Appendix M
Left-Turn Lane Warrants

## LEFT-TURN LANE WARRANTS

Left-turn lane warrants were reviewed as per MTO Geometric Design Standards for Ontario Highways.

| Mississauga Road \& Olde Base Line Intersection, AM Peak Hour |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Direction of Travel | NB | SB | EB | WB |  |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |  |
| Advancing Traffic Volumes | 62 | 216 | 190 | 38 |  |
| Opposing Traffic Volumes | 216 | 62 | 38 | 190 |  |
| Left Turn Traffic Volume | 13 | 15 | 0 | 7 |  |
| Percentage Left Turning Volume | $21 \%$ | $7 \%$ | $0 \%$ | $18 \%$ |  |
| Warranted | No | No | No | No |  |
| Storage Length | N/A | N/A | N/A | N/A |  |
| Mississauga Road \& Olde Base Line Intersection , PM Peak Hour |  |  |  |  |  |
| Direction of Travel | NB | SB | EB | WB |  |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |  |
| Advancing Traffic Volumes | 296 | 81 | 63 | 72 |  |
| Opposing Traffic Volumes | 81 | 296 | 72 | 63 |  |
| Left Turn Traffic Volume | 102 | 12 | 1 | 5 |  |
| \%Percentage Left Turning Volume | $34 \%$ | $15 \%$ | $2 \%$ | $7 \%$ |  |
| Warranted | No | No | No | No |  |
| Storage Length | N/A | N/A | N/A | N/A |  |


| Mississauga Road \& The Grange Sideroad Intersection, AM Peak Hour |  |  |  |  |  |
| :--- | :---: | :---: | :--- | :--- | :--- |
| Direction of Travel | NB | SB |  |  |  |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Advancing Traffic Volumes | 42 | 187 |  |  |  |
| Opposing Traffic Volumes | 187 | 42 |  |  |  |
| Left Turn Traffic Volume | 1 | 4 |  |  |  |
| Percentage Left Turning Volume | $2 \%$ | $2 \%$ |  |  |  |
| Warranted | No | No |  |  |  |
| Storage Length | N/A | N/A |  |  |  |
| Mississauga Road \& The Grange Sideroad Intersection, PM Peak Hour |  |  |  |  |  |
| Direction of Travel | NB | SB |  |  |  |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Advancing Traffic Volumes | 243 | 71 |  |  |  |
| Opposing Traffic Volumes | 71 | 243 |  |  |  |
| Left Turn Traffic Volume | 12 | 5 |  |  |  |
| Percentage Left Turning Volume | $5 \%$ | $7 \%$ |  |  |  |
| Warranted | No | No |  |  |  |
| Storage Length | N/A | N/A |  |  |  |


| Mississauga Road \& Woodland Court Intersection, AM Peak Hour |  |  |  |  |
| :--- | :--- | :---: | :--- | :--- | :--- |
| Direction of Travel |  | SB |  |  |
| Design Speed |  | $70 \mathrm{~km} / \mathrm{h}$ |  |  |
| Advancing Traffic Volumes |  | 192 |  |  |
| Opposing Traffic Volumes |  | 26 |  |  |
| Left Turn Traffic Volume |  |  |  |  |
| Percentage Left Turning Volume |  | $0 \%$ |  |  |
| Warranted | No |  |  |  |
| Storage Length | N/A |  |  |  |
| Mississauga Road \& Woodland Court Intersection, PM Peak Hour |  |  |  |  |
| Direction of Travel |  | SB |  |  |
| Design Speed | $70 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Advancing Traffic Volumes |  | 70 |  |  |
| Opposing Traffic Volumes |  | 230 |  |  |
| Left Turn Traffic Volume | 2 |  |  |  |
| Percentage Left Turning Volume |  | $3 \%$ |  |  |
| Warranted |  | No |  |  |
| Storage Length |  | N/A |  |  |



| Old Main Street \& Bush Street Intersection, AM Peak Hour |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Direction of Travel | NB | SB | EB | WB |  |  |
| Design Speed | $50 \mathrm{~km} / \mathrm{h}$ | $50 \mathrm{~km} / \mathrm{h}$ | $50 \mathrm{~km} / \mathrm{h}$ | $50 \mathrm{~km} / \mathrm{h}$ |  |  |
| Advancing Traffic Volumes | 36 | 61 | 143 | 11 |  |  |
| Opposing Traffic Volumes | 61 | 36 | 11 | 143 |  |  |
| Left Turn Traffic Volume | 28 | 4 | 7 | 5 |  |  |
| Percentage Left Turning Volume | $78 \%$ | $7 \%$ | $5 \%$ | $45 \%$ |  |  |
| Warranted | No | No | No | No |  |  |
| Storage Length | N/A | N/A | N/A | N/A |  |  |
| Old Main Street \& Bush Street Intersection, PM Peak Hour |  |  |  |  |  |  |
| Direction of Travel | NB | SB | EB | WB |  |  |
| Design Speed | $50 \mathrm{~km} / \mathrm{h}$ | $50 \mathrm{~km} / \mathrm{h}$ | $50 \mathrm{~km} / \mathrm{h}$ | $50 \mathrm{~km} / \mathrm{h}$ |  |  |
| Advancing Traffic Volumes | 216 | 44 | 67 | 4 |  |  |
| Opposing Traffic Volumes | 44 | 216 | 4 | 67 |  |  |
| Left Turn Traffic Volume | 152 | 2 | 13 | 2 |  |  |
| Percentage Left Turning Volume | $70 \%$ | $5 \%$ | $19 \%$ | $50 \%$ |  |  |
| Warranted | No | No | No | No |  |  |
| Storage Length | N/A | N/A | N/A | N/A |  |  |


| Bush Street \& Winston Churchill Boulevard Intersection, AM Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Direction of Travel |  |  | EB | WB |
| Design Speed |  |  | $90 \mathrm{~km} / \mathrm{h}$ | $90 \mathrm{~km} / \mathrm{h}$ |
| Advancing Traffic Volumes |  |  | 164 | 54 |
| Opposing Traffic Volumes |  |  | 106 | 246 |
| Left Turn Traffic Volume |  |  | 9 | 2 |
| Percentage Left Turning Volume |  |  | 5\% | 4\% |
| Warranted |  |  | No | No |
| Storage Length |  |  | N/A | N/A |
| Bush Street \& Winston Churchill Boulevard Intersection, PM Peak Hour |  |  |  |  |
| Direction of Travel |  |  | EB | WB |
| Design Speed |  |  | $90 \mathrm{~km} / \mathrm{h}$ | $90 \mathrm{~km} / \mathrm{h}$ |
| Advancing Traffic Volumes |  |  | 89 | 134 |
| Opposing Traffic Volumes |  |  | 280 | 122 |
| Left Turn Traffic Volume |  |  | 9 | 2 |
| Percentage Left Turning Volume |  |  | 10\% | 1\% |
| Warranted |  |  | No | No |
| Storage Length |  |  | N/A | N/A |

Winston Churchill Boulevard \& The Grange Sideroad Intersection, AM Peak Hour

| Direction of Travel |  | SB |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Design Speed |  | $80 \mathrm{~km} / \mathrm{h}$ |  |  |
| Advancing Traffic Volumes |  | 155 |  |  |
| Opposing Traffic Volumes |  | 56 |  |  |
| Left Turn Traffic Volume |  | 6 |  |  |
| \%Percentage Left Turning Volume |  | $4 \%$ |  |  |
| Warranted |  | No |  |  |
| Storage Length |  | N/A |  |  |

Winston Churchill Boulevard \& The Grange Sideroad Intersection, PM Peak Hour

| Direction of Travel |  | SB |  |  |
| :--- | :--- | :---: | :--- | :--- |
| Design Speed |  | $80 \mathrm{~km} / \mathrm{h}$ |  |  |
| Advancing Traffic Volumes |  | 61 |  |  |
| Opposing Traffic Volumes |  | 149 |  |  |
| Left Turn Traffic Volume |  | 6 |  |  |
| \%Percentage Left Turning Volume |  | $10 \%$ |  |  |
| Warranted |  | No |  |  |
| Storage Length |  | N/A |  |  |


| Winston Churchill Boulevard \& 5th Sideroad Intersection, AM Peak Hour |  |  |  |  |
| :--- | :---: | :--- | :--- | :--- | :--- |
| Direction of Travel | NB |  |  |  |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Advancing Traffic Volumes | 44 |  |  |  |
| Opposing Traffic Volumes | 153 |  |  |  |
| Left Turn Traffic Volume | 6 |  |  |  |
| \%Percentage Left Turning Volume | $14 \%$ |  |  |  |
| Warranted | No |  |  |  |
| Storage Length | N/A |  |  |  |
| Winston Churchill Boulevard \& 5th Sideroad Intersection, PM Peak Hour |  |  |  |  |
| Direction of Travel | NB |  |  |  |
| Design Speed | $80 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Advancing Traffic Volumes | 182 |  |  |  |
| Opposing Traffic Volumes | 61 |  |  |  |
| Left Turn Traffic Volume | 50 |  |  |  |
| \%Percentage Left Turning Volume | $27 \%$ |  |  |  |
| Warranted | No |  |  |  |
| Storage Length | N/A |  |  |  |


| Winston Churchill Boulevard \& Olde Base Line Road Intersection, AM Peak Hour |  |  |  |  |
| :--- | :--- | :---: | :--- | :--- | :--- |
| Direction of Travel |  | SB |  |  |
| Design Speed |  | $70 \mathrm{~km} / \mathrm{h}$ |  |  |
| Advancing Traffic Volumes |  | 198 |  |  |
| Opposing Traffic Volumes |  | 34 |  |  |
| Left Turn Traffic Volume |  | 158 |  |  |
| \%Percentage Left Turning Volume |  | $80 \%$ |  |  |
| Warranted |  | No |  |  |
| Storage Length |  | N/A |  |  |
| Winston Churchill Boulevard \& Olde Base Line Road Intersection, PM Peak Hour |  |  |  |  |
| Direction of Travel |  | SB |  |  |
| Design Speed | $70 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Advancing Traffic Volumes |  | 84 |  |  |
| Opposing Traffic Volumes |  | 60 |  |  |
| Left Turn Traffic Volume |  | 62 |  |  |
| \%Percentage Left Turning Volume |  | $74 \%$ |  |  |
| Warranted |  | No |  |  |
| Storage Length |  | N/A |  |  |

Olde Base Line Road \& Shaws Creek Road Intersection, AM Peak Hour

| Direction of Travel |  |  | EB |  |
| :--- | :--- | :--- | :---: | :---: |
| Design Speed |  |  | $70 \mathrm{~km} / \mathrm{h}$ |  |
| Advancing Traffic Volumes |  |  | 53 |  |
| Opposing Traffic Volumes |  |  | 2 |  |
| Left Turn Traffic Volume |  |  | $1 \%$ |  |
| \%Percentage Left Turning Volume |  |  | No |  |
| Warranted |  |  | N/A |  |
| Storage Length |  |  |  |  |

Olde Base Line Road \& Shaws Creek Road Intersection, PM Peak Hour

| Direction of Travel |  |  | EB |  |
| :--- | :--- | :--- | :---: | :---: |
| Design Speed |  |  | $70 \mathrm{~km} / \mathrm{h}$ |  |
| Advancing Traffic Volumes |  | 77 |  |  |
| Opposing Traffic Volumes |  |  | 174 |  |
| Left Turn Traffic Volume |  | 4 |  |  |
| \%Percentage Left Turning Volume |  |  | $5 \%$ |  |
| Warranted |  |  | No |  |
| Storage Length |  |  | N/A |  |

Olde Base Line Road \& Rockside Road Intersection, AM Peak Hour

| Direction of Travel |  |  |  | WB |
| :--- | :--- | :--- | :--- | :---: |
| Design Speed |  |  |  | $70 \mathrm{~km} / \mathrm{h}$ |
| Advancing Traffic Volumes |  |  | 36 |  |
| Opposing Traffic Volumes |  |  |  | 179 |
| Left Turn Traffic Volume |  |  | 1 |  |
| \%Percentage Left Turning Volume |  |  | $3 \%$ |  |
| Warranted |  |  | No |  |
| Storage Length |  |  | N/A |  |


| Olde Base Line Road \& Rockside Road Intersection, PM Peak Hour |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Direction of Travel |  |  |  | WB |
| Design Speed |  |  |  | $70 \mathrm{~km} / \mathrm{h}$ |
| Advancing Traffic Volumes |  |  | 180 |  |
| Opposing Traffic Volumes |  |  | 62 |  |
| Left Turn Traffic Volume |  |  | 4 |  |
| \%Percentage Left Turning Volume |  |  | $2 \%$ |  |
| Warranted |  |  | No |  |
| Storage Length |  |  | N/A |  |

