

Freeway Density & Speed: 2035 Preferred Alternative (MD Peak)

Freeway Segment	Lanes	Truck Ratio	fHV	Density veh/mi	Density pc/mi/ln	LOS	Speed mph
<b>Northbound I-75 / I-96 Main Lanes</b>							
From West of Dearborn to Springwells	4	0.40	1.200	42.1	12.6	B	64.8
From Springwells to Springwells On Ramp	4	0.43	1.215	38.5	11.7	B	64.4
From Springwells On Ramp to Green	5	0.41	1.205	44.2	10.7	A	59.1
From Green to Waterman	5	0.31	1.155	31.8	7.3	A	61.5
From Waterman to Livernois	4	0.31	1.155	30.9	8.9	A	63.0
From Dragoon to Dragoon On Ramp	4	0.31	1.155	29.6	8.5	A	64.4
From Dragoon On Ramp to Junction	5	0.30	1.150	30.7	7.1	A	64.4
From Junction to Clark (6 lanes section)	6	0.34	1.170	33.1	6.5	A	64.3
From Junction to Clark (5 lanes section)	5	0.34	1.170	33.3	7.8	A	64.0
From Clark to Clark On Ramp	4	0.34	1.170	33.5	9.8	A	63.8
From Clark On Ramp to Grand	5	0.33	1.165	36.7	8.6	A	63.3
From Porter Off Ramp to NB I-75/I-96 Diverge	5	0.28	1.140	32.2	7.3	A	63.5
From NB I-75/I-96 Diverge to Gateway Ramps	4	0.20	1.100	24.4	6.7	A	64.7
From Gateway Ramps to Michigan	3	0.18	1.090	26.4	9.6	A	64.5
I-96 From NB I-75/I-96 Diverge to Gateway Ramps	2	0.52	1.260	8.1	5.1	A	60.3
I-96 From Gateway Ramps to Michigan	2	0.40	1.200	8.0	4.8	A	60.7
I-96 From Michigan to C-D Road	2	0.42	1.210	11.9	7.2	A	64.0
I-96 From C-D Road to MLK On Ramp	4	0.23	1.115	22.9	6.4	A	65.7
I-96 From MLK On Ramp to I-94 Off Ramp	5	0.19	1.095	27.9	6.1	A	64.5
I-96 From I-94 Off Ramp to Warren On Ramp	4	0.20	1.100	6.9	1.9	A	66.2
I-96 From Warren On Ramp to I-94	5	0.25	1.125	9.6	2.2	A	63.0
I-96 From I-94 to I-94 On Ramp	4	0.18	1.090	9.4	2.6	A	66.2
<b>Southbound I-75 / I-96 Main Lanes</b>							
From Fort to Dearborn	4	0.32	1.160	49.7	14.4	B	63.6
From Springwells on ramp to Fort	5	0.32	1.160	51.1	11.9	B	61.3
From Springwells to West of Dearborn	4	0.32	1.160	45.0	13.1	B	63.4
From Springwells off ramp to Springwells	4	0.33	1.165	46.1	13.4	B	62.3
From Green to Springwells	5	0.33	1.165	46.4	10.8	A	62.5
From Green to Springwells	6	0.33	1.165	44.0	8.5	A	64.6
From Flyover on ramp to Green	6	0.33	1.165	37.3	7.2	A	64.7
From Waterman to Green	4	0.26	1.130	36.6	10.3	A	64.6
From Dragoon On ramp to Livernois	5	0.26	1.130	36.5	8.2	A	63.9
From Junction/Plaza off ramp to Dragoon on ramp	4	0.25	1.125	42.8	12.0	B	63.4
From Clark Off Ramp to Plaza off ramp	5	0.25	1.125	43.3	9.7	A	64.3
From Grand to Clark Off Ramp	6	0.27	1.135	47.6	9.0	A	63.5
From Gateway On Ramp to New Frontage Road On Ramp	5	0.27	1.135	43.5	9.9	A	64.4
SB I-75/I-96 Merge Area	5	0.28	1.140	46.2	10.5	A	63.5
From Gateway Ramps to SB I-75/I-96 Merge	3	0.23	1.115	34.0	12.6	B	64.1
From Michigan to Gateway Ramps	3	0.21	1.105	37.9	14.0	B	64.2
I-96 From Gateway Ramps to SB I-75/I-96 Merge	1	0.41	1.205	12.2	14.7	B	59.1
I-96 From Michigan to Gateway Ramps	2	0.34	1.170	15.8	9.2	A	61.8
I-96 From NB 75 Off Ramp to Michigan	2	0.34	1.170	14.5	8.5	A	63.8
I-96 From Warren On Ramp to NB 75 Off Ramp	4	0.26	1.130	23.3	6.6	A	62.9
I-96 From I-94 On Ramp to Warren On Ramp	5	0.22	1.110	30.2	6.7	A	60.3
I-96 From I-94 to I-94 On Ramp	4	0.13	1.065	14.2	3.8	A	66.4
I-96 From I-94 Off Ramp to I-94	4	0.11	1.055	16.1	4.2	A	66.3

Intersection Level of Service: 2035 Preferred Alternative (MD Peak)

Intersection Name		Appr.	Average Delay (sec/veh)				Approach LOS	Intersection Delay	Intersection LOS
			Left	Through	Right	Total Appr			
Fort	Westend	EB	9.8	7.1	9.9	8.3	A	9.2	A
		WB	6.3	6.3	3.0	5.6	A		
		NB	7.9	12.4	12.3	12.2	B		
		SB	13.9	11.5	7.6	11.1	B		
Fort	Green	EB	8.4	7.8	1.8	7.3	A	12.5	B
		WB	20.7	19.9	4.1	18.9	B		
		NB	11.2	10.1	3.9	9.1	A		
		SB	13.0	11.0	3.8	10.9	B		
Fort	Waterman	EB	0.0	12.4	15.1	12.6	B	10.6	B
		WB	11.7	9.4	2.5	9.2	A		
		NB	18.3	11.6	5.6	9.7	A		
		SB	10.0	13.1	0.0	11.4	B		
Fort	Livernios	EB	27.5	26.4	8.9	26.1	C	14.3	B
		WB	21.4	14.9	16.0	16.8	B		
		NB	12.7	7.7	5.4	8.4	A		
		SB	2.9	2.4	2.4	2.4	A		
Fort	Junction	EB	11.9	8.2	2.1	7.6	A	8.5	A
		WB	0.1	9.9	2.5	8.7	A		
		NB	11.1	10.6	10.2	10.8	B		
		SB	0.0	7.3	1.2	4.3	A		
Northbound Service Drive	Junction	EB		0.0	0.3	0.1	A	4.0	A
		WB							
		WB			7.2	7.2	A		
		SB							
Fort	Clark	EB	7.8	4.2	0.0	4.5	A	13.1	B
		WB	13.0	11.8	19.3	13.7	B		
		NB	17.1	21.5	3.5	15.7	B		
		SB	17.3	12.6	13.8	16.0	B		
Lafayette	Junction	EB						1.4	A
		WB		0.0	0.2	0.0	A		
		NB							
		SB			6.4	6.4	A		
Southbound Service Drive	Livernois	EB						18.0	B
		WB	23.0	24.5		23.2	C		
		NB	10.9	6.8		8.1	A		
		SB		30.4	19.8	25.5	C		
Southbound Service Drive	Dragoon	EB						0.3	A
		WB		0.0	0.5	0.3	A		
		NB							
		SB							
Southbound Service Drive	Waterman	EB						3.1	A
		WB		0.7	7.5	1.4	A		
		NB							
		SB			15.0	15.0	B		
Northbound Service Drive	Livernois	EB	28.8	27.3	10.5	26.3	C	13.1	B
		WB							
		NB		11.9	7.8	11.9	B		
		SB	3.7	4.2		4.1	A		
Northbound Service Drive	Waterman	EB		0.8	3.3	1.3	A	1.9	A
		WB							
		NB			5.6	5.6	A		
		SB							
Southbound Service Drive	Green	EB						16.0	B
		WB	17.4	16.2	15.4	16.4	B		
		NB	16.3	16.0		16.2	B		
		SB		10.0	9.3	9.8	A		
Southbound Service Drive	Springwells	EB						16.9	B
		WB	35.9	26.6	14.7	26.2	C		
		NB	10.4	1.1		2.8	A		
		SB		17.7	5.1	13.5	B		
Northbound Service Drive	Westend	EB	17.7	19.0	6.3	17.4	B	17.2	B
		WB							
		NB		16.8	11.0	16.1	B		
		SB	20.2	15.4		17.5	B		
Northbound Service Drive	Green	EB	8.8	11.3	11.1	10.9	B	9.8	A
		WB							
		NB		8.6	7.7	8.4	A		
		SB	8.6	9.3		9.0	A		
Northbound Service Drive	Clark	EB	27.6	23.5	4.1	17.6	B	8.2	A
		WB							
		NB		10.8	4.5	8.3	A		
		SB	6.1	4.1		4.7	A		
Southbound Service Drive	Clark	EB						13.9	B
		WB	29.2	27.7	9.0	17.7	B		
		NB	3.8	12.3		7.4	A		
		SB		15.4	4.1	12.1	B		
Fort	Grand	EB	5.6	1.5	0.9	1.6	A	4.5	A
		WB	3.8	4.0	7.6	4.3	A		
		NB	24.8	13.1	25.3	23.5	C		
		SB	27.7	32.8	3.9	21.5	C		
Northbound Service Drive	Grand	EB	10.0	8.4	2.9	8.1	A	12.4	B
		WB							
		NB		8.4	4.3	7.6	A		
		SB	16.2	15.5		15.9	B		
Southbound Service Drive	Grand	EB						7.9	A
		WB	9.7	8.1	2.6	3.5	A		
		NB	12.9	14.3		14.1	B		
		SB		11.8	4.6	9.6	A		

**Travel Time Segments: 2035 Preferred Alternative (MD Peak)**

<b>Travel Time Section</b>	<b>Appr.</b>	<b>Model Output (s)</b>
<b>Northbound I-75 / I-96 Main Lanes</b>		
From Dearborn Off Ramp to Springwells	EB	55.0
From Springwells to Green	EB	17.1
From Green to Waterman	EB	16.4
From Waterman to Dragoon	EB	21.1
From Dragoon to Junction	EB	20.7
From Junction to Clark	EB	19.7
From Clark to Grand	EB	21.8
From Grand to Vernor (on I-75)	EB	36.6
From Vernor to Michigan (on I-75)	EB	27.3
From Michigan to 14th (on I-75)	EB	27.4
From Grand to Vernor (on I-96)	EB	38.5
From Vernor to Michigan (on I-96)	EB	27.1
From Michigan to MLK	EB	21.9
From MLK to Warren	EB	42.2
From Warren to I-94 (McGraw)	EB	28.4
<i>Total Travel Time from Dearborn Ramps to 14th</i>	EB	263.0
<i>Total Travel Time from Dearborn Ramps to I-94 (McGraw)</i>	EB	329.8
<b>Southbound I-75 / I-96 Main Lanes</b>		
From Springwells to Dearborn On Ramp	WB	42.9
From Green to Springwells	WB	17.6
From Waterman to Green	WB	15.5
From Dragoon to Waterman	WB	20.4
From Junction to Dragoon	WB	20.7
From Clark to Junction	WB	19.7
From Grand to Clark	WB	21.7
From Vernor to Grand (on I-75)	WB	35.0
From Michigan to Vernor (on I-75)	WB	27.1
From Michigan to Grand (on I-96)	WB	65.8
From MLK to Michigan	WB	21.1
From Warren to MLK	WB	42.6
From I-94 (McGraw) to Warren	WB	28.0
<i>Total Travel Time from Vernor to Dearborn Ramps</i>	WB	220.5
<i>Total Travel Time from I-94 (McGraw) to Dearborn Ramps</i>	WB	316.0
<b>Eastbound Fort Street</b>		
From Harbaugh to Springwells	EB	34.5
From Springwells to Green	EB	46.8
From Green to Waterman	EB	48.7
From Waterman to Livernois	EB	63.2
From Livernois to Dragoon	EB	8.1
From Dragoon to Junction	EB	50.3
From Junction to Clark	EB	43.8
From Clark to Grand	EB	48.2
<i>Total Travel Time from Lawndale to Grand</i>	EB	343.6
<b>Westbound Fort Street</b>		
From Springwells to Harbaugh	WB	28.0
From Green to Springwells	WB	43.0
From Waterman to Green	WB	53.6
From Livernois to Waterman	WB	44.8
From Dragoon to Livernois	WB	23.7
From Junction to Dragoon	WB	42.3
From Clark to Junction	WB	51.1
From Grand to Clark	WB	55.4
<i>Total Travel Time from Grand to Lawndale</i>	WB	342.0