

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

Freeway Segment	Lanes	Truck Ratio	fHV	Density veh/mi	Density pc/mi/ln	LOS	Speed mph
Northbound I-75 / I-96 Main Lanes							
From West of Dearborn to Springwells	4	0.29	1.145	52.2	14.9	B	64.4
From Springwells to Springwells On Ramp	4	0.31	1.155	48.6	14.0	B	64.1
From Springwells On Ramp to Green	5	0.30	1.150	64.8	14.9	B	49.4
From Green to Waterman	5	0.30	1.150	39.2	9.0	A	58.2
From Waterman to Livernois	4	0.30	1.150	36.6	10.5	A	61.8
From Dragoon to Dragoon On Ramp	4	0.17	1.085	34.7	9.4	A	64.1
From Dragoon On Ramp to Junction	5	0.16	1.080	41.2	8.9	A	63.2
From Junction to Clark (6 lanes section)	6	0.19	1.095	42.8	7.8	A	63.7
From Junction to Clark (5 lanes section)	5	0.19	1.095	42.9	9.4	A	63.6
From Clark to Clark On Ramp	4	0.19	1.095	42.8	11.7	B	63.6
From Clark On Ramp to Grand	5	0.19	1.095	48.4	10.6	A	62.9
From Porter Off Ramp to NB I-75/I-96 Diverge	5	0.17	1.085	48.1	10.4	A	61.3
From NB I-75/I-96 Diverge to Gateway Ramps	4	0.12	1.060	34.1	9.0	A	63.1
From Gateway Ramps to Michigan	3	0.11	1.055	35.9	12.6	B	63.5
I-96 From NB I-75/I-96 Diverge to Gateway Ramps	2	0.26	1.130	14.9	8.4	A	56.0
I-96 From Gateway Ramps to Michigan	2	0.22	1.110	14.3	7.9	A	58.0
I-96 From Michigan to C-D Road	2	0.24	1.120	14.3	8.0	A	64.2
I-96 From C-D Road to MLK On Ramp	4	0.08	1.040	57.6	15.0	B	64.1
I-96 From MLK On Ramp to I-94 Off Ramp	5	0.07	1.035	68.2	14.1	B	62.5
I-96 From I-94 Off Ramp to Warren On Ramp	4	0.07	1.035	35.2	9.1	A	65.4
I-96 From Warren On Ramp to I-94	5	0.06	1.030	41.5	8.5	A	63.4
I-96 From I-94 to I-94 On Ramp	4	0.06	1.030	41.4	10.7	A	65.4
Southbound I-75 / I-96 Main Lanes							
From Fort to Dearborn	4	0.12	1.060	103.1	27.3	D	60.4
From Springwells on ramp to Fort	5	0.12	1.060	106.8	22.6	C	57.8
From Springwells to West of Dearborn	4	0.12	1.060	97.0	25.7	C	60.3
From Springwells off ramp to Springwells	4	0.12	1.060	99.8	26.4	D	58.6
From Green to Springwells	5	0.13	1.065	96.7	20.6	C	60.8
From Green to Springwells	6	0.13	1.065	92.7	16.5	B	61.9
From Flyover on ramp to Green	6	0.09	1.045	87.5	15.2	B	61.7
From Waterman to Green	4	0.09	1.045	84.7	22.1	C	61.4
From Dragoon On ramp to Livernois	5	0.09	1.045	88.5	18.5	C	58.0
From Junction/Plaza off ramp to Dragoon on ramp	4	0.09	1.045	105.2	27.5	D	57.3
From Clark Off Ramp to Plaza off ramp	5	0.12	1.060	103.3	21.9	C	59.8
From Grand to Clark Off Ramp	6	0.10	1.050	110.7	19.4	C	58.1
From Gateway On Ramp to New Frontage Road On Ramp	5	0.10	1.050	89.4	18.8	C	62.8
SB I-75/I-96 Merge Area	5	0.09	1.045	95.6	20.0	C	61.3
From Gateway Ramps to SB I-75/I-96 Merge	3	0.09	1.045	73.1	25.5	C	61.3
From Michigan to Gateway Ramps	3	0.08	1.040	79.5	27.6	D	60.9
I-96 From Gateway Ramps to SB I-75/I-96 Merge	1	0.10	1.050	22.9	24.0	C	57.5
I-96 From Michigan to Gateway Ramps	2	0.08	1.040	33.7	17.5	B	56.8
I-96 From NB 75 Off Ramp to Michigan	2	0.07	1.035	28.6	14.8	B	63.1
I-96 From Warren On Ramp to NB 75 Off Ramp	4	0.07	1.035	37.4	9.7	A	62.4
I-96 From I-94 On Ramp to Warren On Ramp	5	0.06	1.030	44.1	9.1	A	61.7
I-96 From I-94 to I-94 On Ramp	4	0.04	1.020	26.6	6.8	A	66.2
I-96 From I-94 Off Ramp to I-94	4	0.04	1.020	27.5	7.0	A	66.4

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

Intersection Name	Appr.	Average Delay (sec/veh)				Approach LOS	Intersection Delay	Intersection LOS
		Left	Through	Right	Total Appr			
Fort Westend	EB	11.6	7.4	8.6	9.7	A	8.16	A
	WB	7.1	7.0	3.9	6.6	A		
	NB	10.8	13.6	13.0	13.3	B		
	SB	18.2	0.5	6.0	3.0	A		
Fort Green	EB	10.1	7.3	2.0	7.3	A	9.30	A
	WB	13.7	11.8	2.3	11.1	B		
	NB	9.7	11.4	3.3	7.4	A		
	SB	10.0	9.5	2.5	7.6	A		
Fort Waterman	EB	19.3	11.2	14.6	11.4	B	8.06	A
	WB	9.2	6.2	1.7	6.1	A		
	NB	18.4	9.1	0.0	11.8	B		
	SB	0.0	17.6	4.6	14.5	B		
Fort Livernios	EB	21.7	11.7	10.4	14.9	B	8.78	A
	WB	5.5	6.1	10.1	7.5	A		
	NB	0.0	0.0	0.0	0.0	A		
	SB	7.2	7.0	4.9	6.5	A		
Fort Junction	EB	15.2	13.0	3.0	12.7	B	10.08	B
	WB	0.0	10.1	1.7	9.0	A		
	NB	13.0	9.4	9.5	9.4	A		
	SB	13.7	8.8	1.4	7.0	A		
Northbound Service Drive Junction	EB		0.0	0.6	0.1	A	6.04	A
	WB							
	WB			6.0	6.0	A		
	SB							
Fort Clark	EB	6.9	5.6	1.3	5.6	A	12.72	B
	WB	11.7	9.6	18.6	12.6	B		
	NB	25.6	22.1	3.6	16.2	B		
	SB	18.1	14.9	15.7	16.4	B		
Lafayette Junction	EB						1.28	A
	WB		0.0	0.0	0.0	A		
	NB							
	SB			7.6	7.6	A		
Southbound Service Drive Livernois	EB						8.48	A
	WB	5.7	5.6		5.6	A		
	NB	18.1	11.1		12.0	B		
	SB		10.3	7.7	9.2	A		
Southbound Service Drive Dragoon	EB						0.18	A
	WB		0.1	0.3	0.2	A		
	NB							
	SB							
Southbound Service Drive Waterman	EB						2.02	A
	WB		0.7	1.6	0.8	A		
	NB							
	SB			14.3	14.3	B		
Northbound Service Drive Livernois	EB	10.6	10.8	3.8	10.4	B	8.20	A
	WB							
	NB		6.6	3.1	5.0	A		
	SB	10.3	6.7		8.5	A		
Northbound Service Drive Waterman	EB		0.0	3.5	0.1	A	1.24	A
	WB							
	NB			5.3	5.3	A		
	SB							
Southbound Service Drive Green	EB						12.80	B
	WB	15.6	12.9	11.6	13.1	B		
	NB	11.8	17.0		15.9	B		
	SB		9.8	9.8	9.8	A		
Southbound Service Drive Springwells	EB						9.58	A
	WB	11.0	11.8	2.4	8.7	A		
	NB	12.6	6.0		7.2	A		
	SB		20.3	4.5	15.8	B		
Northbound Service Drive Westend	EB	18.6	18.1	18.6	18.4	B	14.58	B
	WB							
	NB		16.8	19.9	17.8	B		
	SB	4.4	5.5		5.2	A		
Northbound Service Drive Green	EB	7.6	8.0	6.2	7.6	A	8.02	A
	WB							
	NB		7.6	5.8	7.3	A		
	SB	10.3	7.6		9.2	A		
Northbound Service Drive Clark	EB	28.9	29.5	3.8	25.3	C	12.32	B
	WB							
	NB		11.1	6.0	9.3	A		
	SB	8.0	5.0		6.5	A		
Southbound Service Drive Clark	EB						13.52	B
	WB	30.3	28.6	10.4	18.1	B		
	NB	4.5	6.4		5.6	A		
	SB		15.7	3.8	12.1	B		
Fort Grand	EB	3.0	2.0	0.6	2.1	A	5.32	A
	WB	7.7	4.4	5.9	4.5	A		
	NB	31.5	26.1	11.9	27.8	C		
	SB	36.6	14.3	4.7	30.3	C		
Northbound Service Drive Grand	EB	8.9	12.1	5.0	8.9	A	11.16	B
	WB							
	NB		10.7	3.4	8.7	A		
	SB	14.8	15.3		15.0	B		
Southbound Service Drive Grand	EB						6.80	A
	WB	4.9	8.6	3.1	3.4	A		
	NB	13.5	16.2		15.0	B		
	SB		9.9	3.3	8.7	A		

Travel Time Segments: 2035 Preferred Alternative (PM Peak)

Travel Time Section	Appr.	Model Output (s)
Northbound I-75 / I-96 Main Lanes		
From Dearborn Off Ramp to Springwells	EB	55.5
From Springwells to Green	EB	17.1
From Green to Waterman	EB	19.0
From Waterman to Dragoon	EB	22.8
From Dragoon to Junction	EB	20.8
From Junction to Clark	EB	19.8
From Clark to Grand	EB	21.8
From Grand to Vernor (on I-75)	EB	37.4
From Vernor to Michigan (on I-75)	EB	27.7
From Michigan to 14th (on I-75)	EB	28.2
From Grand to Vernor (on I-96)	EB	40.5
From Vernor to Michigan (on I-96)	EB	27.3
From Michigan to MLK	EB	21.8
From MLK to Warren	EB	43.1
From Warren to I-94 (McGraw)	EB	28.8
<i>Total Travel Time from Dearborn Ramps to 14th</i>	EB	270.2
<i>Total Travel Time from Dearborn Ramps to I-94 (McGraw)</i>	EB	338.4
Southbound I-75 / I-96 Main Lanes		
From Springwells to Dearborn On Ramp	WB	52.1
From Green to Springwells	WB	18.4
From Waterman to Green	WB	16.2
From Dragoon to Waterman	WB	21.8
From Junction to Dragoon	WB	22.2
From Clark to Junction	WB	21.9
From Grand to Clark	WB	23.3
From Vernor to Grand (on I-75)	WB	36.4
From Michigan to Vernor (on I-75)	WB	28.7
From Michigan to Grand (on I-96)	WB	69.3
From MLK to Michigan	WB	21.3
From Warren to MLK	WB	43.5
From I-94 (McGraw) to Warren	WB	28.1
<i>Total Travel Time from Vernor to Dearborn Ramps</i>	WB	241.0
<i>Total Travel Time from I-94 (McGraw) to Dearborn Ramps</i>	WB	338.1
Eastbound Fort Street		
From Harbaugh to Springwells	EB	35.4
From Springwells to Green	EB	44.3
From Green to Waterman	EB	46.2
From Waterman to Livernois	EB	44.8
From Livernois to Dragoon	EB	8.5
From Dragoon to Junction	EB	53.9
From Junction to Clark	EB	45.6
From Clark to Grand	EB	46.4
<i>Total Travel Time from Lawndale to Grand</i>	EB	325.1
Westbound Fort Street		
From Springwells to Harbaugh	WB	36.3
From Green to Springwells	WB	43.2
From Waterman to Green	WB	45.5
From Livernois to Waterman	WB	39.0
From Dragoon to Livernois	WB	14.1
From Junction to Dragoon	WB	41.5
From Clark to Junction	WB	50.3
From Grand to Clark	WB	53.1
<i>Total Travel Time from Grand to Lawndale</i>	WB	323.0