 | 19:26                  | 0.71                  |
| <b>OB</b>   | A4174/Filton Ave Signals        | 17:50        | 12:54 | 16:28 | 19:12 | 19:22 | 20:46                  | 0.68                  |
| <b>OB</b>   | A38/A4174 Filton Rbt            | 19:34        | 15:25 | 18:24 | 20:44 | 20:20 | 21:39                  | 0.90                  |
| <b>OB</b>   | A4174/Filton Ave Signals        | 21:27        | 16:54 | 20:11 | 22:43 | 22:02 | 24:06                  | 1.00                  |
| <b>OB</b>   | MOD Rbt                         | 22:36        | 18:11 | 21:20 | 23:51 | 23:04 | 25:03                  | 0.59                  |
| <b>OB</b>   | ARR/Coldharbour Lane Signals    | 23:44        | 19:09 | 22:19 | 25:09 | 24:00 | 26:16                  | 0.82                  |
| <b>OB</b>   | M32 J1 Rbt                      | 27:16        | 20:54 | 24:14 | 30:18 | 35:29 | 27:51                  | 1.36                  |
| <b>OB</b>   | Hambrook Signals                | 28:59        | 22:03 | 25:32 | 32:25 | 38:11 | 29:20                  | 0.60                  |
| <b>OB</b>   | Bromley Heath Rbt               | 29:55        | 23:08 | 26:27 | 33:22 | 39:15 | 30:16                  | 0.78                  |
| <b>OB</b>   | Church Lane Footbridge          | 30:45        | 23:59 | 27:16 | 34:14 | 40:07 | 31:23                  | 1.24                  |
| <b>OB</b>   | Badminton Rd Rbt                | 31:45        | 24:34 | 27:56 | 35:33 | 42:05 | 31:53                  | 0.19                  |

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|           |                                 |       |       |       |       |       |       |      |
|-----------|---------------------------------|-------|-------|-------|-------|-------|-------|------|
| <b>OB</b> | Westerleigh Rd Rbt              | 32:55 | 25:23 | 28:58 | 36:53 | 43:35 | 33:47 | 0.98 |
| <b>OB</b> | A4174/Emersons Way Rbt          | 34:04 | 26:22 | 30:05 | 38:03 | 44:44 | 35:41 | 1.14 |
| <b>OB</b> | A4174 Dramway Rbt               | 34:44 | 27:09 | 30:44 | 38:44 | 45:30 | 36:04 | 0.48 |
| <b>OB</b> | A4174 Siston Hill Rbt           | 36:30 | 29:01 | 32:29 | 40:31 | 47:19 | 37:59 | 1.89 |
| <b>OB</b> | A4174/A420 Deanery Rd Rbt       | 37:48 | 30:08 | 33:38 | 41:58 | 49:02 | 39:48 | 1.38 |
| <b>OB</b> | A4174/Wraxall Rd Rbt            | 38:43 | 31:09 | 34:34 | 42:52 | 49:50 | 40:47 | 0.88 |
| <b>OB</b> | A4174 Kingsfield Rbt            | 39:44 | 32:08 | 35:35 | 43:52 | 50:50 | 42:06 | 1.04 |
| <b>OB</b> | A4174/A4 Roundabout, Hicks Gate | 42:29 | 34:41 | 38:27 | 46:30 | 53:21 | 44:50 | 2.86 |



**Figure G.41 - Route 10: Avon Ring Road (Using Non HOV Lanes) (Inter Peak)**

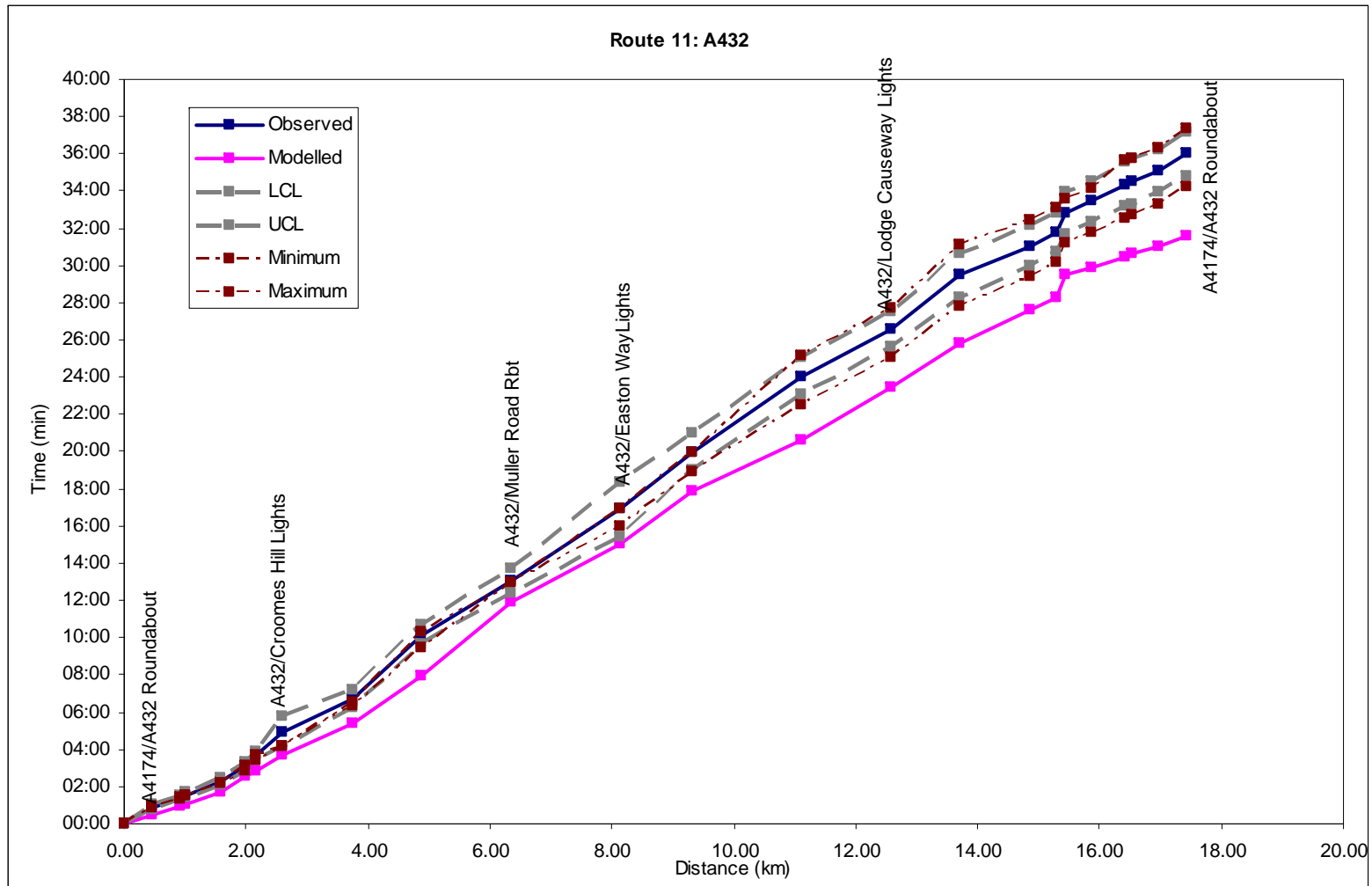


**Table G.42 - A432 from A4174 to Easton Way & Return (Inter Peak)**

|                         | Route  | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod .(mins) | Cumulative Dist (kms) |
|-------------------------|--|--------------|-------|-------|-------|-------|------------------------|-----------------------|
| <b>Route 11: A432 :</b> |  |              |       |       |       |       |                        |                       |
| <b>OB</b>               | A4174/A432 Roundabout                          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                  | 0.00                  |
| <b>OB</b>               | A432/Blackhorse Lane junction                  | 00:53        | 00:55 | 00:45 | 01:00 | 00:51 | 00:30                  | 0.47                  |
| <b>OB</b>               | Entry from service road opposite Westbourne Rd | 01:25        | 01:22 | 01:17 | 01:33 | 01:24 | 00:56                  | 0.44                  |
| <b>OB</b>               | A432/Four Acre Road Junction                   | 01:33        | 01:31 | 01:23 | 01:42 | 01:28 | 01:03                  | 0.10                  |
| <b>OB</b>               | Oakdale Rd/A432 Junction                       | 02:14        | 02:09 | 02:02 | 02:27 | 02:12 | 01:40                  | 0.57                  |
| <b>OB</b>               | Cleeve Hill/A432 Signals                       | 03:05        | 02:48 | 02:48 | 03:21 | 03:07 | 02:31                  | 0.42                  |
| <b>OB</b>               | Downend Rbt                                    | 03:40        | 03:26 | 03:27 | 03:53 | 03:41 | 02:51                  | 0.16                  |
| <b>OB</b>               | A432/Croomes Hill Signals                      | 04:56        | 04:11 | 04:07 | 05:45 | 04:09 | 03:43                  | 0.45                  |
| <b>OB</b>               | A432/Staple Hill Road junction                 | 06:43        | 06:34 | 06:16 | 07:09 | 06:20 | 05:21                  | 1.13                  |
| <b>OB</b>               | A432/Lodge Causeway Signals                    | 10:09        | 10:18 | 09:38 | 10:41 | 09:28 | 07:54                  | 1.15                  |
| <b>OB</b>               | A432/Muller Road Rbt                           | 13:05        | 12:57 | 12:26 | 13:44 | 12:55 | 11:56                  | 1.46                  |
| <b>OB</b>               | A432/Easton Way Signals                        | 16:53        | 15:59 | 15:27 | 18:19 | 16:56 | 15:03                  | 1.80                  |
| <b>OB</b>               | A432/Easton Way Signals                        | 19:58        | 18:55 | 18:59 | 20:57 | 19:59 | 17:54                  | 1.18                  |
| <b>OB</b>               | A432/Muller Road Rbt                           | 24:03        | 22:33 | 23:04 | 25:02 | 25:11 | 20:38                  | 1.80                  |
| <b>OB</b>               | A432/Lodge Causeway Signals                    | 26:34        | 25:04 | 25:35 | 27:32 | 27:44 | 23:29                  | 1.46                  |
| <b>OB</b>               | A432/Staple Hill Road junction                 | 29:27        | 27:49 | 28:18 | 30:37 | 31:05 | 25:49                  | 1.15                  |
| <b>OB</b>               | A432/Croomes Hill Signals                      | 31:02        | 29:25 | 29:56 | 32:09 | 32:25 | 27:35                  | 1.13                  |
| <b>OB</b>               | Downend Rbt                                    | 31:46        | 30:10 | 30:45 | 32:47 | 33:04 | 28:14                  | 0.45                  |
| <b>OB</b>               | Cleeve Hill/A432 Signals                       | 32:47        | 31:11 | 31:39 | 33:55 | 33:35 | 29:28                  | 0.14                  |
| <b>OB</b>               | Oakdale Rd/A432 Junction                       | 33:26        | 31:48 | 32:21 | 34:32 | 34:11 | 29:54                  | 0.42                  |
| <b>OB</b>               | A432/Four Acre Road Junction                   | 34:21        | 32:33 | 33:10 | 35:32 | 35:38 | 30:30                  | 0.57                  |
| <b>OB</b>               | Exit from service road opposite Westbourne Rd  | 34:31        | 32:43 | 33:20 | 35:43 | 35:45 | 30:37                  | 0.10                  |
| <b>OB</b>               | A432/Blackhorse Lane junction                  | 35:06        | 33:17 | 33:57 | 36:14 | 36:21 | 31:04                  | 0.44                  |
| <b>OB</b>               | A4174/A432 Roundabout                          | 36:00        | 34:12 | 34:49 | 37:10 | 37:19 | 31:33                  | 0.47                  |



Figure G.42 - A432 from A4174 to Easton Way & Return (Inter Peak)



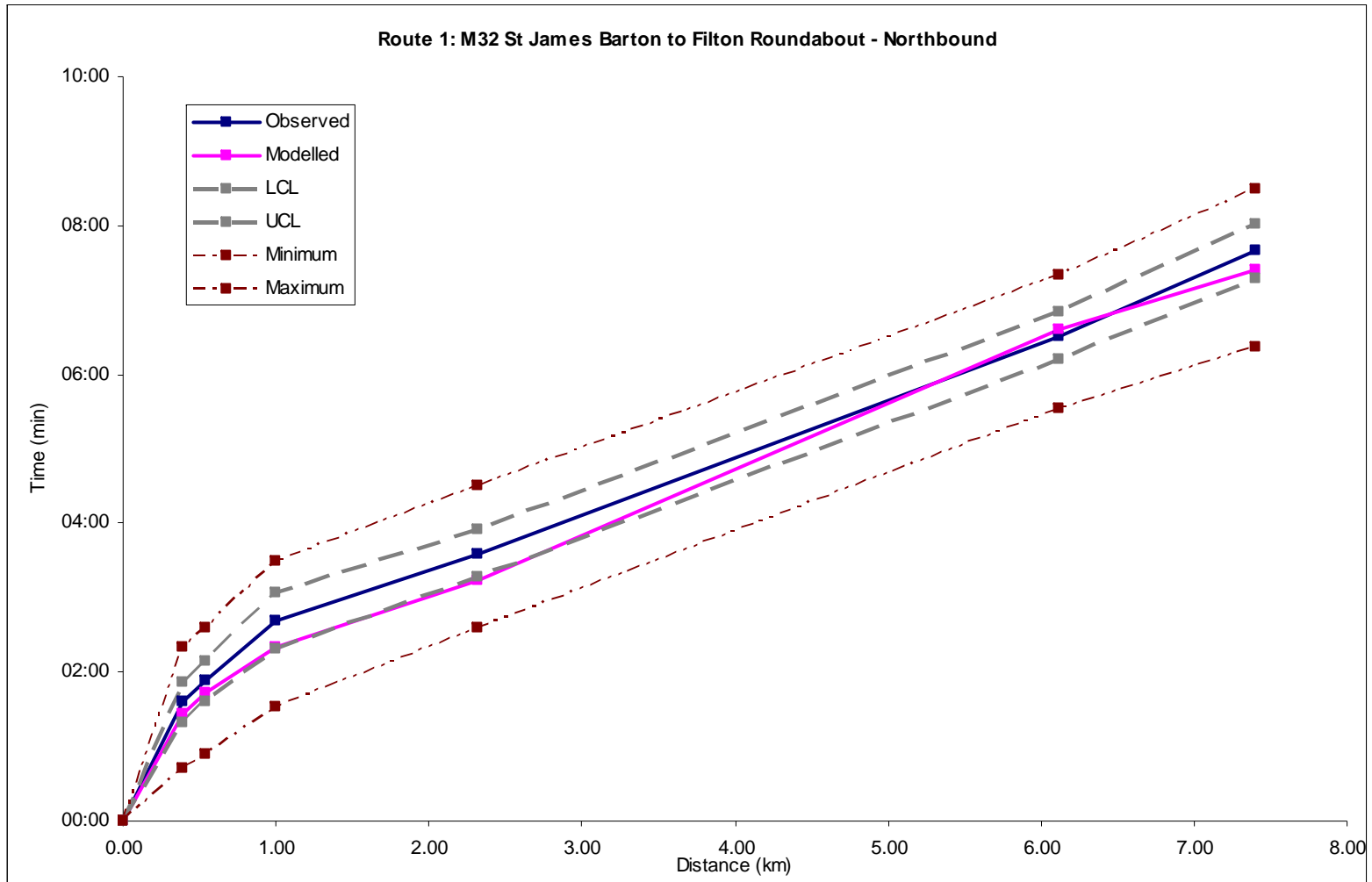


## **PM Peak**

**Table G.43 - Route 1: M32 St James Barton to Filton Roundabout - Northbound (PM Peak)**

| Route   |                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 1: M32 St James Barton to Filton Roundabout - Northbound</b> |                              |              |       |       |       |       |                       |                       |
| <b>NB</b>   | St James Barton Rbt          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>   | Jct with Bond Street South   | 01:36        | 00:42 | 01:19 | 01:52 | 02:20 | 02:33                 | 0.39                  |
| <b>NB</b>   | Junction with Houlton Street | 01:53        | 00:54 | 01:37 | 02:09 | 02:35 | 03:09                 | 0.15                  |
| <b>NB</b>   | Jct 3 overbridges            | 02:42        | 01:32 | 02:19 | 03:05 | 03:30 | 04:57                 | 0.46                  |
| <b>NB</b>   | Jct 2 flyover                | 03:36        | 02:35 | 03:16 | 03:55 | 04:30 | 06:03                 | 1.33                  |
| <b>NB</b>   | Jct 1 flyover                | 06:31        | 05:32 | 06:12 | 06:50 | 07:20 | 12:07                 | 3.80                  |
| <b>NB</b>   | Jct with M4                  | 07:39        | 06:22 | 07:17 | 08:02 | 08:30 | 13:02                 | 1.29                  |

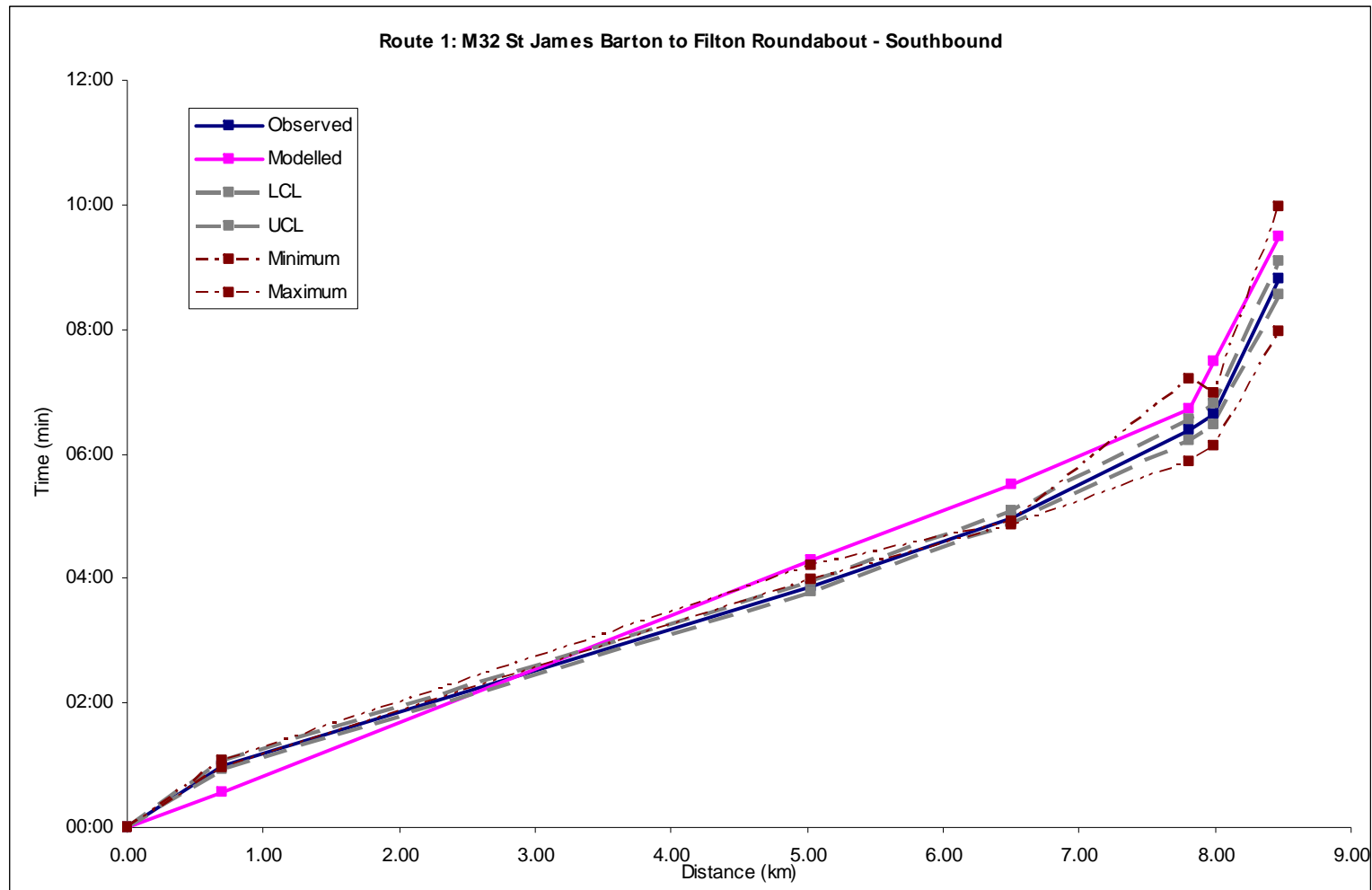
Figure G.43 - Route 1: M32 St James Barton to Filton Roundabout - Northbound (PM Peak)



**Table G.44 - Route 1: M32 St James Barton to Filton Roundabout – Southbound (PM Peak)**

| Route   |                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 1: M32 St James Barton to Filton Roundabout - Southbound</b> |                              |              |       |       |       |       |                       |                       |
| <b>SB</b>   | Jct with M4                  | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>   | Jct 1 flyover                | 01:00        | 00:58 | 00:55 | 01:04 | 01:05 | 00:34                 | 0.70                  |
| <b>SB</b>   | Jct 2 flyover                | 03:53        | 03:59 | 03:48 | 03:57 | 04:12 | 04:51                 | 4.33                  |
| <b>SB</b>   | Jct 3 overbridges            | 04:59        | 04:51 | 04:53 | 05:04 | 04:54 | 06:11                 | 1.48                  |
| <b>SB</b>   | Junction with Houlton Street | 06:23        | 05:53 | 06:13 | 06:33 | 07:12 | 07:37                 | 1.31                  |
| <b>SB</b>   | Jct with Bond Street South   | 06:39        | 06:07 | 06:29 | 06:49 | 06:58 | 08:42                 | 0.18                  |
| <b>SB</b>   | St James Barton Rbt          | 08:49        | 07:58 | 08:33 | 09:05 | 09:58 | 10:34                 | 0.49                  |

**Figure G.44 - Route 1: M32 St James Barton to Filton Roundabout - Southbound (PM Peak)**

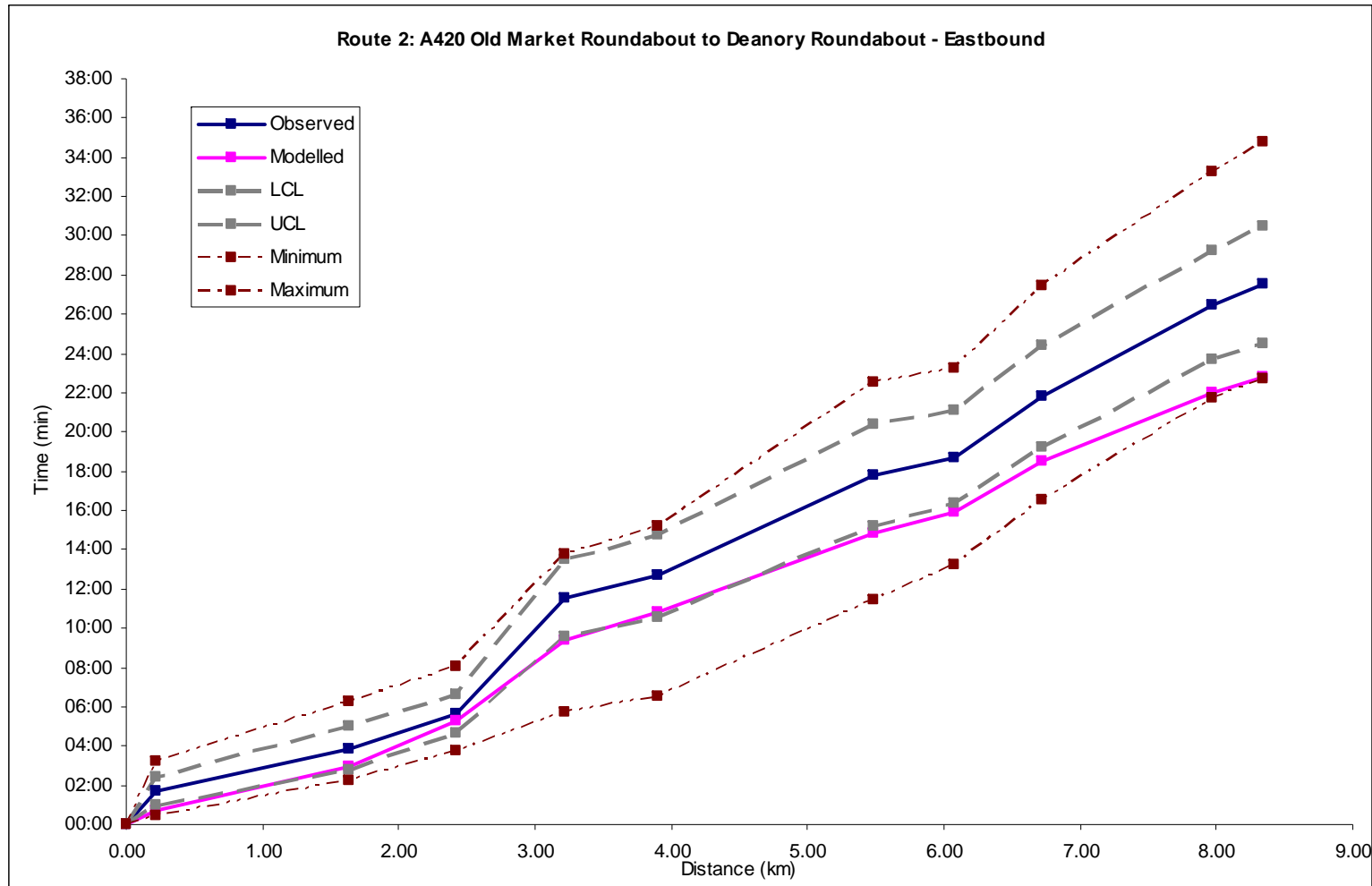


**Table G.45 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound (PM Peak)**

| Route  |                                   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 2: A420 Old Market Roundabout to Deanory Roundabout - Eastbound</b> |                                   |              |       |       |       |       |                       |                       |
| <b>EB</b>  | Old Market Roundabout             | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>EB</b>  | Junction with Midland Road        | 01:41        | 00:27 | 00:58 | 02:24 | 03:14 | 01:11                 | 0.22                  |
| <b>EB</b>  | Junction with Hill Roundabout     | 03:53        | 02:12 | 02:45 | 05:01 | 06:15 | 03:42                 | 1.41                  |
| <b>EB</b>  | Junction with Russell Town Avenue | 05:38        | 03:44 | 04:38 | 06:39 | 08:05 | 06:28                 | 0.80                  |
| <b>EB</b>  | Junction with Chalks Road         | 11:30        | 05:43 | 09:32 | 13:28 | 13:45 | 12:38                 | 0.79                  |
| <b>EB</b>  | St George Fountain                | 12:41        | 06:29 | 10:34 | 14:48 | 15:10 | 14:11                 | 0.68                  |
| <b>EB</b>  | Junction with Kingsway            | 17:47        | 11:29 | 15:13 | 20:21 | 22:30 | 18:12                 | 1.59                  |
| <b>EB</b>  | Junction with Soundwell Road      | 18:44        | 13:12 | 16:21 | 21:06 | 23:15 | 19:18                 | 0.60                  |
| <b>EB</b>  | Junction with Hanham Road         | 21:50        | 16:30 | 19:15 | 24:24 | 27:25 | 21:59                 | 0.64                  |
| <b>EB</b>  | Junction with Tennis Court Road   | 26:27        | 21:46 | 23:40 | 29:13 | 33:18 | 25:52                 | 1.25                  |
| <b>EB</b>  | Junction with ARR                 | 27:30        | 22:43 | 24:30 | 30:30 | 34:45 | 26:39                 | 0.38                  |



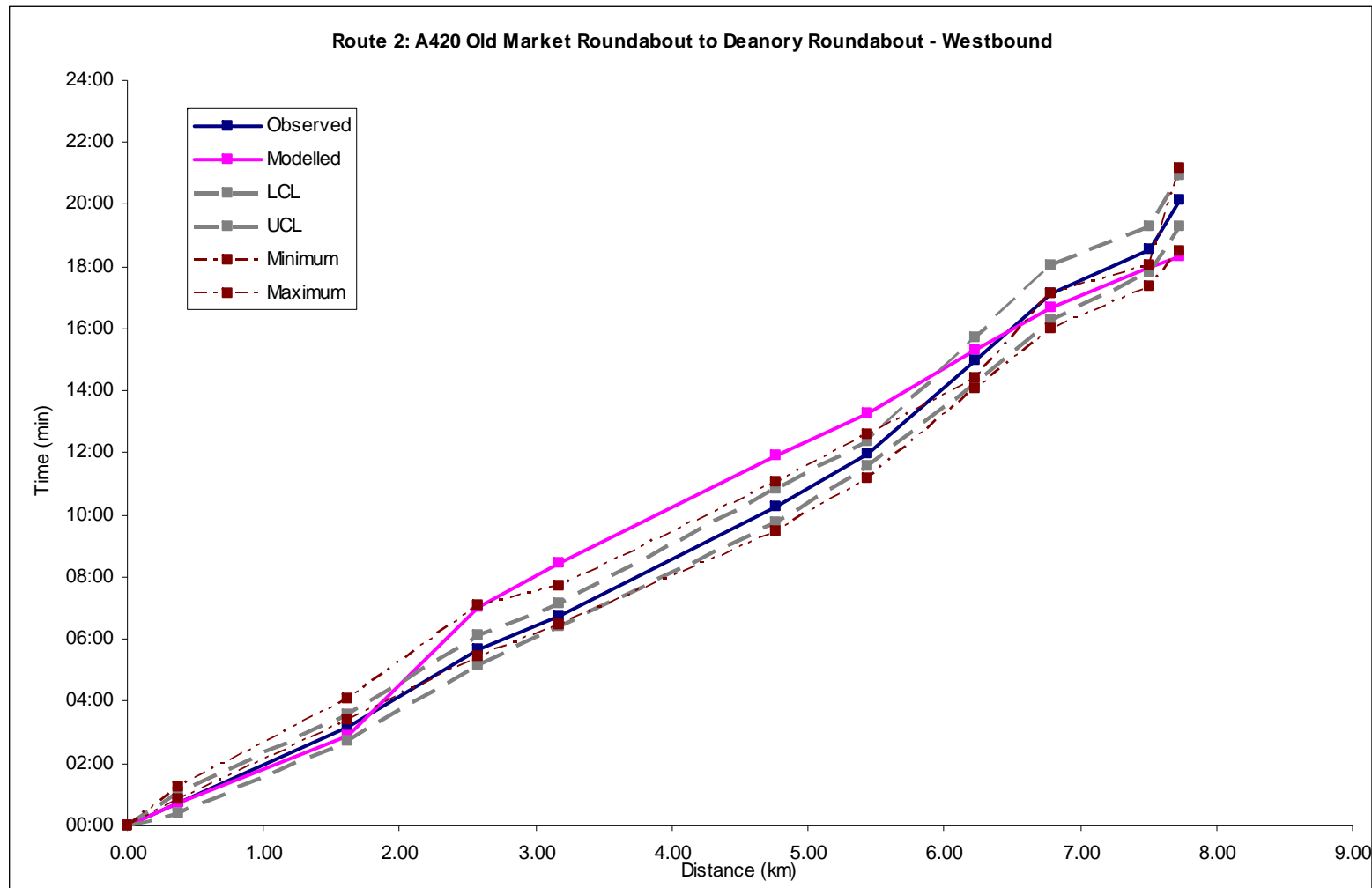
**Figure G.45 - Route 2: A420 Old Market Roundabout to Deanory Roundabout – Eastbound (PM Peak)**



**Table G.46 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound (PM Peak)**

| Route  |                                   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound</b> |                                   |              |       |       |       |       |                       |                       |
| <b>WB</b>  | Junction with ARR                 | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>WB</b>  | Junction with Tennis Court Road   | 00:44        | 00:50 | 00:23 | 01:05 | 01:15 | 00:43                 | 0.38                  |
| <b>WB</b>  | Junction with Hanham Road         | 03:09        | 03:25 | 02:42 | 03:36 | 04:05 | 02:47                 | 1.25                  |
| <b>WB</b>  | Junction with Soundwell Road      | 05:40        | 05:26 | 05:11 | 06:08 | 07:04 | 07:09                 | 0.95                  |
| <b>WB</b>  | Junction with Kingsway            | 06:46        | 06:28 | 06:23 | 07:09 | 07:43 | 08:39                 | 0.60                  |
| <b>WB</b>  | St George Fountain                | 10:18        | 09:28 | 09:45 | 10:51 | 11:05 | 12:28                 | 1.59                  |
| <b>WB</b>  | Junction with Chalks Road         | 11:59        | 11:11 | 11:34 | 12:23 | 12:35 | 14:11                 | 0.68                  |
| <b>WB</b>  | Junction with Russell Town Avenue | 14:59        | 14:04 | 14:16 | 15:42 | 14:25 | 16:24                 | 0.79                  |
| <b>WB</b>  | Lawrence Hill Roundabout          | 17:09        | 15:59 | 16:16 | 18:01 | 17:08 | 17:53                 | 0.55                  |
| <b>WB</b>  | Junction with Midland Road        | 18:33        | 17:23 | 17:48 | 19:18 | 18:02 | 19:16                 | 0.73                  |
| <b>WB</b>  | Old Market Roundabout             | 20:08        | 18:30 | 19:18 | 20:57 | 21:10 | 19:41                 | 0.22                  |

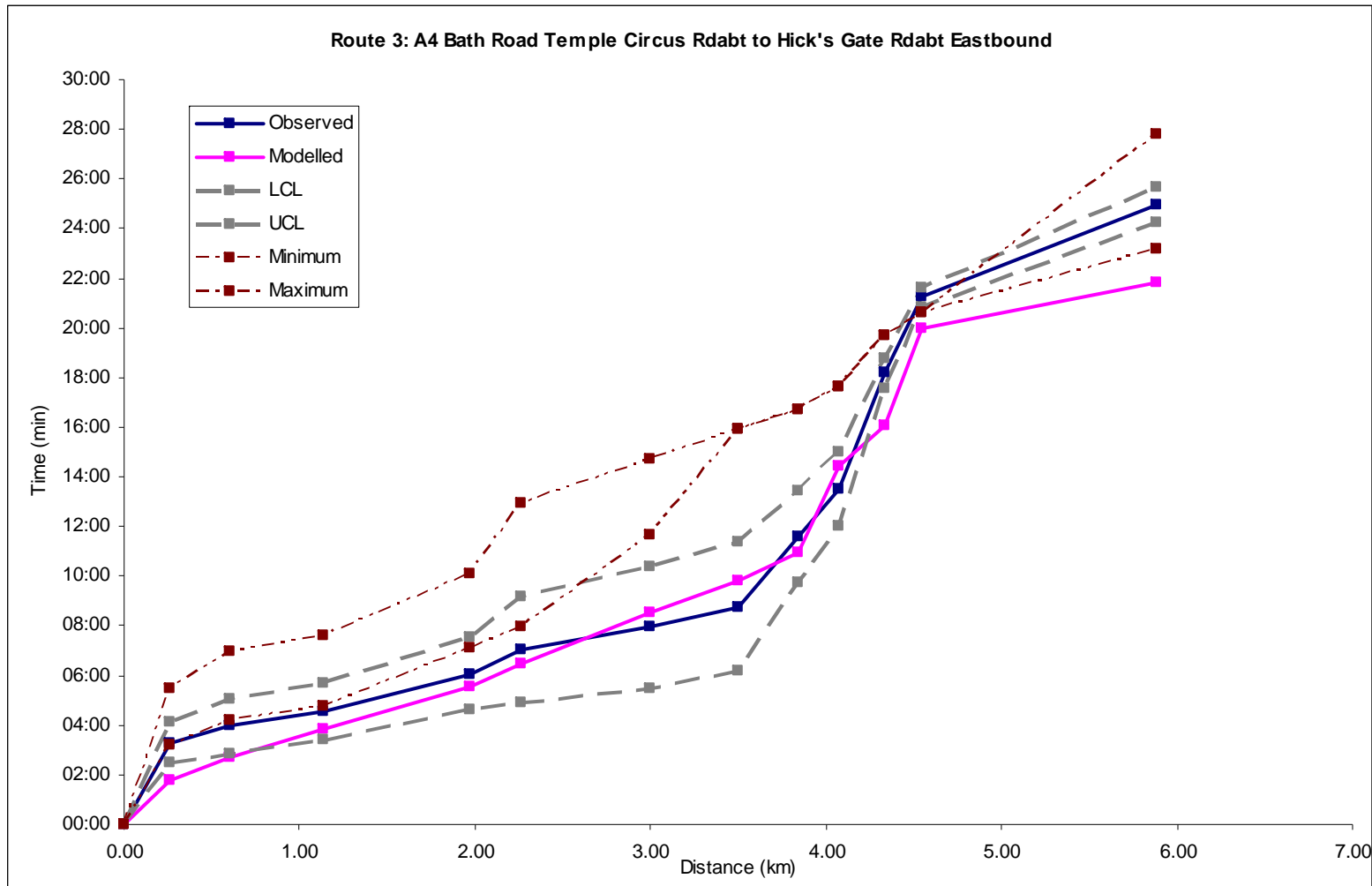
**Figure G.46 - Route 2: A420 Old Market Roundabout to Deanory Roundabout - Westbound (PM Peak)**



**Table G.47 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound (PM Peak)**

|   | Route                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound</b> |                                    |              |       |       |       |       |                       |                       |
| <b>EB</b>   | Temple Circus Roundabout           | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>EB</b>   | Bath Bridge Roundabout             | 03:18        | 05:30 | 02:29 | 04:07 | 03:12 | 02:21                 | 0.27                  |
| <b>EB</b>   | Three Lamps Junction               | 03:58        | 07:00 | 02:52 | 05:05 | 04:10 | 03:19                 | 0.34                  |
| <b>EB</b>   | Totterdown Bridge Junction         | 04:33        | 07:35 | 03:25 | 05:41 | 04:45 | 04:24                 | 0.54                  |
| <b>EB</b>   | St Phillips Causeway Junction      | 06:04        | 10:05 | 04:36 | 07:31 | 07:05 | 06:05                 | 0.84                  |
| <b>EB</b>   | Tramway Road Junction              | 07:04        | 12:57 | 04:56 | 09:12 | 07:57 | 07:09                 | 0.29                  |
| <b>EB</b>   | Wick Road Junction                 | 07:56        | 14:41 | 05:28 | 10:24 | 11:41 | 11:04                 | 0.74                  |
| <b>EB</b>   | Church Hill Junction               | 08:46        | 15:55 | 06:10 | 11:22 | 15:55 | 12:23                 | 0.51                  |
| <b>EB</b>   | Callington Road Junction           | 11:35        | 16:41 | 09:43 | 13:26 | 16:41 | 13:40                 | 0.34                  |
| <b>EB</b>   | Flower Hill Junction               | 13:30        | 17:39 | 11:59 | 15:01 | 17:39 | 17:56                 | 0.23                  |
| <b>EB</b>   | Stockwood Road Junction            | 18:11        | 19:42 | 17:35 | 18:47 | 19:42 | 19:13                 | 0.26                  |
| <b>EB</b>   | Brislington Park and Ride Junction | 21:13        | 20:35 | 20:50 | 21:37 | 20:35 | 22:50                 | 0.22                  |
| <b>EB</b>   | Avon Ring Road Junction            | 24:56        | 23:12 | 24:13 | 25:40 | 27:48 | 24:41                 | 1.34                  |

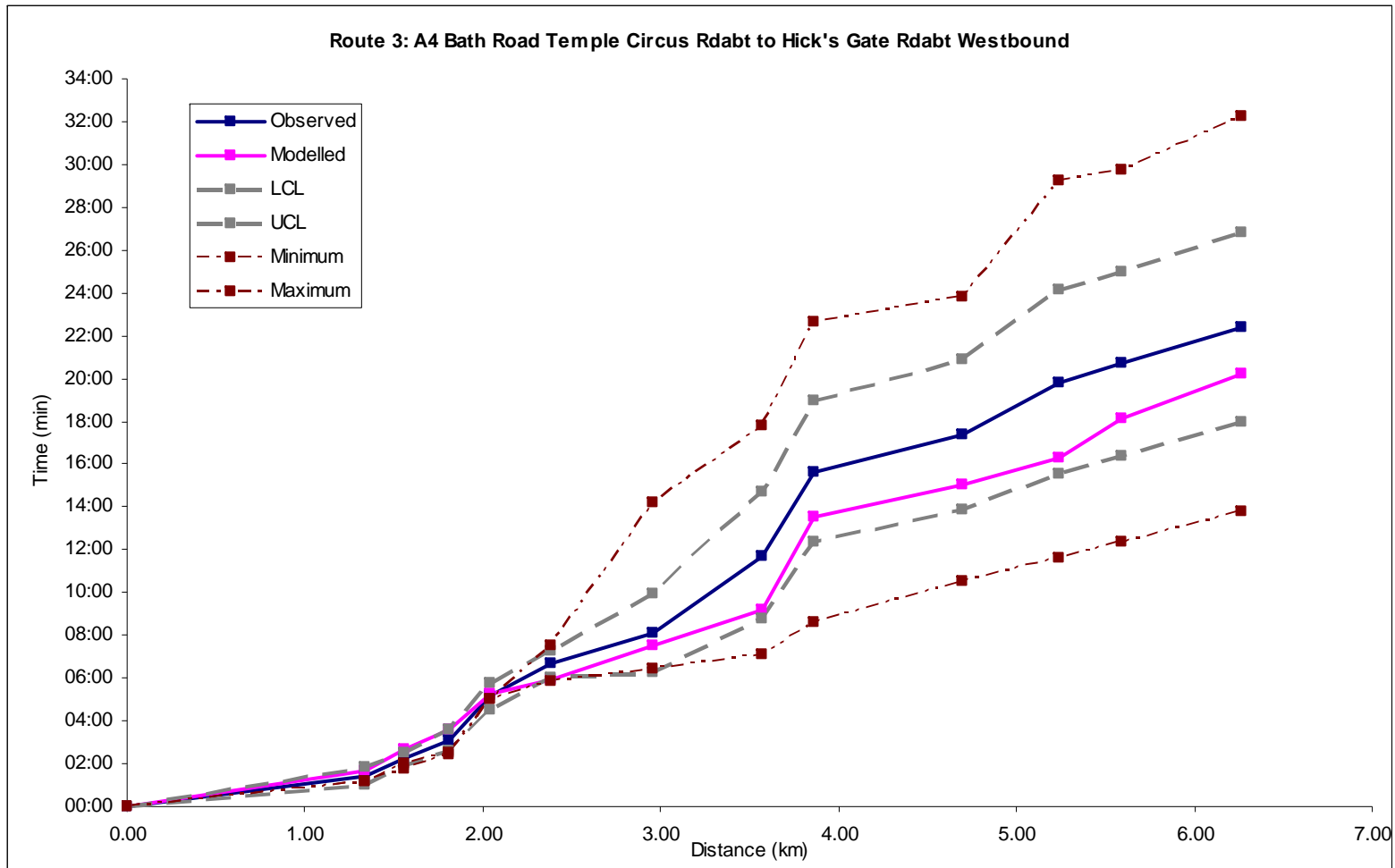
**Figure G.47 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Eastbound (PM Peak)**



**Table G.48 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound (PM Peak)**

|   | Route                              | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound</b> |                                    |              |       |       |       |       |                       |                       |
| <b>WB</b>   | Hicks Gate Rountabout              | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>WB</b>   | Brislington Park and Ride Junction | 01:25        | 01:09 | 01:02 | 01:48 | 01:08 | 02:02                 | 1.34                  |
| <b>WB</b>   | Stockwood Road Junction            | 02:13        | 01:46 | 01:54 | 02:32 | 01:58 | 03:20                 | 0.22                  |
| <b>WB</b>   | Flower Hill Junction               | 03:04        | 02:26 | 02:34 | 03:35 | 02:28 | 04:19                 | 0.26                  |
| <b>WB</b>   | Callington Road Junction           | 05:10        | 05:01 | 04:33 | 05:47 | 05:00 | 05:25                 | 0.23                  |
| <b>WB</b>   | Church Hill Junction               | 06:39        | 05:53 | 06:03 | 07:16 | 07:32 | 06:01                 | 0.34                  |
| <b>WB</b>   | Wick Road Junction                 | 08:08        | 06:27 | 06:18 | 09:57 | 14:10 | 07:14                 | 0.58                  |
| <b>WB</b>   | Tramway Road Junction              | 11:43        | 07:06 | 08:44 | 14:42 | 17:49 | 08:45                 | 0.61                  |
| <b>WB</b>   | St Phillips Causeway Junction      | 15:38        | 08:34 | 12:21 | 18:56 | 22:40 | 10:51                 | 0.29                  |
| <b>WB</b>   | Totterdown Bridge Junction         | 17:24        | 10:30 | 13:54 | 20:55 | 23:48 | 12:15                 | 0.84                  |
| <b>WB</b>   | Three Lamps Junction               | 19:49        | 11:35 | 15:30 | 24:08 | 29:15 | 13:27                 | 0.54                  |
| <b>WB</b>   | Bath Bridge Roundabout             | 20:42        | 12:20 | 16:25 | 24:59 | 29:43 | 15:06                 | 0.35                  |
| <b>WB</b>   | Temple Circus Roundabout           | 22:22        | 13:46 | 17:57 | 26:47 | 32:16 | 17:10                 | 0.68                  |

**Figure G.48 - Route 3: A4 Bath Road Temple Circus Roundabout to Hick's Gate Roundabout Westbound (PM Peak)**

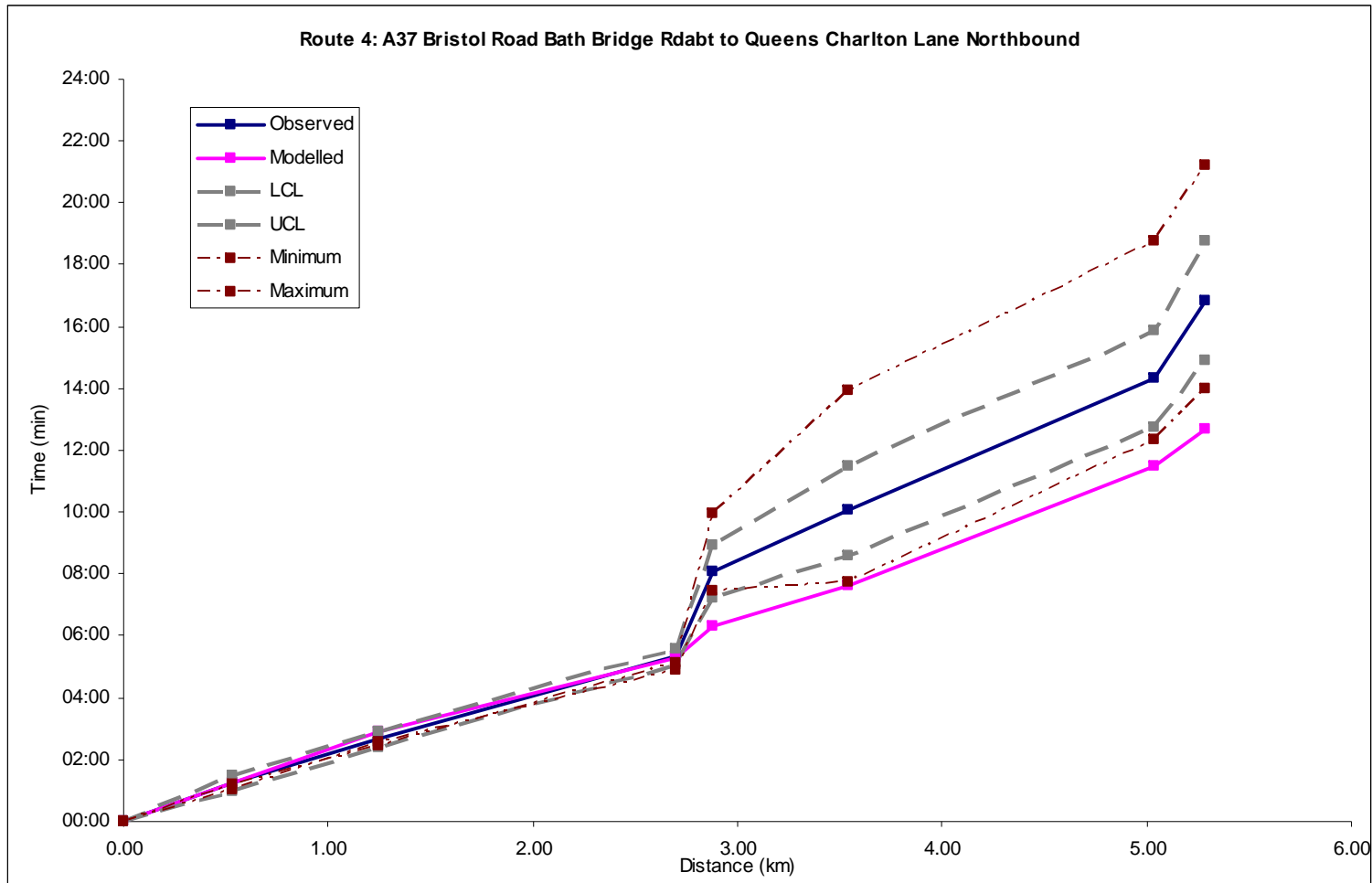


**Table G.49 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound (PM Peak)**

|  | Route                            | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound</b> |                                  |              |       |       |       |       |                       |                       |
| <b>NB</b>  | Queen Charlton Lane              | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>  | Junction with Staunton Lane      | 01:13        | 01:02 | 00:57 | 01:29 | 01:12 | 01:03                 | 0.54                  |
| <b>NB</b>  | Junction with Ridgeway Lane      | 02:39        | 02:34 | 02:25 | 02:53 | 02:27 | 02:28                 | 0.72                  |
| <b>NB</b>  | Junction with West Town Lane     | 05:19        | 04:54 | 05:03 | 05:36 | 05:07 | 04:45                 | 1.45                  |
| <b>NB</b>  | Junction with A4174 Airport Road | 08:05        | 07:26 | 07:13 | 08:56 | 09:57 | 05:40                 | 0.19                  |
| <b>NB</b>  | Junction with Broad Walk         | 10:03        | 07:44 | 08:37 | 11:29 | 13:57 | 06:59                 | 0.67                  |
| <b>NB</b>  | Junction with Three Lamps        | 14:18        | 12:19 | 12:44 | 15:53 | 18:47 | 10:18                 | 1.49                  |
| <b>NB</b>  | Junction with Bath Road Bridge   | 16:50        | 14:01 | 14:55 | 18:45 | 21:13 | 11:11                 | 0.25                  |



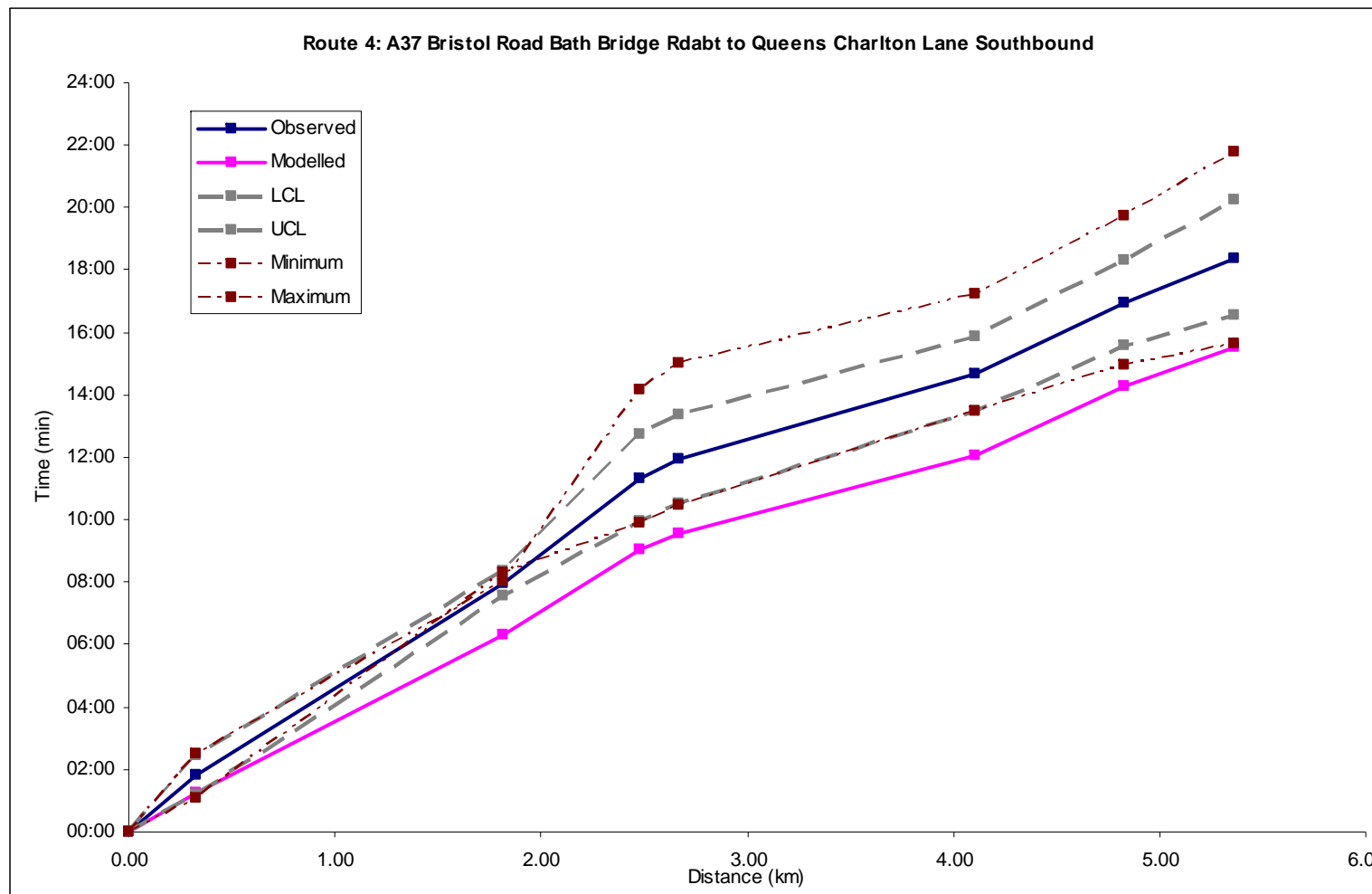
**Figure G.49 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Northbound (PM Peak)**



**Table G.50 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound (PM Peak)**

| Route  |                                   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|-----------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound</b> |                                   |              |       |       |       |       |                       |                       |
| <b>SB</b>  | Bath Road Bridge                  | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>  | Junction with Three Lamps         | 01:50        | 01:05 | 01:13 | 02:28 | 02:29 | 01:32                 | 0.33                  |
| <b>SB</b>  | Junction with Broad Walk          | 07:58        | 08:19 | 07:34 | 08:21 | 08:00 | 10:40                 | 1.49                  |
| <b>SB</b>  | Junction with A4174 Airport Road  | 11:21        | 09:54 | 09:59 | 12:43 | 14:09 | 13:13                 | 0.67                  |
| <b>SB</b>  | Junction with West Town Lane      | 11:57        | 10:28 | 10:30 | 13:23 | 15:00 | 13:44                 | 0.19                  |
| <b>SB</b>  | Junction with Ridgeway Lane       | 14:41        | 13:28 | 13:29 | 15:53 | 17:15 | 16:08                 | 1.45                  |
| <b>SB</b>  | Junction with Staunton Lane       | 16:57        | 14:59 | 15:34 | 18:20 | 19:45 | 17:52                 | 0.72                  |
| <b>SB</b>  | Junction with Queen Charlton Lane | 18:23        | 15:39 | 16:32 | 20:14 | 21:47 | 18:53                 | 0.54                  |

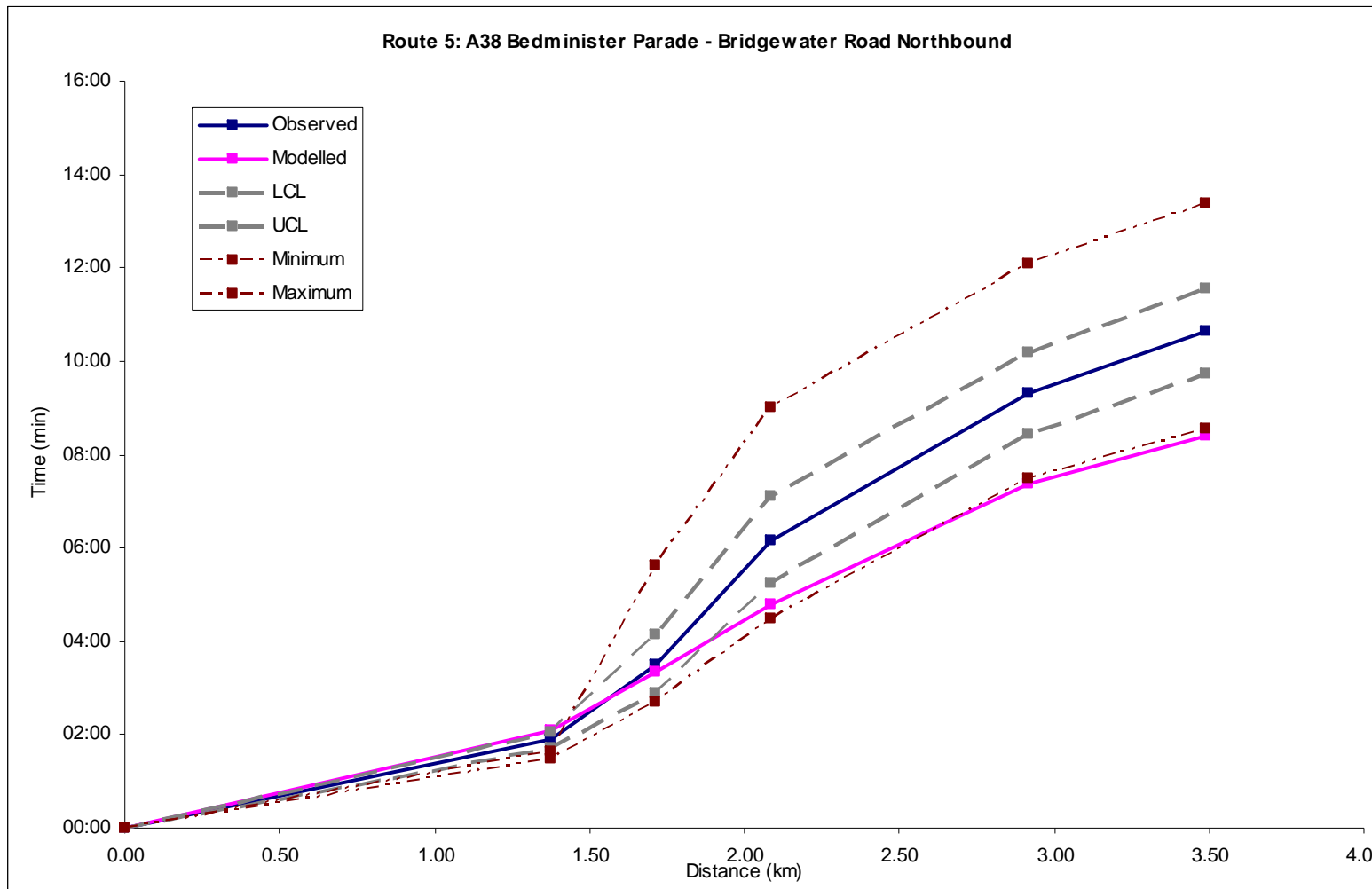
**Figure G.50 - Route 4: A37 Bristol Road Bath Bridge Roundabout to Queens Charlton Lane Southbound (PM Peak)**



**Table G.51 - Route 5: A38 Bedminster Parade - Bridgewater Road Northbound (PM Peak)**

| Route   |   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|---|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 5: A38 Bedminster Parade - Bridgewater Road Northbound</b> |   |              |       |       |       |       |                       |                       |
| <b>NB</b>   | Kingshead Lane                          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>   | Junction with Bishopsworth Road         | 01:53        | 01:30 | 01:42 | 02:04 | 01:38 | 01:47                 | 1.38                  |
| <b>NB</b>   | Junction with Bedminster Down Road      | 03:31        | 02:41 | 02:53 | 04:08 | 05:37 | 02:43                 | 0.34                  |
| <b>NB</b>   | Junction with West Street/Parson Street | 06:10        | 04:28 | 05:14 | 07:06 | 09:00 | 03:46                 | 0.37                  |
| <b>NB</b>   | Junction with Sheene Road               | 09:19        | 07:30 | 08:27 | 10:11 | 12:04 | 06:02                 | 0.83                  |
| <b>NB</b>   | Junction with East Street/Dalby Avenue  | 10:39        | 08:32 | 09:44 | 11:34 | 13:23 | 07:06                 | 0.58                  |
| <b>NB</b>   | A38/A370 roundabout - Bedminster Bridge |              |       |       |       |       | 07:56                 |                       |

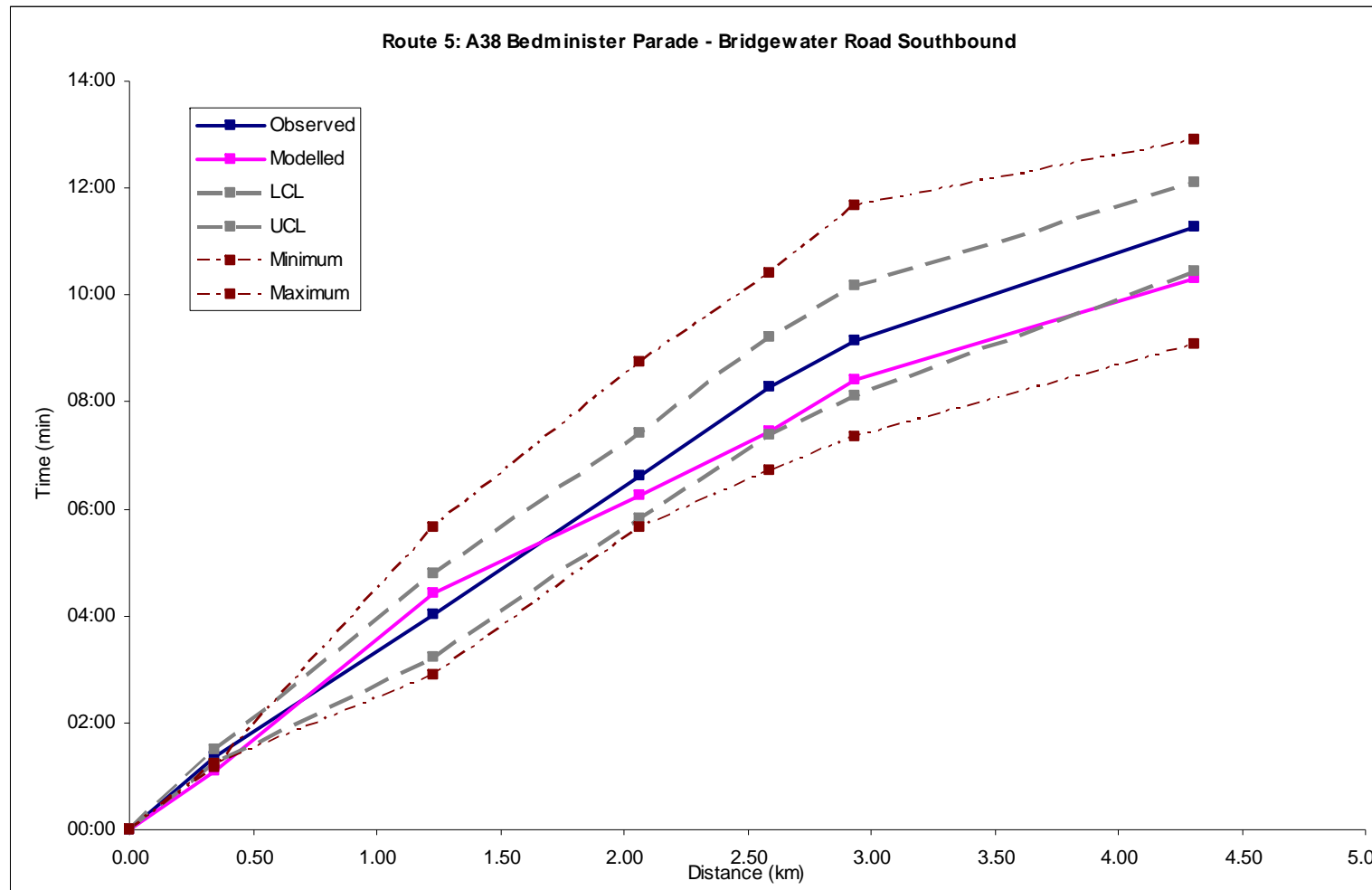
**Figure G.51 - Route 5: A38 Bedminster Parade - Bridgewater Road Northbound (PM Peak)**



**Table G.52 - Route 5: A38 Bedminster Parade - Bridgewater Road Southbound (PM Peak)**

| Route   |   | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|---|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 5: A38 Bedminster Parade - Bridgewater Road Southbound</b> |   |              |       |       |       |       |                       |                       |
| <b>SB</b>   | A38/A370 roundabout - Bedminster Bridge | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>   | Junction with East Street/Dalby Avenue  | 01:21        | 01:14 | 01:13 | 01:30 | 01:10 | 01:04                 | 0.35                  |
| <b>SB</b>   | Junction with Sheene Road               | 04:01        | 02:54 | 03:14 | 04:48 | 05:40 | 04:41                 | 0.89                  |
| <b>SB</b>   | Junction with West Street/Parson Street | 06:36        | 05:40 | 05:49 | 07:24 | 08:45 | 07:31                 | 0.83                  |
| <b>SB</b>   | Junction with Bedminster Down Road      | 08:18        | 06:43 | 07:22 | 09:13 | 10:25 | 09:33                 | 0.53                  |
| <b>SB</b>   | Junction with Bishopsworth Road         | 09:09        | 07:20 | 08:07 | 10:11 | 11:40 | 10:42                 | 0.34                  |
| <b>SB</b>   | Junction with Kingshead Lane            | 11:16        | 09:05 | 10:26 | 12:06 | 12:55 | 12:41                 | 1.38                  |

**Figure G.52 - Route 5: A38 Bedminster Parade - Bridgewater Road Southbound (PM Peak)**

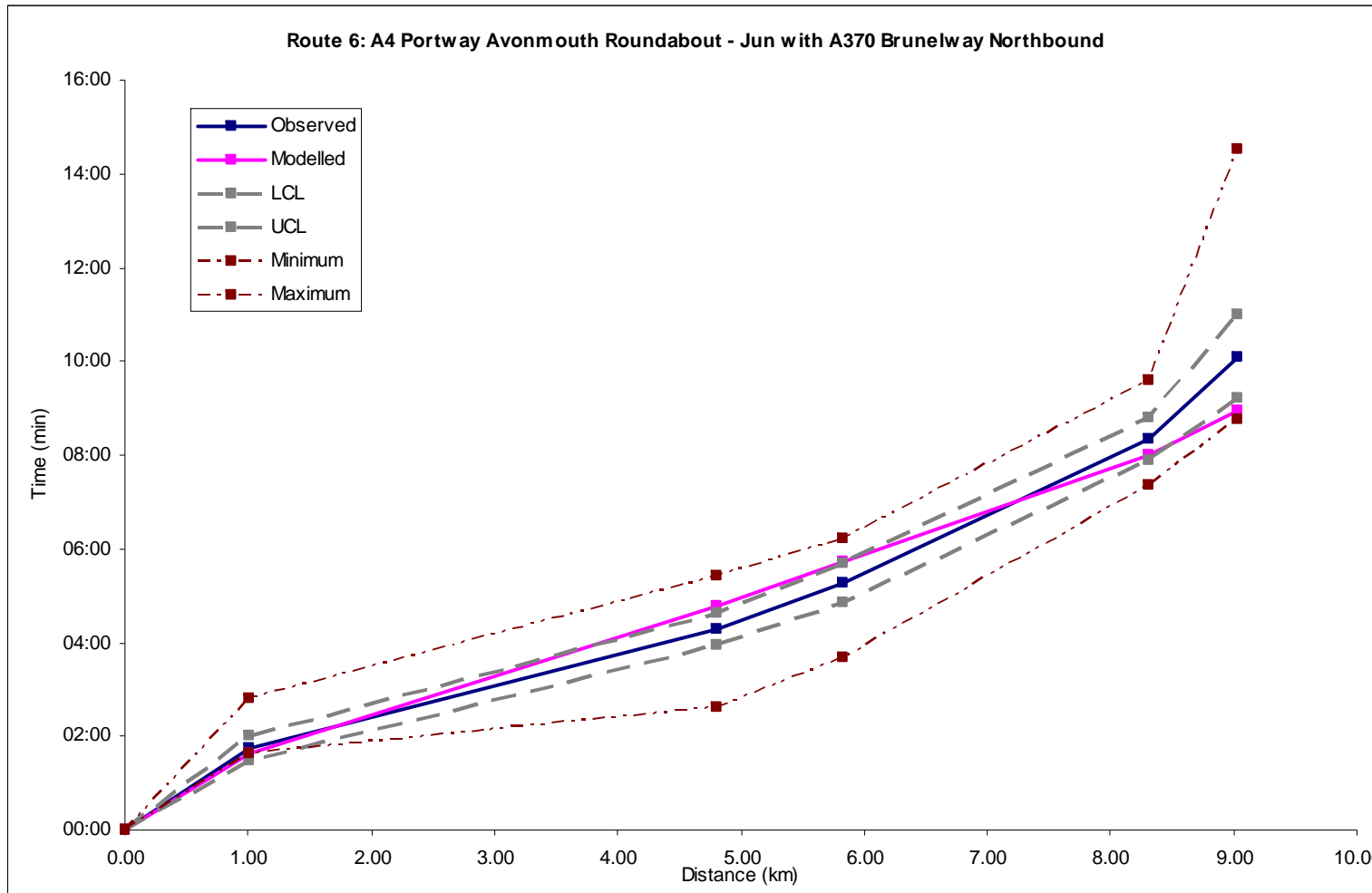


**Table G.53 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound (PM Peak)**

| Route   |                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound</b> |                             |              |       |       |       |       |                       |                       |
| <b>NB</b>   | Jct with A370 Brunel Way    | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>NB</b>   | Jct with Bridge Valley Road | 01:45        | 01:38 | 01:29 | 02:00 | 02:49 | 02:52                 | 1.01                  |
| <b>NB</b>   | Sea Mills Lane              | 04:17        | 02:38 | 03:56 | 04:39 | 05:26 | 06:26                 | 3.80                  |
| <b>NB</b>   | Jct with Sylvan Way         | 05:16        | 03:41 | 04:52 | 05:40 | 06:12 | 07:22                 | 1.03                  |
| <b>NB</b>   | Portway P&R bus exit        | 08:21        | 07:21 | 07:53 | 08:49 | 09:35 | 09:41                 | 2.48                  |
| <b>NB</b>   | Avonmouth Rbt               | 10:06        | 08:45 | 09:13 | 10:59 | 14:31 | 10:48                 | 0.73                  |



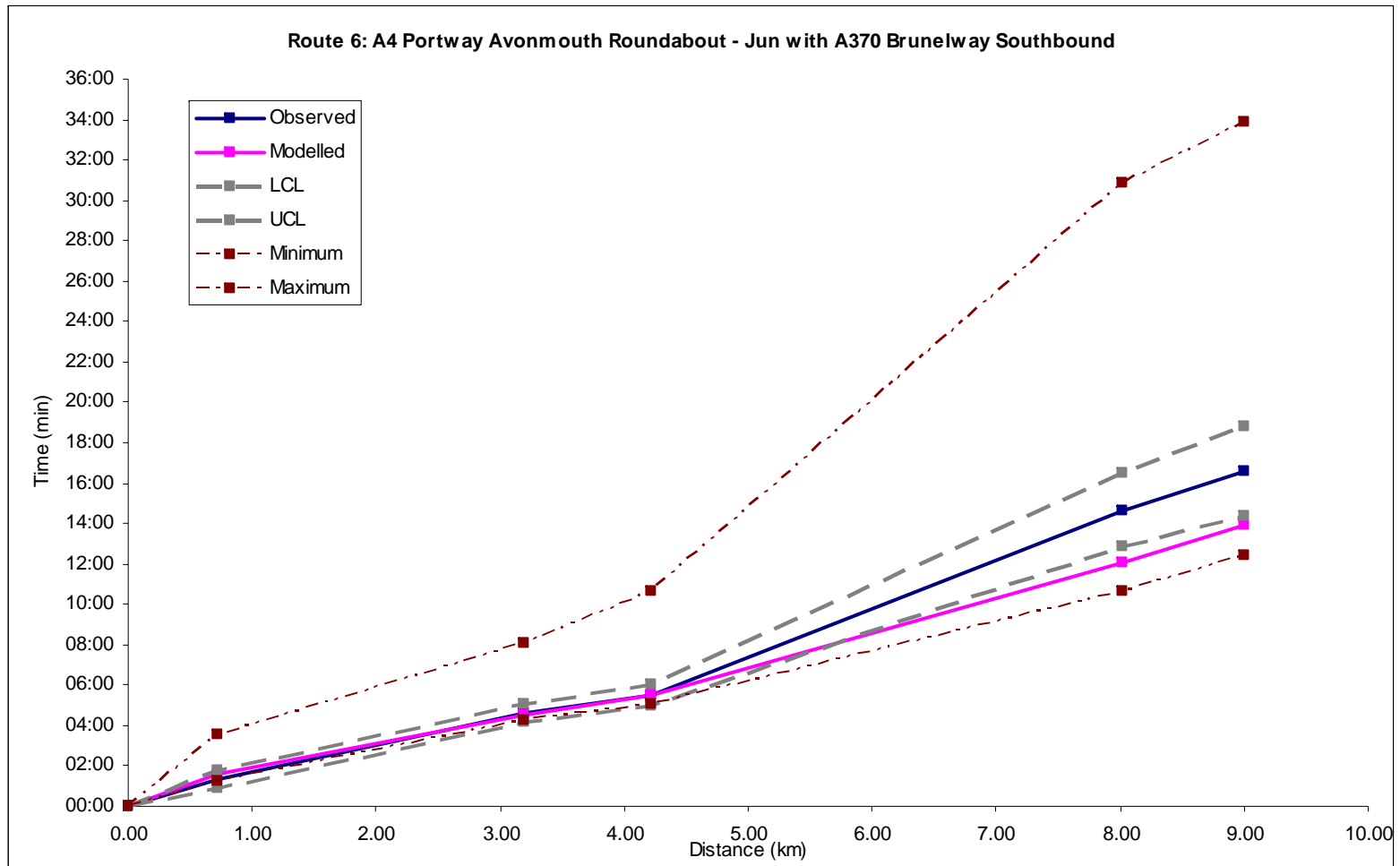
**Figure G.53 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Northbound (PM Peak)**



**Table G.54 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound (PM Peak)**

| Route   |                             | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|-----------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound</b> |                             |              |       |       |       |       |                       |                       |
| <b>SB</b>   | Avonmouth Rbt               | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>   | Portway P&R bus exit        | 01:18        | 01:17 | 00:51 | 01:45 | 03:35 | 01:44                 | 0.73                  |
| <b>SB</b>   | Jct with Sylvan Way         | 04:37        | 04:17 | 04:11 | 05:03 | 08:03 | 04:41                 | 2.48                  |
| <b>SB</b>   | Sea Mills Lane              | 05:30        | 05:04 | 05:00 | 06:00 | 10:40 | 05:41                 | 1.03                  |
| <b>SB</b>   | Jct with Bridge Valley Road | 14:40        | 10:39 | 12:50 | 16:29 | 30:49 | 12:23                 | 3.80                  |
| <b>SB</b>   | Jct with A370 Brunel Way    | 16:34        | 12:26 | 14:21 | 18:48 | 33:50 | 14:23                 | 0.98                  |

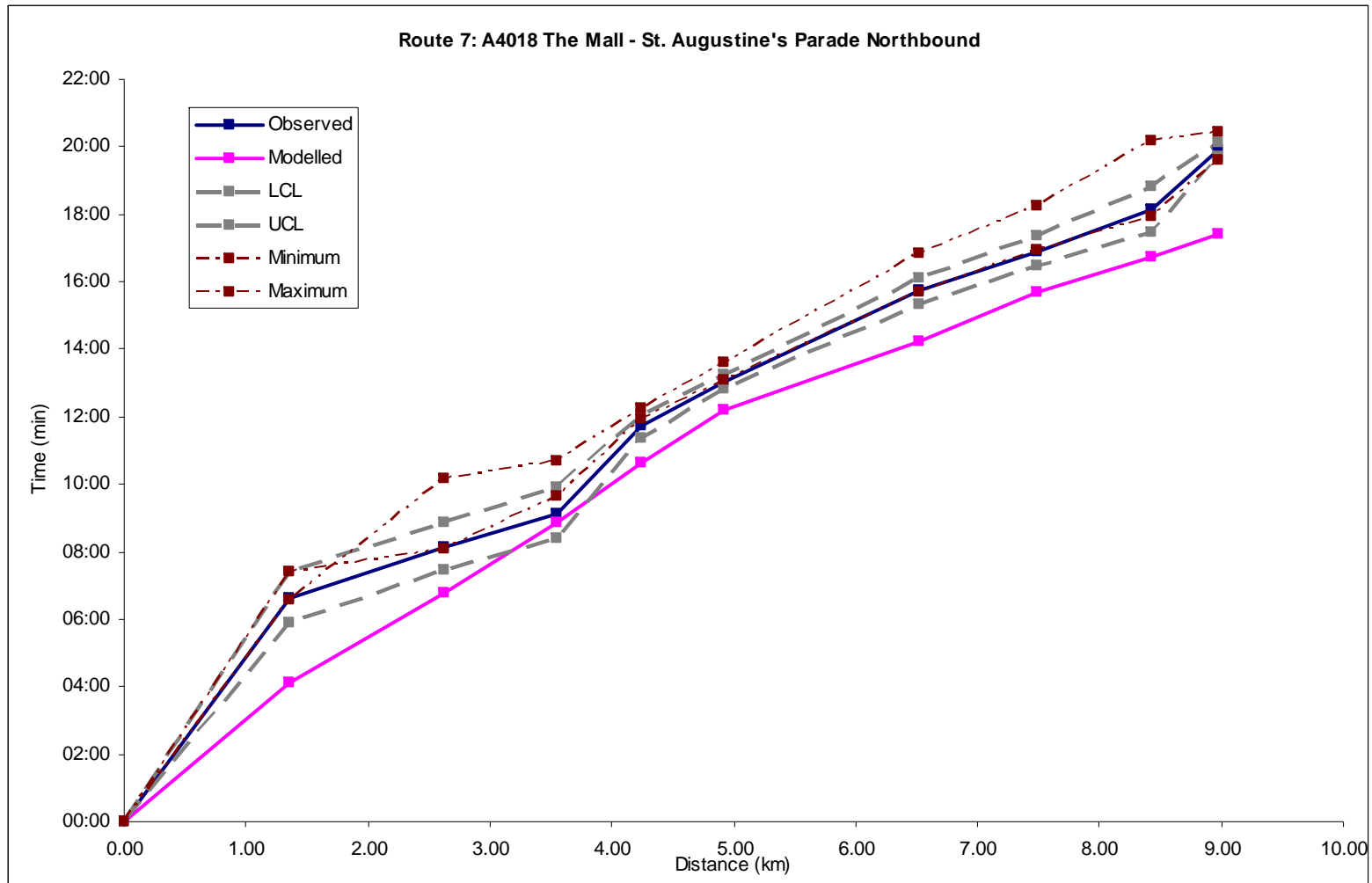
**Figure G.54 - Route 6: A4 Portway Avonmouth Roundabout - Jct with A370 Brunel Way Southbound (PM Peak)**



**Table G.55 - Route 7: A4018 The Mall - St. Augustine's Parade Northbound (PM Peak)**

| Route  |                                     | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod<br>(mins) | Cumulative Dist (kms) |
|--|-------------------------------------|--------------|-------|-------|-------|-------|--------------------------|-----------------------|
| <b>Route 7: A4018 The Mall - St. Augustine's Parade Northbound</b> |                                     |              |       |       |       |       |                          |                       |
| <b>NB</b>  | Jct with Queens Road/Whiteladies    | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                    | 0.00                  |
| <b>NB</b>  | Jct with Upper Belgrave Rd/Blackboy | 06:39        | 07:25 | 05:54 | 07:23 | 06:35 | 06:13                    | 1.36                  |
| <b>NB</b>  | Jct with North View                 | 08:09        | 08:05 | 07:27 | 08:51 | 10:10 | 09:19                    | 1.27                  |
| <b>NB</b>  | Jct with Westbury Road              | 09:09        | 09:40 | 08:23 | 09:54 | 10:40 | 11:32                    | 0.92                  |
| <b>NB</b>  | Jct with Canford Lane               | 11:42        | 11:55 | 11:23 | 12:01 | 12:15 | 13:35                    | 0.70                  |
| <b>NB</b>  | Jct with Henbury Road               | 13:02        | 13:05 | 12:49 | 13:14 | 13:37 | 15:23                    | 0.68                  |
| <b>NB</b>  | Jct with Crow Lane                  | 15:44        | 15:41 | 15:21 | 16:07 | 16:50 | 17:42                    | 1.60                  |
| <b>NB</b>  | Jct with Station Road               | 16:55        | 16:57 | 16:28 | 17:22 | 18:15 | 19:05                    | 0.98                  |
| <b>NB</b>  | Jct with A4018/Lysander Rd          | 18:08        | 17:55 | 17:28 | 18:48 | 20:10 | 22:47                    | 0.93                  |
| <b>NB</b>  | M5 Jct 17 entry                     | 19:55        | 19:35 | 19:43 | 20:06 | 20:25 | 23:32                    | 0.55                  |

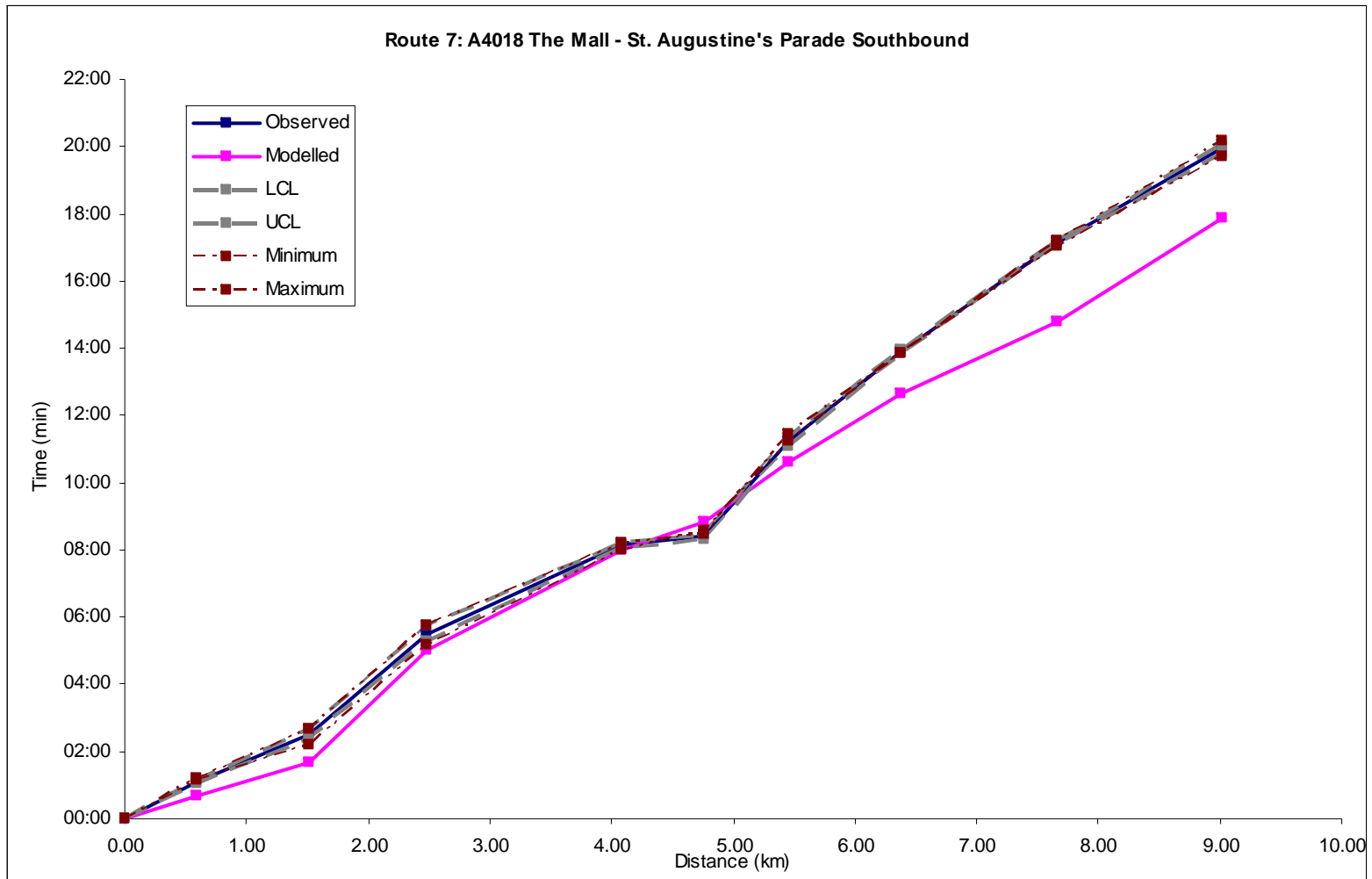
**Figure G.55 - Route 7: A4018 The Mall - St. Augustine's Parade Northbound (PM Peak)**



**Table G.56 - Route 7: A4018 The Mall - St. Augustine's Parade Southbound (PM Peak)**

| Route  |                                     | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod<br>(mins) | Cumulative Dist (kms) |
|--|-------------------------------------|--------------|-------|-------|-------|-------|--------------------------|-----------------------|
| <b>Route 7: A4018 The Mall - St. Augustine's Parade Southbound</b> |                                     |              |       |       |       |       |                          |                       |
| <b>SB</b>  | M5 Jct 17 entry                     | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                    | 0.00                  |
| <b>SB</b>  | Jct with A4018/Lysander Rd          | 01:07        | 01:10 | 01:04 | 01:10 | 01:12 | 00:43                    | 0.59                  |
| <b>SB</b>  | Jct with Station Road               | 02:32        | 02:12 | 02:23 | 02:40 | 02:41 | 01:42                    | 0.93                  |
| <b>SB</b>  | Jct with Crow Lane                  | 05:30        | 05:11 | 05:15 | 05:44 | 05:45 | 05:56                    | 0.98                  |
| <b>SB</b>  | Jct with Henbury Road               | 08:08        | 08:01 | 08:03 | 08:13 | 08:13 | 09:35                    | 1.60                  |
| <b>SB</b>  | Jct with Canford Lane               | 08:24        | 08:33 | 08:19 | 08:29 | 08:27 | 10:37                    | 0.68                  |
| <b>SB</b>  | Jct with Westbury Road              | 11:13        | 11:15 | 11:06 | 11:20 | 11:28 | 13:42                    | 0.70                  |
| <b>SB</b>  | Jct with North View                 | 13:54        | 13:52 | 13:50 | 13:57 | 13:51 | 16:31                    | 0.92                  |
| <b>SB</b>  | Jct with Upper Belgrave Rd/Blackboy | 17:07        | 17:01 | 17:04 | 17:10 | 17:10 | 19:27                    | 1.29                  |
| <b>SB</b>  | Jct with Queens Road/Whiteladies    | 19:57        | 19:41 | 19:49 | 20:04 | 20:09 | 22:41                    | 1.36                  |

**Figure G.56 - Route 7: A4018 The Mall - St. Augustine's Parade Southbound (PM Peak)**

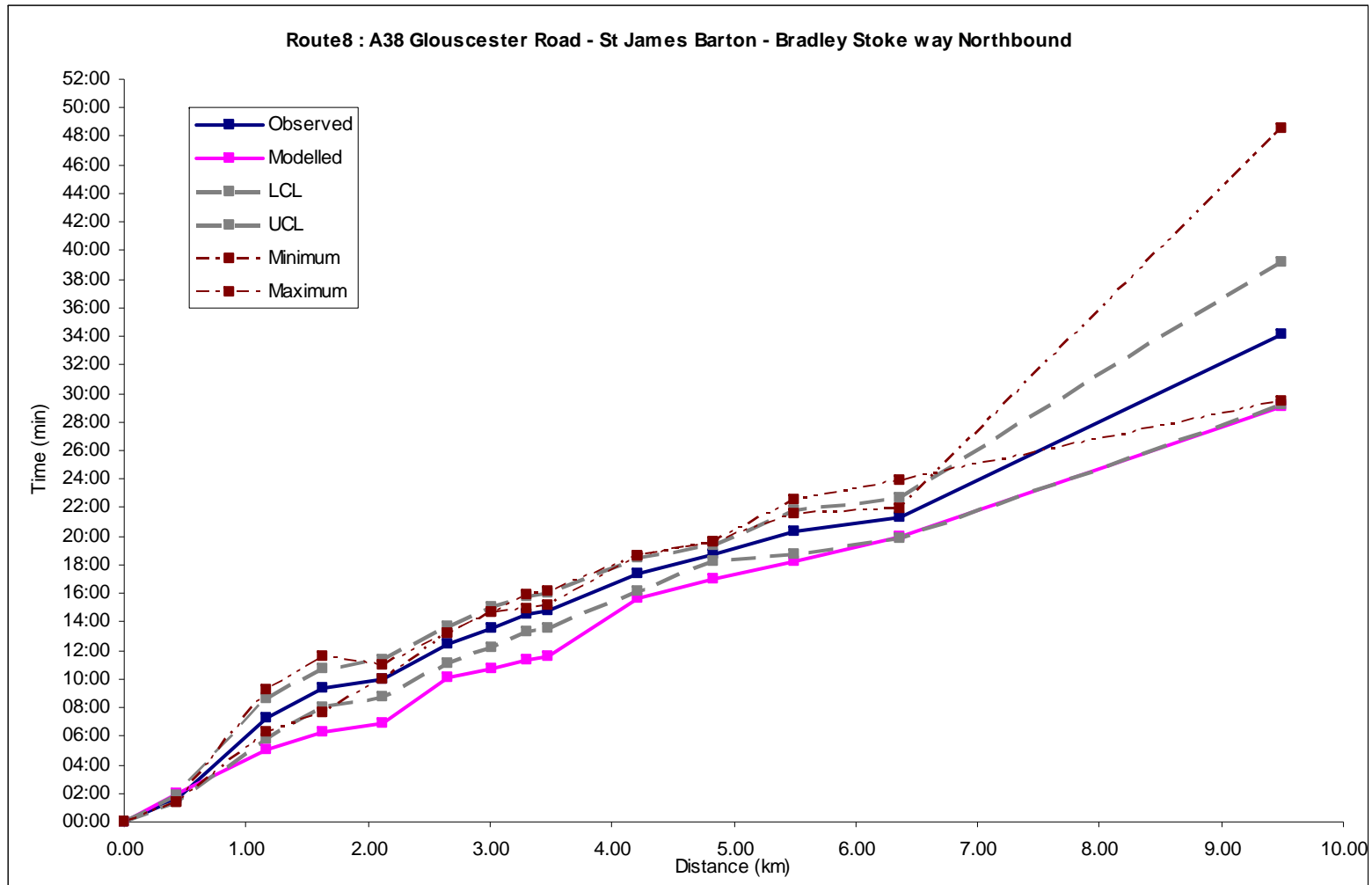


**Table G.57 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke way Northbound (PM Peak)**

| Route  |                                 | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod<br>(mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|--------------------------|-----------------------|
| <b>Route8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Northbound</b> |                                 |              |       |       |       |       |                          |                       |
| <b>NB</b>  | St James Barton                 | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                    | 0.00                  |
| <b>NB</b>  | Junction with Ashley Road       | 01:38        | 01:20 | 01:23 | 01:54 | 01:20 | 02:36                    | 0.43                  |
| <b>NB</b>  | Junction with Cranbrook Road    | 07:13        | 06:15 | 05:47 | 08:39 | 09:15 | 10:23                    | 0.74                  |
| <b>NB</b>  | Junction with Sommerville Road  | 09:21        | 07:35 | 08:00 | 10:42 | 11:35 | 13:33                    | 0.46                  |
| <b>NB</b>  | Junction with Bishop Road       | 10:01        | 09:57 | 08:46 | 11:17 | 10:57 | 14:09                    | 0.50                  |
| <b>NB</b>  | Junction with Ashley Down Road  | 12:24        | 13:10 | 11:07 | 13:40 | 13:10 | 18:16                    | 0.54                  |
| <b>NB</b>  | Junction with Filton Avenue     | 13:37        | 14:40 | 12:15 | 14:58 | 14:40 | 18:49                    | 0.36                  |
| <b>NB</b>  | Junction with Muller Road       | 14:32        | 15:53 | 13:19 | 15:44 | 14:53 | 19:22                    | 0.29                  |
| <b>NB</b>  | Junction with Kellaway Avenue   | 14:50        | 16:08 | 13:35 | 16:04 | 15:08 | 19:37                    | 0.18                  |
| <b>NB</b>  | Junction with Toronto Road      | 17:19        | 18:40 | 16:07 | 18:31 | 18:40 | 24:15                    | 0.73                  |
| <b>NB</b>  | Junction with Northville Road   | 18:47        | 19:35 | 18:12 | 19:23 | 19:35 | 25:31                    | 0.63                  |
| <b>NB</b>  | Filton Roundabout               | 20:16        | 22:33 | 18:46 | 21:47 | 21:33 | 26:55                    | 0.67                  |
| <b>NB</b>  | Junction with Filton Avenue     | 21:17        | 23:55 | 19:54 | 22:41 | 21:55 | 28:29                    | 0.86                  |
| <b>NB</b>  | Junction with Bradley Stoke Way | 34:09        | 29:30 | 29:09 | 39:08 | 48:30 | 38:45                    | 3.13                  |



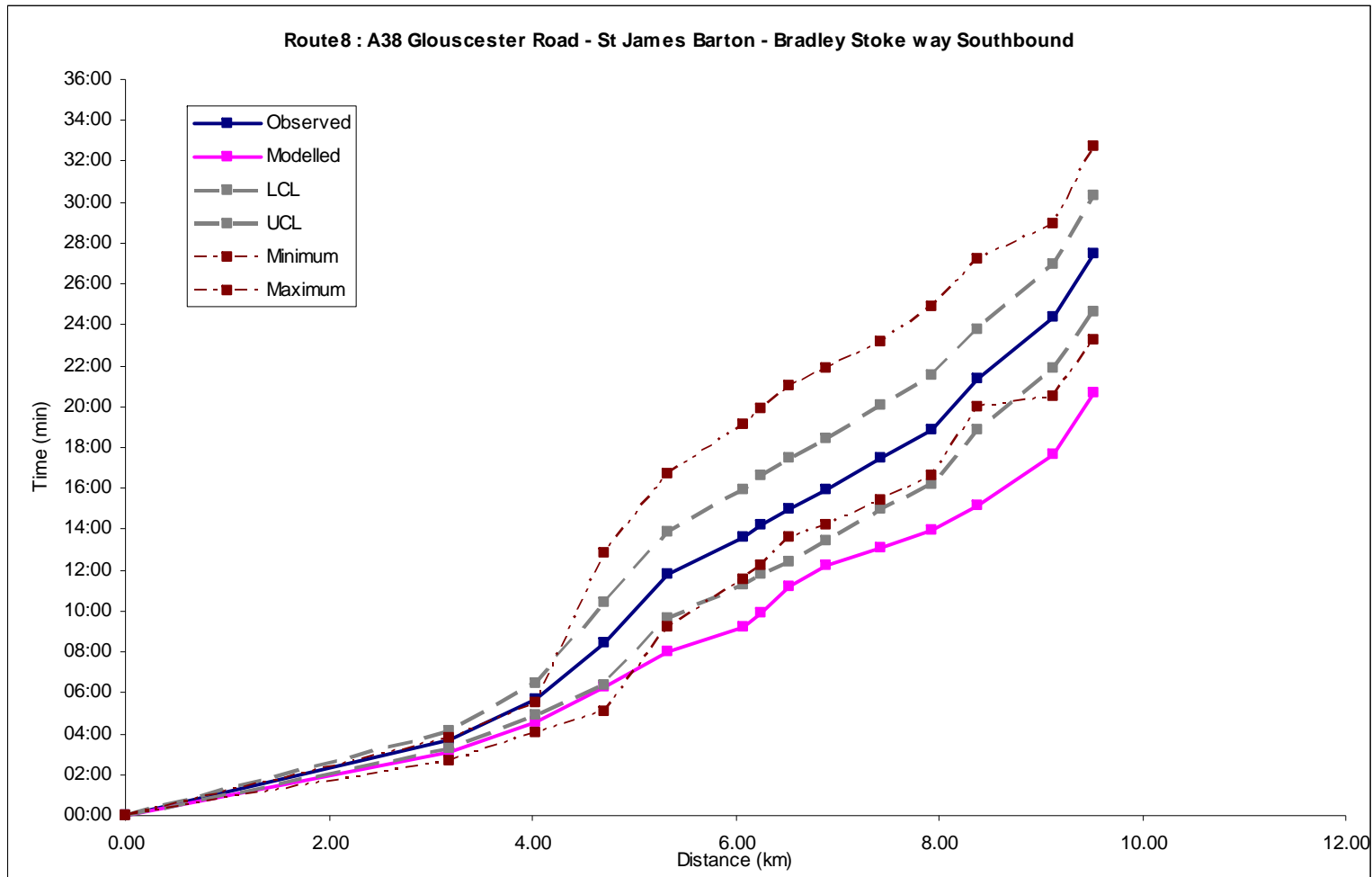
**Figure G.57 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke Way Northbound (PM Peak)**



**Table G.58 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound (PM Peak)**

| Route  |                                 | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route8 : A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound</b> |                                 |              |       |       |       |       |                       |                       |
| <b>SB</b>  | Junction with Bradley Stoke Way | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>SB</b>  | Junction with Filton Avenue     | 03:43        | 02:38 | 03:16 | 04:10 | 03:48 | 03:20                 | 3.19                  |
| <b>SB</b>  | Filton Roundabout               | 05:42        | 04:03 | 04:56 | 06:27 | 05:32 | 05:25                 | 0.84                  |
| <b>SB</b>  | Junction with Northville Road   | 08:25        | 05:04 | 06:24 | 10:26 | 12:51 | 09:08                 | 0.69                  |
| <b>SB</b>  | Junction with Toronto Road      | 11:47        | 09:13 | 09:39 | 13:54 | 16:41 | 17:15                 | 0.63                  |
| <b>SB</b>  | Junction with Kellaway Avenue   | 13:35        | 11:33 | 11:15 | 15:54 | 19:07 | 19:05                 | 0.73                  |
| <b>SB</b>  | Junction with Muller Road       | 14:12        | 12:15 | 11:46 | 16:37 | 19:56 | 19:44                 | 0.18                  |
| <b>SB</b>  | Junction with Filton Avenue     | 14:57        | 13:39 | 12:25 | 17:29 | 21:02 | 21:57                 | 0.29                  |
| <b>SB</b>  | Junction with Ashley Down Road  | 15:56        | 14:15 | 13:24 | 18:27 | 21:55 | 23:17                 | 0.36                  |
| <b>SB</b>  | Junction with Bishop Road       | 17:31        | 15:23 | 14:59 | 20:04 | 23:12 | 24:35                 | 0.54                  |
| <b>SB</b>  | Junction with Sommerville Road  | 18:52        | 16:38 | 16:12 | 21:32 | 24:55 | 25:46                 | 0.50                  |
| <b>SB</b>  | Junction with Cranbrook Road    | 21:19        | 19:59 | 18:52 | 23:47 | 27:12 | 27:17                 | 0.46                  |
| <b>SB</b>  | Junction with Ashley Road       | 24:25        | 20:28 | 21:52 | 26:57 | 28:57 | 30:21                 | 0.74                  |
| <b>SB</b>  | St James Barton                 | 27:30        | 23:13 | 24:38 | 30:21 | 32:42 | 34:00                 | 0.41                  |

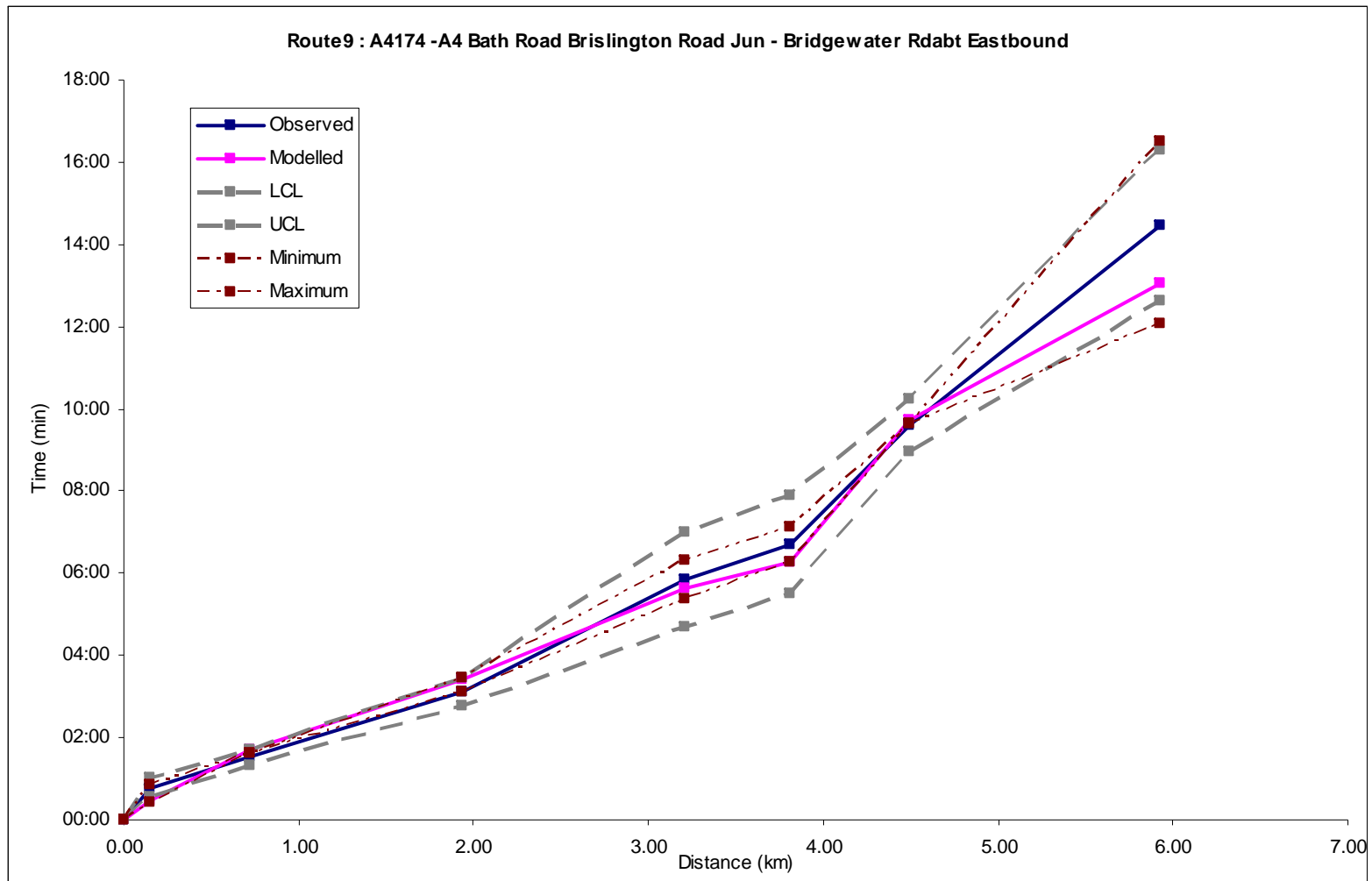
**Figure G.58 - Route 8: A38 Gloucester Road - St James Barton - Bradley Stoke way Southbound (PM Peak)**



**Table G.59 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound (PM Peak)**

| Route   |                                      | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|--------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound</b> |                                      |              |       |       |       |       |                       |                       |
| <b>EB</b>   | Junction with Kings Head Lane        | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>EB</b>   | Junction with Bishopsworth Road      | 00:47        | 00:52 | 00:33 | 01:01 | 00:26 | 00:31                 | 0.15                  |
| <b>EB</b>   | Whitchurch Lane - Hareclive Road Jct | 01:32        | 01:38 | 01:20 | 01:43 | 01:36 | 01:40                 | 0.58                  |
| <b>EB</b>   | Hartcliffe Way roundabout            | 03:08        | 03:27 | 02:47 | 03:28 | 03:08 | 03:19                 | 1.21                  |
| <b>EB</b>   | Junction with Creswicke Road         | 05:51        | 06:20 | 04:42 | 07:00 | 05:23 | 05:29                 | 1.28                  |
| <b>EB</b>   | Junction with Salcombe Road          | 06:43        | 07:08 | 05:31 | 07:54 | 06:16 | 06:07                 | 0.60                  |
| <b>EB</b>   | Junction with A37 Wells Road         | 09:36        | 09:38 | 08:58 | 10:14 | 09:38 | 08:19                 | 0.69                  |
| <b>EB</b>   | Junction with A4174/Bath Road        | 14:28        | 12:03 | 12:37 | 16:18 | 16:30 | 11:39                 | 1.44                  |

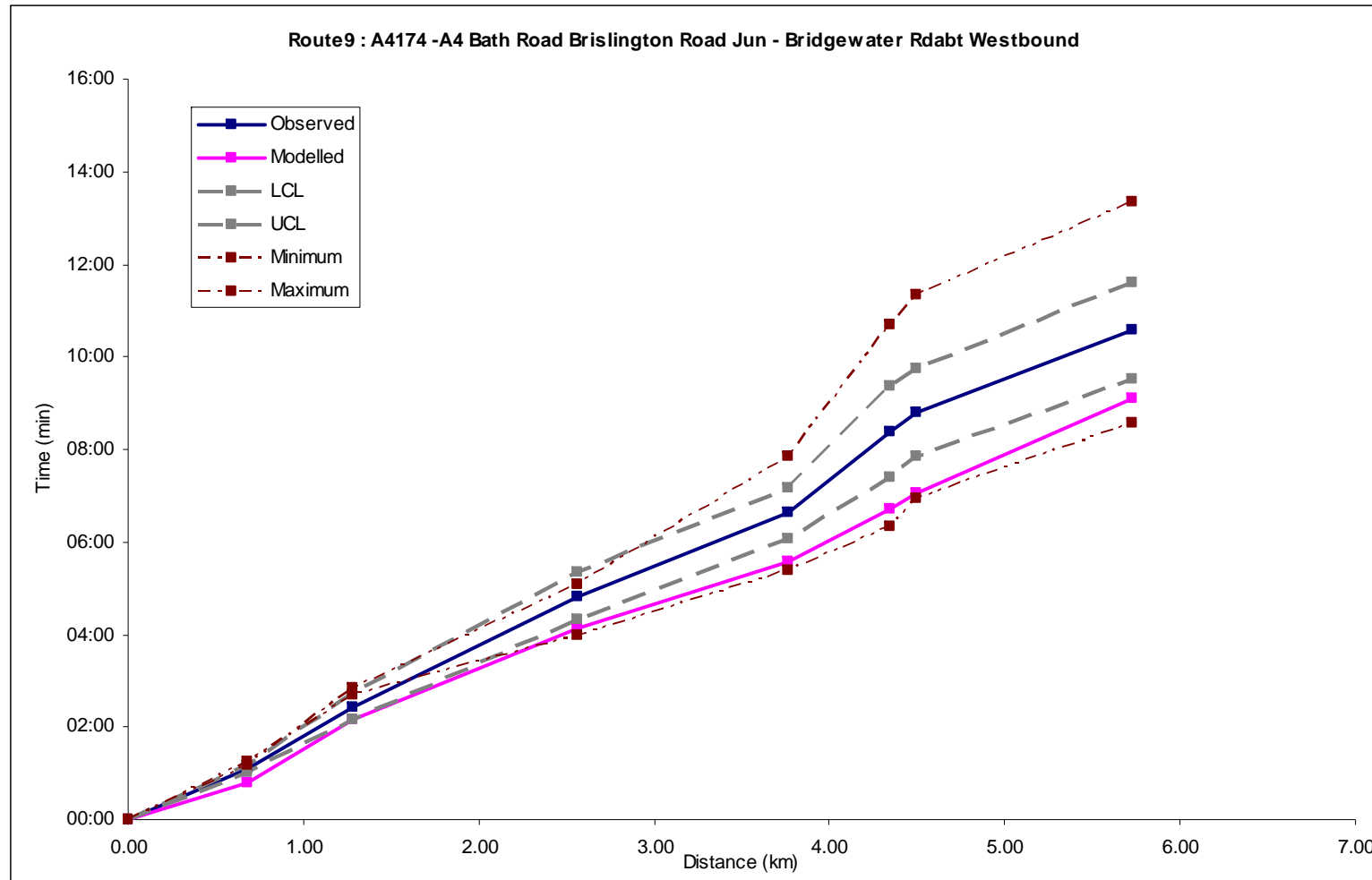
**Figure G.59 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Eastbound (PM Peak)**



**Table G.60 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound (PM Peak)**

| Route   |                                      | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|--------------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route9 : A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound</b> |                                      |              |       |       |       |       |                       |                       |
| <b>WB</b>   | Junction with A37 Wells Road         | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>WB</b>   | Junction with Salcombe Road          | 01:06        | 01:14 | 01:01 | 01:11 | 01:10 | 00:48                 | 0.69                  |
| <b>WB</b>   | Junction with Creswicke Road         | 02:26        | 02:42 | 02:09 | 02:43 | 02:50 | 02:05                 | 0.60                  |
| <b>WB</b>   | Hartcliffe Way roundabout            | 04:50        | 03:58 | 04:20 | 05:20 | 05:05 | 04:02                 | 1.28                  |
| <b>WB</b>   | Whitchurch Lane - Hareclive Road Jct | 06:37        | 05:24 | 06:04 | 07:10 | 07:50 | 05:28                 | 1.21                  |
| <b>WB</b>   | Junction with Bishopsworth Road      | 08:23        | 06:20 | 07:25 | 09:21 | 10:42 | 06:46                 | 0.58                  |
| <b>WB</b>   | Junction with Kings Head Lane        | 08:48        | 06:56 | 07:51 | 09:46 | 11:20 | 07:08                 | 0.15                  |
| <b>WB</b>   | Junction with A38 Bridgewater Road   | 10:34        | 08:34 | 09:32 | 11:36 | 13:20 | 09:39                 | 1.23                  |

**Figure G.60 - Route 9: A4174 -A4 Bath Road Brislington Road Jct - Bridgewater Roundabout Westbound (PM Peak)**



**Table G.61 - Route 10: Avon Ring Road (Using HOV Lanes) (PM Peak)**

| Route  |                                 | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|--|---------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 10 : Avon Ring Road (Using HOV Lanes)</b> |                                 |              |       |       |       |       |                       |                       |
| <b>OB</b>  | A4174/A4 Roundabout, Hicks Gate | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>OB</b>  | A4174 Kingsfield Rbt            | 02:23        | 02:11 | 01:59 | 02:47 | 02:35 | 02:52                 | 2.86                  |
| <b>OB</b>  | A4174/Wraxall Rd Rbt            | 03:57        | 03:19 | 02:43 | 05:11 | 04:35 | 04:03                 | 1.04                  |
| <b>OB</b>  | A4174/A420 Deanery Rd Rbt       | 04:53        | 04:19 | 03:46 | 06:01 | 05:28 | 05:08                 | 0.88                  |
| <b>OB</b>  | A4174 Siston Hill Rbt           | 06:13        | 05:27 | 04:43 | 07:43 | 06:59 | 06:29                 | 1.22                  |
| <b>OB</b>  | A4174 Dramway Rbt               | 07:58        | 07:16 | 06:35 | 09:22 | 08:41 | 08:38                 | 1.98                  |
| <b>OB</b>  | A4174/Emersons Way Rbt          | 08:59        | 07:52 | 06:47 | 11:12 | 10:07 | 09:28                 | 0.49                  |
| <b>OB</b>  | A4174 Westerleigh Rd Rbt        | 10:22        | 09:52 | 09:23 | 11:22 | 10:53 | 10:35                 | 1.05                  |
| <b>OB</b>  | Badminton Rd Rbt                | 11:43        | 11:21 | 10:59 | 12:28 | 12:06 | 12:21                 | 1.01                  |
| <b>OB</b>  | Church Lane Footbridge          | 12:18        | 11:55 | 11:32 | 13:05 | 12:42 | 13:16                 | 0.77                  |
| <b>OB</b>  | Bromley Heath Rbt               | 13:07        | 12:43 | 12:20 | 13:54 | 13:31 | 14:04                 | 0.67                  |
| <b>OB</b>  | Hambrook Signals                | 14:43        | 14:30 | 14:18 | 15:07 | 14:55 | 15:41                 | 0.83                  |
| <b>OB</b>  | M32 J1 Rbt                      | 15:38        | 15:20 | 15:03 | 16:13 | 15:56 | 16:30                 | 0.46                  |
| <b>OB</b>  | ARR/Coldharbour Lane Signals    | 17:51        | 18:16 | 17:03 | 18:40 | 17:27 | 18:41                 | 1.52                  |
| <b>OB</b>  | MOD Rbt                         | 19:16        | 19:08 | 19:01 | 19:30 | 19:23 | 19:42                 | 0.71                  |
| <b>OB</b>  | A4174/Filton Ave Signals        | 22:10        | 20:22 | 18:38 | 25:43 | 23:59 | 23:30                 | 0.68                  |
| <b>OB</b>  | A38/A4174 Filton Rbt            | 24:40        | 23:06 | 21:35 | 27:46 | 26:15 | 24:26                 | 0.90                  |
| <b>OB</b>  | A4174/Filton Ave Signals        | 28:52        | 27:53 | 26:56 | 30:49 | 29:52 | 26:52                 | 1.00                  |
| <b>OB</b>  | MOD Rbt                         | 31:37        | 30:56 | 30:17 | 32:57 | 32:18 | 28:47                 | 0.59                  |
| <b>OB</b>  | ARR/Coldharbour Lane Signals    | 34:44        | 33:31 | 32:21 | 37:07 | 35:57 | 33:52                 | 0.82                  |
| <b>OB</b>  | M32 J1 Rbt                      | 39:30        | 38:39 | 37:50 | 41:11 | 40:22 | 37:08                 | 1.36                  |
| <b>OB</b>  | Hambrook Signals                | 42:08        | 41:09 | 40:12 | 44:04 | 43:07 | 38:51                 | 0.60                  |
| <b>OB</b>  | Bromley Heath Rbt               | 43:04        | 42:11 | 41:20 | 44:48 | 43:57 | 40:40                 | 0.78                  |
| <b>OB</b>  | Church Lane Footbridge          | 46:27        | 44:51 | 43:19 | 49:34 | 48:02 | 41:56                 | 1.24                  |

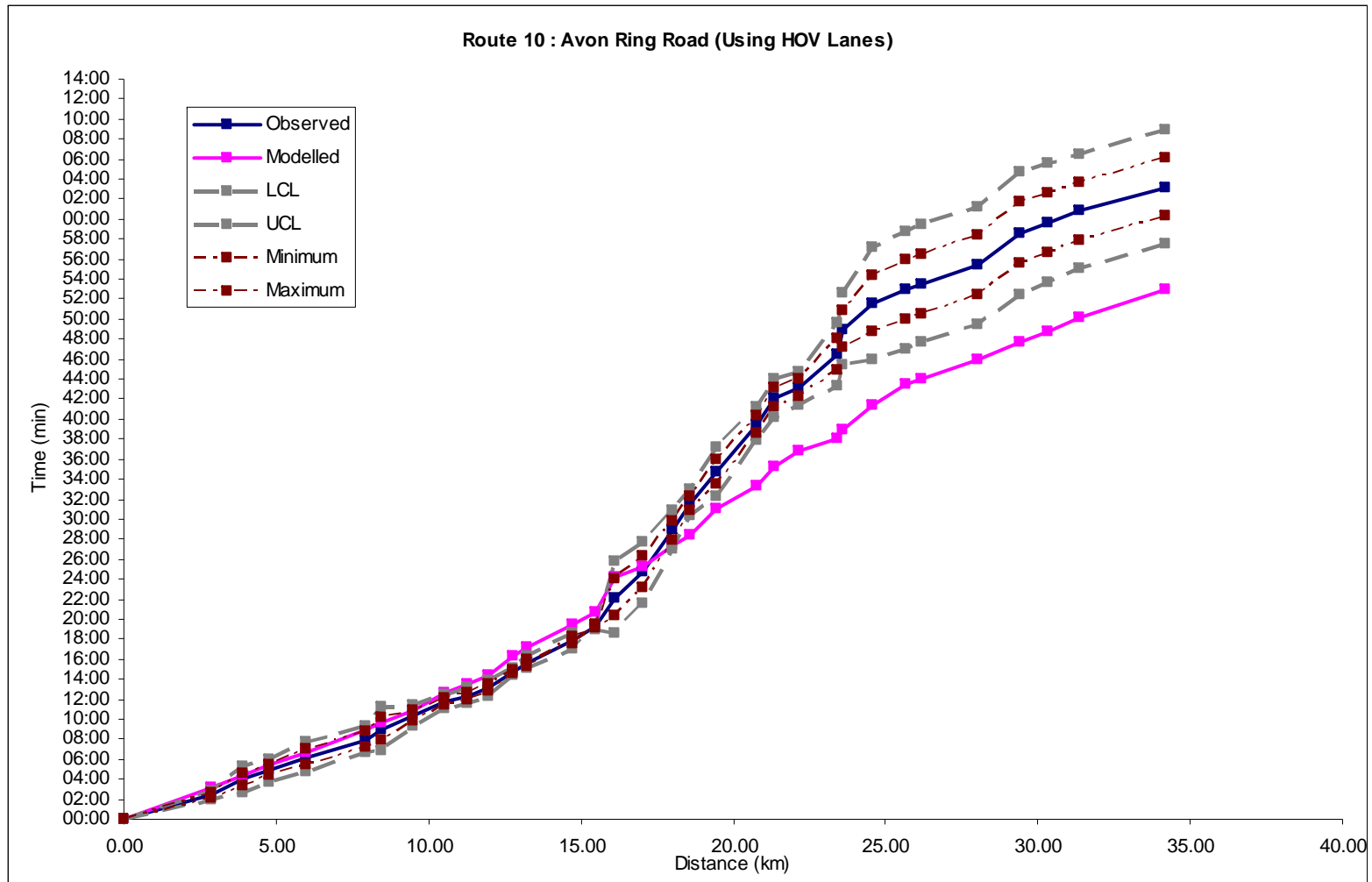


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|           |                                 |       |       |       |       |       |       |      |
|-----------|---------------------------------|-------|-------|-------|-------|-------|-------|------|
| <b>OB</b> | Badminton Rd Rbt                | 48:57 | 47:06 | 45:20 | 52:33 | 50:47 | 42:39 | 0.19 |
| <b>OB</b> | Westerleigh Rd Rbt              | 51:31 | 48:40 | 45:55 | 57:08 | 54:23 | 44:42 | 0.98 |
| <b>OB</b> | A4174/Emersons Way Rbt          | 52:53 | 49:54 | 47:02 | 58:45 | 55:53 | 47:15 | 1.14 |
| <b>OB</b> | A4174 Dramway Rbt               | 53:33 | 50:32 | 47:39 | 59:26 | 56:33 | 47:40 | 0.48 |
| <b>OB</b> | A4174 Siston Hill Rbt           | 55:23 | 52:24 | 49:32 | 01:14 | 58:22 | 49:42 | 1.89 |
| <b>OB</b> | A4174/A420 Deanery Rd Rbt       | 58:36 | 55:30 | 52:31 | 04:42 | 01:43 | 51:41 | 1.38 |
| <b>OB</b> | A4174/Wraxall Rd Rbt            | 59:37 | 56:36 | 53:42 | 05:33 | 02:39 | 52:50 | 0.88 |
| <b>OB</b> | A4174 Kingsfield Rbt            | 00:47 | 57:52 | 55:04 | 06:30 | 03:42 | 54:19 | 1.04 |
| <b>OB</b> | A4174/A4 Roundabout, Hicks Gate | 03:12 | 00:17 | 57:29 | 08:55 | 06:07 | 57:21 | 2.86 |



**Figure G.61 - Route 10: Avon Ring Road (Using HOV Lanes) (PM Peak)**



**Table G.62 - Route 10: Avon Ring Road (Using Non-HOV Lanes) (PM Peak)**

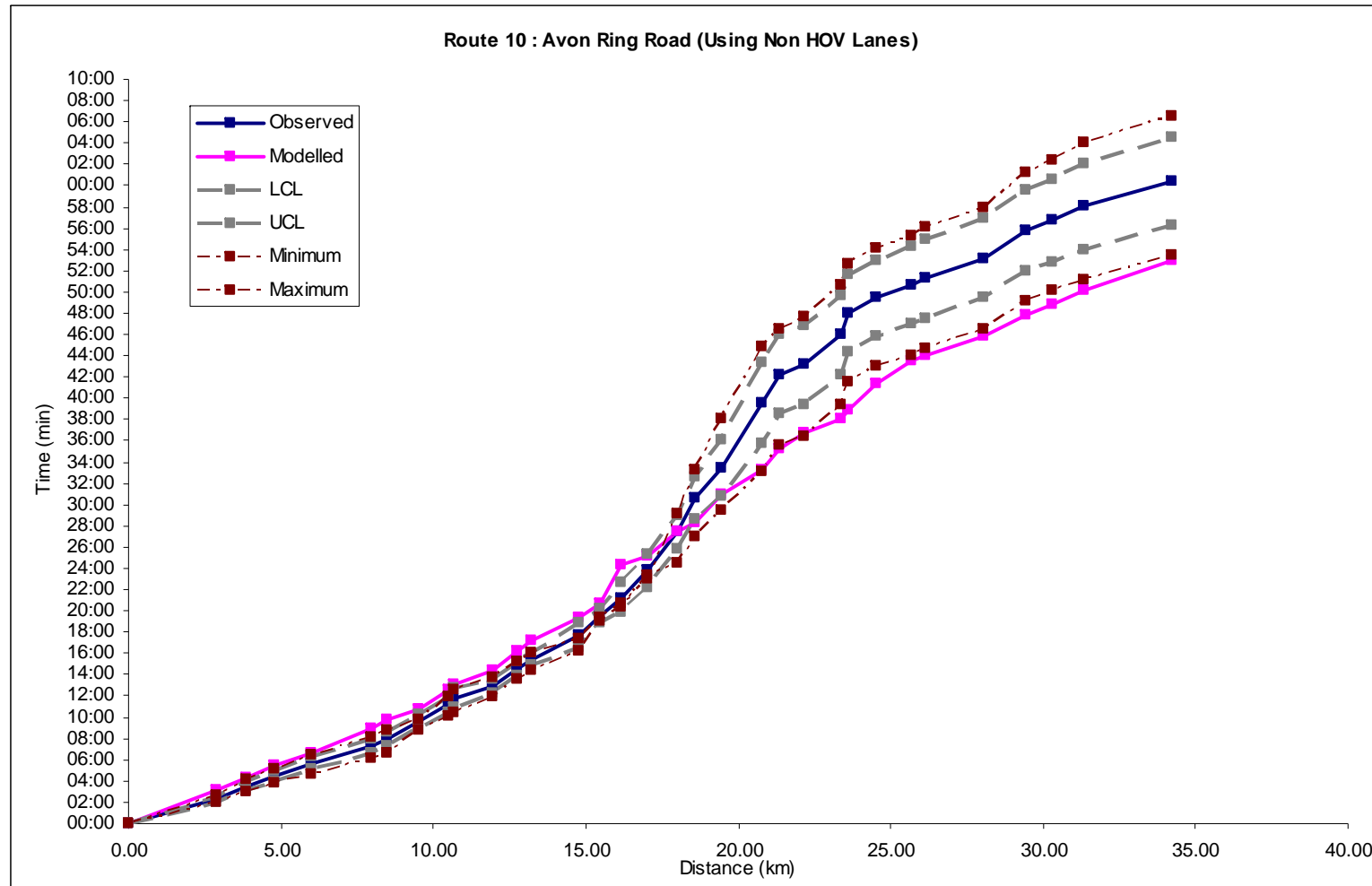
| Route   |                                 | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|---|---------------------------------|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 10 : Avon Ring Road (Using NonHOV Lanes)</b> |                                 |              |       |       |       |       |                       |                       |
| <b>OB</b>   | A4174/A4 Roundabout, Hicks Gate | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>OB</b>   | A4174 Kingsfield Rbt            | 02:18        | 01:59 | 02:03 | 02:33 | 02:40 | 02:52                 | 2.86                  |
| <b>OB</b>   | A4174/Wraxall Rd Rbt            | 03:29        | 02:58 | 03:04 | 03:54 | 04:10 | 04:03                 | 1.04                  |
| <b>OB</b>   | A4174/A420 Deanery Rd Rbt       | 04:26        | 03:44 | 03:57 | 04:56 | 05:05 | 05:08                 | 0.88                  |
| <b>OB</b>   | A4174 Siston Hill Rbt           | 05:41        | 04:40 | 05:05 | 06:17 | 06:23 | 06:29                 | 1.22                  |
| <b>OB</b>   | A4174 Dramway Rbt               | 07:21        | 06:09 | 06:41 | 08:00 | 08:06 | 08:38                 | 1.98                  |
| <b>OB</b>   | A4174/Emersons Way Rbt          | 07:53        | 06:42 | 07:14 | 08:33 | 08:42 | 09:28                 | 0.49                  |
| <b>OB</b>   | A4174 Westerleigh Rd Rbt        | 09:40        | 08:42 | 09:01 | 10:19 | 09:48 | 10:35                 | 1.05                  |
| <b>OB</b>   | Badminton Rd Rbt                | 11:11        | 10:05 | 10:27 | 11:55 | 11:55 | 12:21                 | 1.01                  |
| <b>OB</b>   | Church Lane Footbridge          | 11:49        | 10:28 | 10:55 | 12:43 | 12:33 | 12:48                 | 0.20                  |
| <b>OB</b>   | Bromley Heath Rbt               | 12:58        | 11:56 | 12:18 | 13:38 | 13:48 | 14:04                 | 1.24                  |
| <b>OB</b>   | Hambrook Signals                | 14:35        | 13:30 | 13:59 | 15:11 | 15:10 | 15:40                 | 0.83                  |
| <b>OB</b>   | M32 J1 Rbt                      | 15:26        | 14:20 | 14:51 | 16:00 | 16:00 | 16:29                 | 0.46                  |
| <b>OB</b>   | ARR/Coldharbour Lane Signals    | 17:45        | 16:09 | 16:37 | 18:53 | 17:23 | 18:41                 | 1.52                  |
| <b>OB</b>   | MOD Rbt                         | 19:30        | 19:04 | 18:47 | 20:12 | 19:18 | 19:42                 | 0.71                  |
| <b>OB</b>   | A4174/Filton Ave Signals        | 21:15        | 20:23 | 19:47 | 22:43 | 20:42 | 23:30                 | 0.68                  |
| <b>OB</b>   | A38/A4174 Filton Rbt            | 23:46        | 23:19 | 22:11 | 25:21 | 23:05 | 24:26                 | 0.90                  |
| <b>OB</b>   | A4174/Filton Ave Signals        | 27:26        | 24:27 | 25:51 | 29:02 | 29:06 | 26:52                 | 1.00                  |
| <b>OB</b>   | MOD Rbt                         | 30:34        | 27:03 | 28:37 | 32:32 | 33:15 | 28:47                 | 0.59                  |
| <b>OB</b>   | ARR/Coldharbour Lane Signals    | 33:26        | 29:27 | 30:44 | 36:08 | 38:06 | 33:52                 | 0.82                  |
| <b>OB</b>   | M32 J1 Rbt                      | 39:34        | 33:03 | 35:49 | 43:19 | 44:50 | 37:08                 | 1.36                  |
| <b>OB</b>   | Hambrook Signals                | 42:15        | 35:31 | 38:32 | 45:58 | 46:35 | 38:51                 | 0.60                  |
| <b>OB</b>   | Bromley Heath Rbt               | 43:09        | 36:21 | 39:24 | 46:53 | 47:36 | 40:40                 | 0.78                  |
| <b>OB</b>   | Church Lane Footbridge          | 45:57        | 39:19 | 42:15 | 49:39 | 50:35 | 41:56                 | 1.24                  |

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|           |                                 |       |       |       |       |       |       |      |
|-----------|---------------------------------|-------|-------|-------|-------|-------|-------|------|
| <b>OB</b> | Badminton Rd Rbt                | 48:00 | 41:28 | 44:22 | 51:37 | 52:33 | 42:38 | 0.19 |
| <b>OB</b> | Westerleigh Rd Rbt              | 49:25 | 43:00 | 45:51 | 53:00 | 54:02 | 44:42 | 0.98 |
| <b>OB</b> | A4174/Emersons Way Rbt          | 50:38 | 44:03 | 46:59 | 54:18 | 55:20 | 47:15 | 1.14 |
| <b>OB</b> | A4174 Dramway Rbt               | 51:15 | 44:38 | 47:33 | 54:56 | 56:07 | 47:40 | 0.48 |
| <b>OB</b> | A4174 Siston Hill Rbt           | 53:10 | 46:27 | 49:25 | 56:55 | 57:58 | 49:42 | 1.89 |
| <b>OB</b> | A4174/A420 Deanery Rd Rbt       | 55:43 | 49:07 | 51:55 | 59:31 | 01:12 | 51:41 | 1.38 |
| <b>OB</b> | A4174/Wraxall Rd Rbt            | 56:42 | 50:06 | 52:52 | 00:32 | 02:20 | 52:50 | 0.88 |
| <b>OB</b> | A4174 Kingsfield Rbt            | 58:02 | 51:11 | 54:01 | 02:03 | 04:05 | 54:19 | 1.04 |
| <b>OB</b> | A4174/A4 Roundabout, Hicks Gate | 00:26 | 53:23 | 56:20 | 04:32 | 06:28 | 57:20 | 2.86 |



**Figure G.62 - Route 10: Avon Ring Road (Using Non HOV Lanes) (PM Peak)**



**Table G.63 - A432 from A4174 to Easton Way & Return (PM Peak)**

| Route                   |  | Average Time | Min   | LCL   | UCL   | Max   | Cumulative Mod (mins) | Cumulative Dist (kms) |
|-------------------------|--|--------------|-------|-------|-------|-------|-----------------------|-----------------------|
| <b>Route 11: A432 :</b> |  |              |       |       |       |       |                       |                       |
| <b>OB</b>               | A4174/A432 Roundabout                          | 00:00        | 00:00 | 00:00 | 00:00 | 00:00 | 00:00                 | 0.00                  |
| <b>OB</b>               | A432/Blackhorse Lane junction                  | 01:01        | 00:52 | 00:51 | 01:10 | 00:43 | 00:41                 | 0.47                  |
| <b>OB</b>               | Entry from service road opposite Westbourne Rd | 01:34        | 01:25 | 01:24 | 01:44 | 01:15 | 01:07                 | 0.44                  |
| <b>OB</b>               | A432/Four Acre Road Junction                   | 01:46        | 01:32 | 01:35 | 01:56 | 01:23 | 01:14                 | 0.10                  |
| <b>OB</b>               | Oakdale Rd/A432 Junction                       | 02:37        | 03:03 | 02:25 | 02:48 | 02:06 | 01:53                 | 0.57                  |
| <b>OB</b>               | Cleeve Hill/A432 Signals                       | 03:48        | 04:55 | 03:32 | 04:04 | 03:01 | 02:48                 | 0.42                  |
| <b>OB</b>               | Downend Rbt                                    | 04:24        | 05:30 | 04:06 | 04:41 | 03:41 | 03:08                 | 0.16                  |
| <b>OB</b>               | A432/Croomes Hill Signals                      | 05:15        | 05:30 | 04:58 | 05:33 | 04:50 | 04:05                 | 0.45                  |
| <b>OB</b>               | A432/Staple Hill Road junction                 | 07:05        | 05:30 | 06:44 | 07:25 | 06:25 | 05:57                 | 1.13                  |
| <b>OB</b>               | A432/Lodge Causeway Signals                    | 10:27        | 05:30 | 09:47 | 11:07 | 12:36 | 08:57                 | 1.15                  |
| <b>OB</b>               | A432/Muller Road Rbt                           | 13:13        | 05:30 | 12:25 | 14:00 | 15:09 | 15:22                 | 1.46                  |
| <b>OB</b>               | A432/Easton Way Signals                        | 17:21        | 05:30 | 16:07 | 18:34 | 21:33 | 18:12                 | 1.80                  |
| <b>OB</b>               | A432/Easton Way Signals                        | 20:59        | 05:30 | 19:17 | 22:41 | 27:19 | 21:02                 | 1.18                  |
| <b>OB</b>               | A432/Muller Road Rbt                           | 24:45        | 05:30 | 22:43 | 26:48 | 30:37 | 24:29                 | 1.80                  |
| <b>OB</b>               | A432/Lodge Causeway Signals                    | 28:15        | 05:30 | 25:55 | 30:36 | 35:20 | 31:43                 | 1.46                  |
| <b>OB</b>               | A432/Staple Hill Road junction                 | 30:48        | 05:30 | 28:10 | 33:27 | 40:10 | 35:36                 | 1.15                  |
| <b>OB</b>               | A432/Croomes Hill Signals                      | 32:43        | 05:30 | 29:57 | 35:29 | 41:45 | 37:30                 | 1.13                  |
| <b>OB</b>               | Downend Rbt                                    | 33:39        | 05:30 | 30:50 | 36:28 | 42:23 | 38:12                 | 0.45                  |
| <b>OB</b>               | Cleeve Hill/A432 Signals                       | 34:35        | 05:30 | 31:39 | 37:31 | 44:05 | 40:00                 | 0.14                  |
| <b>OB</b>               | Oakdale Rd/A432 Junction                       | 35:19        | 05:30 | 32:19 | 38:18 | 44:46 | 40:26                 | 0.42                  |
| <b>OB</b>               | A432/Four Acre Road Junction                   | 36:00        | 05:30 | 32:57 | 39:04 | 45:26 | 41:02                 | 0.57                  |
| <b>OB</b>               | Exit from service road opposite Westbourne Rd  | 36:12        | 05:30 | 33:08 | 39:16 | 45:41 | 41:10                 | 0.10                  |
| <b>OB</b>               | A432/Blackhorse Lane junction                  | 36:39        | 05:30 | 33:32 | 39:46 | 46:10 | 41:37                 | 0.44                  |
| <b>OB</b>               | A4174/A432 Roundabout                          | 37:27        | 05:30 | 34:16 | 40:38 | 47:00 | 42:07                 | 0.47                  |



Figure G.63 - A432 from A4174 to Easton Way & Return (PM Peak)

