Appendix 16-8

Highway Capacity Software (HCS) Level of Service Output

HCS7 Two-Lar	e Highway Report
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Pro	oject information					
Ana	lyst	ВН		Date		06/02/2021
Age	ncy	PDE		Analysis Year		2021
Juris	diction	NYSDOT		Time Period Anal	yzed	Existing
Proj	ect Description	Cemetery Rd		Unit		United States Customary
			Seg	ment 1		
Vel	nicle Inputs					
Seg	ment Type	Passing Zone		Length, ft		5280
Lane	e Width, ft	10		Shoulder Width,	ft	0
Spe	ed Limit, mi/h	45		Access Point Den	sity, pts/mi	3.0
De	mand and Capacity					
Dire	ctional Demand Flow Rate, veh/h	13		Opposing Demar	nd Flow Rate, veh/h	13
Peal	Hour Factor	0.90		Total Trucks, %		1.10
Seg	ment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.01
Int	ermediate Results					
Seg	ment Vertical Class	1	Free-Flow Speed,		mi/h	45.1
Spe	ed Slope Coefficient			Speed Power Coe	efficient	0.63589
PF S	lope Coefficient	-1.15462	2 PF Power Coefficient		0.78832	
In Pa	assing Lane Effective Length?	No		Total Segment De	ensity, veh/mi/ln	0.0
%lm	proved % Followers	0.0		% Improved Avg Speed		0.0
Su	bsegment Data					
#	Segment Type	Length, ft	Ra	adius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-		-	45.1
Vel	hicle Results					
Ave	rage Speed, mi/h	45.1		Percent Followers, %		3.8
Seg	ment Travel Time, minutes	1.33		Followers Density	/, followers/mi/ln	0.0
Vehi	cle LOS	A				
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Pro	ject information					
Ana	yst	вн		Date		06/02/2021
Age	ncy	PDE		Analysis Year		2021
Juris	diction	NYSDOT		Time Period Ana	lyzed	Existing
Proj	ect Description	Chasm Rd		Unit		United States Customary
			Seg	ment 1		
Vel	nicle Inputs					
Segi	nent Type	Passing Zone		Length, ft		5280
Lane	e Width, ft	10		Shoulder Width,	ft	3
Spee	ed Limit, mi/h	45		Access Point Der	nsity, pts/mi	3.0
De	mand and Capacity					
Dire	ctional Demand Flow Rate, veh/h	8		Opposing Demand Flow Rate, veh/h		10
Peak	Hour Factor	0.90		Total Trucks, %		6.00
Segi	ment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.00
Int	ermediate Results					
Segi	ment Vertical Class	1 Free-Fl		Free-Flow Speed	, mi/h	47.1
Spee	ed Slope Coefficient	2.74160		Speed Power Co	efficient	0.64105
PF Slope Coefficient -1.15014 PF Power		PF Power Coeffic	ient	0.79708		
In Pa	assing Lane Effective Length?	No		Total Segment D	ensity, veh/mi/ln	0.0
%lm	proved % Followers	0.0		% Improved Avg Speed		0.0
Sul	osegment Data					
#	Segment Type	Length, ft	Ra	adius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5280	-		-	47.1
Vel	nicle Results					
Aver	age Speed, mi/h	47.1		Percent Followers, %		2.4
Segi	ment Travel Time, minutes	1.28		Followers Densit	y, followers/mi/ln	0.0
Vehi	cle LOS	A				
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Project Information					
Analyst	ВН		Date		06/02/2021
Agency	PDE	Analysis Year			2021
Jurisdiction	NYSDOT		Time Period Analy	/zed	Existing
Project Description	East Rd		Unit		United States Customar
		Segm	ent 1		
Vehicle Inputs					
Segment Type	Passing Zone		Length, ft		5280
Lane Width, ft	10		Shoulder Width, f	t	0
Speed Limit, mi/h	45		Access Point Dens	sity, pts/mi	3.0
Demand and Capacity					
Directional Demand Flow Rate, veh/h	18		Opposing Demand Flow Rate, veh/h		16
Peak Hour Factor	0.90		Total Trucks, %		7.00
Segment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.01
Intermediate Results					
Segment Vertical Class	1	Free-Flow Speed, mi/h		mi/h	44.9
Speed Slope Coefficient	2.63408		Speed Power Coefficient		0.63284
PF Slope Coefficient	-1.15659		PF Power Coefficient		0.78774
In Passing Lane Effective Length?	No		Total Segment De	ensity, veh/mi/ln	0.0
%Improved % Followers	0.0		% Improved Avg Speed		0.0
Subsegment Data					
# Segment Type	Length, ft	Radiu	us, ft	Superelevation, %	Average Speed, mi/h
1 Tangent	5280	-			44.9
Vehicle Results					
Average Speed, mi/h 44.9			Percent Followers, %		4.7
Segment Travel Time, minutes	1.34		Followers Density	, followers/mi/ln	0.0

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HCS7 Two-Lai	e Highway	Report
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Analyst	ВН		Date		06/02/2021
Agency	PDE		Analysis Year	2021	
Jurisdiction	NYSDOT		Time Period Ar	alyzed	Existing
Project Description	CR-23		Unit		United States Customa
		Segn	nent 1		
Vehicle Inputs					
Segment Type	Passing Zone		Length, ft		5280
Lane Width, ft	10		Shoulder Width	n, ft	6
Speed Limit, mi/h	45		Access Point D	ensity, pts/mi	3.0
Demand and Capacity					
Directional Demand Flow Rate, veh/h	51		Opposing Demand Flow Rate, veh/h		31
Peak Hour Factor	0.90		Total Trucks, %		7.00
Segment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.03
Intermediate Results					
Segment Vertical Class	1		Free-Flow Speed, mi/h		49.1
Speed Slope Coefficient 2.87865			Speed Power C	oefficient	0.61616
PF Slope Coefficient	-1.17166		PF Power Coefficient		0.79782
In Passing Lane Effective Length?	No		Total Segment Density, veh/mi/ln		0.1
%Improved % Followers	0.0		% Improved Avg Speed		0.0
Subsegment Data					
# Segment Type	Length, ft	Rad	ius, ft	Superelevation, %	Average Speed, mi/h
1 Tangent	5280	-	-		49.1
Vehicle Results					
Average Speed, mi/h 49.1			Percent Followers, %		10.3
Segment Travel Time, minutes	1.22		Followers Density, followers/mi/ln		0.1
Vehicle LOS	A				

HCS7 Two-Lai	e Highway	Report
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Analyst	BH		Date		06/02/2021
Agency	PDE		Analysis Year		2021
Jurisdiction	NYSDOT		Time Period A	Analyzed	Existing
Project Description	US 11		Unit		United States Customa
		Segn	nent 1		
Vehicle Inputs					
Segment Type	Passing Zone		Length, ft		5280
Lane Width, ft	12		Shoulder Wid	lth, ft	6
Speed Limit, mi/h	55		Access Point	Density, pts/mi	3.0
Demand and Capacity					
Directional Demand Flow Rate, veh/h	319		Opposing Demand Flow Rate, veh/h		319
Peak Hour Factor	0.90		Total Trucks, %		23.00
Segment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.19
Intermediate Results					
Segment Vertical Class	1		Free-Flow Speed, mi/h		61.2
Speed Slope Coefficient	3.65999		Speed Power	Coefficient	0.51138
PF Slope Coefficient	-1.22634		PF Power Coefficient		0.80868
In Passing Lane Effective Length?	No	No		t Density, veh/mi/ln	2.1
%Improved % Followers	0.0		% Improved A	0.0	
Subsegment Data					
# Segment Type	Length, ft	Rad	lius, ft	Superelevation, %	Average Speed, mi/h
1 Tangent	5280	-	-		59.5
Vehicle Results				• •	
Average Speed, mi/h 59.5			Percent Followers, %		38.5
Segment Travel Time, minutes	1.01		Followers Density, followers/mi/ln		2.1
Vehicle LOS	В				

Project	Information					
Analyst		ВН		Date		06/02/2021
Agency		PDE		Analysis Year		2021
Jurisdiction	n	NYSDOT		Time Period Analy	/zed	Proposed
Project De	scription	Cemetery Rd		Unit		United States Customary
			Segr	nent 1		
Vehicle	Inputs					
Segment T	уре	Passing Zone		Length, ft		5280
Lane Widtl	h, ft	10		Shoulder Width, f	t	0
Speed Lim	it, mi/h	45		Access Point Dens	sity, pts/mi	3.0
Deman	d and Capacity					
Directional	l Demand Flow Rate, veh/h	13		Opposing Demand Flow Rate, veh/h		13
Peak Hour	Factor	0.90		Total Trucks, %		1.10
Segment C	Capacity, veh/h	1700		Demand/Capacity (D/C)		0.01
Interme	ediate Results					
Segment V	/ertical Class	lass 1 Free-Flow Speed, mi/h		mi/h	45.1	
Speed Slope Coefficient 2.64170 Spe		Speed Power Coe	fficient	0.63589		
PF Slope C	Slope Coefficient -1.15462 PF Power Coefficient		ent	0.78832		
In Passing	Lane Effective Length?	No		Total Segment De	ensity, veh/mi/ln	0.0
%Improve	d % Followers	0.0		% Improved Avg Speed		0.0
Subseg	ment Data					
# Segr	nent Type	Length, ft	Rad	dius, ft	Superelevation, %	Average Speed, mi/h
1 Tang	jent	5280 -				45.1
Vehicle	Results					
Average Sp	peed, mi/h	45.1		Percent Followers, %		3.8
Segment T	ravel Time, minutes	1.33		Followers Density	, followers/mi/ln	0.0
Vehicle LO	S	A				
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HCS7 Two-Lane	Highway Report
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Project Information					
Analyst	BH Date			06/02/2021	
Agency	PDE Analysis Year			2021	
Jurisdiction	NYSDOT		Time Period Anal	yzed	Proposed
Project Description	Chasm Rd		Unit		United States Customary
		Segn	nent 1		
Vehicle Inputs					
Segment Type	Passing Zone		Length, ft		5280
Lane Width, ft	10		Shoulder Width,	ft	3
Speed Limit, mi/h	45		Access Point Den	sity, pts/mi	3.0
Demand and Capacity					
Directional Demand Flow Rate, veh/h	8		Opposing Demand Flow Rate, veh/h		10
Peak Hour Factor	0.90		Total Trucks, %		6.00
Segment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.00
Intermediate Results			·		
Segment Vertical Class	1		Free-Flow Speed, mi/h		47.1
Speed Slope Coefficient	2.74160		Speed Power Coefficient		0.64105
PF Slope Coefficient	-1.15014		PF Power Coefficient		0.79708
In Passing Lane Effective Length?	No		Total Segment Density, veh/mi/ln		0.0
%Improved % Followers	0.0		% Improved Avg Speed		0.0
Subsegment Data					
# Segment Type	Length, ft	Rad	ius, ft	Superelevation, %	Average Speed, mi/h
1 Tangent	5280	-		-	47.1
Vehicle Results	•				
Average Speed, mi/h	47.1 Perce		Percent Followers, %		2.4
Segment Travel Time, minutes	1.28		Followers Density, followers/mi/ln		0.0
Vehicle LOS	A				

HCS 🗰 Two-Lane Version 7.8 B - Chasm Rd.xuf

Project Information					
Analyst	ВН	BH Date			06/02/2021
Agency	PDE	PDE Analysis Ye			2021
Jurisdiction	NYSDOT		Time Period Analy	/zed	Proposed
Project Description	East Rd		Unit		United States Customary
		Segr	ment 1		
Vehicle Inputs					
Segment Type	Passing Zone		Length, ft		5280
Lane Width, ft	10		Shoulder Width, f	t	0
Speed Limit, mi/h	45		Access Point Dens	sity, pts/mi	3.0
Demand and Capacity					
Directional Demand Flow Rate, veh/h	239		Opposing Demand Flow Rate, veh/h		237
Peak Hour Factor	0.90	0.90			16.62
Segment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.14
Intermediate Results					
Segment Vertical Class	1	1 Free-Flow Speed, mi/h		44.6	
Speed Slope Coefficient	2.73530	2.73530		fficient	0.52956
PF Slope Coefficient	-1.25455		PF Power Coefficient		0.76102
In Passing Lane Effective Length?	No		Total Segment Density, veh/mi/ln		1.9
%Improved % Followers	0.0		% Improved Avg Speed		0.0
Subsegment Data					
# Segment Type	Length, ft	Ra	dius, ft	Superelevation, %	Average Speed, mi/h
1 Tangent	5280	-		-	43.6
Vehicle Results					
Average Speed, mi/h	43.6		Percent Followers	, %	34.4
Segment Travel Time, minutes	1.38	1.38		Followers Density, followers/mi/ln	
Vehicle LOS	A				

C - East Rd.xuf

HCS7 Two-Lane Highway Report

Project Information

Project Information					
Analyst	BH Date		Date		06/02/2021
Agency	PDE		Analysis Year		2021
Jurisdiction	NYSDOT		Time Period Analy	yzed	Proposed
Project Description	CR-23		Unit		United States Customary
		Segn	nent 1		
Vehicle Inputs					
Segment Type	Passing Zone		Length, ft		5280
Lane Width, ft	10		Shoulder Width, f	īt	6
Speed Limit, mi/h	45		Access Point Den	sity, pts/mi	3.0
Demand and Capacity					
Directional Demand Flow Rate, veh/h	51		Opposing Demand Flow Rate, veh/h		31
Peak Hour Factor			Total Trucks, %		7.00
Segment Capacity, veh/h	1700		Demand/Capacity (D/C)		0.03
Intermediate Results					
Segment Vertical Class	1 Fr		Free-Flow Speed, mi/h		49.1
Speed Slope Coefficient	2.87865		Speed Power Coefficient		0.61616
PF Slope Coefficient	-1.17166		PF Power Coefficient		0.79782
In Passing Lane Effective Length?	No		Total Segment Density, veh/mi/ln		0.1
%Improved % Followers	0.0		% Improved Avg Speed		0.0
Subsegment Data					
# Segment Type	Length, ft	Rac	lius, ft	Superelevation, %	Average Speed, mi/h
1 Tangent	5280	-		-	49.1
Vehicle Results				·	
Average Speed, mi/h	49.1		Percent Followers	i, %	10.3
Segment Travel Time, minutes	1.22		Followers Density	r, followers/mi/ln	0.1
Vehicle LOS	A				
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HCS7 Two-Lane	Highway	Report
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Analyst	вн	Date		06/02/2021	
Agency	PDE	PDE Analysis Year		2021	
Jurisdiction	NYSDOT	Time Period	Analyzed	Proposed	
Project Description	US 11	Unit		United States Customa	
		Segment 1			
Vehicle Inputs					
Segment Type	Passing Zone	Length, ft		5280	
Lane Width, ft	12	Shoulder Wi	dth, ft	6	
Speed Limit, mi/h	55	Access Point	t Density, pts/mi	3.0	
Demand and Capacity					
Directional Demand Flow Rate, veh/h	430	Opposing D	emand Flow Rate, veh/h	430	
Peak Hour Factor	0.90	Total Trucks,	%	21.54	
Segment Capacity, veh/h	1700	Demand/Ca	pacity (D/C)	0.25	
Intermediate Results					
Segment Vertical Class	1	1 Free-Flow Speed, m		61.2	
Speed Slope Coefficient	3.69247	Speed Powe	r Coefficient	0.49208	
PF Slope Coefficient	-1.24178	PF Power Co	pefficient	0.80254	
In Passing Lane Effective Length?	No	Total Segme	nt Density, veh/mi/ln	3.4	
%Improved % Followers	0.0	% Improved	Avg Speed	0.0	
Subsegment Data					
# Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h	
1 Tangent	5280	-	-	59.1	
Vehicle Results					
Average Speed, mi/h	59.1	Percent Follo	owers, %	46.8	
Segment Travel Time, minutes	1.02	Followers De	ensity, followers/mi/ln	3.4	
Vehicle LOS	В				