## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

## Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mex Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Paroportions <br> Vary Over Turn | Turning <br> Proportions <br> Vary Over Entry |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Percentages | 2.00 |  |  |  | $\checkmark$ | $\checkmark$ |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 594.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 133.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 448.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 784.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 52.000 | 485.000 | 57.000 |
|  | $\mathbf{2}$ | 65.000 | 0.000 | 60.000 | 8.000 |
|  | $\mathbf{3}$ | 369.000 | 34.000 | 0.000 | 45.000 |
|  | $\mathbf{4}$ | 376.000 | 8.000 | 400.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.09 | 0.82 | 0.10 |
|  | $\mathbf{2}$ | 0.49 | 0.00 | 0.45 | 0.06 |
|  | $\mathbf{3}$ | 0.82 | 0.08 | 0.00 | 0.10 |
|  | $\mathbf{4}$ | 0.48 | 0.01 | 0.51 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.000 | 1.030 | 1.176 |
|  | $\mathbf{2}$ | 1.034 | 1.000 | 1.019 | 1.137 |
|  | $\mathbf{3}$ | 1.044 | 1.000 | 1.000 | 1.271 |
|  | $\mathbf{4}$ | 1.021 | 1.262 | 1.011 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 0.000 | 3.000 | 17.600 |
|  | $\mathbf{2}$ | 3.400 | 0.000 | 1.900 | 13.700 |
|  | $\mathbf{3}$ | 4.400 | 0.000 | 0.000 | 27.100 |
|  | $\mathbf{4}$ | 2.100 | 26.200 | 1.100 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | Max Delay (s) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Vehmin) | Average Queueing Delay (s) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.47 | 4.91 | 0.89 | A | 545.07 | 817.60 | 56.73 | 4.16 | 0.63 | 56.73 | 4.16 |
| Oxford Motor Park | 0.13 | 3.65 | 0.15 | A | 122.04 | 183.06 | 9.92 | 3.25 | 0.11 | 9.92 | 3.25 |
| Langford <br> Lane (W) | 0.29 | 2.94 | 0.40 | A | 411.09 | 616.64 | 28.18 | 2.74 | 0.31 | 28.18 | 2.74 |
| The Boulevard | 0.64 | 7.44 | 1.77 | A | 719.41 | 1079.12 | 101.77 | 5.66 | 1.13 | 101.78 | 5.66 |

## Main Results for each time segment

Main results: (16:15-16:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 447.20 | 111.80 | 445.48 | 607.58 | 331.28 | 0.00 | 1484.96 | 1436.32 | 0.301 | 0.00 | 0.43 | 3.457 | A |
| Oxford <br> Motor Park | 100.13 | 25.03 | 99.81 | 70.52 | 706.25 | 0.00 | 1359.60 | 736.34 | 0.074 | 0.00 | 0.08 | 2.857 | A |
| Langford <br> Lane (W) | 337.28 | 84.32 | 336.33 | 708.53 | 97.53 | 0.00 | 1750.35 | 1432.52 | 0.193 | 0.00 | 0.24 | 2.545 | A |
| The <br> Boulevard | 590.23 | 147.56 | 587.53 | 82.53 | 351.33 | 0.00 | 1457.78 | 578.21 | 0.405 | 0.00 | 0.68 | 4.125 | A |

Main results: (16:30-16:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( 5 ) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 534.00 | 133.50 | 533.38 | 727.32 | 396.68 | 0.00 | 1443.72 | 1436.32 | 0.370 | 0.43 | 0.58 | 3.952 | A |
| Oxford <br> Motor Park | 119.56 | 29.89 | 119.46 | 84.42 | 845.64 | 0.00 | 1264.36 | 736.34 | 0.095 | 0.08 | 0.10 | 3.143 | A |
| Langford <br> Lane (W) | 402.74 | 100.69 | 402.49 | 848.35 | 116.75 | 0.00 | 1736.22 | 1432.52 | 0.232 | 0.24 | 0.30 | 2.699 | A |
| The <br> Boulevard | 704.80 | 176.20 | 703.55 | 98.80 | 420.45 | 0.00 | 1410.88 | 578.21 | 0.500 | 0.68 | 0.99 | 5.080 | A |

Main results: (16:45-17:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> $($ Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queeue <br> (Veh) | Delay <br> (s) | Los |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 654.01 | 163.50 | 652.81 | 889.95 | 485.04 | 0.00 | 1387.99 | 1436.32 | 0.471 | 0.58 | 0.88 | 4.888 | A |
| Oxford <br> Motor Park | 146.44 | 36.61 | 146.26 | 103.33 | 1034.52 | 0.00 | 1135.30 | 736.34 | 0.129 | 0.10 | 0.15 | 3.639 | A |
| Langford <br> Lane (W) | 493.26 | 123.31 | 492.86 | 1037.86 | 142.92 | 0.00 | 1717.00 | 1432.52 | 0.287 | 0.30 | 0.40 | 2.941 | A |
| The <br> Boulevard | 863.20 | 215.80 | 860.16 | 120.95 | 514.83 | 0.00 | 1346.84 | 578.21 | 0.641 | 0.99 | 1.75 | 7.352 | A |

Main results: (17:00-17:15)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{~})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 654.01 | 163.50 | 653.99 | 891.79 | 486.61 | 0.00 | 1387.00 | 1436.32 | 0.472 | 0.88 | 0.89 | 4.910 | A |
| Oxford <br> Motor Park | 146.44 | 36.61 | 146.43 | 103.49 | 1037.10 | 0.00 | 1133.55 | 736.34 | 0.129 | 0.15 | 0.15 | 3.646 | A |
| Langford <br> Lane (W) | 493.26 | 123.31 | 493.25 | 1040.41 | 143.13 | 0.00 | 1716.85 | 1432.52 | 0.287 | 0.40 | 0.40 | 2.941 | A |
| The <br> Boulevard | 863.20 | 215.80 | 863.12 | 121.11 | 515.28 | 0.00 | 1346.54 | 578.21 | 0.641 | 1.75 | 1.77 | 7.444 | A |

Main results: (17:15-17:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{~})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 534.00 | 133.50 | 535.18 | 730.04 | 398.95 | 0.00 | 1442.28 | 1436.32 | 0.370 | 0.89 | 0.59 | 3.973 | A |
| Oxford <br> Motor Park | 119.56 | 29.89 | 119.74 | 84.67 | 849.46 | 0.00 | 1261.76 | 736.34 | 0.095 | 0.15 | 0.11 | 3.152 | A |
| Langford <br> Lane (W) | 402.74 | 100.69 | 403.14 | 852.12 | 117.07 | 0.00 | 1735.99 | 1432.52 | 0.232 | 0.40 | 0.30 | 2.703 | A |
| The <br> Boulevard | 704.80 | 176.20 | 707.82 | 99.05 | 421.16 | 0.00 | 1410.39 | 578.21 | 0.500 | 1.77 | 1.01 | 5.145 | A |

Main results: (17:30-17:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{~})$ | Los |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 447.20 | 111.80 | 447.83 | 610.69 | 333.45 | 0.00 | 1483.59 | 1436.32 | 0.301 | 0.59 | 0.43 | 3.479 | A |
| Oxford <br> Motor Park | 100.13 | 25.03 | 100.23 | 70.86 | 710.42 | 0.00 | 1356.75 | 736.34 | 0.074 | 0.11 | 0.08 | 2.864 | A |
| Langford <br> Lane (W) | 337.28 | 84.32 | 337.53 | 712.67 | 97.99 | 0.00 | 1750.01 | 1432.52 | 0.193 | 0.30 | 0.24 | 2.548 | A |
| The <br> Boulevard | 590.23 | 147.56 | 591.53 | 82.91 | 352.61 | 0.00 | 1456.90 | 578.21 | 0.405 | 1.01 | 0.69 | 4.165 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (16:15-16:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> $\mathrm{min} / \mathrm{min})$ | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 6.28 | 0.42 | 3.457 | A | A |
| Oxford Motor <br> Park | 1.17 | 0.08 | 2.857 | A | A |
| Langford Lane <br> (W) | 3.51 | 0.23 | 2.545 | A | A |
| The Boulevard | 9.84 | 0.66 | 4.125 | A | A |

Queueing Delay results: (16:30-16:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 8.58 | 0.57 | 3.952 | A |  |
| Oxford Motor <br> Park | 1.54 | 0.10 | 3.143 | A |  |
| Langford Lane <br> (W) | 4.46 | 0.30 | 2.699 | A |  |
| The Boulevard | 14.40 | 0.96 | 5.080 | A | A |

Queueing Delay results: (16:45-17:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 12.88 | 0.86 | 4.888 | A | A |
| Oxford Motor <br> Park | 2.18 | 0.15 | 3.639 | A | A |
| Langford Lane <br> (W) | 5.93 | 0.40 | 2.941 | A | A |
| The Boulevard | 24.95 | 1.66 | 7.352 | A | A |

Queueing Delay results: (17:00-17:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 13.28 | 0.89 | 4.910 | A |  |
| Oxford Motor <br> Park | 2.22 | 0.15 | 3.646 | A |  |
| Langford Lane <br> (W) | 6.03 | 0.40 | 2.941 | A |  |
| The Boulevard | 26.37 | 1.76 | 7.444 | A | A |

Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 9.08 | 0.61 | 3.973 | A |  |
| Oxford Motor <br> Park | 1.60 | 0.11 | 3.152 | A |  |
| Langford Lane <br> (W) | 4.61 | 0.31 | 2.703 | A |  |
| The Boulevard | 15.68 | 1.05 | 5.145 | A | A |

Queueing Delay results: (17:30-17:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (5) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 6.62 | 0.44 | 3.479 | A | A |
| Oxford Motor <br> Park | 1.21 | 0.08 | 2.864 | A |  |
| Langford Lane <br> (W) | 3.64 | 0.24 | 2.548 | A |  |
| The Boulevard | 10.54 | 0.70 | 4.165 | A |  |

## (Default Analysis Set) - 2025 Base + Development, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(s) | Specific <br> Demand Set <br> (s) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time <br> ( $\mathrm{HH}: \mathrm{mm}$ ) | Model Time Period Length (min) | Time Segment Length ( min ) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2025 Base + <br> Development, <br> AM | 2025 Base + <br> Development | AM |  | $\begin{aligned} & \text { ONE } \\ & \text { HOUR } \end{aligned}$ | 07:30 | 09:00 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (5) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 12.06 |  |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

Roundabout Geometry

| Name | V -Approach road half- <br> width $(\mathrm{m})$ | E-Entry <br> width $(\mathrm{m})$ | r-Effective flare <br> length $(\mathrm{m})$ | R - Entry <br> radius $(\mathrm{m})$ | D - Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> (W) | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

[^0]
## Traffic Flows

Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Meh Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Paroportions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Vent Entry |  |  |  |  |  |  |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 958.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 63.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 1174.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 143.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 98.000 | 386.000 | 474.000 |
|  | $\mathbf{2}$ | 29.000 | 0.000 | 31.000 | 3.000 |
|  | $\mathbf{3}$ | 599.000 | 119.000 | 0.000 | 456.000 |
|  | $\mathbf{4}$ | 76.000 | 6.000 | 61.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.10 | 0.40 | 0.49 |
|  | $\mathbf{2}$ | 0.46 | 0.00 | 0.49 | 0.05 |
|  | $\mathbf{3}$ | 0.51 | 0.10 | 0.00 | 0.39 |
|  | $\mathbf{4}$ | 0.53 | 0.04 | 0.43 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.012 | 1.057 | 1.025 |
|  | $\mathbf{2}$ | 1.040 | 1.000 | 1.000 | 1.467 |
|  | $\mathbf{3}$ | 1.042 | 1.000 | 1.000 | 1.015 |
|  | $\mathbf{4}$ | 1.341 | 1.000 | 1.307 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 1.200 | 5.700 | 2.500 |
|  | $\mathbf{2}$ | 4.000 | 0.000 | 0.000 | 46.700 |
|  | $\mathbf{3}$ | 4.200 | 0.000 | 0.000 | 1.500 |
|  | $\mathbf{4}$ | 34.100 | 0.000 | 30.700 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | Max Delay (5) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LoS } \end{aligned}$ | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Vehmin ) | Average Queueing Delay (5) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.68 | 7.11 | 2.06 | A | 879.08 | 1318.62 | 119.91 | 5.46 | 1.33 | 119.92 | 5.46 |
| Oxford Motor Park | 0.06 | 3.41 | 0.07 | A | 57.81 | 86.71 | 4.47 | 3.09 | 0.05 | 4.47 | 3.09 |
| Langford Lane (W) | 0.87 | 17.71 | 6.08 | C | 1077.28 | 1615.92 | 263.33 | 9.78 | 2.93 | 263.36 | 9.78 |
| The Boulevard | 0.18 | 4.94 | 0.22 | A | 131.22 | 196.83 | 14.52 | 4.43 | 0.16 | 14.52 | 4.43 |

## Main Results for each time segment

Main results: (07:30-07:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | Los |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 721.24 | 180.31 | 718.00 | 527.26 | 139.33 | 0.00 | 1606.00 | 1339.54 | 0.449 | 0.00 | 0.81 | 4.040 | A |
| Oxford <br> Motor Park | 47.43 | 11.86 | 47.28 | 167.05 | 690.27 | 0.00 | 1349.04 | 722.54 | 0.035 | 0.00 | 0.04 | 2.765 | A |
| Langford <br> Lane (W) | 883.84 | 220.96 | 879.08 | 358.29 | 379.27 | 0.00 | 1617.14 | 1144.21 | 0.547 | 0.00 | 1.19 | 4.847 | A |
| The <br> Boulevard | 107.66 | 26.91 | 107.19 | 698.95 | 559.40 | 0.00 | 1022.97 | 774.19 | 0.105 | 0.00 | 0.12 | 3.929 | A |

Main results: (07:45-08:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{5})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 861.23 | 215.31 | 859.77 | 631.08 | 166.80 | 0.00 | 1587.11 | 1339.54 | 0.543 | 0.81 | 1.17 | 4.939 | A |
| Oxford <br> Motor Park | 56.64 | 14.16 | 56.59 | 199.98 | 826.59 | 0.00 | 1254.19 | 722.54 | 0.045 | 0.04 | 0.05 | 3.005 | A |
| Langford <br> Lane (W) | 1055.40 | 263.85 | 1052.05 | 429.04 | 454.14 | 0.00 | 1564.03 | 1144.21 | 0.675 | 1.19 | 2.03 | 6.985 | A |
| The <br> Boulevard | 128.55 | 32.14 | 128.41 | 836.72 | 669.47 | 0.00 | 965.24 | 774.19 | 0.133 | 0.12 | 0.15 | 4.302 | A |

Main results: (08:00-08:15)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Entry Flow (Veh/hr) | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 1054.78 | 263.70 | 1051.34 | 767.41 | 203.18 | 0.00 | 1562.04 | 1339.54 | 0.675 | 1.17 | 2.03 | 7.001 | A |
| Oxford Motor Park | 69.36 | 17.34 | 69.29 | 243.67 | 1010.85 | 0.00 | 1125.96 | 722.54 | 0.062 | 0.05 | 0.07 | 3.406 | A |
| Langford Lane (W) | 1292.59 | 323.15 | 1277.80 | 524.77 | 555.38 | 0.00 | 1492.21 | 1144.21 | 0.866 | 2.03 | 5.72 | 15.804 | c |
| The Boulevard | 157.45 | 39.36 | 157.20 | 1019.81 | 813.39 | 0.00 | 889.77 | 774.19 | 0.177 | 0.15 | 0.21 | 4.913 | A |

Main results: (08:15-08:30)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Entry Flow (Veh/hr) | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 1054.78 | 263.70 | 1054.68 | 774.40 | 204.64 | 0.00 | 1561.11 | 1339.54 | 0.676 | 2.03 | 2.06 | 7.106 | A |
| Oxford Motor Park | 69.36 | 17.34 | 69.36 | 245.37 | 1013.94 | 0.00 | 1123.83 | 722.54 | 0.062 | 0.07 | 0.07 | 3.413 | A |
| Langford Lane (W) | 1292.59 | 323.15 | 1291.18 | 526.24 | 557.07 | 0.00 | 1491.01 | 1144.21 | 0.867 | 5.72 | 6.08 | 17.708 | C |
| The Boulevard | 157.45 | 39.36 | 157.44 | 1026.65 | 821.60 | 0.00 | 885.46 | 774.19 | 0.178 | 0.21 | 0.22 | 4.944 | A |

Main results: (08:30-08:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | Los |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 861.23 | 215.31 | 864.65 | 641.09 | 168.92 | 0.00 | 1585.75 | 1339.54 | 0.543 | 2.06 | 1.20 | 5.015 | A |
| Oxford <br> Motor Park | 56.64 | 14.16 | 56.71 | 202.43 | 831.14 | 0.00 | 1251.05 | 722.54 | 0.045 | 0.07 | 0.05 | 3.013 | A |
| Langford <br> Lane (W) | 1055.40 | 263.85 | 1071.18 | 431.23 | 456.61 | 0.00 | 1562.28 | 1144.21 | 0.676 | 6.08 | 2.13 | 7.554 | A |
| The <br> Boulevard | 128.55 | 32.14 | 128.79 | 846.57 | 681.22 | 0.00 | 959.08 | 774.19 | 0.134 | 0.22 | 0.16 | 4.336 | A |

Main results: (08:45-09:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 721.24 | 180.31 | 722.76 | 531.96 | 140.47 | 0.00 | 1605.23 | 1339.54 | 0.449 | 1.20 | 0.82 | 4.086 | A |
| Oxford <br> Motor Park | 47.43 | 11.86 | 47.47 | 168.42 | 694.80 | 0.00 | 1345.89 | 722.54 | 0.035 | 0.05 | 0.04 | 2.774 | A |
| Langford <br> Lane (W) | 883.84 | 220.96 | 887.48 | 360.56 | 381.72 | 0.00 | 1615.41 | 1144.21 | 0.547 | 2.13 | 1.22 | 4.969 | A |
| The <br> Boulevard | 107.66 | 26.91 | 107.81 | 704.58 | 564.63 | 0.00 | 1020.23 | 774.19 | 0.106 | 0.16 | 0.12 | 3.947 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (07:30-07:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 11.77 | 0.78 | 4.040 | A |  |
| Oxford Motor <br> Park | 0.54 | 0.04 | 2.765 | A |  |
| Langford Lane <br> (W) | 17.17 | 1.14 | 4.847 | A |  |
| The Boulevard | 1.72 | 0.11 | 3.929 | A | A |

Queueing Delay results: (07:45-08:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 17.09 | 1.14 | 4.939 | A |  |
| Oxford Motor <br> Park | 0.70 | 0.05 | 3.005 | A |  |
| Langford Lane <br> (W) | 28.97 | 1.93 | 6.985 | A |  |
| The Boulevard | 2.26 | 0.15 | 4.302 | A | A |

Queueing Delay results: (08:00-08:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 29.01 | 1.93 | 7.001 | A |  |
| Oxford Motor <br> Park | 0.97 | 0.06 | 3.406 | A |  |
| Langford Lane <br> (W) | 74.13 | 4.94 | 15.804 | A |  |
| The Boulevard | 3.14 | 0.21 | 4.913 | C | A |

Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 30.72 | 2.05 | 7.106 | A |  |
| Oxford Motor <br> Park | 0.98 | 0.07 | 3.413 | A |  |
| Langford Lane <br> (W) | 89.03 | 5.94 | 17.708 | A |  |
| The Boulevard | 3.22 | 0.21 | 4.944 | C |  |

Queueing Delay results: (08:30-08:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 18.69 | 1.25 | 5.015 | A |  |
| Oxford Motor <br> Park | 0.72 | 0.05 | 3.013 | A |  |
| Langford Lane <br> (W) | 35.03 | 2.34 | 7.554 | A |  |
| The Boulevard | 2.38 | 0.16 | 4.336 | A | A |

Queueing Delay results: (08:45-09:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 12.64 | 0.84 | 4.086 | A | A |
| Oxford Motor <br> Park | 0.56 | 0.04 | 2.774 | A | A |
| Langford Lane <br> (W) | 19.00 | 1.27 | 4.969 | A | A |
| The Boulevard | 1.81 | 0.12 | 3.947 | A | A |

## (Default Analysis Set) - 2025 Base + Development, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(s) | Specific <br> Demand Set <br> (s) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |
| Analysis Set) |  |  |  |  |  |  |  |  |  |

## Demand Set Details

| Name | Scenario Name | Time <br> Period <br> Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model <br> Time <br> Period <br> Length <br> (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2025 Base + <br> Development, PM | 2025 Base + <br> Development | PM |  | ONE HOUR | 16:15 | 17:45 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (5) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 6.08 | A |

Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

## Roundabout Geometry

| Name | V -Approach road half- <br> width $(\mathrm{m})$ | E-Entry <br> width $(\mathrm{m})$ | r-Effective flare <br> length $(\mathrm{m})$ | R - Entry <br> radius $(\mathrm{m})$ | D- Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> (W) | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

## Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Proportions <br> Vary Over Entry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Percentages | 2.00 |  |  |  | $\checkmark$ | $\checkmark$ |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 632.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 142.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 481.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 831.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 56.000 | 516.000 | 60.000 |
|  | $\mathbf{2}$ | 69.000 | 0.000 | 64.000 | 9.000 |
|  | $\mathbf{3}$ | 396.000 | 37.000 | 0.000 | 48.000 |
|  | $\mathbf{4}$ | 398.000 | 9.000 | 424.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.09 | 0.82 | 0.09 |
|  | $\mathbf{2}$ | 0.49 | 0.00 | 0.45 | 0.06 |
|  | $\mathbf{3}$ | 0.82 | 0.08 | 0.00 | 0.10 |
|  | $\mathbf{4}$ | 0.48 | 0.01 | 0.51 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.000 | 1.032 | 1.177 |
|  | $\mathbf{2}$ | 1.034 | 1.000 | 1.019 | 1.137 |
|  | $\mathbf{3}$ | 1.044 | 1.000 | 1.000 | 1.271 |
|  | $\mathbf{4}$ | 1.021 | 1.264 | 1.011 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 0.000 | 3.200 | 17.700 |
|  | $\mathbf{2}$ | 3.400 | 0.000 | 1.900 | 13.700 |
|  | $\mathbf{3}$ | 4.400 | 0.000 | 0.000 | 27.100 |
|  | $\mathbf{4}$ | 2.100 | 26.400 | 1.100 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | Max <br> RFC | Max <br> Delay <br> (s) | Max <br> Queue <br> (Veh) | Max <br> LoS | Average <br> Demand <br> (Veh/hr) | Total <br> Junction <br> Arrivals <br> (Veh) | Total <br> Queueing <br> Delay (Veh- <br> min) | Average <br> Queueing <br> Delay (s) | Rate Of <br> Queueing Delay <br> (Veh-min/min) | Inclusive Total <br> Queueing Delay <br> (Veh-min) | Inclusive <br> Average <br> Queueing <br> Delay ( $\mathbf{s})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 0.51 | 5.38 | 1.03 | A | 579.93 | 869.90 | 64.65 | 4.46 | 0.72 | 64.65 | 4.46 |
| Oxford <br> Motor Park | 0.14 | 3.86 | 0.17 | A | 130.30 | 195.45 | 11.07 | 3.40 | 0.12 | 11.07 | 3.40 |
| Langford <br> Lane (W) | 0.31 | 3.05 | 0.45 | A | 441.37 | 662.06 | 31.13 | 2.82 | 0.35 | 31.13 | 2.82 |
| The <br> Boulevard | 0.69 | 8.86 | 2.22 | A | 762.54 | 1143.81 | 121.98 | 6.40 | 1.36 | 121.99 | 6.40 |

## Main Results for each time segment

Main results: (16:15-16:30)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Entry Flow (Veh/hr) | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay (5) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 475.80 | 118.95 | 473.90 | 647.23 | 352.17 | 0.00 | 1469.54 | 1433.00 | 0.324 | 0.00 | 0.48 | 3.610 | A |
| Oxford Motor Park | 106.90 | 26.73 | 106.56 | 76.51 | 749.57 | 0.00 | 1329.05 | 737.79 | 0.080 | 0.00 | 0.09 | 2.944 | A |
| Langford Lane (W) | 362.12 | 90.53 | 361.08 | 752.60 | 103.52 | 0.00 | 1746.24 | 1433.15 | 0.207 | 0.00 | 0.26 | 2.598 | A |
| The Boulevard | 625.62 | 156.41 | 622.57 | 87.78 | 376.82 | 0.00 | 1440.24 | 578.05 | 0.434 | 0.00 | 0.76 | 4.387 | A |

Main results: (16:30-16:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 568.16 | 142.04 | 567.43 | 774.79 | 421.69 | 0.00 | 1425.75 | 1433.00 | 0.399 | 0.48 | 0.66 | 4.190 | A |
| Oxford <br> Motor Park | 127.65 | 31.91 | 127.54 | 91.59 | 897.53 | 0.00 | 1227.89 | 737.79 | 0.104 | 0.09 | 0.12 | 3.271 | A |
| Langford <br> Lane (W) | 432.41 | 108.10 | 432.12 | 901.14 | 123.93 | 0.00 | 1731.24 | 1433.15 | 0.250 | 0.26 | 0.33 | 2.771 | A |
| The <br> Boulevard | 747.05 | 186.76 | 745.51 | 105.08 | 450.98 | 0.00 | 1389.94 | 578.05 | 0.537 | 0.76 | 1.15 | 5.572 | A |

Main results: (16:45-17:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( 5 ) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 695.85 | 173.96 | 694.38 | 947.72 | 515.28 | 0.00 | 1366.80 | 1432.99 | 0.509 | 0.66 | 1.02 | 5.341 | A |
| Oxford <br> Motor Park | 156.34 | 39.09 | 156.14 | 112.09 | 1097.56 | 0.00 | 1091.12 | 737.79 | 0.143 | 0.12 | 0.17 | 3.849 | A |
| Langford <br> Lane (W) | 529.59 | 132.40 | 529.13 | 1102.02 | 151.69 | 0.00 | 1710.84 | 1433.15 | 0.310 | 0.33 | 0.45 | 3.044 | A |
| The <br> Boulevard | 914.95 | 228.74 | 910.80 | 128.62 | 552.20 | 0.00 | 1321.28 | 578.05 | 0.692 | 1.15 | 2.18 | 8.682 | A |

Main results: (17:00-17:15)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> FFow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{5})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 695.85 | 173.96 | 695.82 | 950.11 | 517.41 | 0.00 | 1365.46 | 1432.99 | 0.510 | 1.02 | 1.03 | 5.375 | A |
| Oxford <br> Motor Park | 156.34 | 39.09 | 156.34 | 112.30 | 1100.92 | 0.00 | 1088.83 | 737.79 | 0.144 | 0.17 | 0.17 | 3.860 | A |
| Langford <br> Lane (W) | 529.59 | 132.40 | 529.59 | 1105.33 | 151.94 | 0.00 | 1710.65 | 1433.15 | 0.310 | 0.45 | 0.45 | 3.047 | A |
| The <br> Boulevard | 914.95 | 228.74 | 914.81 | 128.82 | 552.71 | 0.00 | 1320.93 | 578.05 | 0.693 | 2.18 | 2.22 | 8.856 | A |

Main results: (17:15-17:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 568.16 | 142.04 | 569.61 | 778.28 | 424.72 | 0.00 | 1423.84 | 1433.00 | 0.399 | 1.03 | 0.67 | 4.222 | A |
| Oxford <br> Motor Park | 127.65 | 31.91 | 127.86 | 91.90 | 902.43 | 0.00 | 1224.56 | 737.79 | 0.104 | 0.17 | 0.12 | 3.282 | A |
| Langford <br> Lane (W) | 432.41 | 108.10 | 432.86 | 905.97 | 124.31 | 0.00 | 1730.96 | 1433.15 | 0.250 | 0.45 | 0.33 | 2.775 | A |
| The <br> Boulevard | 747.05 | 186.76 | 751.21 | 105.38 | 451.79 | 0.00 | 1389.39 | 578.05 | 0.538 | 2.22 | 1.18 | 5.678 | A |

Main results: (17:30-17:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{s})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 475.80 | 118.95 | 476.55 | 650.78 | 354.70 | 0.00 | 1467.94 | 1433.00 | 0.324 | 0.67 | 0.48 | 3.633 | A |
| Oxford <br> Motor Park | 106.90 | 26.73 | 107.02 | 76.90 | 754.35 | 0.00 | 1325.78 | 737.79 | 0.081 | 0.12 | 0.09 | 2.953 | A |
| Langford <br> Lane (W) | 362.12 | 90.53 | 362.41 | 757.35 | 104.03 | 0.00 | 1745.86 | 1433.15 | 0.207 | 0.33 | 0.26 | 2.602 | A |
| The <br> Boulevard | 625.62 | 156.41 | 627.23 | 88.19 | 378.25 | 0.00 | 1439.28 | 578.05 | 0.435 | 1.18 | 0.78 | 4.443 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (16:15-16:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (5) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 6.97 | 0.46 | 3.610 | A |  |
| Oxford Motor <br> Park | 1.29 | 0.09 | 2.944 | A |  |
| Langford Lane <br> (W) | 3.85 | 0.26 | 2.598 | A |  |
| The Boulevard | 11.07 | 0.74 | 4.387 | A | A |

Queueing Delay results: (16:30-16:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 9.66 | 0.64 | 4.190 | A |  |
| Oxford Motor <br> Park | 1.71 | 0.11 | 3.271 | A |  |
| Langford Lane <br> (W) | 4.91 | 0.33 | 2.771 | A |  |
| The Boulevard | 16.67 | 1.11 | 5.572 | A | A |

Queueing Delay results: (16:45-17:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle ( 5 ) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 14.91 | 0.99 | 5.341 | A |  |
| Oxford Motor <br> Park | 2.46 | 0.16 | 3.849 | A |  |
| Langford Lane <br> (W) | 6.59 | 0.44 | 3.044 | A |  |
| The Boulevard | 30.84 | 2.06 | 8.682 | A | A |

Queueing Delay results: (17:00-17:15)

| Name | Queueing Total Delay <br> $($ Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 15.44 | 1.03 | 5.375 | A |  |
| Oxford Motor <br> Park | 2.50 | 0.17 | 3.860 | A |  |
| Langford Lane <br> (W) | 6.70 | 0.45 | 3.047 | A |  |
| The Boulevard | 33.08 | 2.21 | 8.856 | A | A |

Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (5) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.29 | 0.69 | 4.222 | A |  |
| Oxford Motor <br> Park | 1.78 | 0.12 | 3.282 | A |  |
| Langford Lane <br> (W) | 5.09 | 0.34 | 2.775 | A |  |
| The Boulevard | 18.39 | 1.23 | 5.678 | A | A |

Queueing Delay results: (17:30-17:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 7.37 | 0.49 | 3.633 | A | A |
| Oxford Motor <br> Park | 1.34 | 0.09 | 2.953 | A | A |
| Langford Lane <br> (W) | 3.99 | 0.27 | 2.602 | A | A |
| The Boulevard | 11.94 | 0.80 | 4.443 | A | A |

## (Default Analysis Set) - 2015 Base + Sensitivity Development, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(s) | Specific <br> Demand Set <br> (s) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time ( $\mathrm{HH}: \mathrm{mm}$ ) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 Base + Sensitivity Development, AM | 2015 Base + Sensitivity Development | AM |  | $\begin{aligned} & \text { ONE } \\ & \text { HOUR } \end{aligned}$ | 07:30 | 09:00 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 6.45 | A |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Normal/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

## Roundabout Geometry

| Name | V-Approach road half- <br> width $(\mathbf{m})$ | E-Entry <br> width $(\mathbf{m})$ | r-Effective flare <br> length $(\mathbf{m})$ | R - Entry <br> radius $(\mathbf{m})$ | D- Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> (W) | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

Demand Set Data Options

| Default <br> Vehicl <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Proportions <br> Vary Over Entry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Percentages | 2.00 |  |  |  | $\checkmark$ | $\checkmark$ |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 763.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 53.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 1008.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 124.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | 3 | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 84.000 | 266.000 | 413.000 |
|  | $\mathbf{2}$ | 25.000 | 0.000 | 26.000 | 2.000 |
|  | $\mathbf{3}$ | 509.000 | 102.000 | 0.000 | 397.000 |
|  | $\mathbf{4}$ | 66.000 | 5.000 | 53.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.11 | 0.35 | 0.54 |
|  | $\mathbf{2}$ | 0.47 | 0.00 | 0.49 | 0.04 |
|  | $\mathbf{3}$ | 0.50 | 0.10 | 0.00 | 0.39 |
|  | $\mathbf{4}$ | 0.53 | 0.04 | 0.43 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.012 | 1.057 | 1.025 |
|  | $\mathbf{2}$ | 1.040 | 1.000 | 1.000 | 1.462 |
|  | $\mathbf{3}$ | 1.034 | 1.000 | 1.000 | 1.015 |
|  | $\mathbf{4}$ | 1.339 | 1.000 | 1.305 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 1.200 | 5.700 | 2.500 |
|  | $\mathbf{2}$ | 4.000 | 0.000 | 0.000 | 46.200 |
|  | $\mathbf{3}$ | 3.400 | 0.000 | 0.000 | 1.500 |
|  | $\mathbf{4}$ | 33.900 | 0.000 | 30.500 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | Max Delay (s) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average <br> Demand <br> (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Veh- min) | Average Queueing Delay (5) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.53 | 4.84 | 1.12 | A | 700.15 | 1050.22 | 71.93 | 4.11 | 0.80 | 71.94 | 4.11 |
| Oxford Motor Park | 0.05 | 2.96 | 0.05 | A | 48.63 | 72.95 | 3.35 | 2.75 | 0.04 | 3.35 | 2.75 |
| Langford Lane (W) | 0.72 | 8.19 | 2.49 | A | 924.96 | 1387.43 | 135.58 | 5.86 | 1.51 | 135.59 | 5.86 |
| The Boulevard | 0.14 | 4.41 | 0.17 | A | 113.78 | 170.68 | 11.50 | 4.04 | 0.13 | 11.50 | 4.04 |

## Main Results for each time segment

Main results: (07:30-07:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | Los |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 574.43 | 143.61 | 572.25 | 449.77 | 119.94 | 0.00 | 1622.18 | 1340.26 | 0.354 | 0.00 | 0.55 | 3.421 | A |
| Oxford <br> Motor Park | 39.90 | 9.98 | 39.79 | 143.20 | 548.98 | 0.00 | 1453.50 | 728.66 | 0.027 | 0.00 | 0.03 | 2.546 | A |
| Langford <br> Lane (W) | 758.87 | 189.72 | 755.53 | 258.76 | 330.02 | 0.00 | 1658.98 | 1103.50 | 0.457 | 0.00 | 0.84 | 3.971 | A |
| The <br> Boulevard | 93.35 | 23.34 | 92.97 | 608.81 | 476.74 | 0.00 | 1069.01 | 787.64 | 0.087 | 0.00 | 0.10 | 3.688 | A |

Main results: (07:45-08:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> FFow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{~})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 685.92 | 171.48 | 685.14 | 538.45 | 143.61 | 0.00 | 1605.87 | 1340.26 | 0.427 | 0.55 | 0.74 | 3.906 | A |
| Oxford <br> Motor Park | 47.65 | 11.91 | 47.62 | 171.44 | 657.32 | 0.00 | 1377.82 | 728.66 | 0.035 | 0.03 | 0.04 | 2.705 | A |
| Langford <br> Lane (W) | 906.17 | 226.54 | 904.45 | 309.81 | 395.11 | 0.00 | 1612.64 | 1103.50 | 0.562 | 0.84 | 1.27 | 5.071 | A |
| The <br> Boulevard | 111.47 | 27.87 | 111.37 | 728.87 | 570.69 | 0.00 | 1019.99 | 787.64 | 0.109 | 0.10 | 0.12 | 3.962 | A |

Main results: (08:00-08:15)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{5}$ ) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 840.08 | 210.02 | 838.57 | 658.11 | 175.60 | 0.00 | 1583.83 | 1340.26 | 0.530 | 0.74 | 1.12 | 4.821 | A |
| Oxford <br> Motor Park | 58.35 | 14.59 | 58.31 | 209.64 | 804.53 | 0.00 | 1274.96 | 728.66 | 0.046 | 0.04 | 0.05 | 2.958 | A |
| Langford <br> Lane (W) | 1109.82 | 277.46 | 1105.10 | 379.23 | 483.61 | 0.00 | 1549.64 | 1103.50 | 0.716 | 1.27 | 2.45 | 8.013 | A |
| The <br> Boulevard | 136.53 | 34.13 | 136.35 | 891.35 | 697.36 | 0.00 | 953.90 | 787.64 | 0.143 | 0.12 | 0.17 | 4.402 | A |

Main results: (08:15-08:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 840.08 | 210.02 | 840.06 | 660.53 | 176.15 | 0.00 | 1583.47 | 1340.26 | 0.531 | 1.12 | 1.12 | 4.842 | A |
| Oxford <br> Motor Park | 58.35 | 14.59 | 58.35 | 210.28 | 805.92 | 0.00 | 1274.00 | 728.66 | 0.046 | 0.05 | 0.05 | 2.960 | A |
| Langford <br> Lane (W) | 1109.82 | 277.46 | 1109.67 | 379.84 | 484.43 | 0.00 | 1549.06 | 1103.50 | 0.716 | 2.45 | 2.49 | 8.186 | A |
| The | 136.53 | 34.13 | 136.52 | 893.95 | 700.16 | 0.00 | 952.45 | 787.64 | 0.143 | 0.17 | 0.17 | 4.411 | A |
| Boulevard |  |  |  |  |  |  |  |  |  |  |  |  |  |

Main results: (08:30-08:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 685.92 | 171.48 | 687.41 | 541.90 | 144.40 | 0.00 | 1605.36 | 1340.26 | 0.427 | 1.12 | 0.75 | 3.929 | A |
| Oxford <br> Motor Park | 47.65 | 11.91 | 47.69 | 172.36 | 659.45 | 0.00 | 1376.33 | 728.66 | 0.035 | 0.05 | 0.04 | 2.711 | A |
| Langford <br> Lane (W) | 906.17 | 226.54 | 910.91 | 310.76 | 396.38 | 0.00 | 1611.74 | 1103.50 | 0.562 | 2.49 | 1.30 | 5.172 | A |
| The <br> Boulevard | 111.47 | 27.87 | 111.65 | 732.64 | 574.65 | 0.00 | 1017.93 | 787.64 | 0.110 | 0.17 | 0.12 | 3.974 | A |

Main results: (08:45-09:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 574.43 | 143.61 | 575.23 | 452.69 | 120.69 | 0.00 | 1621.67 | 1340.26 | 0.354 | 0.75 | 0.55 | 3.442 | A |
| Oxford <br> Motor Park | 39.90 | 9.98 | 39.93 | 144.07 | 551.84 | 0.00 | 1451.50 | 728.66 | 0.027 | 0.04 | 0.03 | 2.549 | A |
| Langford <br> Lane (W) | 758.87 | 189.72 | 760.67 | 260.07 | 331.70 | 0.00 | 1657.78 | 1103.50 | 0.458 | 1.30 | 0.85 | 4.020 | A |
| The <br> Boulevard | 93.35 | 23.34 | 93.46 | 612.46 | 479.92 | 0.00 | 1067.35 | 787.64 | 0.087 | 0.12 | 0.10 | 3.696 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (07:30-07:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 7.98 | 0.53 | 3.421 | A |  |
| Oxford Motor <br> Park | 0.42 | 0.03 | 2.546 | A |  |
| Langford Lane <br> (W) | 12.17 | 0.81 | 3.971 | A |  |
| The Boulevard | 1.40 | 0.09 | 3.688 | A | A |

Queueing Delay results: (07:45-08:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> $\mathrm{min} / \mathrm{min})$ | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.88 | 0.73 | 3.906 | A | A |
| Oxford Motor <br> Park | 0.53 | 0.04 | 2.705 | A | A |
| Langford Lane <br> (W) | 18.42 | 1.23 | 5.071 | A | A |
| The Boulevard | 1.81 | 0.12 | 3.962 | A | A |

Queueing Delay results: (08:00-08:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle ( $\mathbf{s}$ ) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 16.28 | 1.09 | 4.821 | A |  |
| Oxford Motor <br> Park | 0.71 | 0.05 | 2.958 | A |  |
| Langford Lane <br> (W) | 34.54 | 2.30 | 8.013 | A |  |
| The Boulevard | 2.45 | 0.16 | 4.402 | A | A |

Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 16.82 | 1.12 | 4.842 | A |  |
| Oxford Motor <br> Park | 0.72 | 0.05 | 2.960 | A |  |
| Langford Lane <br> (W) | 37.08 | 2.47 | 8.186 | A |  |
| The Boulevard | 2.50 | 0.17 | 4.411 | A | A |

Queueing Delay results: (08:30-08:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 11.54 | 0.77 | 3.929 | A |  |
| Oxford Motor <br> Park | 0.55 | 0.04 | 2.711 | A |  |
| Langford Lane <br> (W) | 20.28 | 1.35 | 5.172 | A |  |
| The Boulevard | 1.88 | 0.13 | 3.974 | A | A |

Queueing Delay results: (08:45-09:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 8.43 | 0.56 | 3.442 | A |  |
| Oxford Motor <br> Park | 0.43 | 0.03 | 2.549 | A |  |
| Langford Lane <br> (W) | 13.09 | 0.87 | 4.020 | A |  |
| The Boulevard | 1.46 | 0.10 | 3.696 | A | A |

## (Default Analysis Set) - 2015 Base + Sensitivity Development, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(5) | Specific <br> Demand Set <br> (s) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  |  |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | $\begin{gathered} \text { Model } \\ \text { Start } \\ \text { Time } \\ (\mathrm{HH}: \mathrm{mm}) \end{gathered}$ | Model Finish Time (HH:mm) | Model <br> Time <br> Period <br> Length <br> (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use <br> Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 Base + Sensitivity Development, PM | 2015 Base + Sensitivity Development | PM |  | ONE HOUR | 16:15 | 17:45 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 4.52 | A |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

Roundabout Geometry

| Name | V-Approach road half- <br> width $(\mathbf{m})$ | E-Entry <br> width $(\mathbf{m})$ | r-Effective flare <br> length $(\mathbf{m})$ | R - Entry <br> radius $(\mathbf{m})$ | D- Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> $(\mathrm{E})$ | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> $(W)$ | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\checkmark$ | $\checkmark$ | HV <br> Proportions <br> Vercentages | 2.00 |  |  |  |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 534.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 121.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 353.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 721.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 48.000 | 434.000 | 52.000 |
|  | $\mathbf{2}$ | 59.000 | 0.000 | 55.000 | 7.000 |
|  | $\mathbf{3}$ | 281.000 | 31.000 | 0.000 | 41.000 |
|  | $\mathbf{4}$ | 346.000 | 8.000 | 367.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.09 | 0.81 | 0.10 |
|  | $\mathbf{2}$ | 0.49 | 0.00 | 0.45 | 0.06 |
|  | $\mathbf{3}$ | 0.80 | 0.09 | 0.00 | 0.12 |
|  | $\mathbf{4}$ | 0.48 | 0.01 | 0.51 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.000 | 1.028 | 1.176 |
|  | $\mathbf{2}$ | 1.034 | 1.000 | 1.019 | 1.137 |
|  | $\mathbf{3}$ | 1.051 | 1.000 | 1.000 | 1.270 |
|  | $\mathbf{4}$ | 1.021 | 1.260 | 1.011 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 0.000 | 2.800 | 17.600 |
|  | $\mathbf{2}$ | 3.400 | 0.000 | 1.900 | 13.700 |
|  | $\mathbf{3}$ | 5.100 | 0.000 | 0.000 | 27.000 |
|  | $\mathbf{4}$ | 2.100 | 26.000 | 1.100 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \operatorname{Max} \\ & \text { RFC } \end{aligned}$ | Max Delay (s) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Vehmin) | Average Queueing Delay (s) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 0.42 | 4.36 | 0.71 | A | 490.01 | 735.01 | 46.52 | 3.80 | 0.52 | 46.53 | 3.80 |
| Oxford Motor Park | 0.11 | 3.37 | 0.12 | A | 111.03 | 166.55 | 8.48 | 3.05 | 0.09 | 8.48 | 3.05 |
| Langford <br> Lane (W) | 0.23 | 2.72 | 0.29 | A | 323.92 | 485.88 | 20.85 | 2.57 | 0.23 | 20.85 | 2.57 |
| The Boulevard | 0.56 | 5.77 | 1.26 | A | 661.60 | 992.40 | 77.72 | 4.70 | 0.86 | 77.73 | 4.70 |

## Main Results for each time segment

Main results: (16:15-16:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (5) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 402.02 | 100.51 | 400.57 | 514.67 | 304.43 | 0.00 | 1503.96 | 1423.07 | 0.267 | 0.00 | 0.36 | 3.258 | A |
| Oxford <br> Motor Park | 91.10 | 22.77 | 90.82 | 65.28 | 639.72 | 0.00 | 1405.89 | 743.40 | 0.065 | 0.00 | 0.07 | 2.737 | A |
| Langford <br> Lane (W) | 265.76 | 66.44 | 265.04 | 641.99 | 88.54 | 0.00 | 1743.01 | 1419.75 | 0.152 | 0.00 | 0.18 | 2.434 | A |
| The <br> Boulevard | 542.81 | 135.70 | 540.57 | 75.04 | 278.54 | 0.00 | 1506.02 | 594.63 | 0.360 | 0.00 | 0.56 | 3.721 | A |


[^0]:    The slope and intercept shown above include any corrections and adjustments.

