

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Total Traffic)
 Region/City/Township: Town of Halton Hills
 Major Street: Steeles Avenue
 Minor Street: Sixth Line

North/South?: N

Number of Approach Lanes: 2 or more
 Tee Intersection?: Y
 Flow Conditions: Restricted
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Sixth Line						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	65	1865	0	0	840	30	0	0	0	245	0	60	
PM Peak Hour	75	1395	0	0	2200	120	0	0	0	55	0	60	
Average Hourly Volume	35	815	0	0	760	38	0	0	0	75	0	30	0

Warrant	AHV
1A - All	1753
1B - Minor	105
2A - Major	1648
2B - Cross	75

Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	1753
	All Approaches	480	720	600	900	1753
		% Fulfilled				194.7%
1B	Flow Conditions				X	105
	Minor Street Approaches	180	255	180	255	105
		% Fulfilled				41.2%

Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	1648
	Major Street Approaches	480	720	600	900	1648
		% Fulfilled				183.1%
2B	Flow Conditions				X	75
	Traffic Crossing Major Street	50	75	50	75	75
		% Fulfilled				100.0%

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Total Traffic)
 Region/City/Township: Town of Halton Hills
 Major Street: Steeles Avenue
 Minor Street: Hornby Road

North/South?: N

Number of Approach Lanes: 2 or more
 Tee Intersection?: Y
 Flow Conditions: Restricted
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Hornby Road						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	95	1540	0	0	870	85	0	0	0	25	0	65	
PM Peak Hour	75	1100	0	0	2035	35	0	0	0	65	0	150	
Average Hourly Volume	43	660	0	0	726	30	0	0	0	23	0	54	0

Warrant	AHV
1A - All	1535
1B - Minor	76
2A - Major	1459
2B - Cross	23

Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	
	All Approaches	480	720	600	900	1535
		% Fulfilled				170.6%
1B	Flow Conditions				X	
	Minor Street Approaches	180	255	180	255	76
		% Fulfilled				29.9%

Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	
	Major Street Approaches	480	720	600	900	1459
		% Fulfilled				162.1%
2B	Flow Conditions				X	
	Traffic Crossing Major Street	50	75	50	75	23
		% Fulfilled				30.0%

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Total Traffic)
 Region/City/Township: Town of Halton Hills

Major Street: Steeles Avenue North/South?: N
 Minor Street: Eighth Line South

Number of Approach Lanes: 2 or more
 Tee Intersection?: Y
 Flow Conditions: Restricted
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Steeles Avenue						Minor Street Eighth Line South						Peds Crossing	
	Eastbound			Westbound			Northbound			Southbound				
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right		
AM Peak Hour	0	1825	5	5	1420	0	5	0	0	0	0	0	0	0
PM Peak Hour	0	1985	5	0	2595	0	5	0	10	0	0	0	0	0
Average Hourly Volume	0	953	3	1	1004	0	3	0	3	0	0	0	0	0

Warrant	AHV
1A - All	1965
1B - Minor	5
2A - Major	1960
2B - Cross	3

Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions				X	1965
	All Approaches	480	720	600	900	1965
		% Fulfilled				218.3%
1B	Flow Conditions				X	5
	Minor Street Approaches	180	255	180	255	5
		% Fulfilled				2.0%

Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions				X	1960
	Major Street Approaches	480	720	600	900	1960
		% Fulfilled				217.8%
2B	Flow Conditions				X	3
	Traffic Crossing Major Street	50	75	50	75	3
		% Fulfilled				3.3%

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Total Traffic)
 Region/City/Township: Town of Halton Hills

Major Street: 5 Sideroad North/South?: N
 Minor Street: Fifth Line

Number of Approach Lanes: 1
 Tee Intersection?: N
 Flow Conditions: Restricted
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street 5 Sideroad						Minor Street Fifth Line						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	20	995	20	35	280	5	10	35	30	60	75	40	
PM Peak Hour	55	345	10	25	755	30	10	60	35	5	45	20	
Average Hourly Volume	19	335	8	15	259	9	5	24	16	16	30	15	0

Warrant	AHV
1A - All	750
1B - Minor	106
2A - Major	644
2B - Cross	51

Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions		X			750
	All Approaches	480	720	600	900	750
		% Fulfilled				104.2%
1B	Flow Conditions		X			106
	Minor Street Approaches	120	170	120	170	106
		% Fulfilled				62.5%

Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions		X			644
	Major Street Approaches	480	720	600	900	644
		% Fulfilled				89.4%
2B	Flow Conditions		X			51
	Traffic Crossing Major Street	50	75	50	75	51
		% Fulfilled				68.3%

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Total Traffic)
 Region/City/Township: Town of Halton Hills

Major Street: 5 Sideroad North/South?: N
 Minor Street: Sixth Line

Number of Approach Lanes: 1
 Tee Intersection?: N
 Flow Conditions: Restricted
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street 5 Sideroad						Minor Street Sixth Line						Peds Crossing
	Eastbound			Westbound			Northbound			Southbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	15	820	235	20	280	5	20	20	50	35	40	25	
PM Peak Hour	5	315	40	20	755	25	105	55	30	10	25	10	
Average Hourly Volume	5	284	69	10	259	8	31	19	20	11	16	9	0

Warrant	AHV
1A - All	740
1B - Minor	106
2A - Major	634
2B - Cross	61

Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions		X			740
	All Approaches	480	720	600	900	740
		% Fulfilled				102.8%
1B	Flow Conditions		X			106
	Minor Street Approaches	120	170	120	170	106
		% Fulfilled				62.5%

Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions		X			634
	Major Street Approaches	480	720	600	900	634
		% Fulfilled				88.0%
2B	Flow Conditions		X			61
	Traffic Crossing Major Street	50	75	50	75	61
		% Fulfilled				81.7%

Signal Justification Calculation for Forecasted Volumes (OTM Book 12 - Justification 7)

Horizon Year: 2031 (Total Traffic)
 Region/City/Township: Town of Halton Hills

Major Street: Eighth Line North/South?: Y
 Minor Street: "Street B"

Number of Approach Lanes: 1
 Tee Intersection?: Y
 Flow Conditions: Restricted
 PM Forecast Only? N

Warrant Results		
150% Satisfied	No	Justification for new intersections with forecast traffic
120% Satisfied	No	Justification for existing intersections with forecast traffic

Time Period	Major Street Eighth Line						Minor Street "Street B"						Peds Crossing
	Northbound			Southbound			Eastbound			Westbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
AM Peak Hour	265	180	0	0	985	205	50	0	65	0	0	0	0
PM Peak Hour	140	690	0	0	225	105	245	0	315	0	0	0	0
Average Hourly Volume	101	218	0	0	303	78	74	0	95	0	0	0	0

Warrant	AHV
1A - All	868
1B - Minor	169
2A - Major	699
2B - Cross	74

Warrant 1 - Minimum Vehicular Volume

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
1A	Flow Conditions		X			868
	All Approaches	480	720	600	900	120.5%
		% Fulfilled				
1B	Flow Conditions		X			169
	Minor Street Approaches	180	255	180	255	66.2%
		% Fulfilled				

Warrant 2 - Delay To Cross Traffic

Warrant	Approach Lanes	1		2 or more		Average Hourly Volume
		Free	Restricted	Free	Restricted	
2A	Flow Conditions		X			699
	Major Street Approaches	480	720	600	900	97.0%
		% Fulfilled				
2B	Flow Conditions		X			74
	Traffic Crossing Major Street	50	75	50	75	98.3%
		% Fulfilled				