

HCS 2010: Basic Freeway Segments Release 6.1

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Operational Analysis

Analyst: JP
Agency or Company: Florence & Hutcheson
Date Performed: 9/23/2011
Analysis Time Period: AM
Freeway/Direction: I-85 SB
From/To: Pelham Rd to I-385
Jurisdiction: Greenville, SC
Analysis Year: 2015
Description: I-85/I-385 Alternate 4A

Flow Inputs and Adjustments

| | | |
|-------------------------------|-------|---------|
| Volume, V | 5805 | veh/h |
| Peak-hour factor, PHF | 0.90 | |
| Peak 15-min volume, v15 | 1613 | v |
| Trucks and buses | 18 | % |
| Recreational vehicles | 0 | % |
| Terrain type: | Level | |
| Grade | - | % |
| Segment length | - | mi |
| Trucks and buses PCE, ET | 1.5 | |
| Recreational vehicle PCE, ER | 1.2 | |
| Heavy vehicle adjustment, fHV | 0.917 | |
| Driver population factor, fp | 1.00 | |
| Flow rate, vp | 1758 | pc/h/ln |

Speed Inputs and Adjustments

| | | |
|-----------------------------------|----------|----------|
| Lane width | - | ft |
| Right-side lateral clearance | - | ft |
| Total ramp density, TRD | - | ramps/mi |
| Number of lanes, N | 4 | |
| Free-flow speed: | Measured | |
| FFS or BFFS | 60.0 | mi/h |
| Lane width adjustment, FLW | - | mi/h |
| Lateral clearance adjustment, FLC | - | mi/h |
| TRD adjustment | - | mi/h |
| Free-flow speed, FFS | 60.0 | mi/h |

LOS and Performance Measures

| | | |
|--------------------------------|------|----------|
| Flow rate, vp | 1758 | pc/h/ln |
| Free-flow speed, FFS | 60.0 | mi/h |
| Average passenger-car speed, S | 59.5 | mi/h |
| Number of lanes, N | 4 | |
| Density, D | 29.5 | pc/mi/ln |
| Level of service, LOS | D | |

Overall results are not computed when free-flow speed is less than 55 mph.