



Anthony Moore <[REDACTED]>

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## Fwd: [EXT] Re: Arena - Description of development

1 message

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----- Forwarded message -----

From: **Feekins, Laura** <[REDACTED]>  
Date: Thu, 17 Sep 2020 at 16:48  
Subject: RE: [EXT] Re: Arena - Description of development  
To: Jennifer Atkinson <[REDACTED]>  
Cc: Cooper, John <[REDACTED]>

Hi Jen

Please below and attached Buro Happold's response to the request from Highways / TfGM.

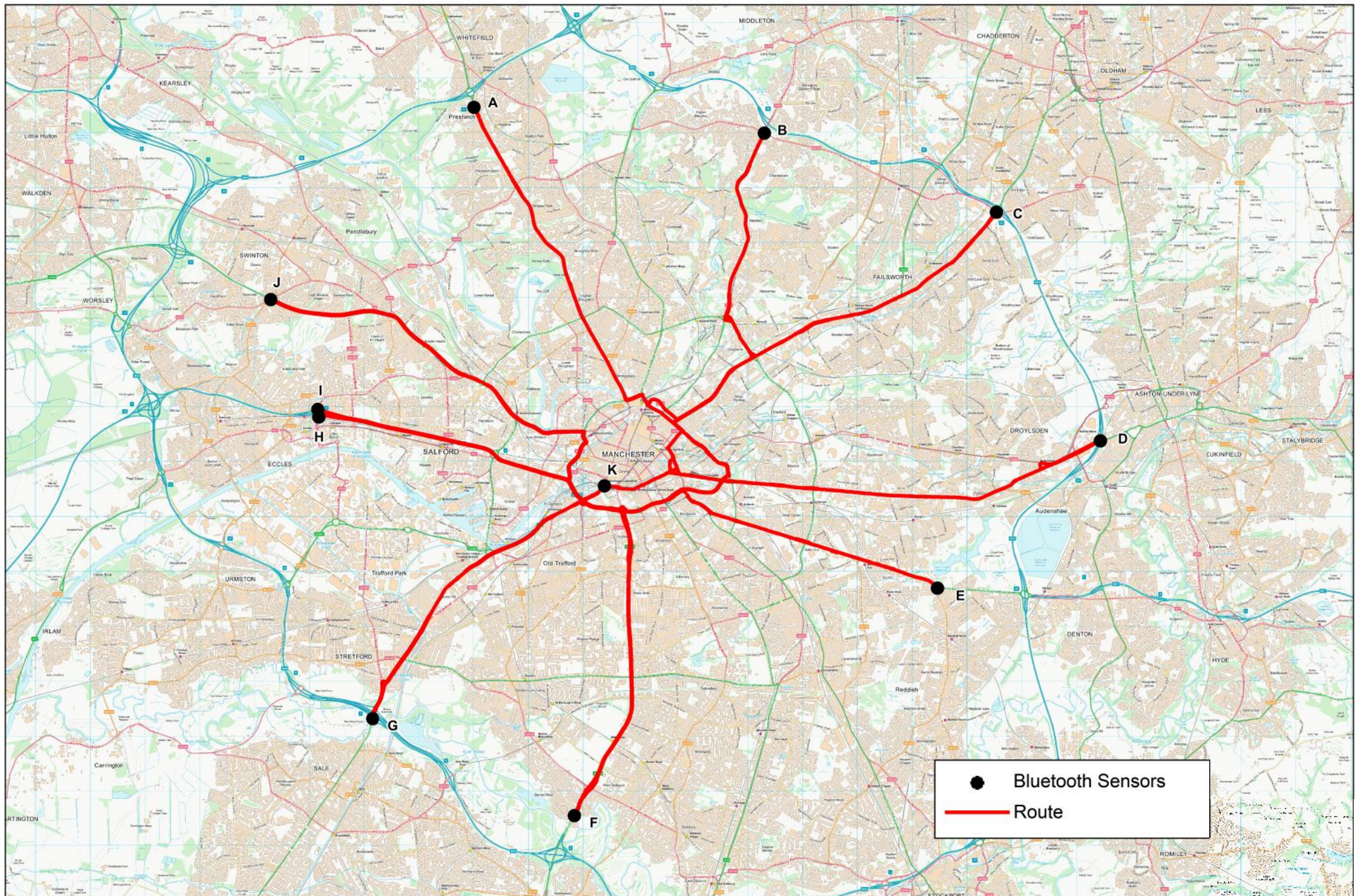
Kind regards

Laura

**Laura Feekins**

Assistant Director | Deloitte LLP

D: [REDACTED] | M: [REDACTED]  
[REDACTED] | [www.deloitte.co.uk](http://www.deloitte.co.uk)



 Bluetooth Sensors

 Route

Weekday (17:00-18:00)

| Routes to Deansgate                 | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:40:10                  | 00:48:50                 | 00:08:40                                       | 21.58%                                          | 00:49:28                             | 00:09:18                                       |
| B-R. towards Rochdale / Oldham Road | 00:35:30                  | 00:45:10                 | 00:09:40                                       | 27.23%                                          | 00:48:31                             | 00:13:01                                       |
| C-R. towards Oldham Road            | 00:27:09                  | 00:49:00                 | 00:21:51                                       | 80.12%                                          | 00:48:28                             | 00:21:19                                       |
| D-R. towards Ashton Old Road        | 00:28:40                  | 00:29:50                 | 00:01:10                                       | 3.78%                                           | 00:30:52                             | 00:02:12                                       |
| E-R. towards Hyde Road              | 00:19:50                  | 00:20:30                 | 00:01:30                                       | 6.58%                                           | 00:20:45                             | 00:01:45                                       |
| F-R. towards Princess Road          | 00:22:00                  | 00:23:30                 | 00:01:30                                       | 6.32%                                           | 00:23:50                             | 00:01:50                                       |
| G-R. towards Chester Road           | 00:15:40                  | 00:22:10                 | 00:06:30                                       | 41.49%                                          | 00:22:21                             | 00:06:41                                       |
| H-R. towards M602 Regent Road       | 00:15:50                  | 00:24:10                 | 00:08:20                                       | 52.63%                                          | 00:24:18                             | 00:08:28                                       |
| J-R. towards AG/AS0                 | 00:25:52                  | 00:28:20                 | 00:02:30                                       | 9.68%                                           | 00:28:28                             | 00:02:36                                       |

Weekday (19:00-20:00)

| Routes to Deansgate                 | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:35:30                  | 00:35:10                 | 00:00:00                                       | 0.00%                                           | 00:36:20                             | 00:00:50                                       |
| B-R. towards Rochdale / Oldham Road | 00:31:50                  | 00:34:40                 | 00:02:50                                       | 8.90%                                           | 00:35:25                             | 00:03:35                                       |
| C-R. towards Oldham Road            | 00:33:10                  | 00:34:50                 | 00:01:40                                       | 5.03%                                           | 00:35:44                             | 00:02:34                                       |
| D-R. towards Ashton Old Road        | 00:18:30                  | 00:21:00                 | 00:02:30                                       | 13.51%                                          | 00:21:57                             | 00:03:27                                       |
| E-R. towards Hyde Road              | 00:14:00                  | 00:14:00                 | 00:00:00                                       | 0.00%                                           | 00:14:20                             | 00:00:20                                       |
| F-R. towards Princess Road          | 00:14:30                  | 00:15:20                 | 00:00:50                                       | 5.12%                                           | 00:15:47                             | 00:01:17                                       |
| G-R. towards Chester Road           | 00:11:20                  | 00:11:40                 | 00:00:20                                       | 2.34%                                           | 00:11:55                             | 00:00:35                                       |
| H-R. towards M602 Regent Road       | 00:11:20                  | 00:13:00                 | 00:01:40                                       | 14.71%                                          | 00:13:11                             | 00:01:51                                       |
| J-R. towards AG/AS0                 | 00:17:30                  | 00:18:40                 | 00:01:10                                       | 6.67%                                           | 00:18:50                             | 00:01:20                                       |

Weekday (22:00-23:00)

| Routes to Deansgate                 | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:32:50                  | 00:32:50                 | 00:00:00                                       | 0.00%                                           | 00:32:50                             | 00:00:00                                       |
| B-R. towards Rochdale / Oldham Road | 00:29:40                  | 00:29:40                 | 00:00:00                                       | 0.00%                                           | 00:29:42                             | 00:00:02                                       |
| C-R. towards Oldham Road            | 00:31:20                  | 00:31:40                 | 00:00:20                                       | 1.96%                                           | 00:31:57                             | 00:00:37                                       |
| D-R. towards Ashton Old Road        | 00:16:50                  | 00:22:00                 | 00:05:10                                       | 30.69%                                          | 00:22:30                             | 00:05:40                                       |
| E-R. towards Hyde Road              | 00:13:00                  | 00:13:00                 | 00:00:00                                       | 0.00%                                           | 00:13:46                             | 00:00:46                                       |
| F-R. towards Princess Road          | 00:13:20                  | 00:13:20                 | 00:00:00                                       | 0.00%                                           | 00:14:08                             | 00:00:48                                       |
| G-R. towards Chester Road           | 00:11:00                  | 00:11:00                 | 00:00:00                                       | 0.00%                                           | 00:11:12                             | 00:00:12                                       |
| H-R. towards M602 Regent Road       | 00:09:30                  | 00:10:10                 | 00:00:40                                       | 7.02%                                           | 00:10:22                             | 00:00:52                                       |
| J-R. towards AG/AS0                 | 00:15:30                  | 00:15:30                 | 00:00:00                                       | 0.00%                                           | 00:15:38                             | 00:00:08                                       |

Saturday (12:00-13:00)

| Routes to Deansgate                 | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:40:00                  | 00:40:00                 | 00:00:00                                       | 0.00%                                           | 00:40:23                             | 00:00:23                                       |
| B-R. towards Rochdale / Oldham Road | 00:33:20                  | 00:35:50                 | 00:02:30                                       | 7.50%                                           | 00:36:17                             | 00:02:57                                       |
| C-R. towards Oldham Road            | 00:34:50                  | 00:36:40                 | 00:01:50                                       | 5.36%                                           | 00:37:12                             | 00:02:22                                       |
| D-R. towards Ashton Old Road        | 00:21:20                  | 00:33:50                 | 00:12:30                                       | 58.44%                                          | 00:34:17                             | 00:12:57                                       |
| E-R. towards Hyde Road              | 00:15:30                  | 00:16:30                 | 00:01:00                                       | 6.49%                                           | 00:16:40                             | 00:01:10                                       |
| F-R. towards Princess Road          | 00:16:30                  | 00:17:40                 | 00:01:10                                       | 7.07%                                           | 00:17:51                             | 00:01:21                                       |
| G-R. towards Chester Road           | 00:11:50                  | 00:12:00                 | 00:00:10                                       | 1.41%                                           | 00:12:07                             | 00:00:17                                       |
| H-R. towards M602 Regent Road       | 00:13:10                  | 00:13:50                 | 00:00:40                                       | 5.06%                                           | 00:13:55                             | 00:00:45                                       |
| J-R. towards AG/AS0                 | 00:18:00                  | 00:18:00                 | 00:00:00                                       | 0.00%                                           | 00:18:05                             | 00:00:05                                       |

Saturday (16:00-17:00)

| Routes to Deansgate                 | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:42:40                  | 00:57:00                 | 00:14:20                                       | 33.59%                                          | 00:57:00                             | 00:14:20                                       |
| B-R. towards Rochdale / Oldham Road | 00:30:50                  | 00:49:00                 | 00:18:10                                       | 58.74%                                          | 00:49:25                             | 00:18:35                                       |
| C-R. towards Oldham Road            | 00:38:30                  | 00:41:30                 | 00:03:00                                       | 7.79%                                           | 00:42:06                             | 00:03:36                                       |
| D-R. towards Ashton Old Road        | 00:19:50                  | 00:24:00                 | 00:04:10                                       | 21.01%                                          | 00:24:17                             | 00:04:27                                       |
| E-R. towards Hyde Road              | 00:14:40                  | 00:14:40                 | 00:00:00                                       | 0.00%                                           | 00:14:47                             | 00:00:07                                       |
| F-R. towards Princess Road          | 00:15:50                  | 00:17:40                 | 00:01:50                                       | 11.58%                                          | 00:17:53                             | 00:02:03                                       |
| G-R. towards Chester Road           | 00:12:30                  | 00:12:50                 | 00:00:20                                       | 2.47%                                           | 00:12:50                             | 00:00:20                                       |
| H-R. towards M602 Regent Road       | 00:12:20                  | 00:12:20                 | 00:00:00                                       | 0.00%                                           | 00:12:23                             | 00:00:03                                       |
| J-R. towards AG/AS0                 | 00:18:20                  | 00:22:50                 | 00:04:30                                       | 25.10%                                          | 00:23:53                             | 00:05:33                                       |

Weekday (17:00-18:00)

| Routes from Deansgate               | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:19:20                  | 01:07:10                 | 00:07:50                                       | 40.62%                                          | 01:07:48                             | 00:08:28                                       |
| B-R. towards Rochdale / Oldham Road | 00:51:50                  | 01:00:10                 | 00:08:20                                       | 15.80%                                          | 01:03:31                             | 00:11:41                                       |
| C-R. towards Oldham Road            | 00:51:40                  | 00:56:20                 | 00:04:40                                       | 9.03%                                           | 00:59:48                             | 00:08:08                                       |
| D-R. towards Ashton Old Road        | 00:52:40                  | 00:59:10                 | 00:06:30                                       | 19.90%                                          | 00:59:52                             | 00:07:12                                       |
| E-R. towards Hyde Road              | 00:04:10                  | 00:08:40                 | 00:04:30                                       | 18.62%                                          | 00:08:55                             | 00:04:45                                       |
| F-R. towards Princess Road          | 00:26:50                  | 00:27:10                 | 00:00:20                                       | 1.24%                                           | 00:27:30                             | 00:00:40                                       |
| G-R. towards Chester Road           | 00:19:30                  | 00:22:30                 | 00:03:00                                       | 15.38%                                          | 00:22:41                             | 00:03:11                                       |
| H-R. towards M602 Regent Road       | 00:19:20                  | 00:22:30                 | 00:03:10                                       | 16.38%                                          | 00:22:38                             | 00:03:18                                       |
| J-R. towards AG/AS0                 | 00:41:10                  | 00:44:40                 | 00:03:30                                       | 8.50%                                           | 00:44:48                             | 00:03:38                                       |

Weekday (19:00-20:00)

| Routes from Deansgate               | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:40:40                  | 00:40:40                 | 00:00:00                                       | 0.00%                                           | 00:41:30                             | 00:00:50                                       |
| B-R. towards Rochdale / Oldham Road | 00:36:30                  | 00:38:10                 | 00:01:40                                       | 4.57%                                           | 00:38:55                             | 00:02:25                                       |
| C-R. towards Oldham Road            | 00:37:50                  | 00:37:50                 | 00:00:00                                       | 0.00%                                           | 00:38:44                             | 00:00:54                                       |
| D-R. towards Ashton Old Road        | 00:18:50                  | 00:25:00                 | 00:06:10                                       | 32.74%                                          | 00:25:57                             | 00:07:07                                       |
| E-R. towards Hyde Road              | 00:14:00                  | 00:14:50                 | 00:00:50                                       | 5.99%                                           | 00:15:10                             | 00:01:10                                       |
| F-R. towards Princess Road          | 00:14:20                  | 00:14:40                 | 00:00:20                                       | 2.33%                                           | 00:15:07                             | 00:00:47                                       |
| G-R. towards Chester Road           | 00:11:00                  | 00:11:00                 | 00:00:00                                       | 0.00%                                           | 00:11:15                             | 00:00:15                                       |
| H-R. towards M602 Regent Road       | 00:09:40                  | 00:10:50                 | 00:01:10                                       | 12.07%                                          | 00:11:01                             | 00:01:21                                       |
| J-R. towards AG/AS0                 | 00:19:10                  | 00:20:30                 | 00:01:20                                       | 6.96%                                           | 00:20:40                             | 00:01:30                                       |

Weekday (22:00-23:00)

| Routes from Deansgate               | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:38:00                  | 00:38:00                 | 00:00:00                                       | 0.00%                                           | 00:38:00                             | 00:00:00                                       |
| B-R. towards Rochdale / Oldham Road | 00:36:50                  | 00:37:30                 | 00:01:00                                       | 2.74%                                           | 00:37:35                             | 00:01:05                                       |
| C-R. towards Oldham Road            | 00:37:10                  | 00:37:10                 | 00:00:00                                       | 0.00%                                           | 00:37:27                             | 00:00:17                                       |
| D-R. towards Ashton Old Road        | 00:16:40                  | 00:19:00                 | 00:02:20                                       | 14.00%                                          | 00:19:30                             | 00:02:50                                       |
| E-R. towards Hyde Road              | 00:12:00                  | 00:15:10                 | 00:03:10                                       | 25.99%                                          | 00:15:26                             | 00:03:26                                       |
| F-R. towards Princess Road          | 00:11:50                  | 00:11:50                 | 00:00:00                                       | 0.00%                                           | 00:12:28                             | 00:00:38                                       |
| G-R. towards Chester Road           | 00:10:10                  | 00:10:10                 | 00:00:00                                       | 0.00%                                           | 00:10:22                             | 00:00:12                                       |
| H-R. towards M602 Regent Road       | 00:09:50                  | 00:10:20                 | 00:00:30                                       | 5.08%                                           | 00:10:32                             | 00:00:42                                       |
| J-R. towards AG/AS0                 | 00:15:50                  | 00:16:40                 | 00:00:50                                       | 5.20%                                           | 00:16:48                             | 00:00:58                                       |

Saturday (12:00-13:00)

| Routes from Deansgate               | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:43:40                  | 00:57:20                 | 00:13:40                                       | 31.30%                                          | 00:57:43                             | 00:14:03                                       |
| B-R. towards Rochdale / Oldham Road | 00:39:50                  | 00:56:30                 | 00:16:40                                       | 41.84%                                          | 00:56:57                             | 00:17:07                                       |
| C-R. towards Oldham Road            | 00:40:20                  | 00:55:20                 | 00:15:00                                       | 37.19%                                          | 00:55:52                             | 00:15:32                                       |
| D-R. towards Ashton Old Road        | 00:21:00                  | 00:24:10                 | 00:03:10                                       | 15.08%                                          | 00:24:37                             | 00:03:37                                       |
| E-R. towards Hyde Road              | 00:13:20                  | 00:14:00                 | 00:00:40                                       | 5.00%                                           | 00:14:10                             | 00:00:30                                       |
| F-R. towards Princess Road          | 00:14:20                  | 00:14:20                 | 00:00:00                                       | 0.00%                                           | 00:14:31                             | 00:00:11                                       |
| G-R. towards Chester Road           | 00:11:50                  | 00:11:50                 | 00:00:00                                       | 0.00%                                           | 00:11:57                             | 00:00:07                                       |
| H-R. towards M602 Regent Road       | 00:09:40                  | 00:09:40                 | 00:00:00                                       | 0.00%                                           | 00:09:45                             | 00:00:05                                       |
| J-R. towards AG/AS0                 | 00:19:20                  | 00:19:20                 | 00:00:00                                       | 0.00%                                           | 00:19:25                             | 00:00:05                                       |

Saturday (16:00-17:00)

| Routes from Deansgate               | Journey Time (in minutes) |                          |                                                |                                                 |                                      |                                                |
|-------------------------------------|---------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------|------------------------------------------------|
|                                     | Non-Event Day             | Ethhad Stadium Event Day | Difference / Delay Compared with Non-Event Day | Percentage Increase Compared with Non-Event Day | Ethhad Stadium + OVG Arena Event Day | Difference / Delay Compared with Non-Event Day |
| A-R. towards Bury New Road          | 00:47:50                  | 00:47:50                 | 00:00:00                                       | 0.00%                                           | 00:47:50                             | 00:00:00                                       |
| B-R. towards Rochdale / Oldham Road | 00:41:40                  | 00:41:40                 | 00:00:00                                       | 0.00%                                           | 00:42:09                             | 00:00:29                                       |
| C-R. towards Oldham Road            | 00:41:50                  | 00:41:50                 | 00:00:00                                       | 0.00%                                           | 00:42:26                             | 00:00:36                                       |
| D-R. towards Ashton Old Road        | 00:19:30                  | 00:25:00                 | 00:05:30                                       | 28.21%                                          | 00:25:17                             | 00:05:47                                       |
| E-R. towards Hyde Road              | 00:15:10                  | 00:16:50                 | 00:01:40                                       | 10.99%                                          | 00:16:57                             | 00:01:47                                       |
| F-R. towards Princess Road          | 00:14:50                  | 00:14:50                 | 00:00:00                                       | 0.00%                                           | 00:15:03                             | 00:00:13                                       |
| G-R. towards Chester Road           | 00:11:40                  | 00:12:10                 | 00:00:30                                       | 4.29%                                           | 00:12:15                             | 00:00:35                                       |
| H-R. towards M602 Regent Road       | 00:09:40                  | 00:09:40                 | 00:00:00                                       | 0.00%                                           | 00:09:45                             | 00:00:05                                       |
| J-R. towards AG/AS0                 | 00:22:30                  | 00:27:30                 | 00:05:00                                       | 22.22%                                          | 00:27:33                             | 00:05:03                                       |