

CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 4B.6, Transportation: Highway Capacity Software Files

August 2022

Three highway segments were analyzed which operate at speeds of 40 mph or higher using the HCS as a screening tool at spot locations to determine if further detailed analysis was needed.

- Bayonne Bridge
- RFK Bridge Queens Leg
- New Jersey Turnpike - Eastern Spur

The results of the HCS screening analysis shown in **Table 4B.6-1** indicate that all three highways have sufficient capacity to absorb additional traffic volumes with only minor changes in density, speeds, and travel times for all tolling scenarios.

Table 4B.6-1 Summary of Highway Capacity Software Results

DIRECTION	LOCATION	HOURLY VOLUME			INCREMENTAL CHANGE
		EXISTING CONDITION	NO ACTION ALTERNATIVE	CBD TOLLING ALTERNATIVE (Tolling Scenario D)	
<b>Hourly Volume</b>					
Northbound	Bayonne Bridge	1,075	1,091	1,467	376
	RFK Bridge	4,452	4,575	5,083	508
	Eastern Spur I-95 (Pre-ramp)	152	152	208	56
	Merge from 495	641	660	657	-3
	Eastern Spur I-95 (Post-ramp)	793	811	865	53
Southbound	Bayonne Bridge	659	678	759	81
	RFK Bridge	4,951	5,127	5,524	396
	Eastern Spur I-95 (Pre-ramp)	1,063	1,145	1,244	98
	Diverge to 495	630	627	686	59
	Eastern Spur I-95 (Post-ramp)	433	519	558	39
<b>Density (pc/mi/ln)</b>					
Northbound	Bayonne Bridge	15.4	15.6	20.5	4.9
	RFK Bridge	31.1	32	35.6	3.6
	Eastern Spur I-95 (Pre-ramp)	1.4	1.4	1.8	0.4
	Merge from 495	8.2	8.4	8.6	0.2
	Eastern Spur I-95 (Post-ramp)	6.5	6.7	7.1	0.4
Southbound	Bayonne Bridge	10.5	10.8	11.8	1
	RFK Bridge	34.4	35.6	38.3	2.7
	Eastern Spur I-95 (Pre-ramp)	8.6	9.3	9.9	0.6
	Diverge to 495	4.9	5.2	5.6	0.4
	Eastern Spur I-95 (Post-ramp)	3.4	4.1	4.3	0.2

DIRECTION	LOCATION	HOURLY VOLUME			
		EXISTING CONDITION	NO ACTION ALTERNATIVE	CBD TOLLING ALTERNATIVE (Tolling Scenario D)	INCREMENTAL CHANGE
<b>Level of Service (LOS)</b>					
Northbound	Bayonne Bridge	B	B	C	—
	RFK Bridge	D	D	E	X
	Eastern Spur I-95 (Pre-ramp)	A	A	A	—
	Merge from 495	A	A	A	—
	Eastern Spur I-95 (Post-ramp)	A	A	A	—
Southbound	Bayonne Bridge	A	A	B	—
	RFK Bridge	D	E	E	X
	Eastern Spur I-95 (Pre-ramp)	A	A	A	—
	Diverge to 495	A	A	A	—
	Eastern Spur I-95 (Post-ramp)	A	A	A	—

## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.917	5744	8800	0.65	41.8	34.4	D

### Facility Time Period Results

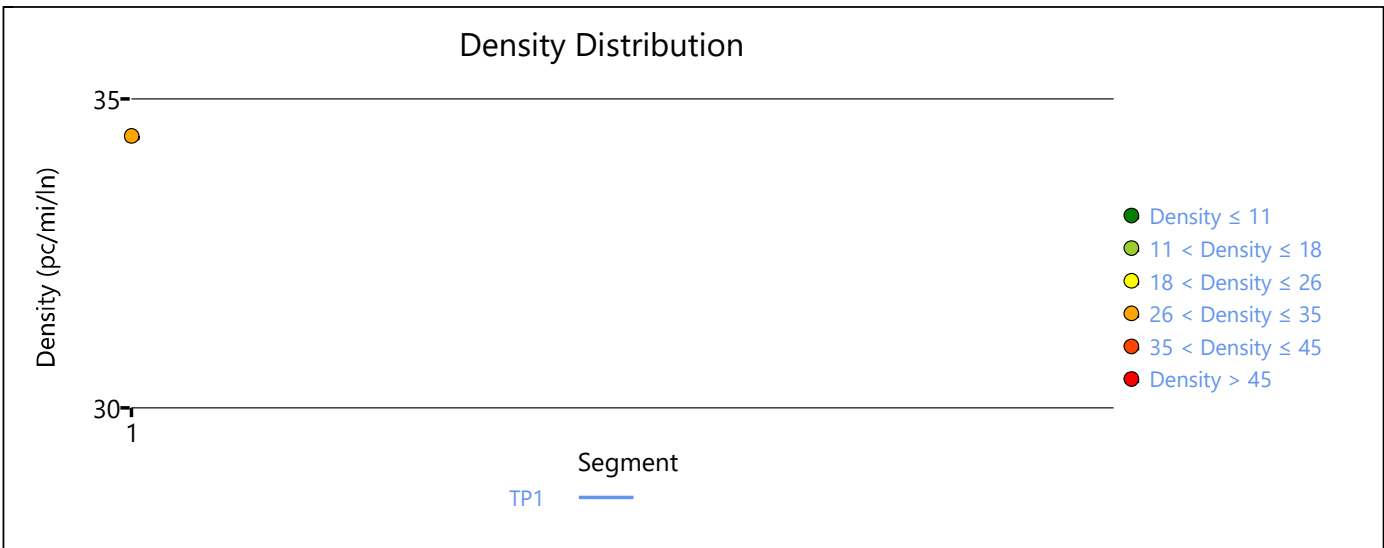
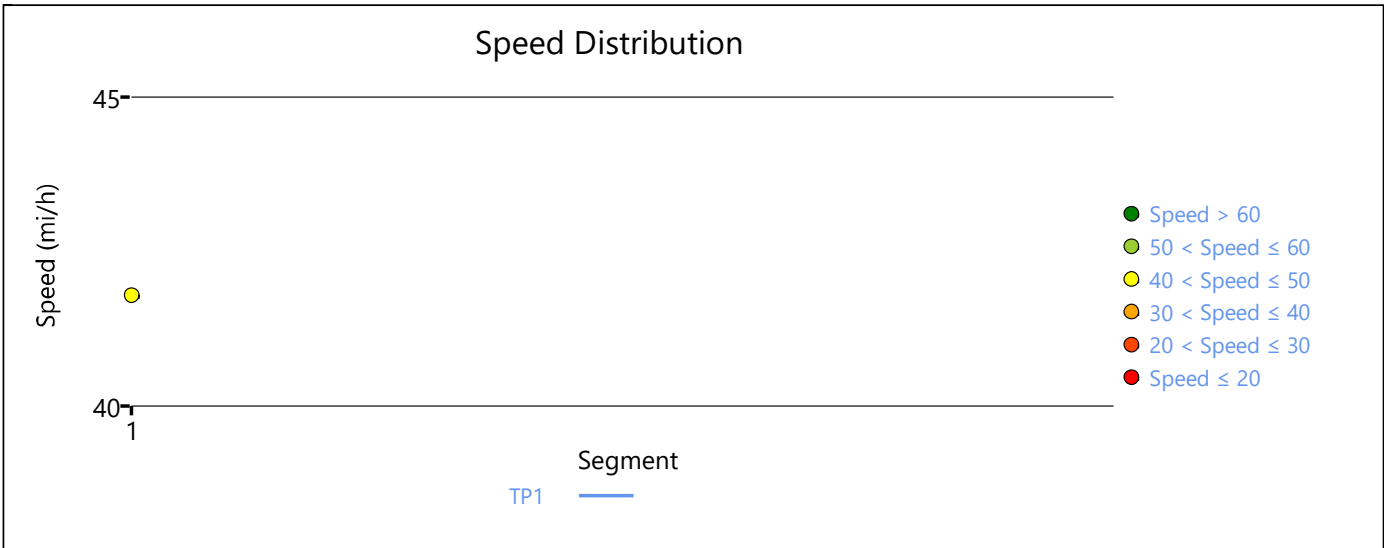
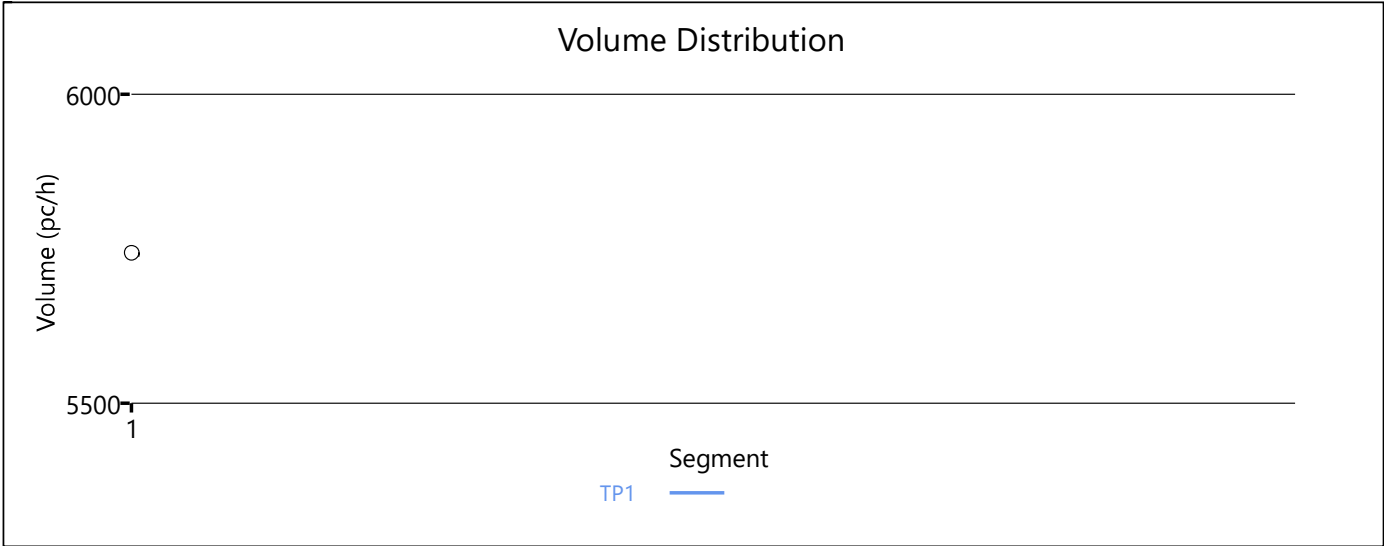
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	34.4	31.5	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	31.5
Average Travel Time, min	1.00	Density, pc/mi/ln	34.4

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.883	4132	8800	0.47	41.8	24.7	C

### Facility Time Period Results

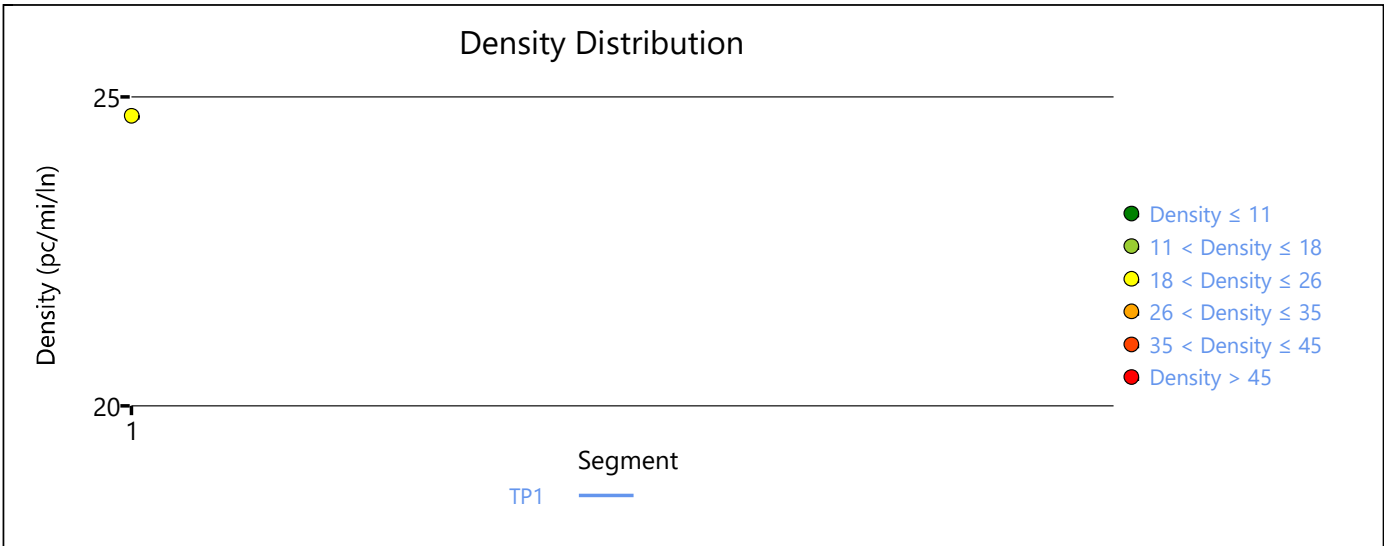
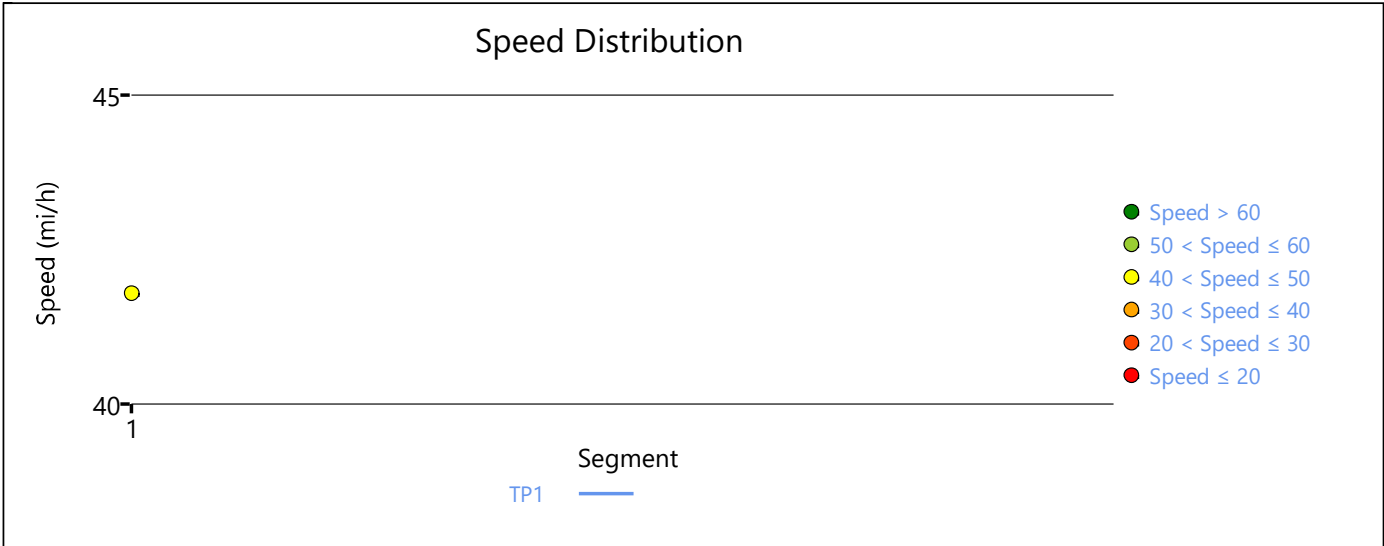
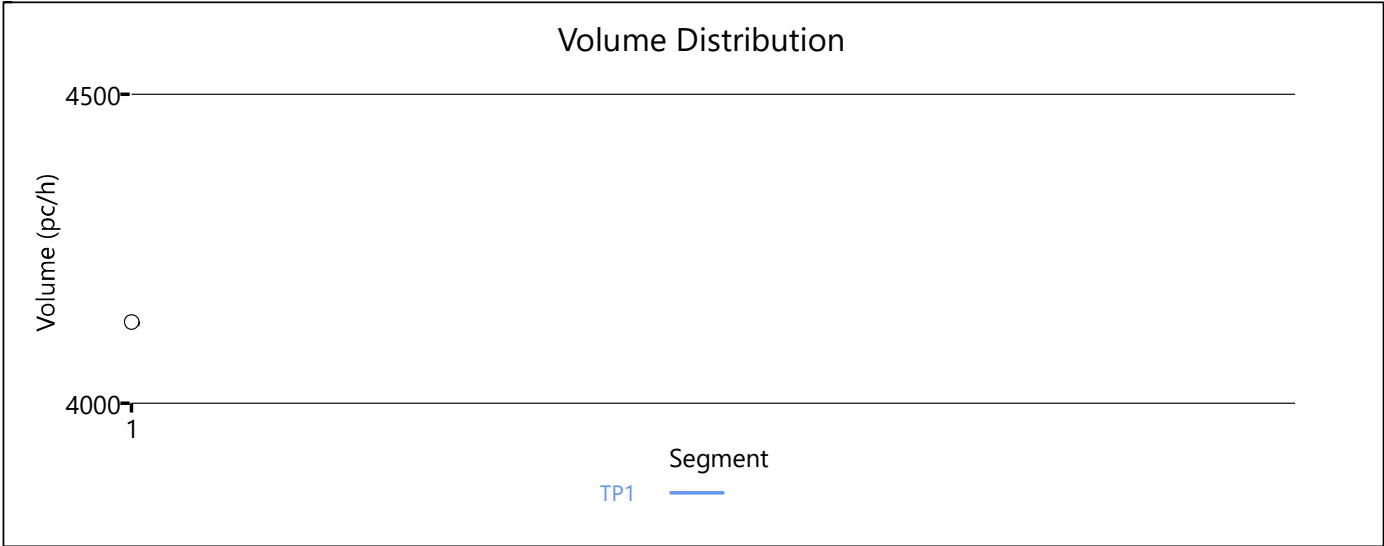
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	24.7	21.8	1.00	C

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	21.8
Average Travel Time, min	1.00	Density, pc/mi/ln	24.7

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.949	4662	8800	0.53	41.8	27.9	D

### Facility Time Period Results

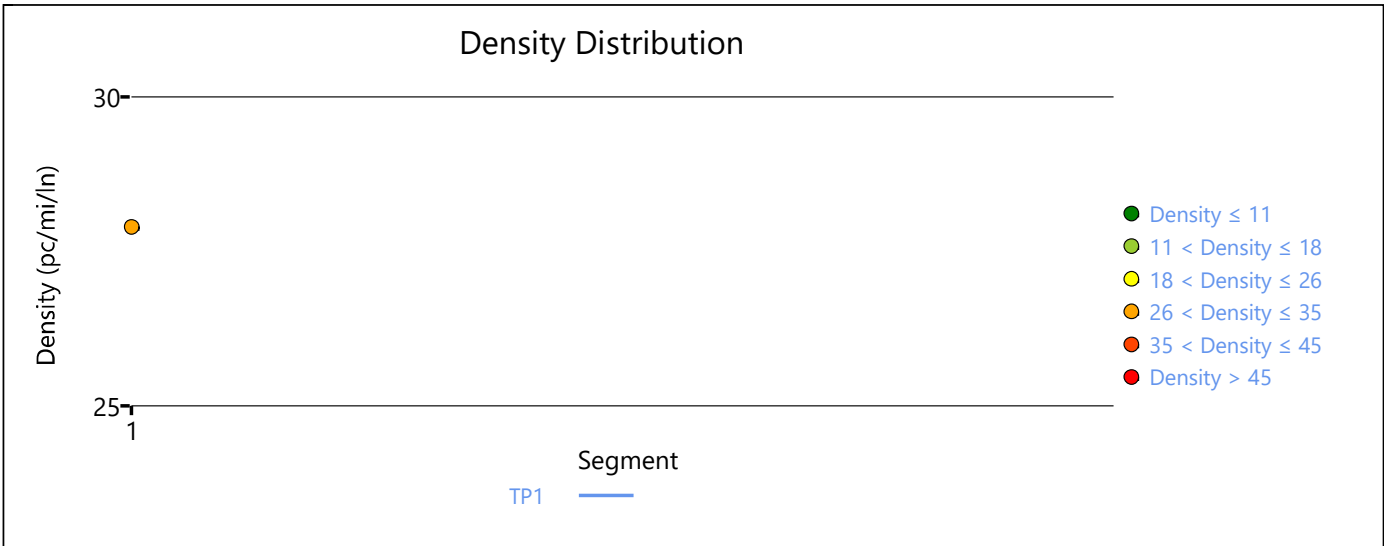
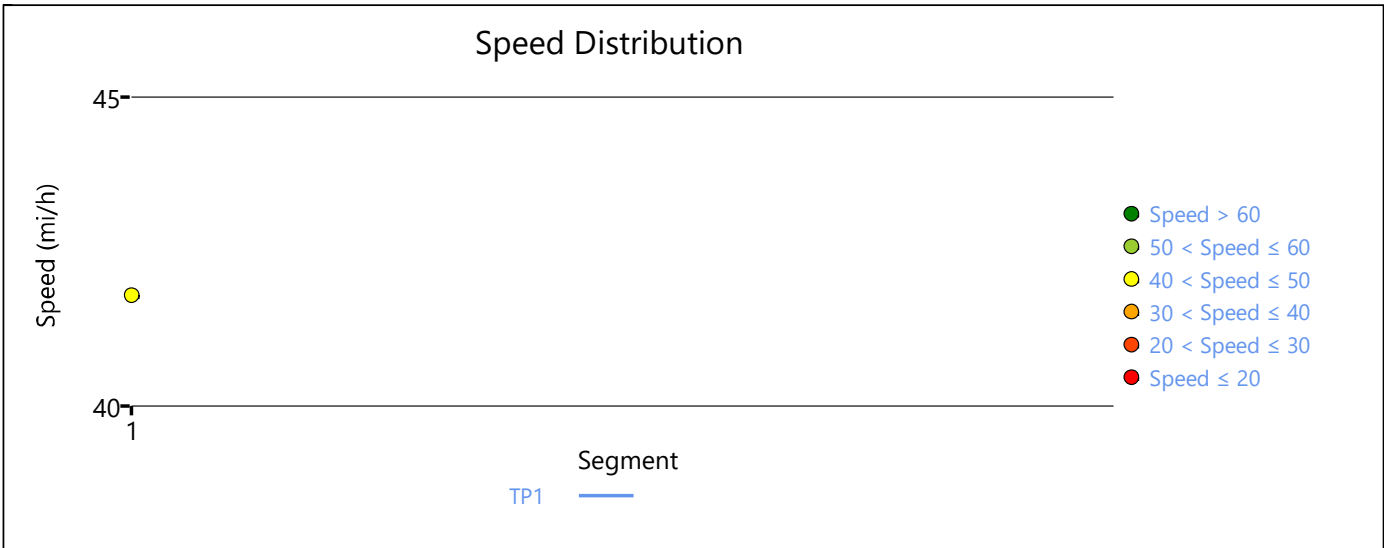
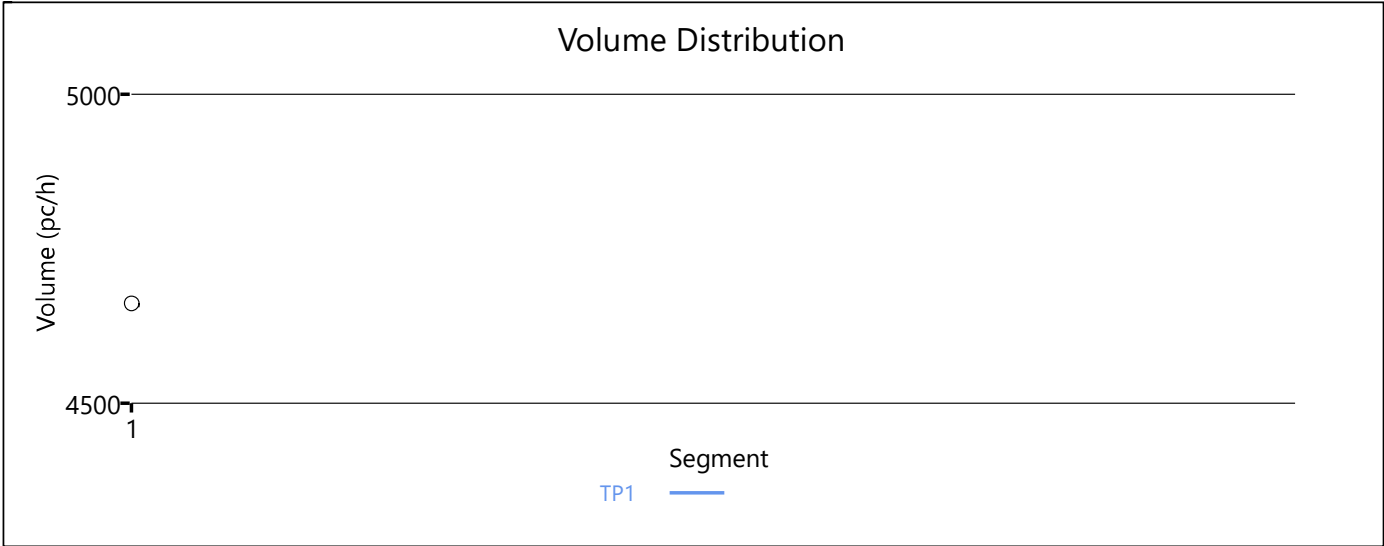
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	27.9	26.5	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	26.5
Average Travel Time, min	1.00	Density, pc/mi/ln	27.9

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.896	989	8800	0.11	41.8	5.9	A

### Facility Time Period Results

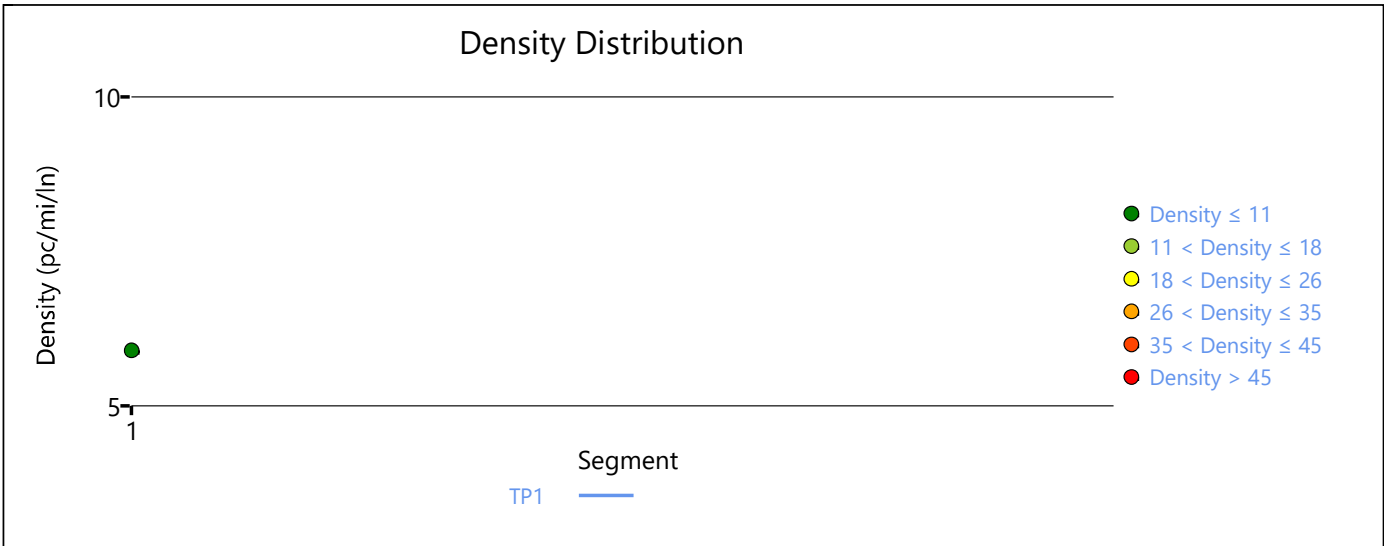
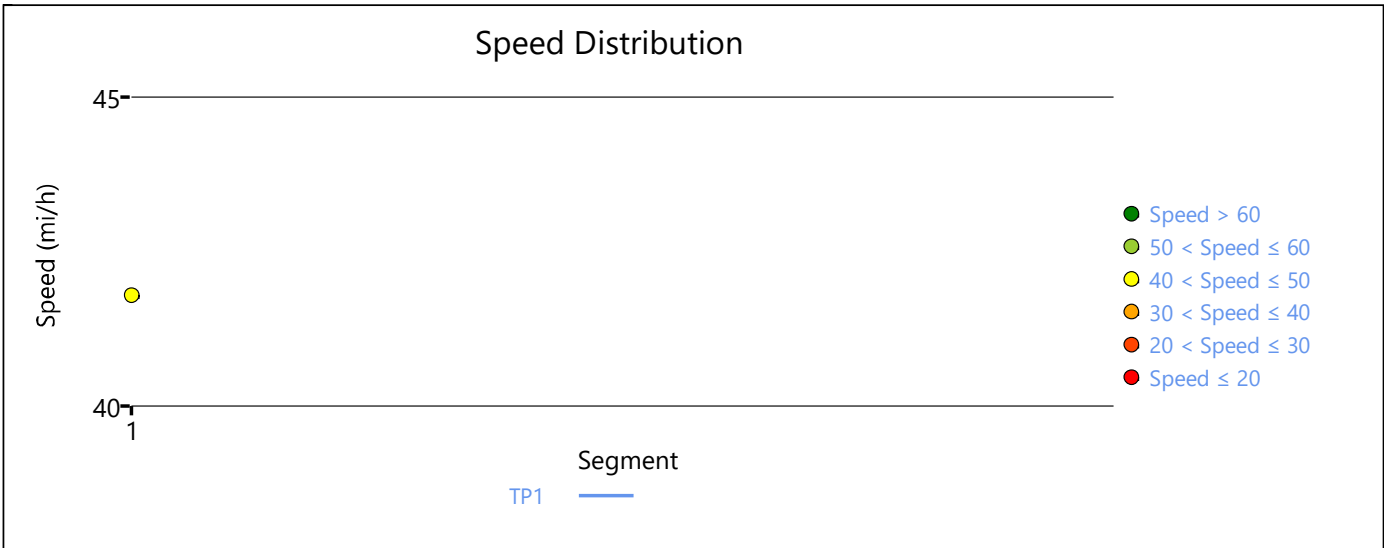
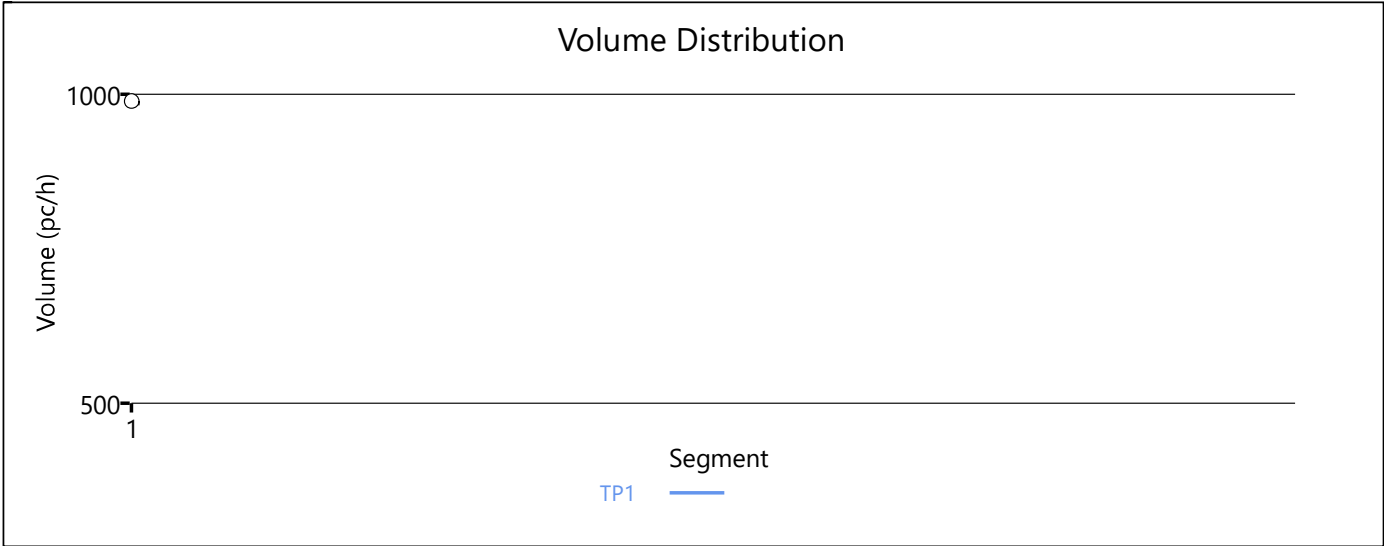
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	5.9	5.3	1.00	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.3
Average Travel Time, min	1.00	Density, pc/mi/ln	5.9

### Messages

### Comments



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Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.911	5199	8800	0.59	41.8	31.1	D

### Facility Time Period Results

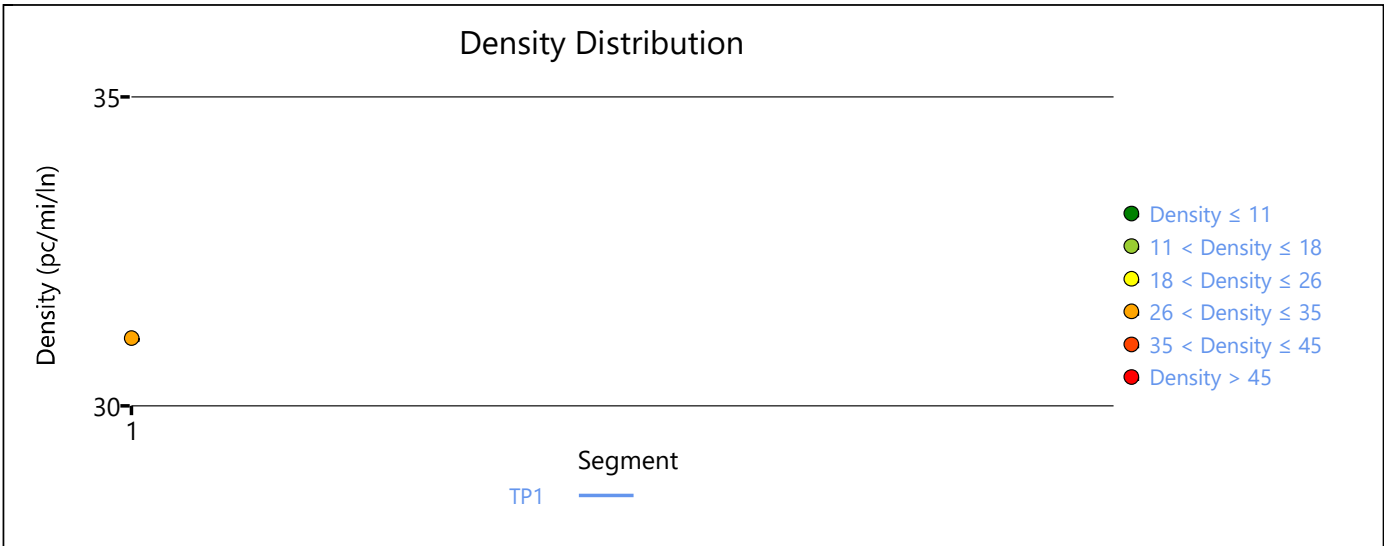
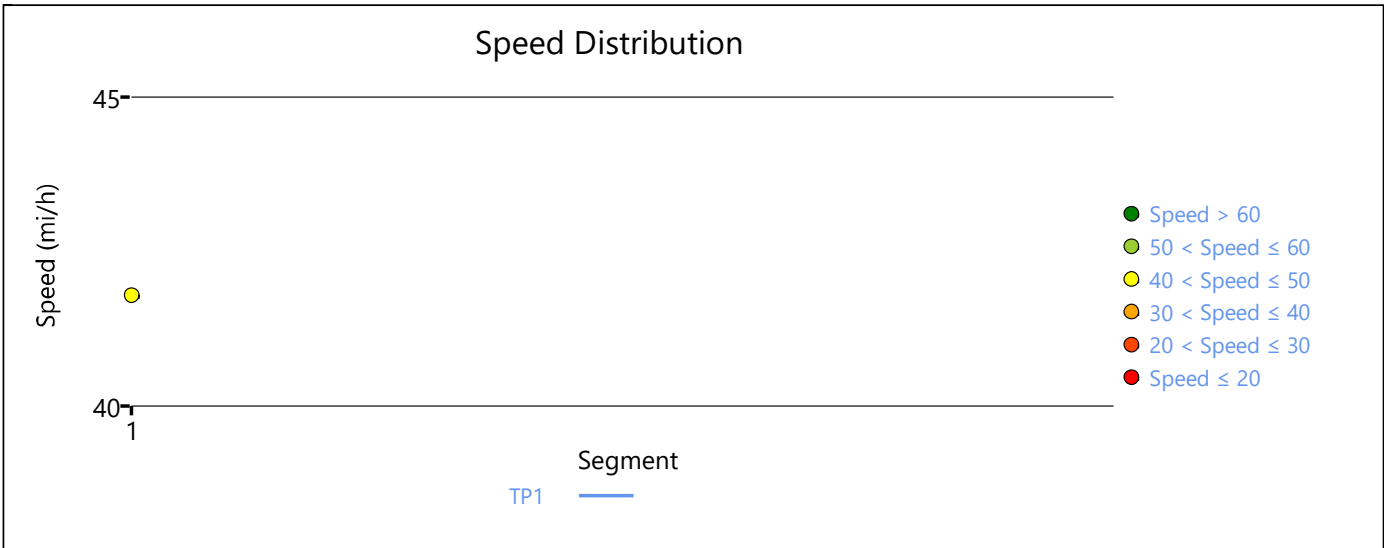
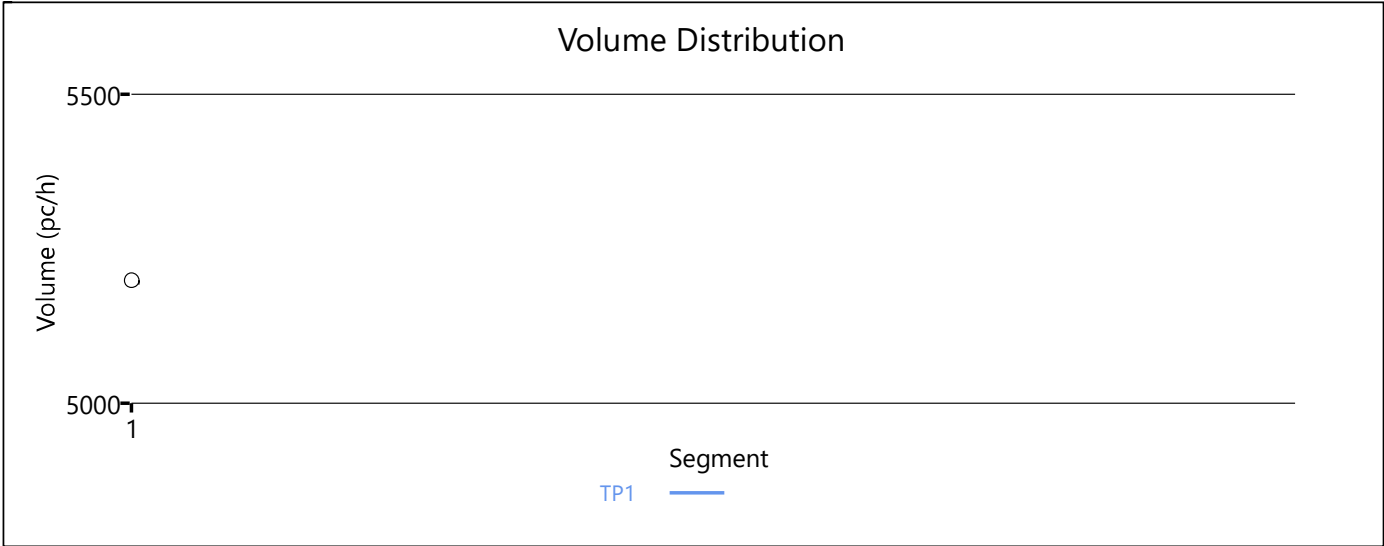
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	31.1	28.3	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	28.3
Average Travel Time, min	1.00	Density, pc/mi/ln	31.1

### Messages

### Comments



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Analyst	CJ	Date	4/21/2022
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Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.906	5078	8800	0.58	41.8	30.4	D

### Facility Time Period Results

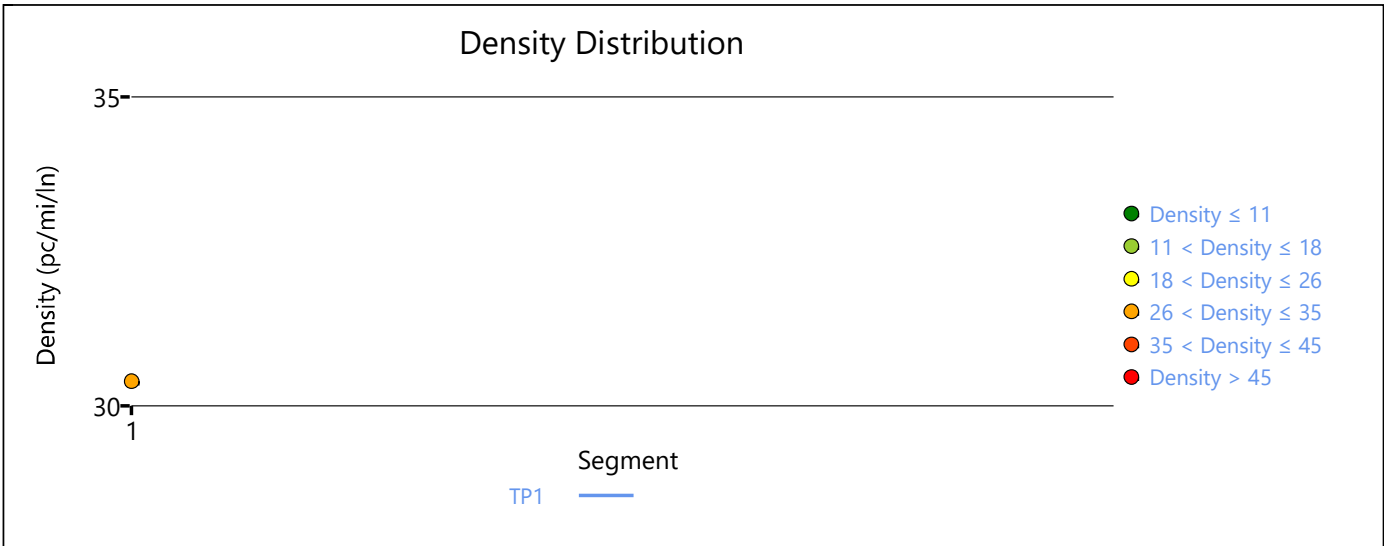
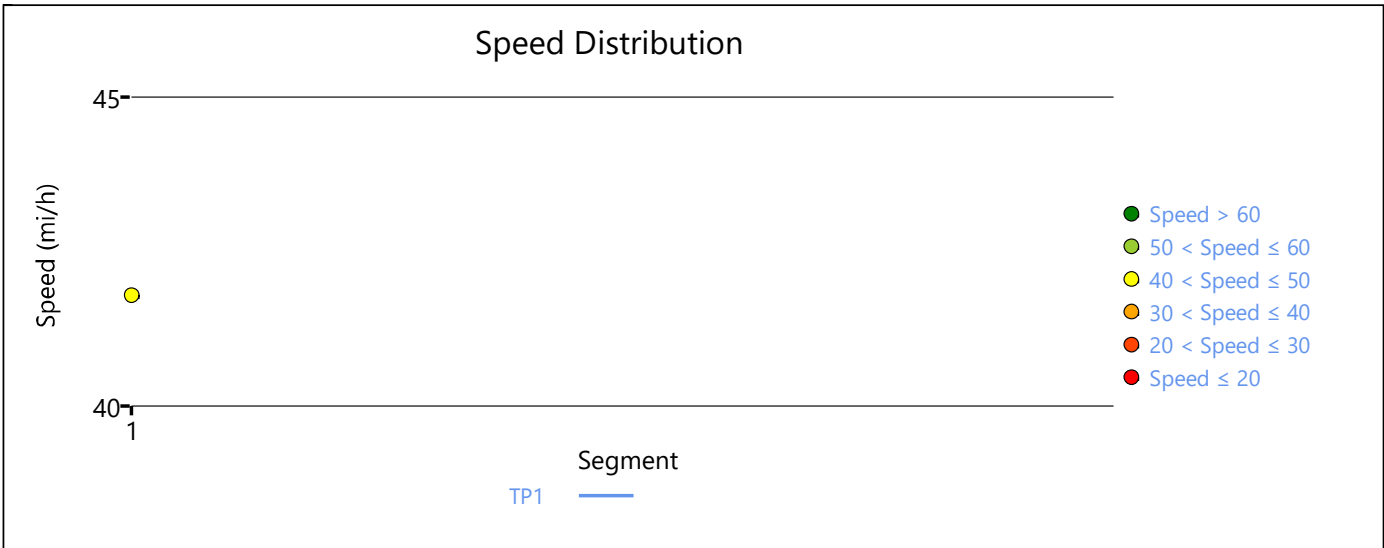
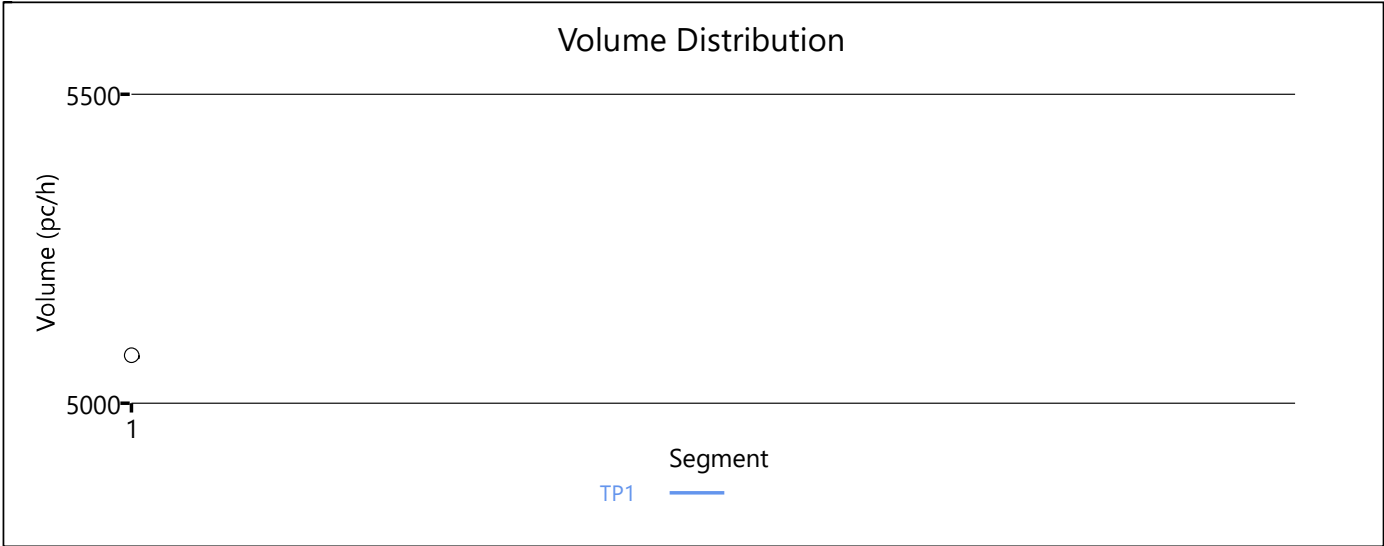
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	30.4	27.5	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	27.5
Average Travel Time, min	1.00	Density, pc/mi/ln	30.4

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.958	5230	8800	0.59	41.8	31.3	D

### Facility Time Period Results

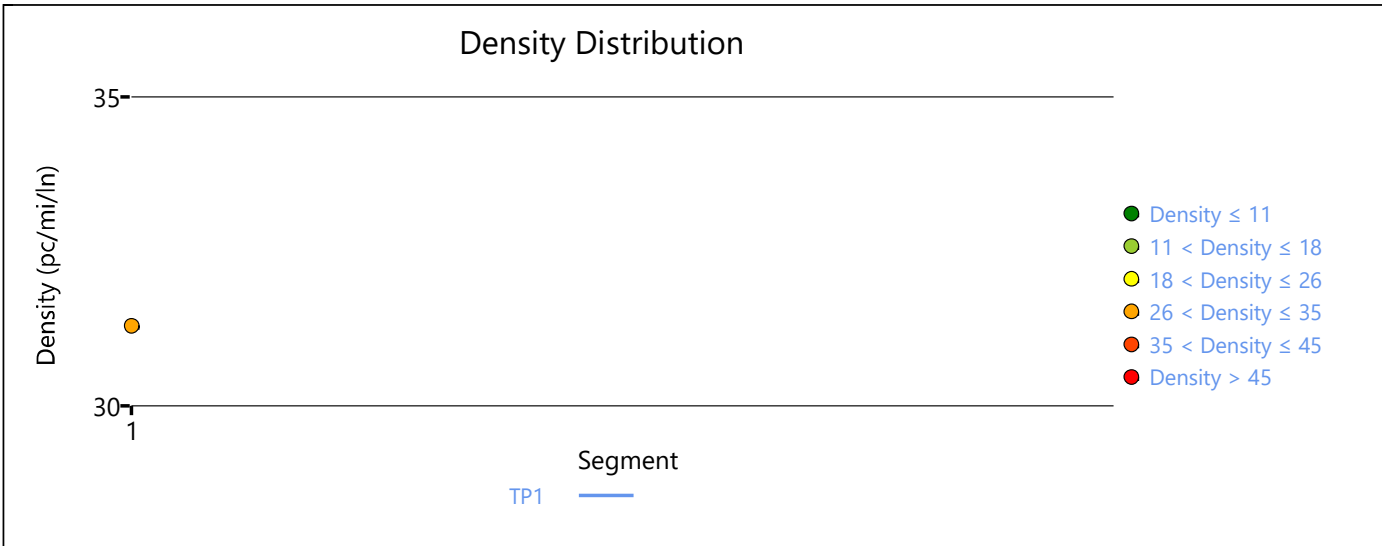
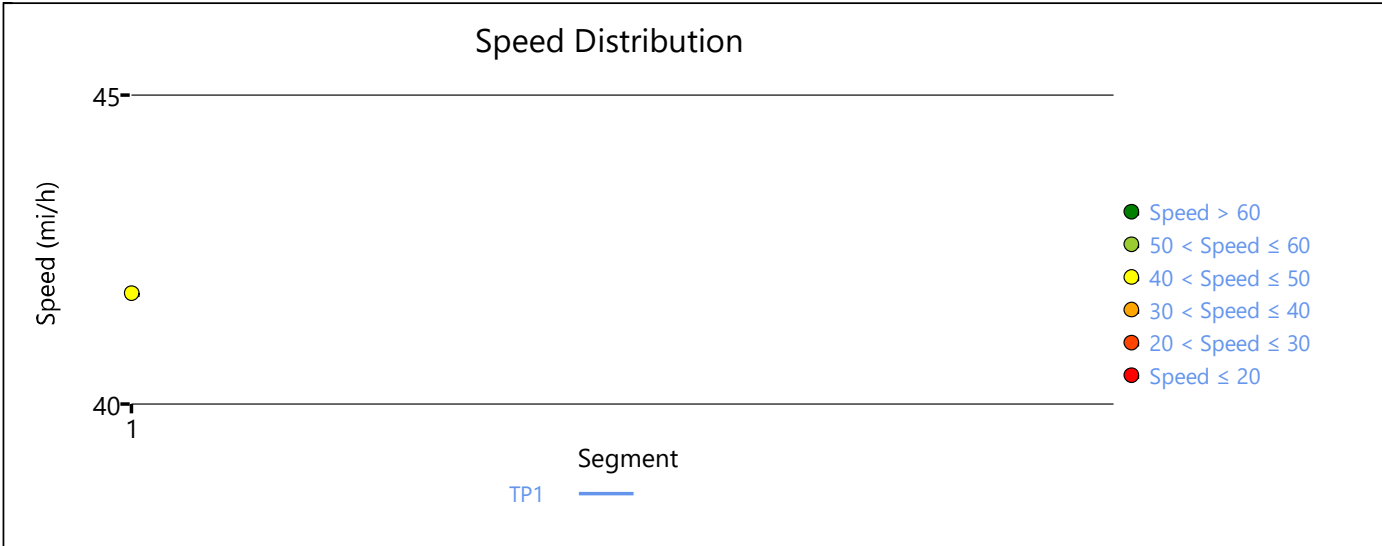
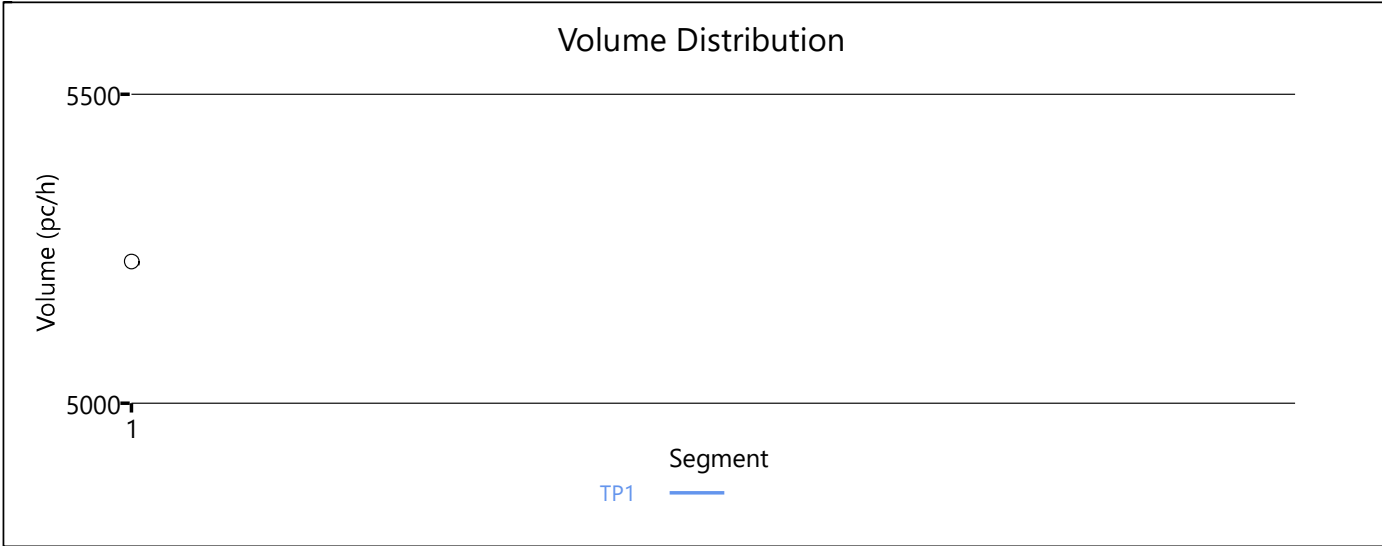
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	31.3	30.0	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	30.0
Average Travel Time, min	1.00	Density, pc/mi/ln	31.3

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.879	1025	8800	0.12	41.8	6.1	A

### Facility Time Period Results

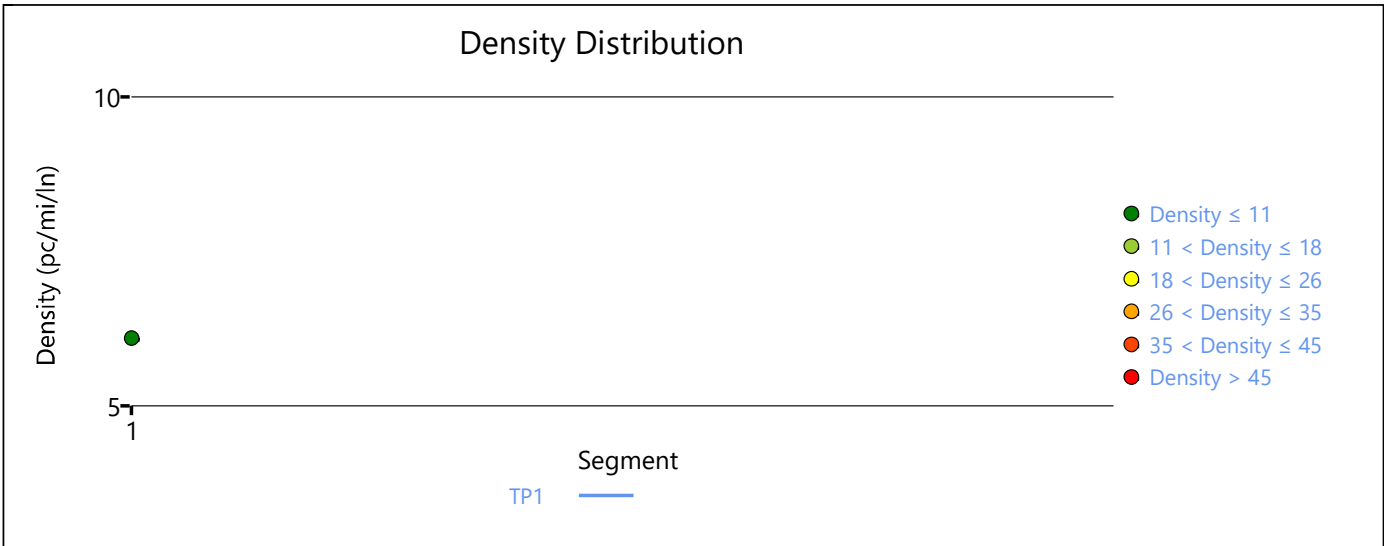
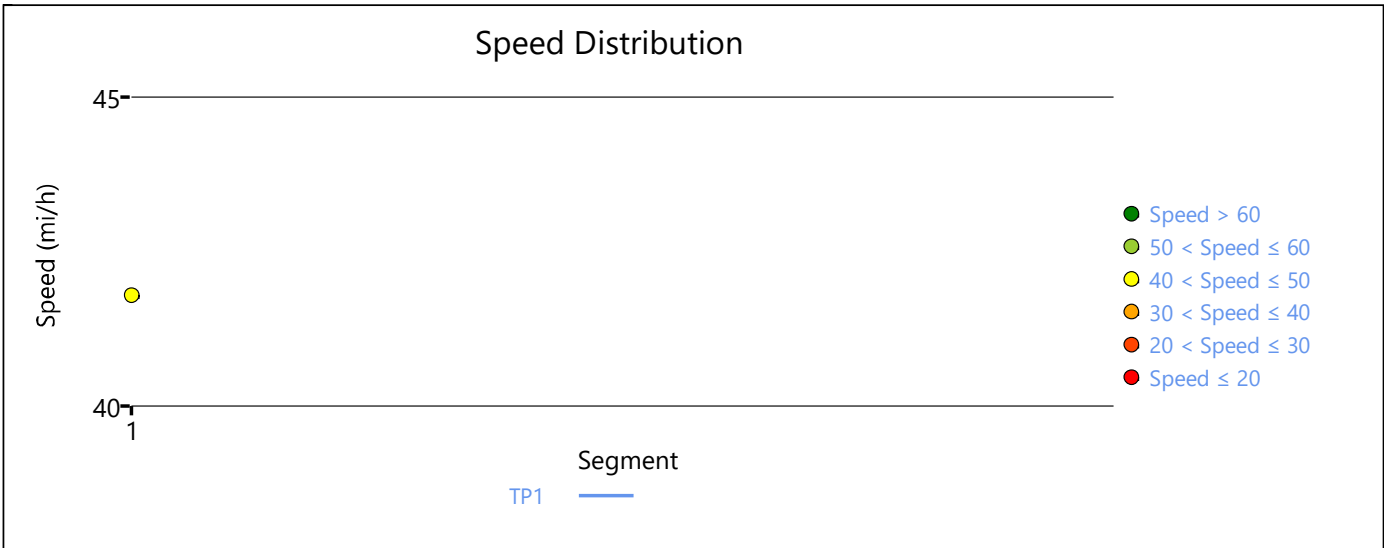
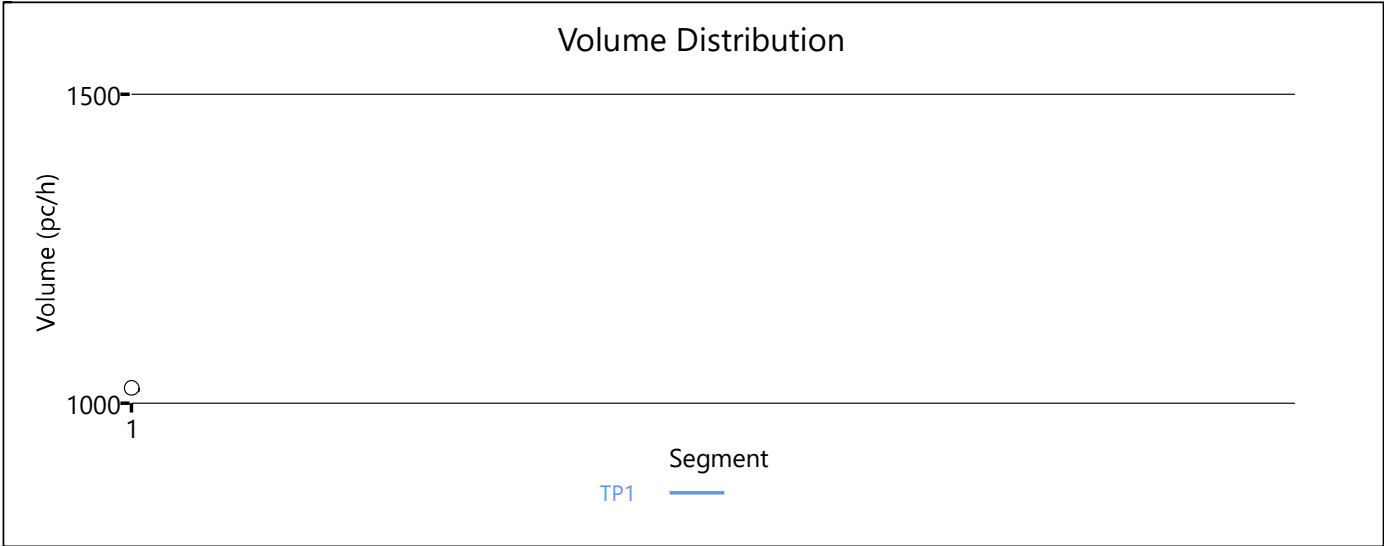
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	6.1	5.4	1.00	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.4
Average Travel Time, min	1.00	Density, pc/mi/ln	6.1

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.917	5948	8800	0.68	41.8	35.6	E

### Facility Time Period Results

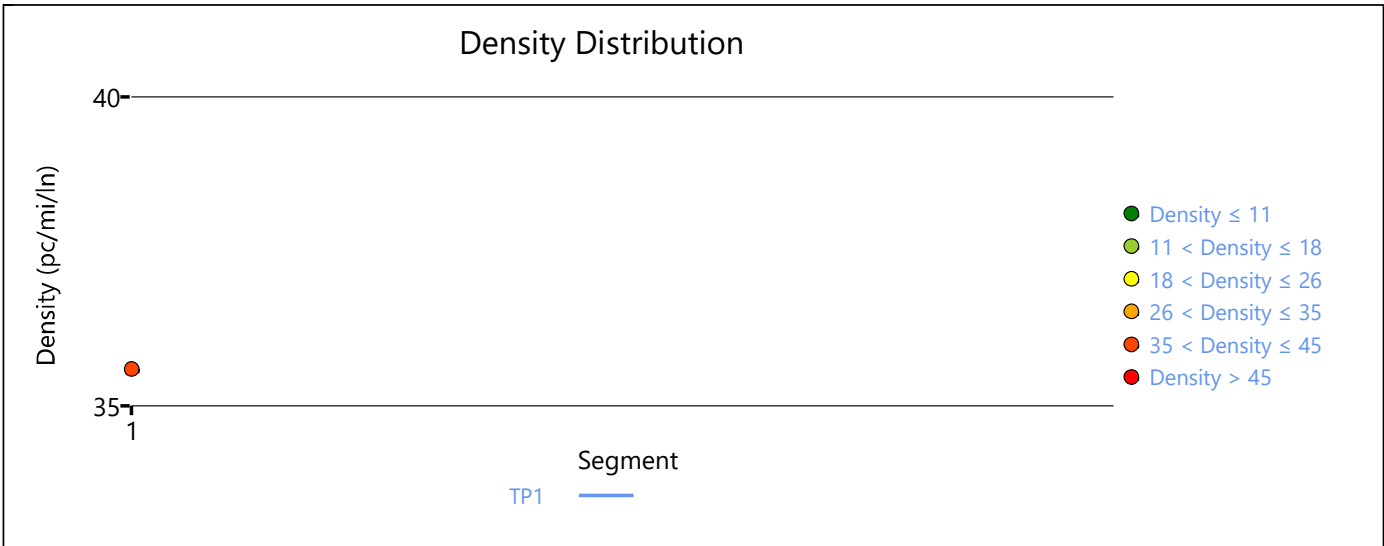
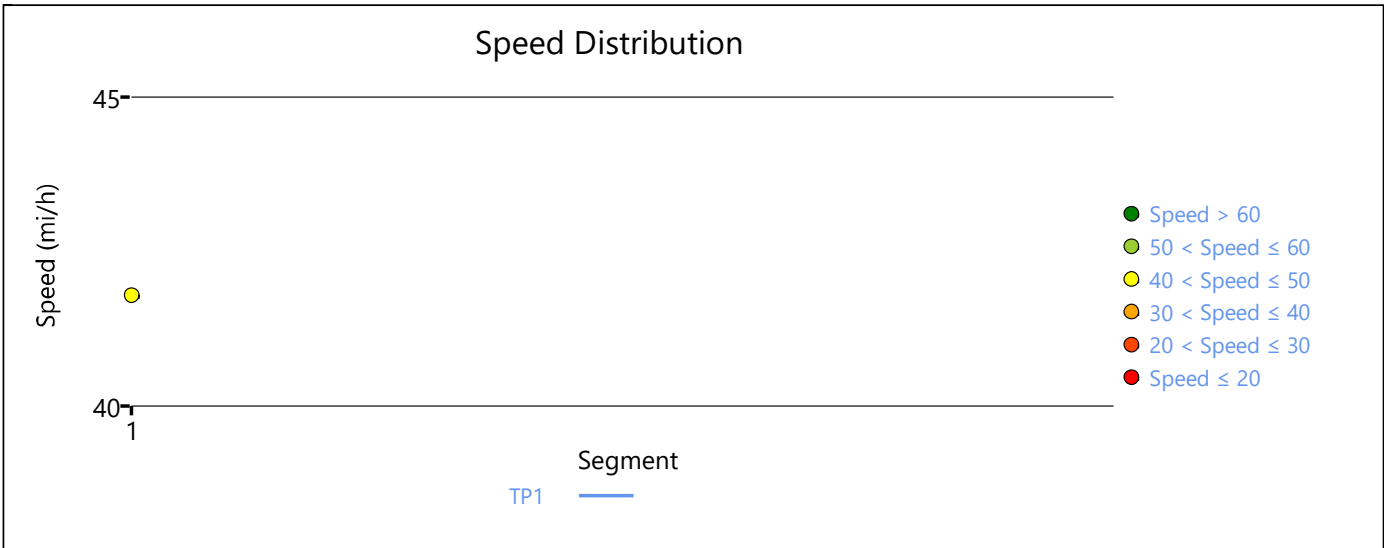
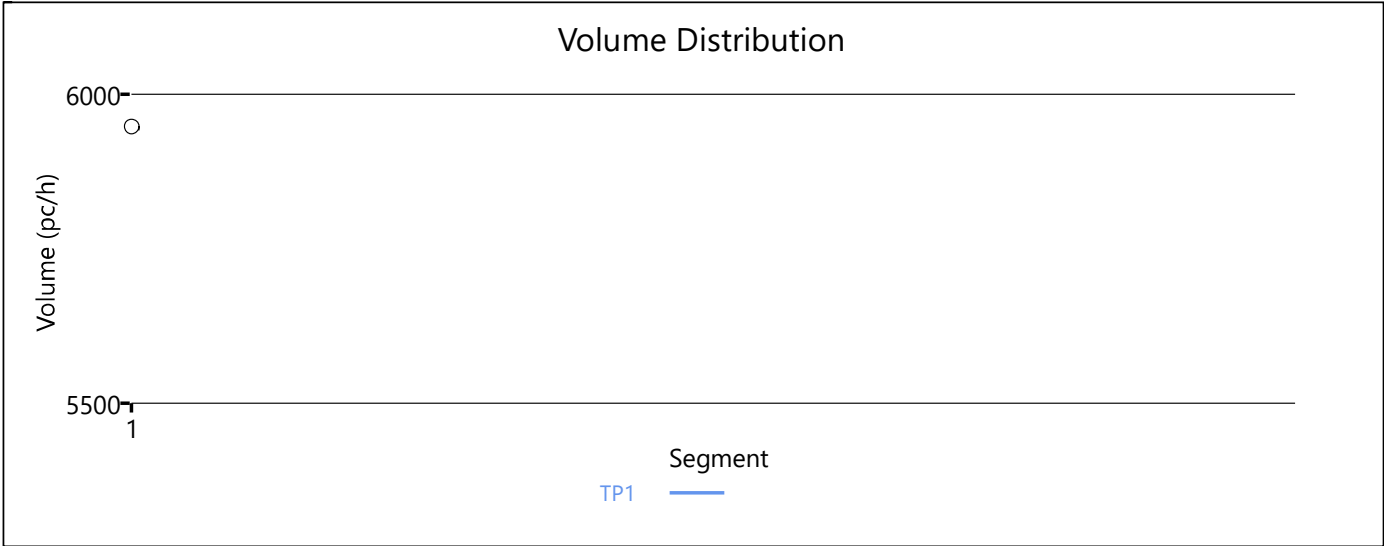
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	35.6	32.6	1.00	E

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	32.6
Average Travel Time, min	1.00	Density, pc/mi/ln	35.6

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.883	4278	8800	0.49	41.8	25.6	C

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	25.6	22.6	1.00	C

### Facility Overall Results

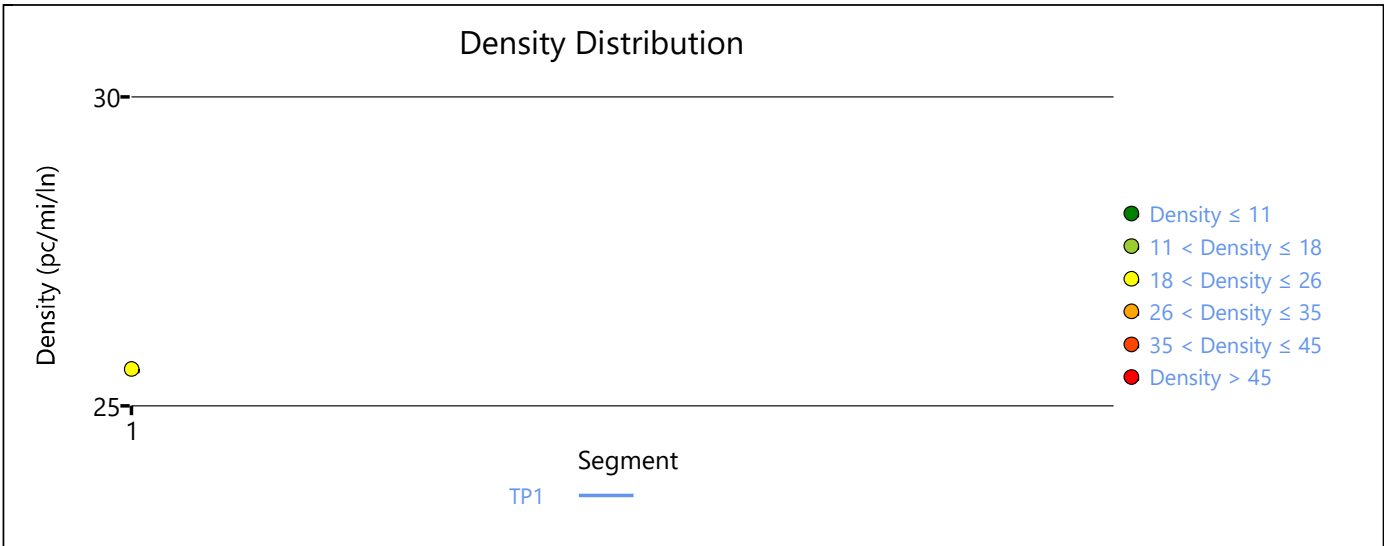
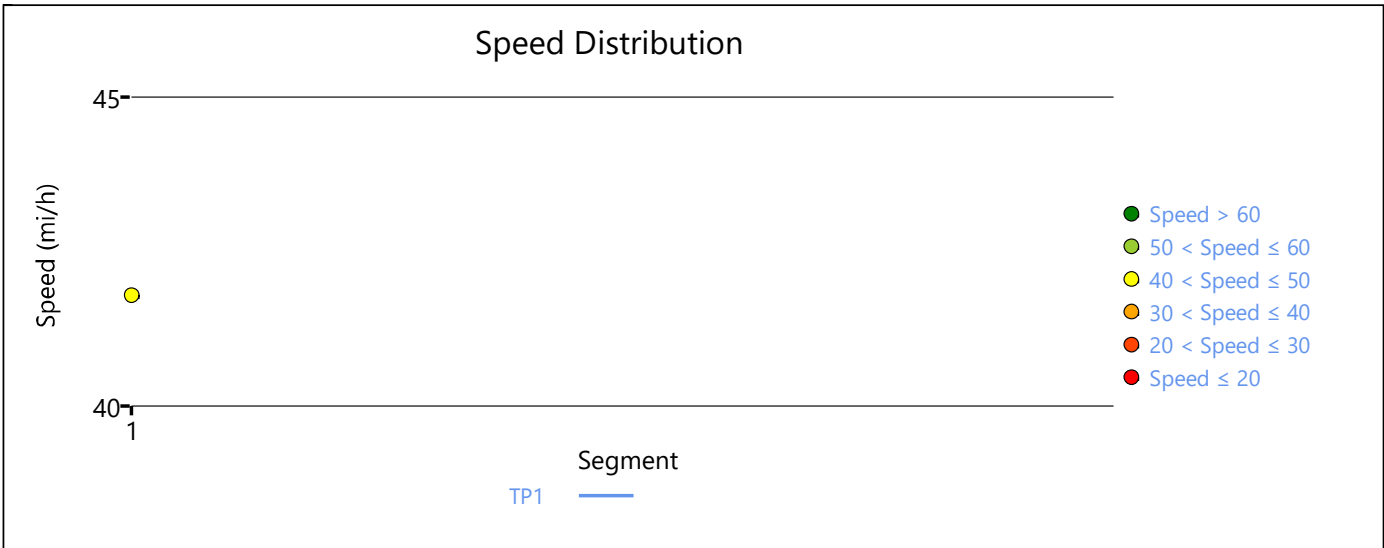
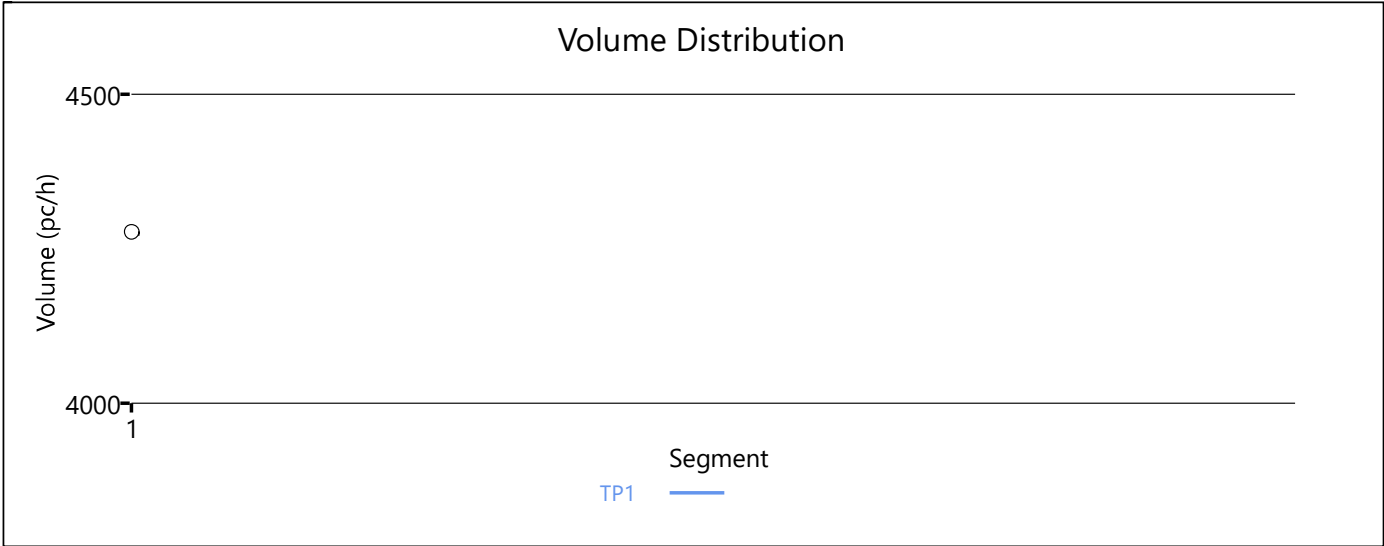
Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	22.6
Average Travel Time, min	1.00	Density, pc/mi/ln	25.6

### Messages

INFORMATION 1	Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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### Comments

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## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.949	4870	8800	0.55	41.8	29.1	D

### Facility Time Period Results

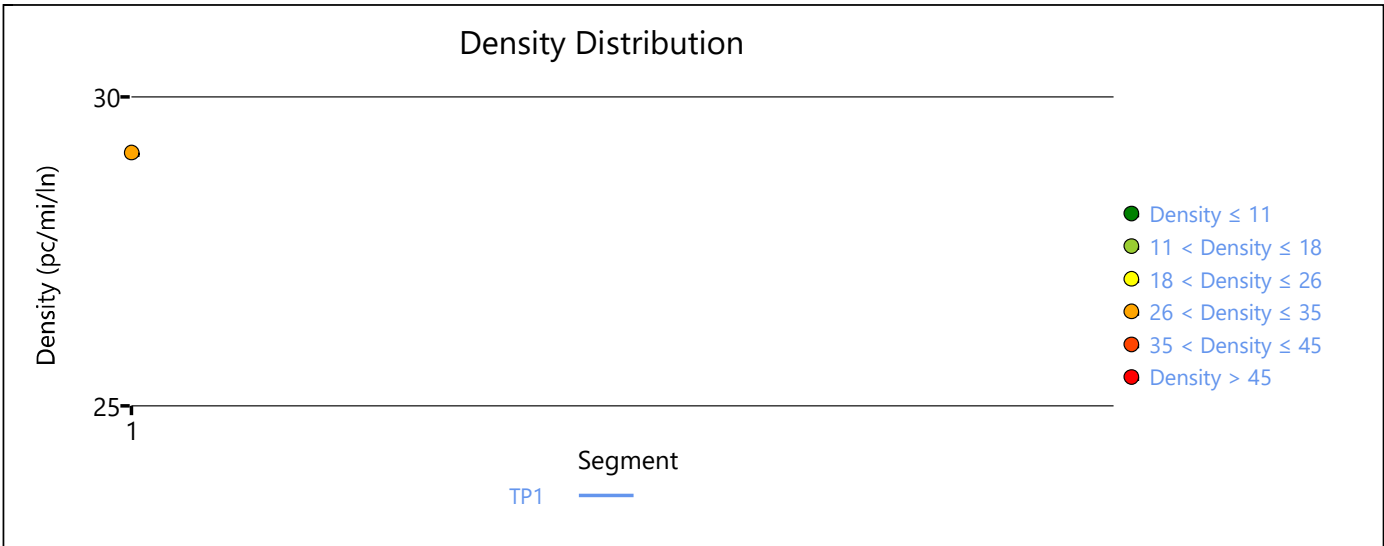
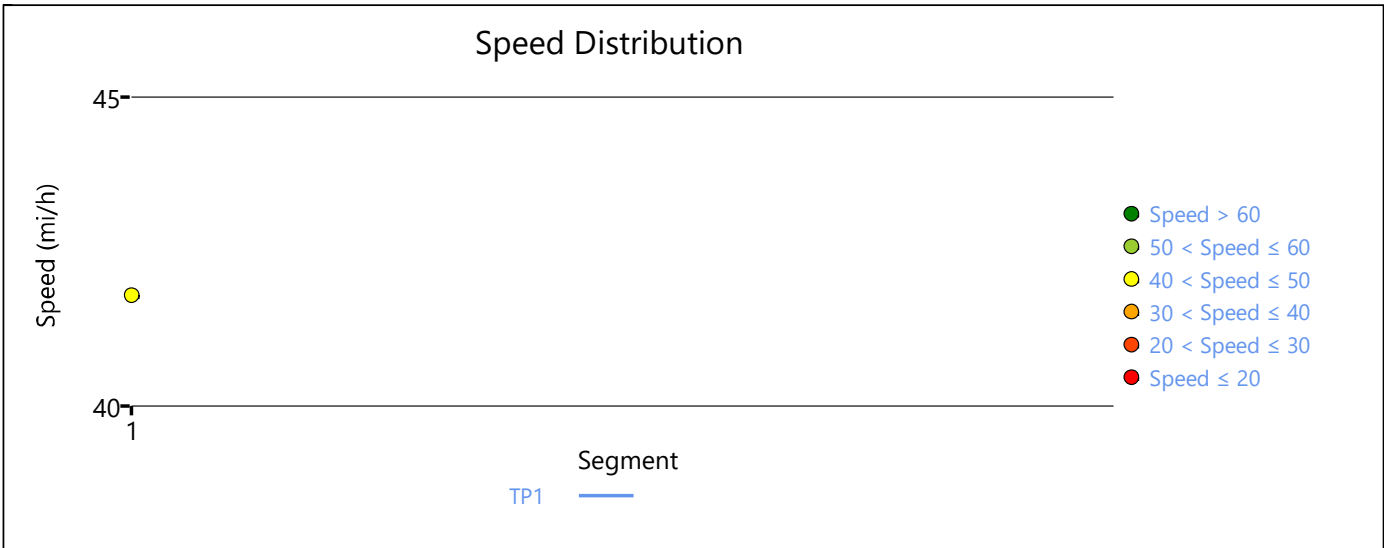
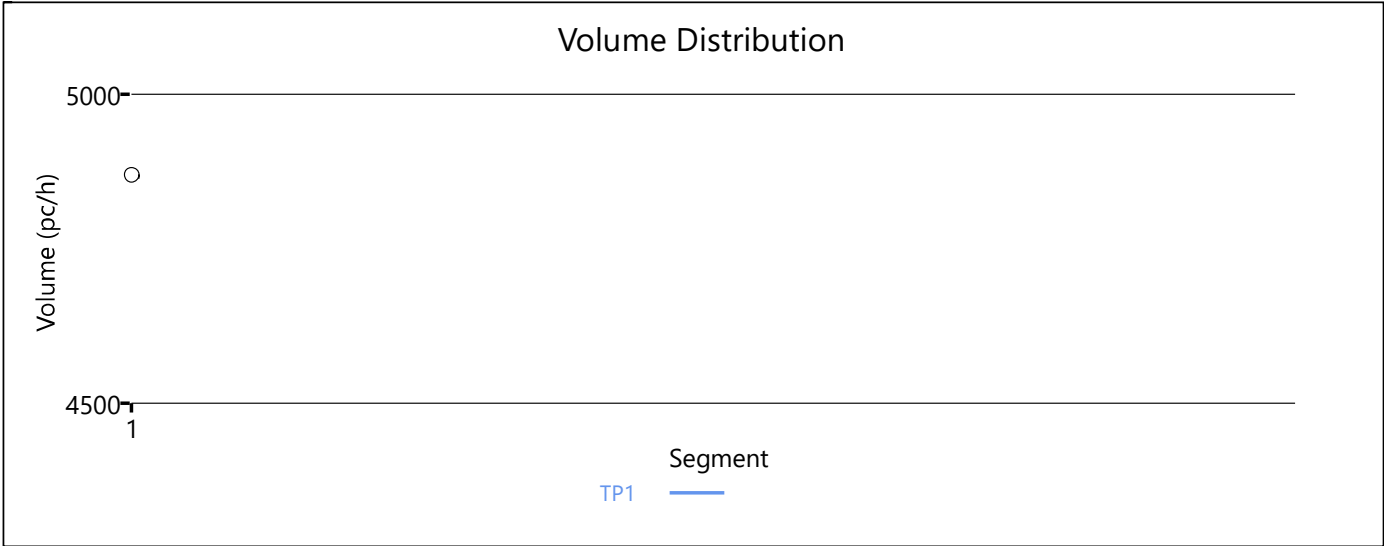
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	29.1	27.6	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	27.6
Average Travel Time, min	1.00	Density, pc/mi/ln	29.1

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.896	1028	8800	0.12	41.8	6.1	A

### Facility Time Period Results

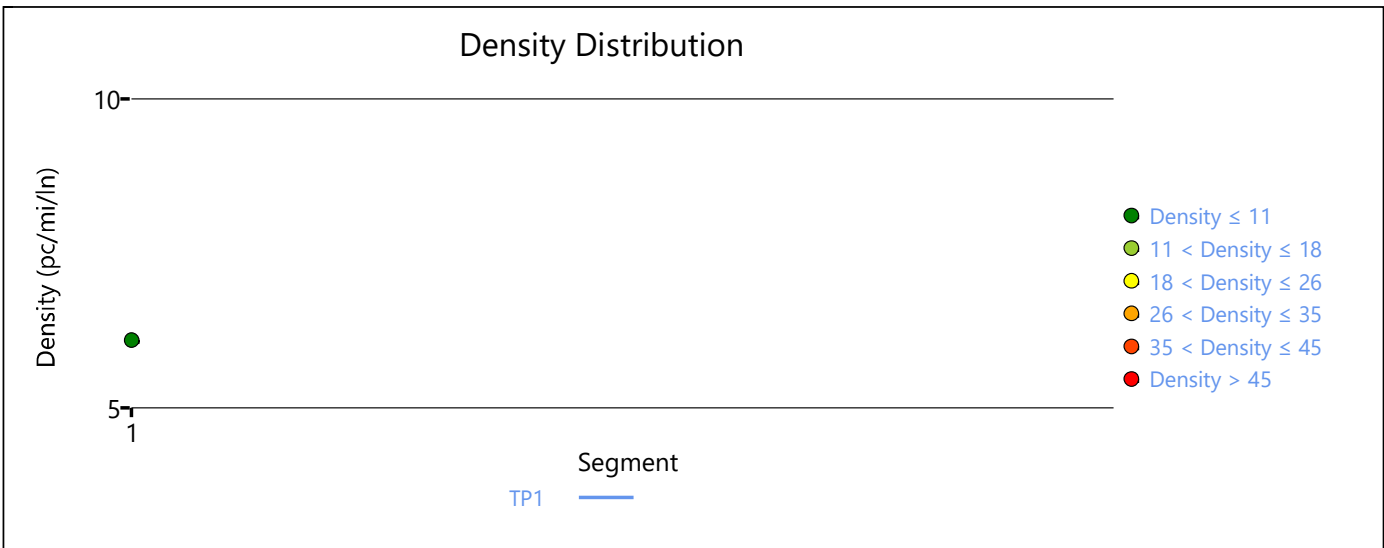
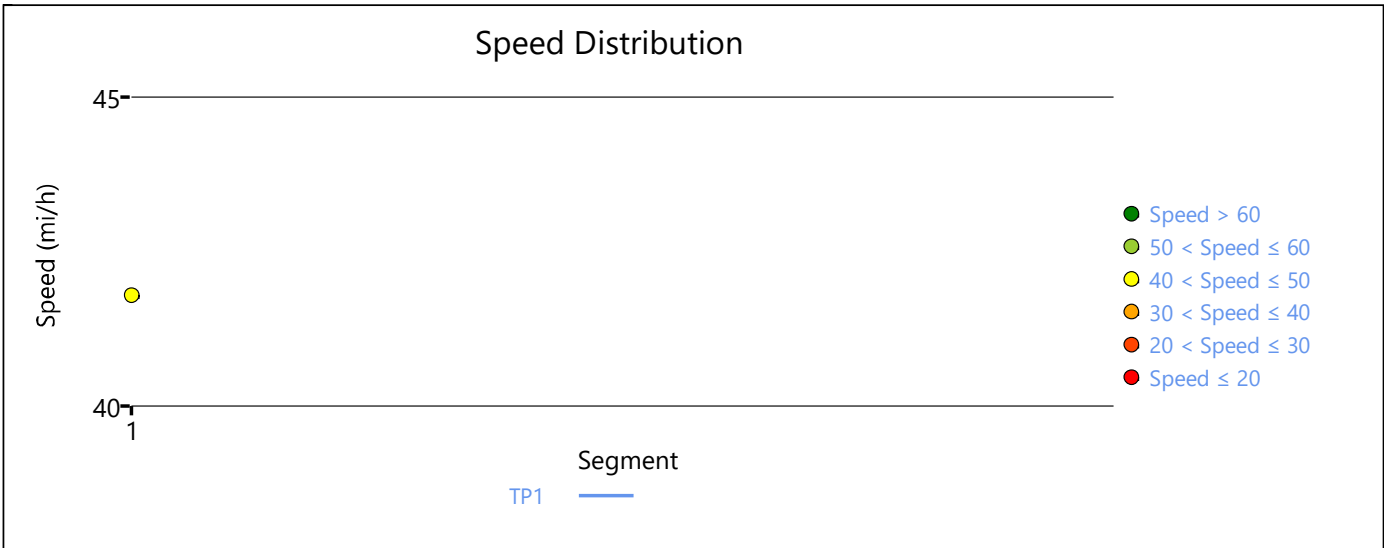
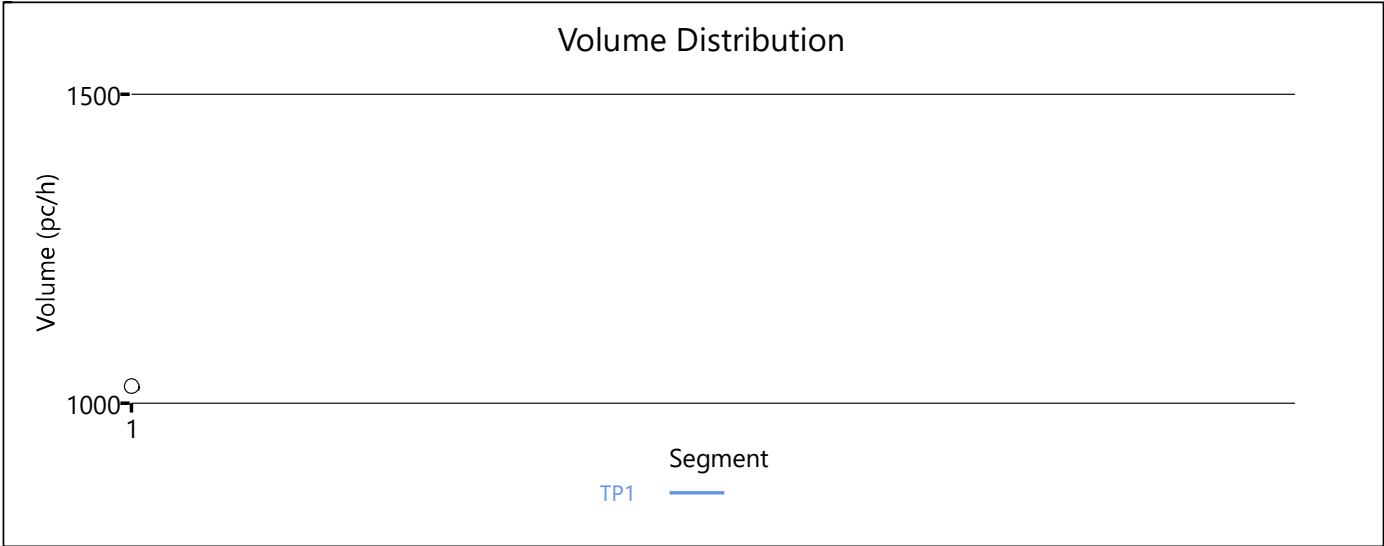
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	6.1	5.5	1.00	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.5
Average Travel Time, min	1.00	Density, pc/mi/ln	6.1

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.911	5343	8800	0.61	41.8	32.0	D

### Facility Time Period Results

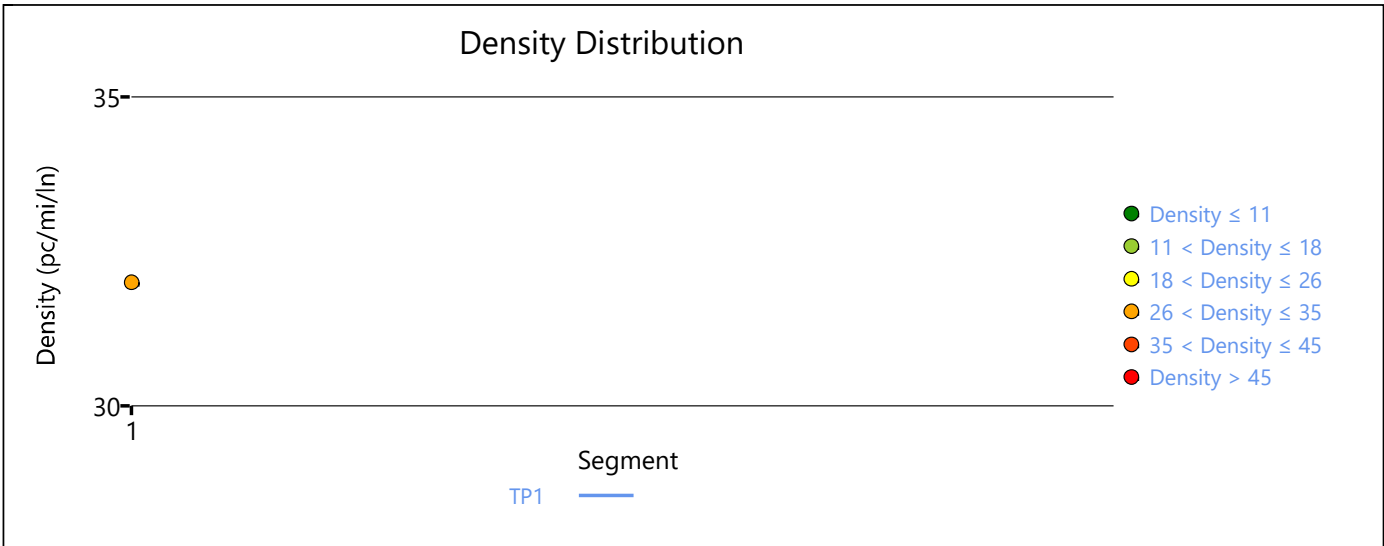
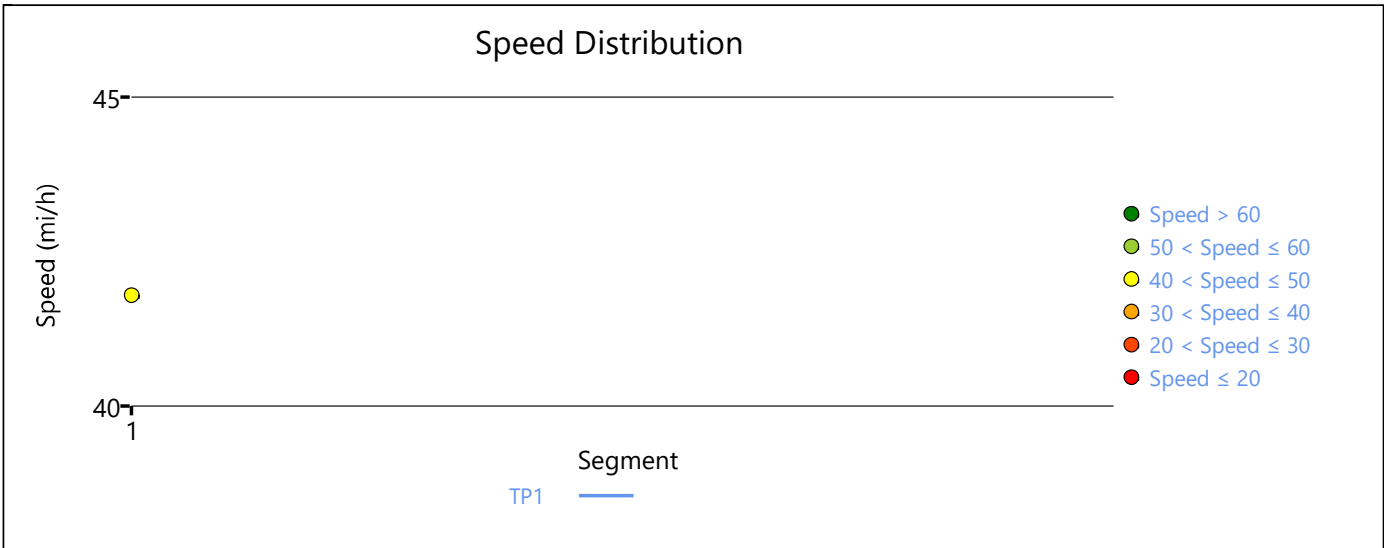
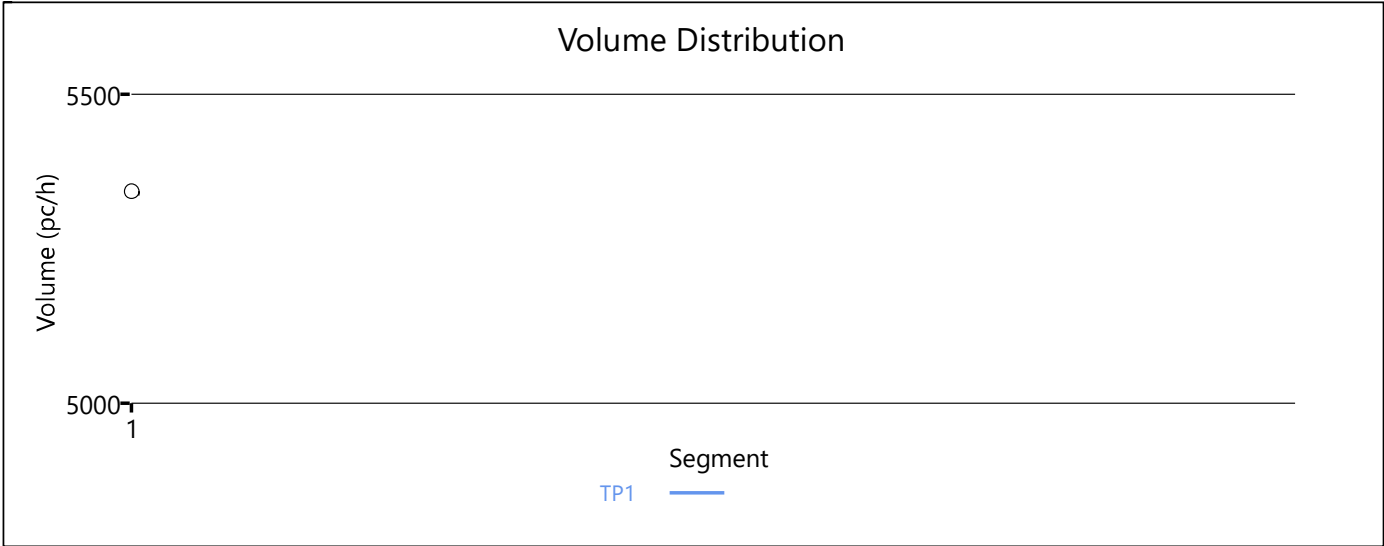
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	32.0	29.2	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	29.2
Average Travel Time, min	1.00	Density, pc/mi/ln	32.0

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.906	5144	8800	0.58	41.8	30.8	D

### Facility Time Period Results

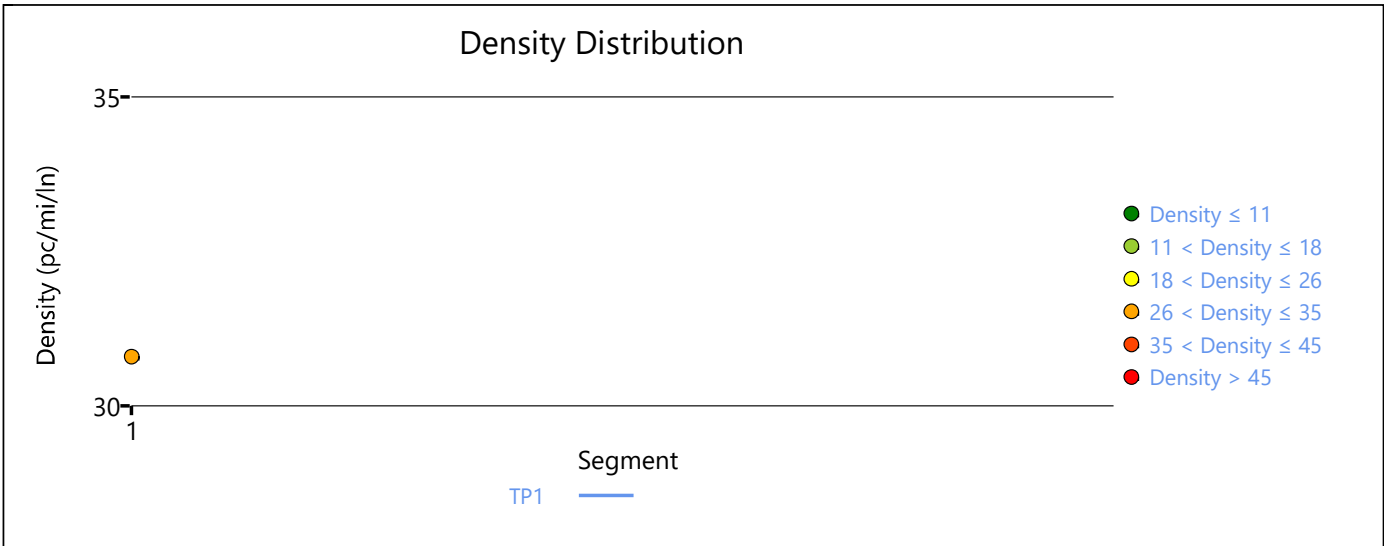
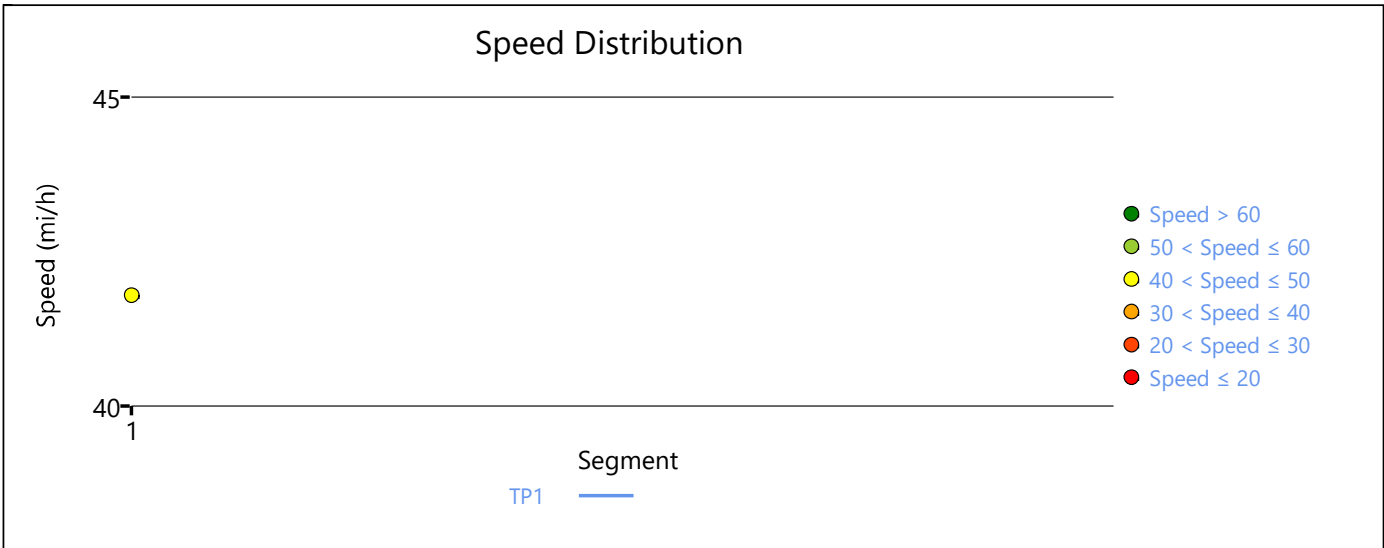
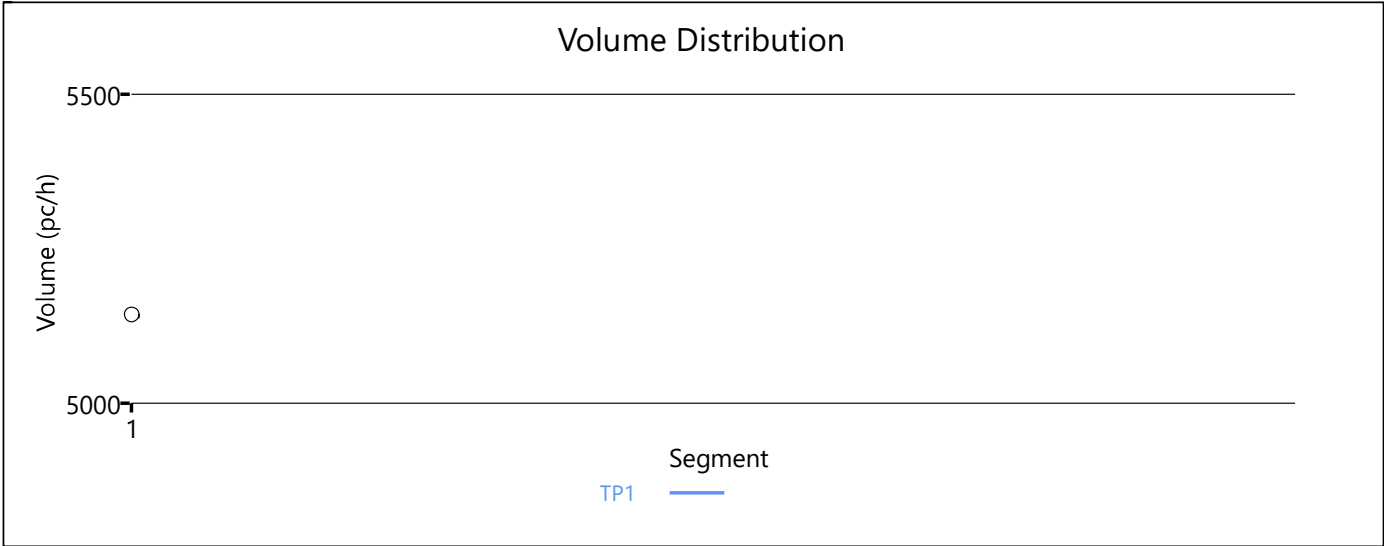
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	30.8	27.9	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	27.9
Average Travel Time, min	1.00	Density, pc/mi/ln	30.8

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.958	5224	8800	0.59	41.8	31.2	D

### Facility Time Period Results

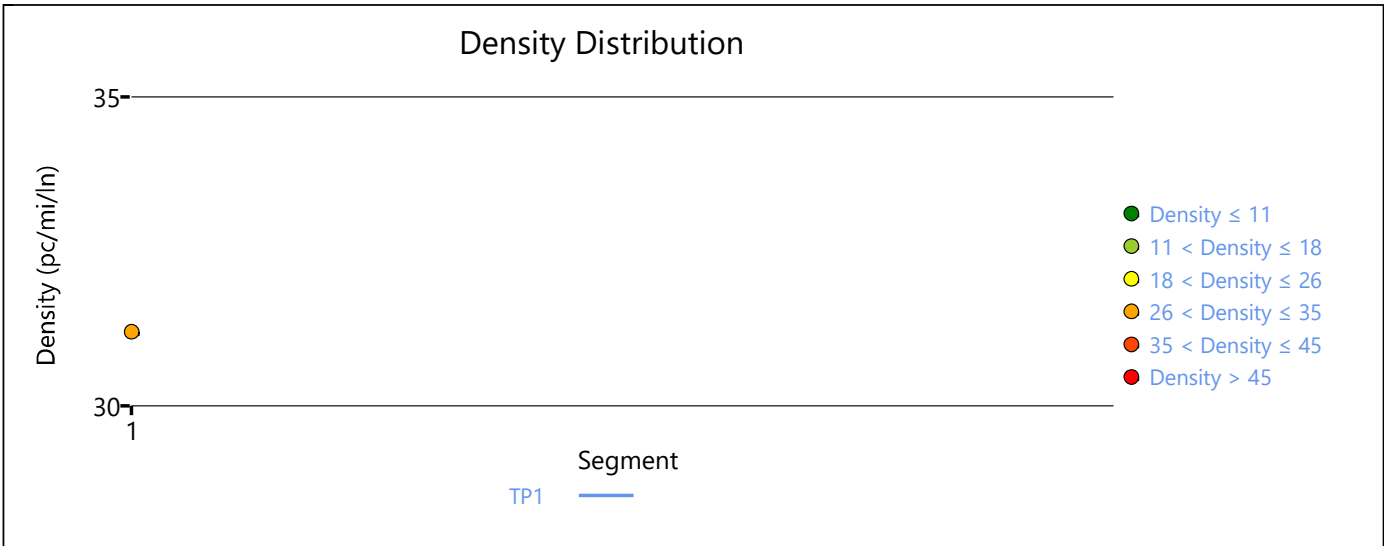
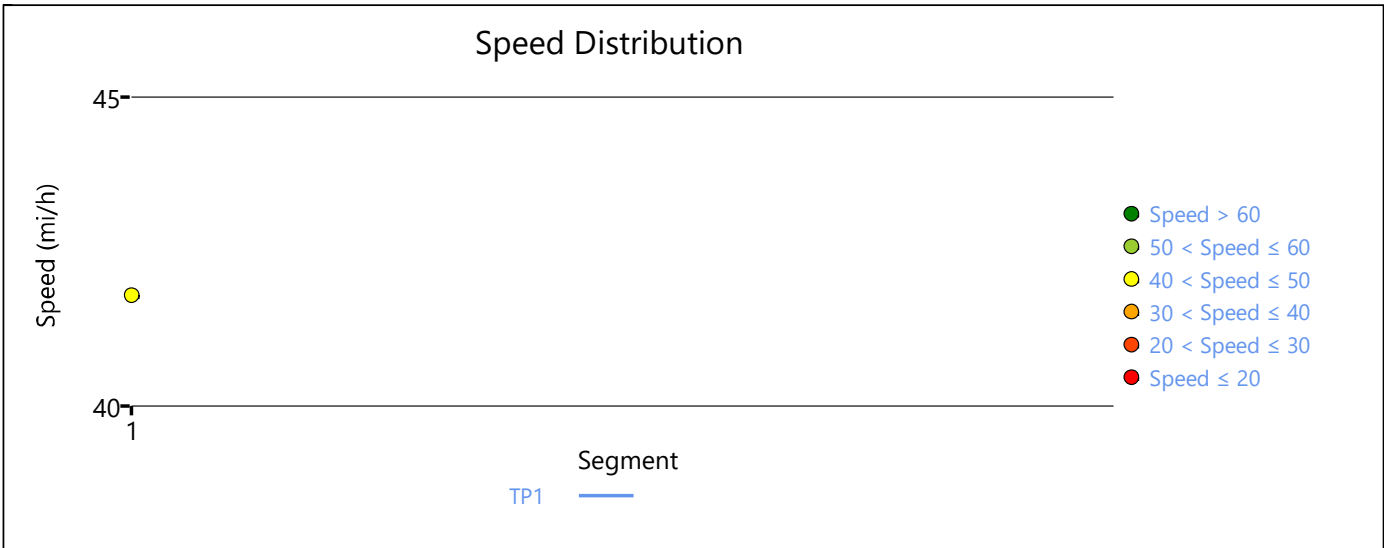
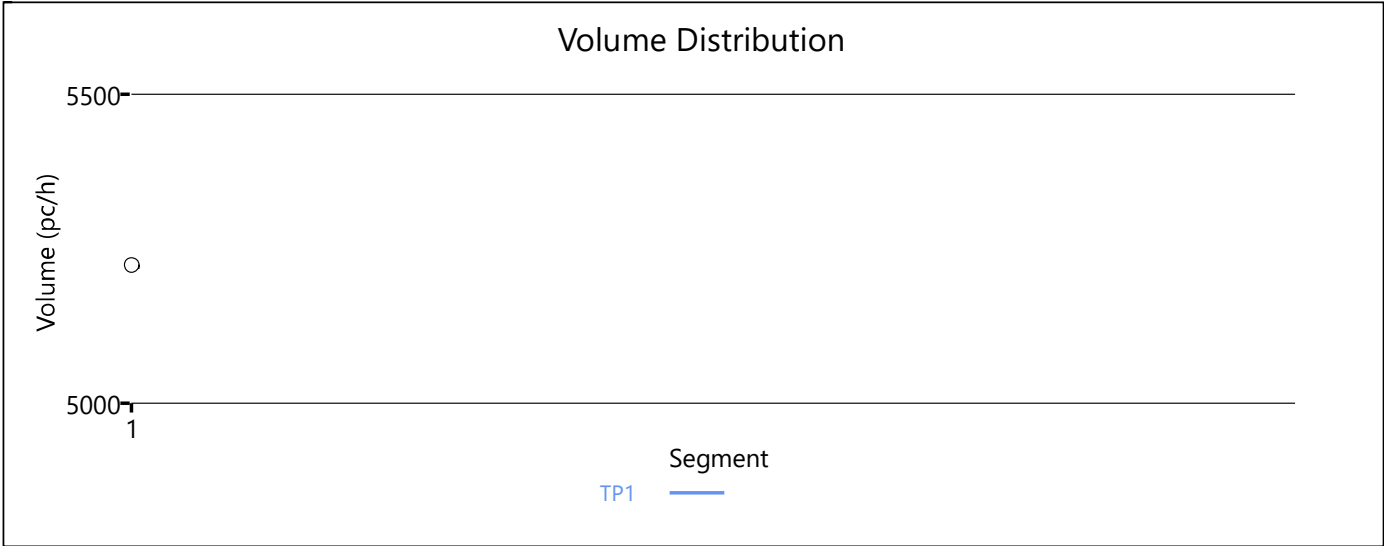
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	31.2	29.9	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	29.9
Average Travel Time, min	1.00	Density, pc/mi/ln	31.2

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.879	1048	8800	0.12	41.8	6.3	A

### Facility Time Period Results

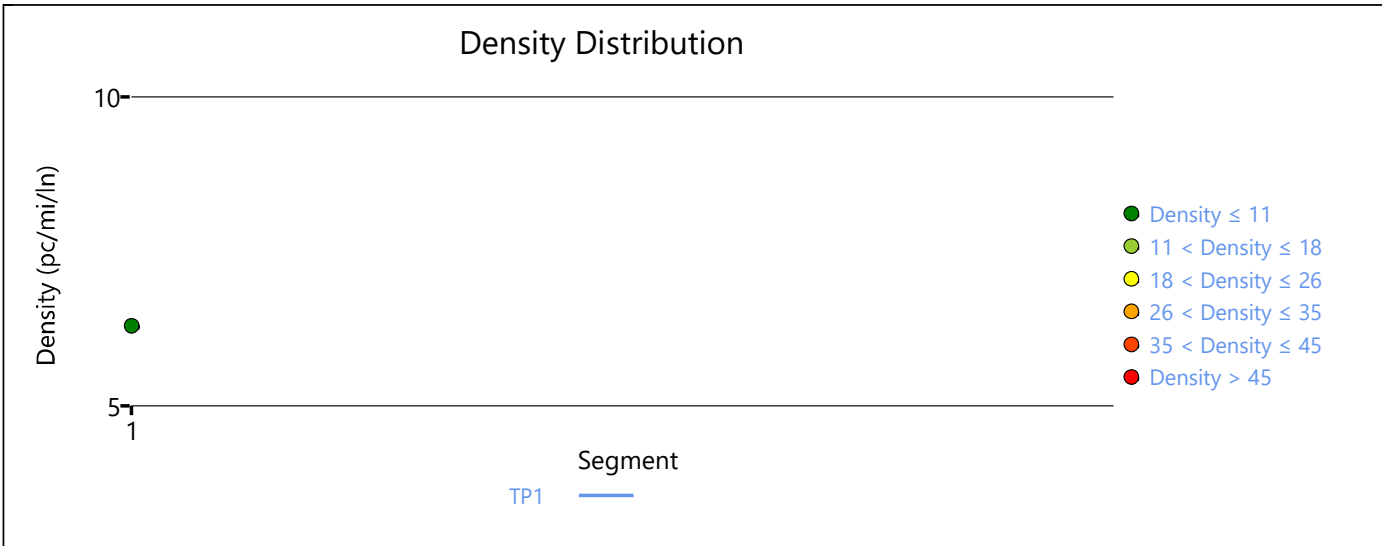
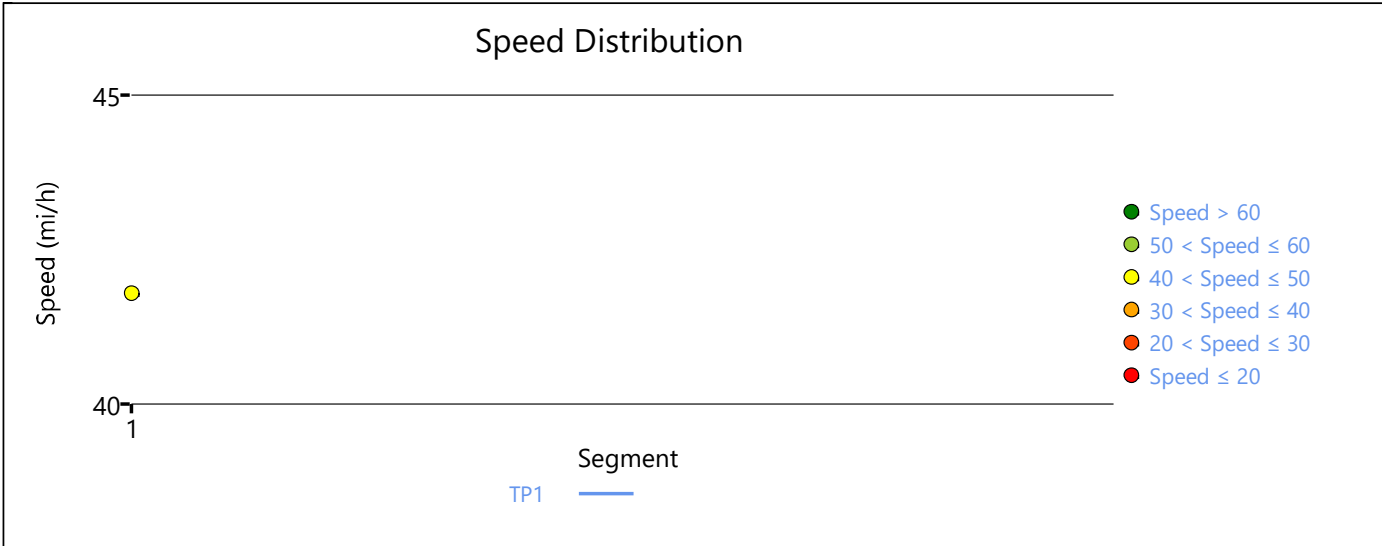
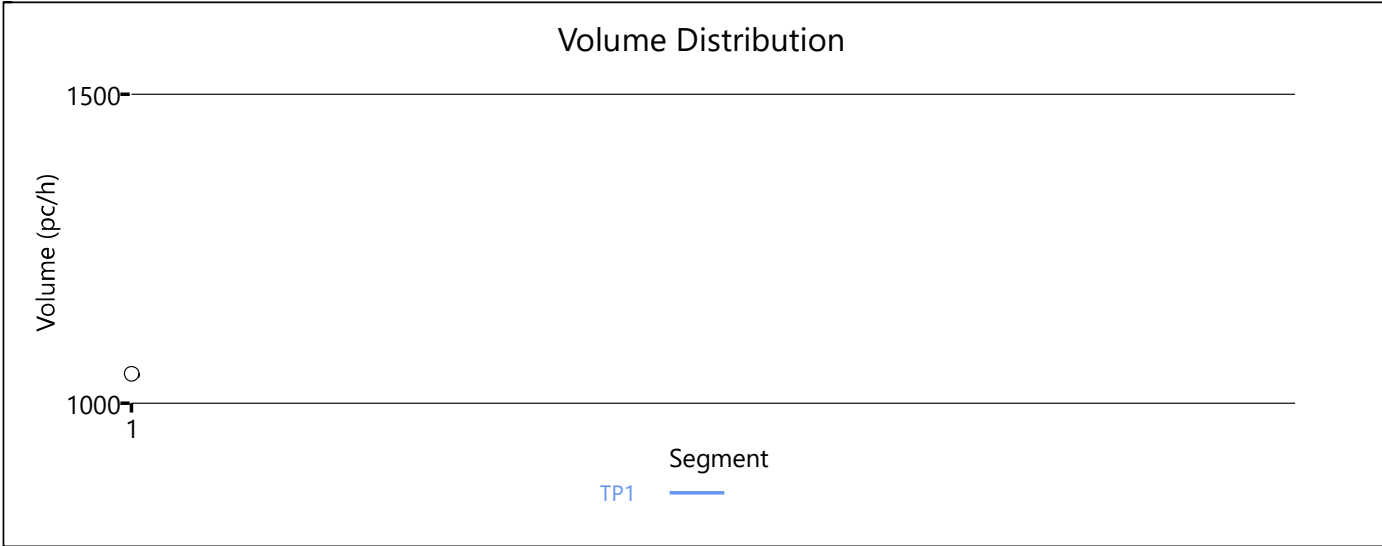
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	6.3	5.5	1.00	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.5
Average Travel Time, min	1.00	Density, pc/mi/ln	6.3

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	5949	8800	0.68	41.8	35.6	E

### Facility Time Period Results

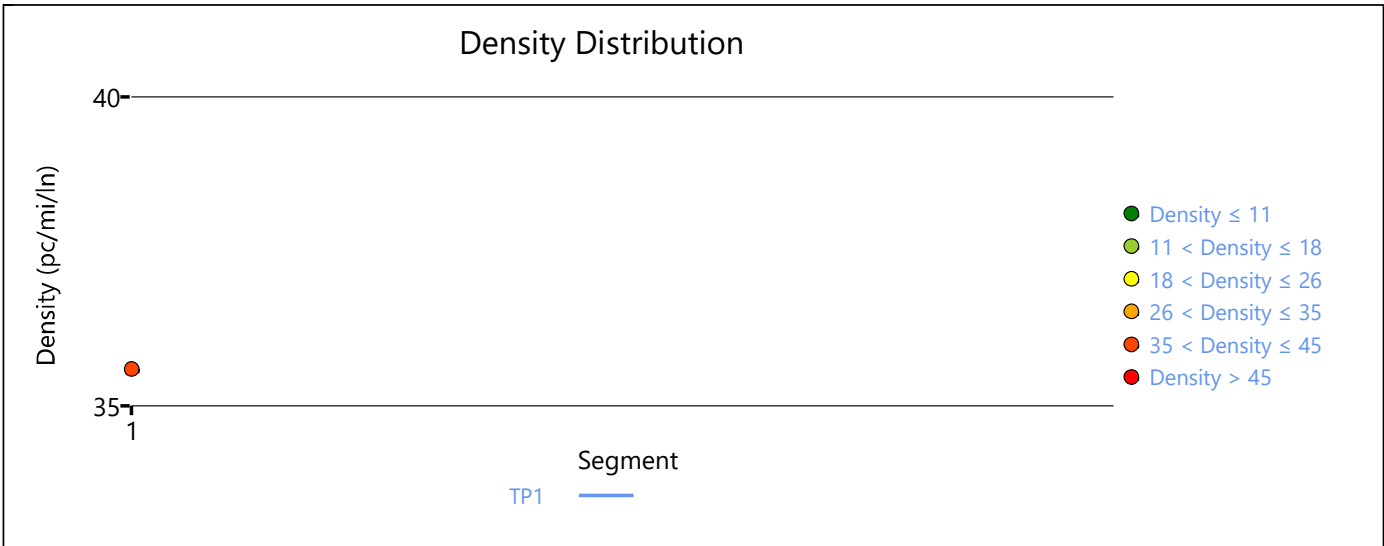
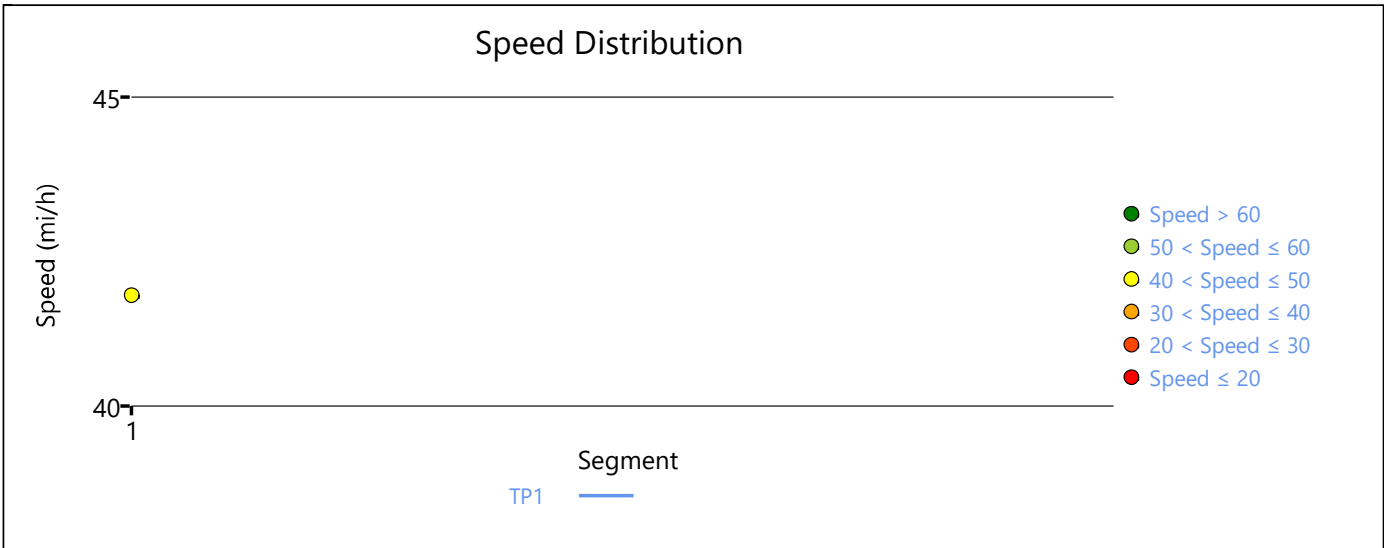
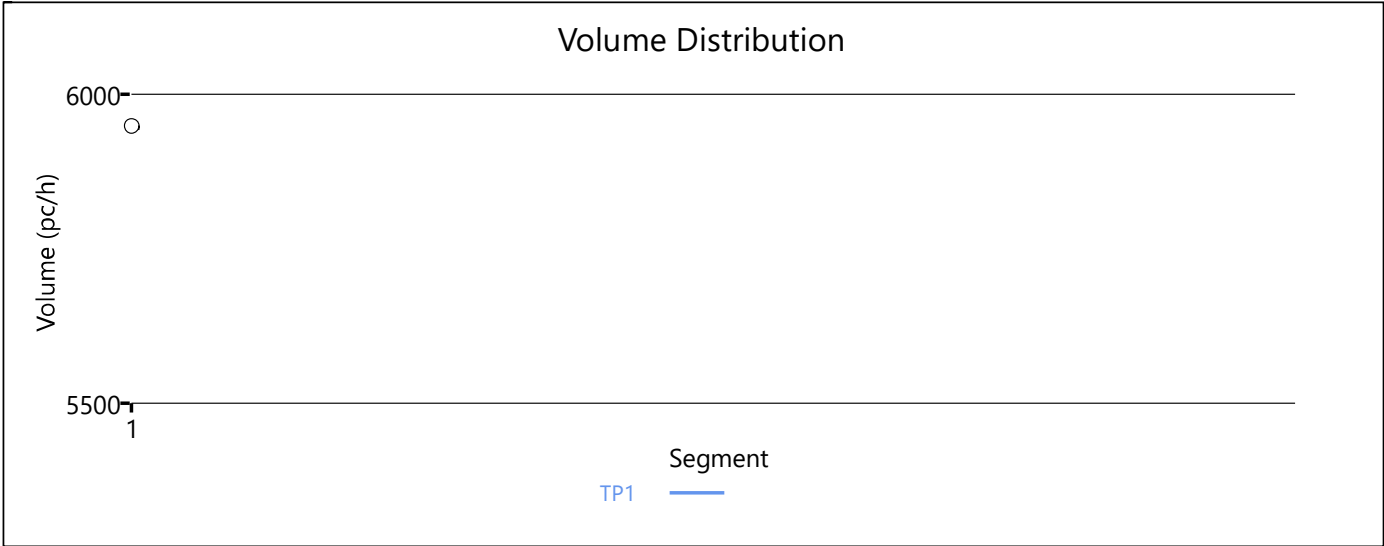
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	35.6	32.4	1.00	E

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	32.4
Average Travel Time, min	1.00	Density, pc/mi/ln	35.6

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.891	5542	8800	0.63	41.8	33.2	D

### Facility Time Period Results

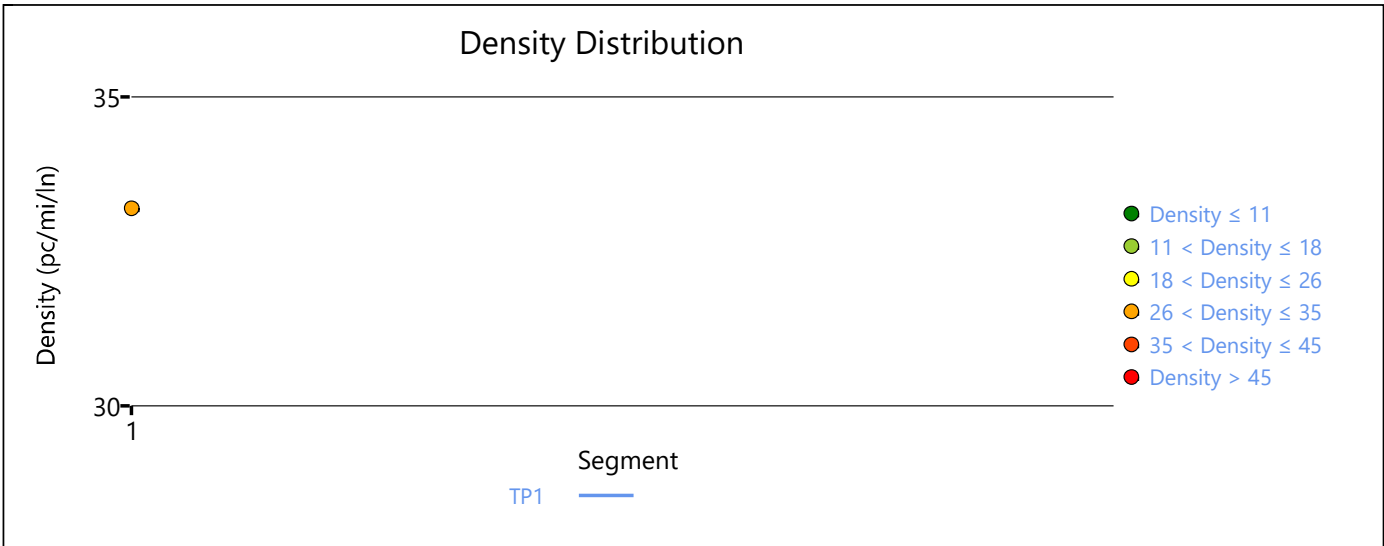
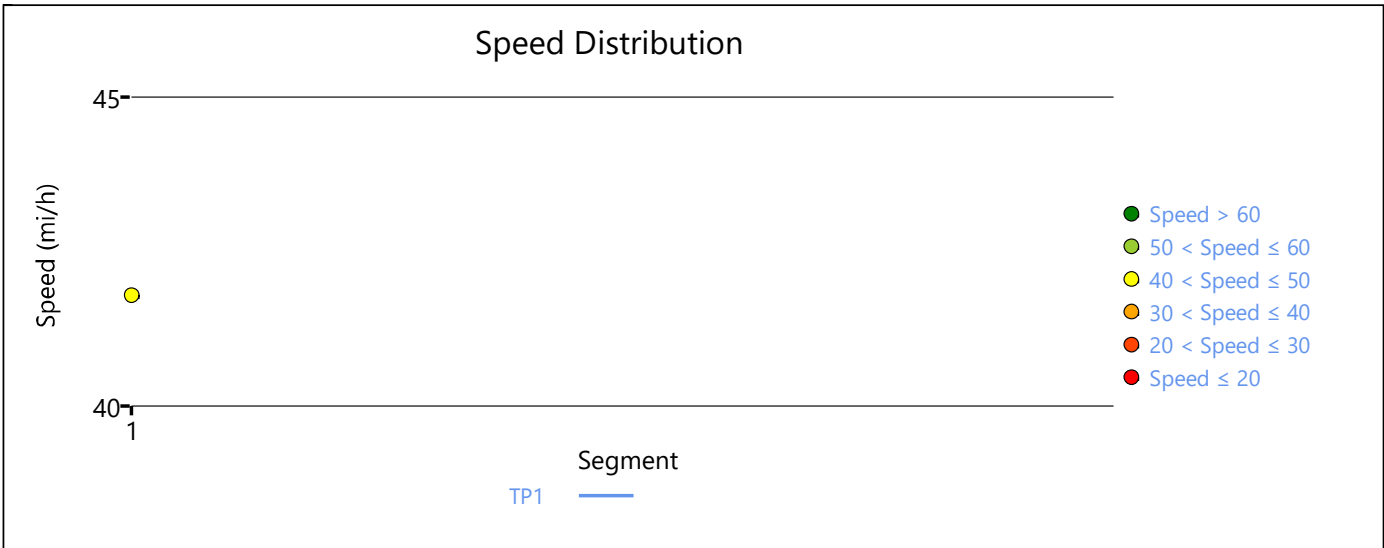
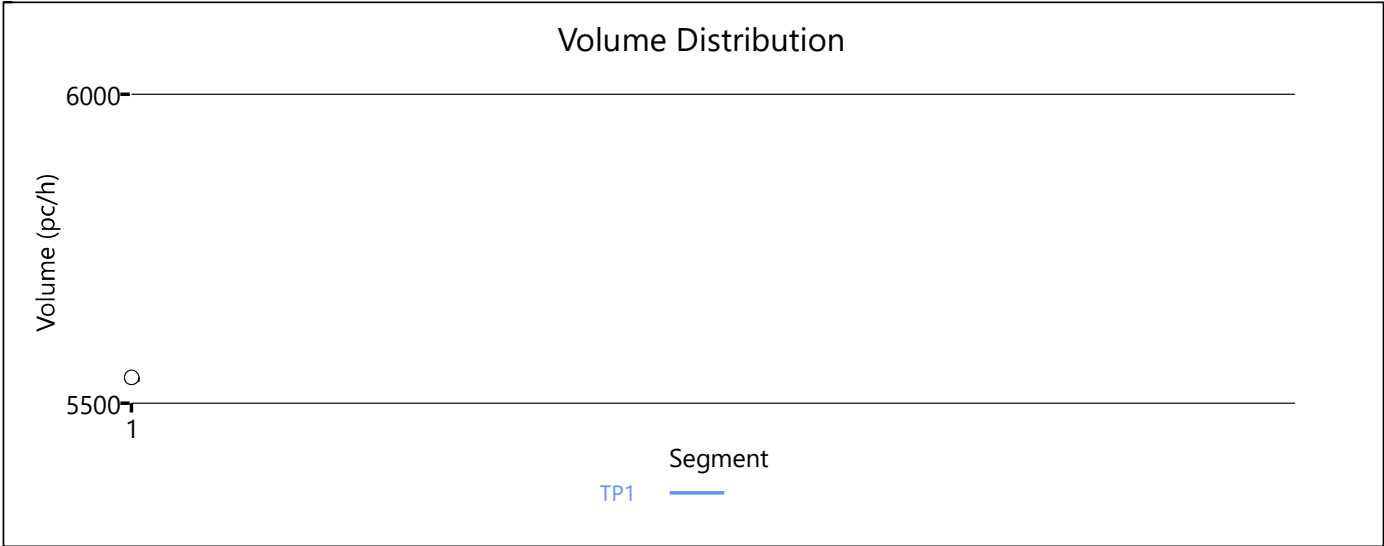
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	33.2	29.6	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	29.6
Average Travel Time, min	1.00	Density, pc/mi/ln	33.2

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.952	5964	8800	0.68	41.8	35.7	E

### Facility Time Period Results

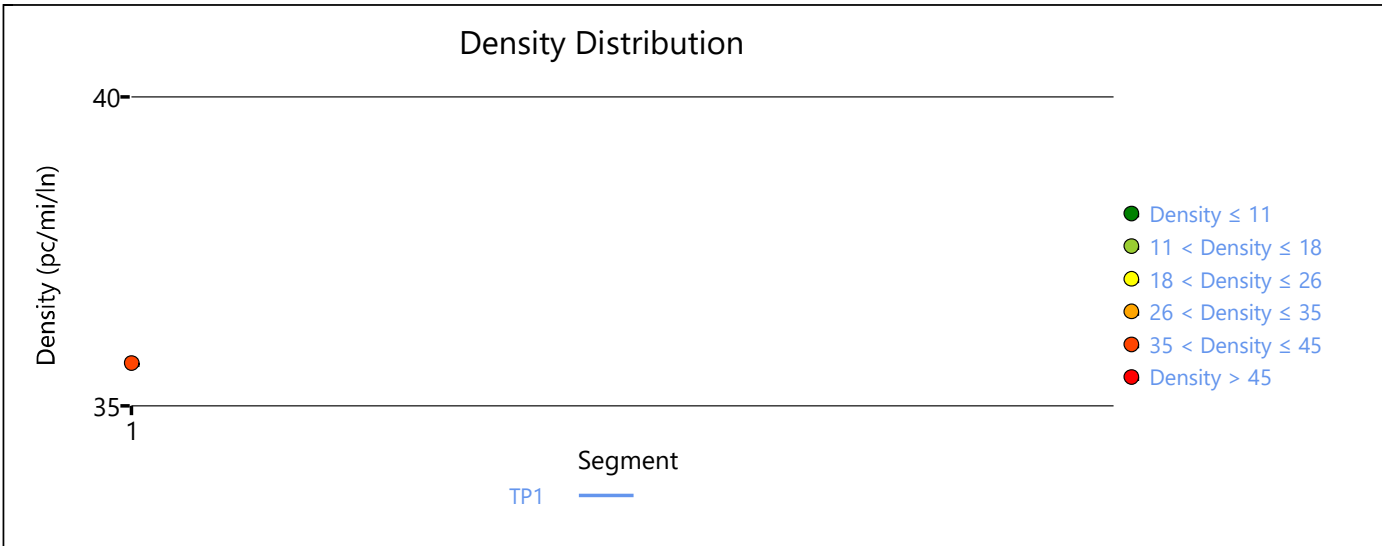
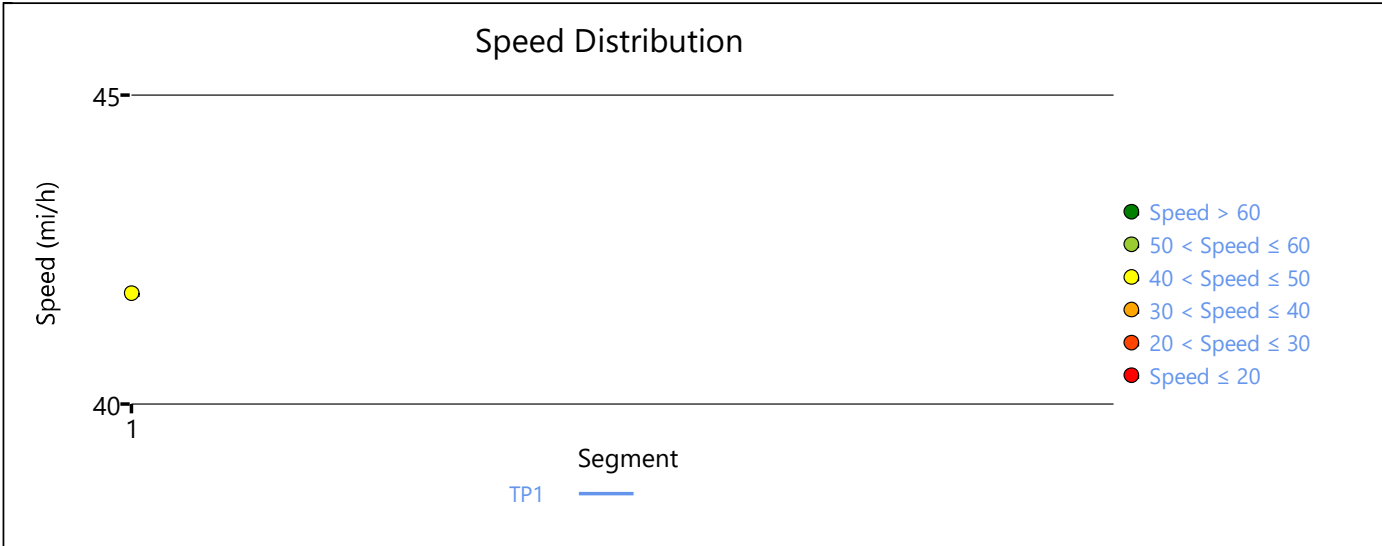
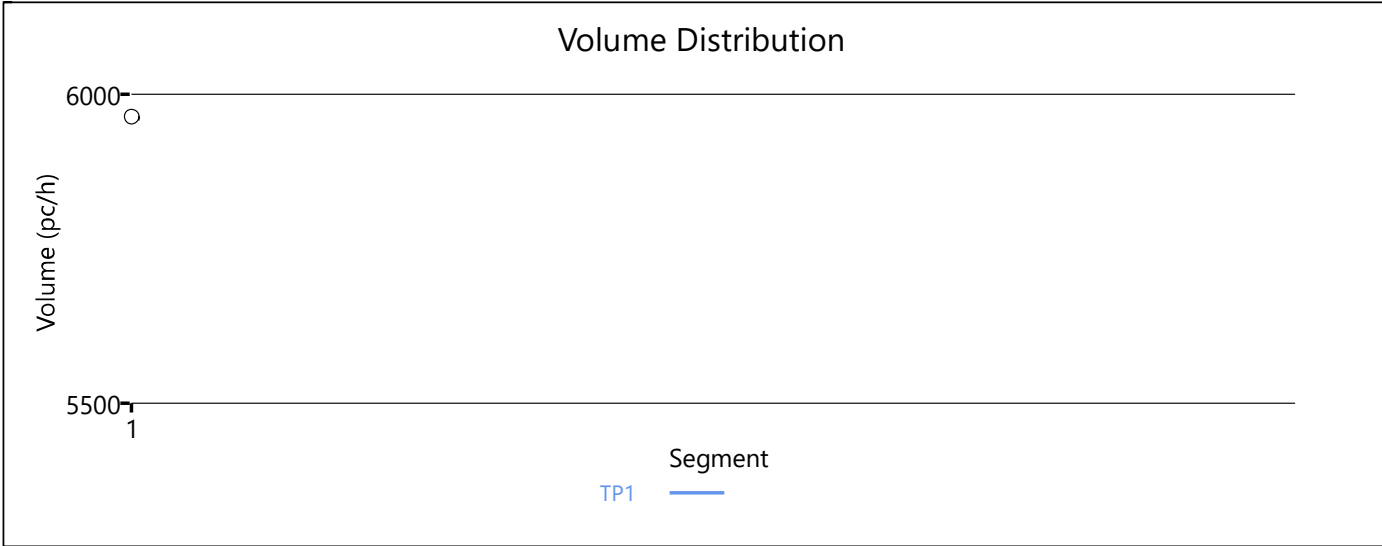
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	35.7	34.0	1.00	E

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	34.0
Average Travel Time, min	1.00	Density, pc/mi/ln	35.7

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.870	1173	8800	0.13	41.8	7.0	A

### Facility Time Period Results

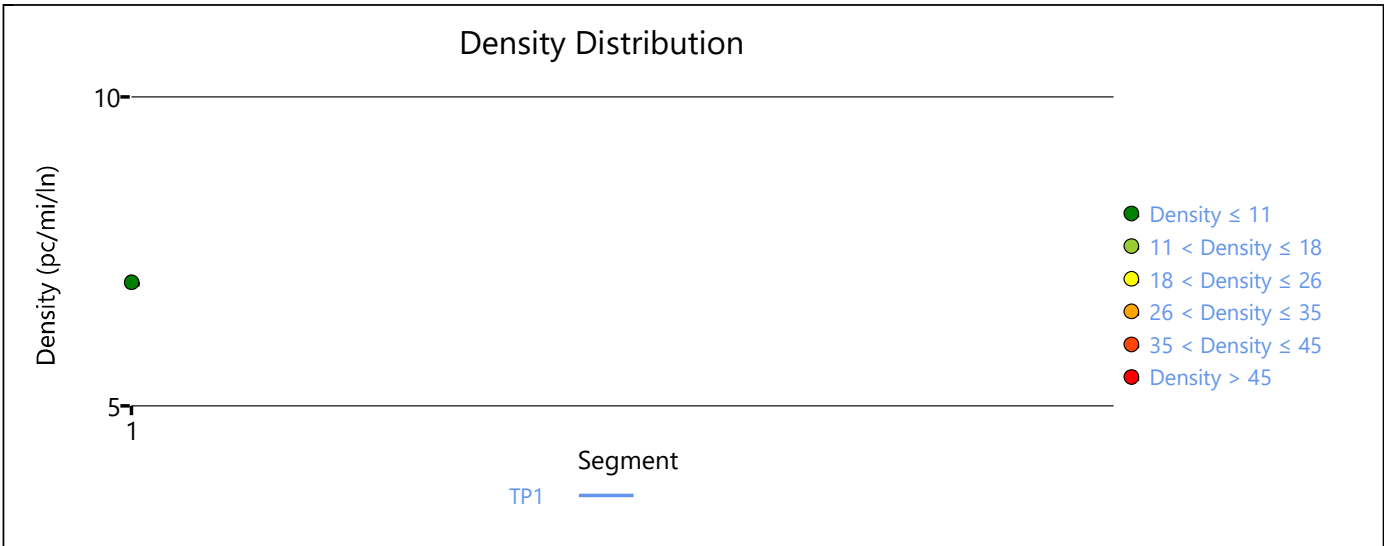
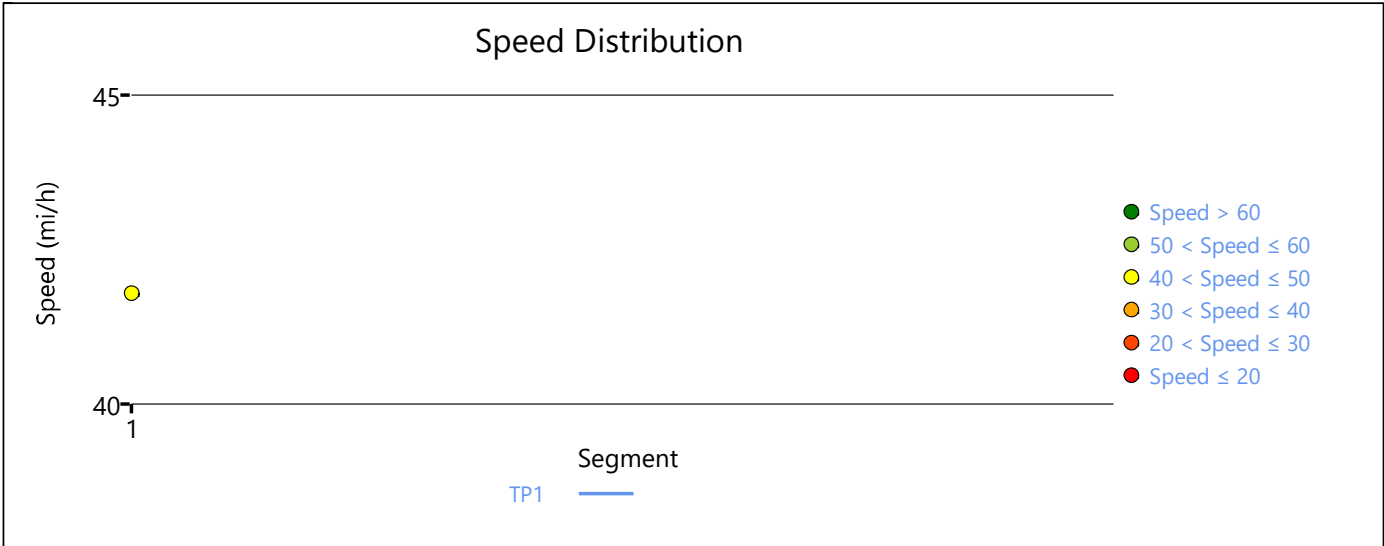
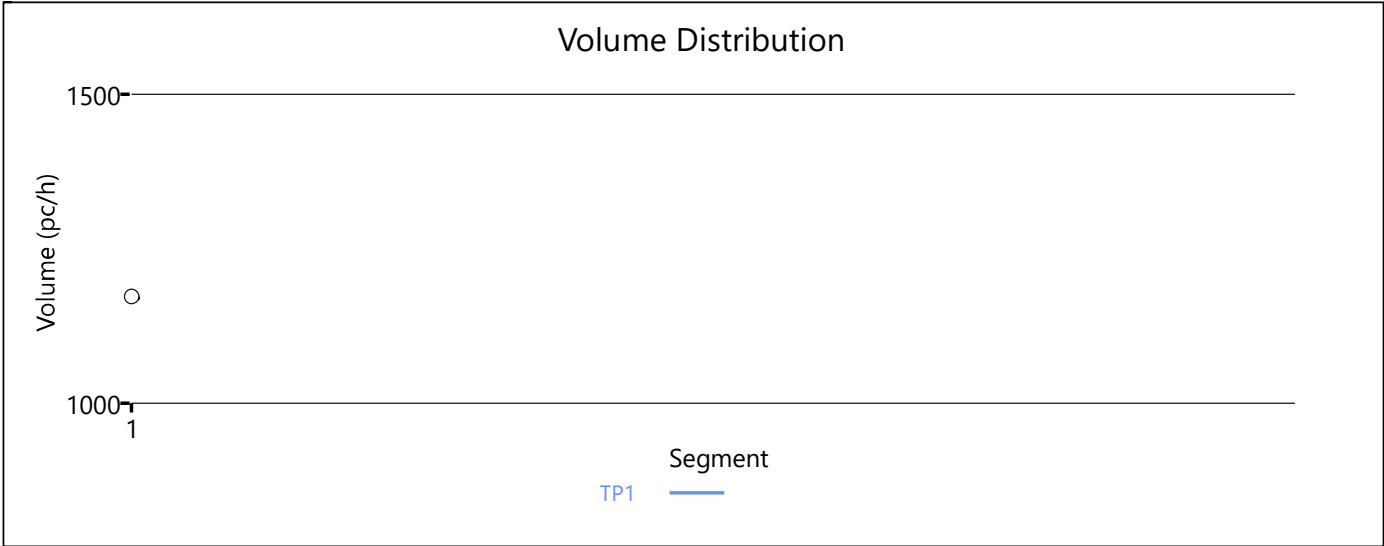
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	7.0	6.1	1.00	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	6.1
Average Travel Time, min	1.00	Density, pc/mi/ln	7.0

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.917	6409	8800	0.73	41.8	38.3	E

### Facility Time Period Results

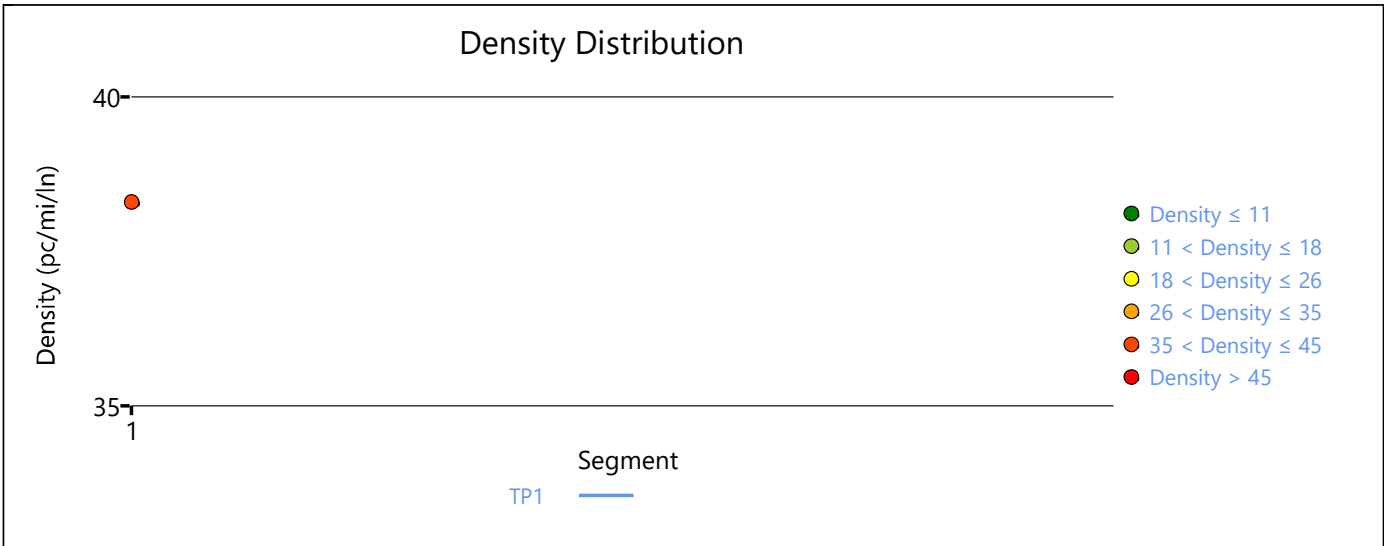
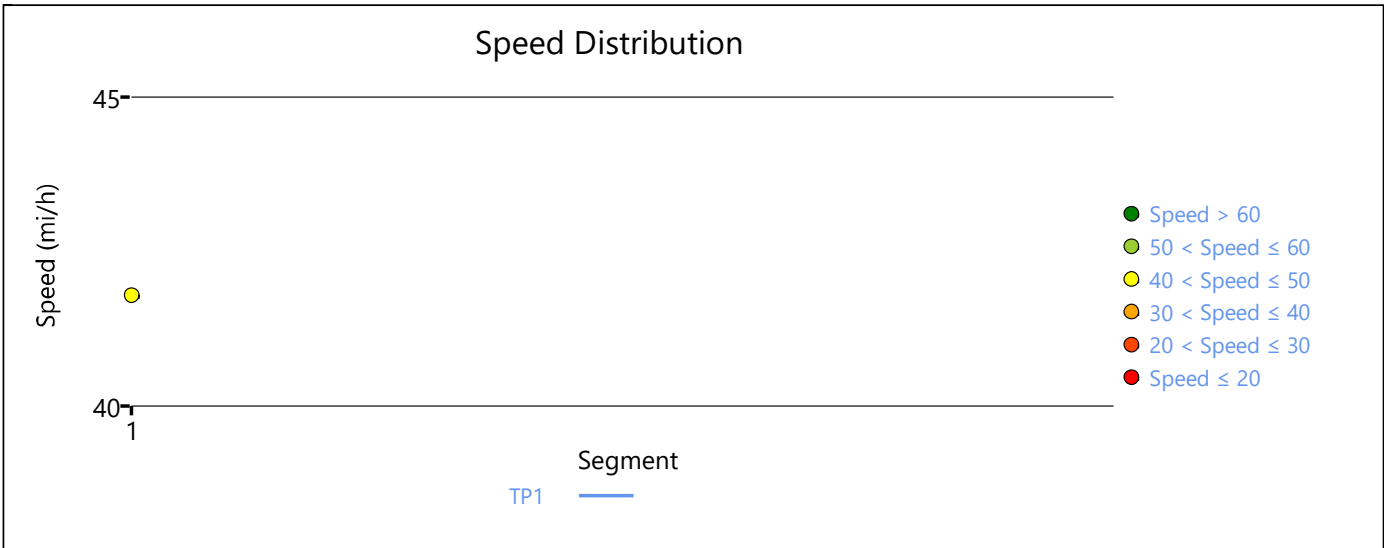
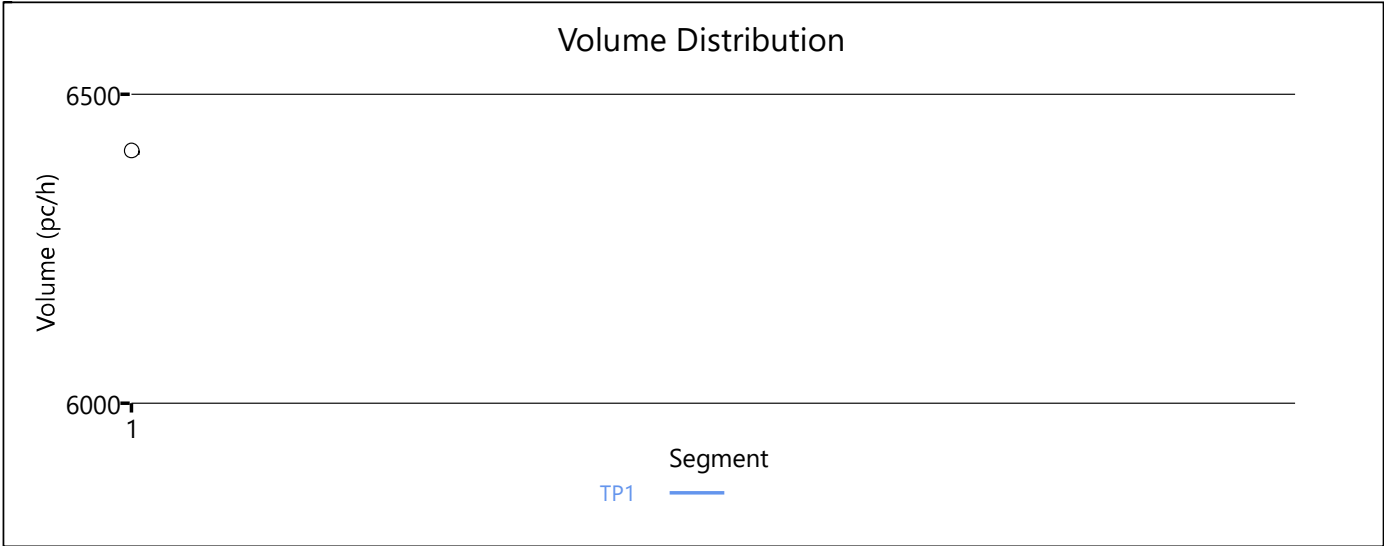
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	38.3	35.1	1.00	E

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	35.1
Average Travel Time, min	1.00	Density, pc/mi/ln	38.3

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.888	4822	8800	0.55	41.8	28.9	D

### Facility Time Period Results

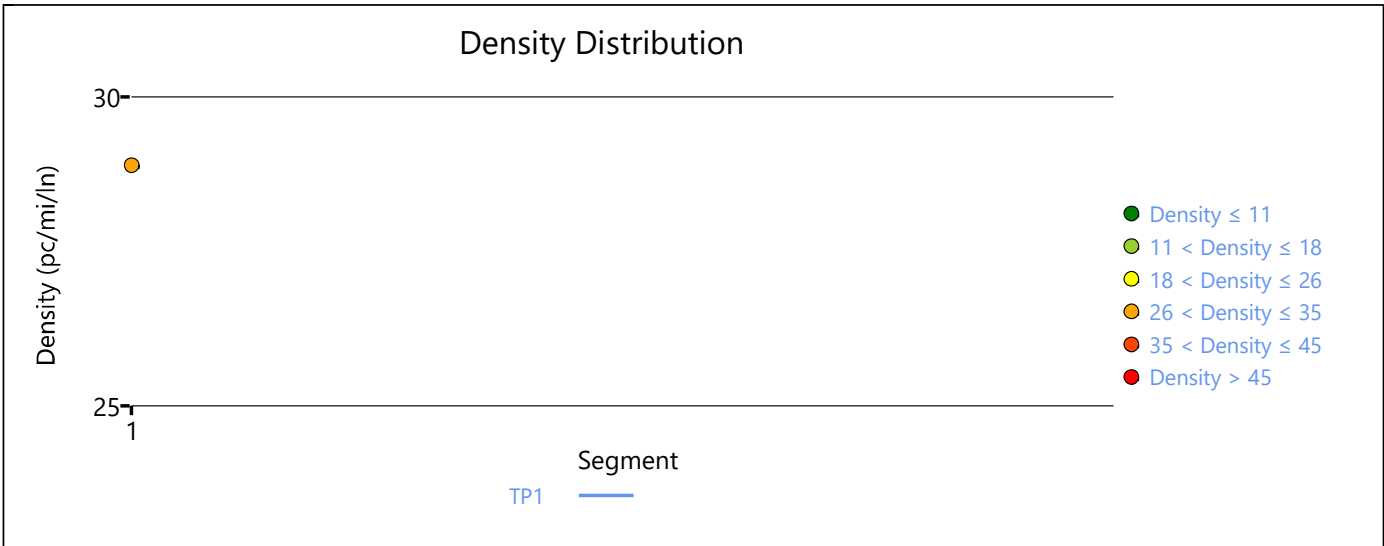
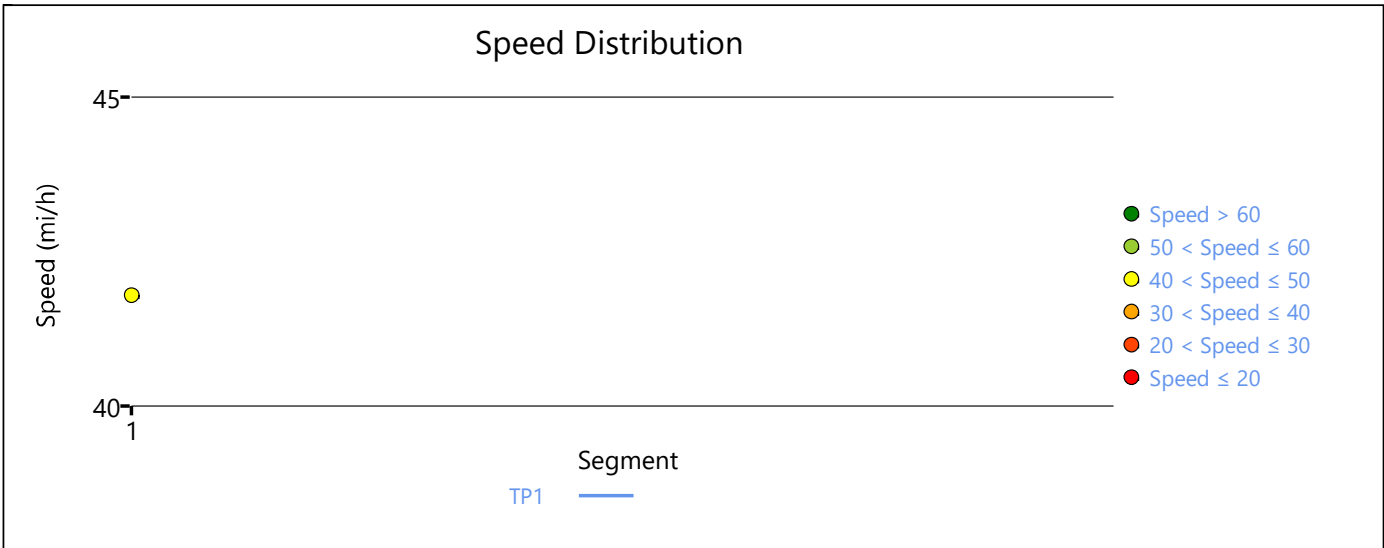
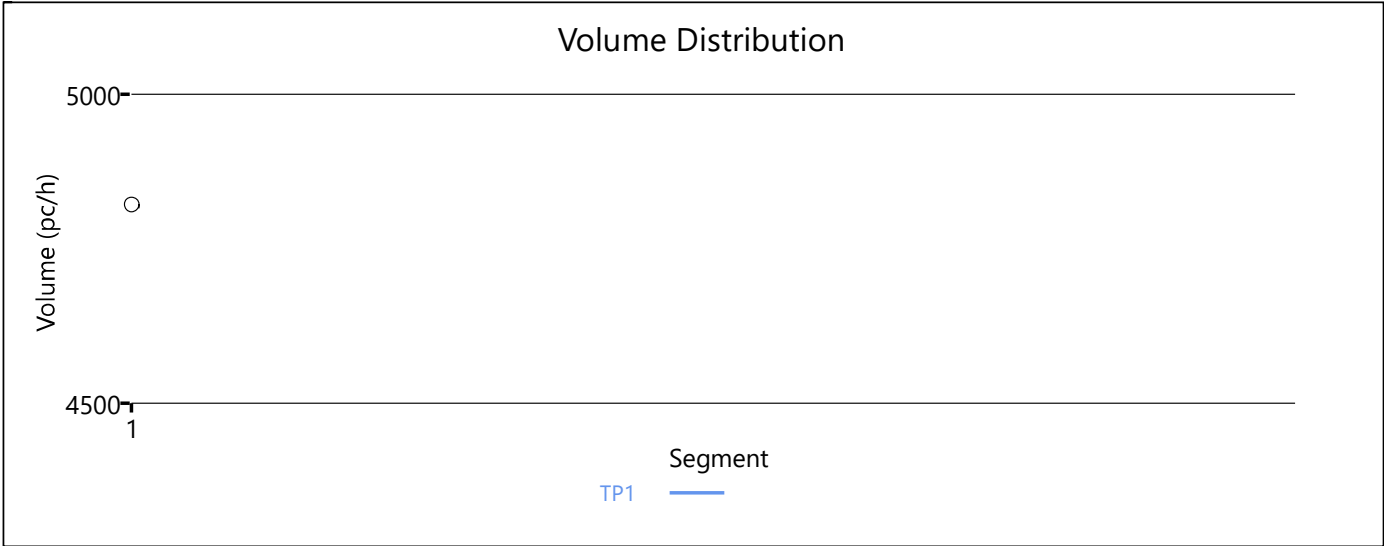
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	28.9	25.7	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	25.7
Average Travel Time, min	1.00	Density, pc/mi/ln	28.9

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.951	5545	8800	0.63	41.8	33.2	D

### Facility Time Period Results

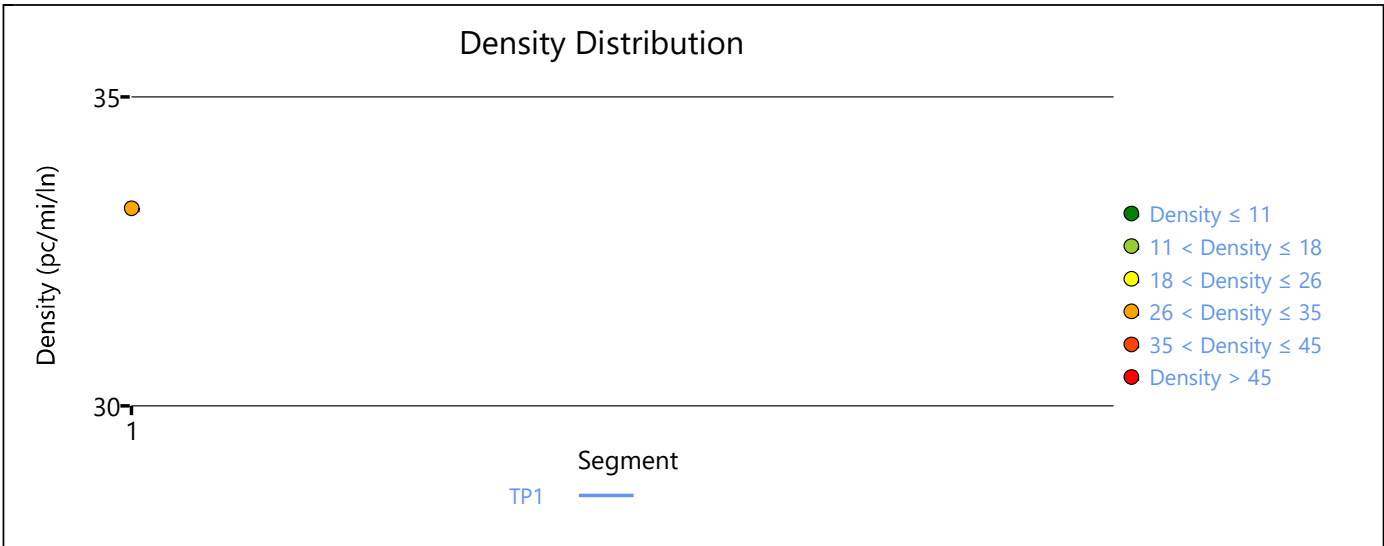
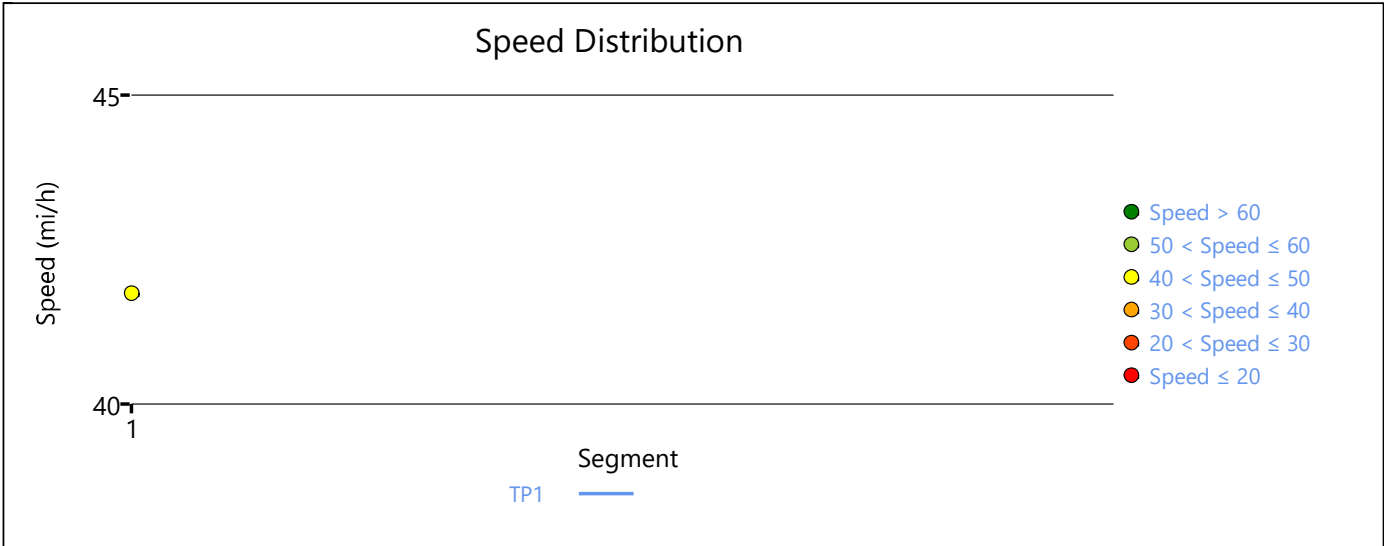
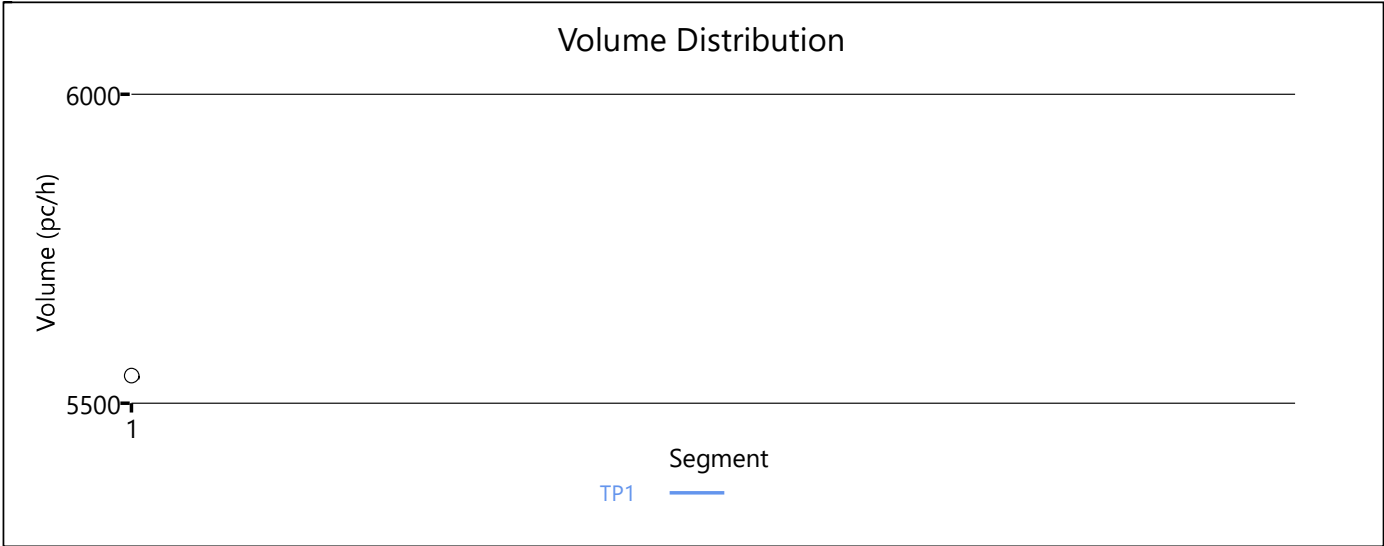
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	33.2	31.6	1.00	D

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	31.6
Average Travel Time, min	1.00	Density, pc/mi/ln	33.2

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	0.69		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.924	1665	8800	0.19	41.8	10.0	A

### Facility Time Period Results

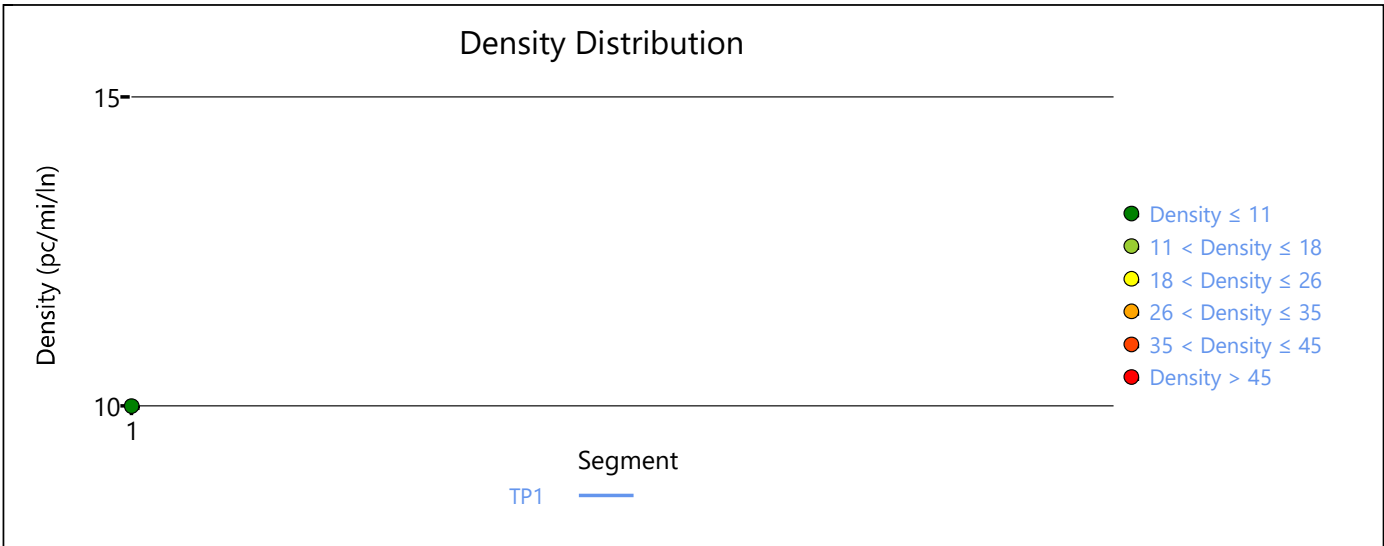
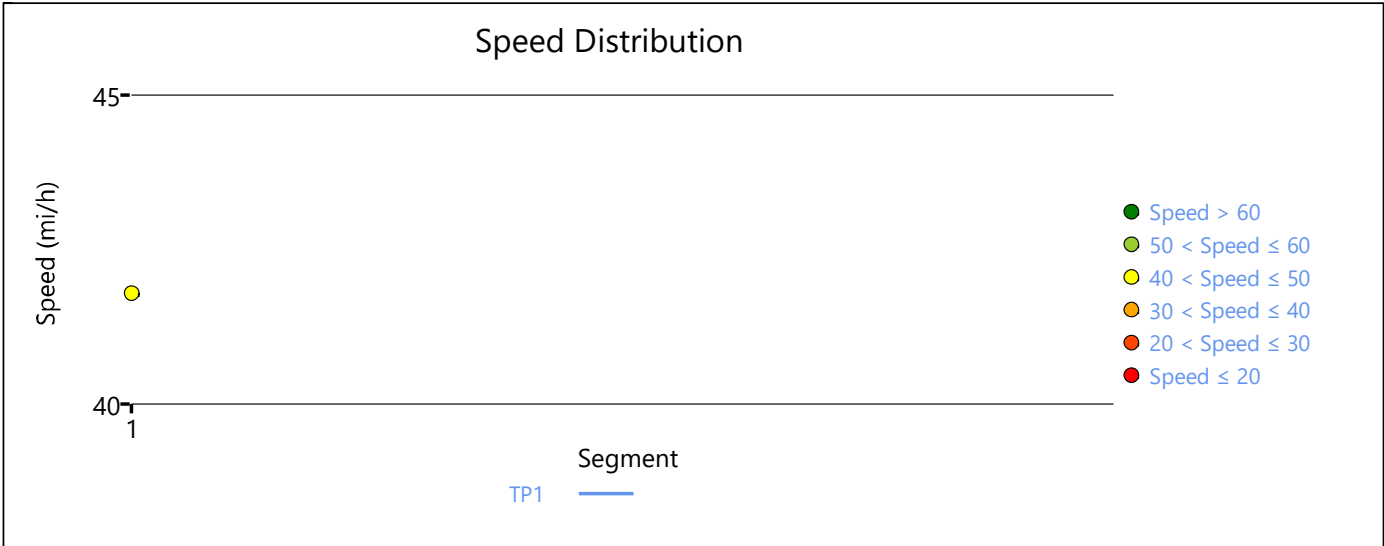
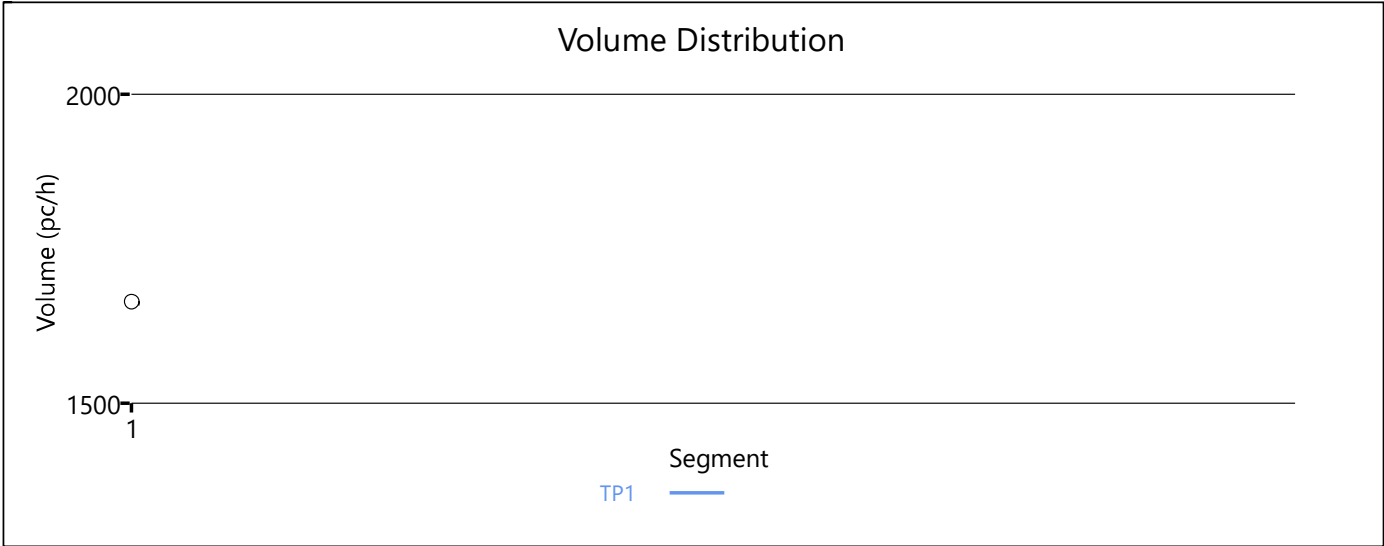
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.0	9.2	1.00	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	9.2
Average Travel Time, min	1.00	Density, pc/mi/ln	10.0

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.888	1288	4400	0.29	41.8	15.4	B

### Facility Time Period Results

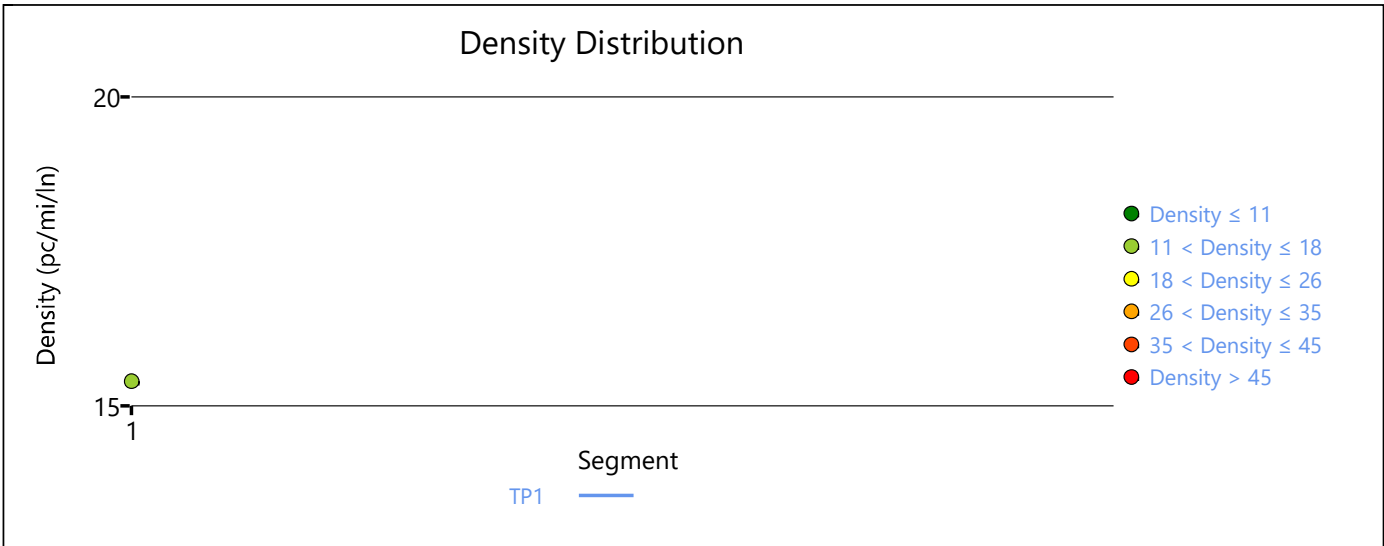
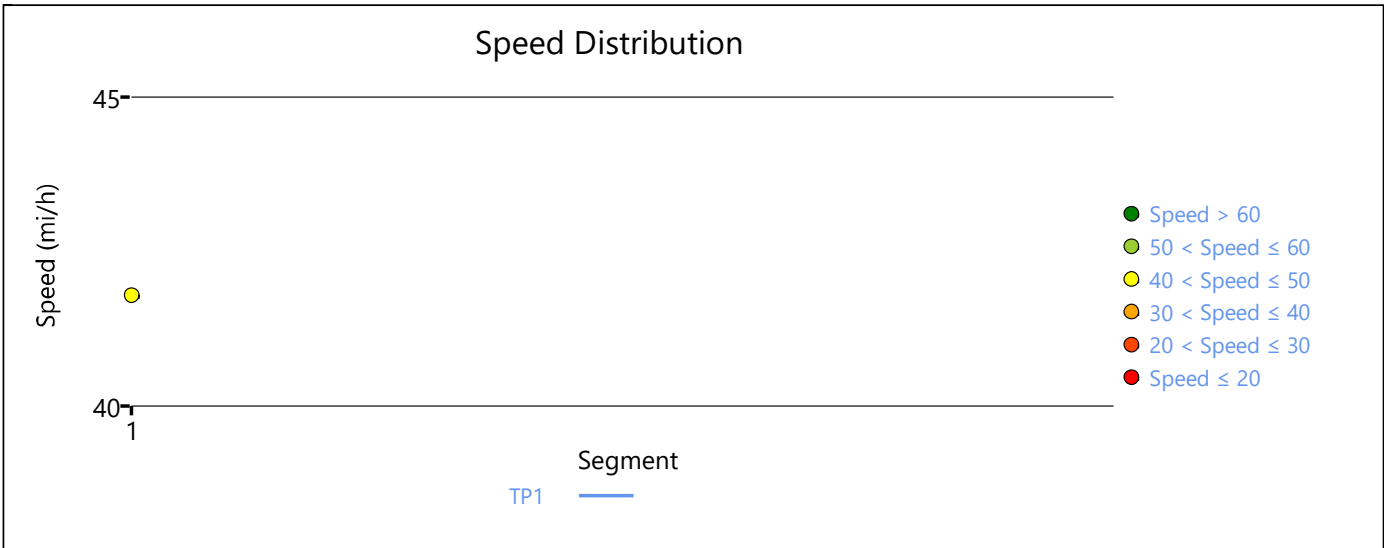
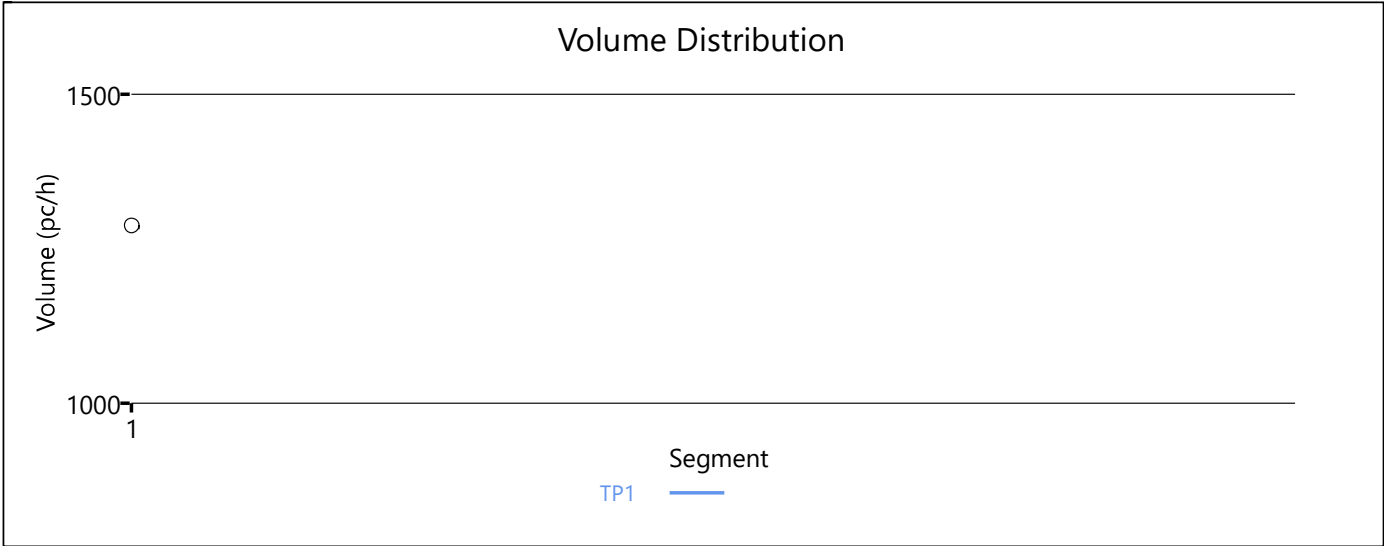
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	15.4	13.7	1.40	B

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	13.7
Average Travel Time, min	1.40	Density, pc/mi/ln	15.4

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.792	617	4400	0.14	41.8	7.4	A

### Facility Time Period Results

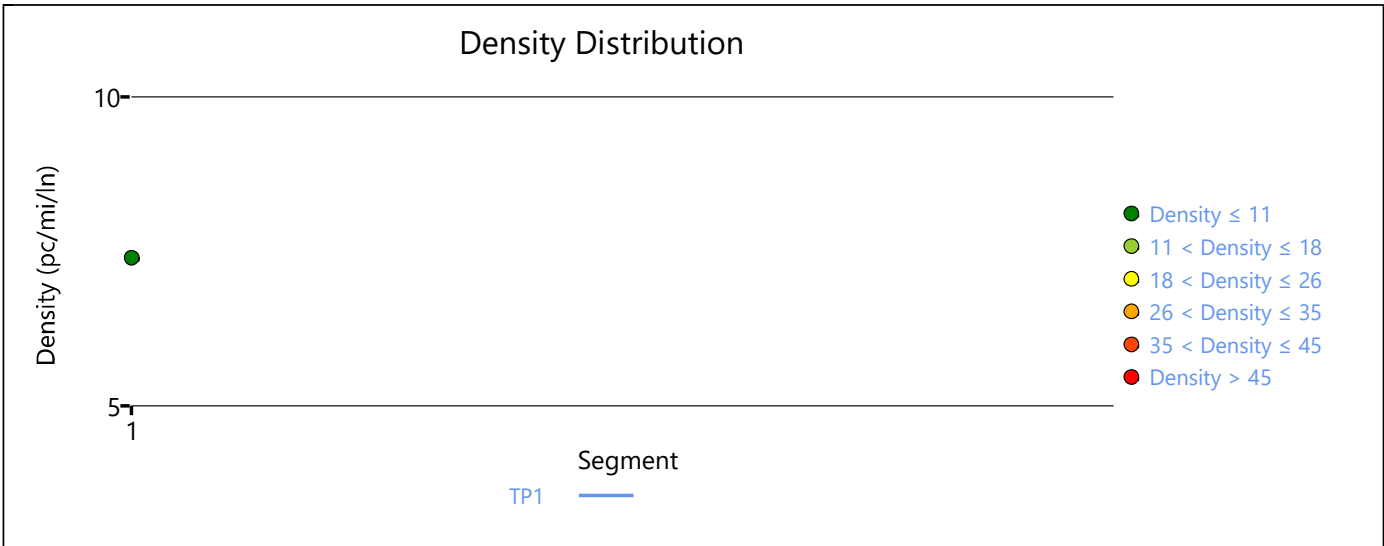
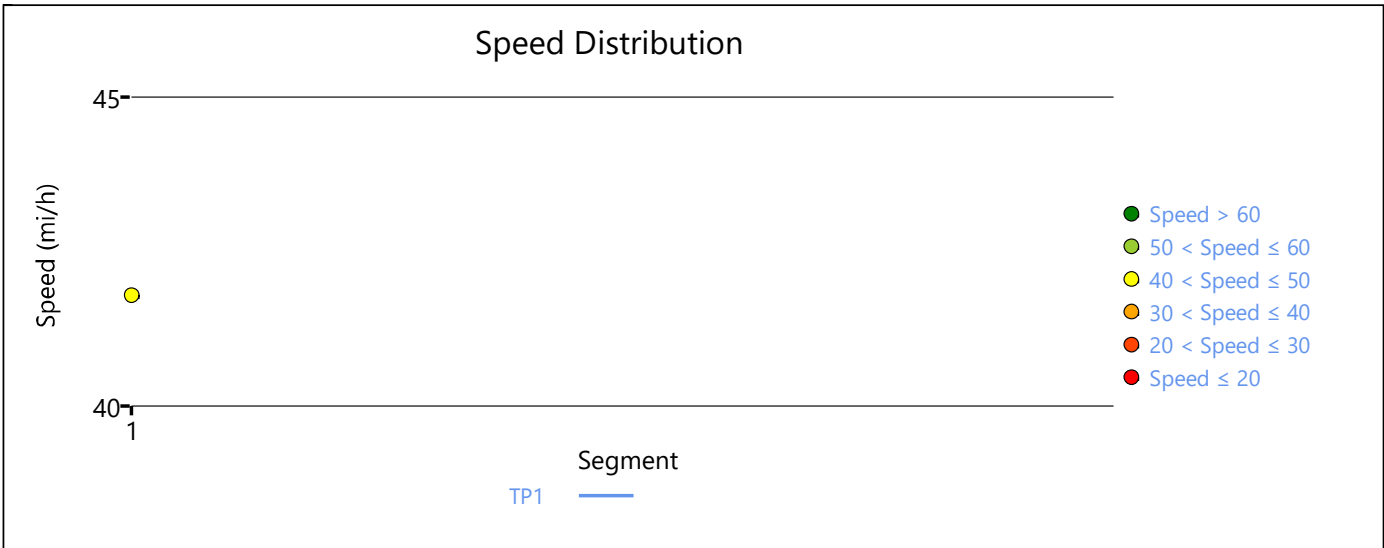
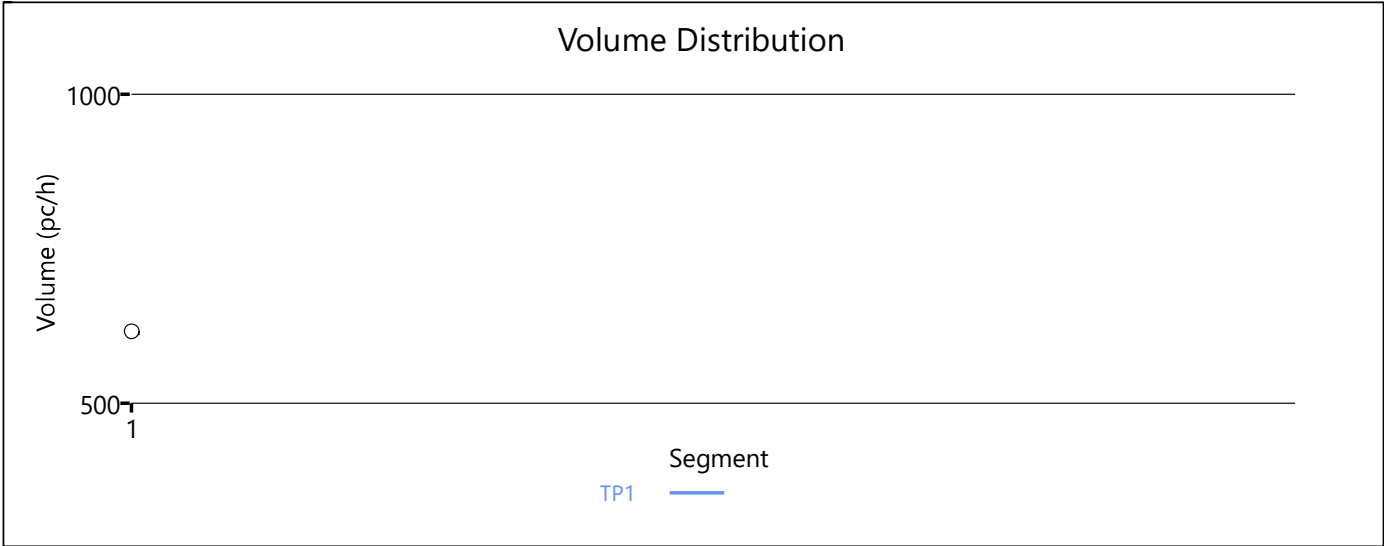
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	7.4	5.9	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.9
Average Travel Time, min	1.40	Density, pc/mi/ln	7.4

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.919	652	4400	0.15	41.8	7.8	A

### Facility Time Period Results

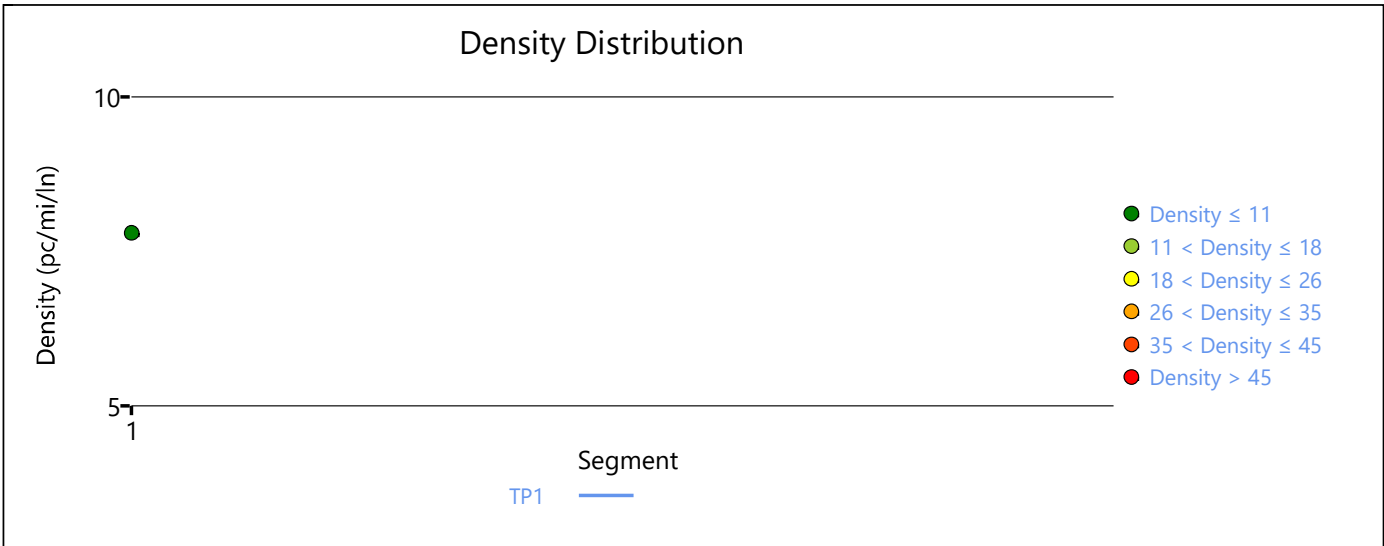
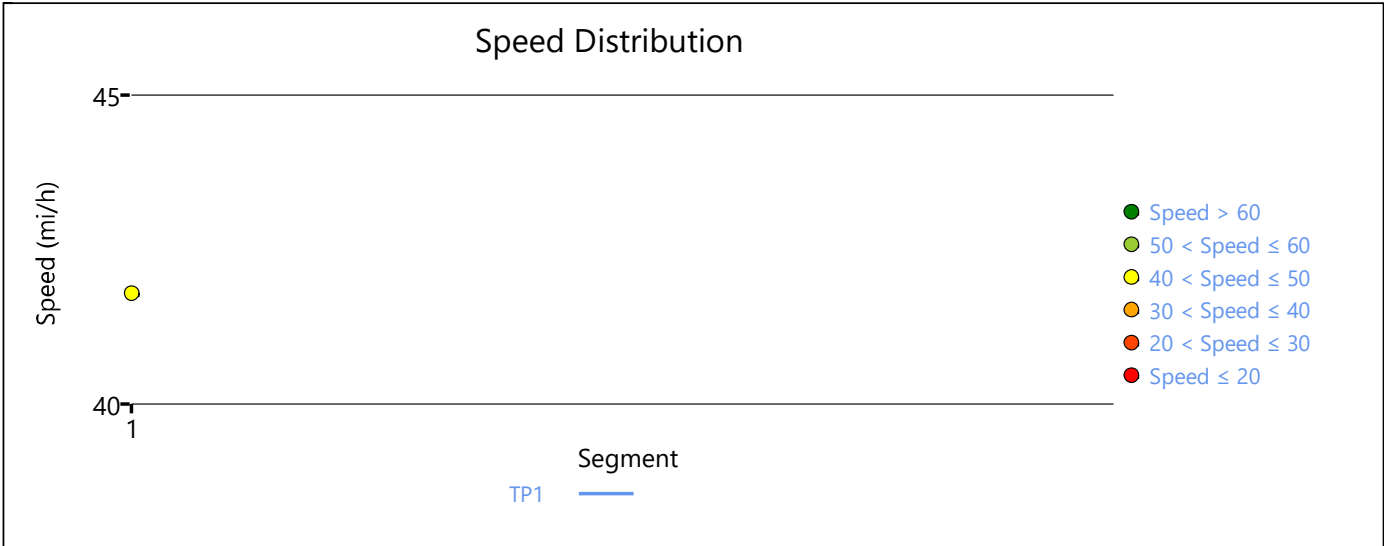
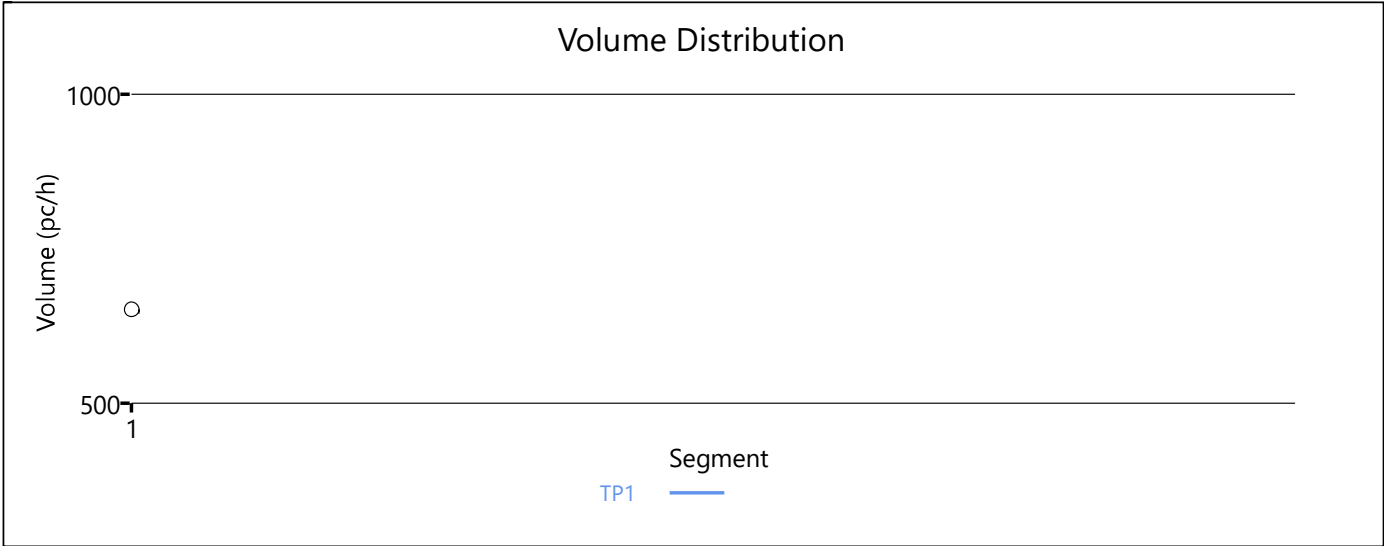
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	7.8	7.2	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	7.2
Average Travel Time, min	1.40	Density, pc/mi/ln	7.8

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.847	217	4400	0.05	41.8	2.6	A

### Facility Time Period Results

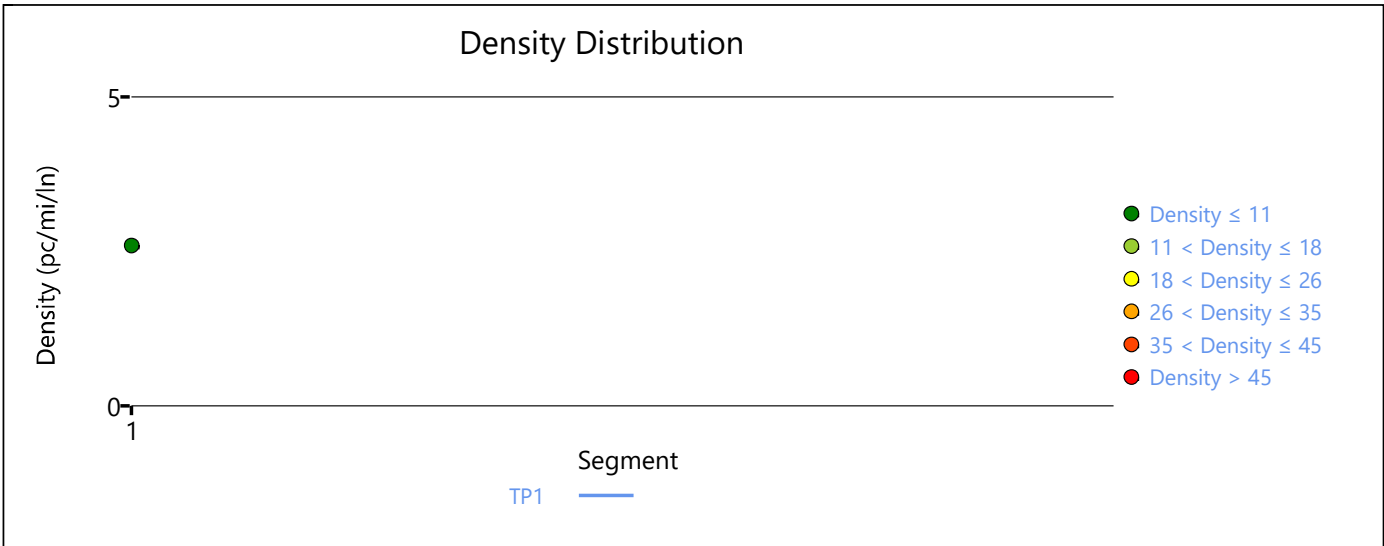
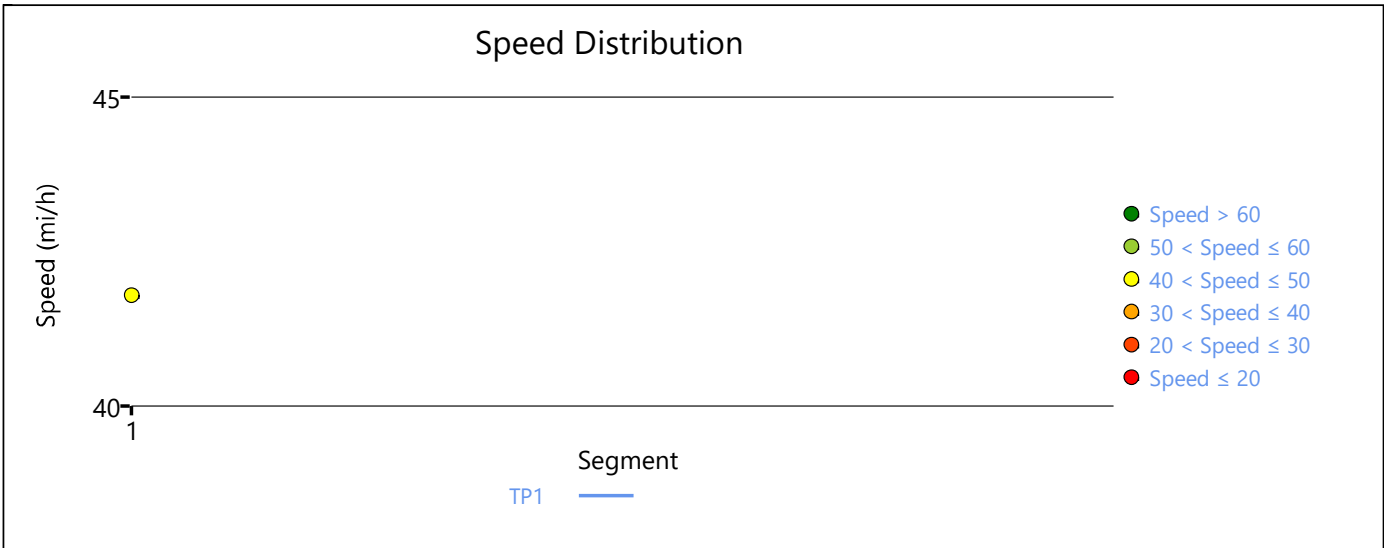
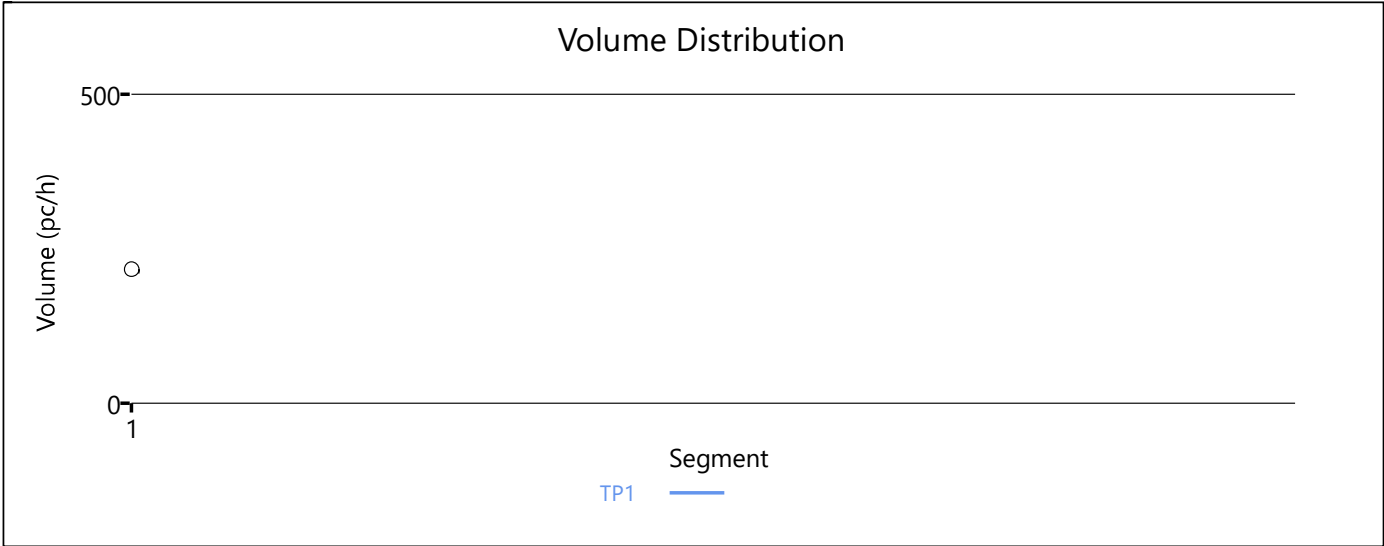
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	2.6	2.2	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.2
Average Travel Time, min	1.40	Density, pc/mi/ln	2.6

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.797	880	4400	0.20	41.8	10.5	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.5	8.4	1.40	A

### Facility Overall Results

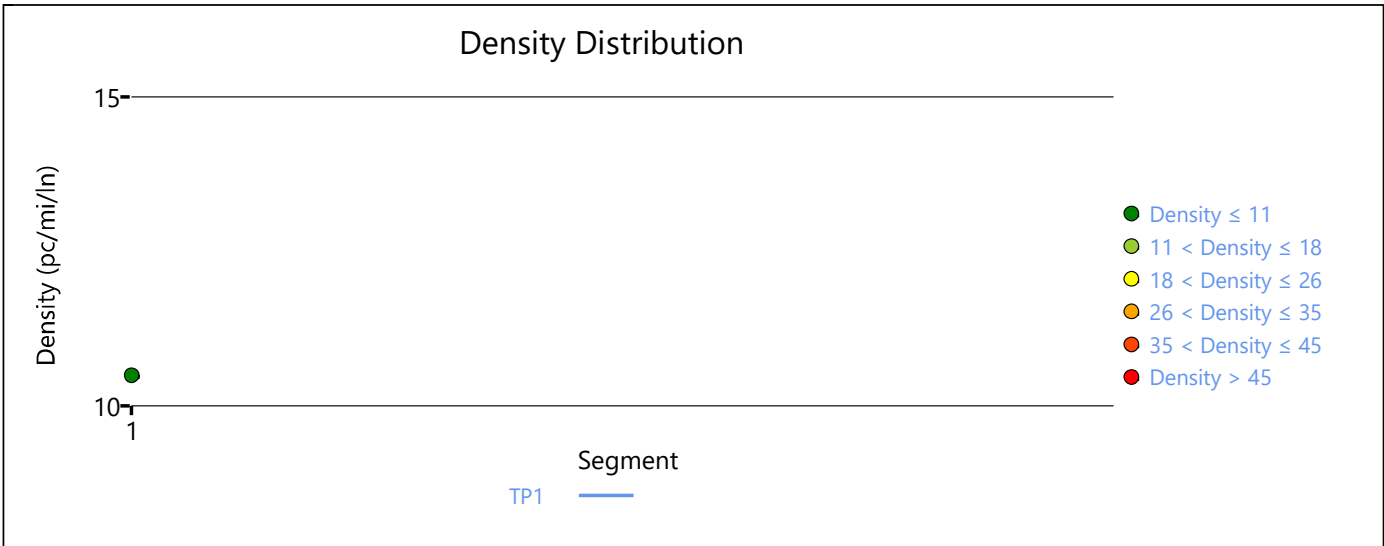
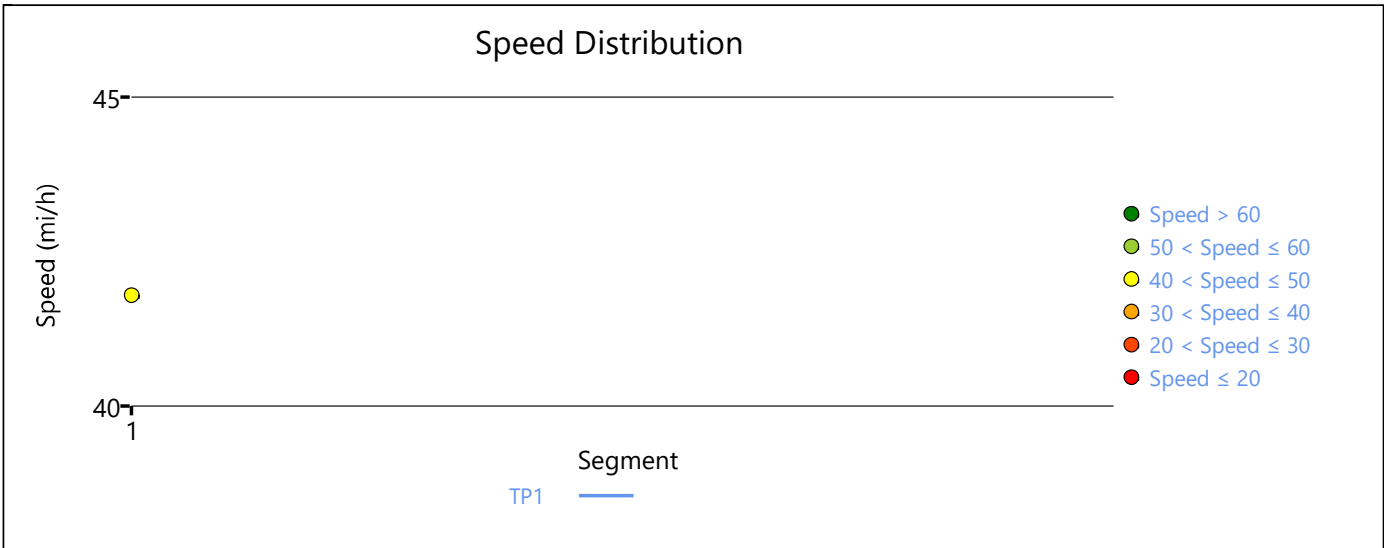
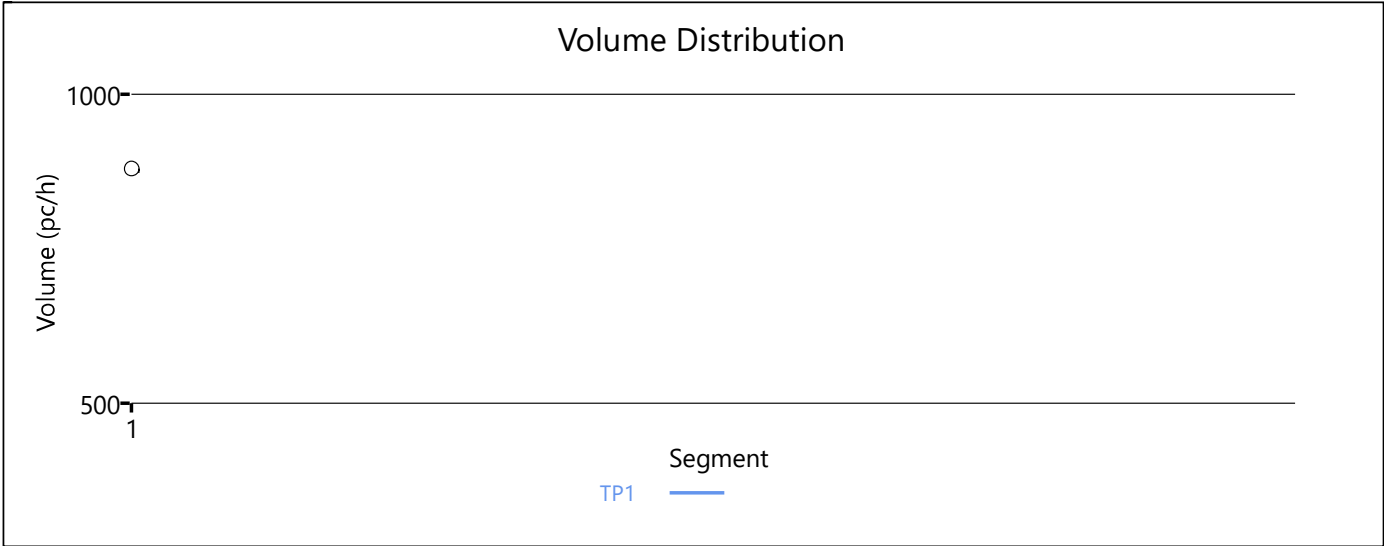
Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	8.4
Average Travel Time, min	1.40	Density, pc/mi/ln	10.5

### Messages

INFORMATION 1	Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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### Comments

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## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.773	815	4400	0.19	41.8	9.8	A

### Facility Time Period Results

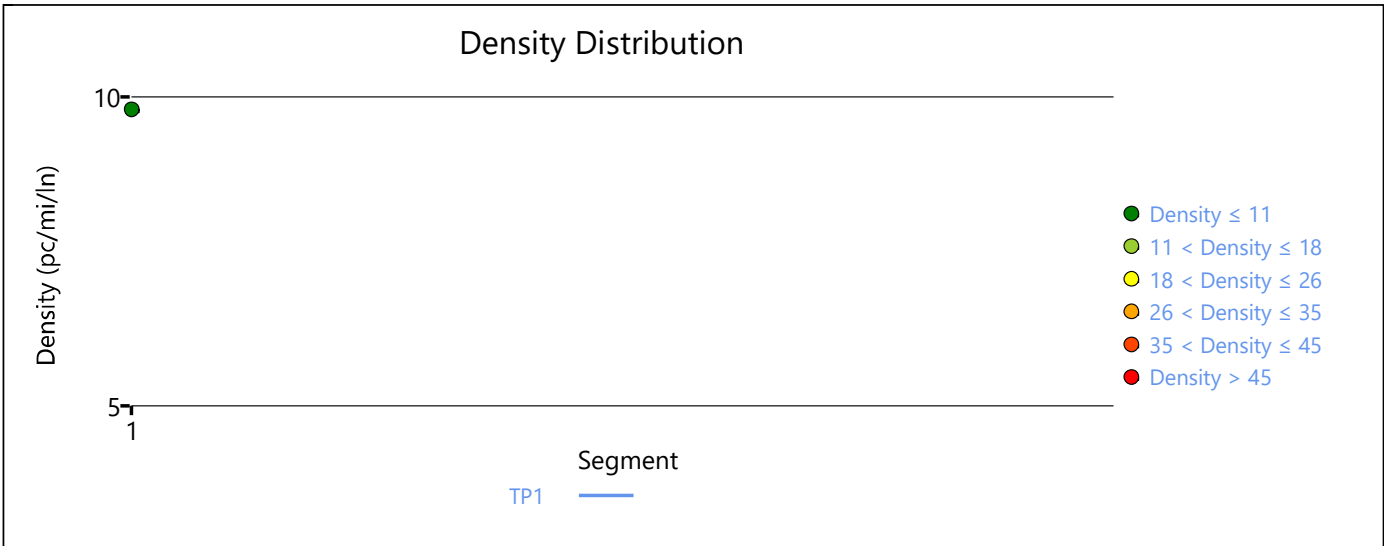
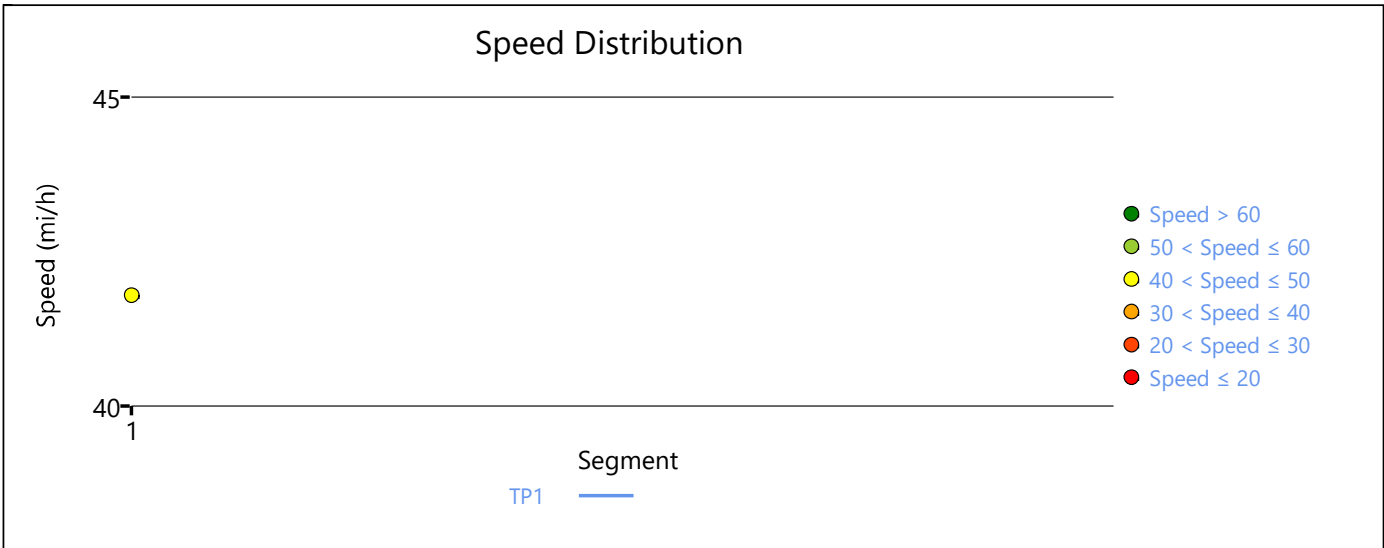
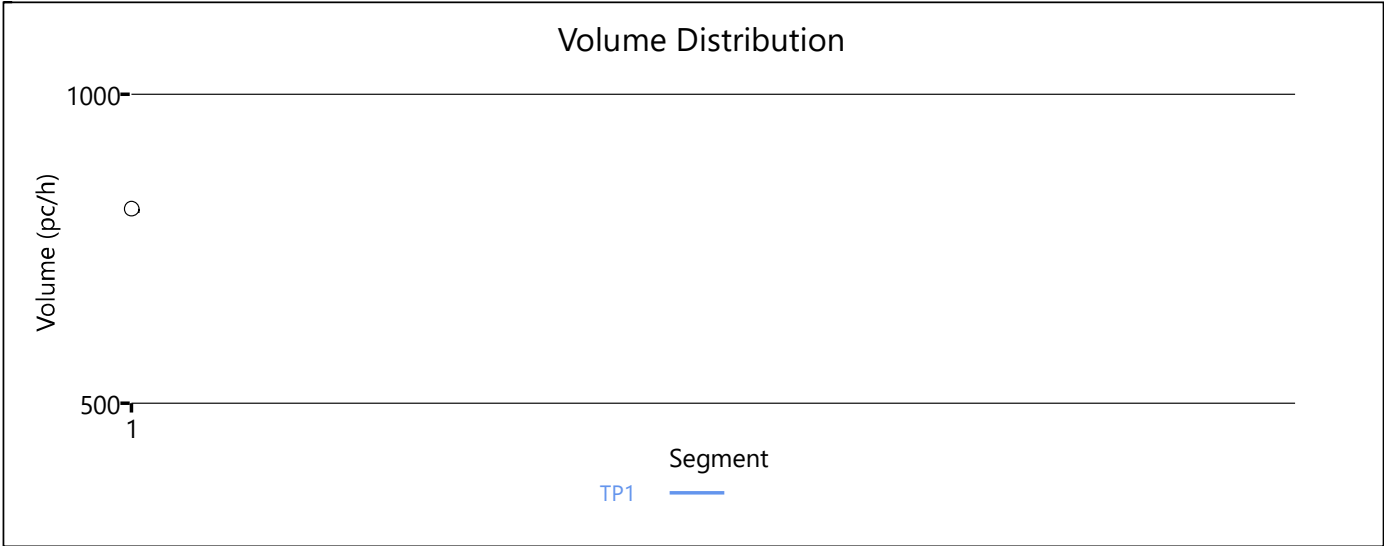
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	9.8	7.6	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	7.6
Average Travel Time, min	1.40	Density, pc/mi/ln	9.8

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.896	939	4400	0.21	41.8	11.2	B

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	11.2	10.0	1.40	B

### Facility Overall Results

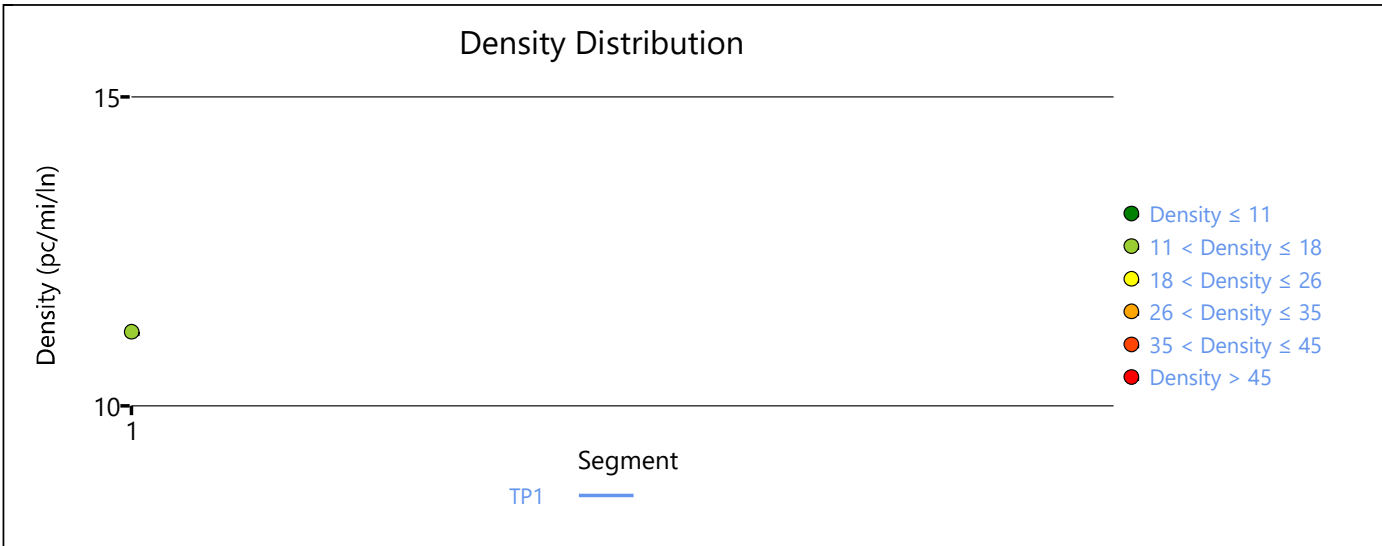
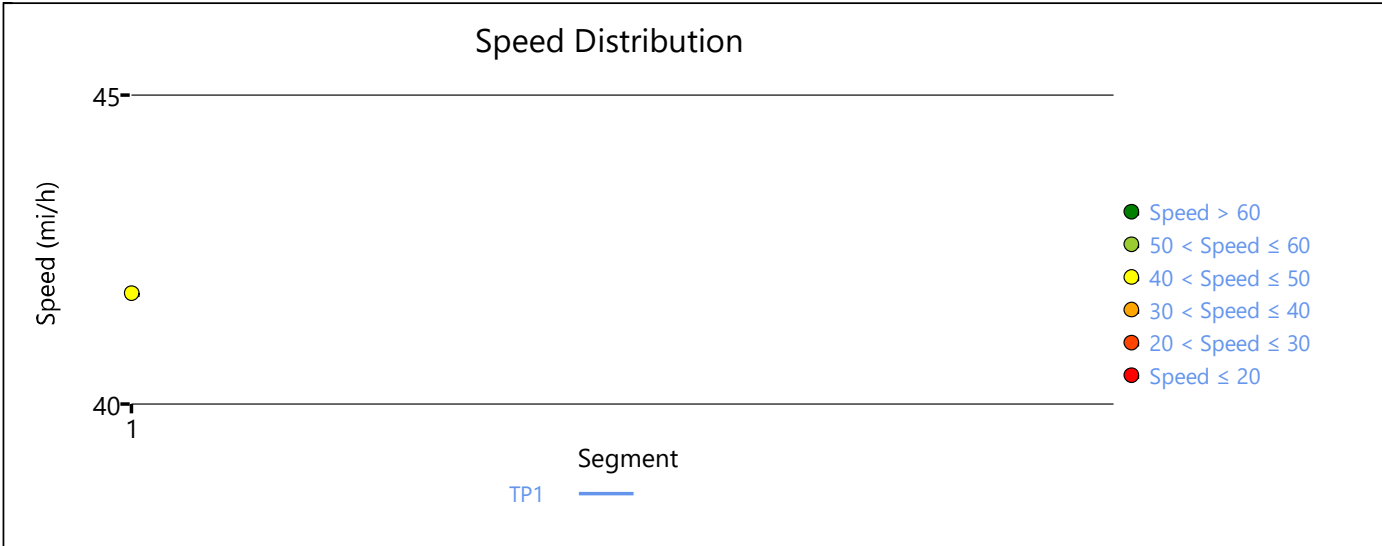
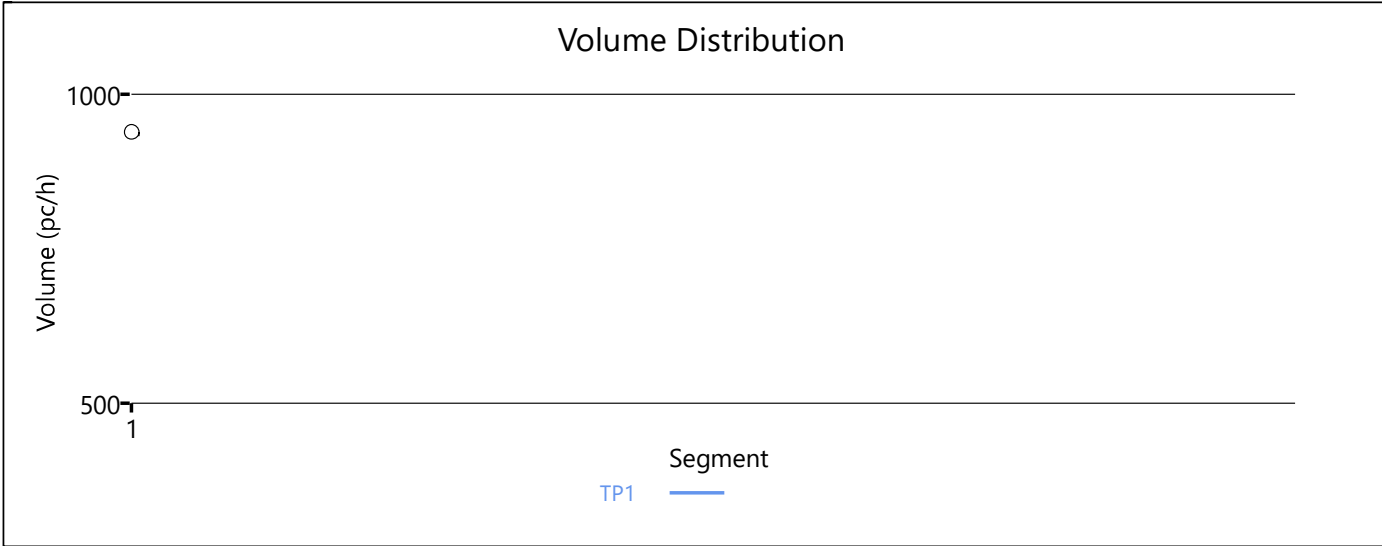
Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	10.0
Average Travel Time, min	1.40	Density, pc/mi/ln	11.2

### Messages

INFORMATION 1	Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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### Comments

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## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.812	271	4400	0.06	41.8	3.3	A

### Facility Time Period Results

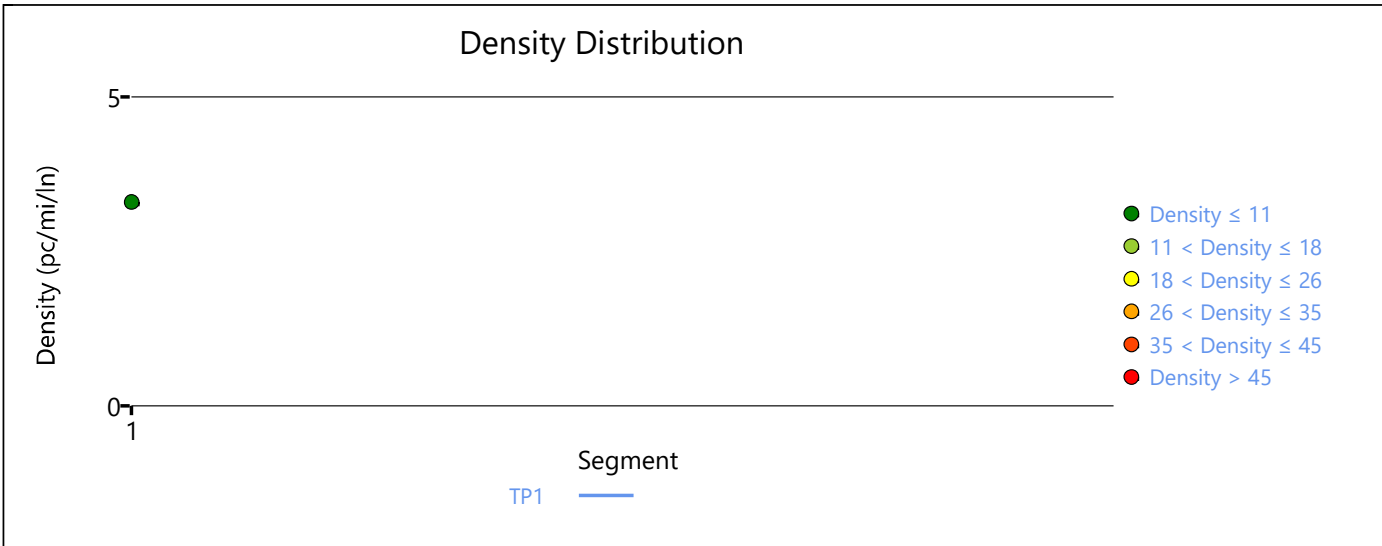
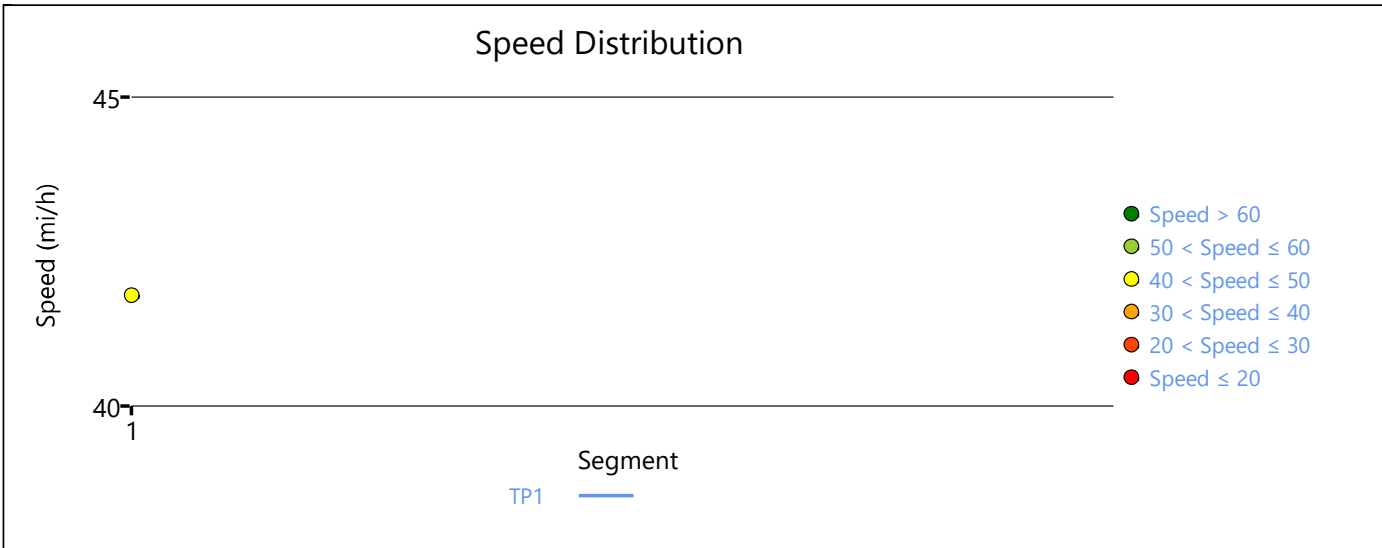
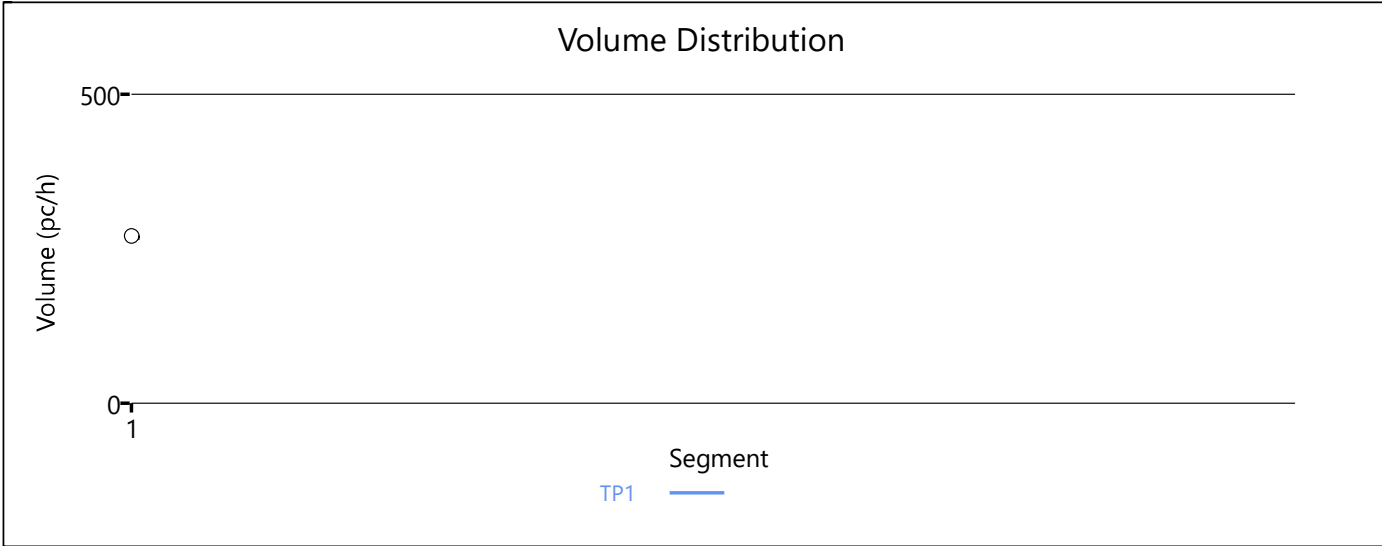
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	3.3	2.7	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.7
Average Travel Time, min	1.40	Density, pc/mi/ln	3.3

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.888	1307	4400	0.30	41.8	15.6	B

### Facility Time Period Results

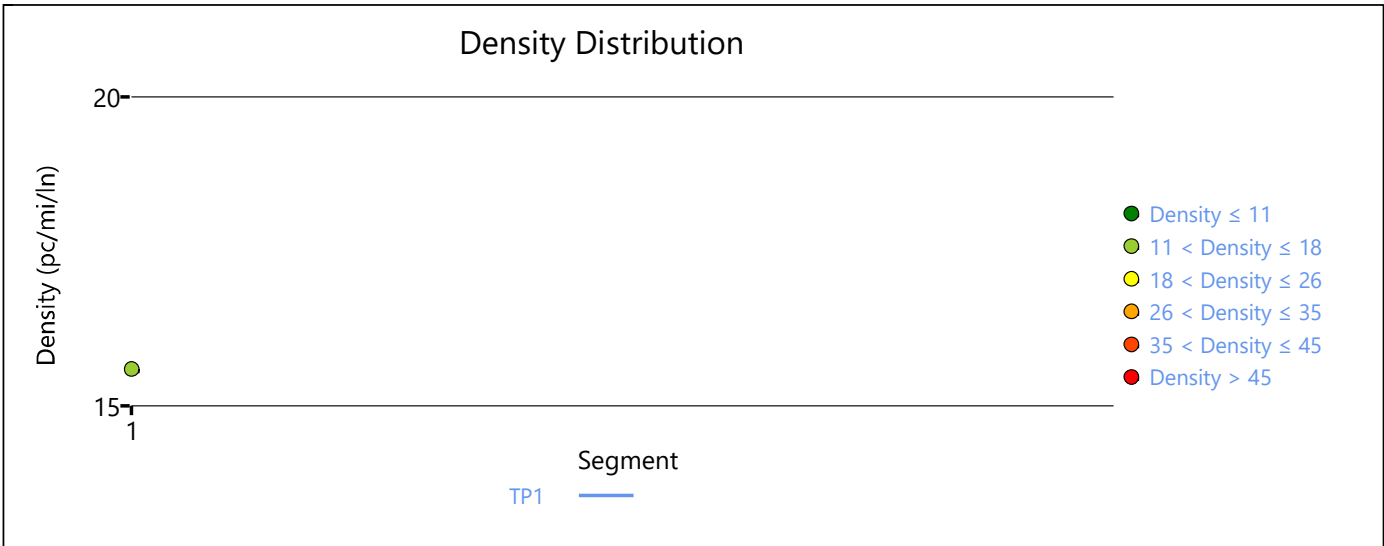
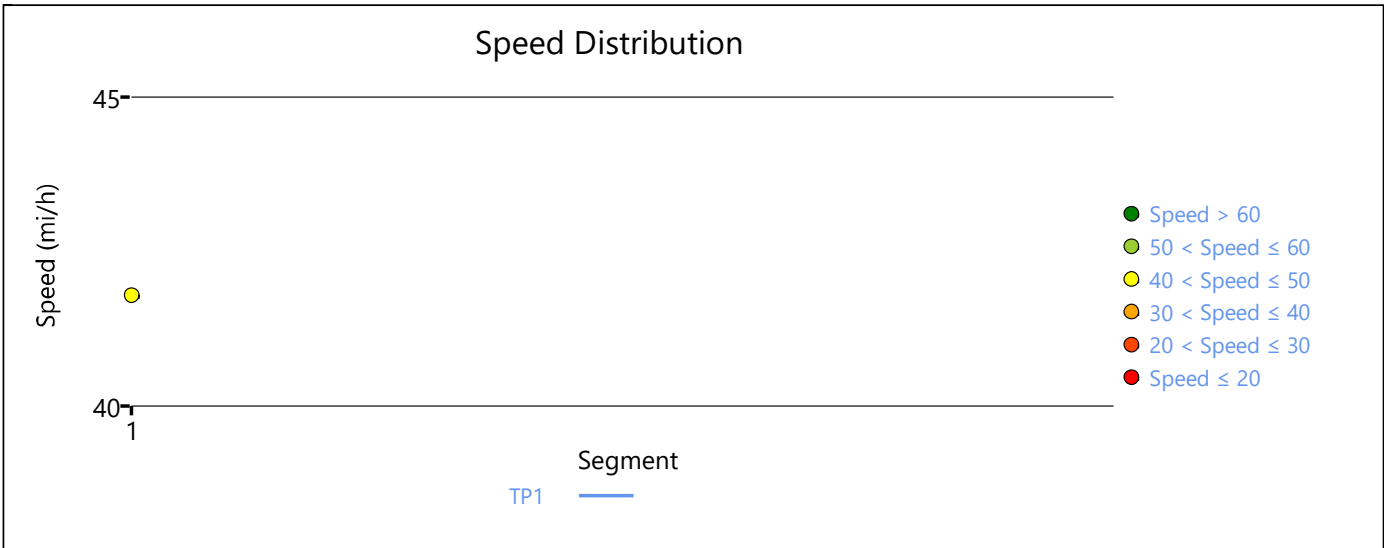
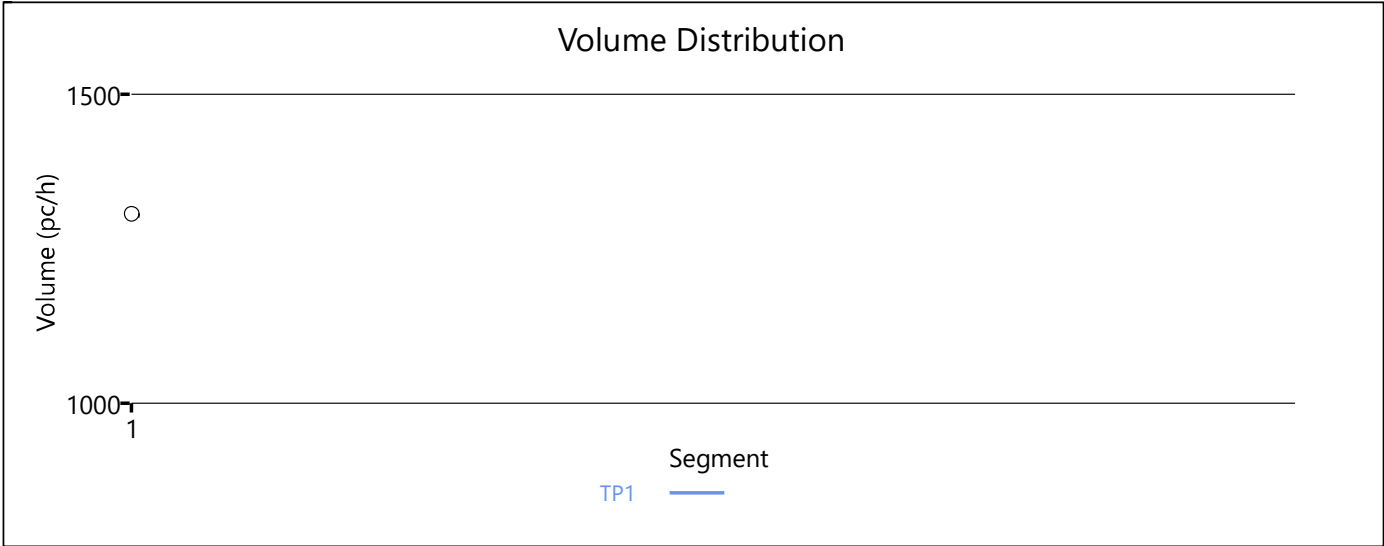
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	15.6	13.9	1.40	B

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	13.9
Average Travel Time, min	1.40	Density, pc/mi/ln	15.6

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.792	583	4400	0.13	41.8	7.0	A

### Facility Time Period Results

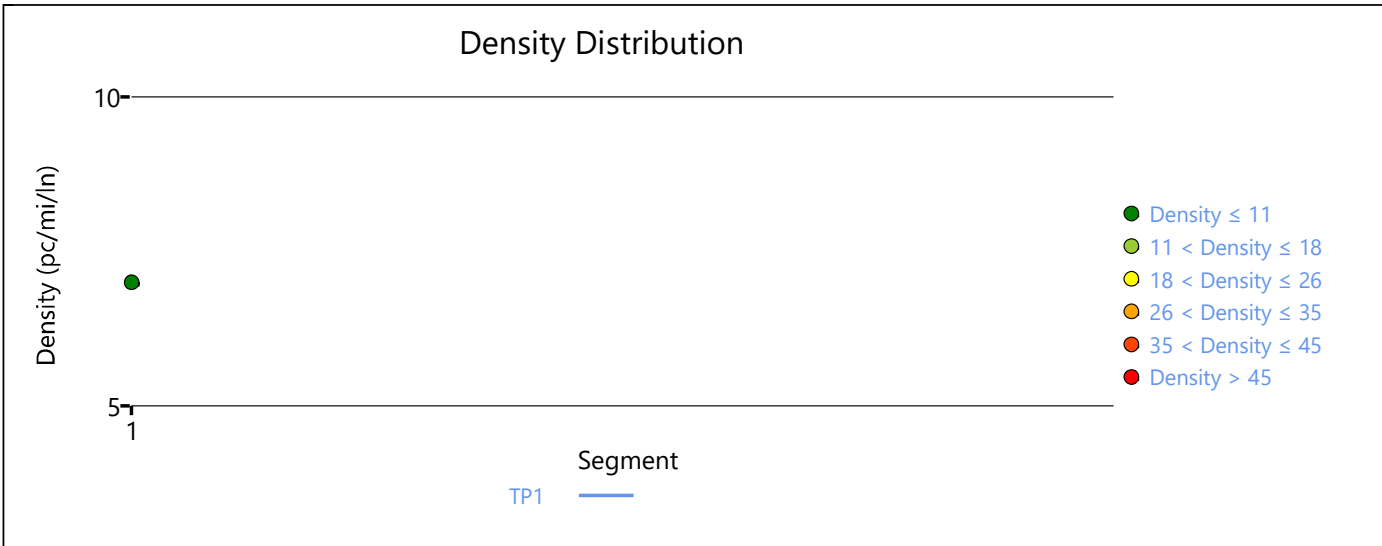
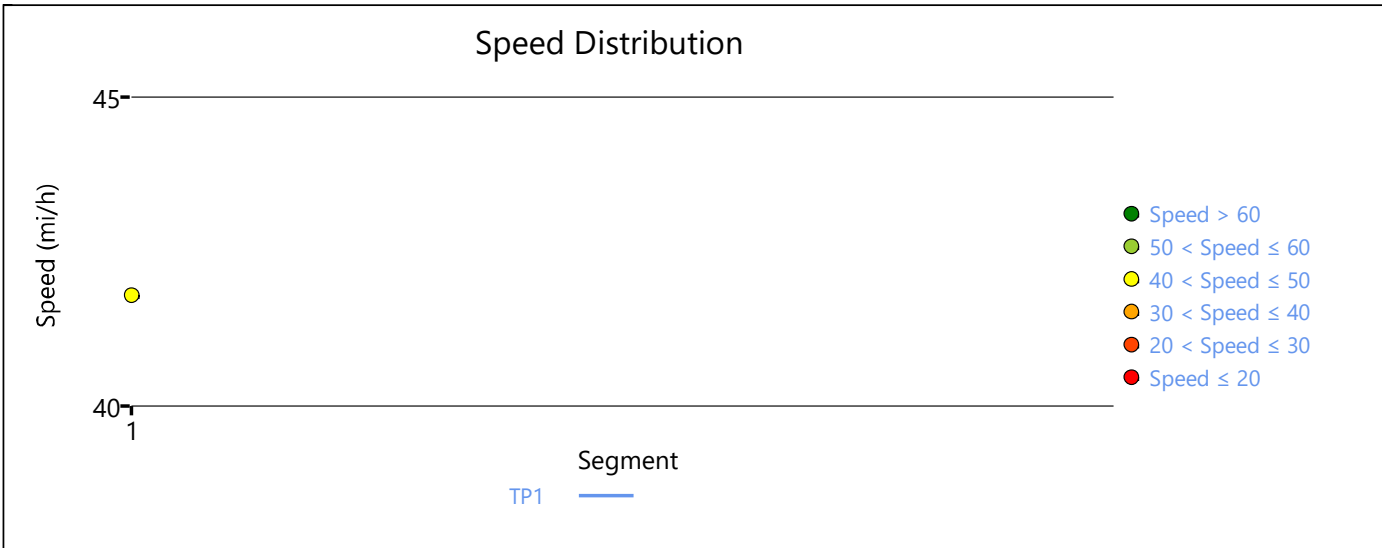
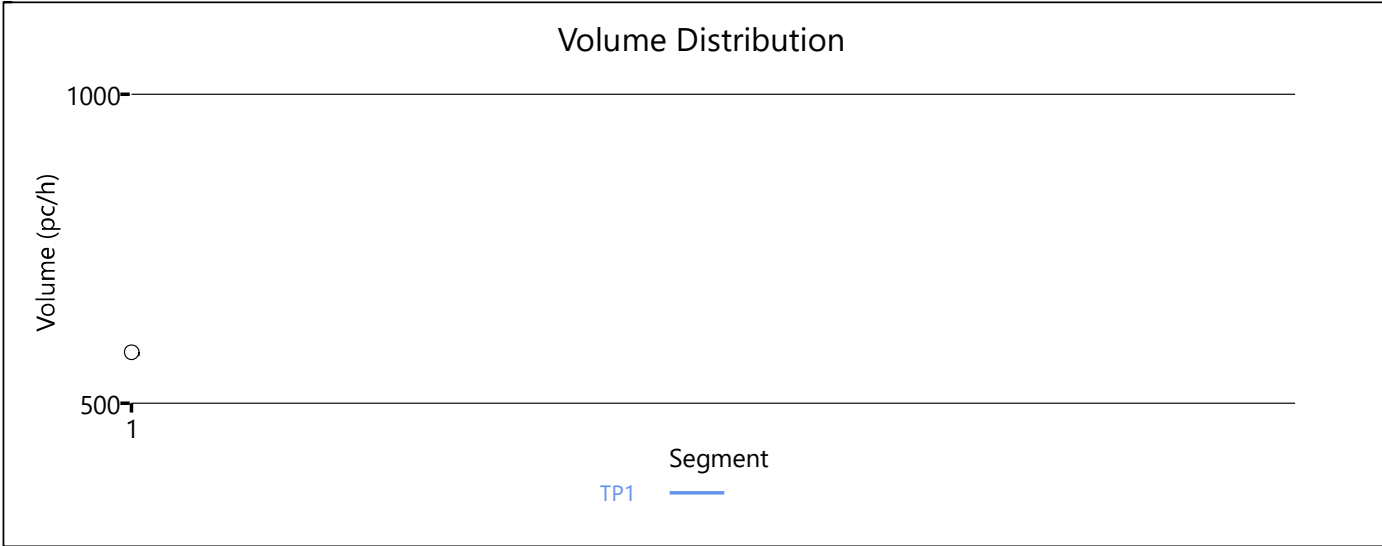
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	7.0	5.5	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.5
Average Travel Time, min	1.40	Density, pc/mi/ln	7.0

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.919	660	4400	0.15	41.8	7.9	A

### Facility Time Period Results

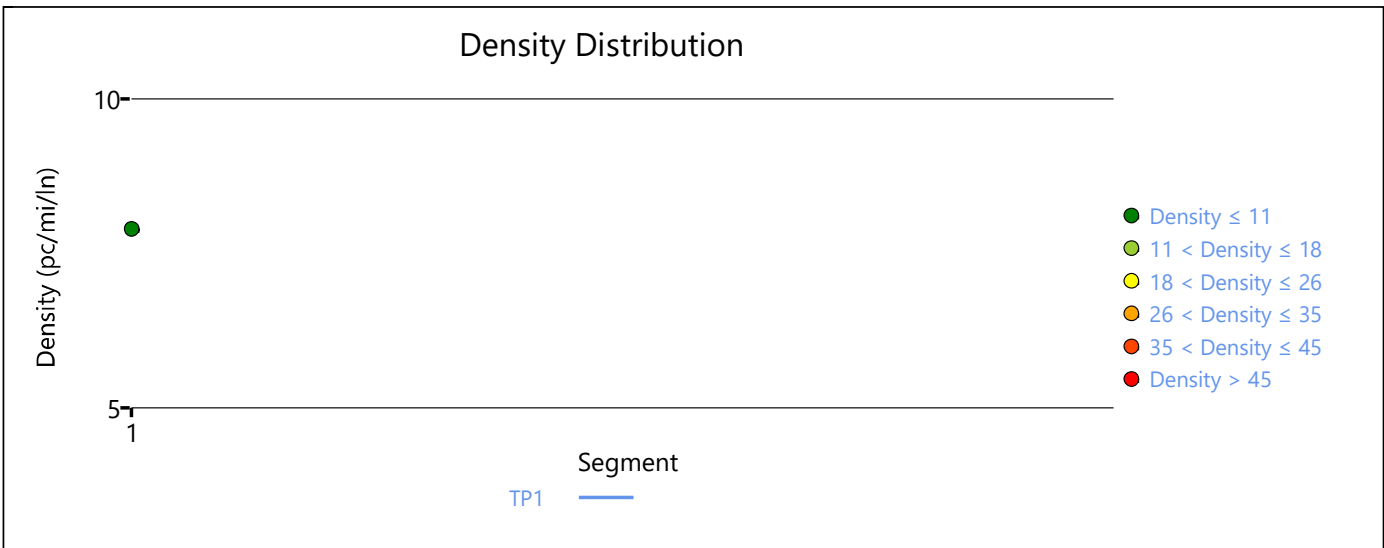
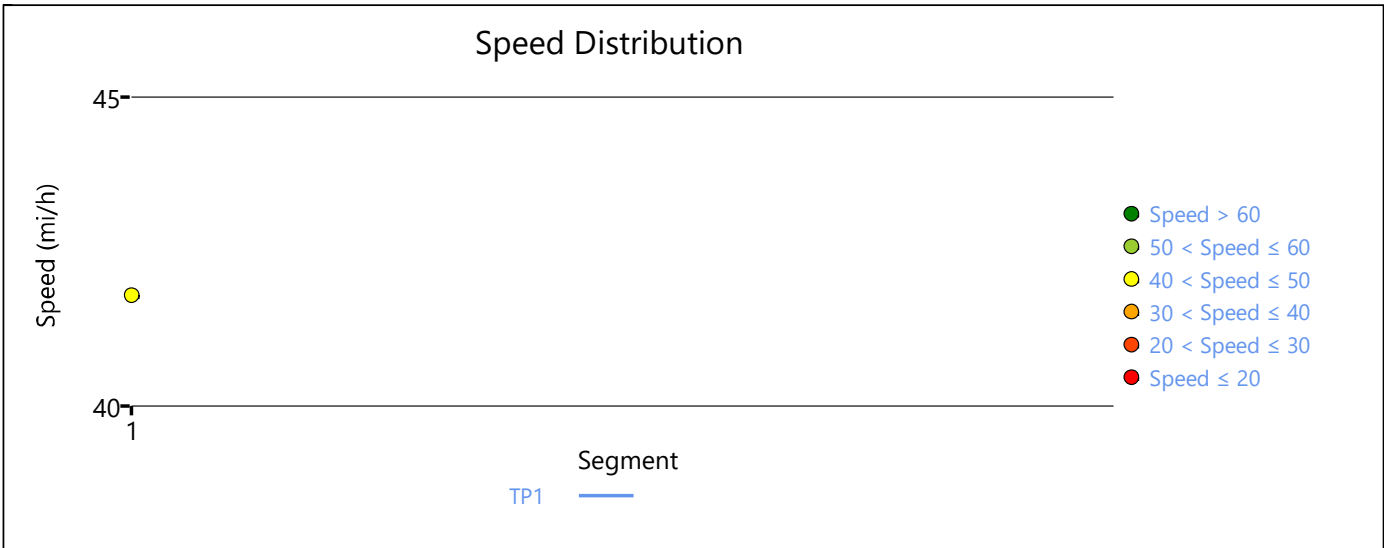
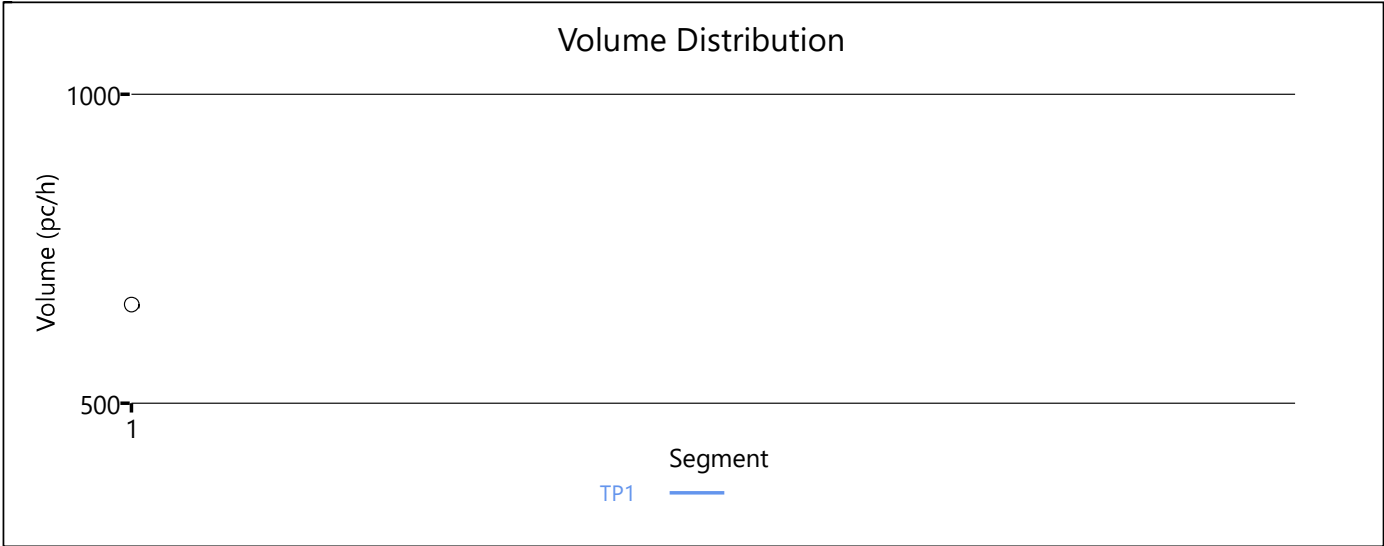
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	7.9	7.3	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	7.3
Average Travel Time, min	1.40	Density, pc/mi/ln	7.9

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.847	220	4400	0.05	41.8	2.6	A

### Facility Time Period Results

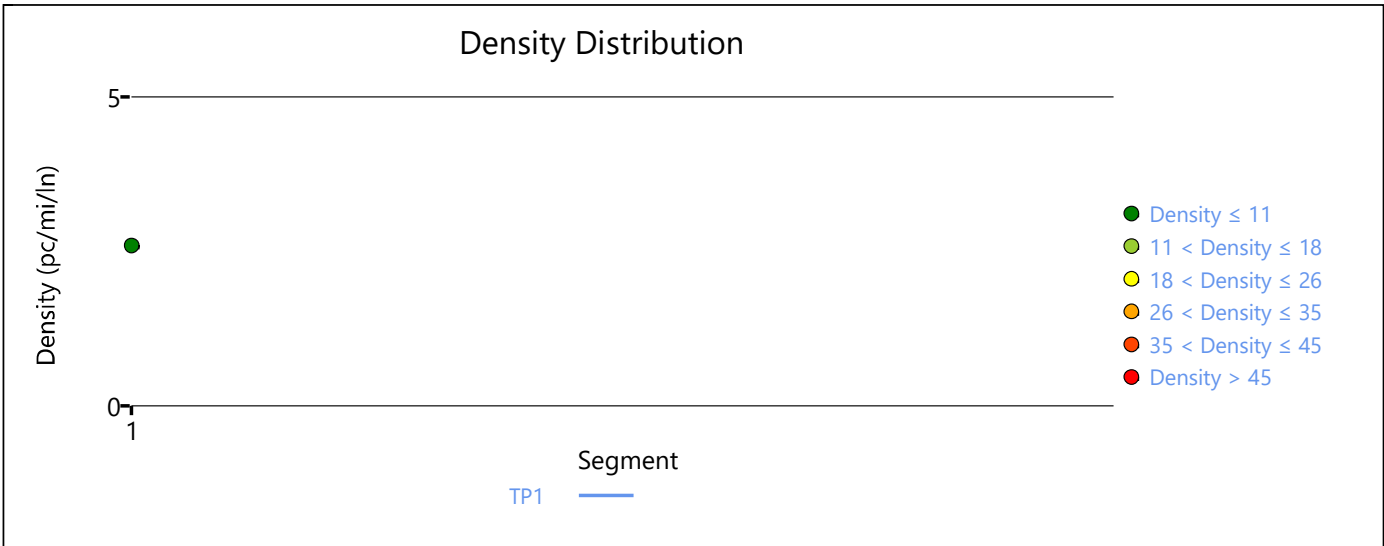
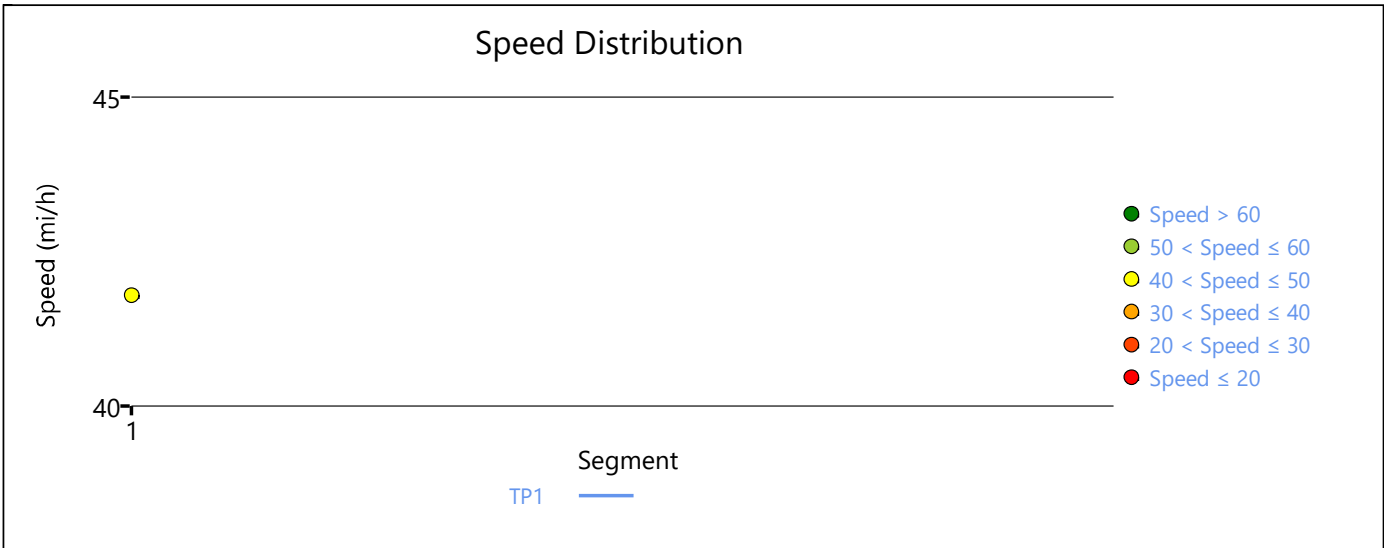
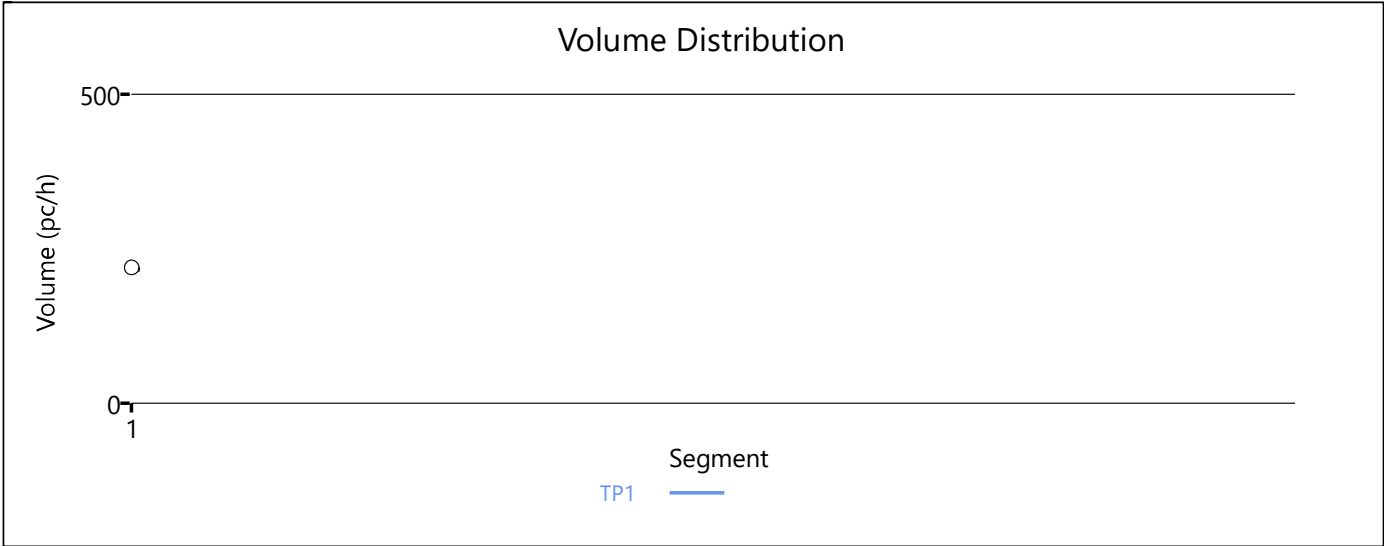
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	2.6	2.2	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.2
Average Travel Time, min	1.40	Density, pc/mi/ln	2.6

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.797	905	4400	0.21	41.8	10.8	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.8	8.6	1.40	A

### Facility Overall Results

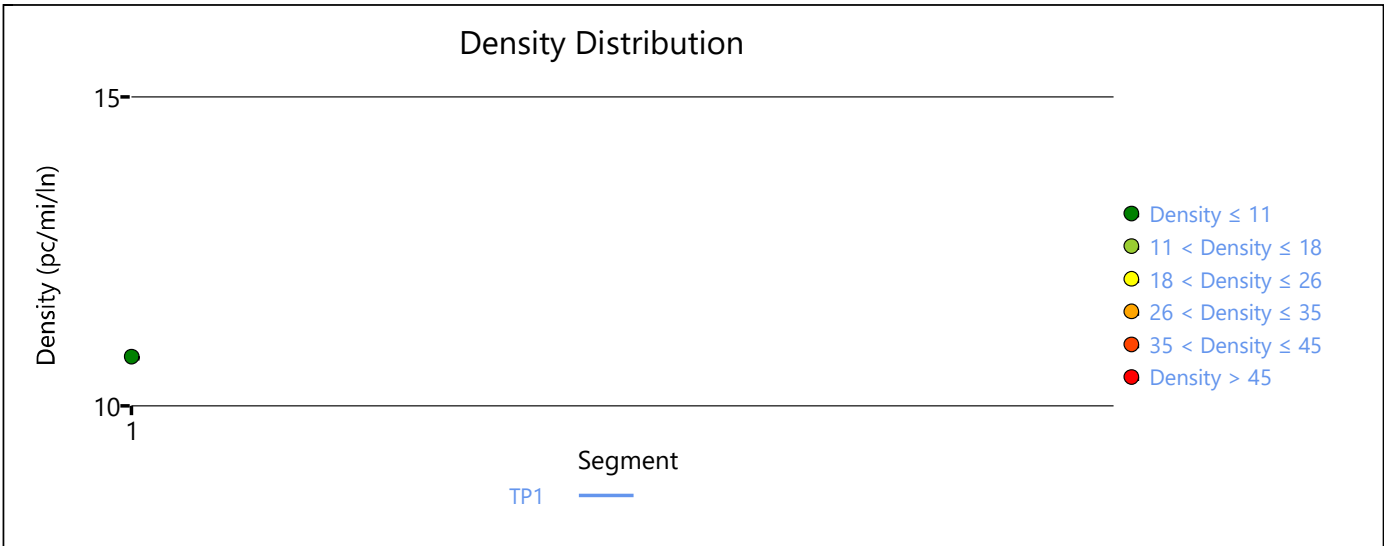
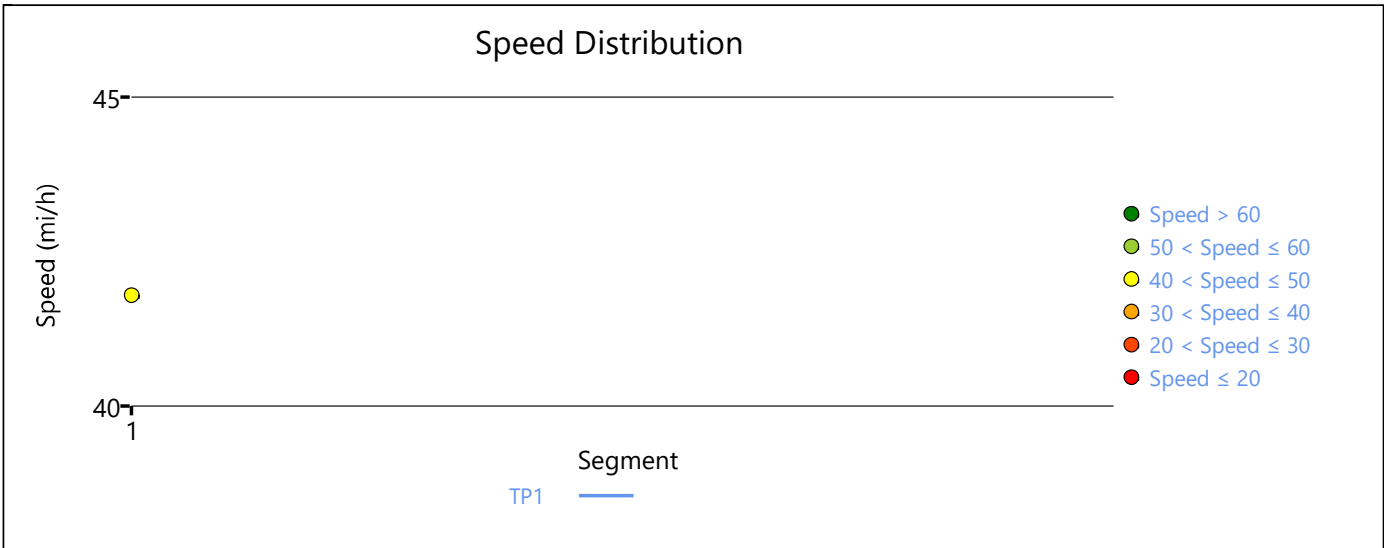
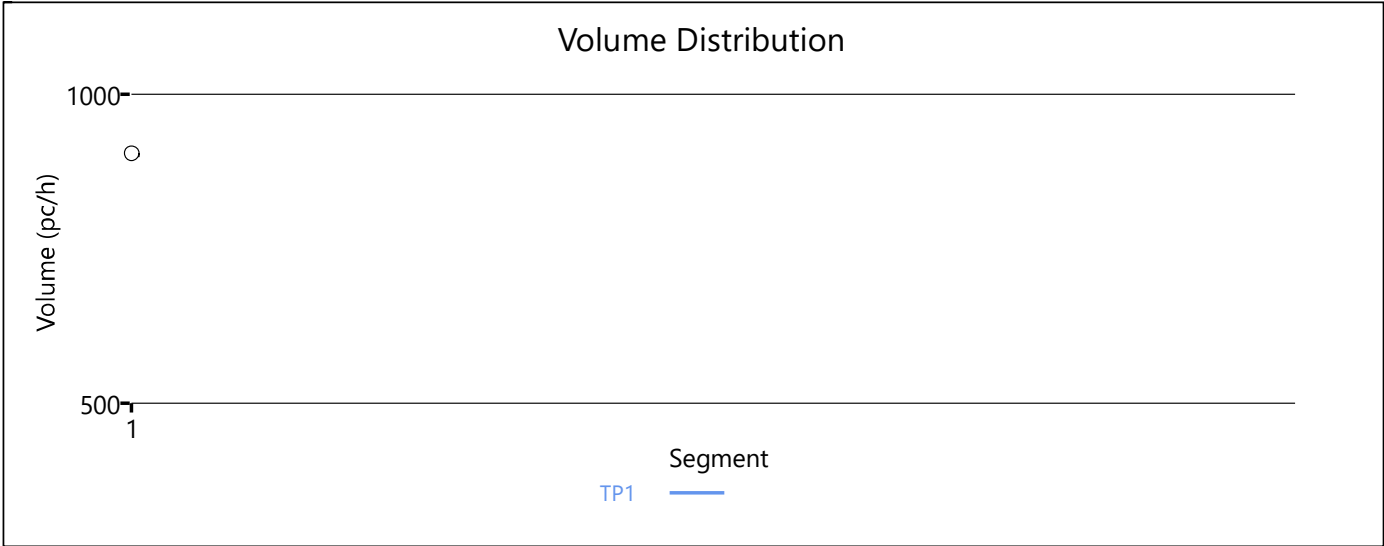
Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	8.6
Average Travel Time, min	1.40	Density, pc/mi/ln	10.8

### Messages

INFORMATION 1	Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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### Comments

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## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.773	805	4400	0.18	41.8	9.6	A

### Facility Time Period Results

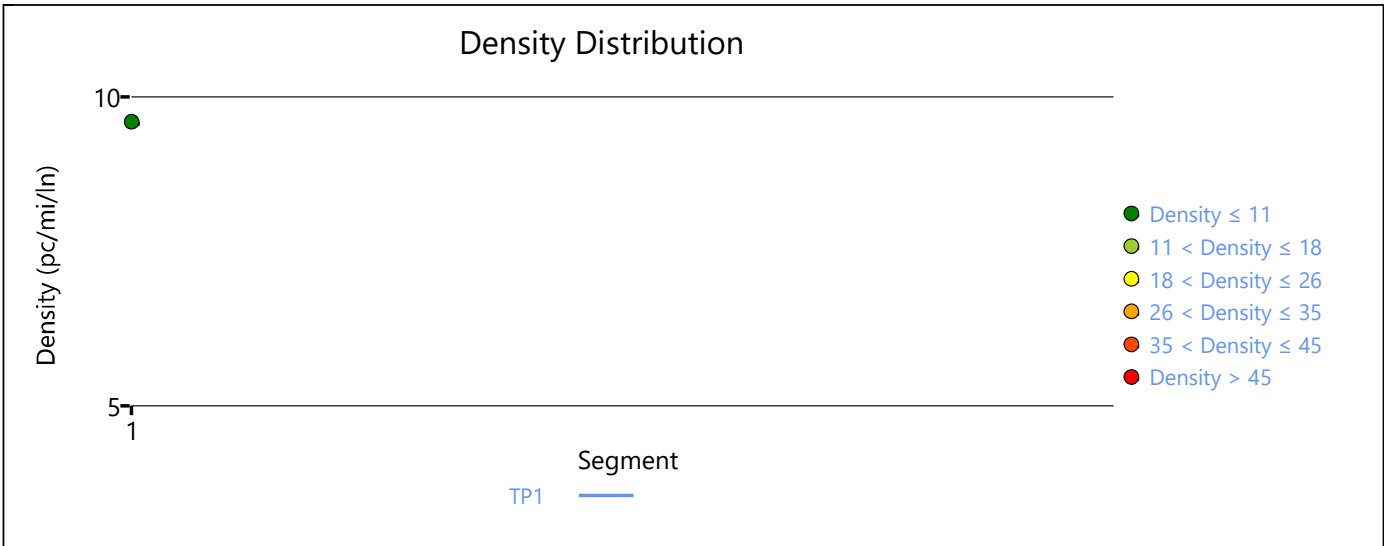
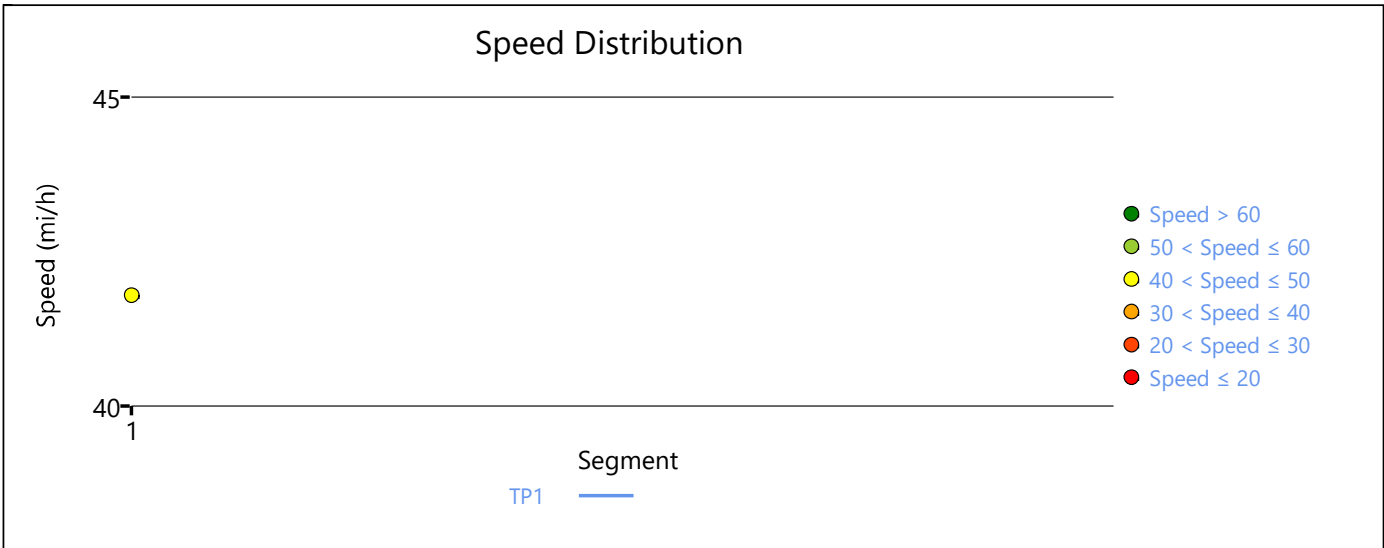
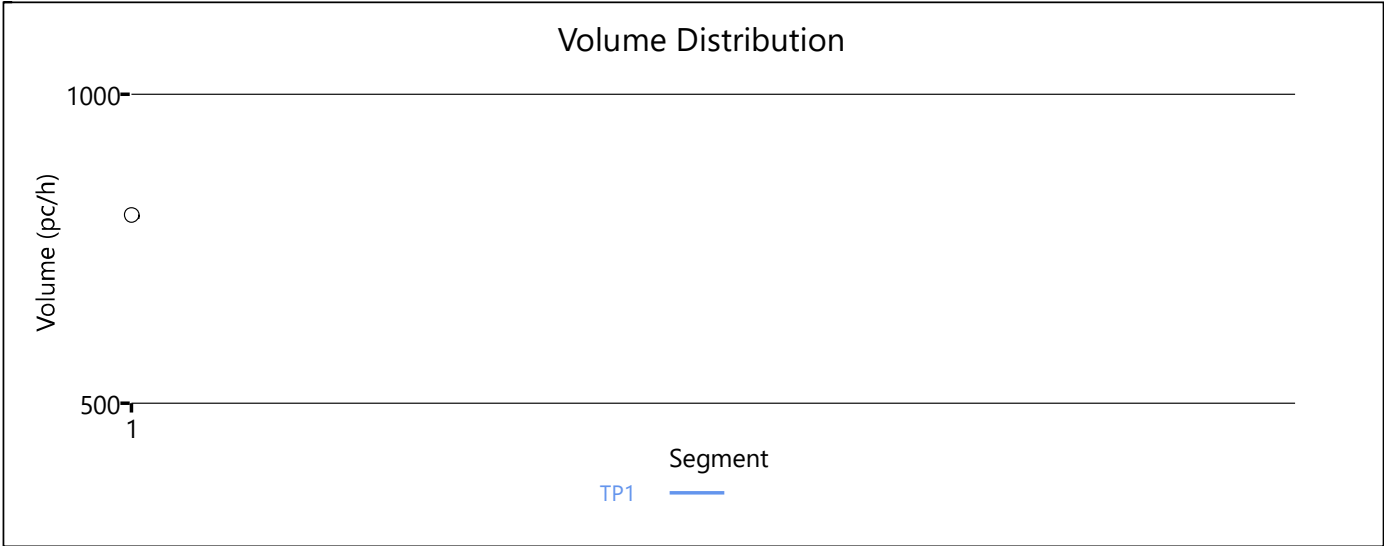
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	9.6	7.4	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	7.4
Average Travel Time, min	1.40	Density, pc/mi/ln	9.6

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.896	966	4400	0.22	41.8	11.6	B

### Facility Time Period Results

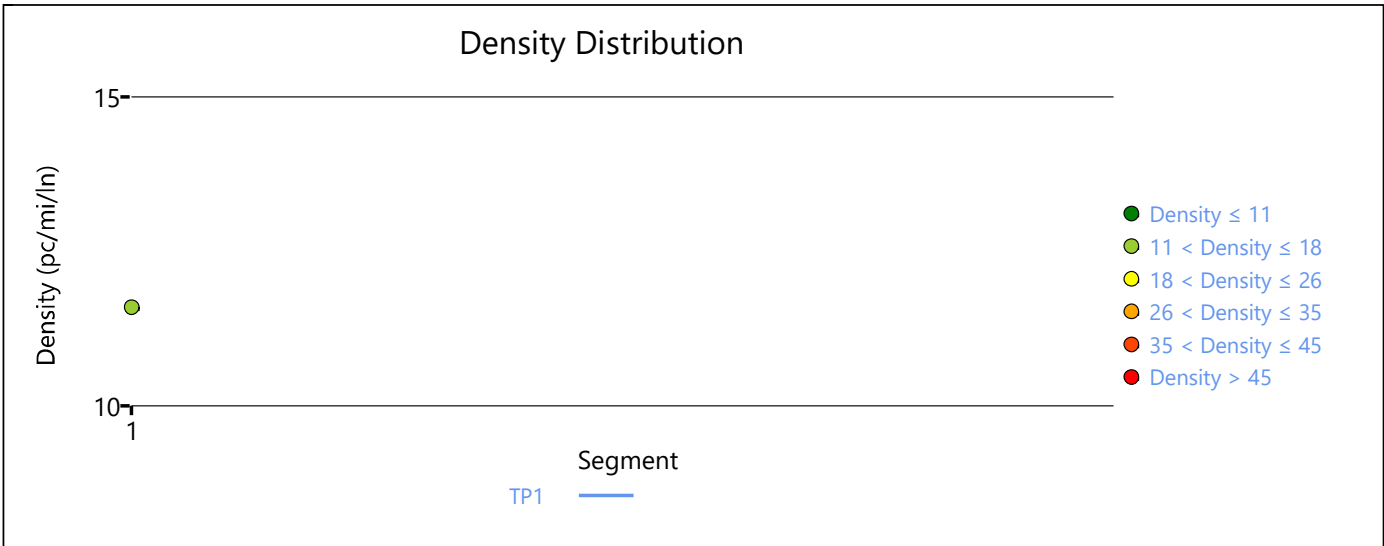
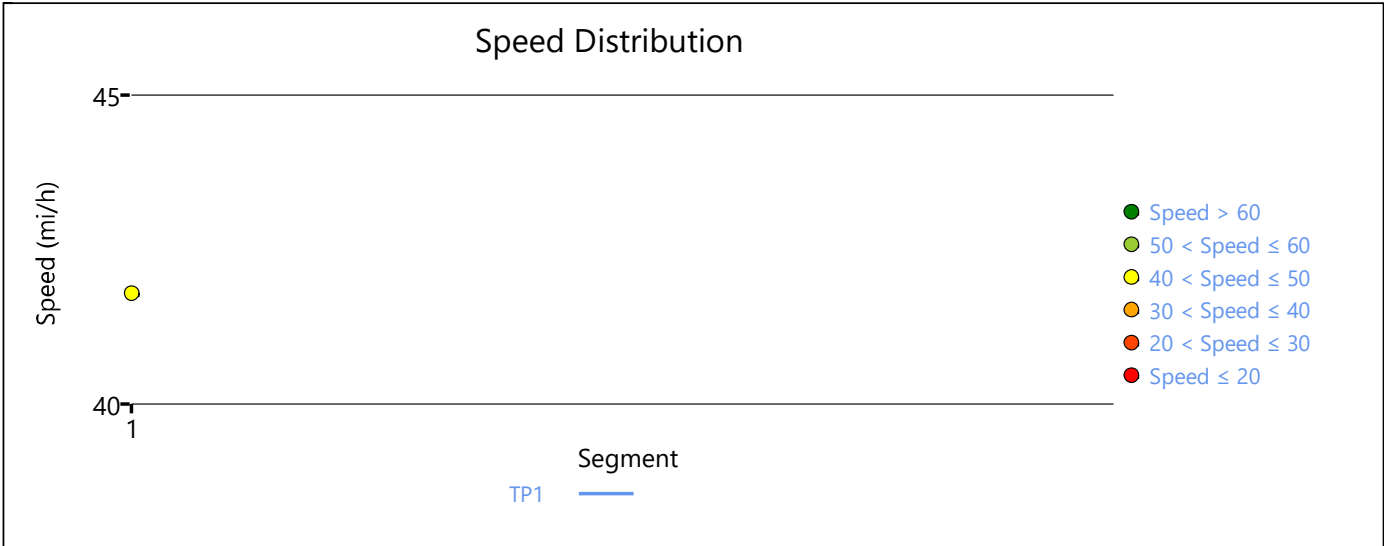
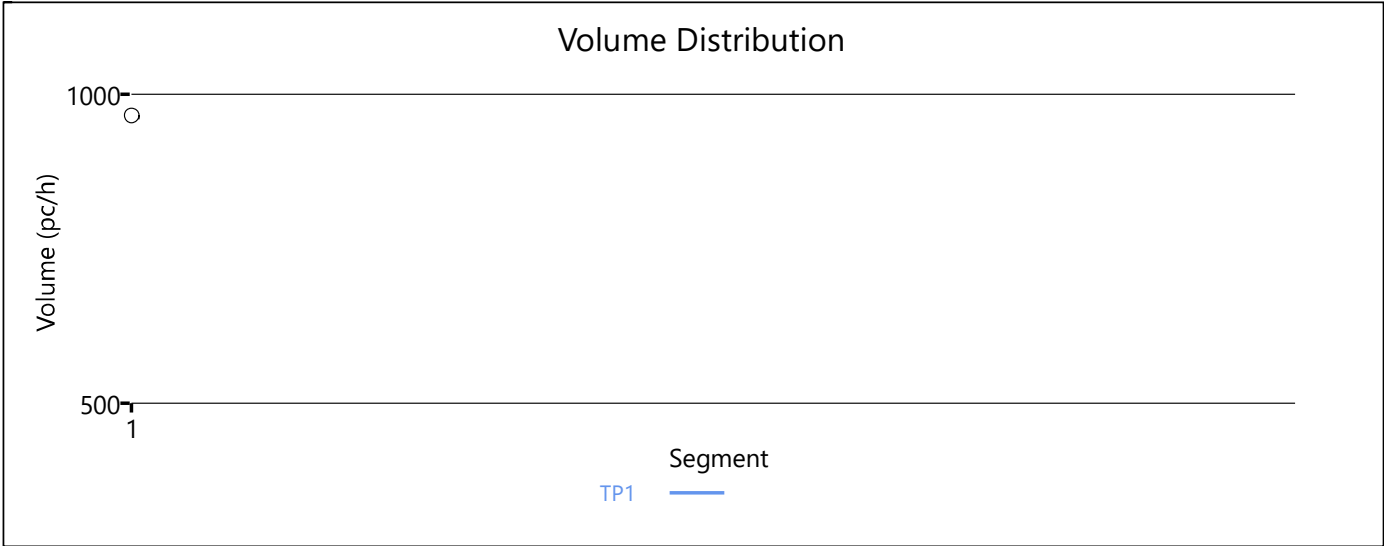
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	11.6	10.4	1.40	B

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	10.4
Average Travel Time, min	1.40	Density, pc/mi/ln	11.6

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.812	271	4400	0.06	41.8	3.3	A

### Facility Time Period Results

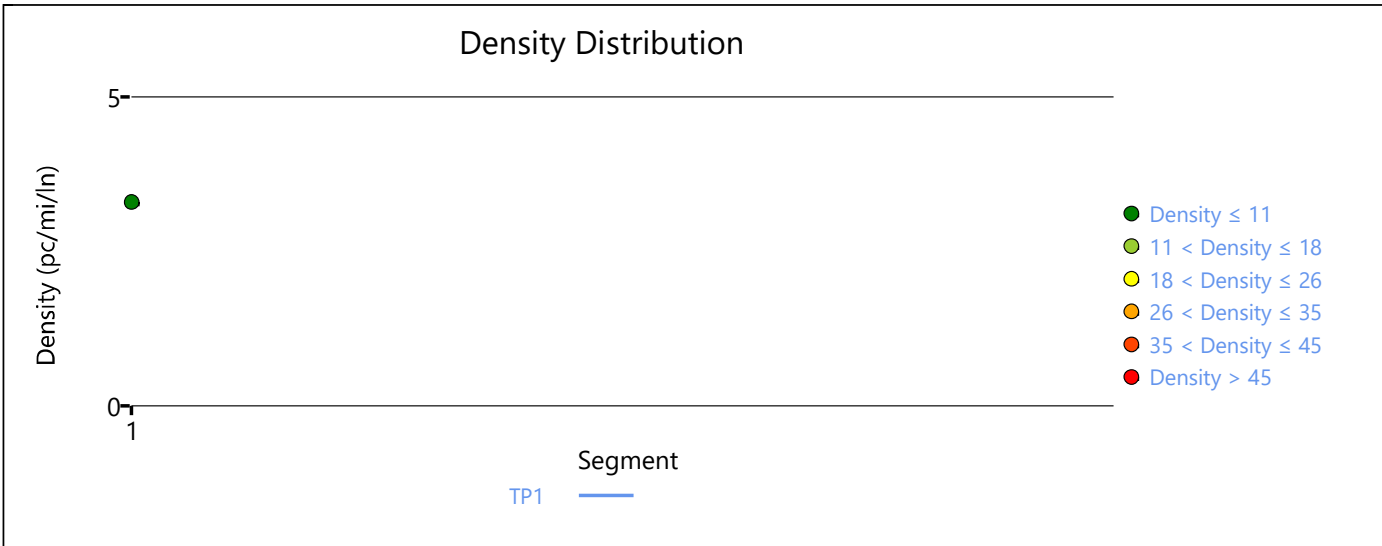
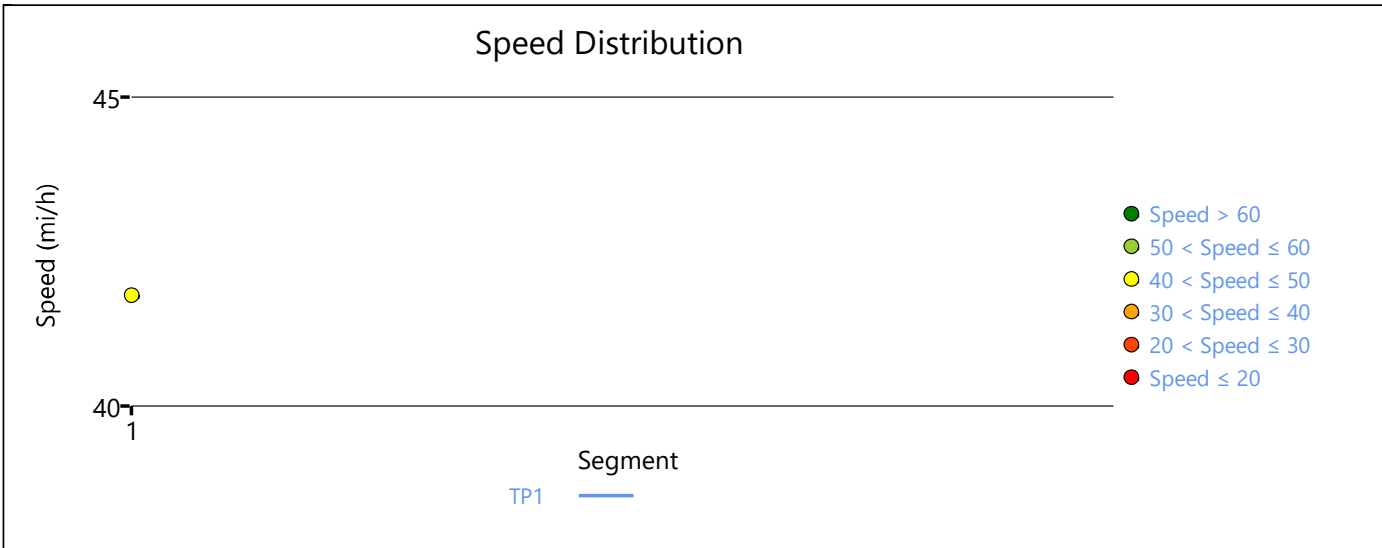
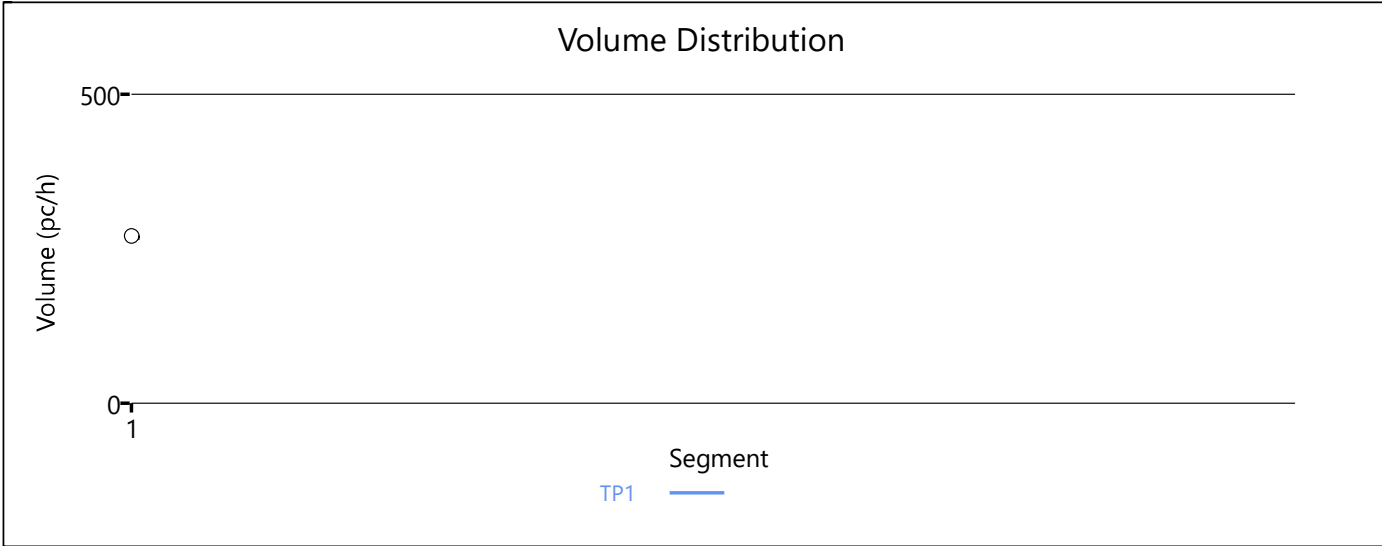
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	3.3	2.7	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.7
Average Travel Time, min	1.40	Density, pc/mi/ln	3.3

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.817	988	4400	0.22	41.8	11.8	B

### Facility Time Period Results

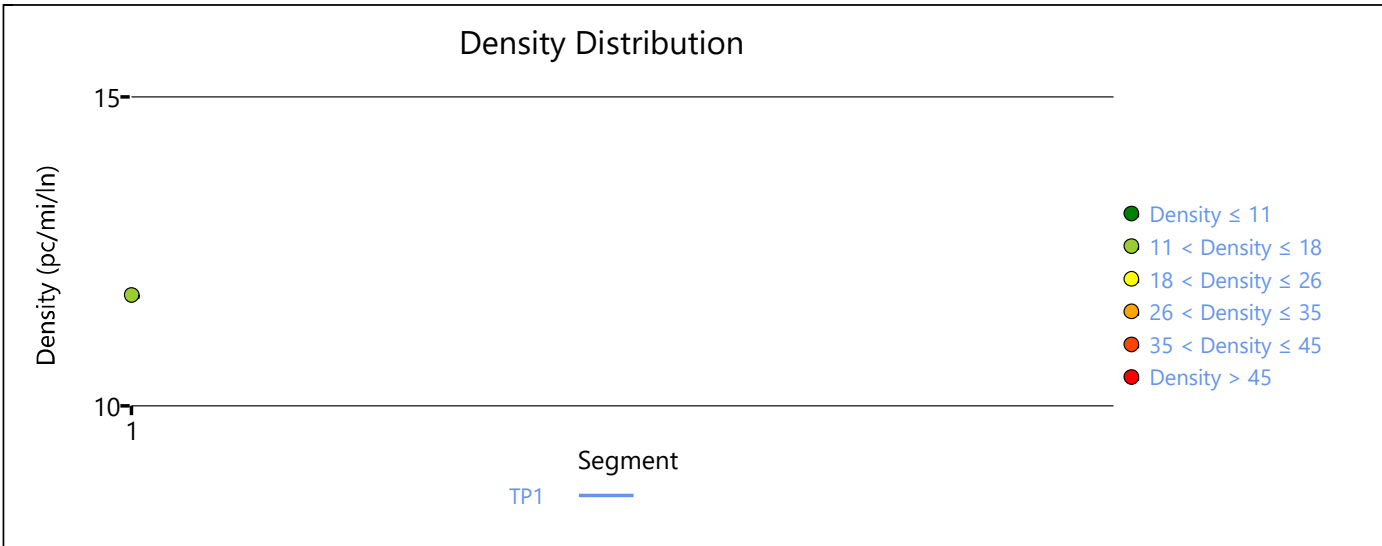
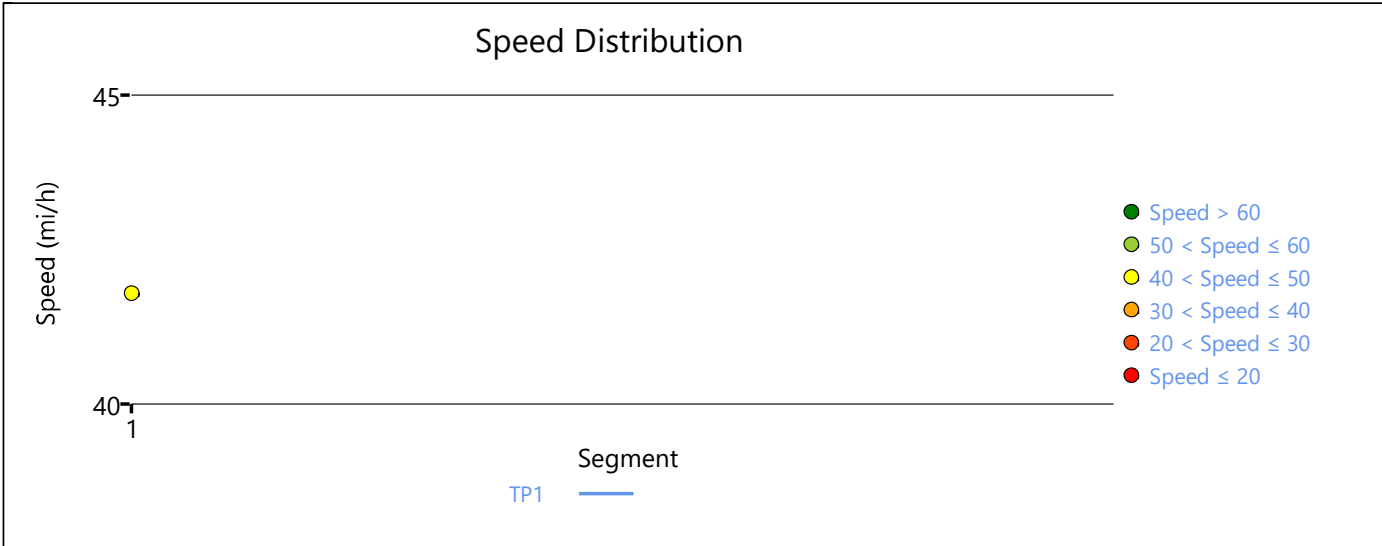
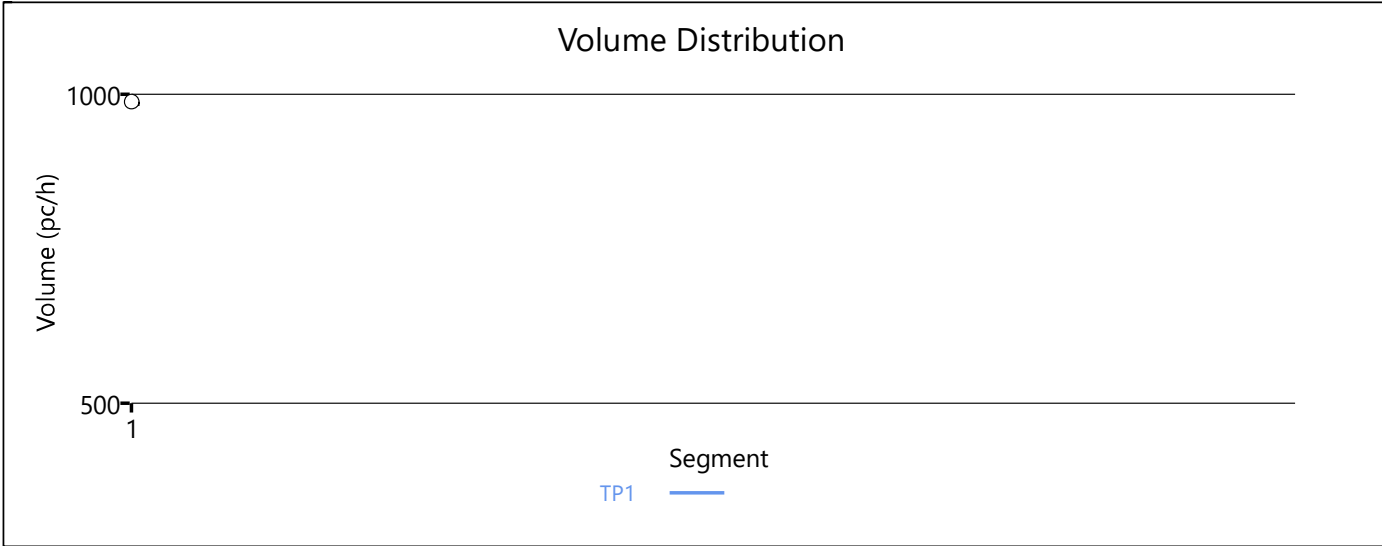
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	11.8	9.6	1.40	B

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	9.6
Average Travel Time, min	1.40	Density, pc/mi/ln	11.8

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.797	912	4400	0.21	41.8	10.9	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.9	8.7	1.40	A

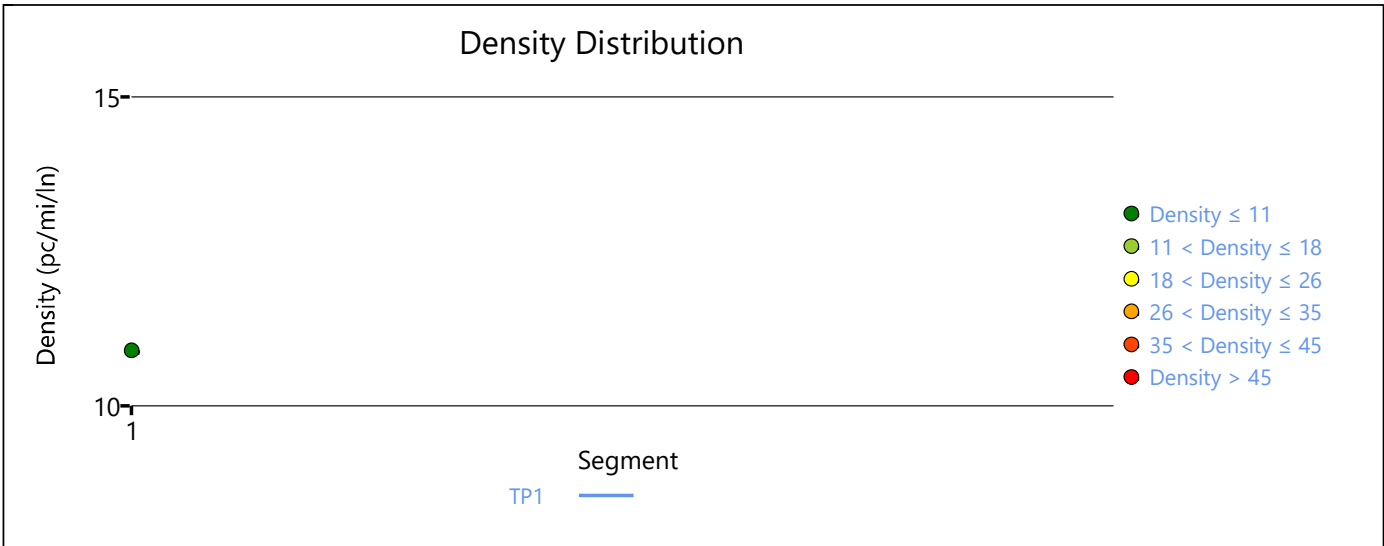
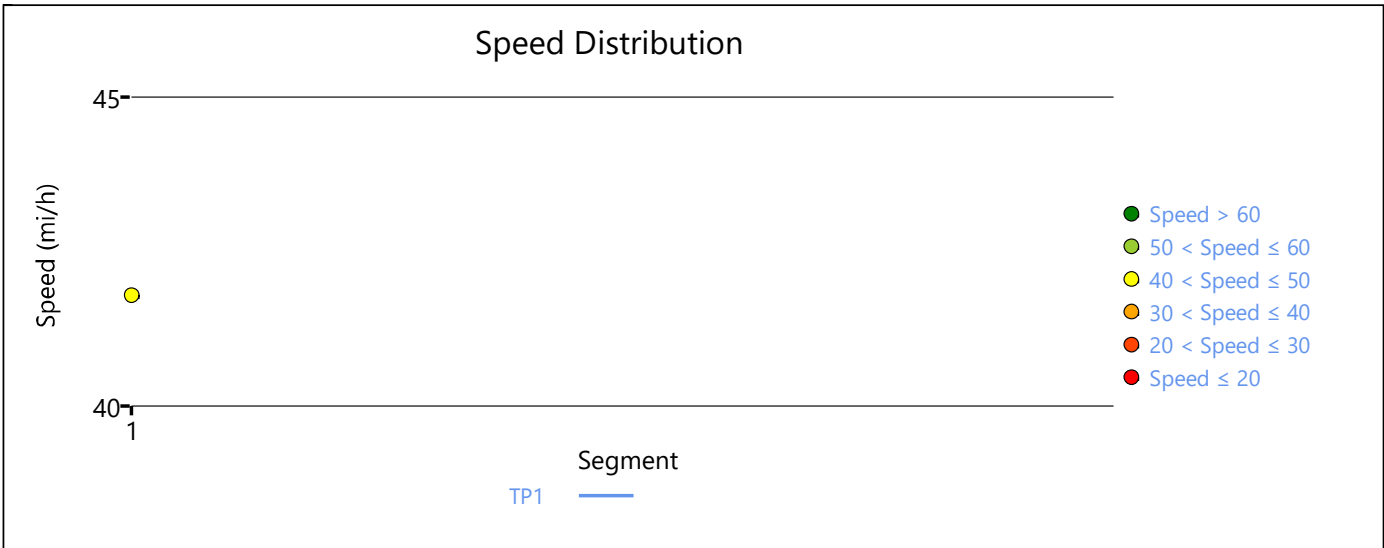
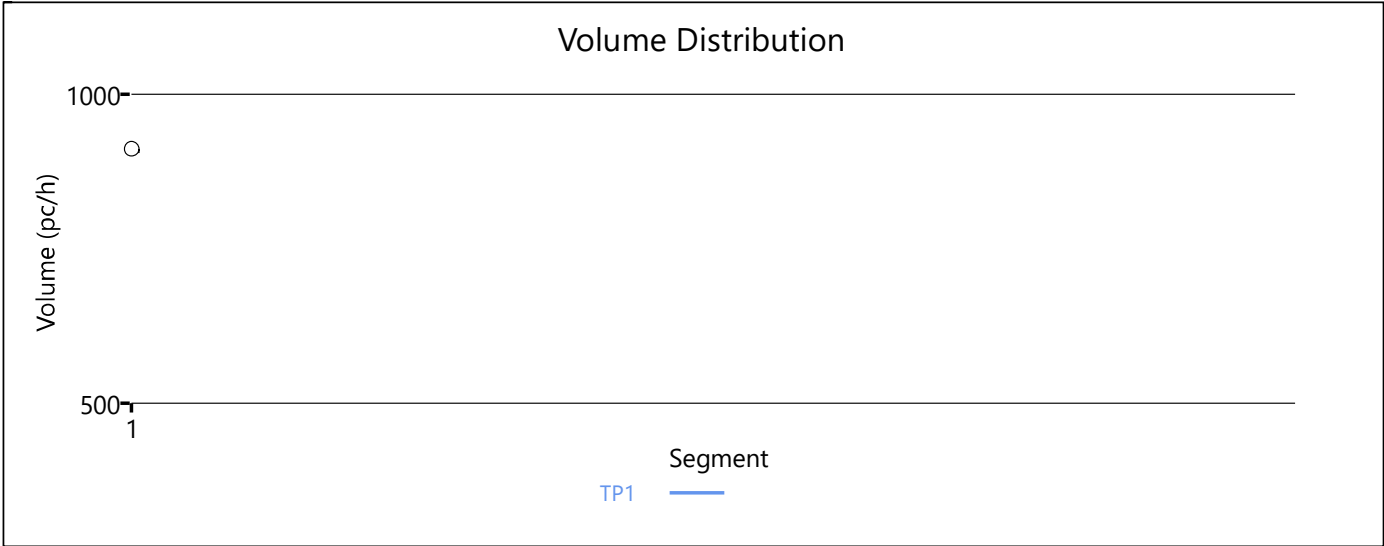
### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	8.7
Average Travel Time, min	1.40	Density, pc/mi/ln	10.9

### Messages

INFORMATION 1      Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.912	1122	4400	0.26	41.8	13.4	B

### Facility Time Period Results

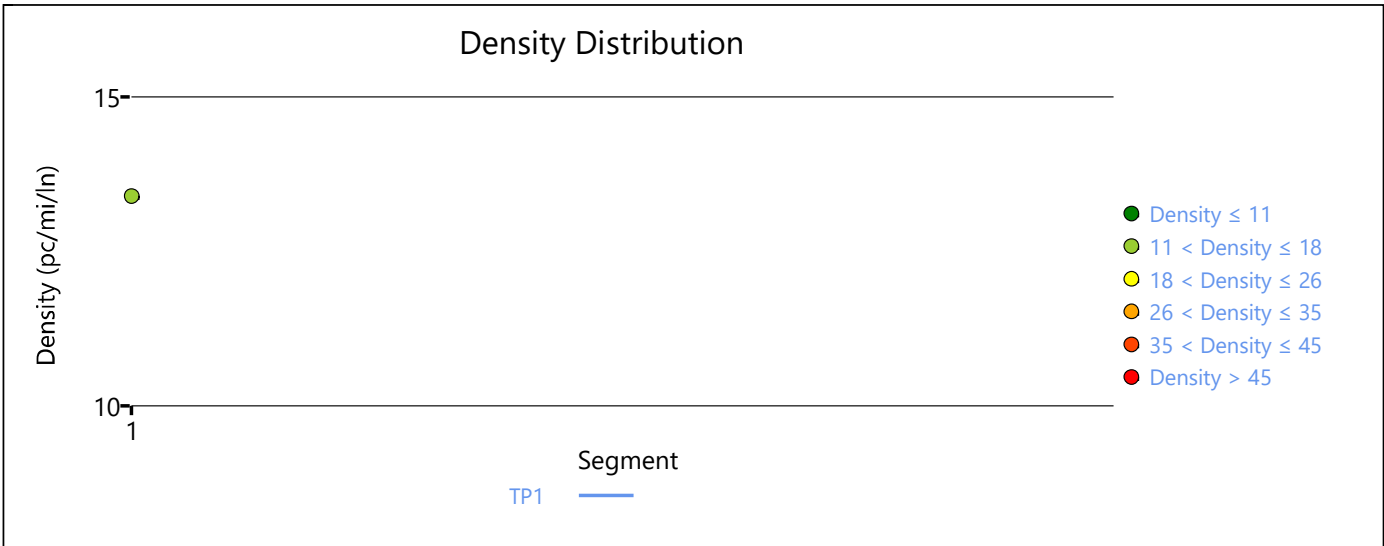
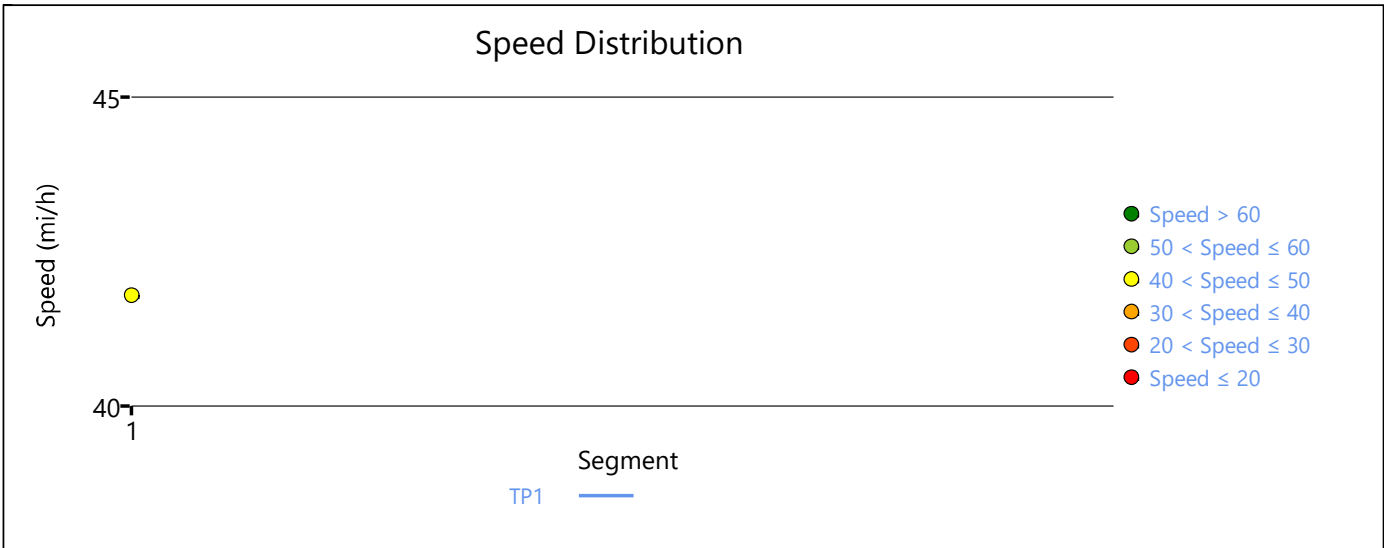
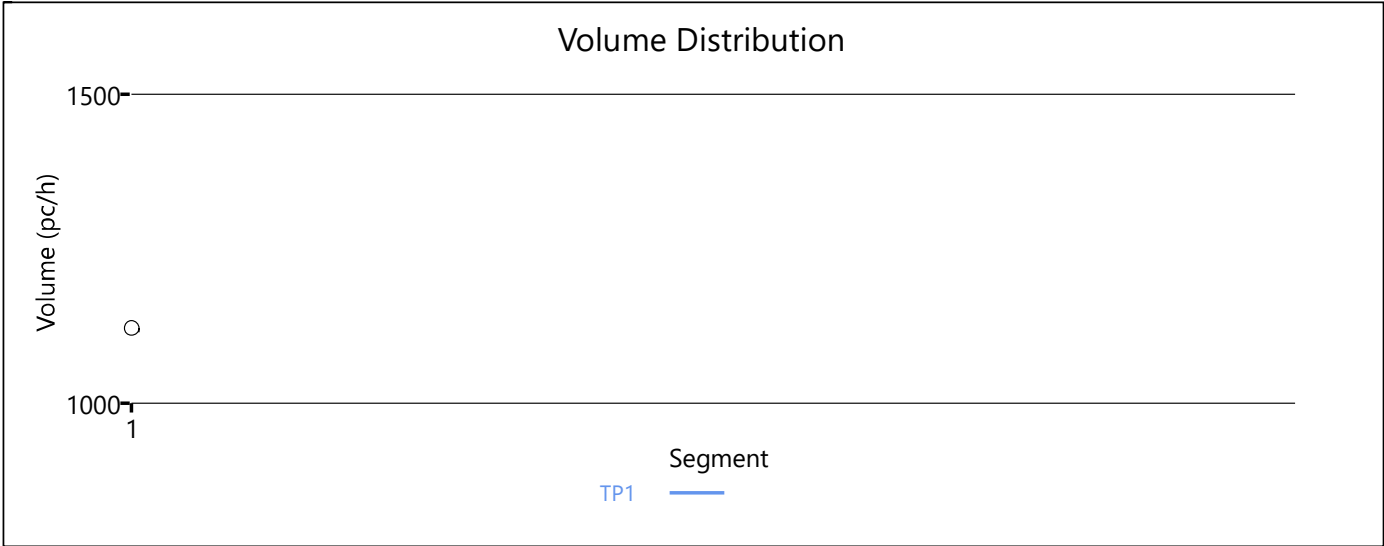
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	13.4	12.2	1.40	B

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	12.2
Average Travel Time, min	1.40	Density, pc/mi/ln	13.4

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.809	274	4400	0.06	41.8	3.3	A

### Facility Time Period Results

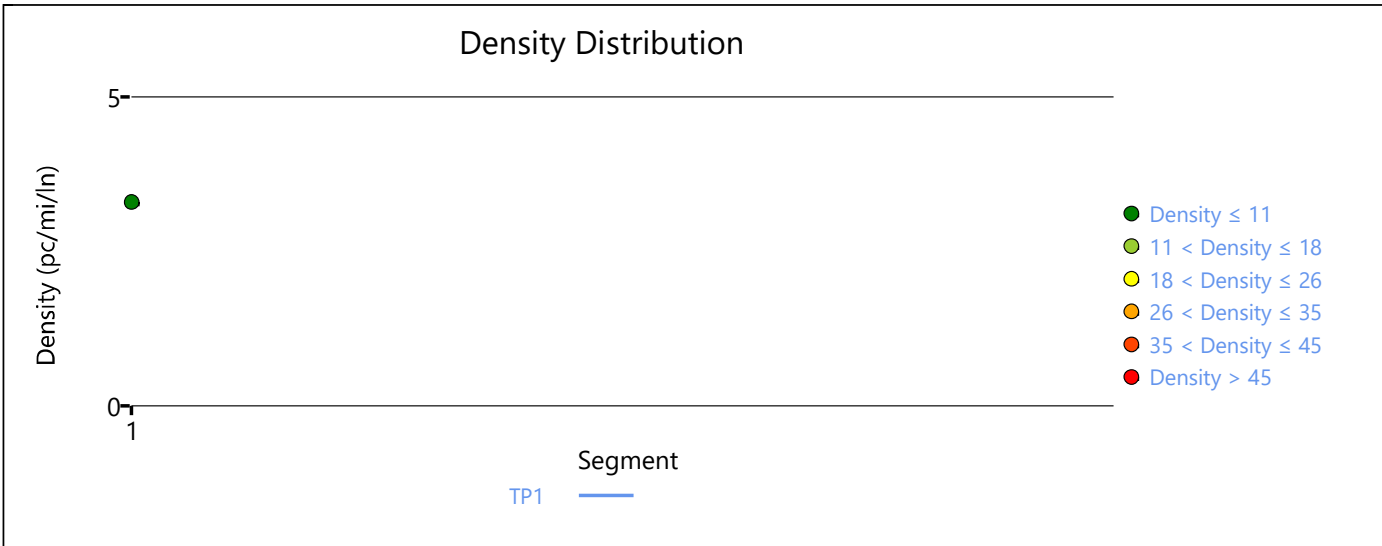
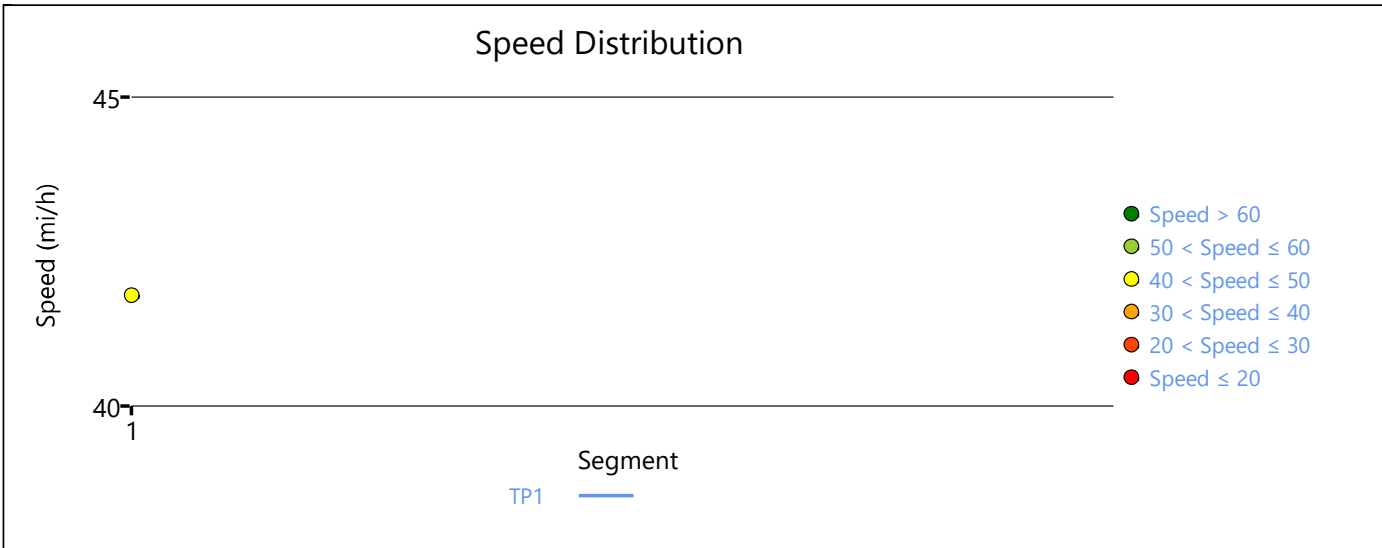
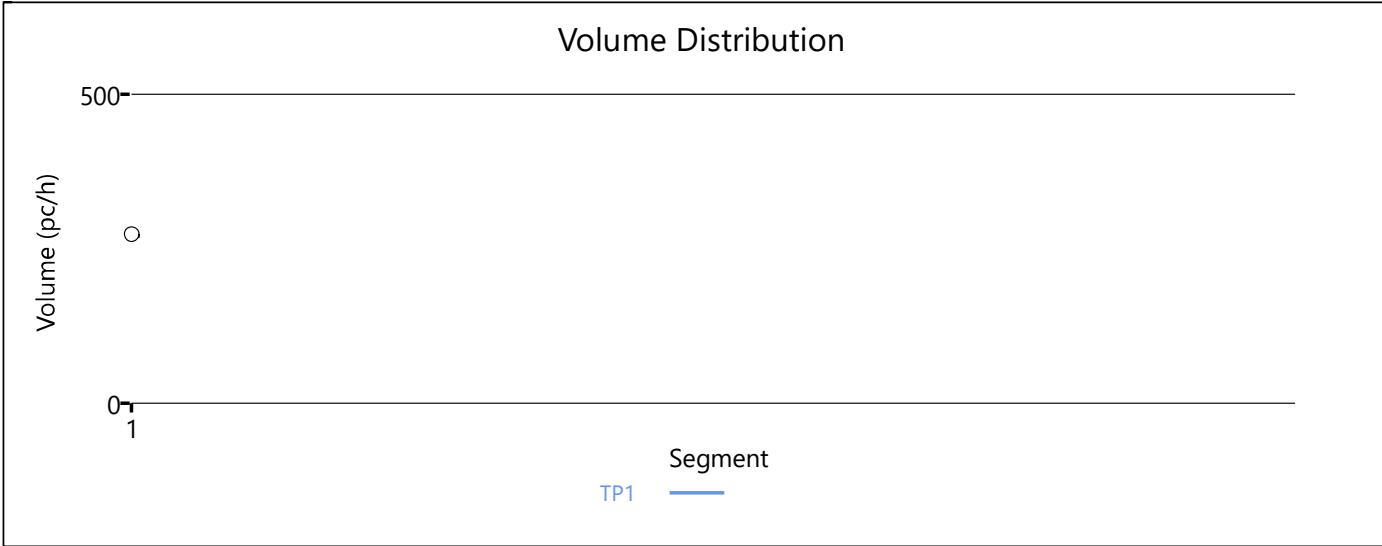
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	3.3	2.7	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.7
Average Travel Time, min	1.40	Density, pc/mi/ln	3.3

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	1717	4400	0.39	41.8	20.5	C

### Facility Time Period Results

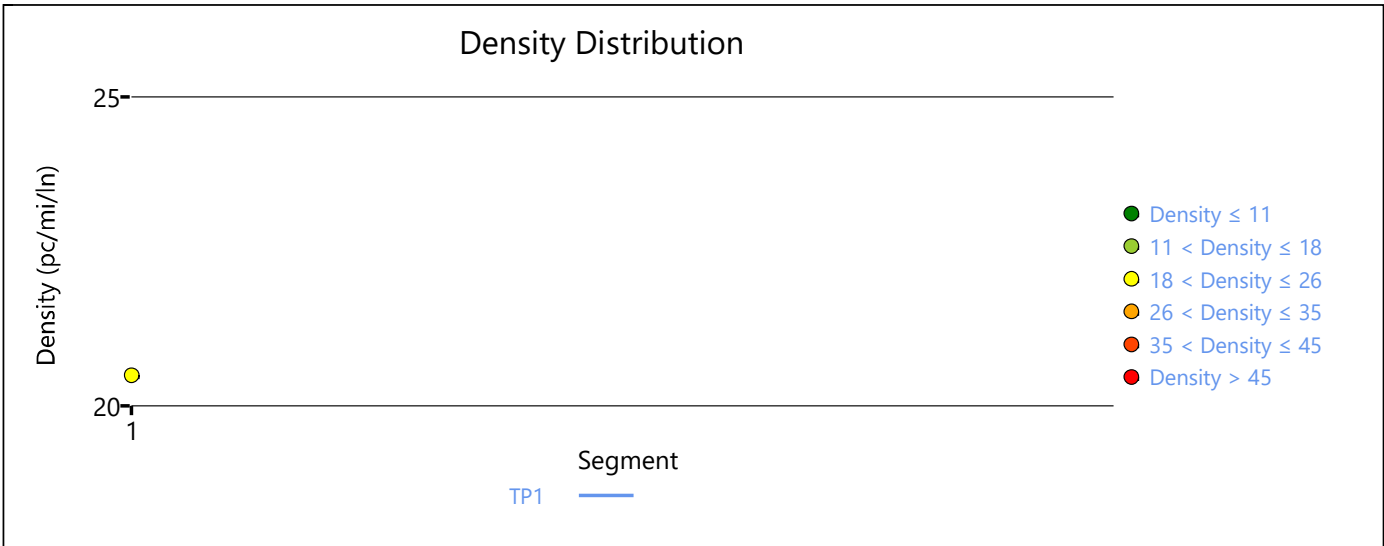
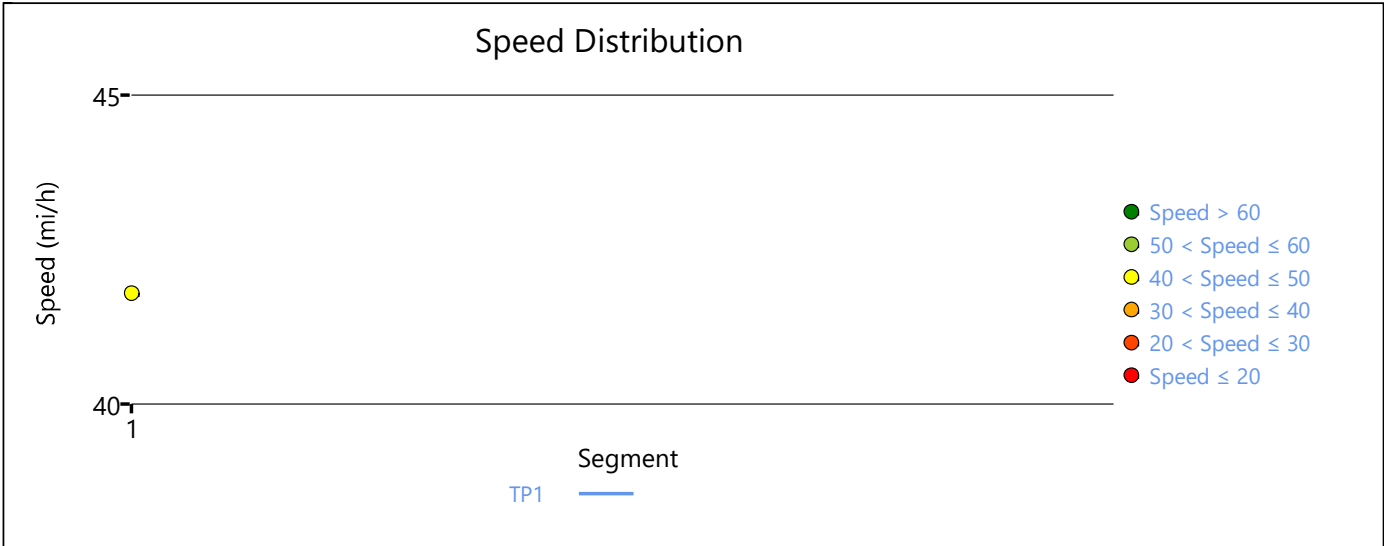
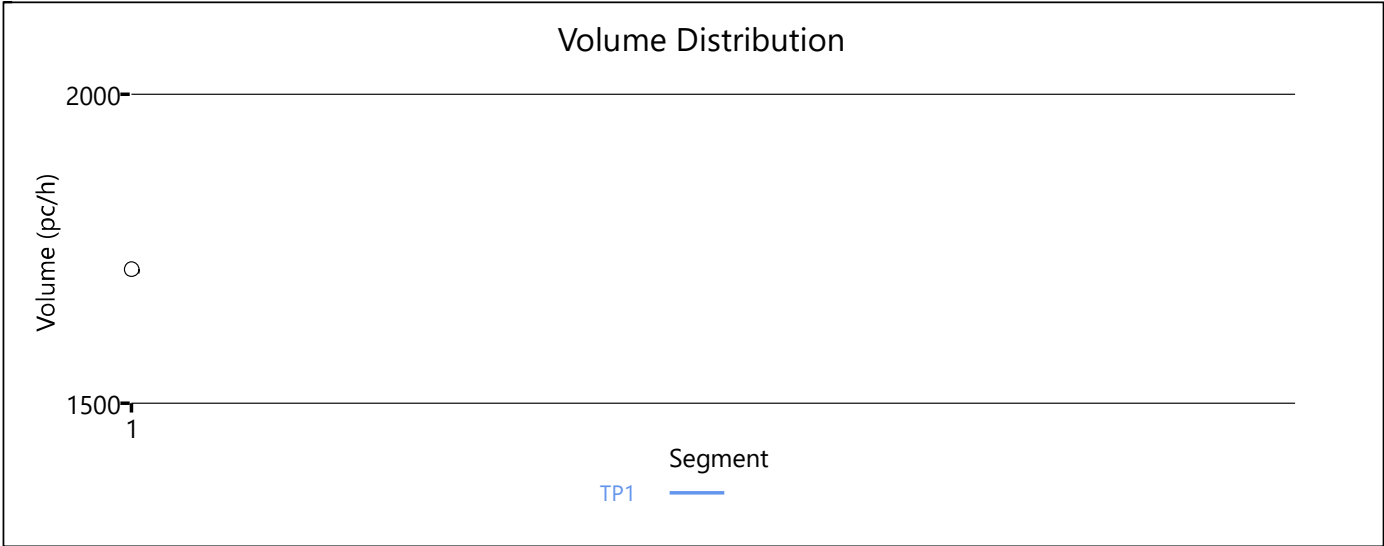
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	20.5	18.6	1.40	C

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	18.6
Average Travel Time, min	1.40	Density, pc/mi/ln	20.5

### Messages

### Comments



## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.846	944	4400	0.21	41.8	11.3	B

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	11.3	9.6	1.40	B

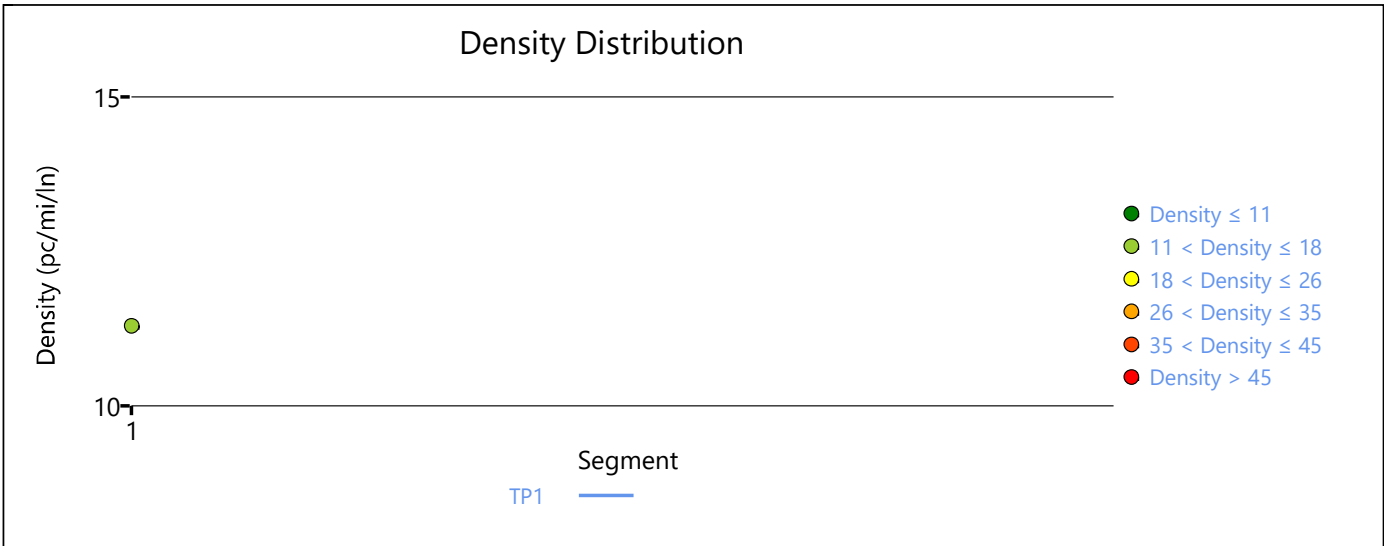
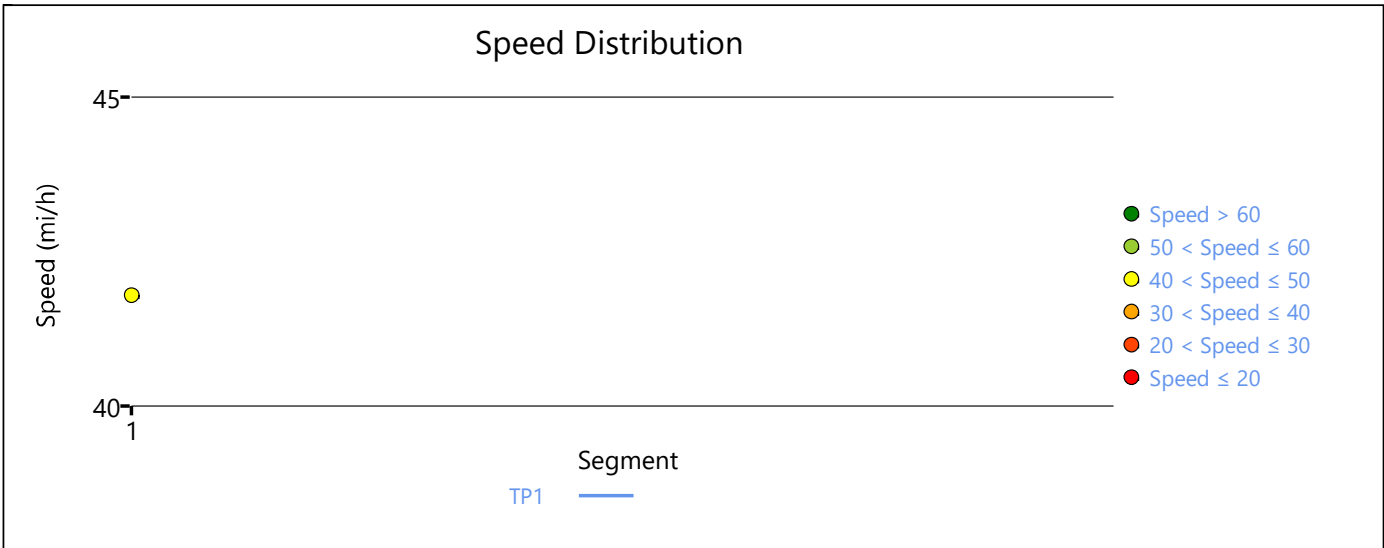
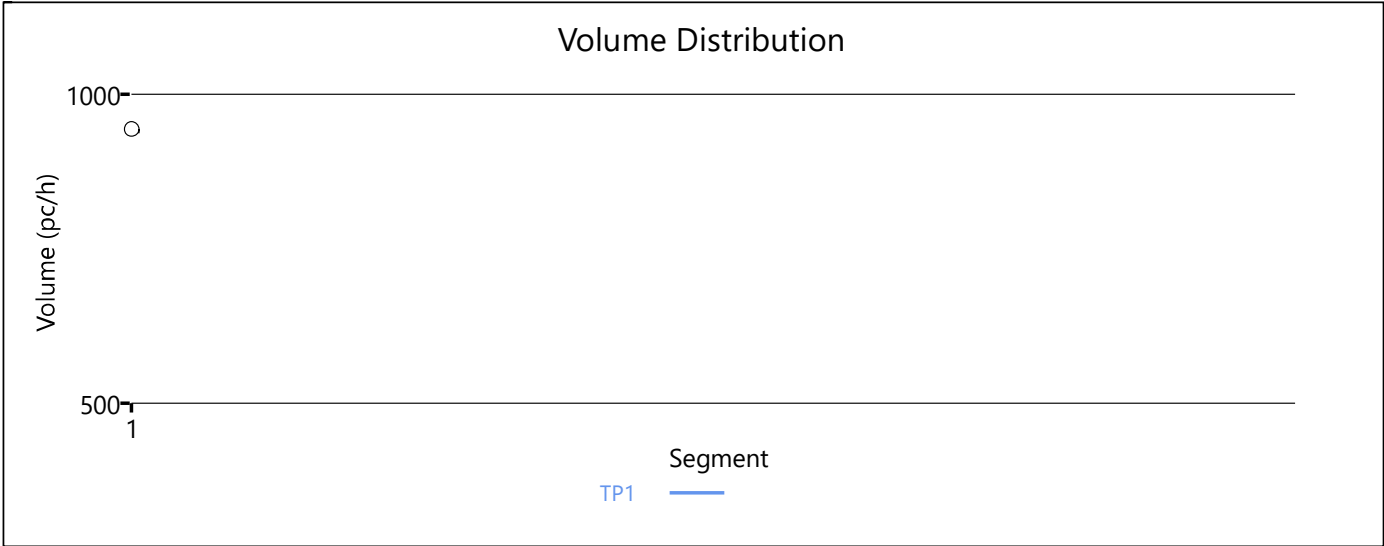
### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	9.6
Average Travel Time, min	1.40	Density, pc/mi/ln	11.3

### Messages

INFORMATION 1      Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.933	893	4400	0.20	41.8	10.7	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.7	10.0	1.40	A

### Facility Overall Results

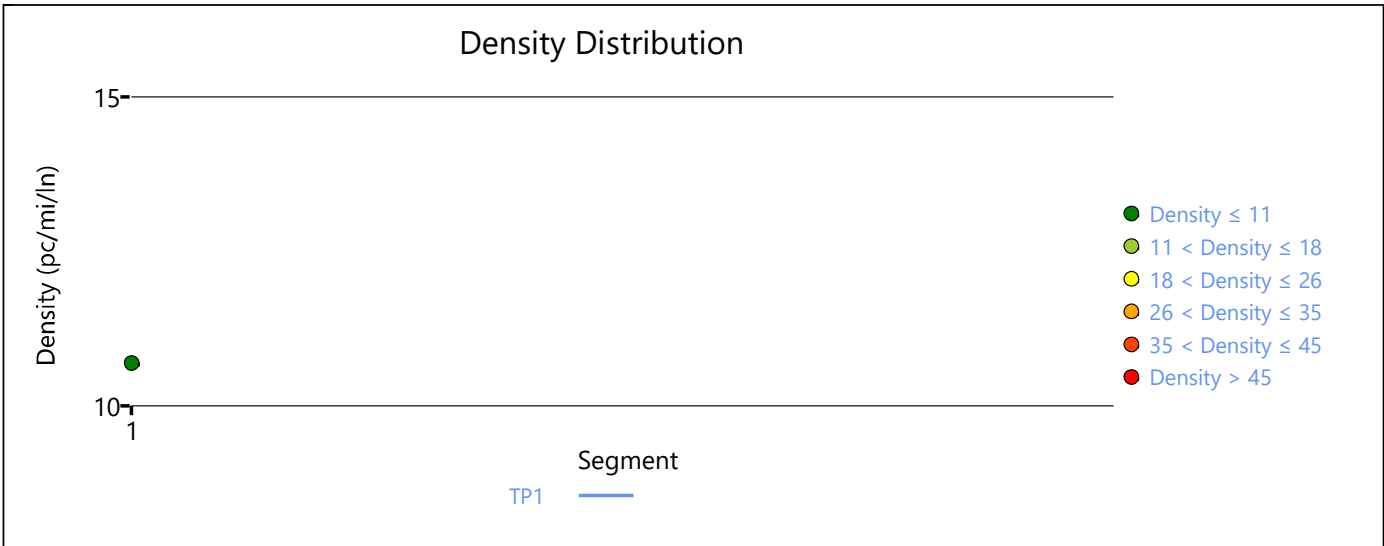
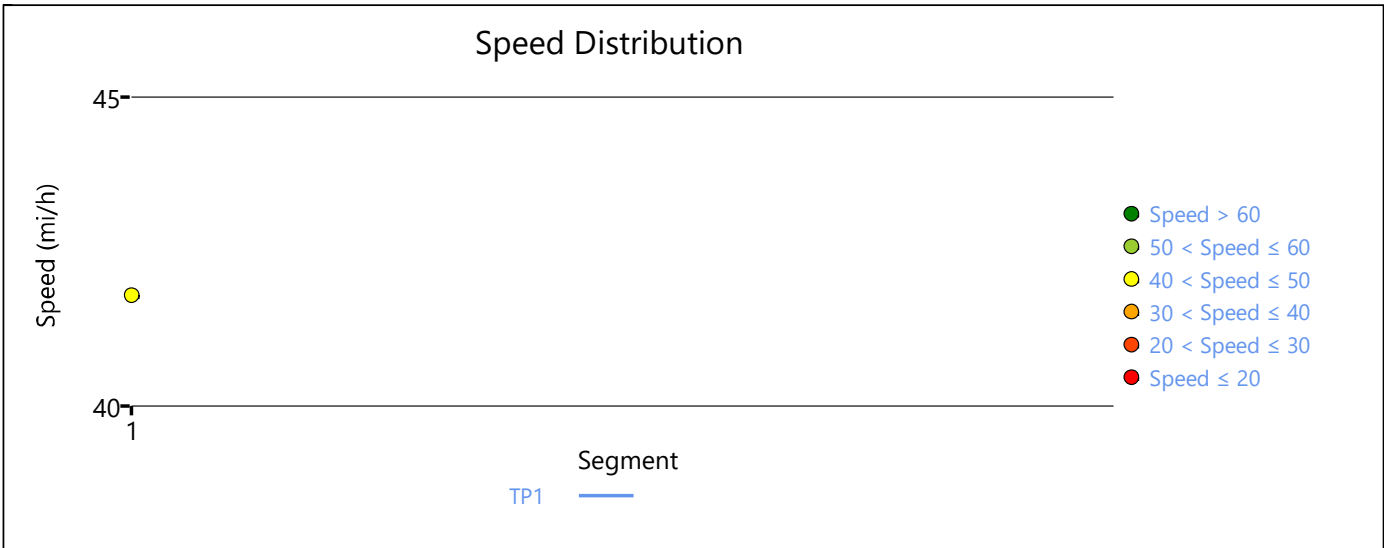
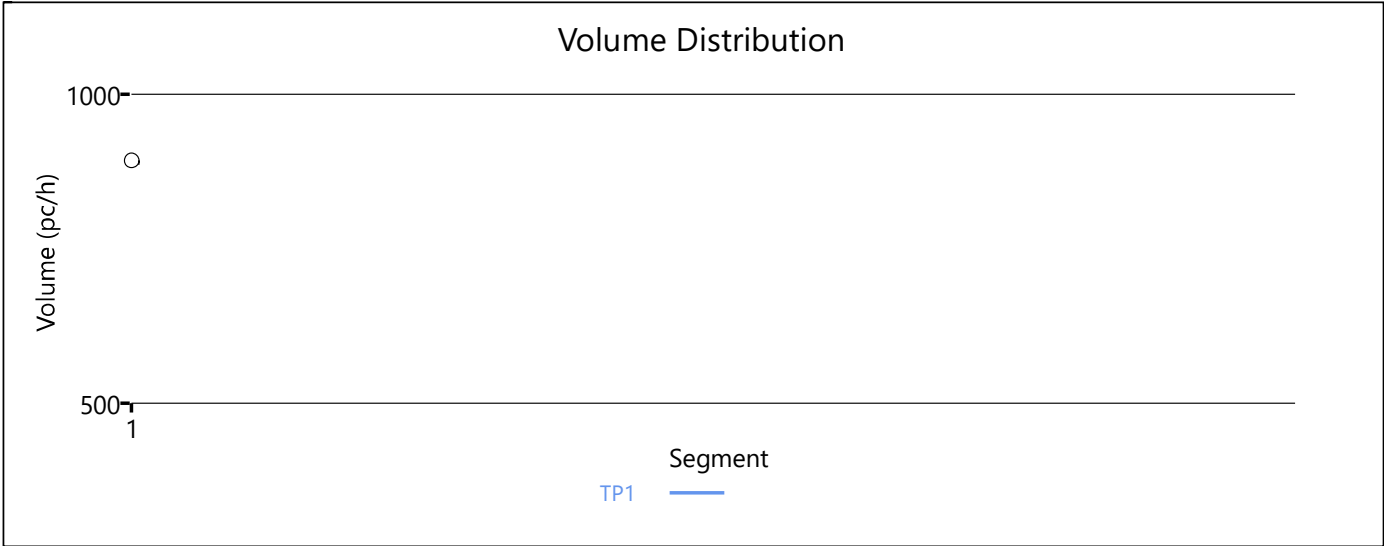
Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	10.0
Average Travel Time, min	1.40	Density, pc/mi/ln	10.7

### Messages

INFORMATION 1	Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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### Comments

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## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.00		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.865	280	4400	0.06	41.8	3.3	A

### Facility Time Period Results

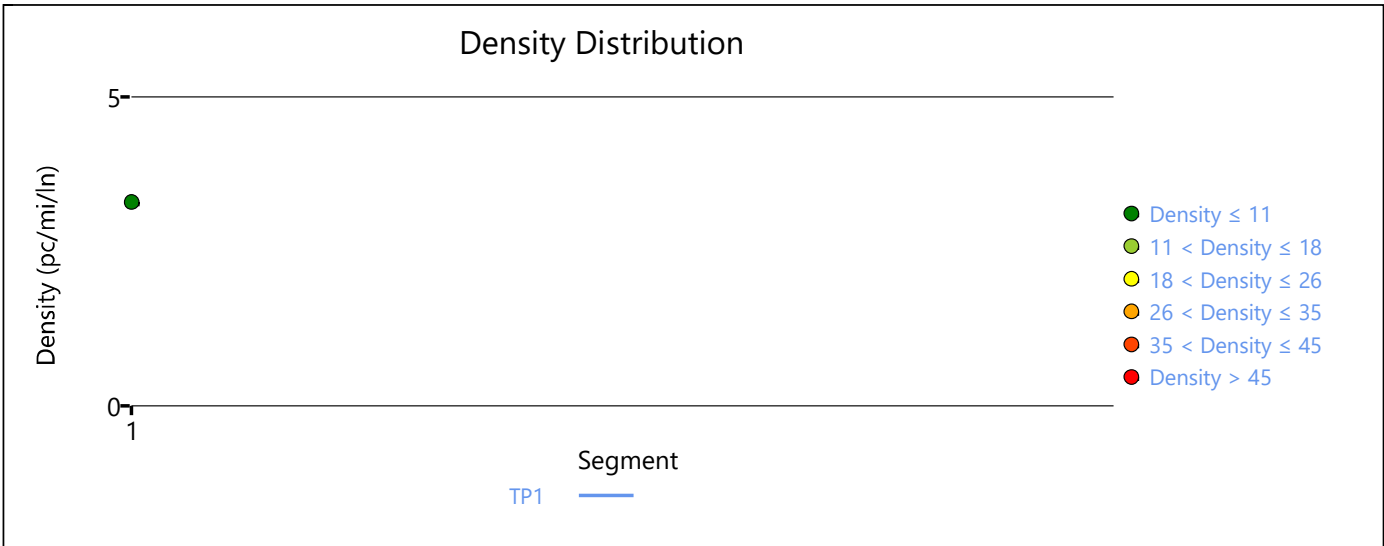
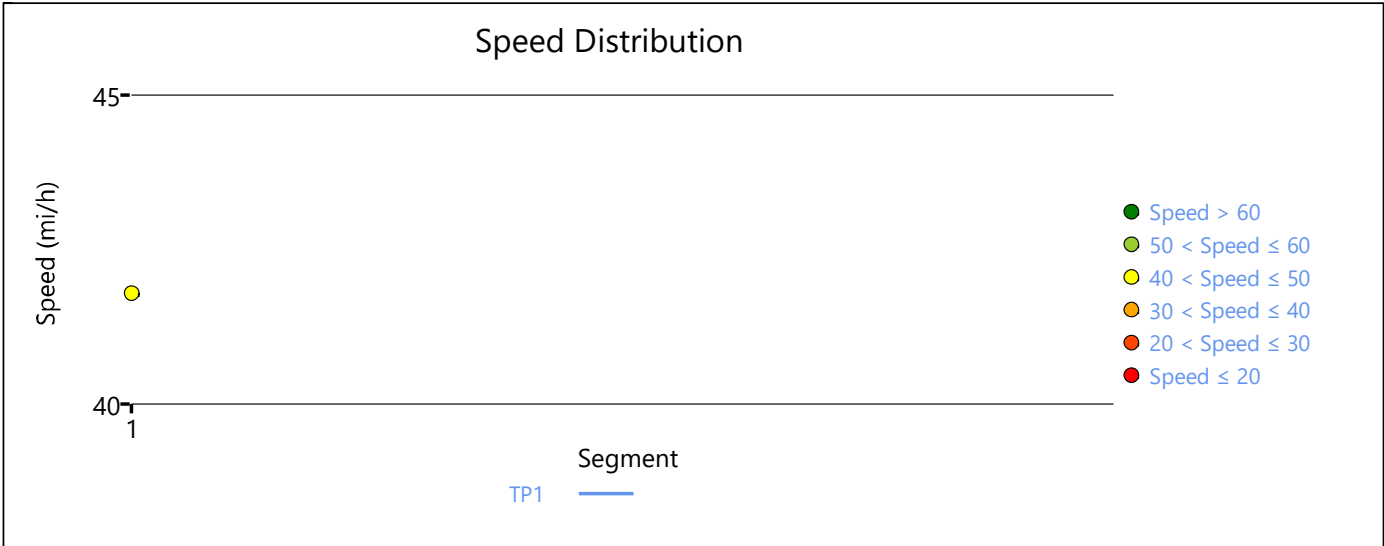
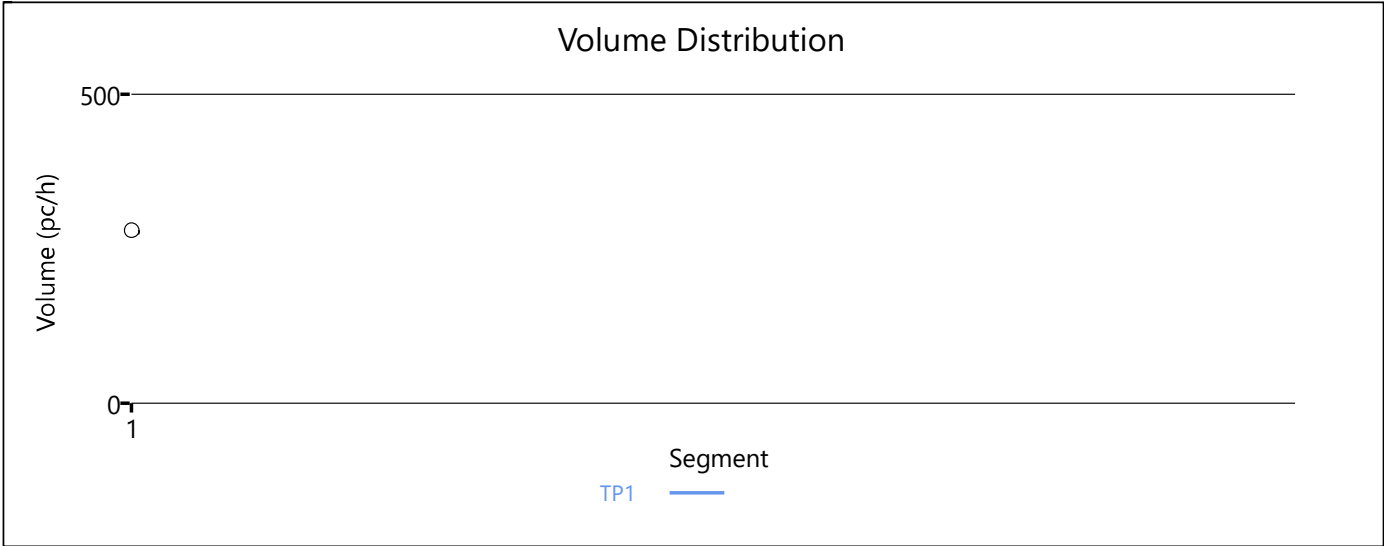
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	3.3	2.9	1.40	A

### Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.9
Average Travel Time, min	1.40	Density, pc/mi/ln	3.3

### Messages

### Comments



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.772	209	6654	0.03	51.8	1.4	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.772	0.849	1012	803	6750	4000	0.15	0.20	51.6	51.3	6.5	8.2	A

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.833	1013	6654	0.15	51.8	6.5	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.3	3.5	1.20	A

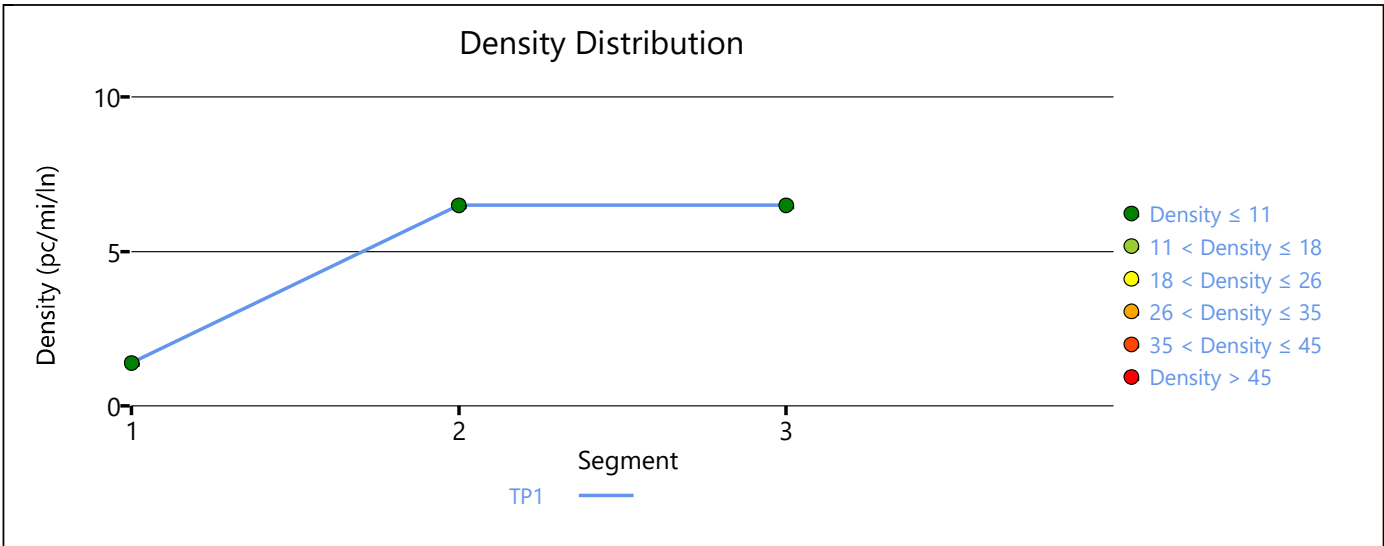
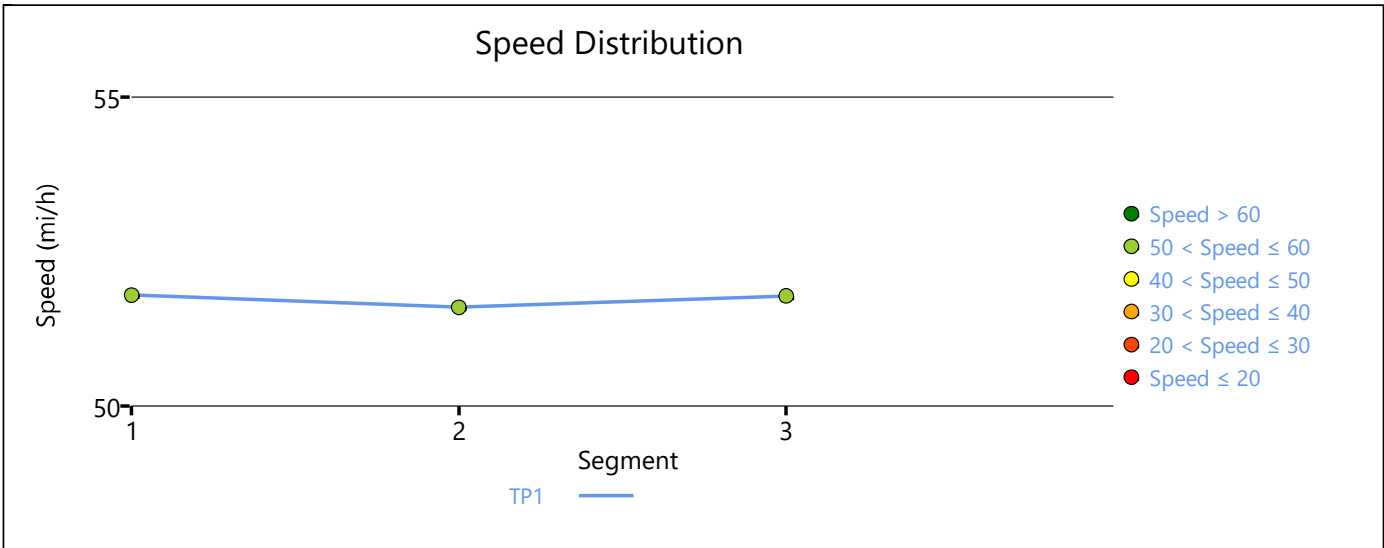
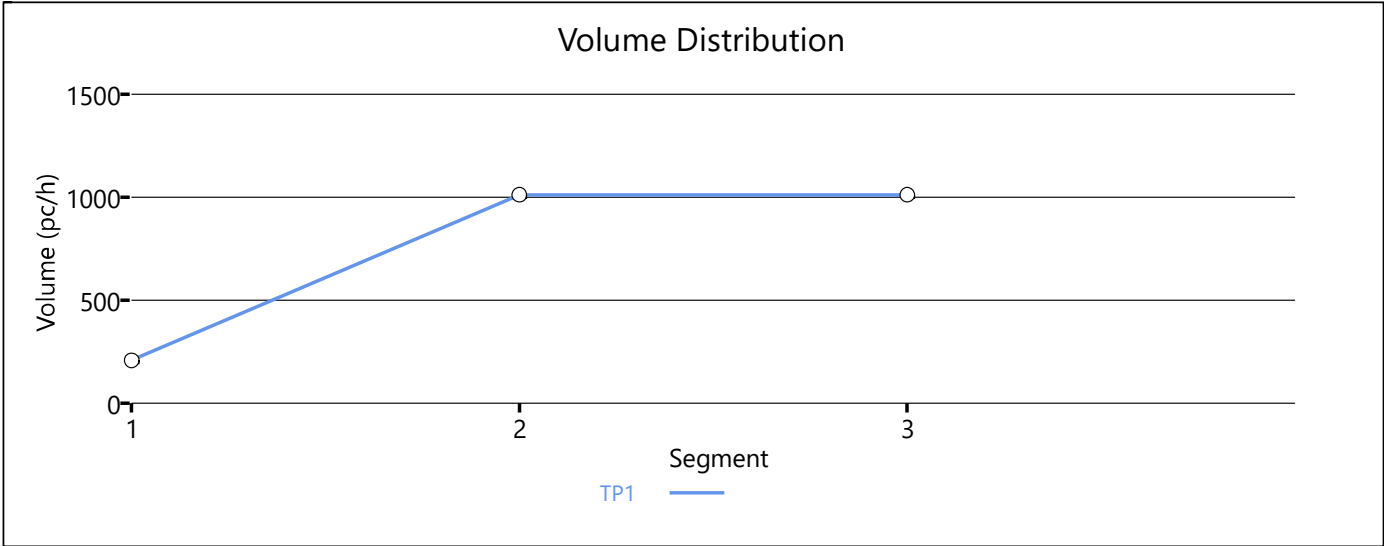
## Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.5
Average Travel Time, min	1.20	Density, pc/mi/ln	4.3

## Messages

## Comments





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.797	300	6654	0.05	51.8	1.9	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.797	0.801	1060	760	6750	4000	0.16	0.19	51.7	51.3	6.8	8.3	A

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.800	1060	6654	0.16	51.8	6.8	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.6	3.7	1.20	A

## Facility Overall Results

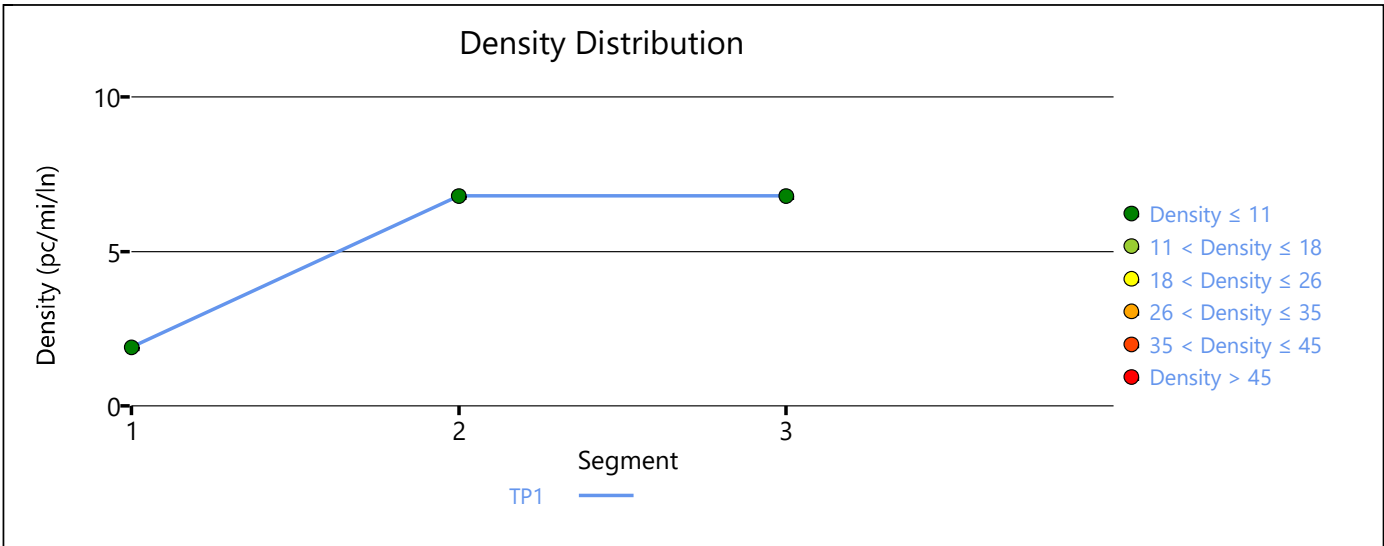
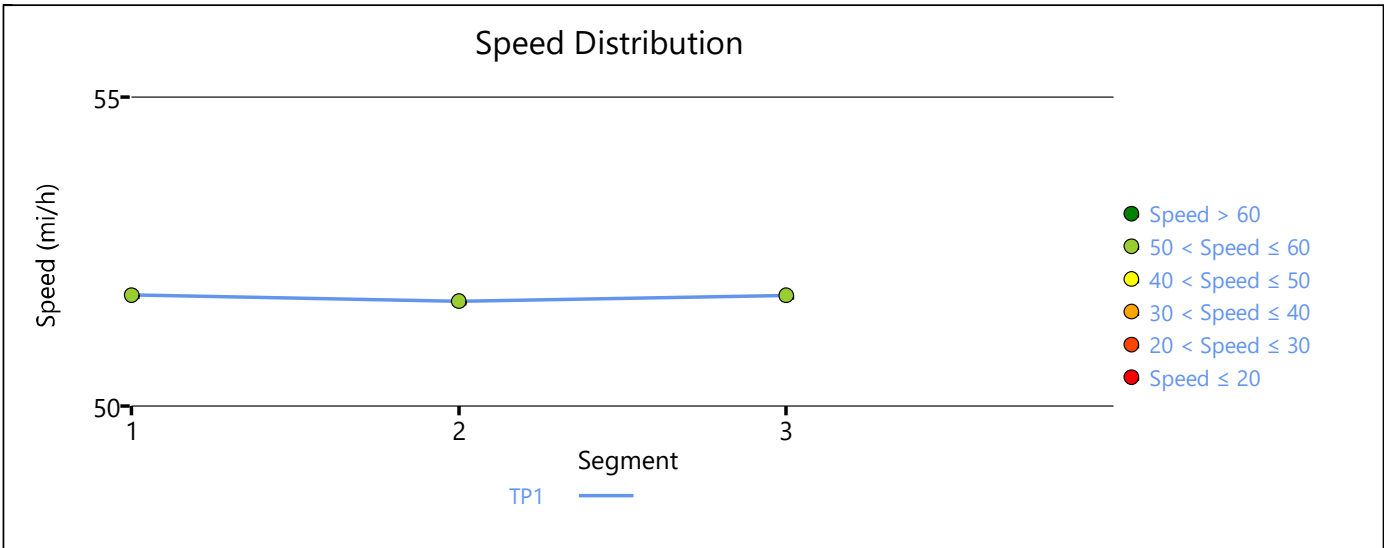
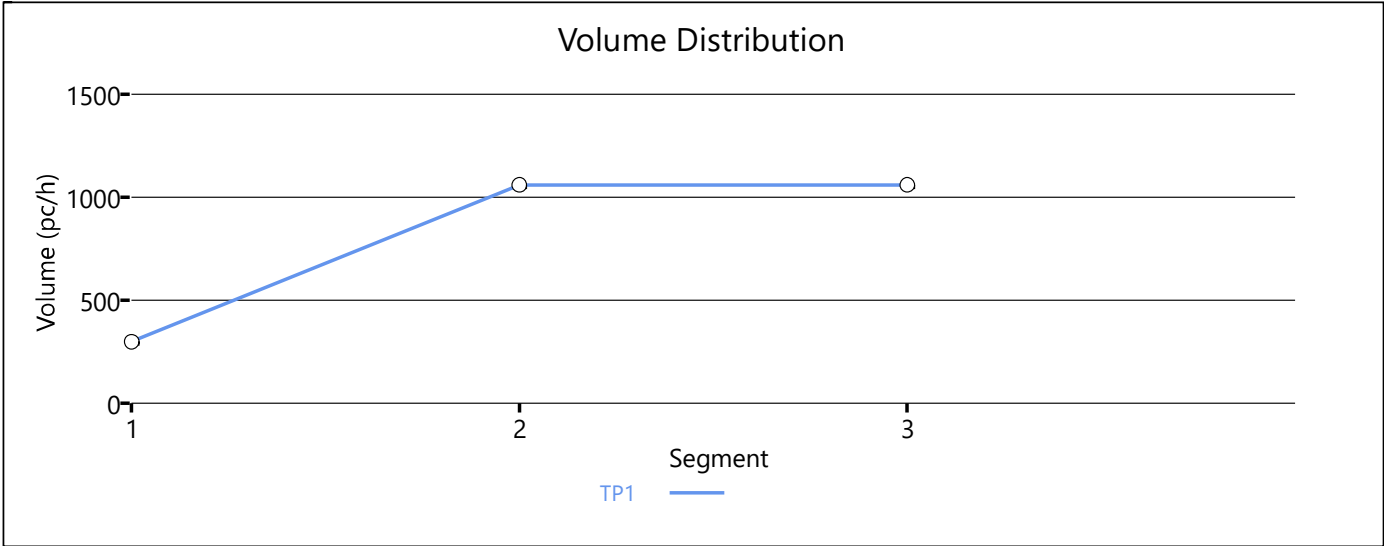
Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.7
Average Travel Time, min	1.20	Density, pc/mi/ln	4.6

## Messages

## Comments







# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.919	484	6654	0.07	51.8	3.1	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.919	0.923	1412	928	6750	4000	0.21	0.23	51.8	51.3	9.1	10.4	B

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.923	1410	6654	0.21	51.8	9.1	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	6.5	5.9	1.20	A

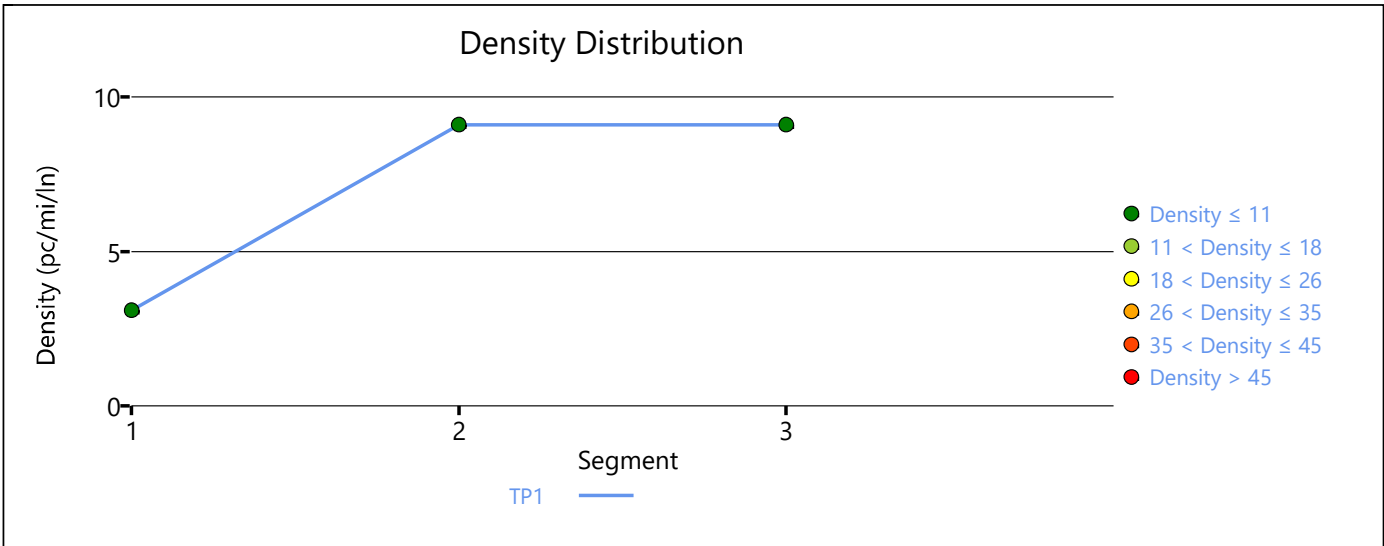
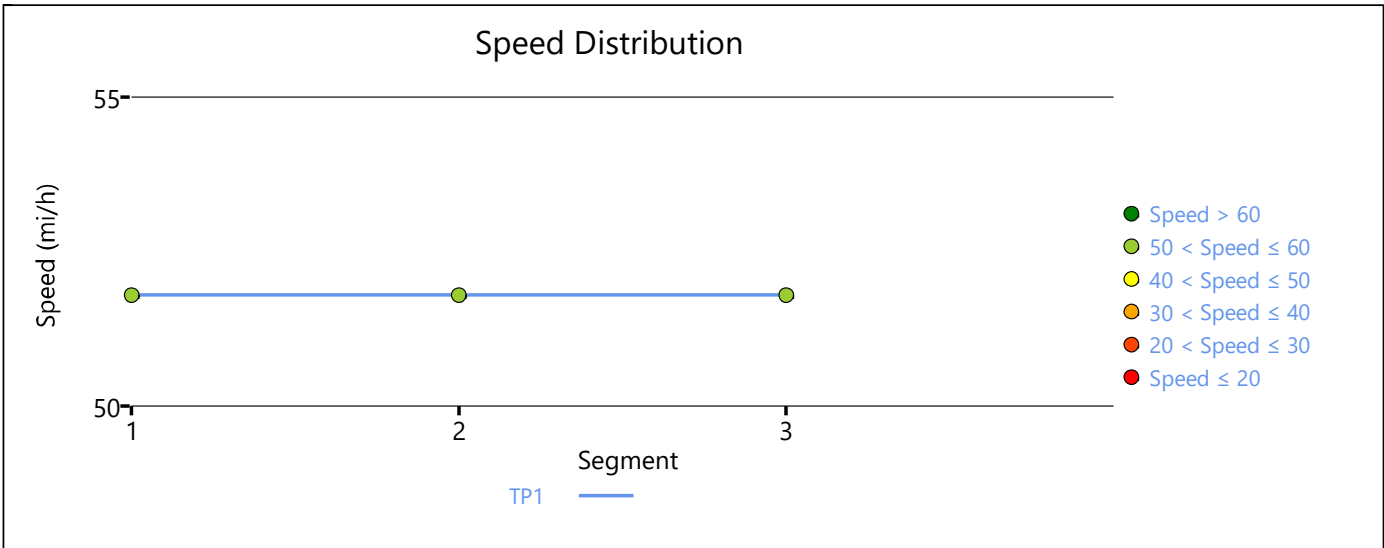
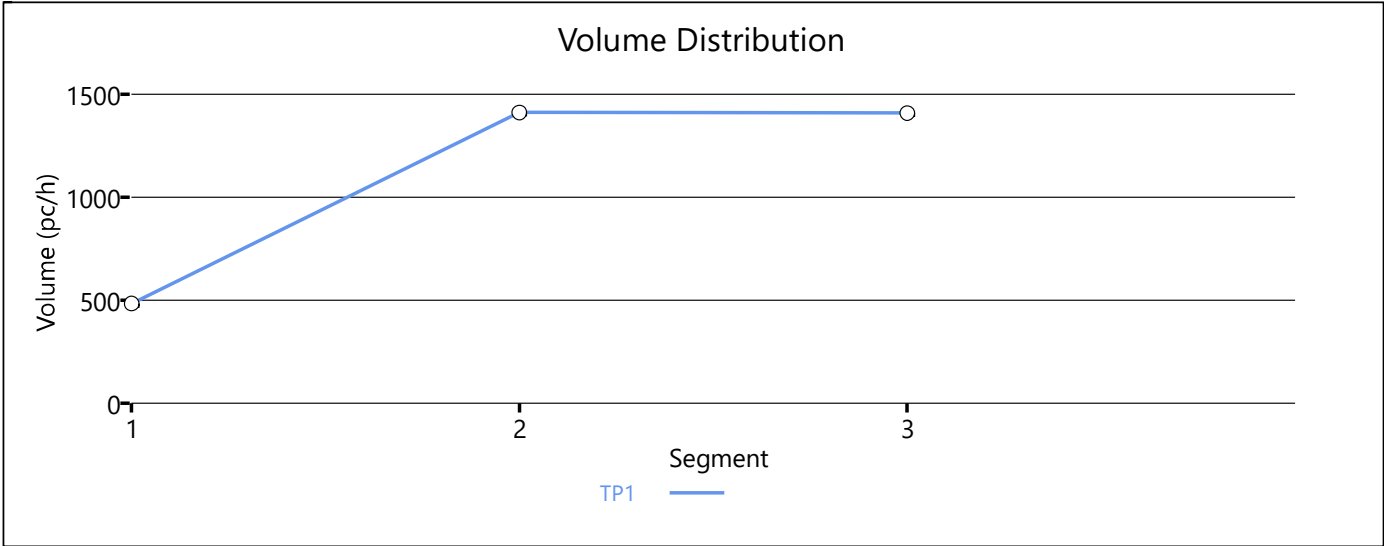
## Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	5.9
Average Travel Time, min	1.20	Density, pc/mi/ln	6.5

## Messages

INFORMATION 1	Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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Comments



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.723	22	6654	0.00	51.8	0.1	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.723	0.888	431	409	6750	4000	0.06	0.10	51.4	51.3	2.8	4.5	A

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.880	430	6654	0.06	51.8	2.8	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.7	1.6	1.4	1.20	A

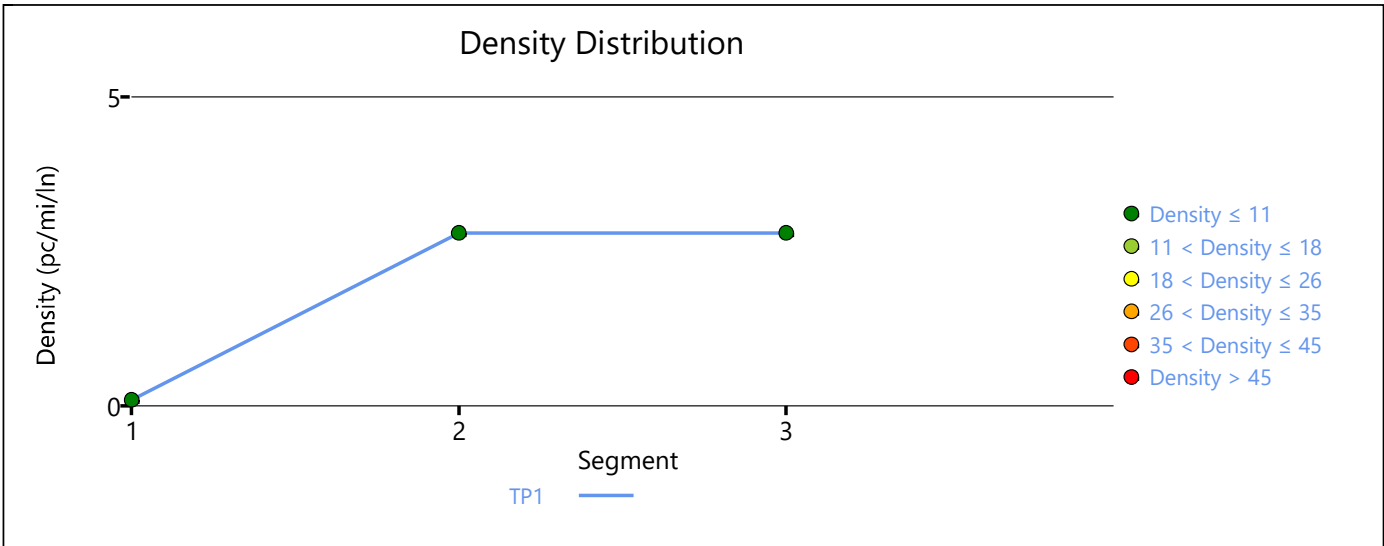
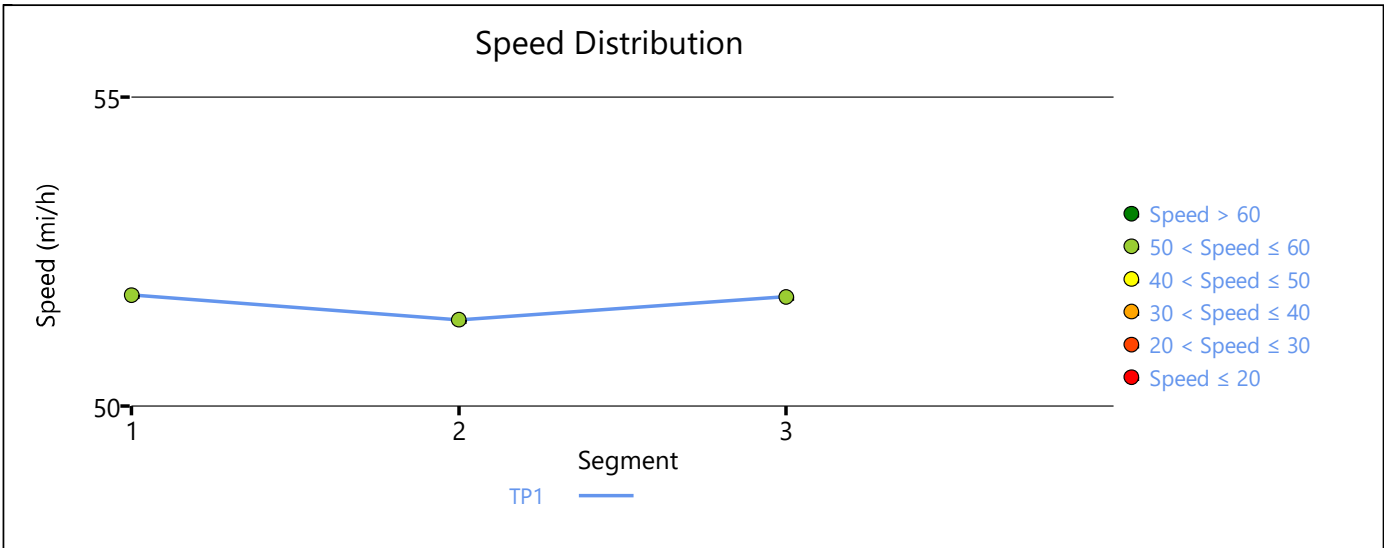
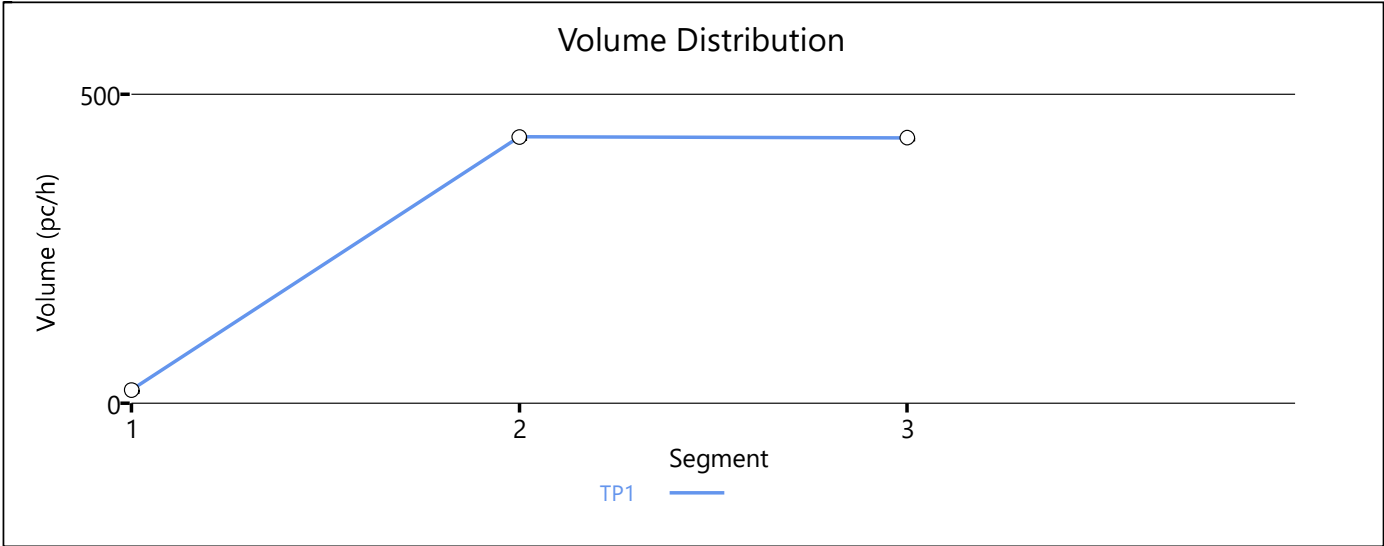
## Facility Overall Results

Space Mean Speed, mi/h	51.7	Density, veh/mi/ln	1.4
Average Travel Time, min	1.20	Density, pc/mi/ln	1.6

## Messages

## Comments







# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Analyzed	AM
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.846	1337	6654	0.20	51.8	8.6	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.846	0.829	1337	808	6750	4200	0.20	0.19	54.9	55.0	8.1	8.1	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.873	528	6654	0.08	51.8	3.4	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	52.8	6.6	5.6	1.50	A

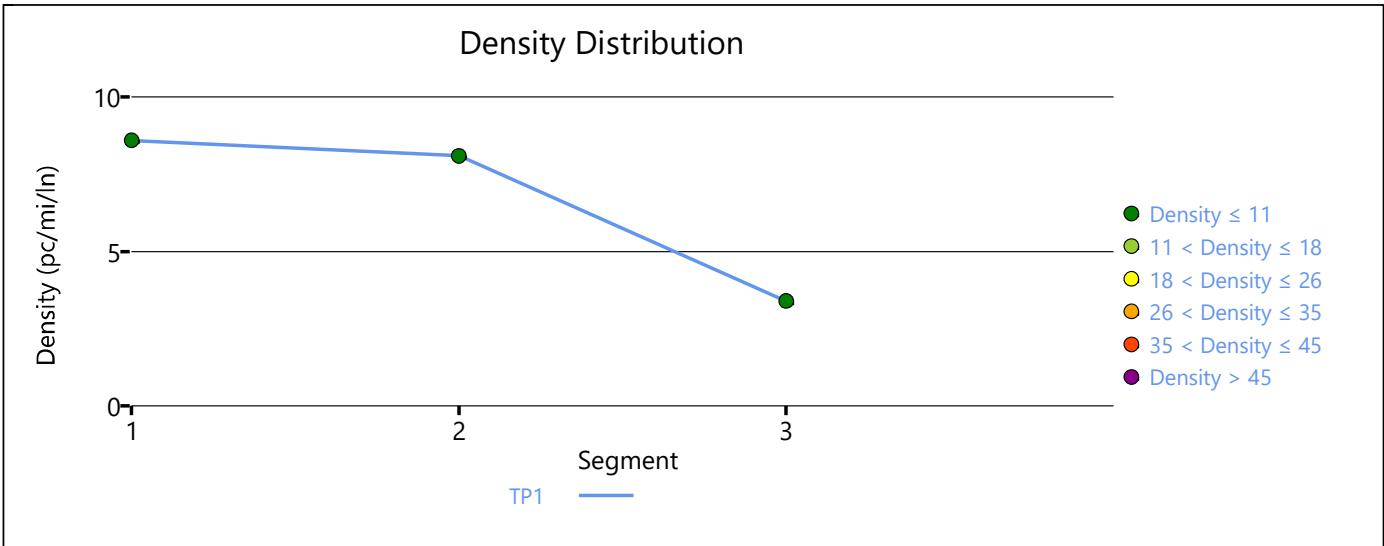
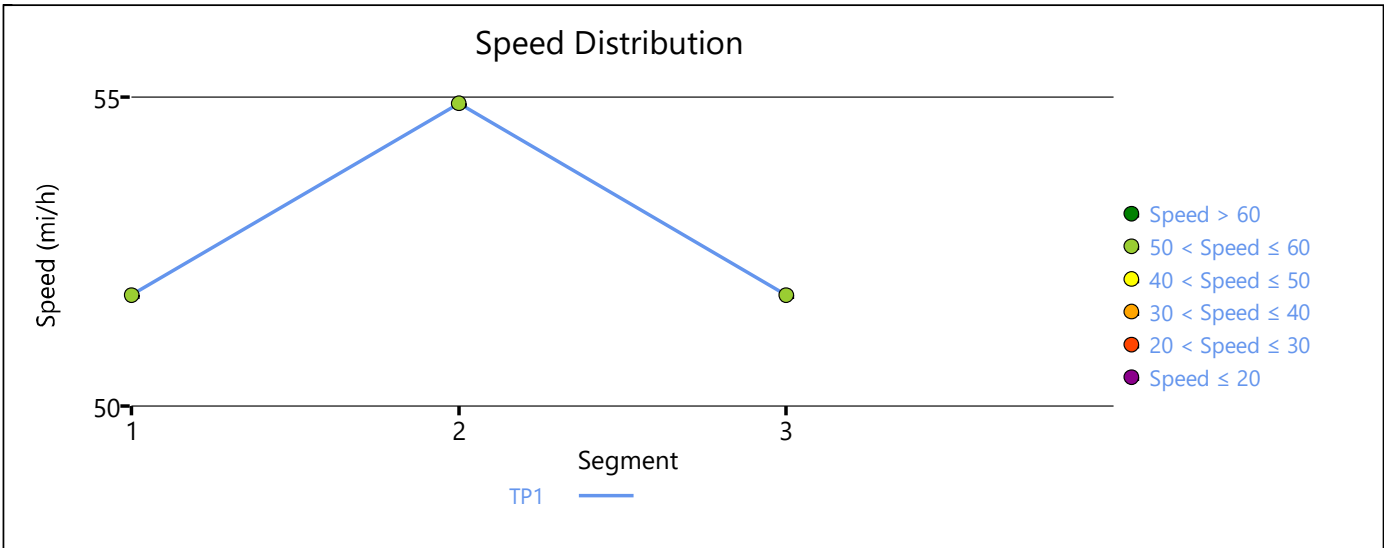
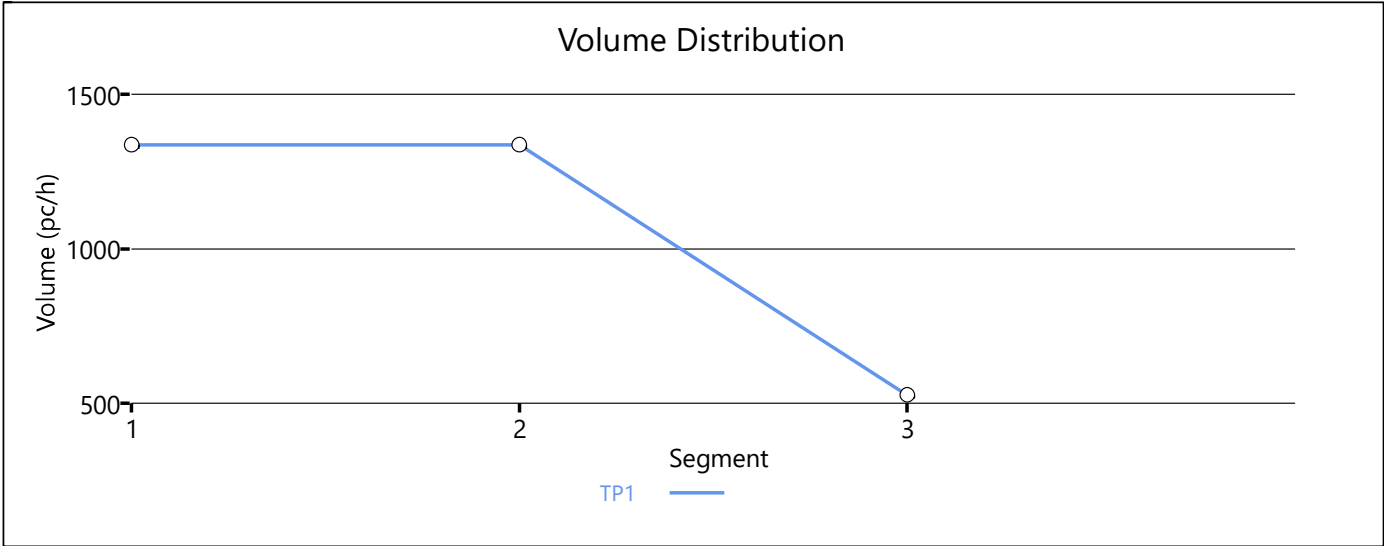
## Facility Overall Results

Space Mean Speed, mi/h	52.8	Density, veh/mi/ln	5.6
Average Travel Time, min	1.50	Density, pc/mi/ln	6.6

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Analyzed	MD
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.810	835	6654	0.13	51.8	5.4	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.810	0.817	835	776	6750	4200	0.12	0.18	54.9	55.0	5.1	5.1	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.715	60	6654	0.01	51.8	0.4	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	3.5	2.8	1.50	A

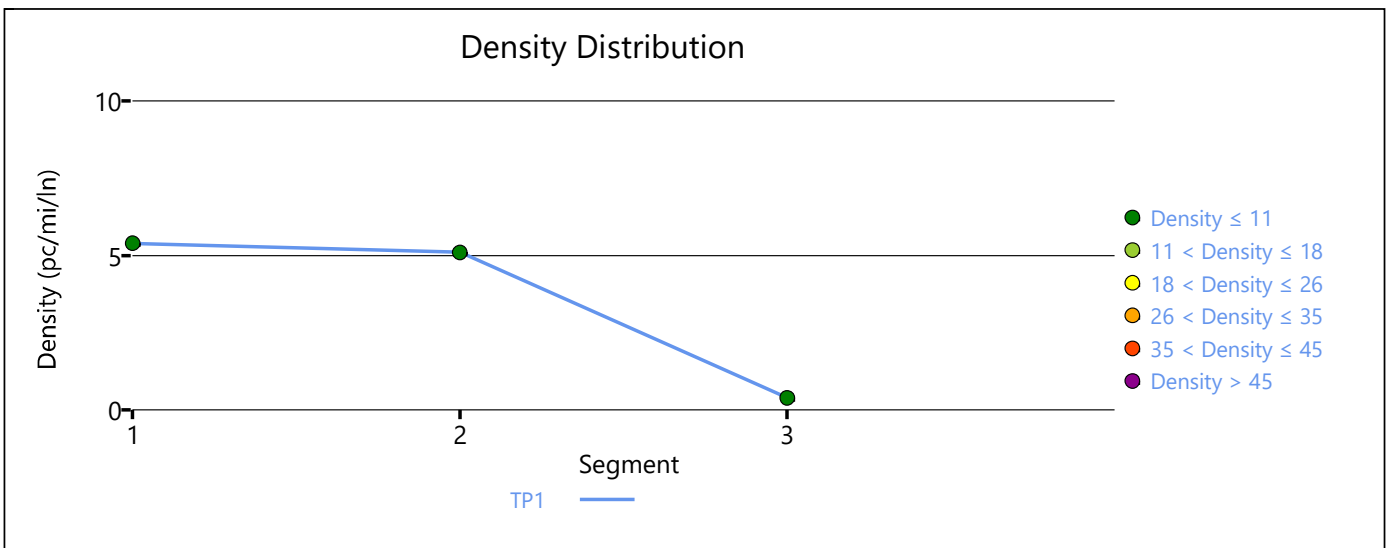
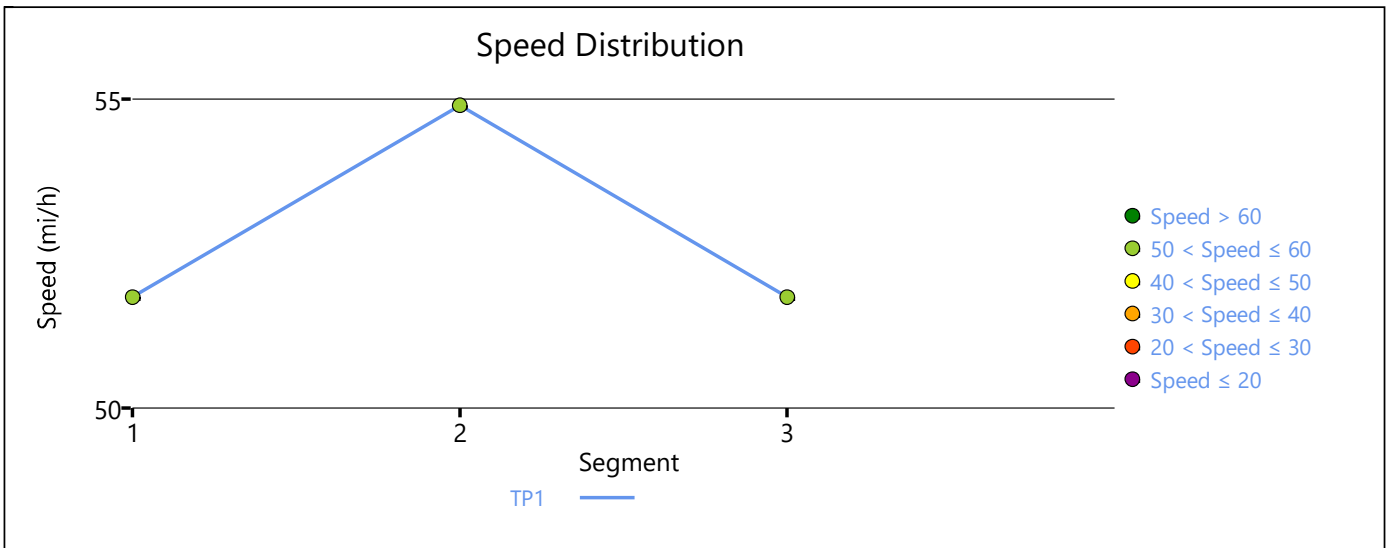
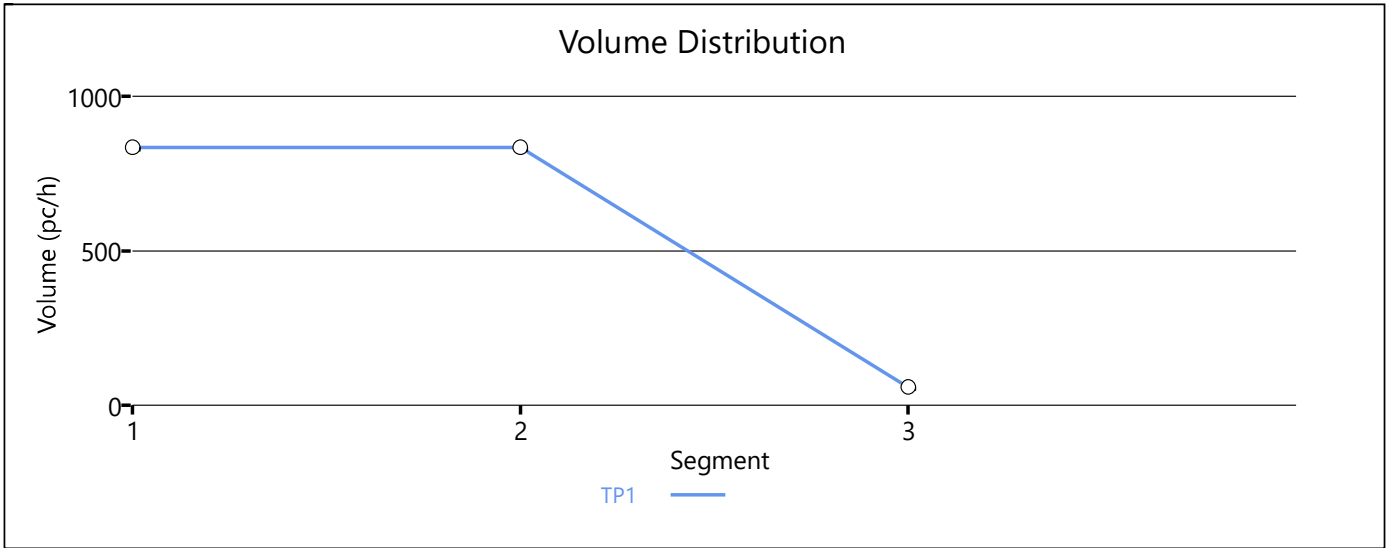
## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	2.8
Average Travel Time, min	1.50	Density, pc/mi/ln	3.5

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Analyzed	PM
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.921	925	6654	0.14	51.8	5.9	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.921	0.926	925	874	6750	4200	0.14	0.21	54.9	55.0	5.6	5.6	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.822	52	6654	0.01	51.8	0.3	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	3.8	3.4	1.50	A

## Facility Overall Results

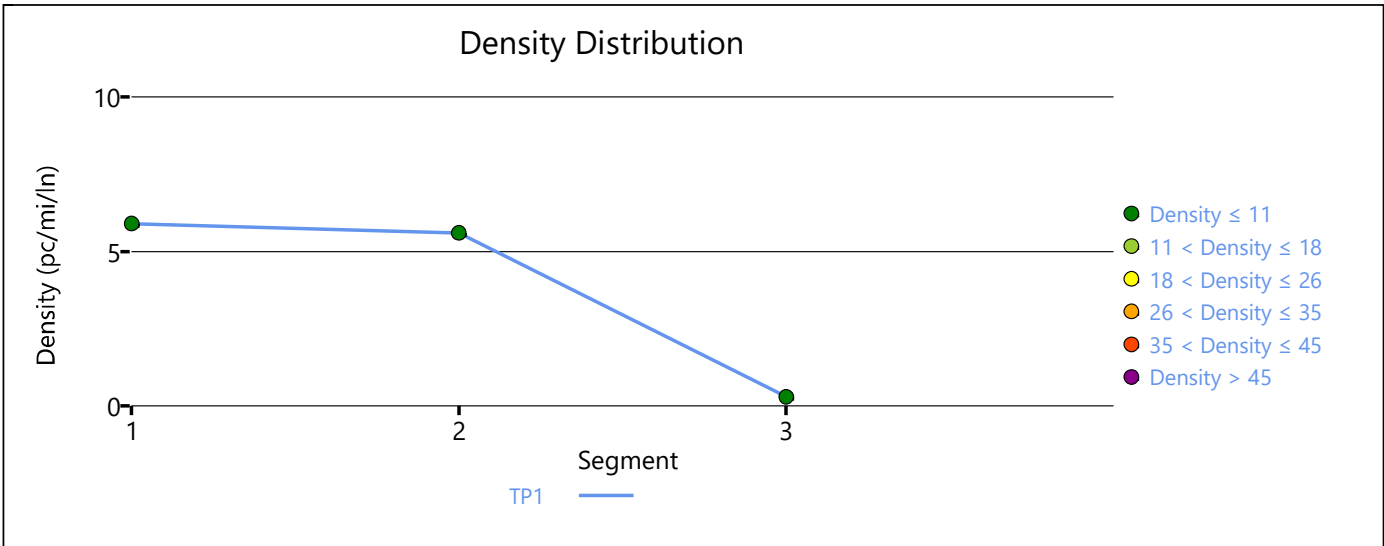
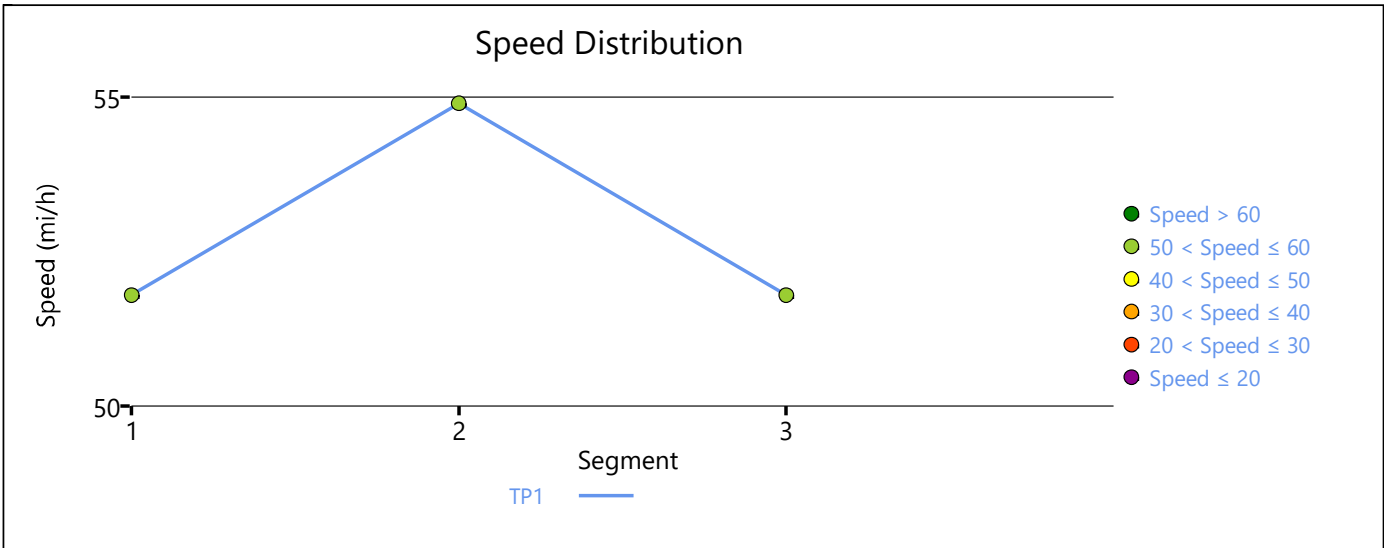
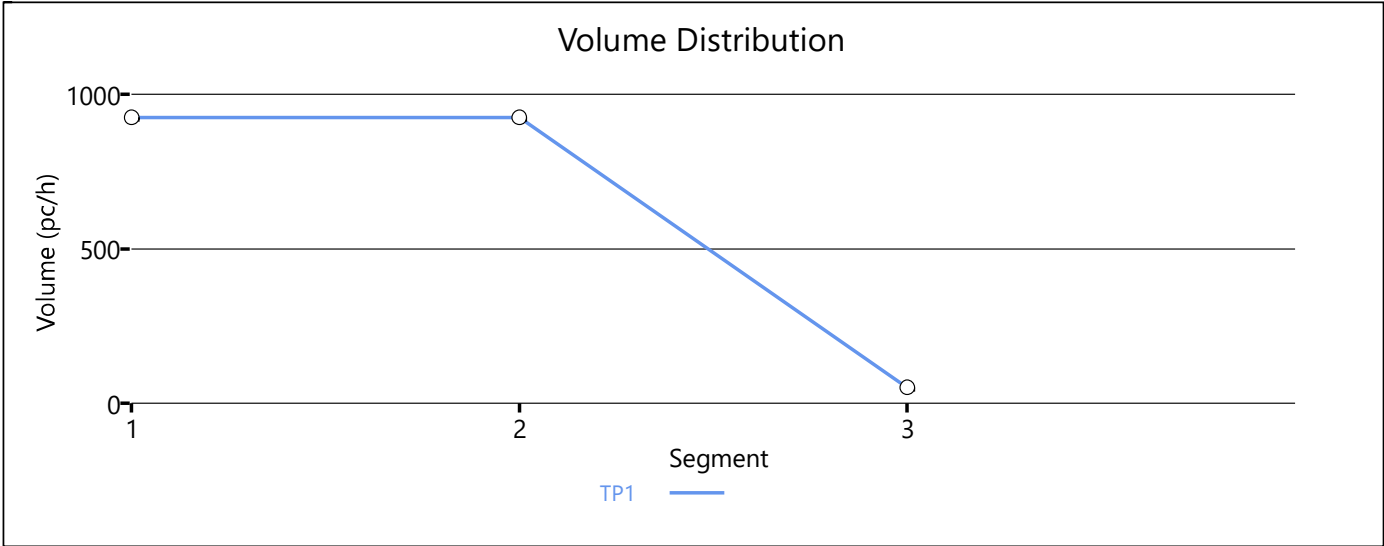
Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	3.4
Average Travel Time, min	1.50	Density, pc/mi/ln	3.8

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	Existing
Jurisdiction		Time Analyzed	LN
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.891	414	6654	0.06	51.8	2.7	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.891	0.899	414	395	6750	4200	0.06	0.09	54.9	55.0	2.5	2.5	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.734	19	6654	0.00	51.8	0.1	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	1.7	1.5	1.50	A

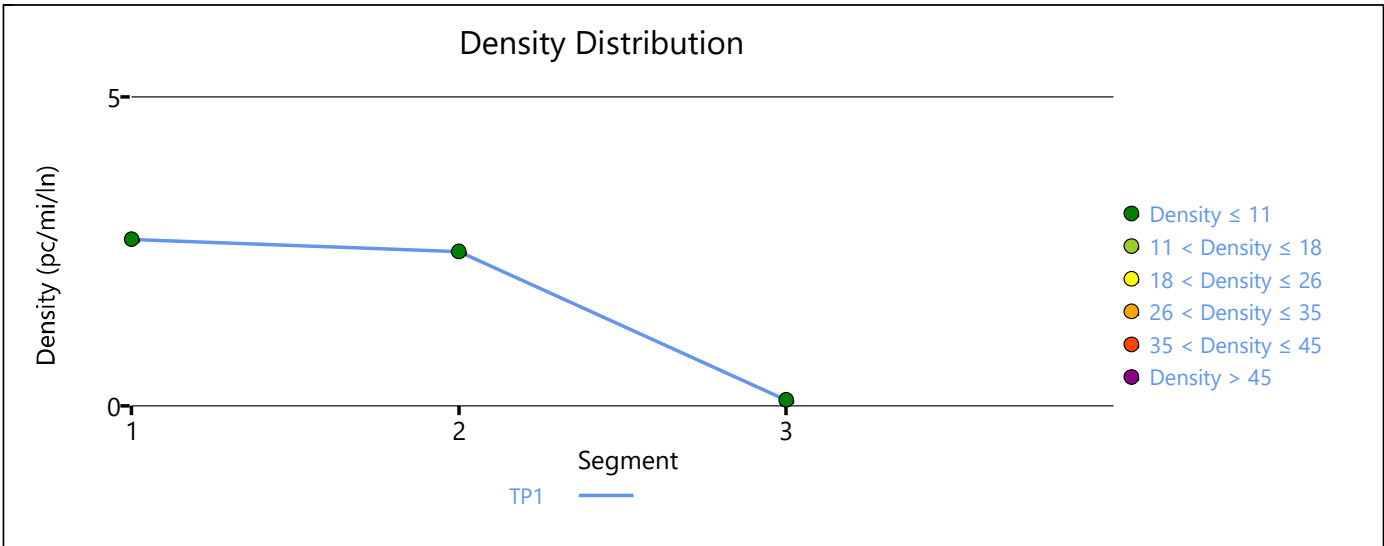
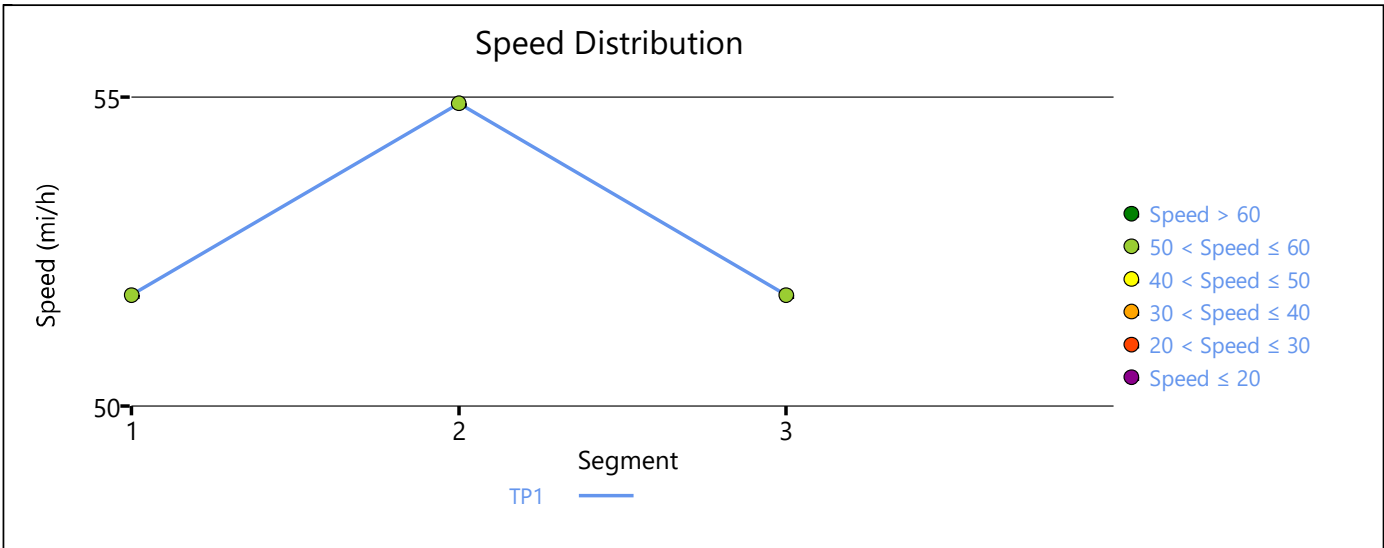
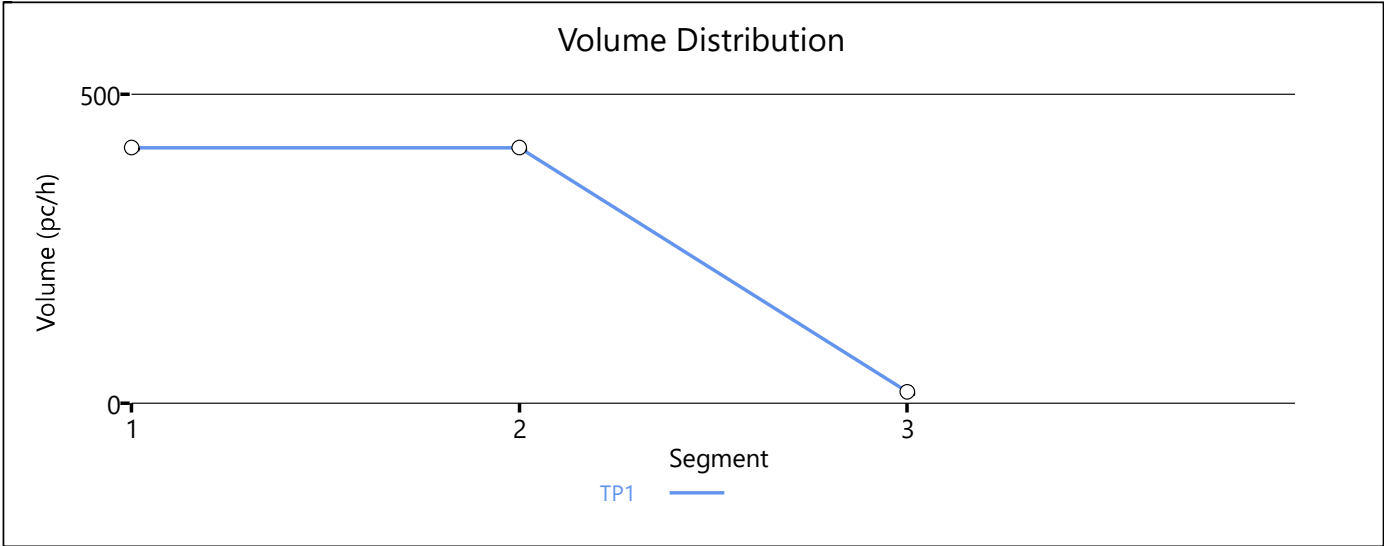
## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	1.5
Average Travel Time, min	1.50	Density, pc/mi/ln	1.7

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NoBuild
Jurisdiction		Time Analyzed	AM
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.846	1440	6654	0.22	51.8	9.3	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.846	0.829	1440	805	6750	4200	0.21	0.19	54.9	55.0	8.7	8.7	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.873	631	6654	0.09	51.8	4.1	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	52.8	7.2	6.2	1.50	A

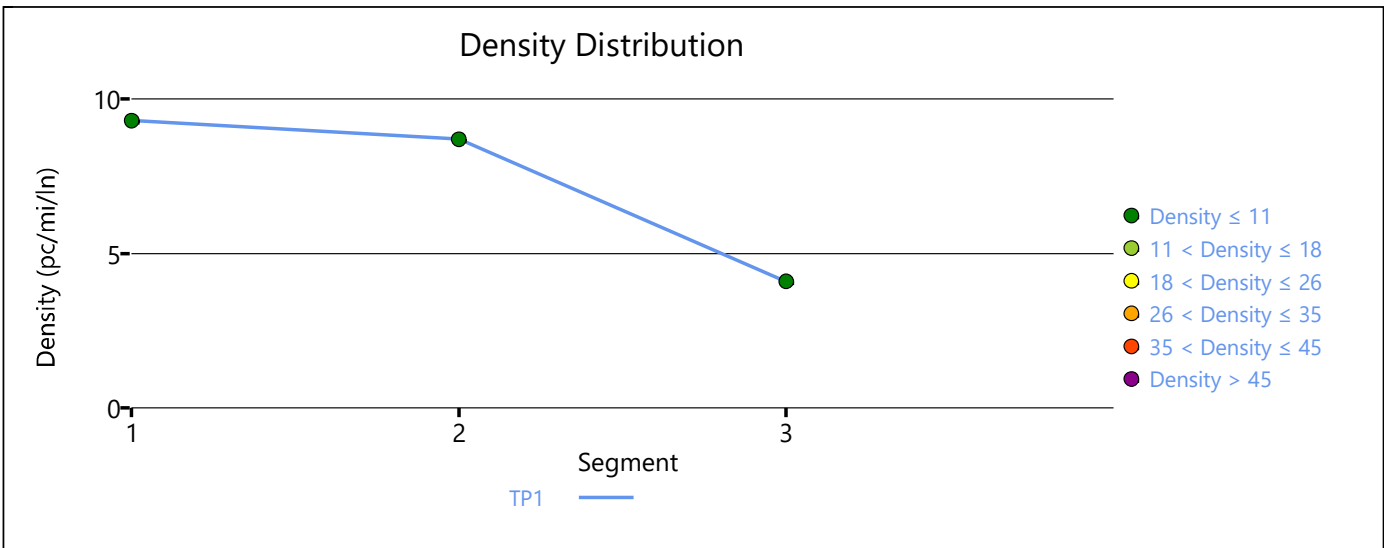
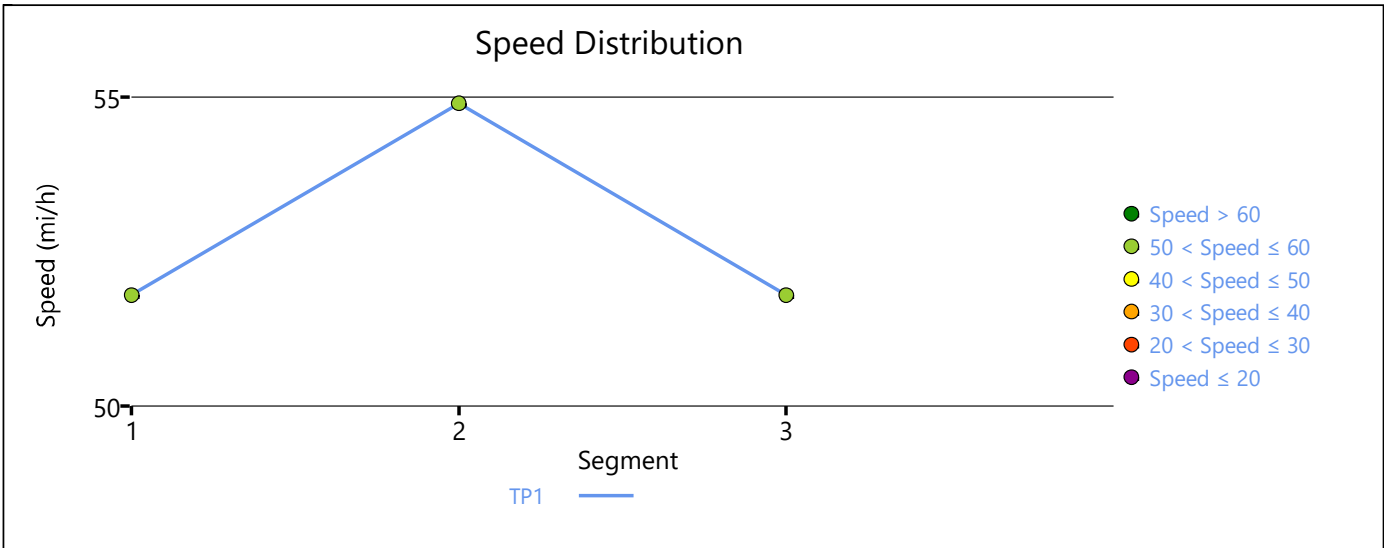
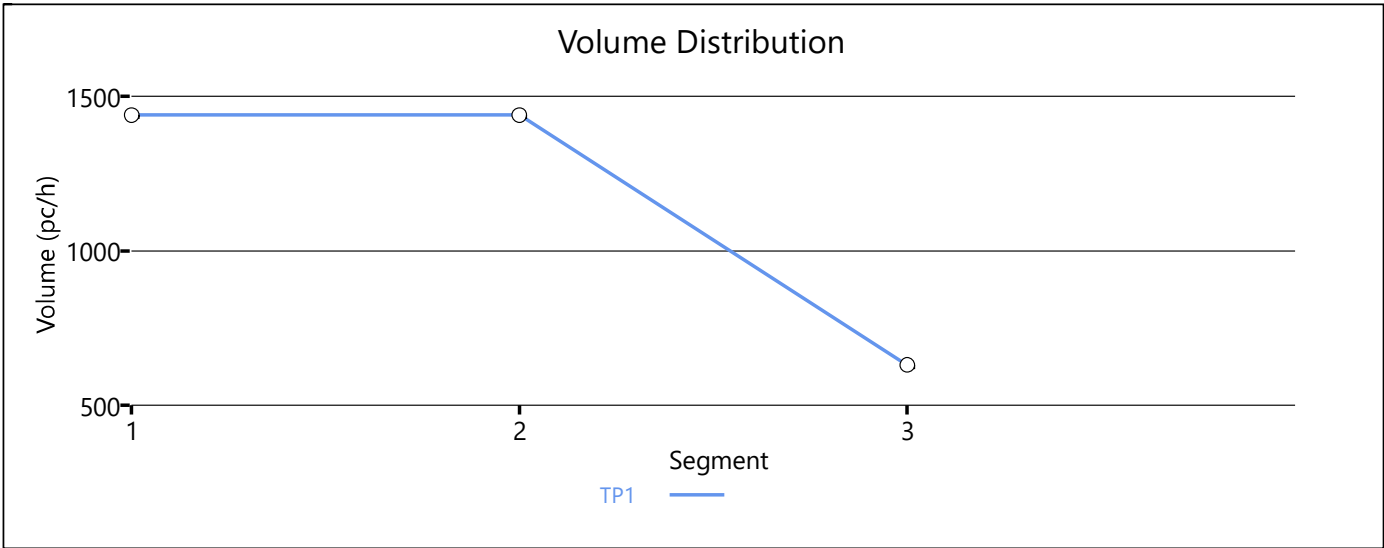
## Facility Overall Results

Space Mean Speed, mi/h	52.8	Density, veh/mi/ln	6.2
Average Travel Time, min	1.50	Density, pc/mi/ln	7.2

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Analyzed	MD
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.810	826	6654	0.12	51.8	5.3	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.810	0.817	826	763	6750	4200	0.12	0.18	54.9	55.0	5.0	5.0	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.715	64	6654	0.01	51.8	0.4	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	3.4	2.8	1.50	A

## Facility Overall Results

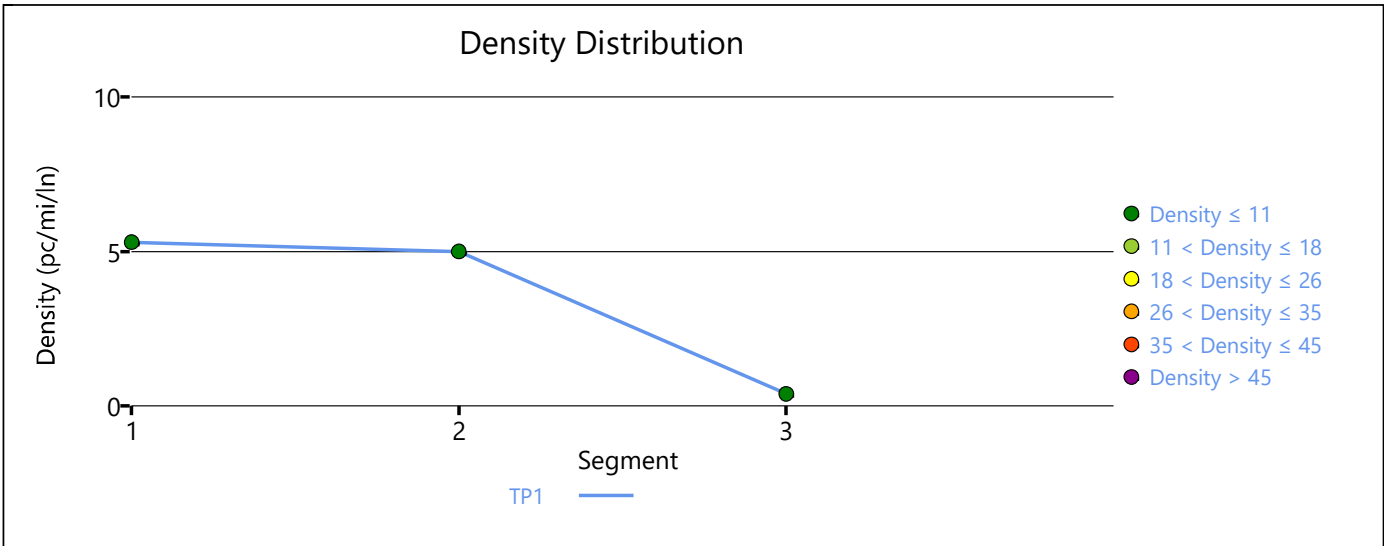
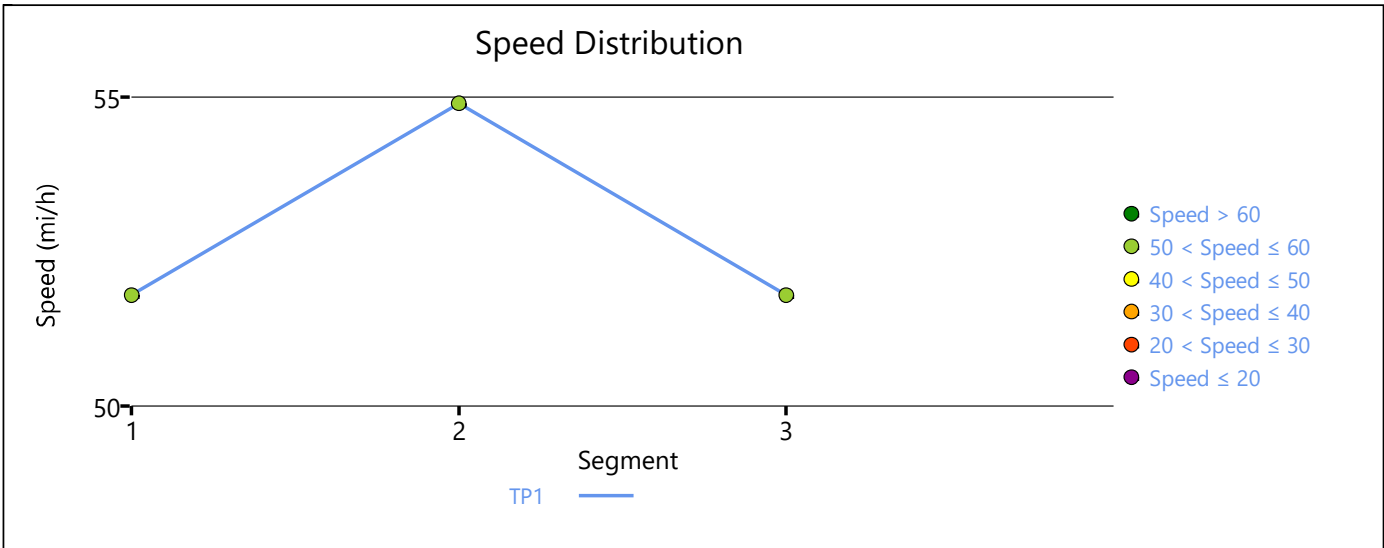
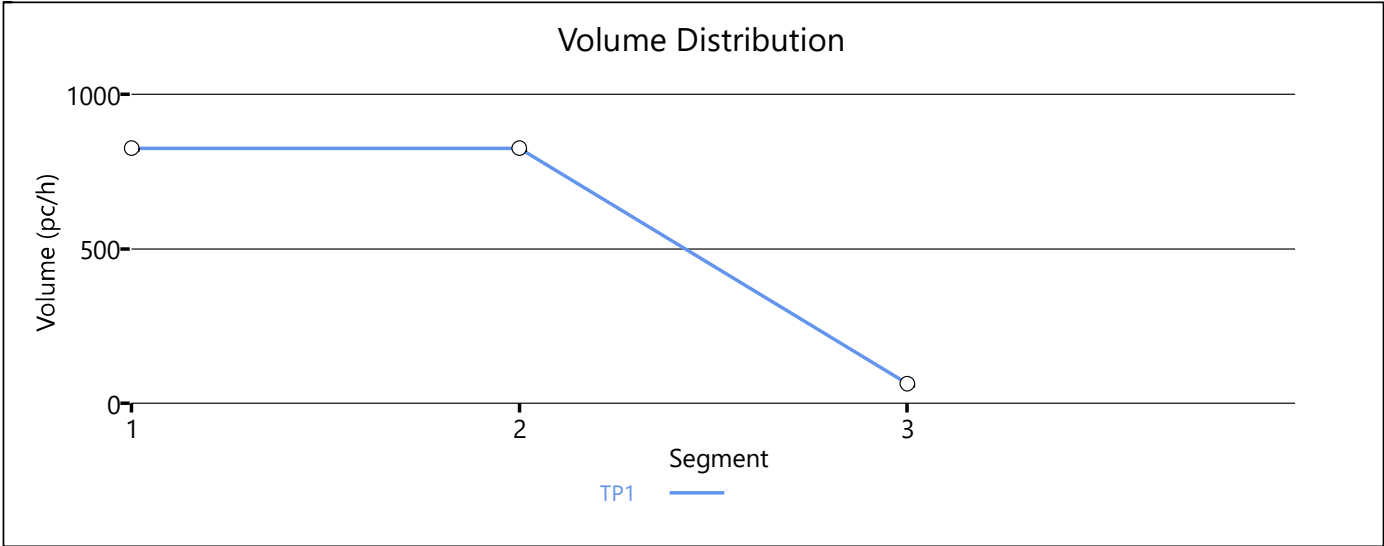
Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	2.8
Average Travel Time, min	1.50	Density, pc/mi/ln	3.4

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---



WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Analyzed	PM
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.921	915	6654	0.14	51.8	5.9	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.921	0.926	915	867	6750	4200	0.14	0.21	54.9	55.0	5.5	5.5	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.822	48	6654	0.01	51.8	0.3	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	3.7	3.4	1.50	A

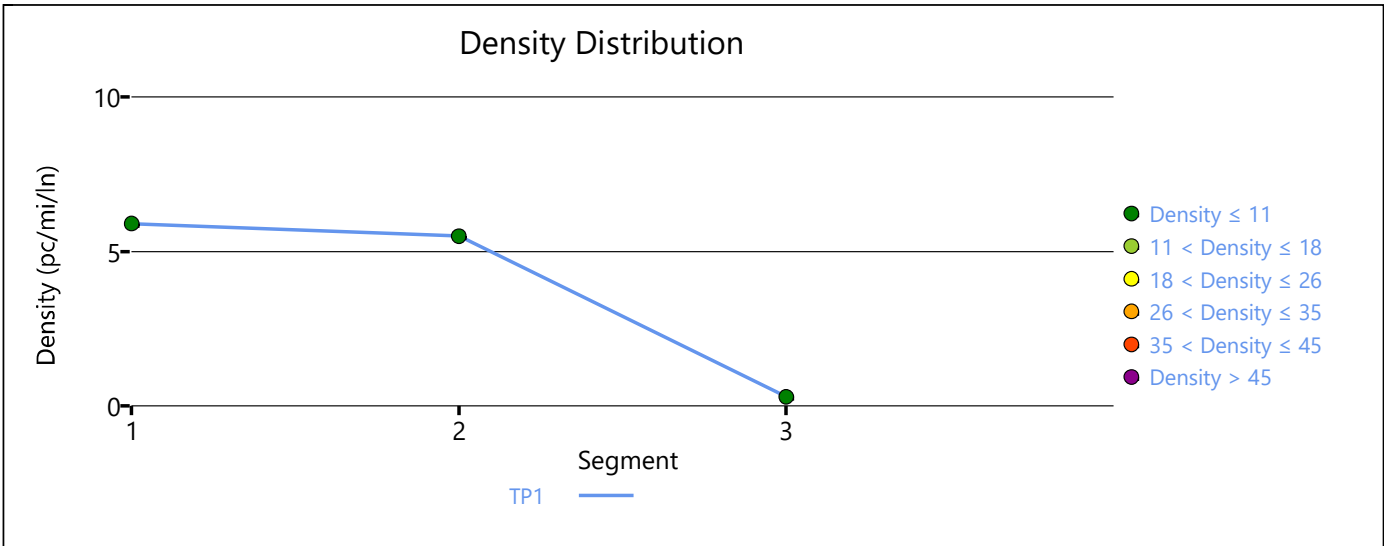
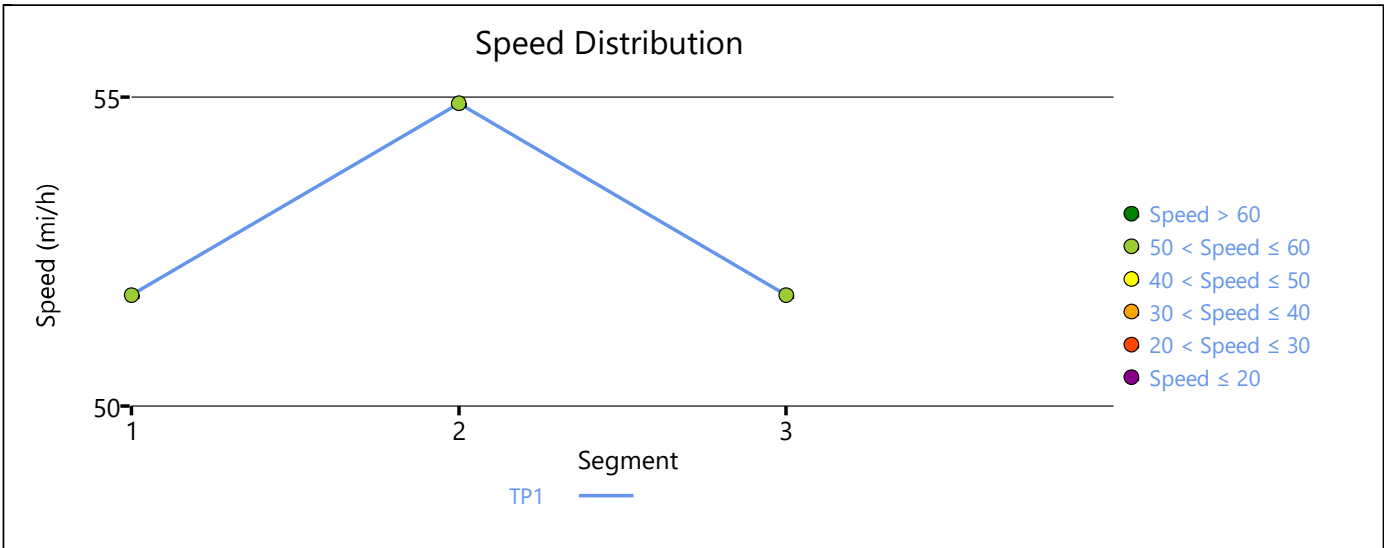
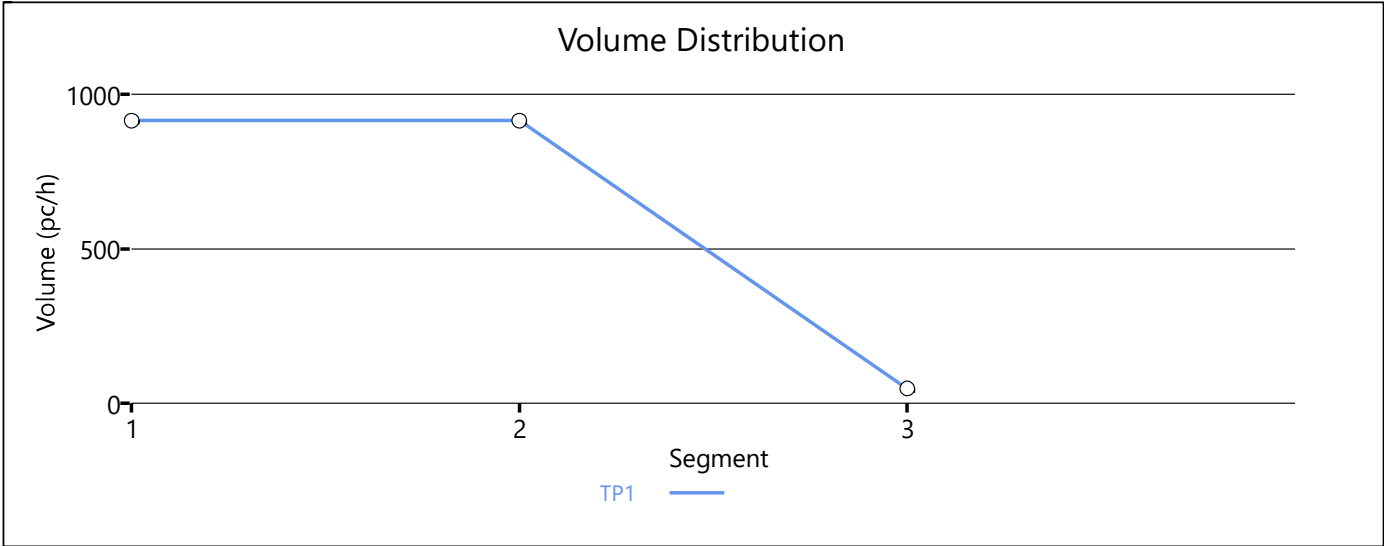
## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	3.4
Average Travel Time, min	1.50	Density, pc/mi/ln	3.7

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Analyzed	LN
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.891	423	6654	0.06	51.8	2.7	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.891	0.899	423	402	6750	4200	0.06	0.10	54.9	55.0	2.6	2.6	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.734	20	6654	0.00	51.8	0.1	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	1.7	1.5	1.50	A

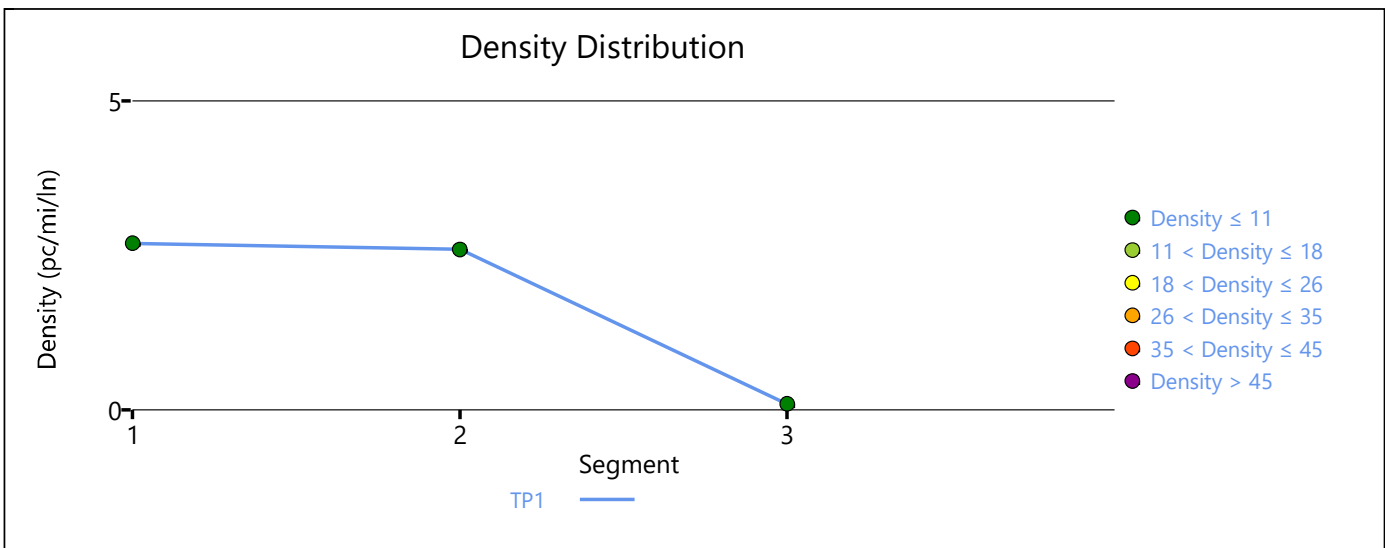
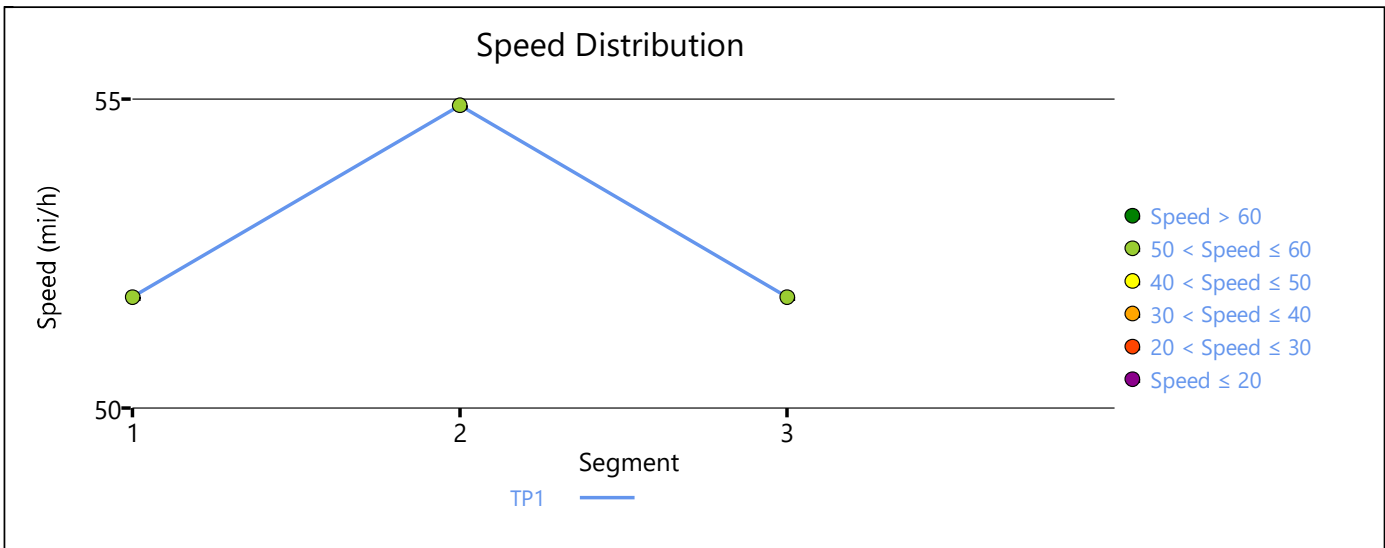
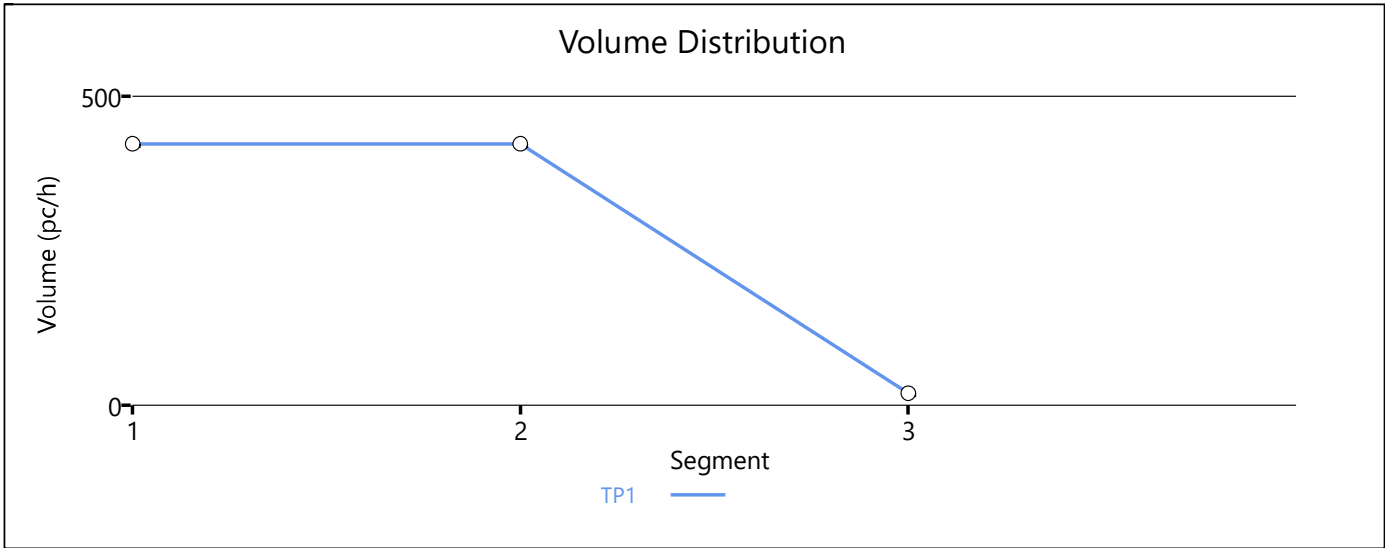
## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	1.5
Average Travel Time, min	1.50	Density, pc/mi/ln	1.7

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.772	209	6654	0.03	51.8	1.4	A

#### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.772	0.849	1036	827	6750	4000	0.15	0.21	51.6	51.3	6.7	8.4	A

#### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.833	1037	6654	0.16	51.8	6.7	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.4	3.6	1.20	A

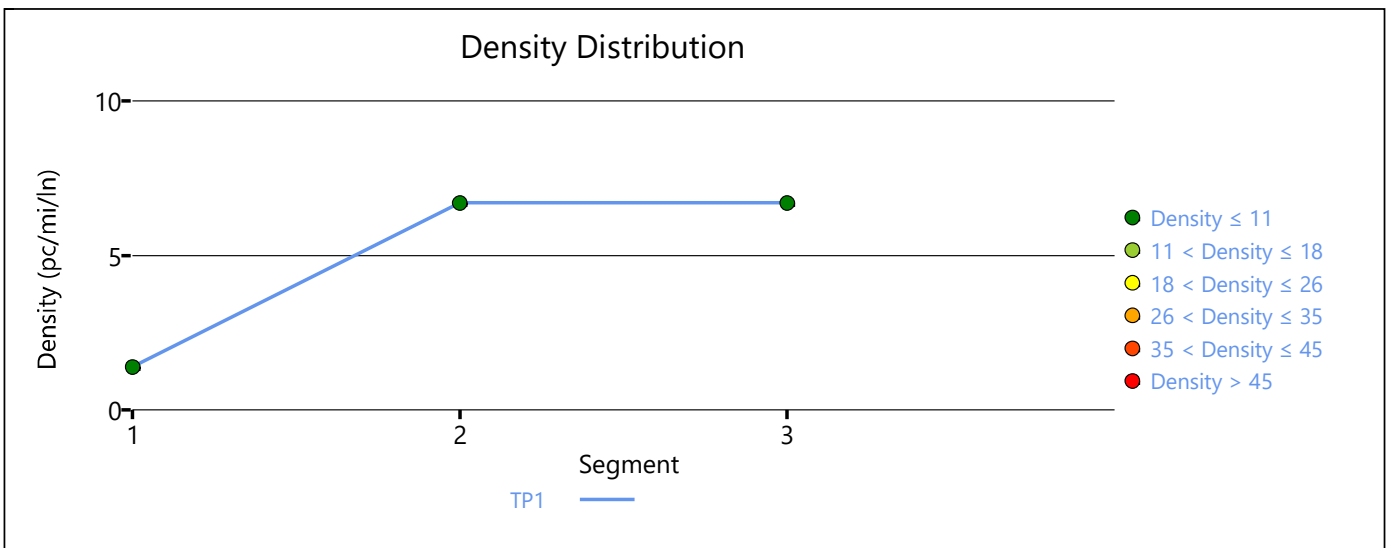
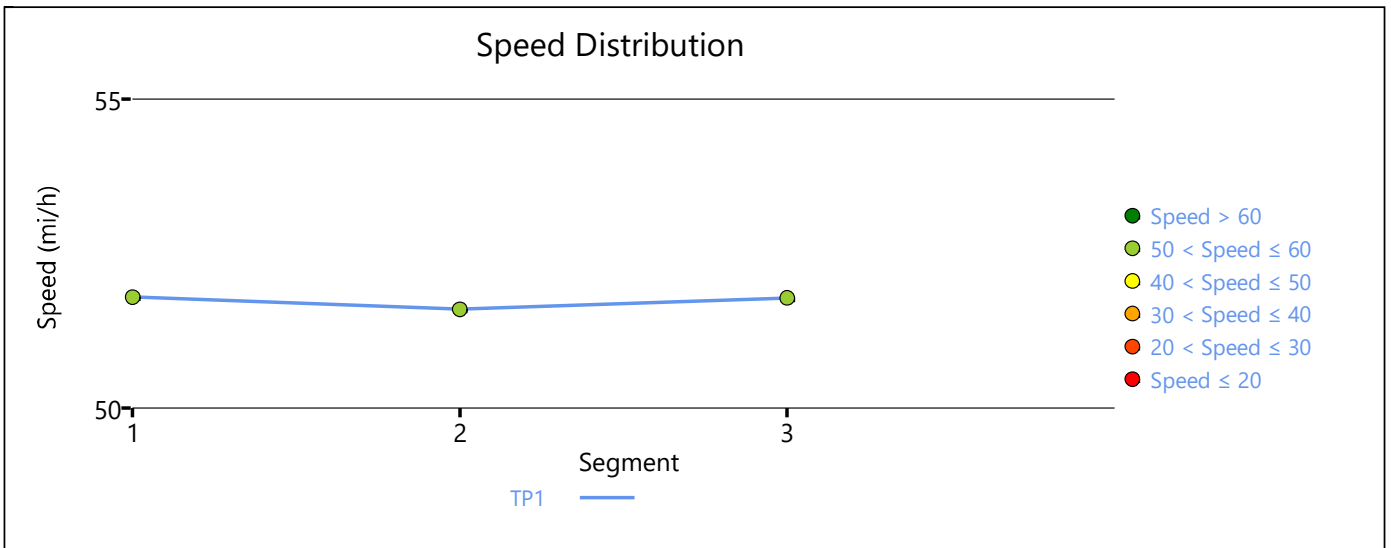
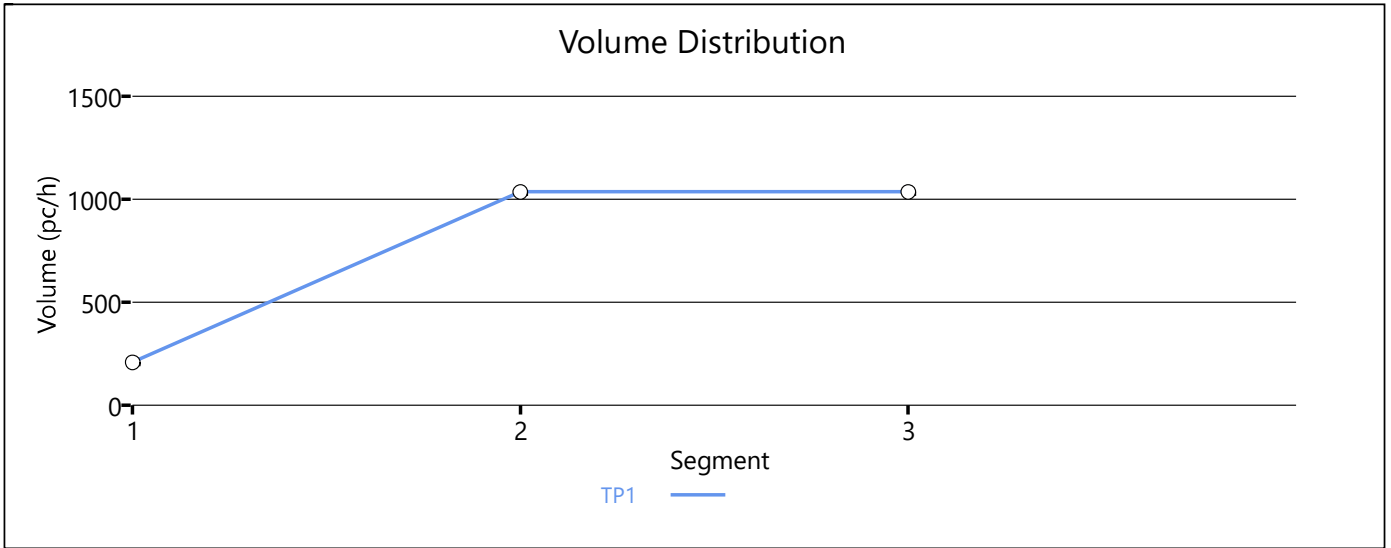
### Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.6
Average Travel Time, min	1.20	Density, pc/mi/ln	4.4

### Messages

### Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.797	260	6654	0.04	51.8	1.7	A

#### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.797	0.801	1016	756	6750	4000	0.15	0.19	51.7	51.3	6.6	8.1	A

#### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.800	1016	6654	0.15	51.8	6.5	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.4	3.5	1.20	A

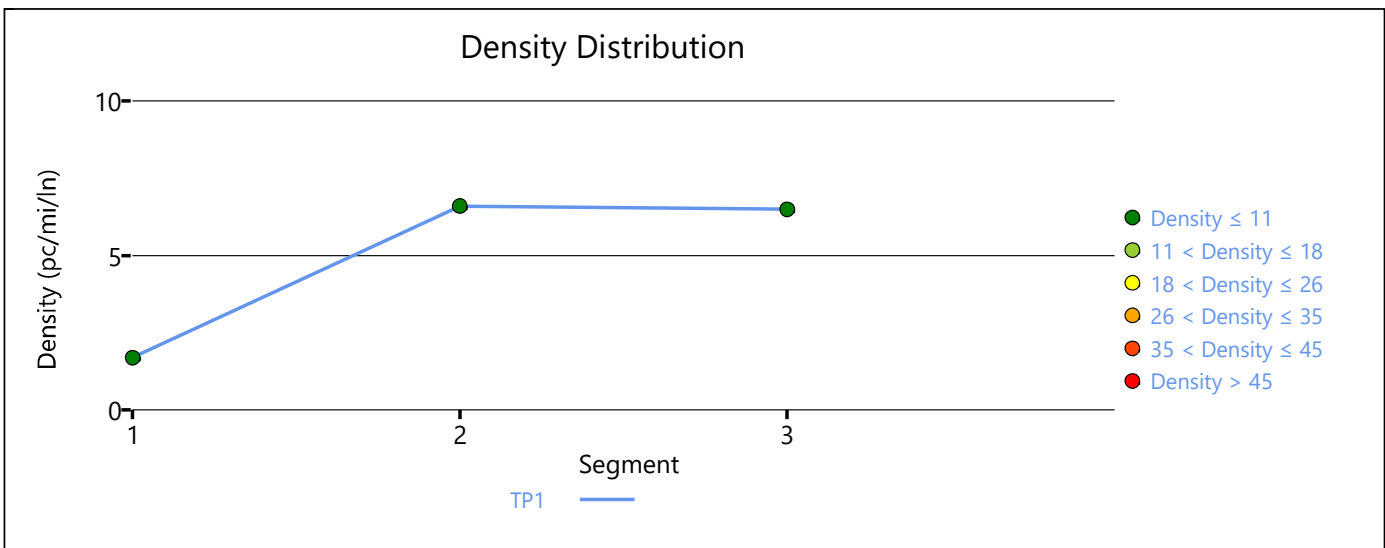
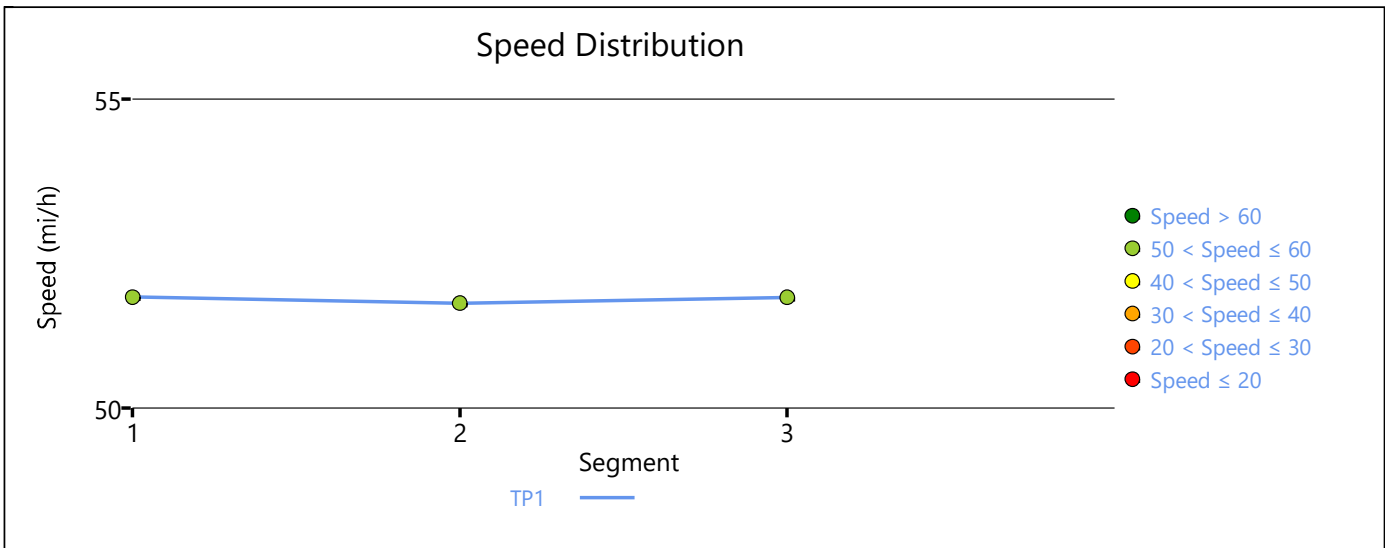
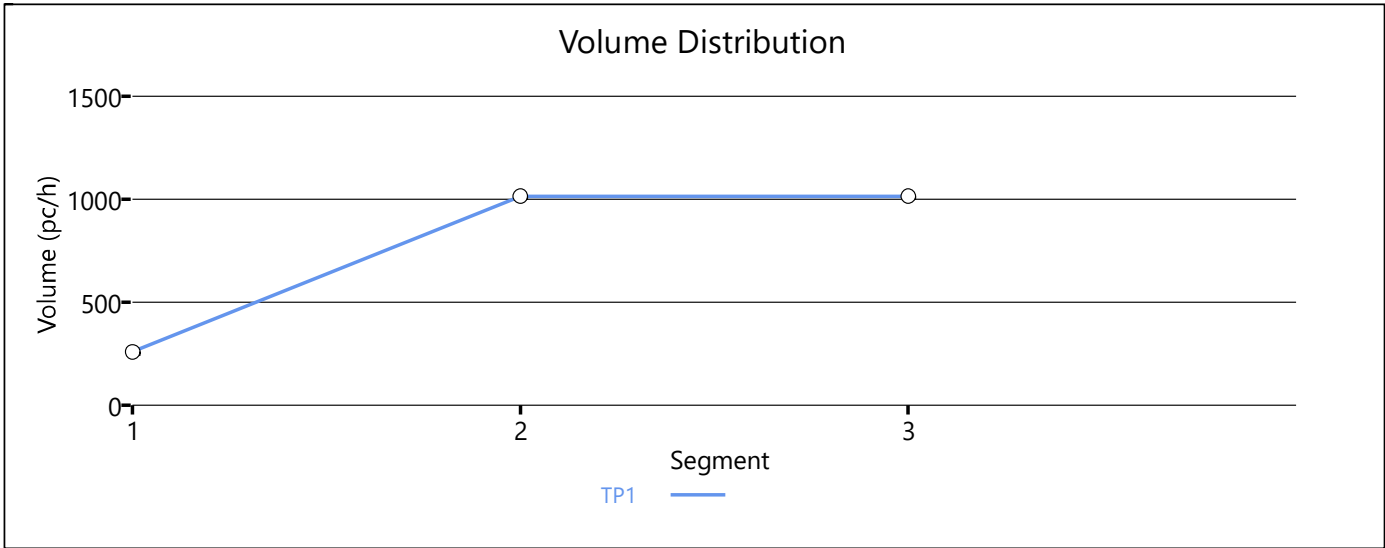
### Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.5
Average Travel Time, min	1.20	Density, pc/mi/ln	4.4

### Messages

### Comments





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.919	505	6654	0.08	51.8	3.2	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.919	0.923	1433	928	6750	4000	0.21	0.23	51.8	51.3	9.2	10.5	B

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.923	1430	6654	0.21	51.8	9.2	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	6.6	6.0	1.20	A

## Facility Overall Results

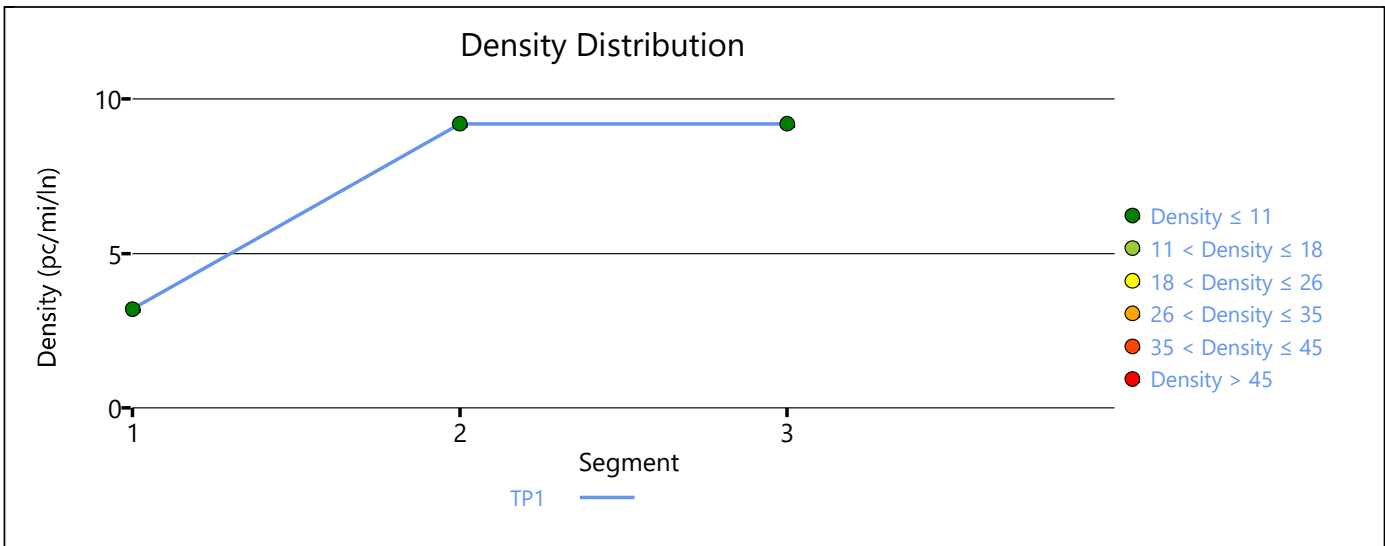
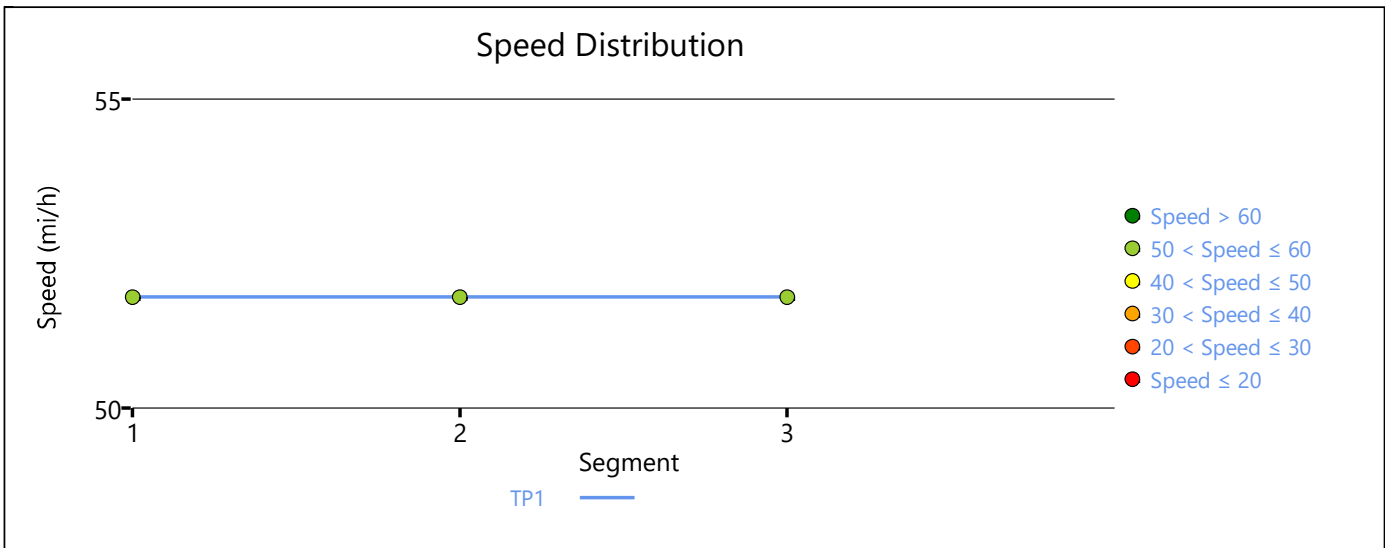
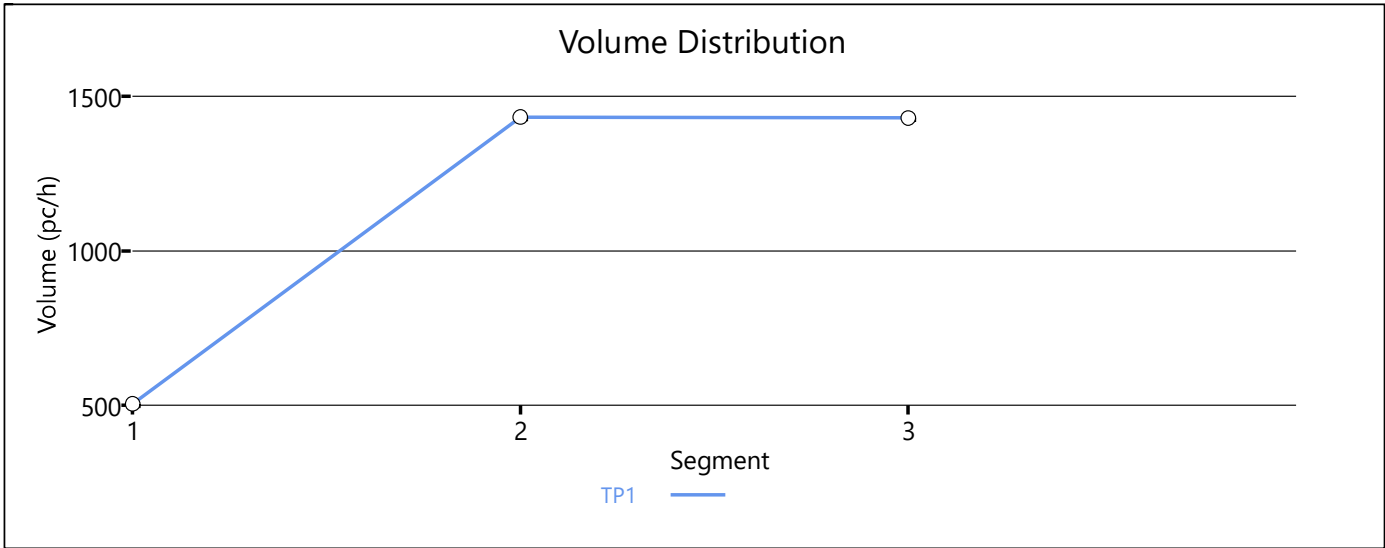
Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	6.0
Average Travel Time, min	1.20	Density, pc/mi/ln	6.6

## Messages

INFORMATION 1	Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
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Comments





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	No Build
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.723	24	6654	0.00	51.8	0.2	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.723	0.888	435	411	6750	4000	0.06	0.10	51.4	51.3	2.8	4.5	A

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.880	434	6654	0.07	51.8	2.8	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.7	1.7	1.4	1.20	A

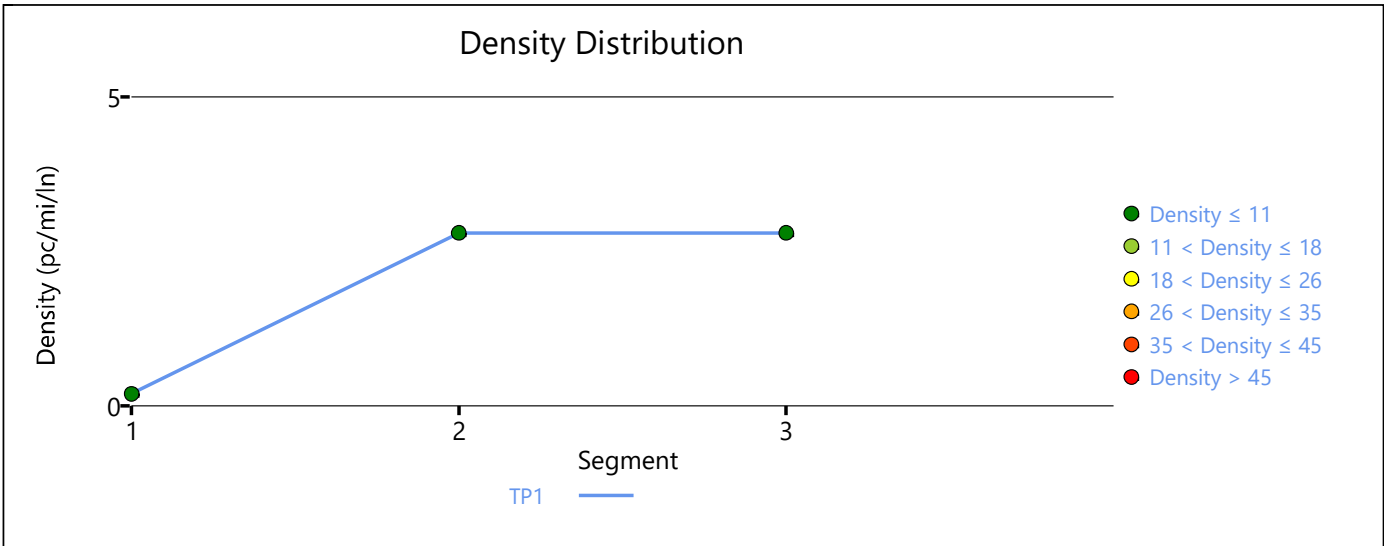
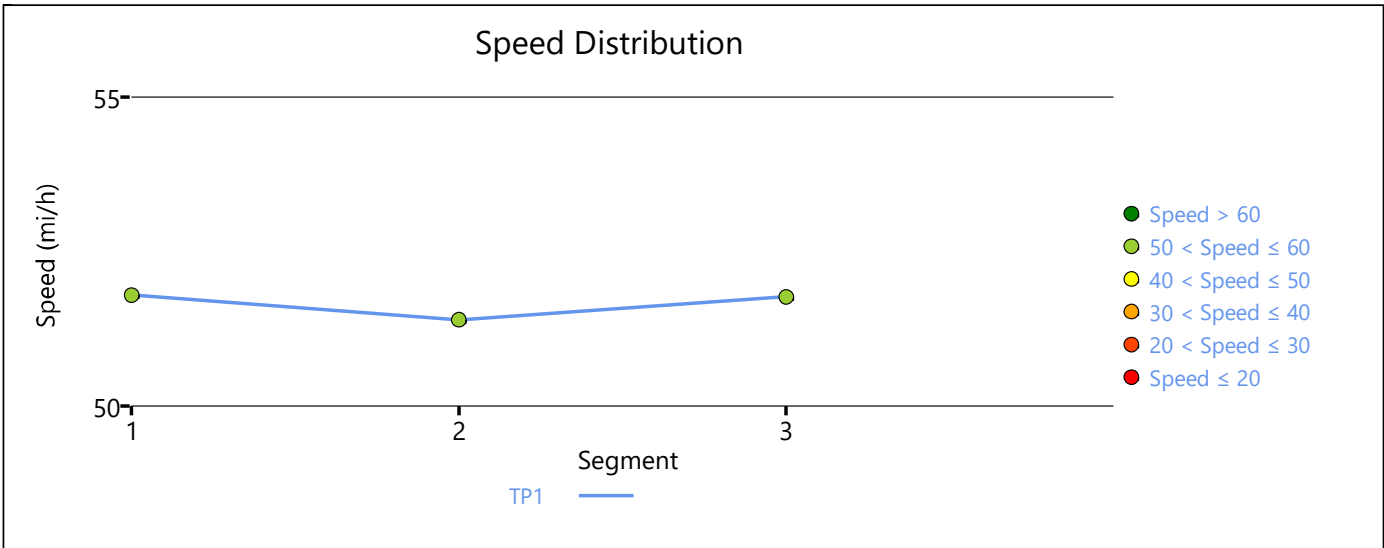
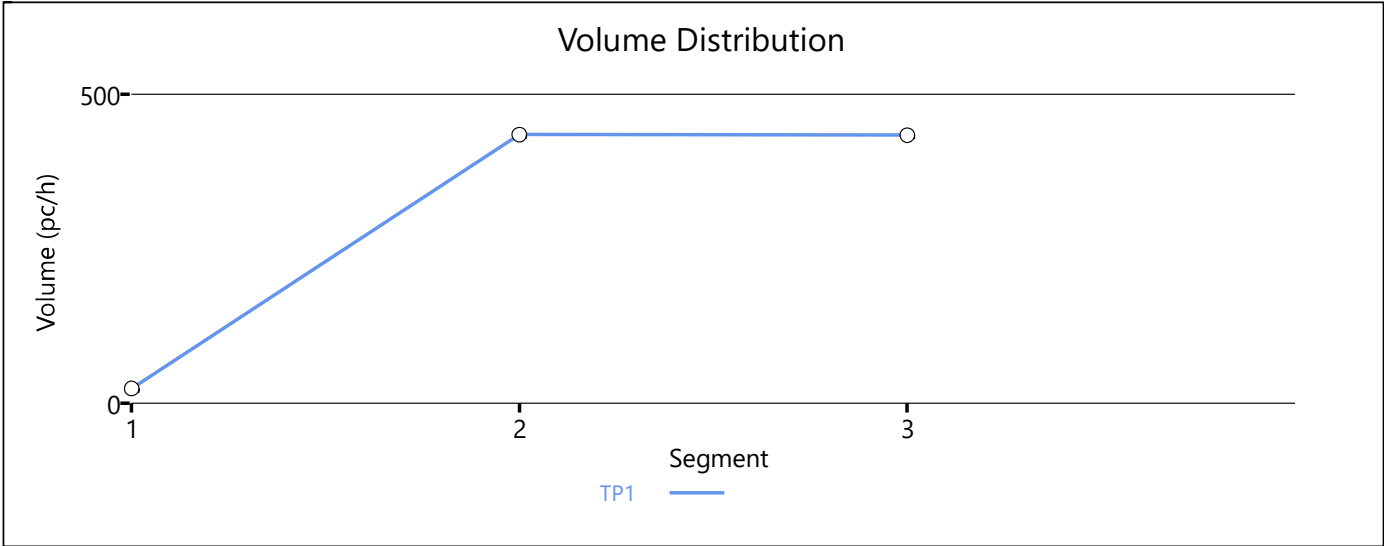
## Facility Overall Results

Space Mean Speed, mi/h	51.7	Density, veh/mi/ln	1.4
Average Travel Time, min	1.20	Density, pc/mi/ln	1.7

## Messages

## Comments





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	AM
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.789	280	6654	0.04	51.8	1.8	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.789	0.855	1097	817	6750	4000	0.16	0.20	51.7	51.3	7.1	8.6	A

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.838	1098	6654	0.17	51.8	7.1	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.8	3.9	1.20	A

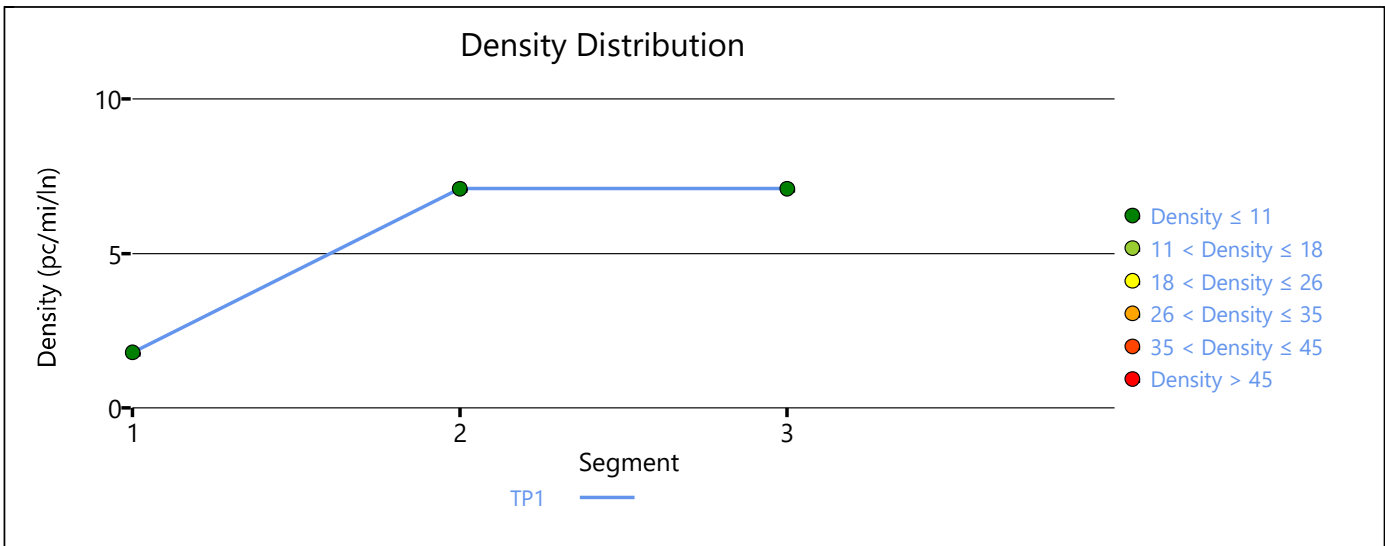
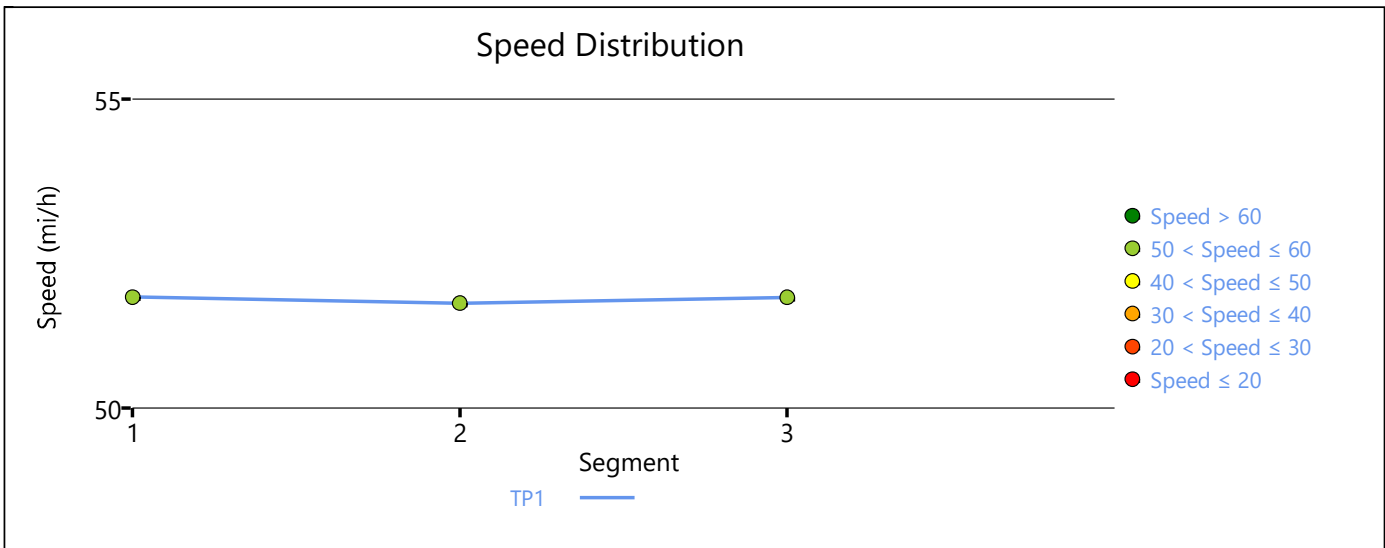
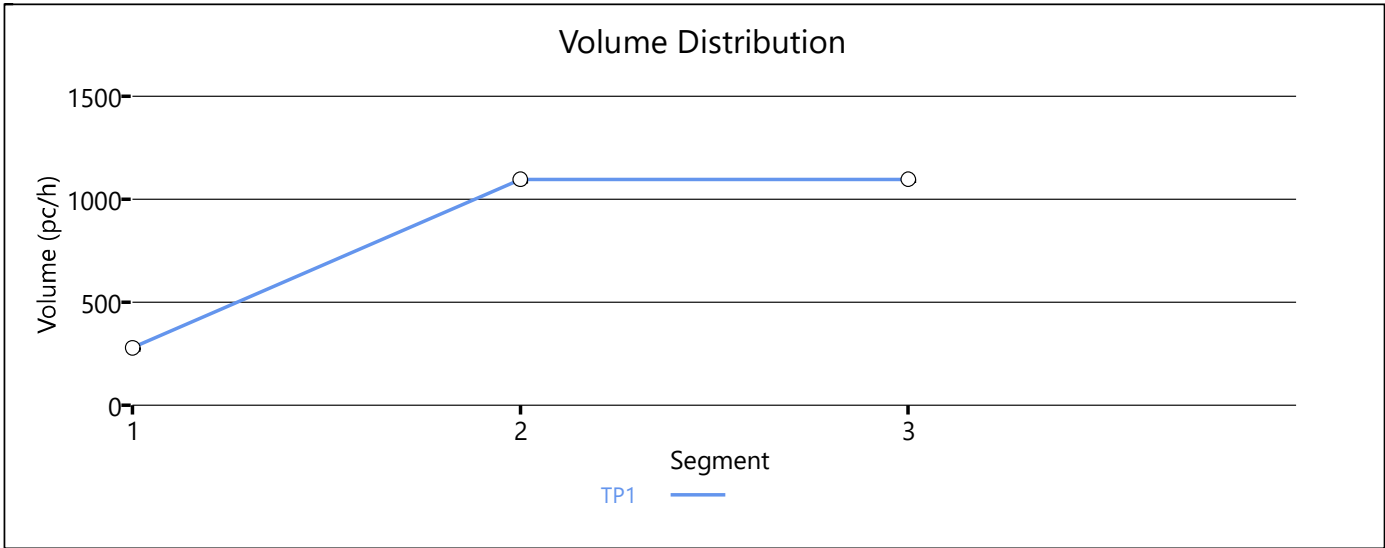
## Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.9
Average Travel Time, min	1.20	Density, pc/mi/ln	4.8

## Messages

## Comments





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	MD
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.795	317	6654	0.05	51.8	2.0	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.795	0.832	1071	754	6750	4000	0.16	0.19	51.7	51.3	6.9	8.3	A

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.821	1072	6654	0.16	51.8	6.9	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.7	3.9	1.20	A

## Facility Overall Results

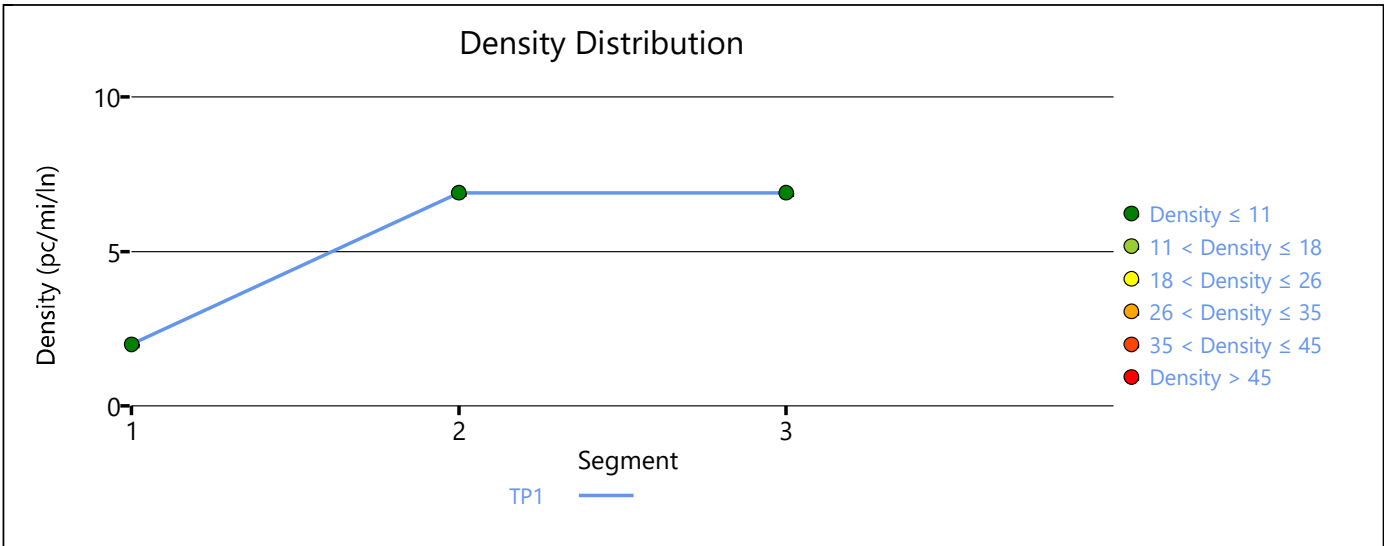
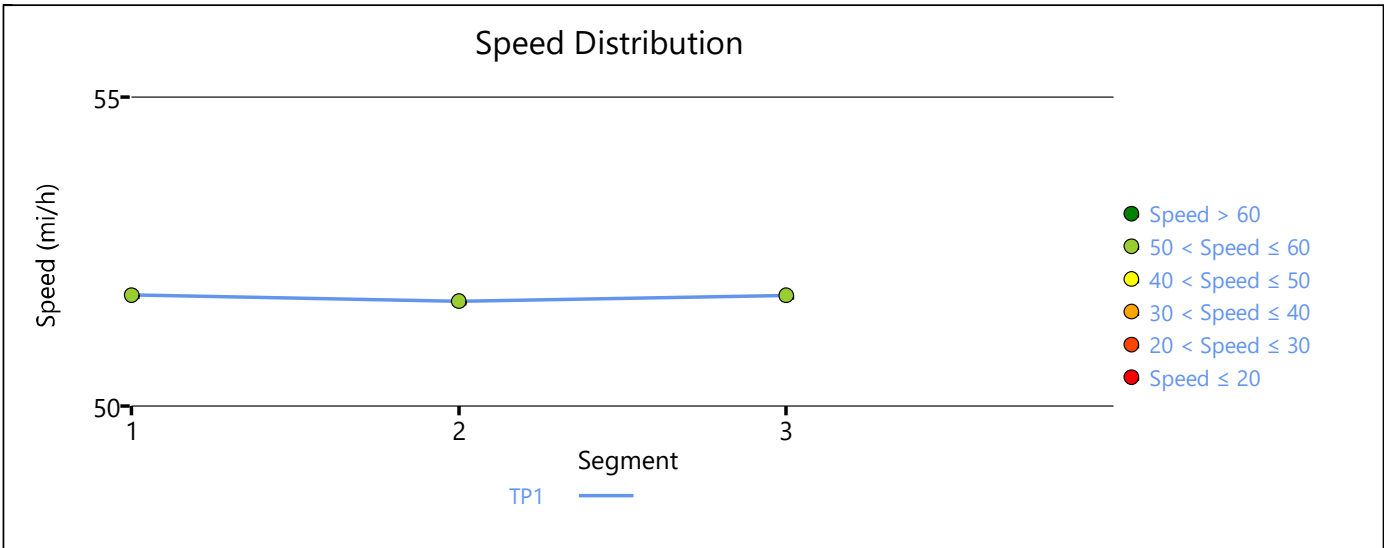
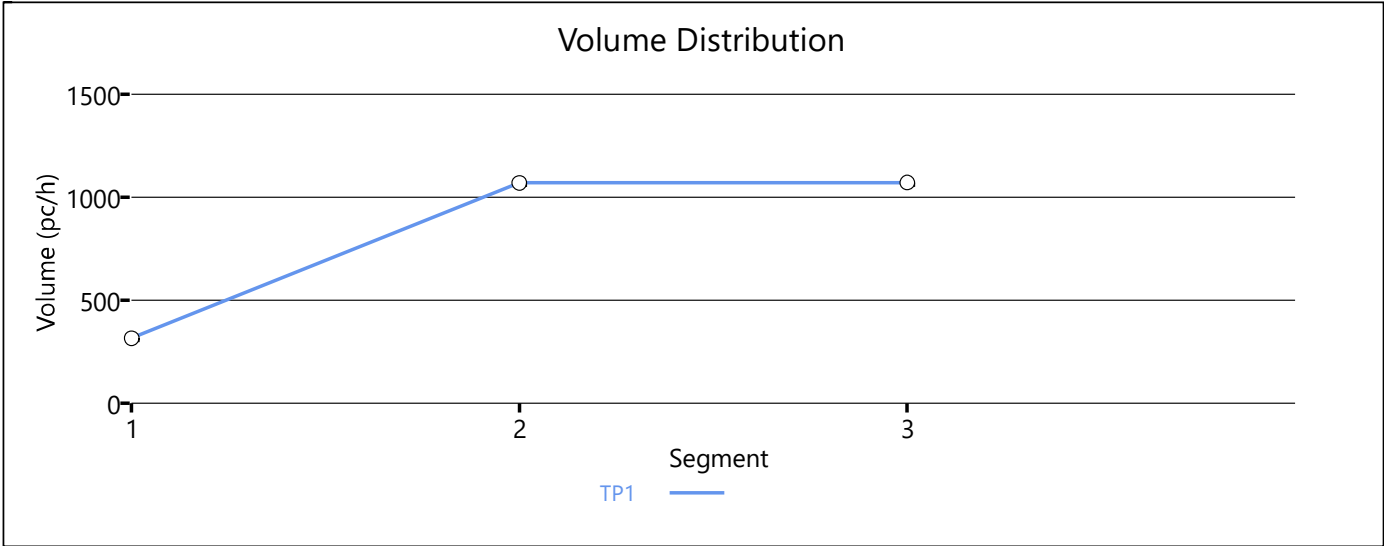
Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.9
Average Travel Time, min	1.20	Density, pc/mi/ln	4.7

## Messages

## Comments







# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	PM
Project Description	CBD		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.917	545	6654	0.08	51.8	3.5	A

### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.917	0.933	1515	970	6750	4000	0.22	0.24	51.8	51.2	9.7	10.9	B

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.928	1514	6654	0.23	51.8	9.7	A

## Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	7.0	6.4	1.20	A

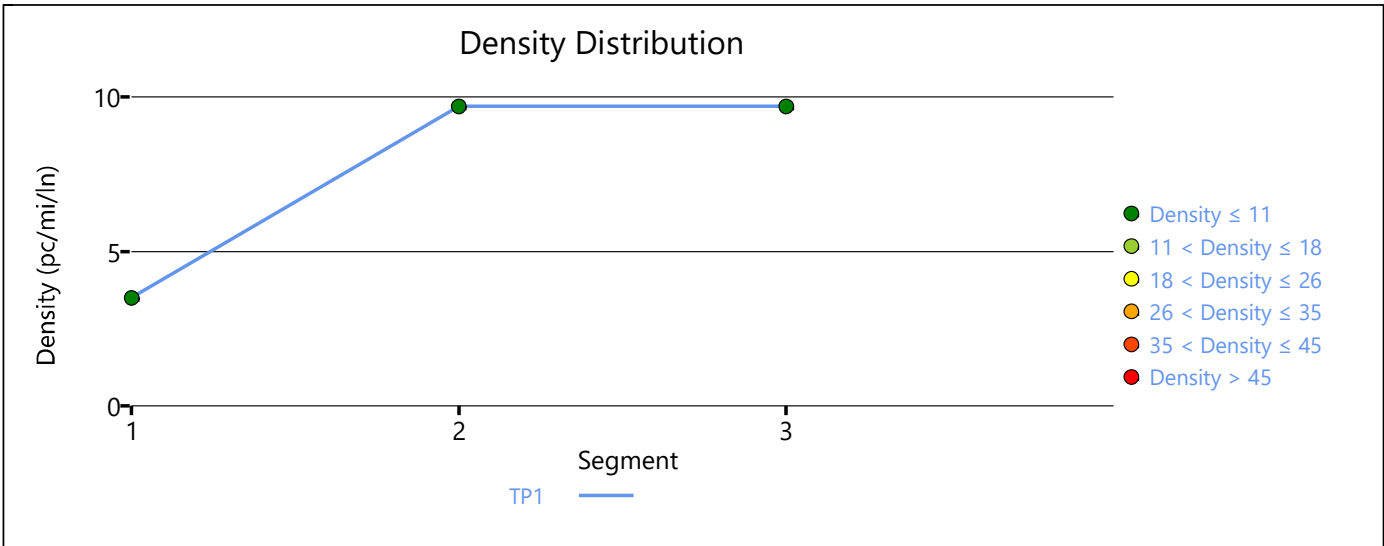
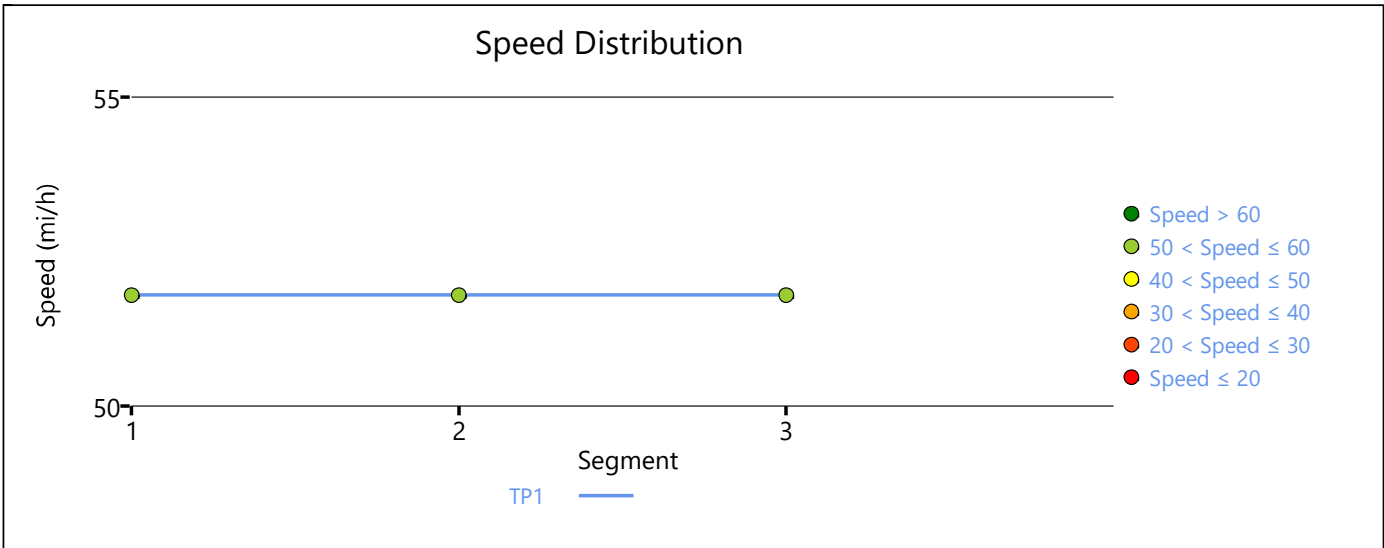
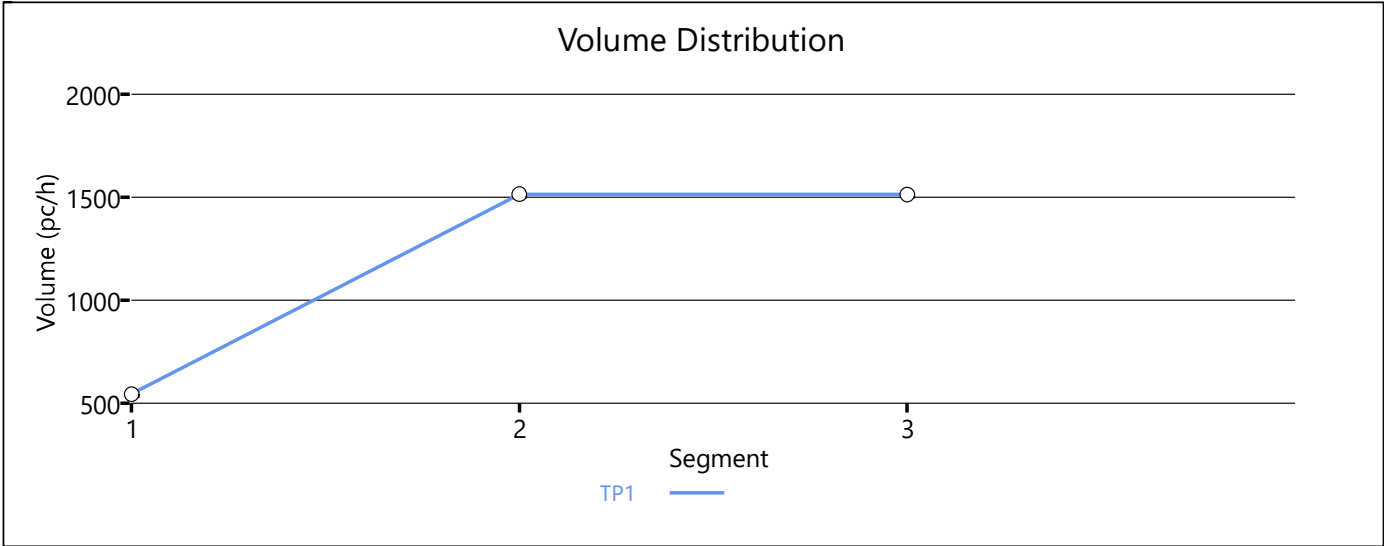
## Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	6.4
Average Travel Time, min	1.20	Density, pc/mi/ln	7.0

## Messages

## Comments





## HCS7 Freeway Facilities Report

### Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Period Analyzed	LN
Project Description	CBD		

### Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.07		

### Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

### Facility Segment Data

#### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.733	22	6654	0.00	51.8	0.1	A

#### Segment 2: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.733	0.904	409	387	6750	4000	0.06	0.10	51.5	51.4	2.6	4.3	A

#### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.896	408	6654	0.06	51.8	2.6	A

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.7	1.5	1.3	1.20	A

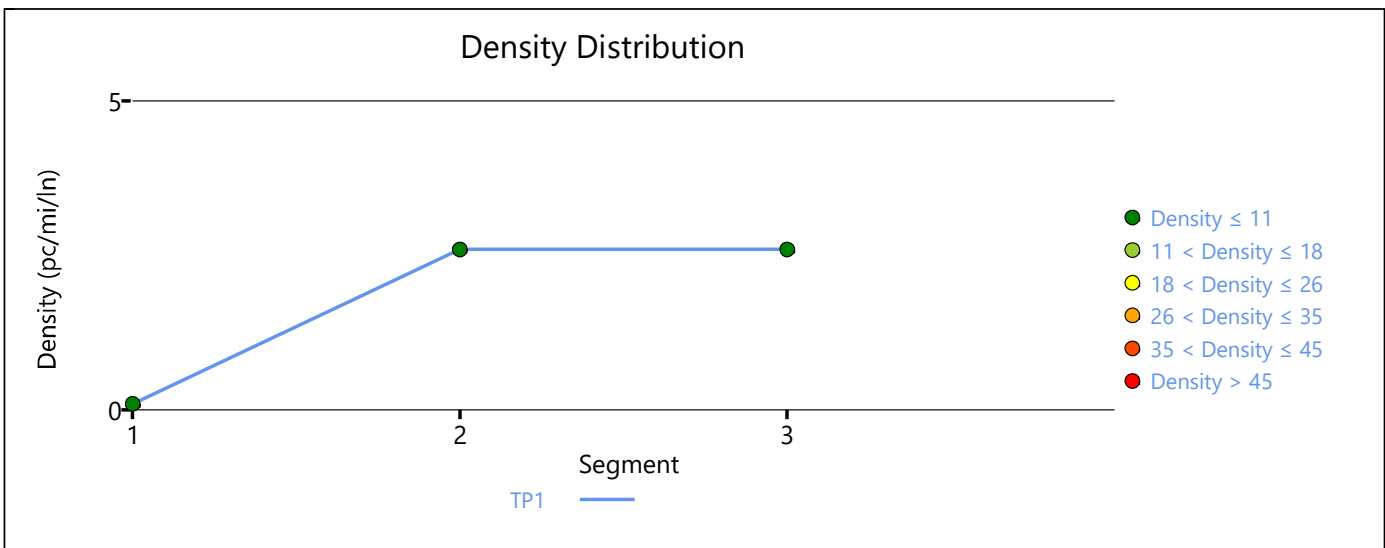
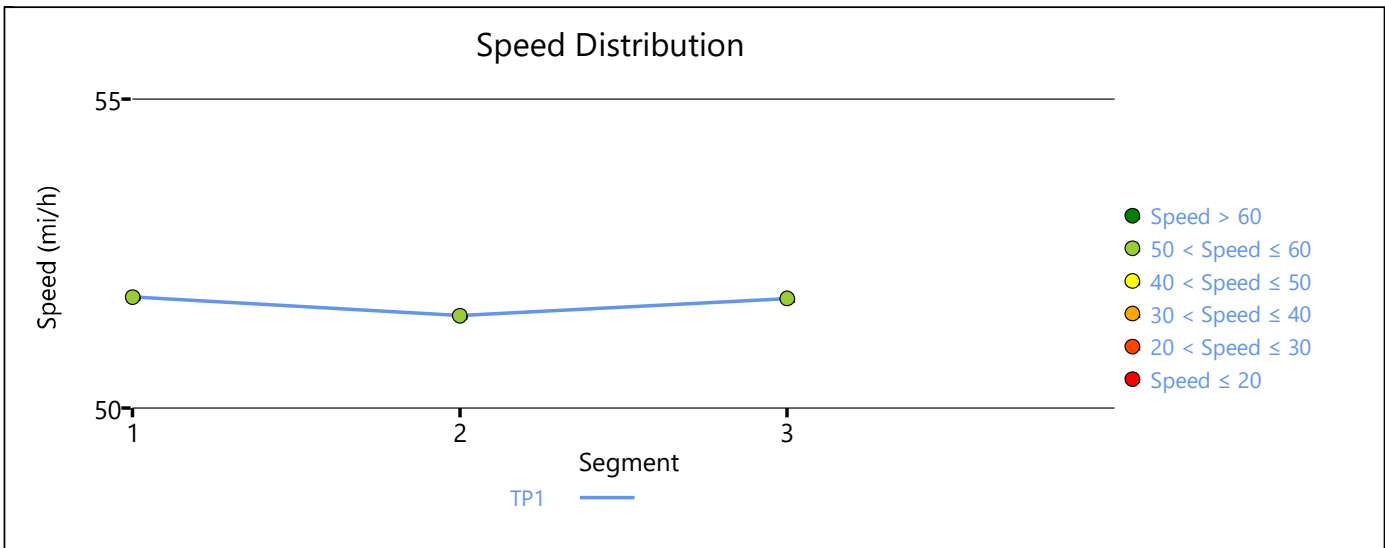
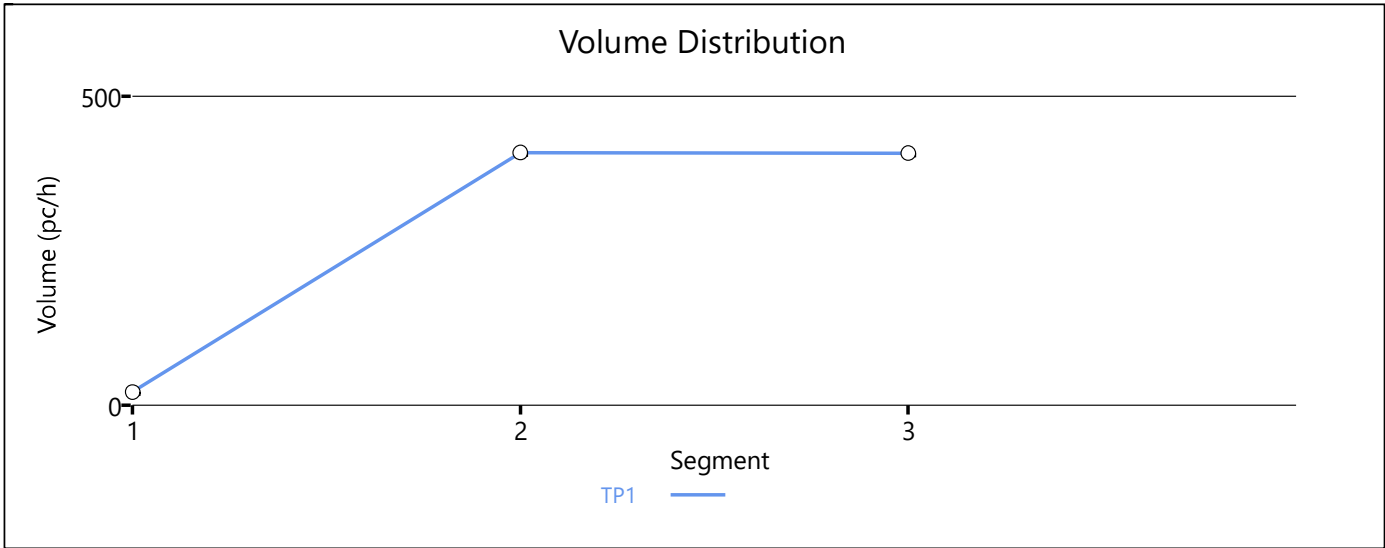
### Facility Overall Results

Space Mean Speed, mi/h	51.7	Density, veh/mi/ln	1.3
Average Travel Time, min	1.20	Density, pc/mi/ln	1.5

### Messages

### Comments







# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Analyzed	AM
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Diverge	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.856	1546	6654	0.23	51.8	9.9	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.856	0.836	1546	873	6750	4200	0.23	0.21	52.9	50.9	9.7	0.9	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.880	675	6654	0.10	51.8	4.3	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	52.2	7.8	6.7	1.50	A

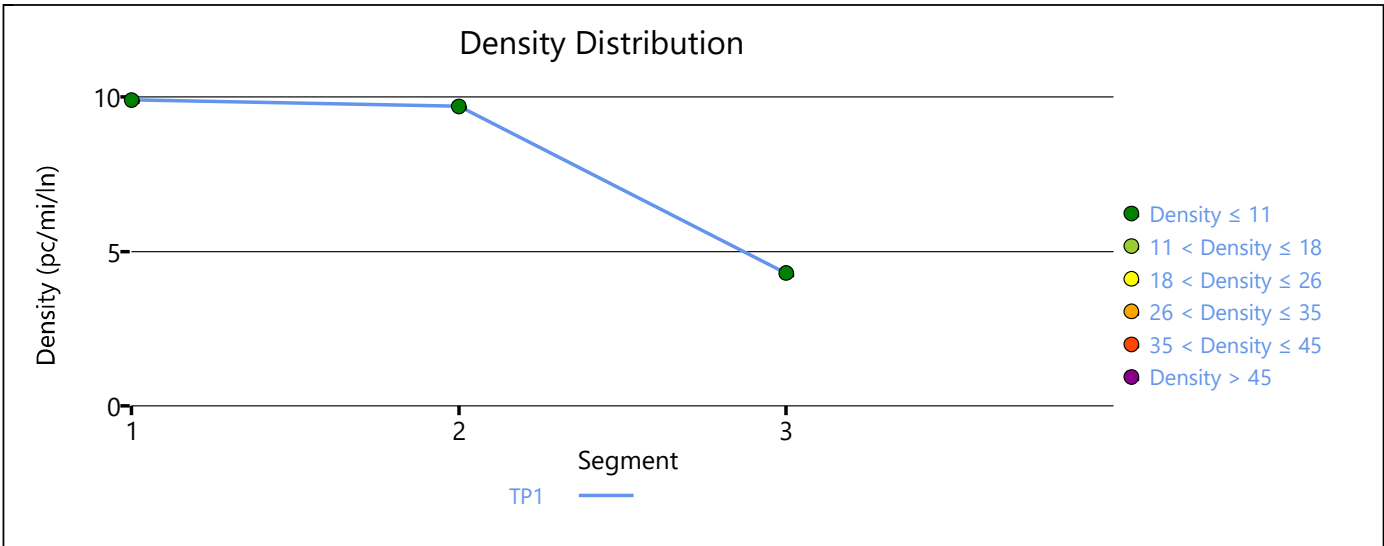
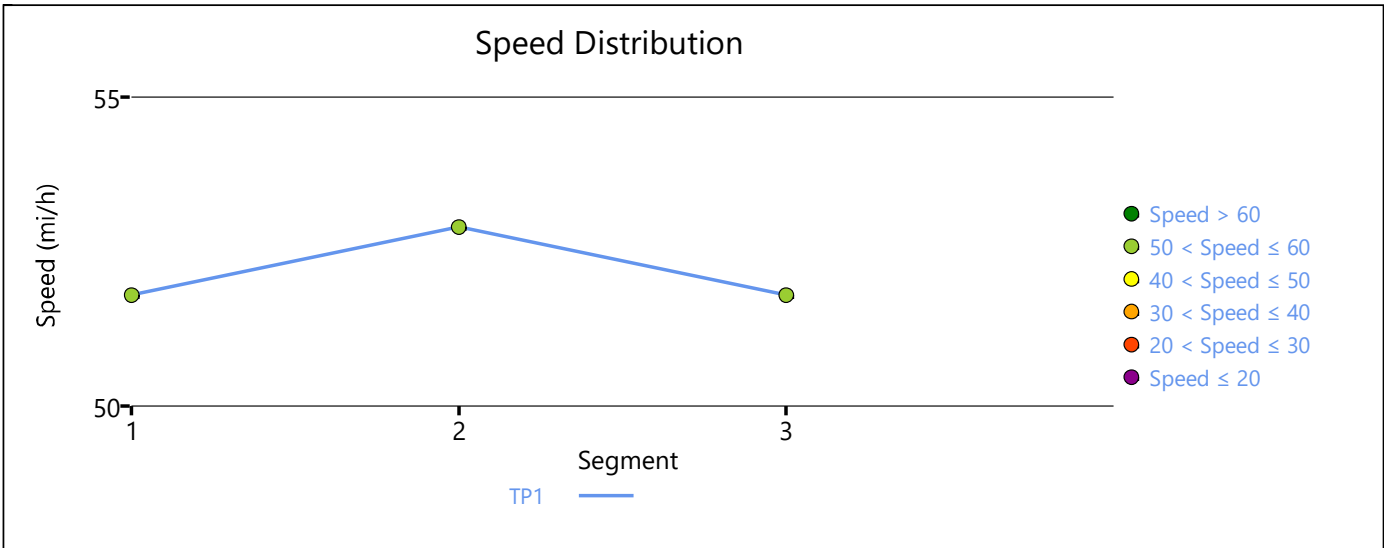
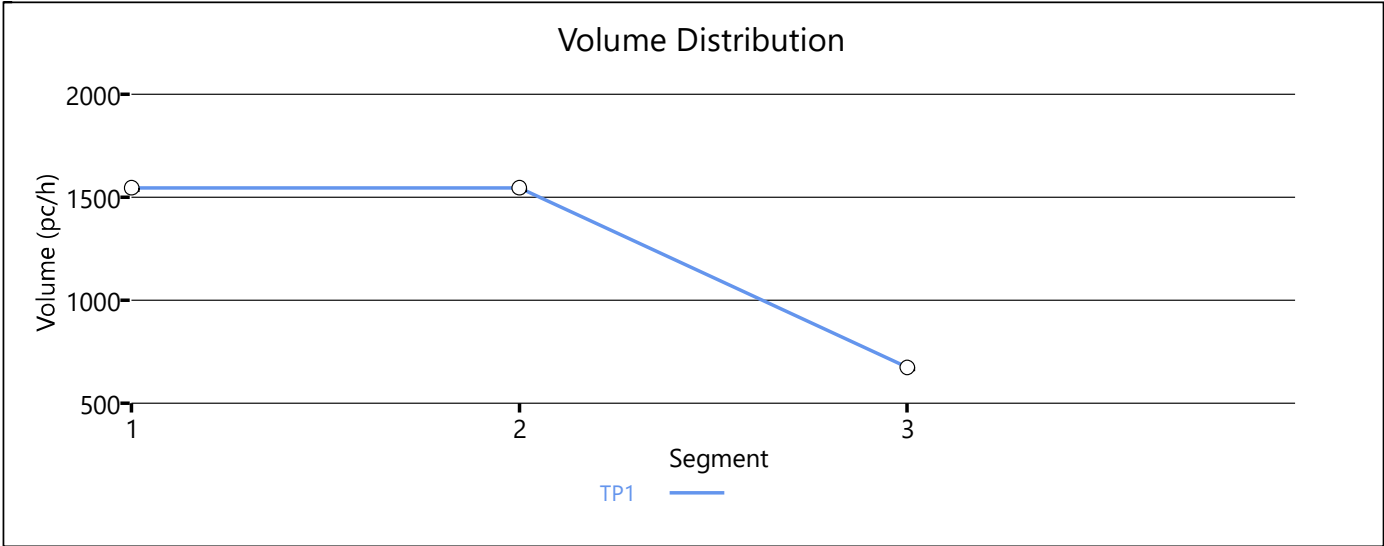
## Facility Overall Results

Space Mean Speed, mi/h	52.2	Density, veh/mi/ln	6.7
Average Travel Time, min	1.50	Density, pc/mi/ln	7.8

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
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Comments



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Analyzed	MD
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.831	1084	6654	0.16	51.8	7.0	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.831	0.806	1084	853	6750	4200	0.16	0.20	54.9	55.0	6.6	6.6	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.921	232	6654	0.03	51.8	1.5	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	52.9	4.9	4.1	1.50	A

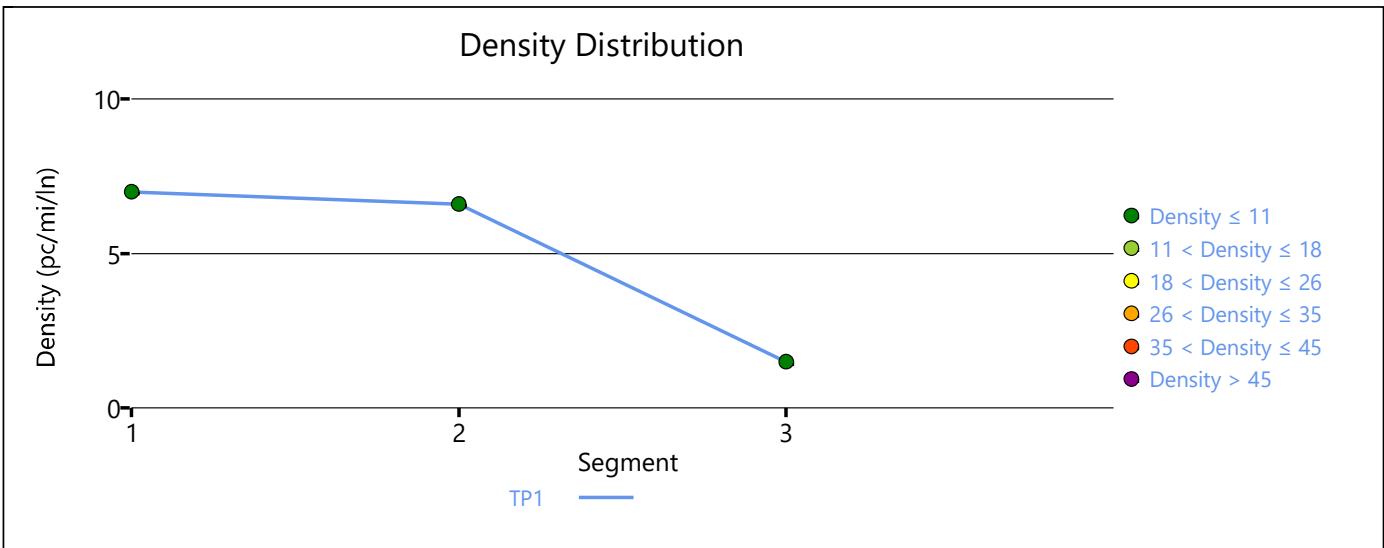
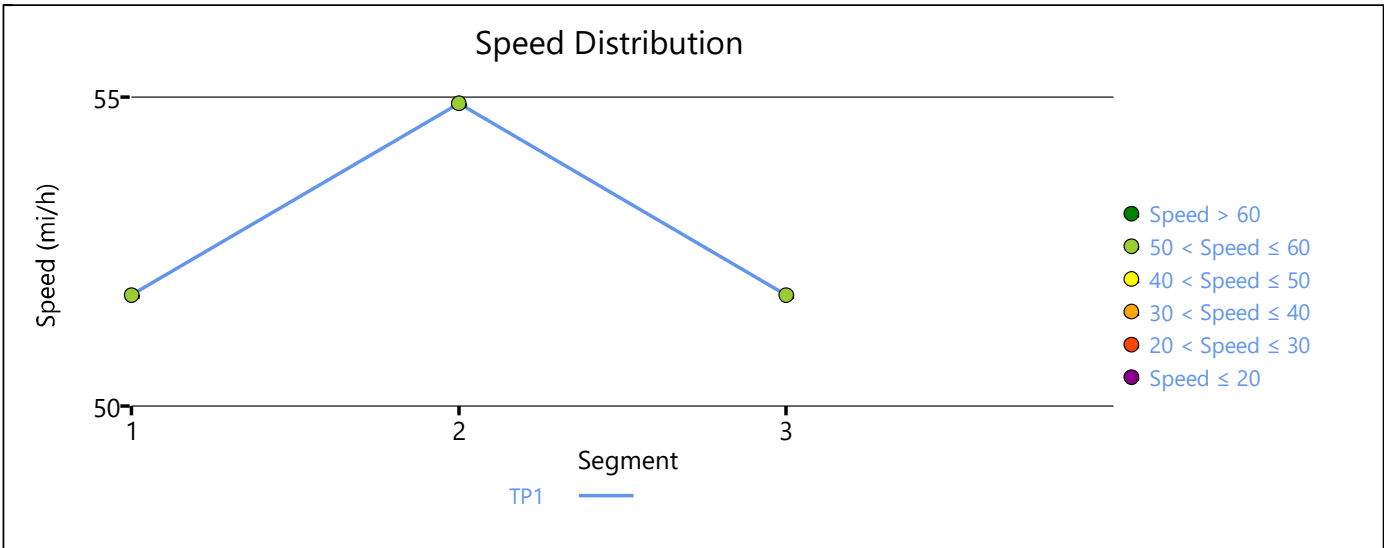
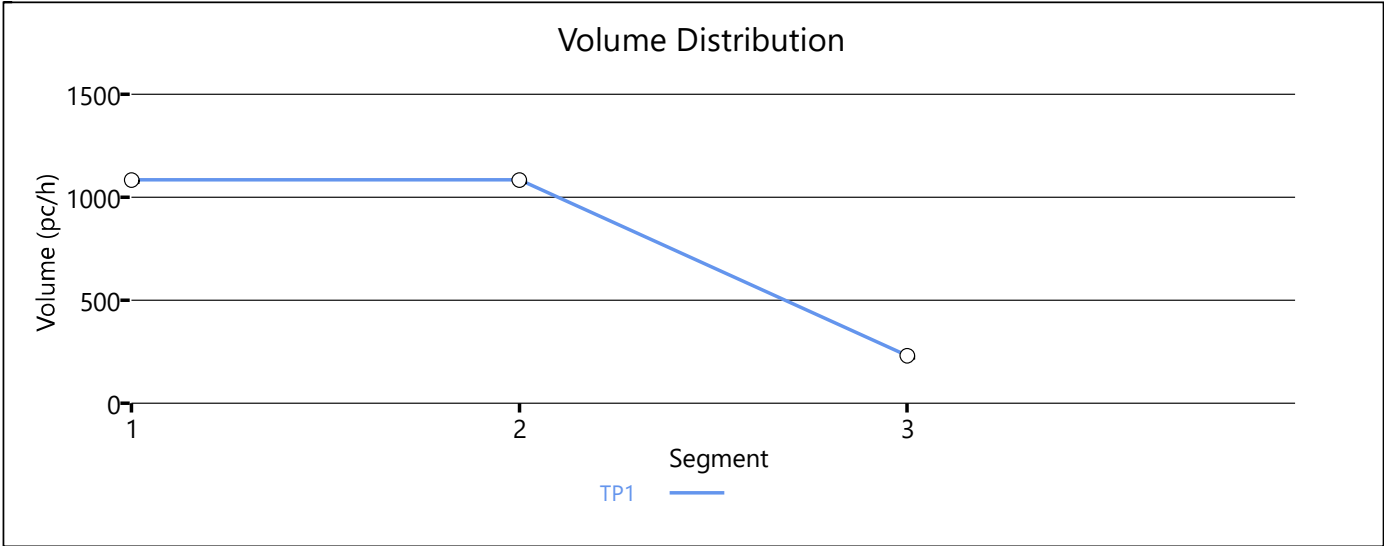
## Facility Overall Results

Space Mean Speed, mi/h	52.9	Density, veh/mi/ln	4.1
Average Travel Time, min	1.50	Density, pc/mi/ln	4.9

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
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WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	



# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Analyzed	PM
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.919	980	6654	0.15	51.8	6.3	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.919	0.926	980	928	6750	4200	0.15	0.22	54.9	55.0	5.9	5.9	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.808	51	6654	0.01	51.8	0.3	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	4.0	3.6	1.50	A

## Facility Overall Results

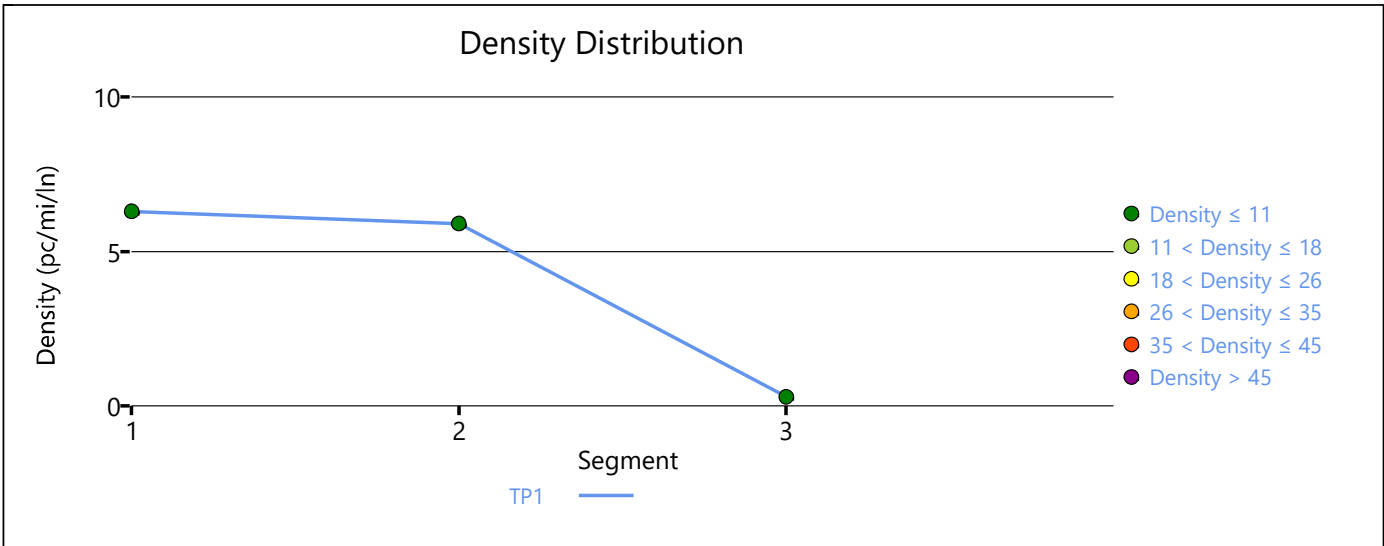
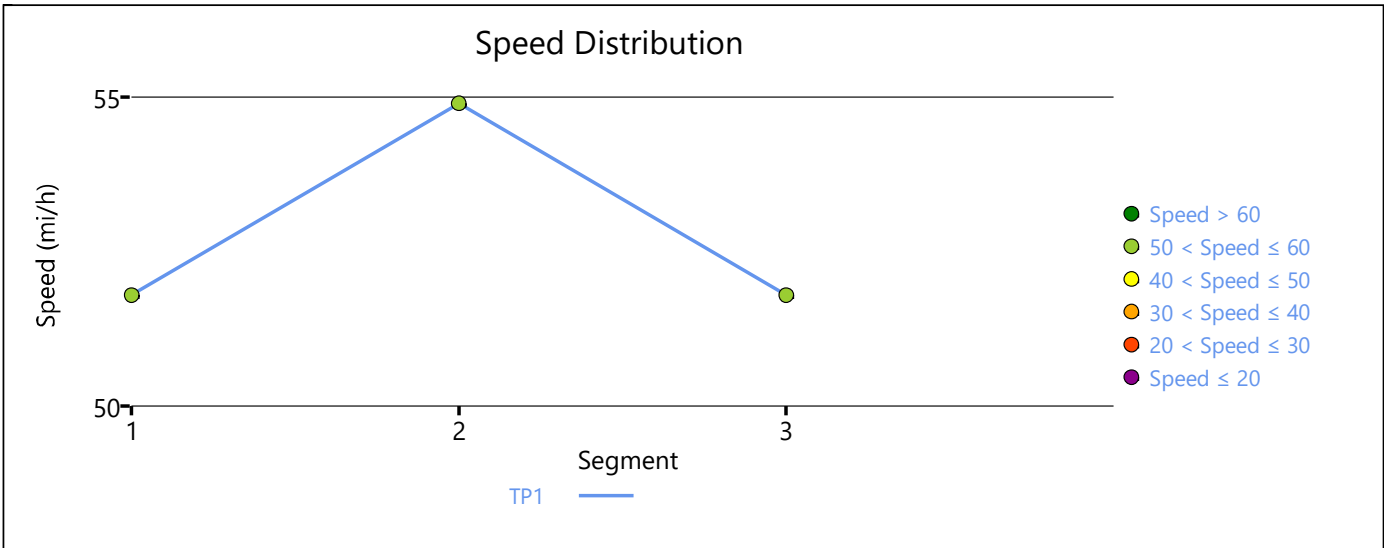
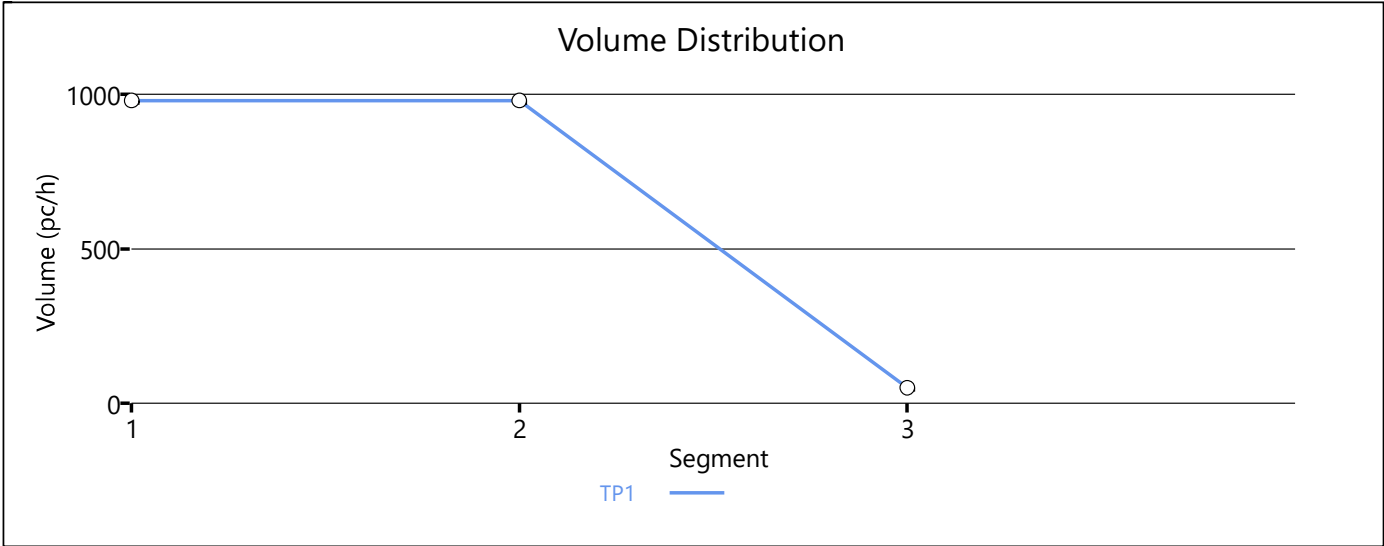
Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	3.6
Average Travel Time, min	1.50	Density, pc/mi/ln	4.0

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	





# HCS7 Freeway Facilities Report

## Project Information

Analyst	CJ	Date	4/21/2022
Agency	WSP	Analysis Year	NEPA 5
Jurisdiction		Time Analyzed	LN
Project Description	CBD	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

### Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.899	542	6654	0.08	51.8	3.5	A

### Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.899	0.906	542	523	6750	4200	0.08	0.12	54.9	55.0	3.3	3.3	A

### Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.706	20	6654	0.00	51.8	0.1	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	2.2	2.0	1.50	A

## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	2.0
Average Travel Time, min	1.50	Density, pc/mi/ln	2.2

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
-----------	---

WARNING 2	Length of accel/decel lane is longer than 1500 feet for segment 2.
<b>Comments</b>	

