Appendix 25-6:

HCS Level of Service Output

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour
Project Description	East Point Engery Center Site No. A	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	148	Heavy Vehicle Adjustment Factor (f_{HV})	0.803
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	98
Total Trucks, %	12.27	Capacity (c), pc/h/ln	2168
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2168
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.05

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.4
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	1.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	79	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	23	Bicyle LOS Score (BLOS)	3.52
Average Effective Width (W_e), ft	29	Bicycle Level of Service (LOS)	D

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour
Project Description	East Point Engery Center Site No. A	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 2 Demand and Capacity

Volume(V) veh/h	99	Heavy Vehicle Adjustment Factor (f_{HV})	0.803
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	66
Total Trucks, %	12.27	Capacity (c), pc/h/ln	2168
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2168
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.03

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.4
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	1.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	53	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	27	Bicyle LOS Score (BLOS)	2.08
Average Effective Width (W_e), ft	33	Bicycle Level of Service (LOS)	B

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour AADT
Project Description	East Point Engery Center Site No. A	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 1 Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Driver Population SAF	0.975	Final Capacity Adjustment Factor (CAF)	0.968
Driver Population CAF	0.968		

Direction 1 Demand and Capacity

Volume(V) veh/h	158	Heavy Vehicle Adjustment Factor (f_{HV})	0.781
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	108
Total Trucks, %	14.00	Capacity (c), pc/h/ln	2138
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2070
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.05

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.9
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	1.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	84	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	22	Bicyle LOS Score (BLOS)	4.54
Average Effective Width (W_e), ft	28	Bicycle Level of Service (LOS)	E

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour AADT
Project Description	East Point Engery Center Site No. A	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 2 Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Driver Population SAF	0.975	Final Capacity Adjustment Factor (CAF)	0.968
Driver Population CAF	0.968		

Direction 2 Demand and Capacity

Volume(V) veh/h	106	Heavy Vehicle Adjustment Factor (f_{HV})	0.781
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	72
Total Trucks, %	14.00	Capacity (c), pc/h/ln	2138
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2070
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.03

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.9
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	1.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	56	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	26	Bicyle LOS Score (BLOS)	3.14
Average Effective Width (W_e), ft	32	Bicycle Level of Service (LOS)	C

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour AADT
Project Description	East Point Engery Center Site No. B	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	198	Heavy Vehicle Adjustment Factor (f_{HV})	0.823
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	128
Total Trucks, %	10.78	Capacity (c), pc/h/ln	2168
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2168
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.06

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.4
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	2.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	105	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	18	Bicyle LOS Score (BLOS)	4.42
Average Effective Width (W_e), ft	24	Bicycle Level of Service (LOS)	D

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour AADT
Project Description	East Point Engery Center Site No. B	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 2 Demand and Capacity

Volume(V) veh/h	132	Heavy Vehicle Adjustment Factor (f_{HV})	0.823
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	86
Total Trucks, %	10.78	Capacity (c), pc/h/ln	2168
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2168
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.04

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.4
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	1.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	70	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	24	Bicyle LOS Score (BLOS)	2.60
Average Effective Width (W_e), ft	30	Bicycle Level of Service (LOS)	C

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour AADT
Project Description	East Point Engery Center Site No. B	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 1 Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Driver Population SAF	0.975	Final Capacity Adjustment Factor (CAF)	0.968
Driver Population CAF	0.968		

Direction 1 Demand and Capacity

Volume(V) veh/h	238	Heavy Vehicle Adjustment Factor (f_{HV})	0.746
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	170
Total Trucks, %	17.00	Capacity (c), pc/h/ln	2138
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2070
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.08

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.9
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	3.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	127	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	18	Bicyle LOS Score (BLOS)	7.15
Average Effective Width (W_e), ft	24	Bicycle Level of Service (LOS)	F

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour AADT
Project Description	East Point Engery Center Site No. B	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	2
Median Type	Divided	Total Lateral Clearance (TLC), ft	8
Free-Flow Speed (FFS), mi/h	58.4		

Direction 2 Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Driver Population SAF	0.975	Final Capacity Adjustment Factor (CAF)	0.968
Driver Population CAF	0.968		

Direction 2 Demand and Capacity

Volume(V) veh/h	160	Heavy Vehicle Adjustment Factor (f_{HV})	0.746
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	114
Total Trucks, %	17.00	Capacity (c), pc/h/ln	2138
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2070
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.06

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.9
Total Lateral Clearance Adj. (f_{LLC})	0.9	Density (D), pc/mi/ln	2.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	85	Effective Speed Factor (S_t)	4.17
Effective Width of Volume (W_v), ft	22	Bicyle LOS Score (BLOS)	5.91
Average Effective Width (W_e), ft	28	Bicycle Level of Service (LOS)	F

HCS7 Two-Lane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/5/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour
Project Description	East Point Energy Center Site No. C	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	15840
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	30	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	100	Opposing Demand Flow Rate, veh/h	67
Peak Hour Factor	0.94	Total Trucks, %	5.22
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	34.0
Speed Slope Coefficient	2.13040	Speed Power Coefficient	0.59085
PF Slope Coefficient	-1.16932	PF Power Coefficient	0.70733
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	15840	-	-	34.0

Vehicle Results

Average Speed, mi/h	34.0	Percent Followers, %	20.5
Segment Travel Time, minutes	5.29	Followers Density, followers/mi/ln	0.6
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	3
Flow Rate Outside Lane, veh/h	100	Bicycle Effective Width, ft	34
Bicycle LOS Score	0.00	Bicycle Effective Speed Factor	3.39
Bicycle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/5/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Energy Center Site No. C	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	15840
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	30	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	111	Opposing Demand Flow Rate, veh/h	74
Peak Hour Factor	0.94	Total Trucks, %	9.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	33.9
Speed Slope Coefficient	2.12817	Speed Power Coefficient	0.58672
PF Slope Coefficient	-1.17210	PF Power Coefficient	0.70624
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.7
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	15840	-	-	33.8

Vehicle Results

Average Speed, mi/h	33.8	Percent Followers, %	21.9
Segment Travel Time, minutes	5.33	Followers Density, followers/mi/ln	0.7
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	3
Flow Rate Outside Lane, veh/h	111	Bicycle Effective Width, ft	33
Bicycle LOS Score	1.02	Bicycle Effective Speed Factor	3.39
Bicycle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/5/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour
Project Description	East Point Energy Center Site No. D	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	7920
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	30	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	94	Opposing Demand Flow Rate, veh/h	63
Peak Hour Factor	0.94	Total Trucks, %	9.01
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	33.9
Speed Slope Coefficient	2.10133	Speed Power Coefficient	0.59334
PF Slope Coefficient	-1.15325	PF Power Coefficient	0.72706
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	7920	-	-	33.9

Vehicle Results

Average Speed, mi/h	33.9	Percent Followers, %	18.6
Segment Travel Time, minutes	2.65	Followers Density, followers/mi/ln	0.5
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	3
Flow Rate Outside Lane, veh/h	94	Bicycle Effective Width, ft	34
Bicycle LOS Score	0.61	Bicycle Effective Speed Factor	3.39
Bicycle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/5/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Energy Center Site No. D	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	7920
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	30	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	115	Opposing Demand Flow Rate, veh/h	78
Peak Hour Factor	0.94	Total Trucks, %	16.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	33.7
Speed Slope Coefficient	2.09794	Speed Power Coefficient	0.58503
PF Slope Coefficient	-1.15894	PF Power Coefficient	0.72480
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.7
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	7920	-	-	33.5

Vehicle Results

Average Speed, mi/h	33.5	Percent Followers, %	21.5
Segment Travel Time, minutes	2.69	Followers Density, followers/mi/ln	0.7
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	3
Flow Rate Outside Lane, veh/h	115	Bicycle Effective Width, ft	32
Bicycle LOS Score	3.63	Bicycle Effective Speed Factor	3.39
Bicycle LOS	D		

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour AADT
Project Description	East Point Engery Center Site No. E	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	198	Heavy Vehicle Adjustment Factor (f_{HV})	0.823
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	128
Total Trucks, %	10.78	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.06

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	2.2
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	105	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	18	Bicyle LOS Score (BLOS)	4.98
Average Effective Width (W_e), ft	24	Bicycle Level of Service (LOS)	E

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour AADT
Project Description	East Point Engery Center Site No. E	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 2 Demand and Capacity

Volume(V) veh/h	132	Heavy Vehicle Adjustment Factor (f_{HV})	0.823
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	86
Total Trucks, %	10.78	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.04

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	1.5
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	70	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	24	Bicyle LOS Score (BLOS)	3.15
Average Effective Width (W_e), ft	30	Bicycle Level of Service (LOS)	C

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Engery Center Site No. E	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	259	Heavy Vehicle Adjustment Factor (f_{HV})	0.725
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	190
Total Trucks, %	19.00	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.09

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	3.3
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	138	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	18	Bicyle LOS Score (BLOS)	9.28
Average Effective Width (W_e), ft	24	Bicycle Level of Service (LOS)	F

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Engery Center Site No. E	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 2 Demand and Capacity

Volume(V) veh/h	172	Heavy Vehicle Adjustment Factor (f_{HV})	0.725
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	126
Total Trucks, %	19.00	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.06

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	2.2
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	91	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	18	Bicyle LOS Score (BLOS)	9.07
Average Effective Width (W_e), ft	24	Bicycle Level of Service (LOS)	F

HCS7 Two-Lane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/5/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Energy Center Site No. F	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	7920
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	102	Opposing Demand Flow Rate, veh/h	68
Peak Hour Factor	0.94	Total Trucks, %	6.05
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	62.5
Speed Slope Coefficient	3.65478	Speed Power Coefficient	0.59025
PF Slope Coefficient	-1.15052	PF Power Coefficient	0.82288
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1800	-	-	62.4
2	Tangent	1900	-	-	62.4
3	Tangent	4220	-	-	62.4

Vehicle Results

Average Speed, mi/h	62.4	Percent Followers, %	16.1
Segment Travel Time, minutes	1.44	Followers Density, followers/mi/ln	0.3
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	3
Flow Rate Outside Lane, veh/h	102	Bicycle Effective Width, ft	33
Bicycle LOS Score	0.98	Bicycle Effective Speed Factor	4.79
Bicycle LOS	A		

HCS7 Two-Lane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/5/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Energy Center Site No. F	Unit	United States Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	7920
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	134	Opposing Demand Flow Rate, veh/h	89
Peak Hour Factor	0.94	Total Trucks, %	15.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.08

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	62.2
Speed Slope Coefficient	3.65108	Speed Power Coefficient	0.57916
PF Slope Coefficient	-1.16038	PF Power Coefficient	0.82033
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improved % Followers	0.0	% Improved Avg Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1800	-	-	61.7
2	Tangent	1900	-	-	61.7
3	Tangent	4220	-	-	61.7

Vehicle Results

Average Speed, mi/h	61.7	Percent Followers, %	20.0
Segment Travel Time, minutes	1.46	Followers Density, followers/mi/ln	0.4
Vehicle LOS	A		

Bicycle Results

Percent Occupied Parking	0	Pavement Condition Rating	3
Flow Rate Outside Lane, veh/h	134	Bicycle Effective Width, ft	31
Bicycle LOS Score	5.48	Bicycle Effective Speed Factor	4.79
Bicycle LOS	E		

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour AADT
Project Description	East Point Engery Center Site No. G	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	143	Heavy Vehicle Adjustment Factor (f_{HV})	0.790
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	96
Total Trucks, %	13.29	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.04

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	1.7
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	76	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	23	Bicyle LOS Score (BLOS)	4.61
Average Effective Width (W_e), ft	29	Bicycle Level of Service (LOS)	E

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Ex. Design Hour AADT
Project Description	East Point Engery Center Site No. G	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 2 Demand and Capacity

Volume(V) veh/h	96	Heavy Vehicle Adjustment Factor (f_{HV})	0.790
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	64
Total Trucks, %	13.29	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.03

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	1.1
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	51	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	27	Bicyle LOS Score (BLOS)	3.17
Average Effective Width (W_e), ft	33	Bicycle Level of Service (LOS)	C

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Engery Center Site No. G	Unit	United States Customary

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	174	Heavy Vehicle Adjustment Factor (f_{HV})	0.725
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	128
Total Trucks, %	19.00	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.06

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	2.2
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	93	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	18	Bicyle LOS Score (BLOS)	9.08
Average Effective Width (W_e), ft	24	Bicycle Level of Service (LOS)	F

HCS7 Multilane Highway Report

Project Information

Analyst	Macen Whirrett	Date	6/3/2019
Agency	TRC Engineers, Inc.	Analysis Year	2019
Jurisdiction		Time Period Analyzed	Prop. Design Hour
Project Description	East Point Engery Center Site No. G	Unit	United States Customary

Direction 2 Geometric Data

Direction 2	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	60.0	Access Point Density, pts/mi	3.0
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	6
Median Type	Undivided	Total Lateral Clearance (TLC), ft	12
Free-Flow Speed (FFS), mi/h	57.7		

Direction 2 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 2 Demand and Capacity

Volume(V) veh/h	116	Heavy Vehicle Adjustment Factor (f_{HV})	0.725
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	85
Total Trucks, %	19.00	Capacity (c), pc/h/ln	2152
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2152
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.04

Direction 2 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.6
Total Lateral Clearance Adj. (f_{LLC})	0.0	Density (D), pc/mi/ln	1.5
Median Type Adjustment (f_M)	1.6	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	0.8		

Direction 2 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	62	Effective Speed Factor (S_t)	4.79
Effective Width of Volume (W_v), ft	26	Bicyle LOS Score (BLOS)	6.63
Average Effective Width (W_e), ft	32	Bicycle Level of Service (LOS)	F