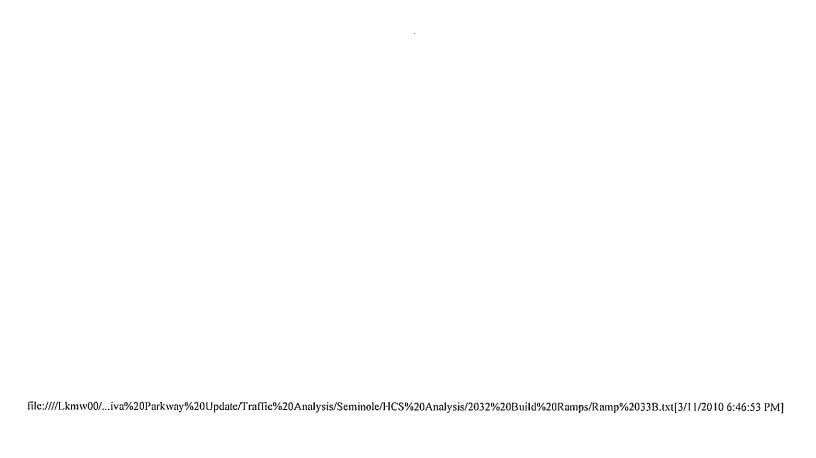
Phone: Fax: E-mail:	
Merge Analysis	_
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build Service Road Concept Freeway/Dir of Travel: Wekiva Pkwy. EB Junction: On Ramp from EB CD Jurisdiction: Seminole County Analysis Year: 2032 Description: Wekiva Parkway Project Development & Environment Study	
Freeway Data	
Type of analysis Merge Number of lanes in freeway 3 Free-flow speed on freeway 55.0 mph Volume on freeway 2530 vph	
On Ramp Data	—
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane Right Mph vph the first accel/decel lane ft	
Adjacent Ramp Data (if one exists)	
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp Off Off Distance to adjacent Ramp Off Off	
Conversion to pc/h Under Base Conditions	
Junction Components Freeway Ramp Adjacent Ramp Volume, V (vph) 2530 300 650 vph Peak-hour factor, PHF 0.90 0.90 0.90	

```
Peak 15-min volume, v15
                              703
                                      83
                                             181
Trucks and buses
                                 0
                                        0
                                              %
Recreational vehicles
                           0
                                  0
                                         0
                                              %
Terrain type:
                        Level
                                 Level
                                         Level
   Grade
                           %
                                   %
                                          %
   Length
                           mi
                                   mi
                                          mi
Trucks and buses PCE, ET
                              1.5
                                      1.5
                                             1.5
Recreational vehicle PCE, ER
                               1.2
                                      1.2
                                              1.2
Heavy vehicle adjustment, fHV.
                               1.000
                                        1.000
                                                1.000
Driver population factor, fP
                             1.00
                                     1.00
                                            1.00
Flow rate, vp
                        2811
                                 333
                                        722
                                               pcph
                          Estimation of V12 Merge Areas
         L = 4426.73 (Equation 25-2 or 25-3)
          EQ
         P = 0.591 Using Equation 1
          FM
         v = v (P) = 1663 \text{ pc/h}
          12 F FM
                                Capacity Checks
              Actual
                       Maximum
                                     LOS F?
              3144
                        6750
                                  Nο
   FO
               1148 pc/h (Equation 25-4 or 25-5)
   v v
   3 or av34
           > 2700 \text{ pc/h}?
                           No
ls v v
   3 or av34
Is v v > 1.5 v / 2
                         No
   3 or av34
             12
If yes, v = 1663
                          (Equation 25-8)
     12A
                        Flow Entering Merge Influence Area
                     Max Desirable
           Actual
                                     Violation?
            1663
                     4600
                                  No
  V
   R12
                Level of Service Determination (if not F)
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = 17.8 \text{ pc/mi/ln}
     R
                R
                       12
Level of service for ramp-freeway junction areas of influence B
       Speed Estimation
Intermediate speed variable,
                                M = 0.315
Space mean speed in ramp influence area, S = 50.9 mph
Space mean speed in outer lanes,
                                  S = 52.7 mph
Space mean speed for all vehicles,
                                  S = 51.5 mph
```



Phone: F E-mail:	cax:	
-	Diverge Analysis	
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build Sofereway/Dir of Travel: Wekive Junction: Off Ramp to Jurisdiction: Seminole Control Analysis Year: 2032 Description: Wekiva Parkway	ervice Road Concept a Pkwy. EB o SR 46 ounty Project Development & Environment Study	
	Freeway Data	
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 3 55.0 mph 2830 vph	
	Off Ramp Data	
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel la		
,	Adjacent Ramp Data (if one exists)	
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 300 vph Upstream On 6684 ft	
Conver	rsion to pc/h Under Base Conditions	
Junction Components Volume, V (vph)	Freeway Ramp Adjacent Ramp 2830 650 300 vph	
Peak-hour factor, PHF	0.90 0.90 0.90	

```
Peak 15-min volume, v15
                              786
                                     181
                                             83
Trucks and buses
                                 0
                                        0
                                             %
Recreational vehicles
                           0
                                  0
                                        0
Terrain type:
                                         Level
                        Level
                                 Level
   Grade
                       0.00 % 0.00 % 0.00 %
   Length
                       0.00 mi 0.00 mi 0.00 mi
Trucks and buses PCE, ET
                             1.5
                                     1.5
                                             1.5
Recreational vehicle PCE, ER
                               1.2
                                      1.2
                                             1.2
Heavy vehicle adjustment, fHV
                              1.000
                                        1.000
                                                1.000
Driver population factor, fP
                             1.00
                                    1.00
                                            1.00
Flow rate, vp
                        3144
                                722
                                        333
                                               pcph
                          Estimation of V12 Diverge Areas
                   (Equation 25-8 or 25-9)
         L =
          EQ
         P = 0.450 Using Equation 0
         v = v + (v - v) P = 1812 \text{ pc/h}
          12 R F R FD
                                Capacity Checks
                                     LOS F?
              Actual
                       Maximum
               3144
                         6750
   v = v
                                   No
   Fi F
   v = v - v
                2422
                         6750
                                    No
   FO F R
              722
                       3800
                                 No
   R
               1332 pc/h
                         (Equation 25-15 or 25-16)
     V
   3 or av34
Is v v > 2700 \text{ pc/h}?
                           No
   3 or av34
Is v v > 1.5 v / 2
                         No
   3 or av34
               12
If yes, v = 1812
                          (Equation 25-18)
     12A
                      Flow Entering Diverge Influence Area
                     Max Desirable
           Actual
                                     Violation?
           1812
                     4400
                                  No
  V
   12
                Level of Service Determination (if not F)_____
              D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L} = 6.3 \text{ pc/mi/ln}
Density,
            R
                      12
Level of service for ramp-freeway junction areas of influence A
                   Speed Estimation_____
Intermediate speed variable,
                               D = 0.493
Space mean speed in ramp influence area, S = 48.6 mph
```

R		
Space mean speed in outer lanes,	S = 59.0	mph
0		
Space mean speed for all vehicles,	S = 52.5	mph

Phone: I E-mail:	Fax:
	Diverge Analysis
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build S Freeway/Dir of Travel: Weking Junction: Off Ramp to Jurisdiction: Seminole Co Analysis Year: 2032 Description: Weking Parkway	ervice Road Concept a Pkwy. EB o SR 46
	Freeway Data
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 3 55.0 mph 2830 vph
	Off Ramp Data
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	
	Adjacent Ramp Data (if one exists)
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 680 vph Downstream Off 6336 ft
Conve	rsion to pc/h Under Base Conditions
Junction Components	Freeway Ramp Adjacent Ramp
Volume, V (vph) Peak-hour factor, PHF	2830 650 680 vph 0.90 0.90 0.90

```
Peak 15-min volume, v15
                               786
                                       181
                                               189
 Trucks and buses
                            0
                                 0
                                                %
 Recreational vehicles
                             0
                                   0
                                          0
 Terrain type:
                                           Level
                          Level
                                  Level
    Grade
                        0.00 % 0.00 % 0.00 %
   Length
                        0.00 mi 0.00 mi 0.00 mi
 Trucks and buses PCE, ET
                                1.5
                                       1.5
                                               1.5
 Recreational vehicle PCE, ER
                                1.2
                                        1.2
                                               1.2
 Heavy vehicle adjustment, fHV
                                1.000
                                          1.000 1.000
 Driver population factor, fP
                              1.00
                                      1.00
                                              1.00
 Flow rate, vp
                          3144
                                  722
                                          756
                                                 peph
                           Estimation of V12 Diverge Areas
          L =
                    (Equation 25-8 or 25-9)
          EQ
          P = 0.450 Using Equation 0
          v = v + (v - v) P = 1812 \text{ pc/h}
          12 R F R FD
                                 Capacity Checks_____
               Actual
                         Maximum
                                      LOS F?
   v = v
                3144
                          6750
                                     No
    Fi F
   \mathbf{v} = \mathbf{v} - \mathbf{v}
                 2422
                           6750
                                     No
    FO F R
               722
                        3800
   ٧
                                   No
   R
      ٧
               1332 pc/h
                          (Equation 25-15 or 25-16)
   3 or av34
Is v v > 2700 \text{ pc/h}?
                            No
   3 or av34
Is v v > 1.5 v / 2
                          No
   3 or av34
              12
If yes, v = 1812
                           (Equation 25-18)
     12A
                       Flow Entering Diverge Influence Area
            Actual
                      Max Desirable
                                       Violation?
            1812
                      4400
   v
                                   No
   12
             Level of Service Determination (if not F)_____
Density,
               D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L} = 6.3 \text{ pc/mi/ln}
                       12
Level of service for ramp-freeway junction areas of influence A
             _____Speed Estimation_____
Intermediate speed variable,
                                 D = 0.493
Space mean speed in ramp influence area, S = 48.6 mph
```

Space mean speed in outer lanes, S = 59.0 mph 0Space mean speed for all vehicles, S = 52.5 mph

Phone: E-mail:	Fax:
	Diverge Analysis
Jurisdiction: Seminole C Analysis Year: 2032	Service Road Concept va Pkwy. WB CD o Wekiva Pkwy. WB
	Freeway Data
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 2 55.0 mph 1620 vph
	Off Ramp Data
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	
	Adjacent Ramp Data (if one exists)
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 360 vph Downstream On 6684 ft
Conve	ersion to pc/h Under Base Conditions
Junction Components Volume, V (vph) Peak-hour factor, PHF	Freeway Ramp Adjacent Ramp 1620 780 360 vph
reak-nour factor, FFIF	0.90 0.90 0.90

```
Peak 15-min volume, v15
                             450
                                    217
                                            100
Trucks and buses
                                0
                                      0
                                            %
Recreational vehicles
                                0
                                            %
                          0
                                       0
Terrain type:
                       Level
                               Level
                                       Level
   Grade
                      0.00 % 0.00 % 0.00 %
   Length
                      0.00 mi 0.00 mi 0.00 mi
Trucks and buses PCE, ET
                             1.5
                                    1.5
Recreational vehicle PCE, ER
                              1.2
                                     1.2
                                           1.2
Heavy vehicle adjustment, fHV
                              1.000
                                      1.000
                                              1.000
Driver population factor, fP
                            1.00
                                 1.00
                                           1.00
Flow rate, vp
                        1800
                               867
                                       400
                                             pcph
                        Estimation of V12 Diverge Areas
         L ===
                  (Equation 25-8 or 25-9)
         EO
         P = 1.000 Using Equation 0
         FD
         v = v + (v - v) P = 1800 \text{ pc/h}
         12 R F R FD
                              Capacity Checks
                                   LOS F?
             Actual
                       Maximum
  v = v
               1800
                        4500
                                  No
   Fi F
   v = v - v
                933
                        4500
                                  No
   FO F R
              867
                      3800
                                No
   R
              0 pc/h
                       (Equation 25-15 or 25-16)
  v v
   3 or av34
          > 2700 pc/h?
Is v v
                          No
   3 or av34
Is v v > 1.5 v / 2
                        No
   3 or av34
              12
If yes, v = 1800
                         (Equation 25-18)
    12A
                     Flow Entering Diverge Influence Area
                    Max Desirable
                                    Violation?
           Actual
           1800
                    4400
  ν
                                 No
   12
               Level of Service Determination (if not F)_____
Density,
              D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L} = 15.2 \text{ pc/mi/ln}
                     12
Level of service for ramp-freeway junction areas of influence B
         Speed Estimation
Intermediate speed variable,
                              D = 0.506
Space mean speed in ramp influence area, S = 48.4 mph
```

Space mean speed in outer lanes, S = N/A mph

Space mean speed for all vehicles, S = 48.4 mph

Phone: E-mail:	Fax:
	Merge Analysis
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build S Freeway/Dir of Travel: Weki- Junction: On Ramp fi Jurisdiction: Seminole C Analysis Year: 2032 Description: Wekiva Parkway	Service Road Concept va Pkwy. WB CD rom Wekiva Pkwy. WB
	Freeway Data
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 2 55.0 mph 620 vph
The second secon	On Ramp Data
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	
	Adjacent Ramp Data (if one exists)
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 780 vph Upstream Off 6684 ft
Conv	ersion to pc/h Under Base Conditions
Junction Components	Freeway Ramp Adjacent Ramp
Volume, V (vph) Peak-hour factor, PHF	620 360 780 vph 0.90 0.90 0.90

```
Peak 15-min volume, v15
                              172
                                     100
                                             217
Trucks and buses
                                 0
                                        0
                                              %
Recreational vehicles
                           0
                                  0
                                              %
                                         n
Terrain type:
                        Level
                                 Level
                                         Level
   Grade
                                  %
                           %
                                          %
   Length
                           mi
                                   mi
                                          mi
Trucks and buses PCE, ET
                              1.5
                                      1.5
                                             1.5
Recreational vehicle PCE, ER
                               1.2
                                      1.2
                                             1.2
Heavy vehicle adjustment, fHV
                                1.000
                                        1.000
                                                1.000
Driver population factor, fP
                             1.00
                                     1.00
                                            1.00
Flow rate, vp
                        689
                                400
                                        867
                                              peph
                         Estimation of V12 Merge Areas
         I_{\perp} =
                   (Equation 25-2 or 25-3)
          ΕQ
         P = 1.000 Using Equation 0
         FM
         v = v (P) = 689 \text{ pc/h}
          12 F FM
                                Capacity Checks
              Actual
                                     LOS F?
                       Maximum
              1089
                        4500
                                  No
   FO
              0 pc/h
                        (Equation 25-4 or 25-5)
   3 or av34
          > 2700 \text{ pc/h}?
                           No
Is v v
   3 or av34
Is v v
          > 1.5 \text{ v} / 2
   3 or av34
                12
If yes, v = 689
                         (Equation 25-8)
    12A
                        Flow Entering Merge Influence Area
                                    Violation?
           Actual
                     Max Desirable
           689
                    4600
                                  No
  V
   R12
                Level of Service Determination (if not F)
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = 10.7 \text{ pc/mi/ln}
                R
                      12
Level of service for ramp-freeway junction areas of influence B
     Speed Estimation
Intermediate speed variable,
                                M = 0.299
Space mean speed in ramp influence area, S = 51.1 mph
Space mean speed in outer lanes, S = N/A mph
Space mean speed for all vehicles, S = 51.1 mph
```

 	001 la data 60 a 60° a 00° 00° 00° 00° 00° 00° 00° 00° 00°	 	 	

Phone: F E-mail:	°ax:
	Merge Analysis
Jurisdiction: Seminole Co Analysis Year: 2032	ervice Road Concept a Pkwy. WB CD om Wekiva Pkwy. WB
	Freeway Data
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 2 55.0 mph 620 vph
	On Ramp Data
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel la	
,	Adjacent Ramp Data (if one exists)
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 50 vph Downstream Off 6336 ft
Conver	rsion to pc/h Under Base Conditions
Junction Components Volume, V (vph)	Freeway Ramp Adjacent Ramp 620 360 50 vph
Peak-hour factor, PHF	0.90 0.90 0.90

```
Peak 15-min volume, v15
                                      100
                              172
                                              14
Trucks and buses
                                              %
Recreational vehicles
                           0
                                  0
                                               %
Terrain type:
                         Level
                                 Level
                                          Level
  Grade
                           %
                                   %
                                          %
   Length
                                   mi
                           mi
                                          mi
Trucks and buses PCE, ET
                               1.5
                                      1.5
                                              1.5
Recreational vehicle PCE, ER
                               1.2
                                       1.2
                                              1.2
Heavy vehicle adjustment, fHV
                                1.000
                                         1.000
                                                 1.000
Driver population factor, fP
                             1.00
                                     1.00
                                             1.00
Flow rate, vp
                         689
                                 400
                                         56
                                               pcph
                          Estimation of V12 Merge Areas
         L =
                   (Equation 25-2 or 25-3)
          EQ
         P = 1.000 Using Equation 0
          FM
         v = v (P) = 689 pc/h
          12 F FM
                                Capacity Checks
                                     LOS F?
              Actual
                        Maximum
              1089
                        4500
                                  No
   FO
               0 pc/h
                        (Equation 25-4 or 25-5)
   3 or av34
           > 2700 \text{ pc/h}?
                            No
Is v v
   3 or av34
Is v v > 1.5 v / 2
                          No
   3 or av34
If yes, v = 689
                          (Equation 25-8)
    12A
                         Flow Entering Merge Influence Area
                                      Violation?
                     Max Desirable
           Actual
            689
                     4600
  v
                                  No
   R12
                 Level of Service Determination (if not F)
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = 10.7 \text{ pc/mi/ln}
                R
                       12
Level of service for ramp-freeway junction areas of influence B
                      Speed Estimation
Intermediate speed variable,
                                M = 0.299
Space mean speed in ramp influence area, S = 51.1 mph
Space mean speed in outer lanes,
                                  S = N/A \text{ mph}
Space mean speed for all vehicles,
                                  S = 51.1 mph
```

Phone: 1 E-mail:	Fax:
	Diverge Analysis
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build S Freeway/Dir of Travel: Weking Junction: Off Ramp to Jurisdiction: Seminole C Analysis Year: 2032 Description: Wekiva Parkway	Service Road Concept va Pkwy. WB CD va Wekiva Pkwy. WB County v Project Development & Environment Study
Validation 1970 - 1970	Freeway Data
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 2 55.0 mph 900 vph
	Off Ramp Data
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel l	Left 1 35.0 mph 50 vph e 500 ft
	Adjacent Ramp Data (if one exists)
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 360 vph Upstream On 6336 ft
Conve	ersion to pc/h Under Base Conditions
Junction Components Volume, V (vph)	Freeway Ramp Adjacent Ramp 900 50 360 vph
Peak-hour factor, PHF	0.90 0.90 0.90

```
250
                                     14
                                             100
Peak 15-min volume, v15
Trucks and buses
                                 0
                                       0
                                             %
Recreational vehicles
                           0
                                 0
                                        0
                                         Level
Terrain type:
                        Level
                                Level
                      0.00 % 0.00 % 0.00 %
  Grade
                       0.00 mi 0.00 mi 0.00 mi
  Length
Trucks and buses PCE, ET
                              1.5
                                     1.5
                                             1.5
                                      1.2
Recreational vehicle PCE, ER
                               1.2
                                             1.2
Heavy vehicle adjustment, fHV
                               1.000
                                        1.000
                                                1.000
Driver population factor, fP
                             1.00
                                     1.00
                                          1.00
                        1000
Flow rate, vp
                                56
                                        400
                                              pcph
                         Estimation of V12 Diverge Areas
                   (Equation 25-8 or 25-9)
         L ==
         EO
         P = 1.000 Using Equation 0
         FD
         v = v + (v - v) P = 1000 \text{ pc/h}
         12 R F R FD
                                Capacity Checks
                                     LOS F?
                       Maximum
              Actual
               1000
                         4500
                                   No
  \mathbf{v} = \mathbf{v}
   Fi F
                                   No
  v = v - v
                944
                         4500
   FO F R
                      2000
                                 No
              56
   R
                        (Equation 25-15 or 25-16)
               0 \text{ pc/h}
  v v
   3 or av34
          > 2700 \text{ pc/h}?
                           No
Is v v
   3 or av34
          > 1.5 \text{ v} / 2
                         No
Is v v
                12
   3 or av34
If yes, v = 1000
                          (Equation 25-18)
    12A
                      Flow Entering Diverge Influence Area
                                      Violation?
                     Max Desirable
           Actual
            1000
                     4400
  ν
                                  No
   12
                Level of Service Determination (if not F)
              D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L} = 8.4 \text{ pc/mi/ln}
Density,
                       12
Level of service for ramp-freeway junction areas of influence A
         Speed Estimation____
Intermediate speed variable,
                                D = 0.433
Space mean speed in ramp influence area, S = 49.4 mph
```

Space mean speed in outer lanes, S = N/A mph 0Space mean speed for all vehicles, S = 49.4 mph

Phone: F E-mail:	Fax:
	Merge Analysis
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build S Freeway/Dir of Travel: Wekiv Junction: On Ramp fre Jurisdiction: Seminole C Analysis Year: 2032 Description: Wekiva Parkway	Service Road Concept va Pkwy. EB CD om Wekiva Pkwy. EB
	Freeway Data
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 2 55.0 mph 710 vph
	On Ramp Data
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel la	
	Adjacent Ramp Data (if one exists)
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 300 vph Downstream Off 6336 ft
Conve	ersion to pc/h Under Base Conditions
Junction Components	Freeway Ramp Adjacent Ramp
Volume, V (vph) Peak-hour factor, PHF	710 40 300 vph 0.90 0.90 0.90

```
11
Peak 15-min volume, v15
                             197
                                            83
Trucks and buses
                                             %
                                0
                                       0
Recreational vehicles
                          0
                                 0
                                       0
Terrain type:
                        Level
                                Level
                                        Level
  Grade
                                         %
                          %
                                  %
  Length
                          mi
                                  mi
                                         mi
Trucks and buses PCE, ET
                              1.5
                                     1.5
                                            1.5
Recreational vehicle PCE, ER
                              1.2
                                     1.2
                                            1.2
Heavy vehicle adjustment, fHV
                                       1.000
                               1.000
                                               1.000
Driver population factor, fP
                            1.00
                                    1.00
                                           1.00
Flow rate, vp
                        789
                               44
                                      333
                                             pcph
                         Estimation of V12 Merge Areas
         L =
                  (Equation 25-2 or 25-3)
         EQ
         P = 1.000 Using Equation 0
         FM
         v = v (P) = 789 \text{ pc/h}
         12 F FM
                               Capacity Checks
                                    LOS F?
             Actual
                       Maximum
              833
                       4500
                                 No
   FO
              0 pc/h
                      (Equation 25-4 or 25-5)
   3 or av34
          > 2700 \text{ pc/h}?
                           No
Is v v
   3 or av34
Is v v > 1.5 v / 2
                         No
   3 or av34
               12
If yes, v = 789
                         (Equation 25-8)
    12A
                        Flow Entering Merge Influence Area
           Actual
                    Max Desirable
                                     Violation?
           789
                    4600
                                 No
  V
   R12
                Level of Service Determination (if not F)
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = 8.8 \text{ pc/mi/ln}
     R
               R
                       12
Level of service for ramp-freeway junction areas of influence A
       Speed Estimation_____
Intermediate speed variable,
                               M = 0.296
Space mean speed in ramp influence area, S = 51.2 mph
Space mean speed in outer lanes,
                                 S = N/A mph
Space mean speed for all vehicles, S = 51.2 mph
```

file:///Lkmw00/...kiva%20Parkway%20Update/Traffic%20Analysis/Seminole/HCS%20Analysis/2032%20Build%20Ramps/Ramp%2038.txt[3/11/2010 6:46:55 PM]

Phone: E-mail:	Fax:	
	Diverge Analysis	
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/201 Analysis time period: Build if Freeway/Dir of Travel: Weki Junction: Off Ramp t Jurisdiction: Seminole of Analysis Year: 2032 Description: Wekiva Pkwy. F	Service Road Concept iva Pkwy. EB CD to Wekiva Pkwy. EB County PD&E	
	Freeway Data	····
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 2 55.0 mph 810 vph	
	Off Ramp Data	
	on rump out	
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lan Length of second accel/decel		
	Adjacent Ramp Data (if one exists)	
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp	Yes 40 vph Upstream On	
Distance to adjacent ramp	6336 ft	
Conv	ersion to pc/h Under Base Conditions	
Junction Components	Freeway Ramp Adjacent Ramp	
Volume, V (vph) Peak-hour factor, PHF	810 300 40 vph 0.90 0.90 0.90	

```
Peak 15-min volume, v15
                               225
                                      83
                                              11
Trucks and buses
                                  0
                                         0
Recreational vehicles
                            0
                                   0
                                         0
Terrain type:
                         Level
                                 Level
                                          Level
   Grade
                       0.00 % 0.00 % 0.00 %
   Length
                        0.00 mi 0.00 mi 0.00 mi
Trucks and buses PCE, ET
                               1.5
                                      1.5
                                              1.5
Recreational vehicle PCE, ER
                                1.2
                                       1.2
                                              1.2
Heavy vehicle adjustment, fHV
                                1.000
                                         1.000
                                                 1.000
Driver population factor, fP
                              1.00
                                      1.00
                                              1.00
Flow rate, vp
                         900
                                 333
                                         44
                                               pcph
                          Estimation of V12 Diverge Areas
         L =
                   (Equation 25-8 or 25-9)
          EQ
         P =
              1.000 Using Equation 0
          FD
         v = v + (v - v) P = 900 \text{ pc/h}
          12 R F R FD
                                Capacity Checks
              Actual
                        Maximum
                                      LOS F?
   v = v
                900
                         4500
                                   No
   Fi F
   v = v - v
                 567
                          4500
                                    No
   FO F R
              333
                        2000
                                  No
   R
               0 pc/h
                         (Equation 25-15 or 25-16)
     V
   3 or av34
Is v v
           > 2700 \text{ pc/h}?
                            No
   3 or av34
           > 1.5 \text{ v} / 2
                          No
Is v v
   3 or av34
                12
If yes, v = 900
                          (Equation 25-18)
     12A
                       Flow Entering Diverge Influence Area
           Actual
                     Max Desirable
                                       Violation?
                     4400
            900
  V
                                  No
   12
                 Level of Service Determination (if not F)
Density,
              D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L} = 7.5 \text{ pc/mi/ln}
                      12
Level of service for ramp-freeway junction areas of influence A
               Speed Estimation
Intermediate speed variable,
                                 D = 0.458
Space mean speed in ramp influence area, S = 49.0 mph
```

R

Space mean speed in outer lanes,

 $S = N/A \quad mph$

0

Space mean speed for all vehicles,

S = 49.0 mph

Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build Service Road Concept Freeway/Dir of Travel: Wekiva Pkwy. EB CD Junction: Off Ramp to Wekiva Pkwy. EB Jurisdiction: Seminole County Analysis Year: 2032 Description: Wekiva Pkwy. PD&E	Data
Agency/Co.: HNTB Date performed: 3/5/2010 Analysis time period: Build Service Road Concept Freeway/Dir of Travel: Wekiva Pkwy. EB CD Junction: Off Ramp to Wekiva Pkwy. EB Jurisdiction: Seminole County Analysis Year: 2032 Description: Wekiva Pkwy. PD&E Freeway	
	Data
Type of analysis Diverge	
Number of lanes in freeway 2 Free-flow speed on freeway 55.0 m Volume on freeway 810 vph	ph
Off Ramp	Data
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane tentrology Left 35.0 m vph tength of second accel/decel lane ft	ph
Adjacent Ramp Data	(if one exists)
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Downstream On Distance to adjacent ramp 6684 ft	
Conversion to pc/h Under E	Base Conditions
Junction Components Freeway Ramp	Adjacent 50 vph 0.90

```
Peak 15-min volume, v15
                               225
                                      83
                                              181
                                                     ν
Trucks and buses
                                  0
                                         0
                                               %
Recreational vehicles
                            0
                                  0
                                               %
                                         0
Terrain type:
                         Level
                                 Level
                                          Level
   Grade
                       0.00 % 0.00 % 0.00
                        0.00 mi 0.00 mi 0.00 mi
   Length
Trucks and buses PCE, ET
                               1.5
                                      1.5
                                              1.5
Recreational vehicle PCE, ER
                                       1.2
                                1.2
                                              1.2
Heavy vehicle adjustment, fHV
                                1.000
                                         1.000
                                                 1.000
Driver population factor, fP
                                              1.00
                              1.00
                                      1.00
Flow rate, vp
                         900
                                 333
                                         722
                                                pcph
                          Estimation of V12 Diverge Areas
         L =
                   (Equation 25-8 or 25-9)
          EQ
         P =
              1.000 Using Equation 0
          FD
         v = v + (v - v) P = 900 \text{ pc/h}
          12 R F R FD
                                 Capacity Checks
              Actual
                        Maximum
                                      LOS F?
                900
                         4500
   v = v
                                    No
   Fi F
   v = v - v
                 567
                          4500
                                    No
   FO F R
               333
                        2000
                                  No
   R
               0 pc/h
                         (Equation 25-15 or 25-16)
      ٧
   3 or av34
           > 2700 \text{ pc/h}?
Is v v
                            No
   3 or av34
Is v v > 1.5 v / 2
                          No
   3 or av34
                12
If yes, v = 900
                          (Equation 25-18)
     12A
                       Flow Entering Diverge Influence Area
                     Max Desirable
                                      Violation?
           Actual
            900
                     4400
  ٧
                                  No
   12
                Level of Service Determination (if not F)
               D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L} = 7.5 \text{ pc/mi/ln}
Density,
            R
                       12
Level of service for ramp-freeway junction areas of influence A
                        Speed Estimation
Intermediate speed variable,
                                 D = 0.458
Space mean speed in ramp influence area, S = 49.0 mph
```

R	
Space mean speed in outer lanes,	S = N/A mph
Space mean speed for all vehicles,	S = 49.0 mph

Phone: E-mail:	Fax:			
MANAGEMANA	Merge Analysis			
Analyst: CTRR Agency/Co.: HNTB Date performed: 3/5/20 Analysis time period: Build Freeway/Dir of Travel: Wek Junction: On Ramp Jurisdiction: Seminole Analysis Year: 2032 Description: Wekiva Pkwy.	Service Road Concept iva Pkwy. EB CD from Wekiva Pkwy. EB County			
	Freeway Data			
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 2 55.0 mph 690 vph			
New york with the first state of	On Ramp Data			
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lan Length of second accel/decel				
	Adjacent Ramp Data (if one exists)			
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp	No vph			
Distance to adjacent Ramp	ft			
Conversion to pc/h Under Base Conditions				
Junction Components	Freeway Ramp Adjacent Ramp			
Volume, V (vph) Peak-hour factor, PHF	690 650 vph 0.90 0.90			

```
Peak 15-min volume, v15
                               192
                                      181
                                                   ٧
Trucks and buses
                                  0
                                              %
Recreational vehicles
                                              %
                            0
                                  0
Terrain type:
                         Level
                                 Level
   Grade
                           %
                                   %
                                           %
   Length
                            mi
                                   mi
                                          mi
Trucks and buses PCE, ET
                               1.5
                                      1.5
Recreational vehicle PCE, ER
                               1.2
                                       1.2
Heavy vehicle adjustment, fHV
                                1.000
                                        1.000
Driver population factor, fP
                              1.00
                                     1.00
Flow rate, vp
                         767
                                 722
                                              pcph
                          Estimation of V12 Merge Areas
         L =
                   (Equation 25-2 or 25-3)
          EQ
          P =
              1.000 Using Equation 0
          FM
          v = v (P) = 767 \text{ pc/h}
          12 F FM
                                Capacity Checks
                                     LOS F?
              Actual
                        Maximum
               1489
                        4500
                                  No
   FO
   V
     V
               0 pc/h
                        (Equation 25-4 or 25-5)
   3 or av34
           > 2700 \text{ pc/h}?
Is v v
                            No
   3 or av34
          > 1.5 \text{ y} /2
                          No
Is v v
   3 or av34
If yes, v = 767
                          (Equation 25-8)
     12A
                         Flow Entering Merge Influence Area
           Actual
                     Max Desirable
                                      Violation?
            767
  ν
                     4600
   R12
                 Level of Service Determination (if not F)
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = 7.4 \text{ pc/mi/ln}
                R
                       12
Level of service for ramp-freeway junction areas of influence A
                     Speed Estimation ______
Intermediate speed variable,
                                M = 0.235
Space mean speed in ramp influence area, S = 51.9 mph
Space mean speed in outer lanes,
                                  S = N/A \text{ mph}
Space mean speed for all vehicles,
                                  S = 51.9 mph
```

	•

WP WB Off to Existing SR 46.txt

Phone: E-mail:	Fax:			
	rge Analysis			
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: Off Ramp to SR 46 (Existing) Jurisdiction: Lake County Analysis Year: 2032 Build Description: Wekiva Parkway Project Development and Environment Study				
Free	eway Data			
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 3 55.0 4400		mph vph	
off i	Ramp Data			
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 1270 1190		mph vph ft ft	
Adjacent Ramp Data (if one exists)				
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 310 Downstr On 1000	-eam	vph ft	
Conversion to pc/h Under Base Conditions				
Junction Components	Freeway	Ramp		Adjacent
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	0.90 1222 0 0 Level 0.00 % 0.00 mi 1.5 1.2	1270 0.90 353 0 0 Level 0.00 0.00 1.5 1.2 1.000	% mi	Ramp 310 vph 0.90 86 v 0 % 0 % Level 0.00 % 0.00 mi 1.5 1.2 1.000

Flow Entering Diverge Influence Area

Actual Max Desirable Violation?

V 3403 4400 No

Level of Service Determination (if not F)

Density, D = 4.252 + 0.0086 v - 0.009 L = 22.8 pc/mi/ln

R 12 D

Level of service for ramp-freeway junction areas of influence C

Speed Estimation

Intermediate speed variable, = 0.555S Space mean speed in ramp influence area, S = 47.8mph R Space mean speed in outer lanes, S = 58.4mph 0 Space mean speed for all vehicles, S = 50.6mph

WP WB Off to Existing SR 46.txt

Phone: E-mail:	Fax:			
Diver	ge Analysis			
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: Off Ramp to SR 46 (Existing) Jurisdiction: Lake County Analysis Year: 2032 Build Description: Wekiva Parkway Project Development and Environment Study				
Free	eway Data	111111		
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 3 55.0 4400	mph vph		
off F	Ramp Data	TO CONTRACT		
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 1270 1190	mph vph ft ft		
Adjacent Ramp Data (if one exists)				
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 310 Downstream On 1000	vph ft		
Conversion to pc/h Under Base Conditions				
Junction Components	Freeway Ramp	Adjacent		
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	4400	Ramp 310 vph 0.92 84 v 11 % 0 % Level % 0.00 % mi 0.00 mi 1.5 1.2 0.948 1.00		

```
WP WB Off to Existing SR 46.txt
Flow rate, vp
                                                                   355
                                          5046
                                                                             pcph
                          Estimation of V12 Diverge Areas_
                                    (Equation 25-8 or 25-9)
                   L =
                    EQ
                   Р
                            0.567
                                    Using Equation 5
                    FD
                           + (v - v) P = 3491
                                                     pc/h
                         R
                             ____Capacity Checks__
                             Actual
                                           Maximum
                                                            LOS F?
                             5046
                                           6750
                                                            No
                             3590
                                           6750
                                                            No
                            1456
                                           2000
                                                            No
      R
                            1555 pc/h
                                           (Equation 25-15 or 25-16)
IS
                   > 2700 pc/h?
                                           No
IS
                   > 1.5 v
                                           No
      3
              = 3491
                                           (Equation 25-18)
         12A
                       Flow Entering Diverge Influence Area
                                                             Violation?
                       Actual
                                      Max Desirable
                       3491
     ν
                                      4400
                                                             No
      12
                  Level of Service Determination (if not F)_
Density,
                        D = 4.252 + 0.0086 \text{ V} - 0.009 \text{ L}
                                                                23.6
                                                                          pc/mi/ln
Level of service for ramp-freeway junction areas of influence C
                           ____Speed Estimation_
Intermediate speed variable,
                                               D = 0.559
Space mean speed in ramp influence area,
                                               S
                                                  = 47.7
                                                             mph
                                                R
Space mean speed in outer lanes,
                                                  = 58.2
                                                             mph
                                                0
Space mean speed for all vehicles,
                                               S = 50.5
                                                             mph
```

WP EB Off Ramp to SR 46.txt

Phone: E-mail:					
Diver	rge Analysis				
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: Off Ramp to SR 46 (Existing) Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study					
Free	eway Data				
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 2 55.0 3440	mph ∨ph			
Off R	Ramp Data				
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 310 1190	mph ∨ph ft ft			
Adjacent Ramp	Data (if one exi	sts)			
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 1270 Downstream On 1000	∨ph ft			
Conversion to pc/h	Under Base Condi	tions			
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	Freeway Ramp 3440 310 0.92 0.92 935 84 11 11 0 0 Level Leve 0.00 % 0.00 0.00 mi 0.00 1.5 1.5 1.2 0.948 1.00 page 1	Ramp 1270 vph 2 0.92 345 v 11 % 0 % 1 Level 6 % 0.00 % 6 mi 0.00 mi 1.5 1.2 8 0.948			

WP EB On ramp from SR 46.txt

Phone: Fax:					
Merc	ge Analysis				
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Cor Freeway/Dir of Travel: Wekiva Parkwa Junction: On Ramp from Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project	nnection @ SR 417 ay EB SR 46 (Existing) Development and Env	ironment Study			
Fre	eeway Data				
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 3 55.0 3130	mph ∨ph			
on	Ramp Data				
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 2 35.0 1270 500 500	mph vph ft ft			
Adjacent Ram	np Data (if one exist	ts)			
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 310 Downstream Off 1000	∨ph ft			
Conversion to pc/	h Under Base Conditi	ons			
Junction Components	Freeway Ramp	Adjacent			
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade	3130 1270 0.92 0.92 851 345 11 11 0 0 Level Level	Ramp 310 vph 0.92 84 v 11 % 0 % Level			
Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	mi 1.5 1.5 1.2 1.2 0.948 0.948 1.00 1.00 Page 1	mi mi 1.5 1.2 0.948 1.00			

S

Space mean speed for all vehicles,

= 51.3

s = 50.7

mph

mph

WP WB On Ramp from SR 46.txt

Phone: E-mail:						
	Merge	Analysis				
Analyst: Agency/Co.: Date performed: Analysis time period: Freeway/Dir of Travel: Junction: Jurisdiction: Analysis Year: Description: Wekiva Par	rkway Project D	evelopment a	and Envir		_	
	Free	way Data				
Type of analysis Number of lanes in freew Free-flow speed on freew Volume on freeway	Jay Jay	Merge 2 55.0 3130		mph vph		
	On R	amp Data				
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/de Length of second accel/de	cel lane lecel lane	Right 1 35.0 310 1350		mph vph ft ft		
A-PARAMETER AND	_Adjacent Ramp	Data (if or	ne exists)		
Does adjacent ramp exist Volume on adjacent Ramp Position of adjacent Ram Type of adjacent Ramp Distance to adjacent Ram	р	Yes 1270 Upstre Off 1000	eam	vph ft		
Conv	ersion to pc/h	Under Base	Conditio	ns		
Junction Components		Freeway	Ramp		Adjacen	t
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade		3130 0.92 851 11 0 Level	310 0.92 84 11 0 Level	%	Ramp 1270 0.92 345 11 0 Level	vph v % %
Length Trucks and buses PCE, ET Recreational vehicle PCE Heavy vehicle adjustment Driver population factor	, ER , fh∨	mi 1.5 1.2 0.948 1.00 Page 1	1.5 1.2 0.948 1.00	mi	1.5 1.2 0.948 1.00	mi

NB SR 429 Off ramp to SR 46 Bypasss.txt

Phone: E-mail:						
Diver	rge Analysis					
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: Off Ramp from SR 46 Bypass Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
Free	eway Data					
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 2 55.0 3530	mph vph				
Off R	Ramp Data					
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 2 35.0 1680 500 500	mph vph ft ft				
Adjacent Ramp	Data (if one exis	ts)				
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 580 Downstream On 1000	vph ft				
Conversion to pc/h	n Under Base Condit	ions				
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	Freeway Ramp 3530 1680 0.92 0.92 959 457 11 11 0 0 Level Level 0.00 % 0.00 0.00 mi 0.00 1.5 1.5 1.2 1.2 0.948 1.00 page 1	Adjacent Ramp 580 vph 0.92 158 v 11 % 0 % Level % 0.00 % mi 0.00 mi 1.5 1.2 0.948 1.00				

Ramp 45_2032 Off ramp to SR 46 Bypass.txt

Phone: E-mail:						
Diver	ge Analysis					
Free	way Data					
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diver <u>o</u> 2 55.0 3440		mph vph			
off R	amp Data					
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 2 35.0 1590 500		mph vph ft ft			
Adjacent Ramp	Data (if or	ne exists)			
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 1680 Downst On 1000	ream	vph ft			
Conversion to pc/h	Under Base	Conditio	n <i>s</i> _			
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	Freeway 3440 0.92 935 11 0 Level 0.00 % 0.00 mi 1.5 1.2 0.948 1.00 Page 1	Ramp 1590 0.92 432 11 0 Level 0.00 0.00 1.5 1.2 0.948 1.00	% mi	Adjacent Ramp 1680 vph 0.92 457 v 11 % 0 % Level 0.00 % 0.00 mi 1.5 1.2 0.948 1.00		

Off ramp from SR 46 Bypass to SR 429 SB.txt HCS+: Ramps and Ramp Junctions Release 5.4

Phone: E-mail:						
Diver	ge Analysis_					
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: Off Ramp from SR 46 Bypass Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
Free	way Data					
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverg 2 55.0 3270		mph vph			
Off R	kamp Data			***************************************		
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 2 35.0 1680 500 500		mph vph ft ft			
Adjacent Ramp	Data (if or	ne exists	i)			
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 580 Downst Off 1000	ream	vph ft			
Conversion to pc/h	Under Base	Conditio	กร			
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	3270 0.92 889 11 0 Level 0.00 % 0.00 mi 1.5 1.2 0.948 1.00 Page 1	Ramp 1680 0.92 457 11 0 Level 0.00 0.00 1.5 1.2 0.948 1.00	% mi	Adjacent Ramp 580 vph 0.92 158 v 11 % 0 % Level 0.00 % 0.00 mi 1.5 1.2 0.948 1.00		

Space mean speed in outer lanes,

Space mean speed for all vehicles,

N/A

0

S = 47.2

mph

mph

On Ramp from SR 46 Bypass to WP EB.txt

Phone: E-mail:						
Merge	e Analysis					
Analyst: KNM Agency/Co.: HNTB Date performed: 3/14/2007 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: On Ramp from SR 429 Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
Free	eway Data					
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 2 55.0 1850		mph vph			
On R	amp Data					
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 2 35.0 1590 500 500		mph vph ft ft			
Adjacent Ramp	Data (if or	ne exists)			
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 310 Downst off 1000	ream	∨ph ft			
Conversion to pc/h	Under Base	Conditio	ns	· · · · · · · · · · · · · · · · · · ·		
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade	Freeway 1850 0.92 503 11 0 Level	Ramp 1590 0.92 432 11 0 Level	%.	Adjacent Ramp 310 vph 0.92 84 v 11 % 0 % Level		
Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	1.5 1.2 0.948 1.00 Page 1	1.5 1.2 0.948 1.00	mi	mi 1.5 1.2 0.948 1.00		

```
On Ramp from SR 46 Bypass to WP EB.txt
Flow rate, vp
                                                                   355
                                          2121
                                                      1823
                                                                              pcph
                          _Estimation of V12 Merge Areas_
                                    (Equation 25-2 or 25-3)
                   L =
                    EQ
                            1.000
                                    Using Equation 0
                    FΜ
                            (P) = 2121
                                            pc/h
                    12
                         F
                              FΜ
                                __Capacity Checks_
                             Actual
                                            Maximum
                                                             LOS F?
                             3944
                                            4500
                                                             No
      FO
                                            (Equation 25-4 or 25-5)
                             0
                                  pc/h
            av34
                   > 2700 pc/h?
Is
                                            No
IS
                                            No
      3 or
            av34
If yes, v
              = 2121
                                            (Equation 25-8)
                         _Flow Entering Merge Influence Area_
                       Actual
                                      Max Desirable
                                                              Violation?
                                      4600
      R12
                 _Level of Service Determination (if not F)__
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = R
                                                                   26.0
                                                                            pc/mi/ln
Level of service for ramp-freeway junction areas of influence
                             ___Speed Estimation_
Intermediate speed variable,
                                                M = 0.417
                                                 S
Space mean speed in ramp influence area,
                                                S
                                                   = 49.6
                                                              mph
                                                R
Space mean speed in outer lanes,
                                                S
                                                      N/A
                                                              mph
                                                0
Space mean speed for all vehicles,
                                                S
                                                  = 49.6
                                                              mph
```

On Ramp from SR 46 Bypass to WP EB.txt

Phone: E-mail:						
	Merge	Analysis				
Analyst: KNM Agency/Co.: HNTB Date performed: 3/14/2007 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: On Ramp from SR 429 Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
	Free	way Data				
Type of analysis Number of lanes in free Free-flow speed on free Volume on freeway	way way	Merge 2 55.0 1850		mph vph		
	On R	amp Data				
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/d Length of second accel/	ecel lane	Right 2 35.0 1590 500 500		mph vph ft ft		
	Adjacent Ramp	Data (if or	ne exists)		
Does adjacent ramp exist Volume on adjacent Ramp Position of adjacent Ram Type of adjacent Ramp Distance to adjacent Ram	пр	Yes 310 Downst Off 1000	ream	vph ft		
Con	version to pc/h	Under Base	Conditio	ns		
Junction Components		Freeway	Ramp		Adjacent	
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade		1850 0.90 514 0 0 Level	1590 0.90 442 0 0 Level	%	Ramp 310 vph 0.90 86 v 0 % 0 % Level	
Length Trucks and buses PCE, E- Recreational vehicle PCI Heavy vehicle adjustment Driver population factor	E, ER E, fH∨	mi 1.5 1.2 1.000 1.00 Page 1	1.5 1.2 1.000 1.00	mi	mi 1.5 1.2 1.000 1.00	

```
On Ramp from SR 46 Bypass to WP EB.txt
 Flow rate, vp
                                                                                                                                                                                                                                 344
                                                                                                                                            2056
                                                                                                                                                                                                                                                                    pcph
                                                                                       _Estimation of V12 Merge Areas__
                                                                 L
                                                                                                                          (Equation 25-2 or 25-3)
                                                                   EQ
                                                                 P =
                                                                                             1.000
                                                                                                                   Using Equation 0
                                                                   FΜ
                                                                                           (P) = 2056
                                                                                                                                                      pc/h
                                                                                                             _Capacity Checks_
                                                                                                Actual
                                                                                                                                                  Maximum
                                                                                                                                                                                                           LOS F?
                                                                                                 3823
                                                                                                                                                   4500
                                                                                                                                                                                                           No
                     FO
                                                                                                                  pc/h
                                                                                                                                                   (Equation 25-4 or 25-5)
                      3 or
                                         av34
                                                                 > 2700 pc/h?
IS
                                                                                                                                                  No
                                                                 > 1.5 v /2
                                                                                                                                                  No
Is
                      3 or
                                                                                         12
                                           av34
If yes, v
                                                                                                                                                   (Equation 25-8)
                                                                                    _Flow Entering Merge Influence Area
                                                                                                                               Max Desirable
4600
                                                                                                                                                                                                               Violation?
                                                                              Actua]
                                                                              2056
                     R12
                                                         _Level of Service Determination (if not F)_
Density, D = 5.475 + 0.00734 + 0.0078 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00
                                                                                                                                                                                                                                25.1
                                                                                                                                                                                                                                                             pc/mi/ln
Level of service for ramp-freeway junction areas of influence
                                                                                                  ___Speed Estimation_
Intermediate speed variable,
                                                                                                                                                                         = 0.394
                                                                                                                                                                   S
Space mean speed in ramp influence area,
                                                                                                                                                                S
                                                                                                                                                                         = 49.9
                                                                                                                                                                                                              mph
                                                                                                                                                                  R
Space mean speed in outer lanes,
                                                                                                                                                                S
                                                                                                                                                                         = N/A
                                                                                                                                                                                                              mph
                                                                                                                                                                   0
Space mean speed for all vehicles,
                                                                                                                                                                S
                                                                                                                                                                        = 49.9
                                                                                                                                                                                                              mph
```

SR 429 SB Off Diverge.txt

Phone: E-mail:					
Dive	rge Analysis				
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: SB Off Ramp to US 441 Jurisdiction: Orange County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study					
Free	eway Data				
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverge 2 55.0 3440	mph vph			
off F	Ramp Data				
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 520 500	mph vph ft ft			
Adjacent Ramp	Data (if one exist	s)			
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 2250 Downstream On 1000	vph ft			
Conversion to pc/h	Under Base Conditi	ons			
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	Freeway Ramp 3440 520 0.92 0.92 935 141 11 10 0 0 Level 0.00 % 0.00 0.00 mi 0.00 1.5 1.5 1.2 0.948 0.952 1.00 Page 1	Adjacent Ramp 2250 vph 0.92 611 v 10 % 0 % Level % 0.00 % mi 0.00 mi 1.5 1.2 0.952 1.00			

pcph

```
Estimation of V12 Diverge Areas\_
                                   (Equation 25-8 or 25-9)
                   L ==
                    EQ
                           1.000
                                   Using Equation 0
                           + (v - v) P = 3945
                    12
                         R
                               F
                                  Ŕ
                                      FD
                              ___Capacity Checks__
                            Actual
                                                           LOS F?
                                           Maximum
                            3945
                                           4500
                                                           Νo
                            3352
                                           4500
                                                           No
                            593
                                           2000
                                                           No
                                           (Equation 25-15 or 25-16)
                                 pc/h
Is
                   > 2700 pc/h?
                                           No
                   > 1.5 v
      3 or
             = 3945
                                           (Equation 25-18)
         12A
                       Flow Entering Diverge Influence Area
                       Actual
                                     Max Desirable
                                                            Violation?
                                     4400
                       3945
     ν
      12
                 Level of Service Determination (if not F)_
                        D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L}
Density,
                                                                         pc/mi/ln
                                                                33.7
Level of service for ramp-freeway junction areas of influence D
                         _____Speed Estimation__
Intermediate speed variable,
                                               D = 0.481
Space mean speed in ramp influence area,
                                                  = 48.7
                                                            mph
                                               R
Space mean speed in outer lanes,
                                                     N/A
                                                            mph
Space mean speed for all vehicles,
                                               S = 48.7
                                                            mph
```

SR 429 NB On Merge.txt

Phone: E-mail:						
	Merge	e Analysis				0.000
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: NB On Ramp from US 441 Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
	Free	eway Data				
Type of analysis Number of lanes in free Free-flow speed on free Volume on freeway	way way	Merge 2 55.0 2920		mph vph		
	On R	amp Data				
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/d Length of second accel/d	ecel lane	Right 1 35.0 520 530		mph vph ft ft		
	Adjacent Ramp	Data (if o	ne exists	;)		
Does adjacent ramp exist Volume on adjacent Ramp Position of adjacent Ram Type of adjacent Ramp Distance to adjacent Ram	пр	Yes 2250 Downs Off 1000	tream	vph ft		
Con	version to pc/h	Under Base	Conditio	ns		
Junction Components		Freeway			Adjacer	nt
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade		2920 0.92 793 11 0 Level	520 0.92 141 10 0 Level	%	Ramp 2250 0.92 611 10 0 Level	∨ph ∨ % %
Length Trucks and buses PCE, E- Recreational vehicle PCE Heavy vehicle adjustment Driver population factor	E, ER E, fHV	mi 1.5 1.2 0.948 1.00 Page 1	1.5 1.2 0.952 1.00	mi	1.5 1.2 0.952 1.00	mi

pcph

```
Estimation of V12 Merge Areas_
                                   (Equation 25-2 or 25-3)
                    EQ
                           1.000
                                   Using Equation 0
                     =
                           (P) = 3348
                                           pc/h
                    12
                         F
                             FΜ
                             ____Capacity Checks_
                            Actual
                                          Maximum
                                                           LOS F?
                            3941
                                          4500
                                                           No
      FO
                                 pc/h
                                          (Equation 25-4 or 25-5)
            av34
Ιs
                  > 2700 pc/h?
                                          No
Ιs
                   > 1.5 v
                                          No
            av34
             = 3348
                                          (Equation 25-8)
                         Flow Entering Merge Influence Area
                                                            Violation?
                       Actual
                                     Max Desirable
                       3348
                                     4600
      R12
                 _Level of Service Determination (if not F)\_
Density, D = 5.475 + 0.00734 v + 0.0078 v - 0.00627 L
                                                                 32.6
                                                                         pc/mi/ln
Level of service for ramp-freeway junction areas of influence
                           ___Speed Estimation_
Intermediate speed variable,
                                              M = 0.485
Space mean speed in ramp influence area,
                                                 = 48.7
                                                           mph
Space mean speed in outer lanes,
                                                    N/A
                                              S
                                                           mph
Space mean speed for all vehicles,
                                              S
                                                = 48.7
                                                           mph
```

SR 429 SB On Merge.txt

Phone: E-mail:	Fax:					
Merge	e Analysis					
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: SB On Ramp from US 441 Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
Free	way Data					
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 3 55.0 2920		mph vph			
On R	amp Data					
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 2 35.0 2250 530 530		mph vph ft ft			
Adjacent Ramp	Data (if on	e exists)			
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 520 Downst Off 1000		vph ft			
Conversion to pc/h	Under Base	Conditio	าร			
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	Freeway 2920 0.92 793 11 0 Level % mi 1.5 1.2 0.948 1.00 Page 1	Ramp 2250 0.92 611 10 0 Level 1.5 1.2 0.952 1.00	% mi	Adjacent Ramp 520 vph 0.92 141 v 10 % 0 % Level mi 1.5 1.2 0.952 1.00		

```
SR 429 SB On Merge.txt
  Flow rate, vp
                                                                                                                                                                                                                                                593
                                                                                                                                                      3348
                                                                                                                                                                                                  2568
                                                                                                                                                                                                                                                                                     pcph
                                                                                                Estimation of V12 Merge Areas_
                                                                                                                                  (Equation 25-2 or 25-3)
                                                                          EQ
                                                                                                    0.555
                                                                                                                                 Using Equation 0
                                                                                                   (P) = 1858
                                                                                                                                                                pc/h
                                                                         12
                                                                                            F
                                                                                                              ___Capacity Checks__
                                                                                                       Actual
                                                                                                                                                            Maximum
                                                                                                                                                                                                                        LOS F?
                                                                                                                                                            6750
                                                                                                       5916
                        FQ
                                                                                                       1490 pc/h
                                                                                                                                                            (Equation 25-4 or 25-5)
 Is
                                                                     > 2700 pc/h?
                                                                                                                                                            No
                                                                                                                                                            Yes
                                                  = 1913
                                                                                                                                                            (Equation 25-8)
                                                                                           Flow Entering Merge Influence Area
                                                                                                                                        Max Désirable
                                                                                                                                                                                                                            Violation?
                                                                                    1913
                                                                                                                                        4600
                       12A
                                                                 Level of Service Determination (if not F)_
Density, D = 5.475 + 0.00734 + 0.0078 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00627 + 0.00
                                                                                                                                                                                                                                                                             pc/mi/ln
Level of service for ramp-freeway junction areas of influence
                                                                                                 ____Speed Estimation_
Intermediate speed variable,
                                                                                                                                                                          M = 0.554
Space mean speed in ramp influence area,
                                                                                                                                                                                     = 47.8
                                                                                                                                                                                                                           mph
Space mean speed in outer lanes,
                                                                                                                                                                          S
                                                                                                                                                                                    = 51.6
                                                                                                                                                                                                                           mph
Space mean speed for all vehicles,
                                                                                                                                                                          S = 48.7
                                                                                                                                                                                                                           mph
```

SR 429 NB Off Diverge.txt

Phone: E-mail:						
	Diver	ge Analys	is	-		
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Connection @ SR 417 Freeway/Dir of Travel: Wekiva Parkway WB Junction: NB Off Ramp to US 441 Jurisdiction: Orange County Analysis Year: 2032 Description: Wekiva Parkway Project Development and Environment Study						
	Free	way Data				
Type of analysis Number of lanes in free Free-flow speed on free Volume on freeway	way way	Dive 3 55.(5170)	mph ∨ph		
	off R	amp Data				
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/do Length of second accel/do	ecel lane decel lane	Righ 2 35.(2250 500 500)	mph vph ft ft		
· · · · · · · · · · · · · · · · · · ·	Adjacent Ramp	Data (if	one exi	sts)		
Does adjacent ramp exist Volume on adjacent ramp Position of adjacent ram Type of adjacent ramp Distance to adjacent ram	пр	Yes 520 Down On 1000	ıstream	∨ph ft		
Conv	version to pc/h	Under Bas	e Condi	tions	· · · · · · · · · · · · · · · · · · ·	
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Longth		5170 0.92 1405 11 0 Level 0.00 %	2250 0.92 611 10 0 Leve 0.00	1 %	Adjacent Ramp 520 vph 0.92 141 v 10 % 0 % Level 0.00 %	
Length Trucks and buses PCE, ET Recreational vehicle PCE Heavy vehicle adjustment Driver population factor	:, ER :, fhv	0.00 m 1.5 1.2 0.948 1.00 Page 1	i 0.00 1.5 1.2 0.95 1.00	2	0.00 mi 1.5 1.2 0.952 1.00	

```
_Estimation of V12 Diverge Areas__
                   L =
                                    (Equation 25-8 or 25-9)
                    EQ
                           0.450
                                   Using Equation 0
                           + (v - v) P = 4080
                                                    pc/h
                               F R FD
                         R
                             ____Capacity Checks__
                            Actual
                                           Maximum
                                                            LOS F?
                            5929
                                           6750
                                                            No
                            3361
                                           6750
                                                            No
                            2568
                                           3800
                                                            No
      R
                            1849 pc/h
                                           (Equation 25-15 or 25-16)
I5
                   > 2700 pc/h?
                                           No
                   > 1.5 v /2
12
                                           No
      3 or
            av34
If yes, v
             = 4080
                                           (Equation 25-18)
         12A
                       Flow Entering Diverge Influence Area
                       Actual
                                      Max Desirable
                                                            violation?
                       4080
                                      4400
     V
      12
                  Level of Service Determination (if not F)_
Density,
                        D = 4.252 + 0.0086 \text{ v} - 0.009 \text{ L}
                                                                         pc/mi/ln
Level of service for ramp-freeway junction areas of influence C
                        _____Speed Estimation_
Intermediate speed variable,
                                               D = 0.659
Space mean speed in ramp influence area,
                                               S = 46.4
                                                            mph
Space mean speed in outer lanes,
                                               S = 57.0
                                                            mph
Space mean speed for all vehicles.
                                               s = 49.3
                                                            mph
```

SR 429 SB On Ramp Merge from Kelly Park Rd.txt HCS+: Ramps and Ramp Junctions Release 5.4

Phone: E-mail:		F	ax:				
	Merge	e Analy	/sis				
Analyst: Agency/Co.: Date performed: Analysis time period: Freeway/Dir of Travel: Junction: Jurisdiction: Analysis Year: Description: Wekiva Pa	KNM HNTB 3/10/2010 Build I-4 Conr Wekiva Parkway SB On Ramp fro Lake County 2032 rkway Project D	ectior WB M Kell	n @ SR y Park oment a	417 < Rd and Envir	onme	ent Study	
	Free	way Da	ıta				
Type of analysis Number of lanes in free Free-flow speed on free Volume on freeway	way way		Merge 2 55.0 2950		mph vph		
- Annual Control of the Control of t	On R	amp Da	ta				
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/d Length of second accel/d	ecel lane decel lane		Right 1 35.0 490 1140		mph vph ft ft		
	Adjacent Ramp	Data	(if on	e exists)		
Does adjacent ramp exist Volume on adjacent Ramp Position of adjacent Ram Type of adjacent Ramp Distance to adjacent Ram	np		Yes 580 Upstre Off 1000	am	vph ft		
Con\	ersion to pc/h	Under	Base	Conditio	ns		
Junction Components		Freewa	ay	Ramp		Adjacent	
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length		2950 0.92 802 11 0 Level	% mi	490 0.92 133 2 0 Level	% mi	Ramp 580 0.92 158 2 0 Level	vph v % % mi
Trucks and buses PCE, ET Recreational vehicle PCE Heavy vehicle adjustment Driver population factor	, ER , fhv	1.5 1.2 0.948 1.00 Page 1	1	1.5 1.2 0.990 1.00		1.5 1.2 0.990 1.00	

SR 429 SB Off Ramp to Kelly Park Rd.txt

hone: Fax:							
Dive	rge Analysis.						
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Conn Freeway/Dir of Travel: Wekiva Parkway Junction: SB Off Ramp to Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project I	o Kelly Park Development a	Rd and Envi		-			
Free	eway Data						
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diver: 3 55.0 3530		mph vph				
off F	Ramp Data						
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 580 500		mph vph ft ft				
Adjacent Ramp	Data (if or	ne exists	s)				
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 490 Downst On 1000		vph ft				
Conversion to pc/h	Under Base	Conditio	ns	T T T T T T T T T T T T T T T T T T T			
Junction Components	Freeway	Ramp		Adjacent			
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	3530 0.92 959 11 0 Level 0.00 % 0.00 mi 1.5 1.2 0.948 1.00 Page 1	580 0.92 158 2 0 Level 0.00 0.00 1.5 1.2 0.990 1.00	% mi	Ramp 490 vph 0.92 133 v 2 % 0 % Level 0.00 % 0.00 mi 1.5 1.2 0.990 1.00			

SR 429 NB Off Ramp to Kelly Park Rd.txt

Phone: Fax:						
Diver	rge Analysis					
Analyst: KNM Agency/Co.: HNTB Date performed: 3/10/2010 Analysis time period: Build I-4 Conn Freeway/Dir of Travel: Wekiva Parkway Junction: NB Off Ramp to Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Project D	Relly Falk	Ku	onme	nt Study		
Free	eway Data					
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Diverç 2 55.0 3440		mph vph			
Off R	Ramp Data					
Side of freeway Number of lanes in ramp Free-Flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 490 500		mph vph ft ft			
Adjacent Ramp	Data (if or	ne exists)			
Does adjacent ramp exist? Volume on adjacent ramp Position of adjacent ramp Type of adjacent ramp Distance to adjacent ramp	Yes 580 Upstre On 1000	eam	vph ft			
Conversion to pc/h	Under Base	Conditio	ns			
Junction Components	Freeway	Ramp		Adjacent		
Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	3440 0.92 935 11 0 Level 0.00 % 0.00 mi 1.5 1.2 0.948 1.00 Page 1	490 0.92 133 2 0 Level 0.00 0.00 1.5 1.2 0.990 1.00	% mi	Ramp 580 vph 0.92 158 v 2 % 0 % Level 0.00 % 0.00 mi 1.5 1.2 0.990 1.00		

5 = 48.8

mph

Space mean speed for all vehicles,

SR 429 NB On Ramp Merge to Kelly Park Rd.txt

Phone: E-mail:	Fax:				
	erge Analysis_				
Jurisdiction: Lake County Analysis Year: 2032 Description: Wekiva Parkway Projec	from Kelly Par / ct Development	rk Rd	ronme	nt Study	
	reeway Data				
Type of analysis Number of lanes in freeway Free-flow speed on freeway Volume on freeway	Merge 3 55.0 2950	L.	mph vph		
	on Ramp Data				
Side of freeway Number of lanes in ramp Free-flow speed on ramp Volume on ramp Length of first accel/decel lane Length of second accel/decel lane	Right 1 35.0 580 1140		mph vph ft ft		
Adjacent R	amp Data (if o	ne exist	s)		
Does adjacent ramp exist? Volume on adjacent Ramp Position of adjacent Ramp Type of adjacent Ramp Distance to adjacent Ramp	Yes 490 Upstr Off 1000	eam	vph am ft		
Conversion to p	c/h Under Base	Conditi	ons		
Junction Components Volume, V (vph) Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Terrain type: Grade Length	2950 0.92 802 11 0 Level	Ramp 580 0.92 158 2 0 Level	% mi	Adjacent Ramp 490 vph 0.92 133 v 2 % 0 % Level	
Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, fP	1.5 1.2 0.948 1.00 Page 1	1.5 1.2 0.990 1.00		1.5 1.2 0.990 1.00	

```
Estimation of V12 Merge Areas_
                             794.64 (Equation 25-2 or 25-3)
                     EQ
                             0.609
                                      Using Equation 1
                     FM
                             (P) = 2062
                                 _Capacity Checks_
                              Actual
                                             Maximum
                                                               LOS F?
                              4020
                                             6750
                                                               No
      FO
                              1321 pc/h
                                             (Equation 25-4 or 25-5)
IS
                    > 2700 pc/h?
                                             No
IS
                                             No
                                             (Equation 25-8)
                          _Flow Entering Merge Influence Area
ctual Max Desirable v
062 4600 r
                        Actual
                                                                Violation?
                        2062
      R12
                  Level of Service Determination (if not F)_
Density, D = 5.475 + 0.00734 \text{ v} + 0.0078 \text{ v} - 0.00627 \text{ L} = \text{R}
                                                                      19.1
                                                                              pc/mi/ln
Level of service for ramp-freeway junction areas of influence
                              __Speed Estimation_
Intermediate speed variable,
                                                 M = 0.299
                                                  S
Space mean speed in ramp influence area,
                                                 S = 51.1
                                                                mph
                                                  R
Space mean speed in outer lanes,
                                                 S = 52.0
                                                                mph
                                                  0
Space mean speed for all vehicles,
                                                 S = 51.4
                                                                mph
```

	formation			Site	NCTIONS W	- ATOTIL	-1		
Analyst Agency or Compa Date Performed Analysis Time Per Project Description	any HN 03 riod Bu	NM NTB 3/24/08 iild	M Freeway/Dii FB Junction 24/08 Jurisdiction			ir of Travel I-4 WB Off Ramp to US 1792 Seminole County			
Inputs	VVENIVA PAIK	way Project L	Development & Er	nvironment St	udy				
Upstream Adj Ran	np	Terrain: Le	evel						- 37
☐ Yes ☐ (Downsti Ramp	ream Adj
₩ No □ C	Off	W -						Yes Yes	☑ On
L _{up} = ft					□ No	I Off			
			S _{FF} = 70.0 mp	h				L _{down} =	1948 1
V _u = veh/			Sketc	h (show land	$S_{FR} = S_{FR}$ s, L_A , L_D , V_R , V_f)	35.0 mph			
Conversion	to pc/h Un	der Base	Conditions	S	S, LA, LD, VR, Vf)			V _D =	1220 v
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truc	· ·		1		
Freeway	6060	0.95	Level		MCC LONG VI	f _{HV}	f _p	v = V/PH	F x f _{HV} x
Ramp	650	0.95	Level	9	0	0.957	1.00		6666
UpStream DownStream	144			3	0	0.957	1.00		715
	1220	0.95	Level	9	0	0.957	1.00		240
Estimation of	F V ₁₂	Merge Areas					Diverge Areas	1	342
	$V_{12} = V_F$ (on of v ₁₂	-1/	() 5	
EQ = FM = 12 = 3 or V _{av34}	(Equa using E pc/h pc/h (E	etion 25-2 or Equation (E	Exhibit 25-5)		L _{EQ} = P _{FD} = V ₁₂ =	V ₁₂	$= V_R + (V_F - V_F)$ (Equation 25-0.560 using E	·8 or 25-9) quation (Ext	
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 *	(Equa using E pc/h pc/h (E pc/h? ∰ Yes V ₁₂ /2 ∭ Yes	Equation 25-2 or Equation (E	Exhibit 25-5) 5-4 or 25-5)		$L_{EQ} = P_{FD} = V_{12} = V_3 \text{ or } V_{av34} $ Is V_3 or V_{av34}	V ₁₂	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ	8 or 25-9) quation (Ext	
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * 1 Yes,V _{12a} =	(Equausing Epc/hpc/h (E pc/h (E pc/h (E pc/h? ∰ Yes V ₁₂ /2 ∭ Yes pc/h (E	Equation 25-2 or Equation (E	Exhibit 25-5) 5-4 or 25-5)		$L_{EQ} = P_{FD} = V_{12} = V_3 \text{ or } V_{av34} \\ \text{Is } V_3 \text{ or } V_{av34} \\ \text{Is } V_3 \text{ or } V_{av34} \\ \text{If Yes, } V_{12a} = V_$	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ Yes Mo Yes No	8 or 25-9) quation (Extuation 25-15	
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 *	(Equausing Epc/hpc/h (E) pc/h?	Equation 25-2 or Equation (E) Equation 25 No No Equation 25	Exhibit 25-5) 5-4 or 25-5) -8)		$L_{EQ} = P_{FD} = V_{12} = V_3 \text{ or } V_{av34}$ $Is V_3 \text{ or } V_{av34}$ $Is V_3 \text{ or } V_{av34}$	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ	8 or 25-9) quation (Extuation 25-15	
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * 1 Yes,V _{12a} =	(Equausing Epc/hpc/h (E pc/h (E pc/h (E pc/h? ∰ Yes V ₁₂ /2 ∭ Yes pc/h (E	Equation 25-2 or Equation (E) Equation 25 No No Equation 25	Exhibit 25-5) 5-4 or 25-5)	LOS F?	$L_{EQ} = P_{FD} = V_{12} = V_3 \text{ or } V_{av34} $ $Is V_3 \text{ or } V_{av34} $ $Is V_3 \text{ or } V_{av34} $ $If Yes, V_{12a} = Capacity$	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ Yes Mo Yes No pc/h (Equation	8 or 25-9) quation (Exf uation 25-15 1 25-18) pacity	
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * 1 Yes,V _{12a} =	(Equausing Epc/hpc/h (EDpc/h? Yes Yes pc/h (EC) Actual	Equation 25-2 or Equation (E) Equation 25 No No Equation 25	Exhibit 25-5) 5-4 or 25-5) -8)	LOS F?	$L_{EQ} = P_{FD} = V_{12} = V_{3} \text{ or } V_{av34} = V_{3} \text{ or } V_{av34} = V_{5} \text{ or } V_{av34} = V_{5} \text{ or } V_{5} = V_{5} $	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equality No Yes No pc/h (Equation Exhibit 25-14	8 or 25-9) quation (Exturbing 25-15) pacity 7200	5 or 25-16
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * Yes, V _{12a} = apacity Chec V _{FO}	(Equausing Epc/hpc/h) pc/h (EDpc/h? Yes Yes pc/h) (EDpc/h) Actual	Equation 25-2 or Equation 25 No No Equation 25-2 Ca	Exhibit 25-5) 5-4 or 25-5) -8) spacity	LOS F?	$L_{EQ} = P_{FD} = V_{12} = V_{3} \text{ or } V_{av34} = V_{3} \text{ or } V_{av34} = V_{5} =$	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 / _R 5951	(Equation 25-0.560 using E 4050 pc/h (Equation Yes No pc/h (Equation Ca Exhibit 25-14	e8 or 25-9) quation (Exf uation 25-18) pacity 7200 7200	5 or 25-16
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * Yes, V _{12a} = apacity Chec V _{FO}	(Equausing Epc/hpc/h) pc/h (EDpc/h? Yes Yes pc/h) (EDpc/h) Actual	Equation 25-2 or Equation 25 No No Equation 25-2 Ca	Exhibit 25-5) 5-4 or 25-5) -8) spacity	LOS F?	$L_{EQ} = P_{FD} = V_{12} = V_{3} \text{ or } V_{av34} = V_{5} = V_{12a} = V_{5} $	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 / _R 5951 715	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ EYes No Poc/h (Equation Ca Exhibit 25-14 Exhibit 25-14	e8 or 25-9) quation (Exf uation 25-15 1 25-18) pacity 4 7200 1 7200 2000	5 or 25-16 LOS F7 No
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * Yes, V _{12a} = apacity Chec	(Equausing Epc/hpc/h (EDpc/h?	Equation 25-2 or Equation 25-2 No No Equation 25-2 Carrier Max De Max De Equation 25-3 Carrier Max De Max De Equation 25-3 Carrier Max De Max De Equation 25-3 Carrier Max De Equation 25-3 Ca	Exhibit 25-5) 5-4 or 25-5) -8) spacity		$L_{EQ} = P_{FD} = V_{12} = V_{3} \text{ or } V_{av34} = V_{5} = V_{12a} = V_{5} $	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 / _R 5951 715 ring Merg	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ E Yes No pc/h (Equation Ca Exhibit 25-14 Exhibit 25-3 Te Influence	e8 or 25-9) quation (Exfusion 25-18) pacity 7200 7200 2000	LOS F7
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * 4 (es, V _{12a} = apacity Chec V _{FO} DW Entering V _{R12}	(Equausing Epc/h pc/h (EDpc/h? Yes Yes pc/h (EDpc/h? Actual	Equation 25-2 or Equation 25-2 No No Equation 25-2 Carrier Max De xhibit 25-7	Exhibit 25-5) 5-4 or 25-5) -8) apacity ea esirable	LOS F? Violation?	L _{EQ} = P _{FD} = V ₁₂ = V ₃ or V _{av34} Is V ₃ or V _{av34} Is V ₃ or V _{av34} If Yes,V _{12a} = Capacity V _F V _{FO} = V _F - V V _R Flow Ente	> 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 /R 5951 715 ring Merg Actual	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equation Yes No Pc/h (Equation Ca Exhibit 25-14 Exhibit 25-3 Enfluence Max Desirabl	e8 or 25-9) quation (Exhaustion 25-15 1 25-18) pacity 4 7200 4 7200 2000 e Area e	LOS F7
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * Yes, V _{12a} = Apacity Check V _{FO} DW Entering I V _{R12} Vel of Service	(Equal using Expc/h pc/h (Expc/h)? Yes yes pc/h (Expc/h)	Equation 25-2 or Exhibit 25-7 or Equation 25-2 or Exhibit 25-7 or Equation (if	Exhibit 25-5) 5-4 or 25-5) -8) spacity ea esirable		L _{EQ} = P _{FD} = V ₁₂ = V ₃ or V _{av34} Is V ₃ or V _{av34} Is V ₃ or V _{av34} If Yes,V _{12a} = Capacity V _F V _{FO} = V _F - V _R Flow Ente	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 / _R 5951 715 ring Merg Actual 4050	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equation 2616 pc/	e8 or 25-9) quation (Exhaustion 25-15 1 25-18) pacity 4 7200 2000 2000 Area e 4400:ΔII	LOS FOR No No No Violation?
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * Yes, V _{12a} = apacity Chec V _{FO} DW Entering I V _{R12} Vel of Service (pc/mi/ln)	(Equal using E pc/h pc/h (E pc/h? Yes Yes pc/h (E cks Actual Merge Influence Actual E pc/h (E cks Actual E pc/h (E cks)	Equation 25-2 or Exhibit 25-7 or Equation (if	Exhibit 25-5) 5-4 or 25-5) -8) spacity ea esirable		L _{EQ} = P _{FD} = V ₁₂ = V ₃ or V _{av34} Is V ₃ or V _{av34} Is V ₃ or V _{av34} If Yes,V _{12a} = Capacity V _F V _{FO} = V _F - V V _R Flow Ente V ₁₂ Level of So	V ₁₂ > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 /R 5951 715 ring Merg Actual 4050 ervice Dei	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equation Yes No Pc/h (Equation Ca Exhibit 25-14 Exhibit 25-3 Enfluence Max Desirabl	e8 or 25-9) quation (Exf uation 25-15 1 25-18) pacity 4 7200 2000 2000 Area e 4400;All	LOS F? No No No Violation?
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * (es,V _{12a} = apacity Chec V _{FO} DW Entering I V _{R12} Vel of Service (pc/mi/ln) = (Exhibit 25	(Equal using Epc/h pc/h (ED pc/h? Yes Yes pc/h (ED pc/h)	Equation 25-2 or Exhibit 25-7 or Equation (if	Exhibit 25-5) 5-4 or 25-5) -8) spacity ea esirable		L _{EQ} = P _{FD} = V ₁₂ = V ₃ or V _{av34} Is V ₃ or V _{av34} Is V ₃ or V _{av34} If Yes,V _{12a} = Capacity V _F V _{FO} = V _F - V V _R Flow Ente V ₁₂ Level of So D _R = D _R = 33.7 (LOS = D (Ex	> 2,700 pc/h? > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 /R 5951 715 ring Merg Actual 4050 ervice Dei 4.252 + 0.0 pc/mi/ln) hibit 25-4)	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ Exhibit 25-14	e8 or 25-9) quation (Exf uation 25-15 1 25-18) pacity 4 7200 2000 2000 Area e 4400;All	LOS FOR No No No Violation?
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * ('es, V _{12a} = apacity Chec V _{FO} DW Entering V _{R12} Vel of Service (pc/mi/ln) = (Exhibit 28	(Equal using E pc/h pc/h (E pc/h? Yes yc/h (E cks Actual E pc/h (E cks Actual E pc/h (E pc/h	Equation 25-2 or Exhibit 25-7 or Equation (if	Exhibit 25-5) 5-4 or 25-5) -8) spacity ea esirable		L _{EQ} = P _{FD} = V ₁₂ = V ₃ or V _{av34} Is V ₃ or V _{av34} Is V ₃ or V _{av34} If Yes, V _{12a} = Capacity V _F V _{FO} = V _F - V V _R Flow Enter V ₁₂ Level of So D _R = 33.7 (> 2,700 pc/h? > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 /R 5951 715 ring Merg Actual 4050 ervice Dei 4.252 + 0.0 pc/mi/ln) hibit 25-4)	(Equation 25- 0.560 using E 4050 pc/h 2616 pc/h (Equ Exhibit 25-14	e8 or 25-9) quation (Exf uation 25-15 1 25-18) pacity 4 7200 2000 2000 Area e 4400;All	LOS F No No Violation?
FM = 12 = 3 or V _{av34} 5 V ₃ or V _{av34} > 2,700 V ₃ or V _{av34} > 1.5 * (es,V _{12a} = apacity Chec V _{FO} DW Entering I V _{R12} Vel of Service (pc/mi/ln) = (Exhibit 25	(Equal using Epc/h pc/h (EDpc/h? Yes Yes pc/h (EDpc/h) (E	Equation 25-2 or Exhibit 25-7 or Equation (if	Exhibit 25-5) 5-4 or 25-5) -8) spacity ea esirable	Violation?	L _{EQ} = P _{FD} = V ₁₂ = V ₃ or V _{av34} Is V ₃ or V _{av34} Is V ₃ or V _{av34} If Yes, V _{12a} = Capacity V _F V _{FO} = V _F - V V _R Flow Ente V ₁₂ Level of Se D _R = 33.7 (LOS = D (Ex Speed Dete D _s = 0.492 S _R = 56.2 m	> 2,700 pc/h? > 2,700 pc/h? > 1.5 * V ₁₂ /2 Checks Actual 6666 /R 5951 715 ring Merg Actual 4050 ervice Dei 4.252 + 0.0 pc/mi/ln) hibit 25-4)	(Equation 25-0.560 using E 4050 pc/h 2616 pc/h (Equation 25-14 Exhibit 2	e8 or 25-9) quation (Exf uation 25-15 1 25-18) pacity 4 7200 2000 2000 Area e 4400;All	LOS FOR No No No Violation?

General In:	formation	MINIT S A	ND RAMP	JUNCTION	S WORKS	HEET			
Analyst	o matron	KNM		Site II	nformation	1			
Agency or Comp		HNTB		Freeway/Dia	of Travel	I-4 WB			
Date Performed		03/24/08	134/00			On Ramp	from US 179	2	
Analysis Time Pe	riod	Build		Jurisdiction		Seminole	County		
Project Description	n Wekiva Pa	arkway Project I	Development & E	Analysis Yea	ar	2032			
Inputs			bevelopment & E	invironment Stu	dy				
Upstream Adj Rai	mp	Terrain: L	.evel						
Yes 🖫								Dow Ram	nstream Adj ip
■ No ■	Off	10						□ Y	es 🖾 On
L _{up} = 1948	ff							₽ N	
тир 1940	и		0 =0.					Ĺ	
$V_{u} = 650$	veh/h		$S_{FF} = 70.0 \text{mp}$		S _{FR} =	35.0 mph		down	n.
			Sketo	ch (show lanes	$L_A, L_D, V_R, V_f)$			$V_D =$	veh/h
Conversion	to pc/h U	nder Base	Condition	s	N I				
(pc/h) Freeway	(Veh/hr)	PHF	Terrain	%Truck	%Rv	f _{HV}	f	v = V	/PHF x f _{HV} x
Ramp	5410	0.95	Level	9	0	0.957	1.00		
UpStream	1220	0.95	Level	9	0	0.957	1.00		5951
DownStream	650	0.95	Level	9	0	0.957			1342
		Morris				0.001	1.00		715
Estimation o	fv	Merge Areas					Diverge	Areas	
					Estimat	tion of v ₁	2		
2		F(P _{FM})							
EQ =		uation 25-2 c				V_1	$_2 = V_R + (V_R)$	/F - VR)PFD	
FM =	0.209	using Equa	tion (Exhibit 25-	-5)	L _{EQ} =		(Equation	on 25-8 or 2	25-9)
12 =	1246	pc/h	1	-/	P _{FD} =			quation (Exh	
or V _{av34}	2352		on 25-4 or 25-		V ₁₂ =		pc/h		1-7
	21		3, 20		V_3 or V_{av34}		pc/h (Eau	uation 25-15 or	25-16)
V_3 or $V_{av34} > 2,70$	0 pc/h? ☐ Ye	s 🗵 No			Is V ₃ or V _{av3}	2,700 pc/l	1? Tyes I	No.	20 10)
V_3 or $V_{av34} > 1.5 *$					Is V_3 or $V_{av34} > 2,700$ pc/h? Yes No Is V_3 or $V_{av34} > 1.5 * V_{12}/2$ Yes No				
/es,V _{12a} =	2380	pc/h (Equation	on 25-8)		If Yes, V _{12a} =	. 12		uation 25-1	0)
apacity Che	cks							uation 25-1	8)
24 1-31	Actual	C	apacity	LOS F?	Capacity	Checks			
				1 2001:	V _F	Actu		Capacity	LOSF
V _{FO}	7293	Exhibit 25-7		NIa		1.6		it 25-14	
				No	$V_{FO} = V_F -$	VR	Exhibi	t 25-14	
ow Enterina	Mores	61			V_R		Exhibit	t 25-3	
ow Entering	Actual				Flow Ent	erina Me			
V _{R12}	3722		esirable	Violation?		Actual	Max	Desirable	THE PERSON NAMED IN COLUMN TWO
		Exhibit 25-7	4600:All	No	V ₁₂		Exhibit 25-		Violation?
vel of Service	e Determ	ination (if	not F)		Level of S	Service D	etermin	tion /!s	-4 =
$D_R = 5.475 + 0.$	$00/34 \text{V}_{R} + 0.$	0078 V ₁₂ - 0.00	627 L _A		D.	= 4 252 + 1	0.008671	O COCC	ot F)
30.8 (pc/m	i/ln)				D _n = /n = /		12 12	- 0.0009 L _D	
= D (Exhibit :						mi/ln)			
eed Determin					The second secon	nibit 25-4)			
					Speed De	terminati	on		
	0F 401								
0.447 (Exibit 2 57.5 mph (Exi					$D_s = (Exhilt)$	bit 25-19)			

	ormation			Sito I	NCTIONS WORKSHEET Information						
Analyst	K	NM									
Agency or Compa		INTB		Freeway/Dir Junction		I-4 EB					
Date Performed	03	3/24/08		Jurisdiction		Off Ramp to U					
Analysis Time Per	iod Bı	uild			ne.	Seminole Cour	nty				
Project Description	 Wekiva Par 	kway Project De	evelopment & En	vironment Stu	il .	2032					
inputs				omioni Otal	iy .						
Upstream Adj Ram	ıþ	Terrain: Lev	/el					In .			
Yes 🖾 C	Эn							Downstr Ramp	eam Adj		
™No ™C)ff							₩ Yes	₩ On		
	-01										
L _{up} = ft		4						₩ No	■ Off		
V _u = veh/	n-		S _{FF} = 70.0 mph		S _{FR} = 35	0		L _{down} =	1948 f		
			Sketch	(show lance	U _{FR} - 35	.u mpn		V _D =	050		
Conversion	to pc/h Ur	nder Base	Conditions	1 men iunos,	LA, LD, VR, Vf)			*D	650 vel		
(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	2/5						
Freeway	7130	0.95	Level			f _{HV}	fp	v = V/PH	= x f _{HV} x f		
Ramp	1220	0.95	Level	9	0	0.957	1.00		843		
UpStream	176 1975	1	revei	9	0	0.957	1.00		342		
DownStream	650	0.95	Level	9	0						
F		Merge Areas	40,0	3	0	0.957	1.00	7	15		
Estimation of	V ₁₂				Diverge Areas Estimation of v ₁₂						
	$V_{12} = V_{F}$	(P _{EM})									
EQ =		ation 25-2 or	25-3)			V ₁₂ =	V _R + (V _F - V _F	R)P _{FD}			
P _{FM} =		Equation (Ex			$L_{EQ} = (Equation 25-8 \text{ or } 25-9)$ $P_{FD} = 0.436 \text{ using Equation (Exhibit 25-12)}$ $V_{12} = 4176 \text{ pc/h}$						
/ ₁₂ =	pc/h		(IIIDIL 25-5)								
√ ₃ or V _{av34}		Equation 25-	1 05 5)								
$V_3 \text{ or } V_{av34} > 2,700$	pc/h? 🖾 Voc	Lequation 25-	4 01 25-5)		V ₃ or V _{av34}	18	33 pc/h (Equa	ation 25-15	or 25.16		
s V ₃ or V _{av34} > 1.5 * V	V /2 PV	i INO			Is V ₃ or V _{av34} >	2,700 pc/h?	Yes No		01 25-16		
Yes, V _{12a} =					Is V ₃ or V _{av34} >	1.5 * V ₁₂ /2	Yes Mo				
apacity Chec	pc/n (i	Equation 25-8	3)		If Yes,V _{12a} = pc/h (Equation 25-18)						
rapacity chec	The second second second second				Capacity C	hecks	(=quation)	23-10)			
	Actual	Cap	acity	LOS F?		Actual	Capa	acity	110050		
V _{FO}					V_{F}	7843	Exhibit 25-14	9600	LOS F?		
		Exhibit 25-7			$V_{FO} = V_F - V_F$	6501	Exhibit 25-14		No		
*FO					V _R	1342		9600	No		
					K		Exhibit 25-3	2000	No		
	Vierge Infl	luence Are	a		Flow Enton	no Ma		A			
low Entering I	Actual	Max Des		Violation?	Flow Enteri	ng Merge	Influence	Area			
low Entering I	Actual	Max Des	sirable	Violation?		Actual	Max Desirable	2	Violation?		
low Entering I	Actual E	Max Des	sirable	Violation?	V ₁₂	Actual 4176 E	Max Desirable xhibit 25-14	4400:All	Mo		
V _{R12} evel of Service O _R = 5.475 + 0.007	Actual E	Max Des	sirable	Violation?	V ₁₂ Level of Se	4176 E	Max Desirable Exhibit 25-14	4400:All	Mo		
V _{R12} evel of Service 0 _R = 5.475 + 0.007	Actual E	Max Des	sirable		V ₁₂ Level of Sei	4176 E vice Dete 1.252 + 0.00	Max Desirable xhibit 25-14	4400:All	Ma		
V _{R12} Evel of Service 0 _R = 5.475 + 0.007 = (pc/mi/ln)	Actual E e Determin 734 v _R + 0.0	Max Des	sirable		V ₁₂ Level of Sel D _R = 30.8 (pc	4176 E vice Dete 1.252 + 0.00 c/mi/ln)	Max Desirable Exhibit 25-14	4400:All	Ma		
low Entering I V_{R12} Evel of Service $P_R = 5.475 + 0.000$ $P_R = (pc/mi/ln)$ $P_R = (Exhibit 25)$	Actual E e Determin 734 v _R + 0.0	Max Des	sirable		V_{12} Level of Set $D_R = 4$ $D_R = 30.8 \text{ (pc)}$ $D_R = D (Exhi$	Actual 4176 E Vice Determin(1n) bit 25-4)	Max Desirable Exhibit 25-14	4400:All	Mo		
V _{R12} Evel of Service O _R = 5.475 + 0.00 = (pc/mi/ln) S = (Exhibit 28)	Actual E e Determin 734 v _R + 0.0 5-4) nation	Max Des	sirable		V ₁₂ Level of Sel D _R = 30.8 (pc	Actual 4176 E Vice Determin(1n) bit 25-4)	Max Desirable Exhibit 25-14	4400:All	Mo		
V _{R12} Evel of Service (pc/mi/ln) S = (Exhibit 28) Reed Determin	Actual E e Determin 734 v _R + 0.0 5-4) nation	Max Des	sirable		V_{12} Level of Sell D _R = 30.8 (pc -0.08 = D (Exhi	Actual 4176 E Vice Determin(1n) bit 25-4)	Max Desirable Exhibit 25-14 Permination 86 V ₁₂ - 0.000	4400:All	Ma		
V _{R12} Evel of Service O _R = 5.475 + 0.00 = (pc/mi/ln) S = (Exhibit 28)	Actual E e Determin 734 v _R + 0.0 5-4) nation	Max Des	sirable		V_{12} Level of Separate $D_R = 4$ $D_R = 30.8 \text{ (pc)}$ $LOS = D \text{ (Exhipted Deteriors)}$ Speed Determine $D_S = 0.549 \text{ (Exhipted Determine)}$	Actual 4176 E Vice Dete 4.252 + 0.00 C/mi/ln) bit 25-4)	Max Desirable Exhibit 25-14 Exhibit 25-14 Exhibit 25-14 Exhibit 25-14 Exhibit 25-14 Exhibit 25-14 Exhibit 25-14	4400:All	Mo		

	nformation	RAMPS AN		Site I	formation	DEEL						
Analysis Time Period Build		HNTB 03/24/08 Build	Freeway/Dir Junction			I-4 EB On Ramp froi Seminole Cot 2032						
Inputs	TIOMITATA	akway Froject De	evelopment & El	nvironment Stud	dy							
Upstream Adj R	amp	Terrain: Le	vel									
Yes [On							Downstream Adj				
								Ramp				
■ No	Off							Yes Or				
L _{up} = 1948 ft								No GOff				
V _u = 122	0 veh/h		S _{FF} = 70.0 mp	h	S =	35.0 mph		L _{down} = ft				
			Sketo	h / show lance	La. La. Va. V.)	oo.o mpn		$V_D = veh/h$				
Conversion	to pc/h U	nder Base	Condition	S	A' D' R' H			D VOIM				
(pc/h)	(Veh/hr)	PHF	Terrain	%Truck	%Rv	- F	1	Veneza Aven				
Freeway	5910	0.95	Level	9		f _{HV}	fp	$V = V/PHF \times f_{HV} \times f_{HV}$				
Ramp	650	0.95	Level	9	0	0.957	1.00	6501				
UpStream DownStream	1220	0.95	Level	9	0	0.957 0.957	1.00	715				
		Manus A				0.937	1.00	1342				
Estimation (of V ₁₂	Merge Areas					Diverge Area	s				
	V ₁₂ = V ₁	(D)			Estimati	on of V ₁₂						
-EQ =	1194.4	2 (Equation	25-2 or 25-3)			V ₁₂ =	V _R + (V _F - V	V _R)P _{FD}				
) _{FM} = ' ₁₂ =	0.591	using Equation	on (Exhibit 25-	5)	L _{EQ} = P _{FD} =			5-8 or 25-9)				
	3845				V ₁₂ =			tion (Exhibit 25-12)				
3 or V _{av34}	21	pc/h (Equatio	n 25-4 or 25-		V ₃ or V _{av34}		pc/h	AND USES.				
$V_3 \text{ or } V_{av34} > 2,7$	00 pc/h? 🦳 Ye	s 🖾 No			Is V ₃ or V _{21/24}	> 2,700 pc/h? [Voc N	25-15 or 25-16)				
$V_3 \text{ or } V_{av34} > 1.5$	* V ₁₂ /2 TYe	s 🕅 No			Is V ₃ or V _{2v34}	> 1.5 * V ₁₂ /2	Vec M	0				
Yes, V _{12a} =	pc/h ((Equation 25-	3)		If Yes, V _{12a} =		pc/h (Equati					
apacity Che	ecks				Capacity		- Cquair	011 25-16)				
	Actual	Cap	acity	LOS F?	Jupatry	Actual	1					
V	2745				V _F	Actual	Exhibit 25-	pacity LOS F				
V_{FO}	7216	Exhibit 25-7		Yes	$V_{FO} = V_{F} - V_{F}$	/ _D	Exhibit 25-					
					V _R	11	Exhibit 25-					
ow Entering	Merge Int				Flow Ente	ring Marc						
V _{R12}	Actual	Max De:		Violation?	Line	Actual	Max Desir					
	4560	Exhibit 25-7	4600:AII	No	V ₁₂		xhibit 25-14	able Violation?				
vel of Servi	100724	ination (if r	ot F)			ervice Det	erminatio	n (if not F)				
37.6 (pc/r	7.00734 V _R + 0.0	0078 V ₁₂ - 0.0062	27 L _A		D _R =	4.252 + 0.0	086 V.a - 0 0	00091				
= F (Exhibit					$D_R = (pc/m)$		12 0.0	LD				
r (Exhibit												
	เกลฑดท		(======================================									
eed Determ		0.659 (Evibit 25.10)						Speed Determination D _s = (Exhibit 25-19)				
eed Determ	25-19)											

Phone: Fax: E-mail: Operational Analysis Analyst: CTR Agency or Company: HNTB Date Performed: 08/02/10 Analysis Time Period: Build Service Road Concept Freeway/Direction: I-4 WB From/To: US 17/92 WB On to Off to SR 46 Jurisdiction: Seminole County 2032 Analysis Year: Description: Wekiva Parkway PD&E Flow Inputs and Adjustments Volume, V veh/h 7130 Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 1937 V 9 Trucks and buses 00 Recreational vehicles 90 Terrain type: Level Grade 0.00 Segment length 0.00 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.957 Driver population factor, fp 1.00 2025 Flow rate, vp pc/h/ln Speed Inputs and Adjustments Lane width 12.0 ft. Right-shoulder lateral clearance ft 6.0 Interchange density interchange/mi 0.67 Number of lanes, N 4 Free-flow speed: Base FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC mi/h 0.0 Interchange density adjustment, fID 0.9 mi/h Number of lanes adjustment, fN 1.5 mi/h Free-flow speed, FFS 67.6 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 2025 pc/h/ln Free-flow speed, FFS 67.6 mi/h Average passenger-car speed, S 62.8 mi/h Number of lanes, N 4

32.3

pc/mi/ln

Density, D

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

Phone: E-mail: Operational Analysis Analyst: CTR Agency or Company: HNTB Date Performed: 8/02/2010 Analysis Time Period: Build Service Road Concept Freeway/Direction: CD Road/EB From/To: SR 417 EB On to Off to I-4 EB Jurisdiction: Seminole County Analysis Year: 2032 Description: Wekiva Parkway PD&E Flow Inputs and Adjustments Volume, V veh/h 2280 Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 620 Trucks and buses 9 00 Recreational vehicles 0 00 Terrain type: Level Grade 0.00 Segment length 0.00 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.957 Driver population factor, fp 1.00 Flow rate, vp 863 pc/h/ln Speed Inputs and Adjustments Lane width ft 12.0 Right-shoulder lateral clearance 6.0 Interchange density 0.54 interchange/mi Number of lanes, N 3 Free-flow speed: Base FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.2 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 66.8 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 863 pc/h/ln Free-flow speed, FFS 66.8 mi/h Average passenger-car speed, S 66.8 mi/h Number of lanes, N 3

12.9

pc/mi/ln

Density, D

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

Phone: E-mail: Fax:

Operational Analysis

Analyst: CTR
Agency or Company: HNTB
Date Performed: 8/02/2010

Analysis Time Period: Build Service Road Concept

Freeway/Direction: CD Road/EB

From/To: SR 417 EB On to Off to I-4 EB

Jurisdiction: Seminole County

Analysis Year: 2032
Description: Wekiva Parkway PD&E

LIOW	inputs	and	Adj	ustmen	LS_

Volume, V	2280	veh/h
Peak-hour factor, PHF	0.92	
Peak 15-min volume, v15	620	V
Trucks and buses	9	90
Recreational vehicles	0	00
Terrain type:	Level	
Grade	0.00	00
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.957	
Driver population factor, fp	1.00	
Flow rate, vp	863	pc/h/ln
TIOM Tace, vp	003	pc/11/111

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.54	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Base	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.2	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	66.8	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	863	pc/h/ln
Free-flow speed, FFS	66.8	mi/h
Average passenger-car speed, S	66.8	mi/h
Number of lanes, N	3	
Density, D	12.9	pc/mi/ln

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

Phone: Fax: E-mail: Operational Analysis Analyst: CTR Agency or Company: HNTB Date Performed: 8/02/2010 Analysis Time Period: Build Service Road Concept Freeway/Direction: I-4 EB
From/To: SR 46 On to US 17/92 Off Jurisdiction: Seminole County Analysis Year: 2032 Description: Wekiva Parkway PD&E Flow Inputs and Adjustments Volume, V 7130 veh/h Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 1937 Trucks and buses 0/6 Recreational vehicles 0 00 Terrain type: Level 0.00 Grade Segment length 0.00 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.957 Driver population factor, fp 1.00 Flow rate, vp 2025 pc/h/ln Speed Inputs and Adjustments Lane width ft 12.0 Right-shoulder lateral clearance 6.0 ft Interchange density interchange/mi 0.54 Number of lanes, N 4 Free-flow speed: Base FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 0.2 mi/h Number of lanes adjustment, fN 1.5 mi/h Free-flow speed, FFS 68.3 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 2025 pc/h/ln Free-flow speed, FFS 68.3 mi/h Average passenger-car speed, S 63.2 mi/h Number of lanes, N 4

32.0

pc/mi/ln

Density, D

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

Phone: Fax: E-mail: Operational Analysis Analyst: CTR Agency or Company: HNTB Date Performed: 8/03/2010 Analysis Time Period: Build Service Road Concept Freeway/Direction: SR 417 WB From/To: On Ramp from I-4 EB & WB Jurisdiction: Seminole County Analysis Year: 2032 Description: Wekiva Parkway PD&E Flow Inputs and Adjustments Volume, V veh/h 3250 Peak-hour factor, PHF 0.92 Peak 15-min volume, v15 883 11 Trucks and buses 00 Recreational vehicles 0 Terrain type: Level Grade 0.00 Segment length mi 0.00 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 1.2 Heavy vehicle adjustment, fHV 0.948 Driver population factor, fp 1.00 Flow rate, vp 932 pc/h/ln Speed Inputs and Adjustments Lane width 12.0 Right-shoulder lateral clearance 6.0 ft Interchange density 2.00 interchange/mi Number of lanes, N 4 Free-flow speed: Base FFS or BFFS 70.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 0.0 mi/h Interchange density adjustment, fID 7.5 mi/h Number of lanes adjustment, fN 1.5 mi/h 61.0 Free-flow speed, FFS mi/h Urban Freeway LOS and Performance Measures Flow rate, vp pc/h/ln 932 Free-flow speed, FFS 61.0 mi/h Average passenger-car speed, S 61.0 mi/h Number of lanes, N 4

15.3

pc/mi/ln

Density, D

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

2032 I-4 CD WB @ SR 46 and WB SR 417_JPB.txt

HCS+: Freeway Weaving Release 5.4

Phone: E-mail:		x:			
Operat	ional Ana	lysis			
Analyst: Agency/Co.: Agency/Co.: Date Performed: Analysis Time Period: Freeway/Dir of Travel: Weaving Location: Jurisdiction: Analysis Year: Description: Wekiva Parkway Project	(WB) 417 Inty		vironmen	t Study	
1	nputs				
Freeway free-flow speed, SFF Weaving number of lanes, N Weaving segment length, L Terrain type Grade Length Weaving type Volume ratio, VR Weaving ratio, R	B O	000 eve]	mp ft % mi Mu		or C-D
Conversion to pc/	h Under B	ase Cond	itions		
Volume, V Peak-hour factor, PHF Peak 15-min volume, v15 Trucks and buses Recreational vehicles Trucks and buses PCE, ET Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population adjustment, fP	Non-West V o1 2280 0.92 620 9 0 1.5 1.2 0.957 1.00 2589	aving V 02 0 0.92 0 9 0 1.5 1.2 0.957 1.00	Weaving V w1 940 0.92 255 9 0 1.5 1.2 0.957 1.00 1067	W2 1510 0.92 410 9 0 1.5 1.2 0.957 1.00 1715	veh/h v % pc/h
Weaving and N	on-Weavin	g Speeds.			
a (Exhibit 24-6) b (Exhibit 24-6) c (Exhibit 24-6) d (Exhibit 24-6) d (Exhibit 24-6) Weaving intensity factor, Wi Weaving and non-weaving speeds, Si Number of lanes required for unconstrained operation, Nw (Exhibit Maximum number of lanes, Nw (max) (E	Weaving 0.08 2.20 0.70 0.50 0.85 44.76	0 6 1 0 0 4	on-Weavi .0020 .00 .00 .50 .98 2.78	ng	

Weaving Se	egment Speed,	Density,	Level	of	Service	and	Capacity_
------------	---------------	----------	-------	----	---------	-----	-----------

Weaving segment speed, S Weaving segment density, D Level of service, LOS	43.79 40.89	mph pc/mi/ln
Capacity of base condition, cb Capacity as a 15-minute flow rate, c	5591 5350	pc/h pc/h
Capacity as a full-hour volume, ch	4922	pc/h

Limitations on Weaving Segments_

	0.00.40.00.00	If Max Exce	eded See Note
Contract a Service Annual Con-	Analyzed	Maximum	Note
Weaving flow rate, Vw	2782	4000	a
Average flow rate (pcphpl)	1790	2350	b
Volume ratio, VR	0.52	0.80	c
Weaving ratio, R	0.38	N/A	d
Weaving length (ft)	2000	2500	e
Notes:			-

- Weaving segments longer than 2500 ft. are treated as isolated merge and diverge areas using the procedures of Chapter 25, "Ramps and Ramp Junctions".
- b. Capacity constrained by basic freeway capacity.
- C.
- Capacity occurs under constrained operating conditions.
 Three-lane Type A segments do not operate well at volume ratios greater than 0.45. Poor operations and some local queuing are expected in such d.
- Four-lane Type A segments do not operate well at volume ratios greater than 0.35. Poor operations and some local queuing are expected in such
- Capacity constrained by maximum allowable weaving flow rate: 2,800 pc/h (Type A), 4,000 (Type B), 3,500 (Type C). Five-lane Type A segments do not operate well at volume ratios greater f.
- than 0.20. Poor operations and some local queuing are expected in such
- h. Type B weaving segments do not operate well at volume ratios greater than 0.80. Poor operations and some local queuing are expected in such cases.
- Type C weaving segments do not operate well at volume ratios greater than 0.50. Poor operations and some local queuing are expected in such cases.

Phone: E-mail: Fax:

Operational Analysis

Analyst: Kacia Monts

Agency/Co.: HNTB
Date Performed: 6/25/2010

Analysis Time Period: Build I-4 Connection @ SR417

Freeway/Dir of Travel: SR 417 WB

Weaving Location: Rinehart On to I-4 EB & WB On

Jurisdiction: Seminole County

Analysis Year: 2032

Description: Wekiva Parkway Project Development & Environment Study

In	011	ts
	~ ~	~~

65 4	mph
2220	ft
Level	
	96
	mi
В	Multilane or C-D
0.38	
0.17	
	4 2220 Level B 0.38

Conversion to pc/h Under Base Conditions

Non-Weaving		Weaving		
V	V	V	V	
01	02	w1	w2	
3015	285	1675	335	veh/h
0.92	0.92	0.92	0.92	
819	77	455	91	V
10	10	10	10	용
0	0	0	0	용
1.5	1.5	1.5	1.5	
1.2	1.2	1.2	1.2	
0.952	0.952	0.952	0.952	
1.00	1.00	1.00	1.00	
3441	325	1911	382	pc/h
	V 01 3015 0.92 819 10 0 1.5 1.2 0.952 1.00	V V 01 02 3015 285 0.92 0.92 819 77 10 10 0 0 1.5 1.5 1.2 0.952 0.952 1.00 1.00	V V V 01 02 w1 3015 285 1675 0.92 0.92 0.92 819 77 455 10 10 10 0 0 0 1.5 1.5 1.5 1.2 1.2 1.2 0.952 0.952 0.952 1.00 1.00 1.00	V V V V 01 02 w1 w2 3015 285 1675 335 0.92 0.92 0.92 0.92 819 77 455 91 10 10 10 10 0 0 0 0 1.5 1.5 1.5 1.5 1.2 1.2 1.2 1.2 0.952 0.952 0.952 0.952 1.00 1.00 1.00 1.00

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
a (Exhibit 24-6)	0.08	0.0020
b (Exhibit 24-6)	2.20	6.00
c (Exhibit 24-6)	0.70	1.00
d (Exhibit 24-6)	0.50	0.50
Weaving intensity factor, Wi	0.58	0.44
Weaving and non-weaving speeds, Si	49.83	53.17
Number of lanes required for		

unconstrained operation, Nw (Exhibit 24-7) 1.59
Maximum number of lanes, Nw (max) (Exhibit 24-7) 3.50
Type of operation is Unconstrained

Weaving Segment Speed, Density, Level of Service and Capacity

n

Weaving segment speed, S	51.85	mph
Weaving segment density, D	29.21	pc/mi/lr
Level of service, LOS	C	
Capacity of base condition, cb	8321	pc/h
Capacity as a 15-minute flow rate, c	7925	pc/h
Capacity as a full-hour volume, ch	7291	pc/h

Limitations on Weaving Segments

		If Max Exceeded See No				
	Analyzed	Maximum	Note			
Weaving flow rate, Vw	2293	4000	a			
Average flow rate (pcphpl)	1514	2350	b			
Volume ratio, VR	0.38	0.80	С			
Weaving ratio, R	0.17	N/A	d			
Weaving length (ft)	2220	2500	е			
Notes:						

- a. Weaving segments longer than 2500 ft. are treated as isolated merge and diverge areas using the procedures of Chapter 25, "Ramps and Ramp Junctions".
- b. Capacity constrained by basic freeway capacity.
- c. Capacity occurs under constrained operating conditions.
- d. Three-lane Type A segments do not operate well at volume ratios greater than 0.45. Poor operations and some local queuing are expected in such cases.
- e. Four-lane Type A segments do not operate well at volume ratios greater than 0.35. Poor operations and some local queuing are expected in such cases.
- f. Capacity constrained by maximum allowable weaving flow rate: 2,800 pc/h (Type A), 4,000 (Type B), 3,500 (Type C).
- g. Five-lane Type A segments do not operate well at volume ratios greater than 0.20. Poor operations and some local queuing are expected in such cases.
- h. Type B weaving segments do not operate well at volume ratios greater than 0.80. Poor operations and some local queuing are expected in such cases.
- i. Type C weaving segments do not operate well at volume ratios greater than 0.50. Poor operations and some local queuing are expected in such cases.

```
Phone:
                                                              Fax:
E-mail:
                                           _Operational Analysis_
Analyst:
                                   Cristina Torres-Reyes
Agency/Co.:
                                   HNTB
Date Performed:
                                   3/11/2007
Analysis Time Period:
Freeway/Dir of Travel:
                                   Build I-4 Connection @ SR417
                                  I-4 SB
Off Ramp 16 w/Frontage Road
Weaving Location:
Jurisdiction:
                                   Seminole County
2032
Analysis Year:
Description: Wekiva Parkway Project Development & Environment Study
                                                  _Inputs_
Freeway free-flow speed, SFF Weaving number of lanes, N
                                                               65
                                                                                    mph
Weaving segment length, L
                                                               2500
                                                                                    ft
Terrain type
                                                               Leve1
      Grade
                                                                                    %
      Length
                                                                                    mi
Weaving type
Volume ratio, VR
                                                                                    Multilane or C-D
                                                               0.51
Weaving ratio, R
                                                               0.42
                            Conversion to pc/h Under Base Conditions
                                                                               Weaving
                                                        Non-Weaving
                                                         A
                                                                     B-D
                                                                                A-D
                                                                                            B-C
                                                        2270
Volume, V
                                                                   0
                                                                               990
                                                                                          1380
                                                                                                      veh/h
Peak-hour factor, PHF
                                                        0.90
                                                                   0.90
                                                                               0.90
                                                                                          0.90
Peak 15-min volume, v15
                                                        631
                                                                               275
                                                                                          383
                                                                                                      %
Trucks and buses
                                                        0
Recreational vehicles
                                                        0
                                                                                          0
Trucks and buses PCE, ET
Recreational vehicle PCE, ER
Heavy vehicle adjustment, fhv
                                                        1.5
                                                                               1.5
                                                                                          1.5
                                                                               1.2
                                                                                          1.2
                                                        1.000
                                                                   1.000
                                                                               1.000
                                                                                          1.000
Driver population adjustment, fp
                                                        1.00
                                                                   1.00
                                                                               1.00
                                                                                          1.00
Flow rate, v
                                                        2522
                                                                                                      pc/h
                                                                               1100
                                                                                          1533
                                _Weaving and Non-Weaving Speeds.
                                                        Weaving
                                                                          Non-Weaving
   (Exhibit 24-6)
(Exhibit 24-6)
(Exhibit 24-6)
(Exhibit 24-6)
                                                                          0.0020
                                                        0.08
                                                        2.20
                                                                          6.00
                                                        0.70
                                                                          1.00
                                                        0.50
                                                                          0.50
Weaving intensity factor, Wi 0.60
Weaving and non-weaving speeds, Si 49.45
Number of lanes required for
unconstrained operation, Nw (Exhibit 24-7)
Maximum number of lanes, Nw (max) (Exhibit 24-7)
Type of operation is
                                                                           0.61
                                                                           49.10
                                                                          2.18
                                                                          3.50
                                                                          Unconstrained
            _Weaving Segment Speed, Density, Level of Service and Capacity_
                                                        49.28
Weaving segment speed, S
                                                                  mph
Weaving segment density, D
Level of service, LOS
                                                                  pc/mi/ln
                                                        26.15
Capacity of base condition, cb
Capacity as a 15-minute flow rate, c
Capacity as a full-hour volume, ch
                                                        7625
                                                                  pc/h
                                                        7625
                                                                  pc/h
                                                        6862
                                 Limitations on Weaving Segments
                                                                              If Max Exceeded See Note
                                                        Analyzed
                                                                             Maximum
                                                                                                   Note
Weaving flow rate, Vw
Average flow rate (pcphpl)
                                                        2633
                                                                             4000
                                                                                                    a
                                                        1288
                                                                             2350
                                                                                                    b
Volume ratio, VR
                                                        0.51
                                                                             0.80
                                                                                                    C
Weaving ratio, R
Weaving length (ft)
                                                        0.42
                                                                                                    d
                                                                               N/A
                                                        2500
                                                                             2500
                                                                                                    e
Notes:
    Weaving segments longer than 2500 ft. are treated as isolated merge and diverge areas using the procedures of Chapter 25, "Ramps and Ramp Junctions".
```

b. Capacity constrained by basic freeway capacity.

Capacity occurs under constrained operating conditions.
Three-lane Type A segments do not operate well at volume ratios greater than 0.45. Poor operations and some local queuing are expected in such

e. Four-lane Type A segments do not operate well at volume ratios greater than 0.35. Poor operations and some local queuing are expected in such cases.

- f. Capacity constrained by maximum allowable weaving flow rate: 2,800 pc/h (Type A), 4,000 (Type B), 3,500 (Type C).
 g. Five-lane Type A segments do not operate well at volume ratios greater than 0.20. Poor operations and some local queuing are expected in such cases.
- Type B weaving segments do not operate well at volume ratios greater than 0.80. Poor operations and some local queuing are expected in such
- cases.
 Type C weaving segments do not operate well at volume ratios greater than 0.50. Poor operations and some local queuing are expected in such cases.

Phone: E-mail: Fax:

Operational Analysis

Analyst: CTRR
Agency/Co.: HNTB
Date Performed: 3/05/2010

Analysis Time Period: Build Service Road Concept

Freeway/Dir of Travel: I-4 WB

Weaving Location: Off Ramp w/CD Road Jurisdiction: Seminole County

Analysis Year: 2032

Description: Wekiva Parkway Project Development & Environment Study

Inputs

Freeway free-flow speed, SFF	65	mph
Weaving number of lanes, N	4	-
Weaving segment length, L	2500	ft
Terrain type	Level	
Grade		olo
Length		mi
Weaving type	В	Multilane or C-D
Volume ratio, VR	0.52	
Weaving ratio, R	0.38	

_Conversion to pc/h Under Base Conditions

	Non-Wea	aving	Weaving	a a	
	V	V	V	V	
	01	02	w1	w2	
Volume, V	2270	0	1510	940	veh/h
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	
Peak 15-min volume, v15	631	0	419	261	V
Trucks and buses	0	0	0	0	음
Recreational vehicles	0	0	0	0	00 00
Trucks and buses PCE, ET	1.5	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	1.000	1.000	1.000	1.000	
Driver population adjustment, fP	1.00	1.00	1.00	1.00	
Flow rate, v	2522	0	1677	1044	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
a (Exhibit 24-6)	0.08	0.0020
b (Exhibit 24-6)	2.20	6.00
c (Exhibit 24-6)	0.70	1.00
d (Exhibit 24-6)	0.50	0.50
Weaving intensity factor, Wi	0.61	0.64
Weaving and non-weaving speeds, Si	49.15	48.45
Number of lanes required for		

unconstrained operation, Nw (Exhibit 24-7)

Maximum number of lanes, Nw (max) (Exhibit 24-7)

Type of operation is

2.22

3.50

Unconstrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	48.81	mph
Weaving segment density, D	26.85	pc/mi/ln
Level of service, LOS	C	
Capacity of base condition, cb	7537	pc/h
Capacity as a 15-minute flow rate, c	7537	pc/h
Capacity as a full-hour volume, ch	6783	pc/h

Limitations on Weaving Segments

		If Max Exce	eded See Note
	Analyzed	Maximum	Note
Weaving flow rate, Vw	2721	4000	a
Average flow rate (pcphpl)	1310	2350	b
Volume ratio, VR	0.52	0.80	C
Weaving ratio, R	0.38	N/A	d
Weaving length (ft)	2500	2500	е
Notes:			

- a. Weaving segments longer than 2500 ft. are treated as isolated merge and diverge areas using the procedures of Chapter 25, "Ramps and Ramp Junctions".
- b. Capacity constrained by basic freeway capacity.
 - c. Capacity occurs under constrained operating conditions.
 - d. Three-lane Type A segments do not operate well at volume ratios greater than 0.45. Poor operations and some local queuing are expected in such cases.
 - e. Four-lane Type A segments do not operate well at volume ratios greater than 0.35. Poor operations and some local queuing are expected in such cases.
 - f. Capacity constrained by maximum allowable weaving flow rate: 2,800 pc/h (Type A), 4,000 (Type B), 3,500 (Type C).
 - g. Five-lane Type A segments do not operate well at volume ratios greater than 0.20. Poor operations and some local queuing are expected in such cases.
 - h. Type B weaving segments do not operate well at volume ratios greater than 0.80. Poor operations and some local queuing are expected in such cases.
 - i. Type C weaving segments do not operate well at volume ratios greater than 0.50. Poor operations and some local queuing are expected in such cases.

			FREEWA	Y WEAV	ING WOR	KSHEE	T			
Genera	l Informat	tion			Site Info	rmation				
Analyst Agency/Co Date Perfo Analysis Ti	rmed	KNM HNTE 8/6/20			Freeway/Dir o Weaving Seg Jurisdiction Analysis Year	Location	SB W Orang	Wekiva Parkway EB SB Wekiva Parkway Orange County 2032 Build		
Inputs										
Freeway free-flow speed, S _{FF} (mi/h) Weaving number of lanes, N Weaving seg length, L (ft) Terrain		65 3 150 Leve		Volume ratio,	Weaving type Volume ratio, VR Weaving ratio, R			92 21		
Conver	sions to p	c/h Unde	er Base C	onditio	าร					
(pc/h)	V	PHF	Truck %	RV %	E _T	ER	f _{HV}	fp	V	
V _{o1}	0	0.90	11	0	1.5	1.2	0.948	1.00	0	
V _{o2}	170	0.90	11	0.	1.5	1.2	0.948	1.00	199	
V_{w1}	410	0.90	11	0	1.5	1.2	0.948	1.00	480	
V _{w2}	1510	0.90	11	0	1.5	1.2	0.948	1.00	1770	
V _w				2250	V _{nw}				199 2449	
Weavin	g and No	n-Weavin	g Speeds	;						
			Unconstr	ained			Cons	trained		
		Weaving	j (i = w)	Non-Wea	iving (i = nw)		ng (i = w)	ving (= nw)		
a (Exhibit 2 b (Exhibit 2							.35	0.0020		
c (Exhibit 2							.20 .97		00 30	
d (Exhibit 2							.80		75	
Weaving intens							.82		69	
Weaving and n speeds, Si (mi/						29	9.40	47	.62	
Number of Maximum r	lanes required number of lanes	s, Nw (max)			2.33 1.40	if Nw > N	w (max) const	rained operati	on	
		And the second second			f Service,					
	egment speed,			30.34						
Weaving se	egment density,	D (pc/mi/ln)		26.91						
Level of ser	rvice, LOS			С						
Capacity of	base condition	, c _b (pc/h)		4870						

Notes

- a. Weaving segments longer than 2500 ft. are treated as isolated merge and diverge areas using the procedures of Chapter 25, "Ramps and Ramp Junctions".
- b. Capacity constrained by basic freeway capacity.

Capacity as a 15-minute flow rate, c (veh/h)

Capacity as a full-hour volume, c_h (veh/h)

- Capacity occurs under constrained operating conditions.
- d. Three-lane Type A segments do not operate well at volume ratios greater than 0.45. Poor operations and some local queuing are expected in such cases.
- e. Four-lane Type A segments do not operate well at volume ratios greater than 0.35. Poor operations and some local queuing are expected in such cases.

4616

4154

- f. Capacity constrained by maximum allowable weaving flow rate: 2,800 pc/h (Type A), 4,000 (Type B), 3,500 (Type C).
 g. Five-lane Type A segments do not operate well at volume ratios greater than 0.20. Poor operations and some local queuing are expected in such
- h. Type B weaving segments do not operate well at volume ratios greater than 0.80. Poor operations and some local queuing are expected in such cases.
- . Type C weaving segments do not operate well at volume ratios greater than 0.50. Poor operations and some local queuing are expected in such cases.

			FREEWA	Y WEA	ING WOR	KSHEE	T			
Genera	l Informat	ion			Site Info	rmation				
Analyst Agency/Co Date Perfo Analysis Ti	rmed	KNM HNTE 8/6/20			Freeway/Dir o Weaving Seg Jurisdiction Analysis Year	Location	NB W Orang	Wekiva Parkway WB NB Wekiva Parkway Orange County 2032 Build		
Inputs										
Freeway free-flow speed, S _{FF} (mi/h) Weaving number of lanes, N Weaving seg length, L (ft)		65 3 150 Leve		Weaving type Volume ratio, Weaving ratio	VR		A 0.0 0.0			
Conver	rsions to p	oc/h Und	er Base C	onditio	าร					
(pc/h)	V	PHF	Truck %	RV %	E _T	ER	f _{HV}	fp	٧	
V _{o1}	1850	0.90	11	0	1.5	1.2	0.948	1.00	2168	
V _{o2}	1510	0.90	11	0	1.5	1.2	0.948	1.00	1770	
V _{w1}	170	0.90	11	0	1.5	1.2	0.948	1.00	199	
V _{w2}	0	0.90	11	0	1.5	1.2	0.948	1.00	0	
V _w				199	V _{nw}				3938	
V									4137	
Weavin	ng and No	n-Weavir					0.00	Y 800 E		
		Weaving	Unconstr		aving (i = nw)	Constrained ing (i = nw) Weaving (i = w) Non-W				
a (Exhibit 2	24-6)	0.1	THE RESERVE AND DESCRIPTION OF THE PERSON NAMED IN		0035	vveavi	ilg (i – w)	INOII-Wea	ving (= nw)	
b (Exhibit 2		2.2			.00					
c (Exhibit 2	24-6)	0.9	7	1	.30			0		
d (Exhibit 2		0.8	0	0	.75					
Weaving inten		0.5	3	0	.21					
Weaving and r speeds, Si (mi		50.9	91	60	0.40					
	lanes required number of lanes	s, Nw (max)			0.39 1.40	if Nw > N	w (max) const	rained operat	ion	
Weavin	ig Segmer	nt Speed	Density.	Level o	f Service,					
	egment speed,			59.87						
Weaving se	egment density,	D (pc/mi/ln)		23.03						
	rvice, LOS			С						
Capacity of	f base condition	, c _h (pc/h)		6620						
	THE PARTY OF THE P	M. T.								

Notes

- a. Weaving segments longer than 2500 ft. are treated as isolated merge and diverge areas using the procedures of Chapter 25, "Ramps and Ramp
- b. Capacity constrained by basic freeway capacity.

Capacity as a 15-minute flow rate, c (veh/h)

Capacity as a full-hour volume, ch (veh/h)

- c. Capacity occurs under constrained operating conditions.
- d. Three-lane Type A segments do not operate well at volume ratios greater than 0.45. Poor operations and some local queuing are expected in
- e. Four-lane Type A segments do not operate well at volume ratios greater than 0.35. Poor operations and some local queuing are expected in such cases.

6275

5647

- f. Capacity constrained by maximum allowable weaving flow rate: 2,800 pc/h (Type A), 4,000 (Type B), 3,500 (Type C). g. Five-lane Type A segments do not operate well at volume ratios greater than 0.20. Poor operations and some local queuing are expected in such
- h. Type B weaving segments do not operate well at volume ratios greater than 0.80. Poor operations and some local queuing are expected in such
- i. Type C weaving segments do not operate well at volume ratios greater than 0.50. Poor operations and some local queuing are expected in such

				SI	HORT	REPO	RT							
General Info	ormation					Site In	formati	on						
Analyst Agency or C Date Perforn Time Period	ned 9/14/07	onnection	@ SR			Interse Area T Jurisdi Analys	уре	Wekiva Parkway@Connector SPUI All other areas Orange County 2032 Build						
Volume and	Timing Input													
			EB			WB			NB			SB		
11 1 61		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Number of L	anes	1	2	2	2	2	1	2	-	1	1		1	
Lane Group		L	T	R	L	T	R	L	-	R	L		R	
Volume (vph		260	131	1645	605	109	260	1462		788	130		390	
% Heavy Ve	hicles	2	2	2	2	2	2	11		11	11		11	
PHF		0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	1	0.95	
Pretimed/Act	tuated (P/A)	A	Α	Α	Α	Α	A	A		Α	A		A	
Startup Lost	Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	
Extension of	Effective Gree	en 2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	
Arrival Type		3	3	3	3	3	3	3		3	3		3	
Unit Extension	on	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Ped/Bike/RT	OR Volume	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	1	12.0	
Parking/Grade/Parking		N	0	N	N	0	N	N	0	N	N	0	N	
Parking/Hou	r								1			11		
Bus Stops/H		0	0	0	0	0	0	0		0	0		0	
	destrian Time		3.2			3.2			3.2			3.2		
Phasing	Excl. Left	Thru & R		03	0	4	NS Pe		06	07		08		
Timing	G = 25.0 Y = 5	G = 20.0 Y = 5	G = Y =		G =	-	G = 60 $Y = 5$) = ' =				G = Y =	
Duration of A	nalysis (hrs) =						1 - 0		Cycle Le					
	up Capacity		ol Dela	y, and	LOS	Deterr	ninatio							
			EB			WB			NB			SB		
Adjusted Flo	w Rate	274	138	1732	637	115	274	1539		829	137		411	
Lane Group		369	591	1985	716	591	1121	1579		1091	813		1091	
v/c Ratio		0.74	0.23	0.87	0.89	0.19	0.24	0.97		0.76	0.17		0.38	
Green Ratio		0.21	0.17	0.71	0.21	0.17	0.71	0.50	1	0.75	0.50		0.75	
Uniform Dela	av d.	44.5	43.4	13.4	46.2	43.1	6.2	29.3		8.7	16.4		5.2	
Delay Factor		0.30	0.11	0.40	0.41	0.11	0.11	0.48	1	0.31	0.11		0.11	
Incremental		7.9	0.77	4.6	13.2	0.2	0.11	16.9	1	3.2	0.11	_	0.11	
PF Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	
Control Dela	V	52.4	43.6	18.0	59.4	43.2	6.3	46.2		11.9	16.5		5.4	
Lane Group		D	D	B	E	D	A	D	1	B	B	-	A	
Approach De		+	24.0	12	+-	43.4	17	1	34.2	10		8.2	14	
Approach LC		-	C	-	-	D	-		C			A		
		-			-	D	luta	New 10			-	~~~		
Intersection I	Jelay		29.8				Intersec	ction LC	10	С				

				SI	IORT	REPC								
General Inf						Site I	nformati	on						
Analyst Agency or C Date Perfor	med 9/28/07	Connection	@ SR			Area Jurisd	ection Type liction sis Year	All Or	US 441 at CR 437 All other areas Orange County 2032 Build					
Volume and	d Timing Inpu	+					700							
voidine and	a rinning inpu		EB			WB		Т	NB			SB		
		LT	TH	RT	LT	TH	RT	L		RT	LT	TH	RT	
Number of L	₋anes	1	2			2	1				1		1	
Lane Group	-	L	T			T	R	T			L		R	
Volume (vph)		260	1280			1798	440				288		85	
% Heavy Vehicles		10	10			10	10				2		2	
PHF		0.95	0.95			0.95	0.95				0.95		0.95	
Pretimed/Ac	ctuated (P/A)	A	Α			A	A				A		A	
Startup Lost	Time	2.0	2.0			2.0	2.0				2.0		2.0	
Extension of	f Effective Gre	en 2.0	2.0			2.0	2.0				2.0		2.0	
Arrival Type		3	3			3	3				3		3	
Unit Extensi	on	3.0	3.0		1	3.0	3.0	1			3.0		3.0	
Ped/Bike/R1	TOR Volume	0	0		0	0	0	0	0		0	0	0	
Lane Width		12.0	12.0		-	12.0	12.0	Ť	+	-	12.0	-	12.0	
Parking/Grade/Parking		N	0	N	N	0	N	N	0	N	N	0	N	
Parking/Hou	ir													
Bus Stops/F	lour	0	0			0	0	T			0		0	
Minimum Pe	edestrian Time		3.2	1		3.2			3.2			3.2		
Phasing	EB Only	EW Pern)3	04 SB Onl				06		07			
Timing	G = 16.0 Y = 4	G = 76.0 $Y = 4$	G = Y =		G =	G = 16. Y = 4		0			G =	G=		
Duration of A	Analysis (hrs) :		1 -		11-		1 - 4	-		_	Y = C = 120.0	Y =		
	up Capacity		ol Delav	. and	LOS	Deterr	ninatio	n	Oyolo Lo	rigur	5 720.0			
			EB			WB			NB			SB		
Adjusted Flo	w Rate	274	1347		11111		463			T	303		89	
Lane Group	Capacity	279	2631			2083	1174		3		236		1583	
v/c Ratio		0.98	0.51			0.91	0.39				1.28		0.06	
Green Ratio		0.80	0.80			0.63	0.80				0.13		1.00	
Uniform Dela	ay d₁	42.6	4.1			19.0	3.5			1	52.0		0.0	
Delay Factor	rk	0.49	0.12			0.43	0.11	_	+	\vdash	0.50		0.11	
Incremental		48.8	0.2			6.4	0.2	_	+	1	156.0	-	0.0	
PF Factor	7 - 2	1.000	1.000			1.000	1.000	-		+	1.000		0.950	
Control Dela	у	91.3	4.2			25.4	3.7				208.0		0.0	
Lane Group	LOS	F	A			С	A		-	-	F		A	
Approach De		-	19.0			21.1	17.				-	160.8		
Approach LC			В			C					+	F		
Intersection I			32.9				Intersect	ion I	OS	-	-	C		
	University of Florid	a All Pighte F					CS+ TM Ve				Generated:		6 43	

			SH	ORT										
					Site In	ıformati	on							
Co. HNTB med 2/23/2007					Intersection CR 437 at Ponkan Road Area Type All other areas Jurisdiction Orange County Analysis Year 2032									
d Timing Input														
	17-1		DT	1.7		DT	LT.		DT	17 1		DT		
Lanes	-			1								RT 1		
)	L	T		L	T			T				R		
	59	187		38	215			1041				35		
					11-03-0						4.4.4.4	2		
	_											0.95		
ctuated (P/A)	Α	Α	Α	Α	Α	Α	Α	A13000 TI	Α	Α		A		
t Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Extension of Effective		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival Type		3	3	3	3	3	3	3	3	3	3	3		
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume		0	0	0	0	0	0	0	0	0	0	0		
	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
	N	0	N	Ν	0	N	Ν	0	N	N	0	N		
	1													
	0		0	0		0	0		0	0		0		
CERTAIN THE AMERICA		3.2	•			110.5								
				Y =							Y =			
								ycle Ler	ngth C =	50.0				
oup Capacity,	Contro		ay, and	LOS		minati	on							
		EB			WB	_					SB	_		
ow Rate	62	197	99	40	226	102	91	1096	35	64	373	37		
Capacity	243	395	336	250	395	336	567	2022	902	230	1062	902		
	0.26	0.50	0.29	0.16	0.57	0.30	0.16	0.54	0.04	0.28	0.35	0.04		
)	0.21	0.21	0.21	0.21	0.21	0.21	0.57	0.57	0.57	0.57	0.57	0.57		
lay d ₁	16.4	17.4	16.6	16.1	17.7	16.6	5.1	6.7	4.7	5.5	5.8	4.7		
or k	0.11	0.11	0.11	0.11	0.17	0.11	0.11	0.14	0.11	0.11	0.11	0.11		
Delay d ₂	0.6	1.0	0.5	0.3	2.0	0.5	0.1	0.3	0.0	0.7	0.2	0.0		
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.00		
ay	17.0	18.4	17.0	16.4	19.7	17.1	5.2	7.0	4.7	6.2	6.0	4.8		
100	В	В	В	В	В	В	A	A	Α	A	A	A		
LOS		111						-3						
elay		17.8	4		18.6			6.8			5.9			
	Co. HNTB rmed 2/23/2007 d Build I-4 Co 417 d Timing Input Lanes o h) ehicles ctuated (P/A) st Time of Effective e sion TOR Volume Ade/Parking ur Hour edestrian Time EW Perm G = 10.6 Y = 5.6 Analysis (hrs) =	Cristina Torres-Reyord Co. HINTB rmed 2/23/2007 d	Cristina Torres-Reyes rmed 2/23/2007 d	Co. HNTB Firmed 2/23/2007 Build I-4 Connection @ SR A17 Ind Timing Input EB LT TH RT	Cristina Torres-Reyes	Cristina Torres-Reyes	Cristina Torres-Reyes Co. HNTB rmed 2/23/2007 d	Cristina Torres-Reyes	Contaction		Constitute Con	Site Information		

OI luf	7 col 11 col			Sr	HORT									
General Info Analyst Agency or C Date Perforn Time Period	Cristina To Co. HNTB med 2/23/2007			?		Interse Area T Jurisdi	Гуре	CR All c	437 at Ko other area ange Coul	as	k Road			
Volume and	d Timing Input	t												
			EB			WB			NB			SB		
Number of L	2700	LT 1	TH 2	RT 1	LT 1	TH 2	RT 1	LT 1	TH 1	RT 1	LT 1	TH 1	RT	
Lane Group	782	L	7 T	R	L	7 T	1 R		T T		1	1 T	1 P	
Volume (vph		304	197	188	60	317	83	L 168	7 468	R 74	L 57	T 186	R 377	
% Heavy Ve		304	197	188	60 2	317	83	168	468	2	57 2	186 2	377 2	
PHF	nicies		0.95	0.95		0.95	0.95	0.95	0.95	0.95			_	
Pretimed/Act	tusted (D/A)	0.95 A	0.95 A	0.95 A	0.95 A	0.95 A	0.95 A				0.95	0.95	0.95	
Startup Lost		2.0	2.0	2.0	2.0	A 2.0	2.0	A 2.0	A 2.0	A 2.0	A 2.0	A 2.0	A 2.0	
Extension of					1						1 4 1 6 7	2.0	2.0	
Green		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival Type		3	3	3	3	3	3	3	3	3	3	3	3	
Unit Extension	on	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RT	OR Volume	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grad		N	0	N	N	0	Ν	N	0	N	N	0	N	
Parking/Hou														
Bus Stops/H	and the same of th	0	0	0	0	0	0	0	0	0	0	0	0	
	edestrian Time		3.2			3.2	Da		3.2			3.2		
Phasing		02 G =	G:	03 =	G =		NS Per G = 24		06 G =	G=	07 =	G =	08	
Timing	Y = 7	Y =	Y =		Y =		Y = 5.3	3 Y	Y =	Y =		Y =		
	Analysis (hrs) =								Cycle Ler	ngth C =	= 60.0			
Lane Gro	up Capacity	, Contro			LOS		minati	on						
I EI			EB			WB			NB			SB	-	
Adjusted Flo		320	207	198	63	334	87	177	493	78	60	196	39	
Lane Group	Capacity	397	1372	612	448	1372	612	483	761	646	246	761	64	
v/c Ratio		0.81	0.15	0.32	0.14	0.24	0.14	0.37	0.65	0.12	0.24	0.26	0.6	
Green Ratio		0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.41	0.41	0.41	0.41	0.4	
Uniform Dela	ay d ₁	16.4	12.0	12.9	11.9	12.5	11.9	12.4	14.3	11.0	11.7	11.7	14.	
Delay Factor		0.35	0.11	0.11	0.11	0.11	0.11	0.11	0.23	0.11	0.11	0.11	0.2	
Incremental I		11.6	0.1	0.3	0.1	0.1	0.1	0.5	1.9	0.1	0.5	0.2	1.	
PF Factor	200 A C.A. A.	1.000						11					_	
Control Delay	V	28.0	12.0	1 1 1 1 1 1 1 1 1 1 1	12.1	12.6	12.0	12.8		11.1	12.2	11.9	15	
Lane Group I		С	В	В	В	В	В	В	В	В	В	В	В	
Approach De			19.4			12.4			14.9			14.3	-	
				+				14.9 B						
Approach LO	15		B			В		-	- 1			В		

SHORT REPORT **General Information** Site Information

Analyst KNM

Agency or Co. HNTB Date Performed 9/14/07

Time Period 417

Build I-4 Connection @ SR

Intersection Area Type

Jurisdiction

Analysis Year

US 441 at Wekiva Parkway

All other areas Orange County 2032 Build

Volume and Timing Input

			EB			WB			NB			SB	
		LT	TH	RT	LT	TH	RT	L	TH	RT	LT	TH	RT
Number of	Lanes	1	2	2	2	2	1	2		1	1		1
Lane Group	0	L	T	R	L	T	R	L		R	L		R
Volume (vp	h)	260	131	1645	605	109	260	146	2	788	130		390
% Heavy V	ehicles	0	2	2	2	2	0	0	415	0	2	150	2
PHF		0.95	0.95	0.95	0.95	0.95	0.95	0.95	5	0.95	0.95		0.95
Pretimed/A	ctuated (P/A)	Α	Α	Α	Α	Α	Α	A		A	Α		A
Startup Los	st Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0
Extension of	of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0
Arrival Type	Э	3	3	3	3	3	3	3		3	3		3
Unit Extens	ion	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Ped/Bike/R	TOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	N. Committee of the com	12.0	12.0	12.0	12.0	12.0	12.0	12.0	0	12.0	12.0		12.0
Parking/Gra	ade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hou	ur				1								
Bus Stops/H	Hour	0	0	0	0	0	0	0		0	0		0
Minimum Pe	edestrian Time		3.2			3.2	las.		3.2			3.2	
Phasing	Excl. Left	Thru & R	Т	03	0	4	NS Per	rm	06		07		08
Timing	G = 25.0	G = 20.0			G =		G = 60	.0	G =	G:		G=	
	Y = 5	Y = 5	Υ =		Y =		Y = 5		Y =	Υ =		Y =	
Duration of	Analysis (hrs) = (0.25							Cycle Le	nath C =	120.0		

Lane Group	Capacity,	Control Delay	, and LOS	Determination

		EB			WB			NB			SB
Adjusted Flow Rate	274	138	1732	637	115	274	1539		829	137	411
Lane Group Capacity	376	591	1985	716	591	1144	1753		1211	885	1187
v/c Ratio	0.73	0.23	0.87	0.89	0.19	0.24	0.88		0.68	0.15	0.35
Green Ratio	0.21	0.17	0.71	0.21	0.17	0.71	0.50		0.75	0.50	0.75
Uniform Delay d ₁	44.3	43.4	13.4	46.2	43.1	6.1	26.7		7.7	16.3	5.1
Delay Factor k	0.29	0.11	0.40	0.41	0.11	0.11	0.40		0.25	0.11	0.11
Incremental Delay d ₂	7.0	0.2	4.6	13.2	0.2	0.1	5.4		1.6	0.1	0.2
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
Control Delay	51.3	43.6	18.0	59.4	43.2	6.3	32.2		9.3	16.3	5.2
Lane Group LOS	D	D	В	E	D	Α	С		Α	В	Α
Approach Delay		23.9			43.4			24.2			8.0
Approach LOS		С			D			С			Α
Intersection Delay		25.9				Intersed	ction LOS	5			С

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Conoughter	ia was a tia			31	IOKI	REPO							
General Inf						Site Ir	formati						
Analyst Agency or C Date Perfor Time Period	med 09/28/07	nnection	@			Interse Area T Jurisd Analys	уре	Inte All Ora	441 Wes erchange other are ange Cou 32 Build	as	0		
Volume and	d Timing Input												
			EB			WB			NB			SB	
Ni. mala an af i	200 a 2	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of I		-	2			2	1	-	-	-	1		2
Lane Group		-	T	-		T	R			-	L		R
Volume (vpl			1397	-		1605	293	-	-	_	466		1505
% Heavy Ve	ehicles		10	-		10	10			-	2		2
PHF			0.95			0.95	0.95				0.95		0.95
	ctuated (P/A)		A			Α	Α	_			Α		Α
Startup Los			2.0			2.0	2.0				2.0		2.0
	f Effective Green		2.0			2.0	2.0				2.0		2.0
Arrival Type		11	3			3	3				3		3
Unit Extens	ion		3.0			3.0	3.0				3.0		3.0
Ped/Bike/R	TOR Volume	0	0		0	0	0	0	0		0	0	0
Lane Width			12.0			12.0	12.0				12.0		12.0
Parking/Gra		N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hou		100											
Bus Stops/H			0			0	0	_			0		0
	edestrian Time		3.2			3.2			3.2	<u></u>		3.2	
Phasing	Thru & RT G = 35.0	02 G =	G =	03	G =	04	SB On G = 25		06 G =		07	G =	08
Timing		/ =	Y =		Y =		Y = 5	.0	Y =	Y		Y =	
Duration of	Analysis (hrs) =	0.25							Cycle Le	ngth C	= 70.0		
Lane Gro	up Capacity,	Contro	ol Dela	y, and	LOS	Deterr	ninatio	n					
			EB			WB			NB			SB	
Adjusted Flo	ow Rate		1471			1689	308				491		1584
Lane Group	Capacity		1645			1645	1468				632		2803
v/c Ratio			0.89			1.03	0.21				0.78		0.57
Green Ratio			0.50			0.50	1.00				0.36		1.00
Uniform Del	lay d ₁		15.8			17.5	0.0				20.0		0.0
Delay Facto	or k		0.42			0.50	0.11				0.33		0.16
Incremental	Delay d ₂		6.8			29.3	0.1				6.1		0.3
PF Factor			1.000			1.000	0.950				1.000		0.950
Control Dela	ay		22.6			46.8	0.1				26.1		0.3
Lane Group			С			D	A				С		A
Approach D			22.6			39.6			_			6.4	1
Approach L			C		-	D					+	A	_
					+		Intersec	tion !	OS		+	C	
	tersection Delay 22.6												

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SHORT REPORT

General Information

CTR

Agency or Co. HNTB Date Performed 09/28/07

Time Period

Analyst

Build I-4 Connection @

SR417

Site Information

Intersection

CR 437 East of WP Interchange

Area Type Jurisdiction Analysis Year

All other areas Orange County 2032 Build

Volume and Timing Input

i (P/A)	LT 2 L 957 2 0.95 A	TH	RT 1 R 92 2 0.95	LT	TH	RT	LT 1 L 298	TH 1 T 494 2	RT	LT	TH 1 T 294	RT 1 R 686
d (P/A)	L 957 2 0.95 A		R 92 2				L 298	T 494			T 294	R 686
d (P/A)	957 2 0.95 A		92				298	494			294	686
d (P/A)	2 0.95 A		2									
d (P/A)	0.95 A						2	2				1
	Α		0.95					-			2	2
							0.95	0.95			0.95	0.95
			A			NE7	Α	Α			Α	A
	2.0		2.0				2.0	2.0			2.0	2.0
tive Green	2.0		2.0				2.0	2.0			2.0	2.0
	3		3				3	3			3	3
	3.0		3.0			100	3.0	3.0			3.0	3.0
olume	0	0	0		17.5		0	0		0	0	0
	12.0		12.0				12.0	12.0			12.0	12.0
rking	N	0	N				N	0	N	N	0	N
											n i	
	0		0				0	0			0	0
an Time		3.2						3.2			3.2	
3 Only	02		03	04		NS Pe	rm	06		07		08
				G=		G = 30	0.0				G =	
		Y =		Y =		Y = 5					Y =	
r	an Time Only 20.0 5	0 12.0 rking N 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	olume 0 0 12.0 rking N 0 an Time 3.2 Only 02 20.0 G = G = 5 Y = Y =	Olume 0 0 0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 0 12.0	olume 0 0 0 12.0 12.0 rking N 0 N on Time 0 0 only 02 03 04 20.0 G = G = G = 5 Y = Y = Y =	olume 0 0 0 12.0 12.0 rking N 0 N on Time 0 0 only 02 03 04 20.0 G = G = G = 5 Y = Y = Y =	Olume 0 0 0 12.0 12.0 12.0 rking N 0 N an Time 3.2 0 Only 02 03 04 NS Period 20.0 G = G = G = G = 3.2 5 Y = Y = Y = Y = Y = 5	olume 0 0 0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 0	olume 0 0 0 0 0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 0 0 0 0	olume 0 0 0 0 0 0 0 0 0 12.0 1	olume 0 0 0 0 0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 0 0 0 0 0 0 0 12.0	olume 0 0 0 0 0 0 0 0 0 0 0 0 0 12.0

ı	Lane Group	Capacity,	Control Delay	, and LOS Determination

		ΞB	WB		NB	SB	
Adjusted Flow Rate	1007	97		314	520	309	722
Lane Group Capacity	1146	1583		512	932	932	1583
v/c Ratio	0.88	0.06		0.61	0.56	0.33	0.46
Green Ratio	0.33	1.00		0.50	0.50	0.50	1.00
Uniform Delay d ₁	18.9	0.0		10.8	10.4	9.0	0.0
Delay Factor k	0.41	0.11		0.20	0.16	0.11	0.11
Incremental Delay d ₂	8.0	0.0		2.2	0.8	0.2	0.2
PF Factor	1.000	0.950		1.000	1.000	1.000	0.950
Control Delay	26.9	0.0		13.0	11.2	9.2	0.2
Lane Group LOS	С	Α		В	В	A	A
Approach Delay	24	1.5			11.9	2.9	
Approach LOS	(0			В	А	
Intersection Delay	13	3.5	Inte	ersection LO	S	В	

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	#				Sh	HORT	-								
Analyst Agency or C Date Perfort Time Period	CTR/KNI co. HNTB med 2/22/200	7	nection	@ SR			Interse Area T Jurisdi	уре	Ke Pk All Or	lly Pa wy other ange 32	areas	S	ekiva		
Volume and	d Timing Inpu	ıt													
			1.7	EB	LDT	1.7	WB		ļ.,		NB	5.7		SB	
Number of L	anes		LT	TH 2	RT 1	LT 1	TH 2	RT	L		Н	RT	LT 1	TH	RT 1
Lane Group		=		T	R	L	T	1	\vdash	+			L		R
Volume (vph	1)	_		319	145	345	180		-	+			423		157
% Heavy Ve	<u> </u>	_		2	2	2	2		+	+	\dashv		2		2
PHF	inoico	-		0.95	0.95	0.95	0.95		+	+	-	-	0.95		0.95
Pretimed/Ac	tuated (P/A)			A	A	A	A	-	+	-	-		0.95 A		+
Startup Lost		-		2.0	2.0	2.0	2.0		-	+	+		2.0		2.0
	Effective Gre	en		2.0	2.0	2.0	2.0	-	╁	+	\dashv		2.0		2.0
Arrival Type	Lilotive Ore	,011		3	3	3	3		-	+	\rightarrow		3		3
Unit Extension	nn.			3.0	3.0	3.0	3.0		-	+	-		3.0		
Ped/Bike/RT			0	0	0	0	0		\vdash	+	-		0	0	3.0
	ane Width			12.0	12.0	12.0	12.0		\vdash	4	-	-	12.0	U	12.0
Parking/Grade/Parking			N	0	N	N	0	N	+	+	-		N	0	N
Parking/Hou							+						7,0	Ü	1,0
Bus Stops/H		- 3		0	0	0	0		T				0		0
Minimum Pe	destrian Time)	1	3.2			3.2							3.2	
Phasing	WB Only		N Perm		03	04	4	SB Onl	у	0	6		07		08
Timing	G = 15.0 Y = 7		= 15.0 = 7	G=		G=		G = 31.0	0	G =		G		G=	
Duration of A	\nalvsis (hrs)			Y =		Y =		Y = 5		Y =	Lenc	Y:	= 80.0	Y =	
	up Capacit			ol Dela	v. and	LOS	Deter	minatio	n	O y O l O	Long	jui 0	00.0		
		,,		EB	,		WB		Ï		NB		T	SB	
Adjusted Flo	w Rate			336	153	363	189						445		165
Lane Group	Capacity			665	1049	523	1640						686		158
v/c Ratio				0.51	0.15	0.69	0.12						0.65		0.10
Green Ratio				0.19	0.66	0.46	0.46						0.39		1.00
Uniform Dela	y d ₁			29.2	5.0	15.0	12.2						20.0		0.0
Delay Factor	k			0.11	0.11	0.26	0.11						0.23		0.11
Incremental I	Delay d ₂			0.6	0.1	4.0	0.0						2.2	_	0.0
PF Factor				1.000	1.000	1.000	1.000			+			1.000		0.95
Control Delay	У			29.8	5.1	19.0	12.2			_			22.2	1	0.0
Lane Group I	LOS		1	С	Α	В	В			_			С		A
Approach De				22.1		1	16.7				-		-	16.2	
								-			_	-			
Approach LO	S			C			B Intersection						1	В	

				SH	IORT	REPO	RT							
	nformation					Site In	formati	on						
Analyst Agency or Date Perfo Time Perio	CTR/KNI Co. HNTB ormed 2/22/200 od Build I-4 417		@ SR				2000	PI Al Ol	kwy I othe	Park Ro er area e Coun		va		
Volume a	nd Timing Inpւ	ıt												
		LT	EB TH	RT	1.7	WB	LDT		-	NB	I DT	1.7	SB	Loz
Number of	Lanes	1	2	KI	LT	TH 2	RT 1	_	LT 1	TH	RT 1	LT	TH	RT
Lane Grou		L	T	-	-	T	R	+			R		-	+-
Volume (v	•	140	602			422	440	_	23		387		+-	-
% Heavy \		2	2		+	2	2	-	2		2			
PHF		0.95	0.95			0.95	0.95	-	95		0.95			
	Actuated (P/A)	A	A			A	A	-	4		A			-
Startup Lo		2.0	2.0			2.0	2.0	-	.0		2.0	-	1	+-
	of Effective Gre		2.0			2.0	2.0	-	.0	*	2.0			+
Arrival Typ		3	3	_	1	3	3	_	3		3		1	
Unit Exten		3.0	3.0			3.0	3.0	-	.0		3.0	1		
Ped/Bike/F	RTOR Volume	0	0		0	0	0	-	0	0	0			1
ane Width		12.0	12.0		1	12.0	12.0	-	2.0		12.0			
Parking/Gr	ade/Parking	N	0	N	N	0	N	_	V	0	N			
Parking/Ho	our													
Bus Stops		0	0			0	0		0		0			
	Pedestrian Time		3.2			3.2				3.2				
Phasing	EB Only	EW Perm		13	0		NB On			06		7		8(
Timing	G = 15.0 Y = 7	G = 30.0 Y = 7	G =		G = Y =		G = 16. Y = 5	U	G =		G = Y =	_	G = Y =	
Duration o	f Analysis (hrs)										gth C =	80.0		
Lane Gr	oup Capacit	y, Contro	l Delay	, and	LOS	Deterr	ninatio	on						
			EB		/	WB				NB			SB	
Adjusted F	low Rate	147	634			444	463	108	3		407			
Lane Grou	p Capacity	673	2306			1330	1049	354	4		1583			
v/c Ratio		0.22	0.27			0.33	0.44	0.3	1		0.26			
Green Rati	o	0.65	0.65			0.38	0.66	0.2	0		1.00			
Uniform De	elay d ₁	5.8	6.0			17.9	6.4	27.	3		0.0			
Delay Fact	or k	0.11	0.11			0.11	0.11	0.1	1		0.11			
Incrementa	al Delay d ₂	0.2	0.1	- 1		0.1	0.3	0.5	5		0.1			\vdash
PF Factor	-	1.000	1.000			1.000	1.000	1.0	00		0.950			3
Control De	lay	5.9	6.0			18.0	6.7	27.	-		0.1			
Lane Grou	p LOS	Α	Α			В	A	С			Α			
Approach [6.0			12.3				5.9				ــــــــــــــــــــــــــــــــــــــ
Approach LOS A						В			-	A				
Approach i	ersection Delay				Intersection LOS									

SHORT REPORT

General Information Site Information

CTR Analyst

Agency or Co. HNTB Date Performed 2/15/2007

Time Period 417

Duration of Analysis (hrs) = 0.25

Build I-4 Connection @ SR

Intersection Area Type

SR 46 and US 441 All other areas Lake County

Cycle Length C = 86.0

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Jurisdiction Analysis Year 2032

			EB			WB			NB			SB	
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of	Lanes	1	2	1	2	2	1	1	3	1	1	3	1
Lane Grou	р	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vp	oh)	80	529	61	267	546	7	242	1340	498	7	782	71
% Heavy V	'ehicles	11	11	11	11	11	11	10	10	10	10	10	10
PHF		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/A	ctuated (P/A)	Α	Α	Α	Α	Α	A	Α	A	A	Α	A	Α
Startup Los	st Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of	of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type	е	3	3	3	3	3	3	3	3	3	3	3	3
Unit Extens	sion	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/R	TOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Gra	ade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Ho	ur												
Bus Stops/	Hour	0	0	0	0	0	0	0	0	0	0	0	0
Minimum P	edestrian Time	lvs.	3.2			3.2			3.2			3.2	
Phasing	Excl. Left	Thru & R	T	03		04	Excl. I	Left	Thru & R	TI	07		08
Timing	G = 10.0	G = 20.0) () =	G=			5.0	G = 25.0		=	G=	
Tirming	Y = 4	Y = 4	V	=	Y =		Y = 4		V = 4	V		V =	

Lane Group Capacit	y, Contro	l Delay	y, and	LOS D	etermi	nation						
		EB			WB			NB			SB	
Adjusted Flow Rate	84	557	64	281	575	7	255	1411	524	7	823	75
Lane Group Capacity	189	758	660	378	796	660	286	1506	1075	286	1506	1075
v/c Ratio	0.44	0.73	0.10	0.74	0.72	0.01	0.89	0.94	0.49	0.02	0.55	0.07
Green Ratio	0.12	0.23	0.45	0.12	0.23	0.45	0.17	0.29	0.73	0.17	0.29	0.73
Uniform Delay d ₁	35.4	30.5	13.4	36.8	30.4	12.9	34.7	29.7	4.8	29.4	25.7	3.2
Delay Factor k	0.11	0.29	0.11	0.30	0.28	0.11	0.42	0.45	0.11	0.11	0.15	0.11
Incremental Delay d ₂	1.7	3.7	0.1	7.8	3.3	0.0	27.5	11.4	0.3	0.0	0.4	0.0
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	37.1	34.3	13.5	44.5	33.7	12.9	62.2	41.1	5.1	29.5	26.1	3.3
Lane Group LOS	D	С	В	D	С	В	E	D	Α	С	С	A
Approach Delay		32.7			37.0			35.0			24.3	
Approach LOS		С			D			С			С	
Intersection Delay		32.9				Intersec	ction LO	S			С	

SHORT REPORT

General Information Site Information

KNM Analyst Agency or Co. HNTB

Date Performed 2/7/2007

Build I-4 Connection @ SR Time Period

417

Intersection Area Type

SR 46 at Round Lake Road

All other areas

Jurisdiction Lake County Analysis Year 2032 Build

Volume ar	nd Timing Input												
			EE			WB			NB			SB	
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of	Lanes	1	3	1	1	3	1	1	2	1	1	2	1
Lane Grou	р	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vp	oh)	93	1976	6 191	87	2575	803	65	81	114	191	466	203
% Heavy V	'ehicles	11	11	11	11	11	11	2	2	2	2	2	2
PHF		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed/A	ctuated (P/A)	Α	Α	Α	Α	Α	A	A	A	Α	Α	A	A
Startup Los	st Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of	of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Typ	е	3	3	3	3	3	3	3	3	3	3	3	3
Unit Extens	sion	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/R	RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	1	12.0	12.0	0 12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Gra	ade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Ho	our												
Bus Stops/	Hour	0	0	0	0	0	0	0	0	0	0	0	0
Minimum P	edestrian Time	APE.	3.2			3.2			3.2		-	3.2	
Phasing	Excl. Left	Thru & F	RT	03		04	Excl. I	_eft	NS Perr	n	07		08
Timing	G = 10.0	G = 76.0	0	G =	G =		G = 1	0.0	G = 20.0) G	=	G=	
Titiling	Y = 4	Y = 4		Y =	Y =		Y = 4		Y = 4	Υ	=	Y =	
Duration of	Analysis (hrs) = (0.25							Cycle Le	ngth C =	= 132.0		

Duration of Arialysis (IIIs)					20 1 1 2 1			Sycie Le	ngın C -	132.0		
Lane Group Capacit	y, Contro		, and	LOS D	etermi	nation				_		
		EB			WB			NB			SB	
Adjusted Flow Rate	98	2080	201	92	2711	845	68	85	120	201	491	214
Lane Group Capacity	123	2685	1257	123	2685	1257	190	537	1367	343	537	1367
v/c Ratio	0.80	0.77	0.16	0.75	1.01	0.67	0.36	0.16	0.09	0.59	0.91	0.16
Green Ratio	0.08	0.58	0.86	0.08	0.58	0.86	0.26	0.15	0.86	0.26	0.15	0.86
Uniform Delay d ₁	60.0	21.4	1.4	59.8	28.0	2.9	39.2	48.7	1.3	43.0	55.2	1.4
Delay Factor k	0.34	0.32	0.11	0.30	0.50	0.24	0.11	0.11	0.11	0.18	0.43	0.11
Incremental Delay d ₂	29.6	1.5	0.1	22.1	19.8	1.4	1.2	0.1	0.0	2.6	20.3	0.1
PF Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay	89.6	22.9	1.5	81.8	47.8	4.3	40.4	48.8	1.4	45.6	75.5	1.5
Lane Group LOS	F	С	Α	F	D	Α	D	D	Α	D	E	A
Approach Delay		23.9			38.6			25.9			51.4	******
Approach LOS		С			D			С			D	
Intersection Delay		34.8				Intersed	ction LO	S			С	

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				SI	IORT								
General In	nformation					Site li	nformati		46 D	20.54.00	16		
Date Perfo	KNM Co. HNTB ormed 03/09/2010 od Build Servio		Area - Jurisd	ection Type liction sis Year	SR 46 Bypass at SR 46 West All other areas Lake County 2032 Build								
Volume ar	nd Timing Input												
		-	EB			WB			NB			SB	
Number of	Lanca	LT	TH 2	RT	LT 0	TH 2	RT	LT	TH 3	RT 1	LT	TH	R
Lane Grou		-	T	-	0	LT		-	T	R			-
		+	531		70	700	4	+			-		
Volume (vp		-				-	-	-	2760	510	-	-	-
% Heavy V	renicies	-	11		11	11	+	-	9	9	-	-	-
	A - t t - 1 (D/A)		0.95		0.95	0.95		-	0.95	0.95	-	-	-
	Actuated (P/A)		A 2.0		Α	A 2.0			A	A	-	-	-
Startup Los			2.0		-	2.0	-		2.0	2.0	-		-
	of Effective Gree	n	2.0	-	-	2.0		-	2.0	2.0	-		-
Arrival Typ			3			3	Tard.		3	3			-
	Init Extension		3.0			3.0			3.0	3.0	_		-
	RTOR Volume	0	0		0	0	4	0	0	0	0	0	_
Lane Width		-	12.0	Α/		12.0			12.0	12.0	N/		1.
Parking/Grade/Parking Parking/Hour		N	0	N	N	0	N	N	0	N	N	0	N
Bus Stops/			0			0		-	0	0	-		-
	Pedestrian Time	_	3.2			3.2		-	3.2	+ -	+-	3.2	+
Phasing	EW Perm	02		03	0		NB On	lv I	06	1	07	08	
Timing	G = 40.0	G =	G =		G =		G = 70.		G =	G=	G =		
		Y =	Y =		Y =		Y = 4	= 2	Y =	Y =	440.0	Y =	
	f Analysis (hrs) =		I Dalai		1001	Datam			Cycle Le	ngth C =	118.0		_
Lane Gre	oup Capacity	T	EB	, and	LUSI	_	ninatio	n I	ND			CD	
		+				WB	1		NB 2905	1		SB	
Adjusted F	low Rate		559			811			2905	537			
Lane Grou	p Capacity		1105			832			2817	1482			
v/c Ratio			0.51			0.97			1.03	0.36			
Green Rati	io		0.34			0.34			0.59	1.00			
Uniform De	elay d ₁		31.1			38.5			24.0	0.0			
Delay Fact			0.11			0.48			0.50	0.11			
Incrementa			0.4			25.0			25.6	0.2			
PF Factor	2		1.000			1.000			1.000	0.950			
Control De	lay		31.5			63.5			49.6	0.2			
Lane Grou			С			E			D	A			
Approach [31.5			63.5	_		41.9				
Approach L		-	C			E		-	D				
Intersection		+	44.3	-			Interes	tion !				D	
	08 University of Florida						Intersec				nerated:		11.15

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				S	HORT	REPC	ORT							
General Info						Site I	nformat	ion						
Analyst Agency or C Date Perfor Time Period	med 2/7/2007	nection	@ SR		Intersection SR 46 at CR 437 Area Type All other areas Jurisdiction Lake County Analysis Year 2032									
Volume and	d Timing Input													
			EB			WB			NB			SB		
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Number of L		1	1	1	1	1	1	1	1	1	1	1	1	
Lane Group		L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph		154	356	96	123	400	267	174	141	255	273	49	108	
% Heavy Ve	ehicles	11	11	11	11	11	11	2	2	2	2	2	2	
PHF		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
	ctuated (P/A)	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	
Startup Lost	t Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Extension of	f Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival Type		3	3	3	3	3	3	3	3	3	3	3	3	
Unit Extensi	ion	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RT	ΓOR Volume	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking		Ν	0	N	N	0	N	Ν	0	N	Ν	0	N	
Parking/Hou												1.3.		
Bus Stops/H		0	0	0	0	0	0	0	0	0	0	0	0	
	edestrian Time		3.2	20	1 6	3.2	110.0		3.2			3.2		
Phasing	The second secon	hru & R = 20.0		03	G =	14	NS Pe G = 20		06 G =	G =	07	G =	08	
Timing		= 5	Y =		Y =		Y = 5		Y =	Y =		Y =		
	Analysis (hrs) = 0								Cycle Le	ngth C =	= 70.0			
Lane Gro	up Capacity,	Contro	ol Dela	y, and	LOS	Deteri	ninatio	on						
			EB			WB			NB			SB		
Adjusted Flo	ow Rate	162	375	101	129	421	281	183	148	268	287	52	114	
Lane Group	Capacity	348	489	416	348	489	416	385	532	905	353	532	905	
v/c Ratio		0.47	0.77	0.24	0.37	0.86	0.68	0.48	0.28	0.30	0.81	0.10	0.13	
Green Ratio		0.21	0.29	0.29	0.21	0.29	0.29	0.29	0.29	0.57	0.29	0.29	0.57	
Uniform Dela	ay d ₁	24.0	22.9	19.2	23.5	23.7	22.1	20.7	19.4	7.7	23.3	18.4	6.9	
Delay Factor	rk	0.11	0.32	0.11	0.11	0.39	0.25	0.11	0.11	0.11	0.35	0.11	0.11	
Incremental	Delay d ₂	1.0	7.2	0.3	0.7	14.5	4.3	0.9	0.3	0.2	13.5	0.1	0.1	
PF Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	_	1.000	1.000	1.000	1.000	
Control Dela	ч	25.0	30.1	19.5	24.1	38.2	26.4	21.6		7.9	36.8	18.5	7.0	
Lane Group	LOS	С	C	В	C	D	C	C	В	A	D	В	A	
Approach De			27.1			32.0		1	15.0			27.2		
Approach LC		1	C			C		-	B			C		
Intersection		-	25.9	_	-		Intersec	tion I				C		
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					S	HORT	REPO	ORT							
General Info							Site I	nformat	ion						
Analyst Agency or C Date Perforn Time Period	ned 3/8/10	onnection	@ \$	SR			Intersection SR 46 at CR 435 Area Type All other areas Jurisdiction Lake County Analysis Year 2032								
Volume and	Timing Input													-	
		4	E				WB	-		NB			SB		
Manufact	- P. 1.3	LT	T	_	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Number of L	anes	1	1	_	1	1	1	1	1	1	1	1	1	0	
Lane Group		L	T	-	R	L	T	R	L	T	R	L	TR		
Volume (vph		2	47		147	476	1029	25	345	18	257	10	18	6	
% Heavy Ve	hicles	11	11	_	11	11	11	11	2	2	2	2	2	2	
PHF		0.95	0.9	5	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Pretimed/Act	tuated (P/A)	A	A	2.8	Α	Α	Α	Α	A	Α	A	A	A	A	
Startup Lost	Time	2.0	2.0	0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Extension of	Effective Gree	n 2.0	2.0	0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	11	
Arrival Type		3	3	4	3	3	3	3	3	3	3	3	3		
Unit Extension			3.0	0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RT	Ped/Bike/RTOR Volume		0		0	0	0	0	0	0	0	0	0	0	
Lane Width		12.0	12.	.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking		N	0		N	Ν	0	N	N	0	N	N	0	N	
Parking/Hour			y.												
Bus Stops/H	our	0	0		0	0	0	0	0	0	0	0	0		
Minimum Pe	destrian Time		3.2	2		177	3.2			3.2			3.2		
Phasing		EW Perr			03)4	NS Pe		06		07	08		
Timing	The second secon	G = 50.0				G =		G = 25		G =	G:		G=		
Duration of A	nalysis (hrs) =	Y = 5.5	-	Y =		Y =		Y = 5.3	5	Y = Cycle Le	Y =		Y =		
	up Capacity		ol D	ela	v and	LLOS	Deter	minatio	on I	Cycle Le	ngui o -	- 100.0			
	ap oupdoity			EB	y, and	1	WB	minatio	T	NB	-	T	SB	-	
A alicente al Elec	D.t.		1		455	504	1083	T		\neg	1				
Adjusted Flo	w Rate	2	50	2	155	501		26	363	19	271	11	25		
Lane Group	Capacity	97	80	4	683	488	1133	963	324	437	676	326	422		
v/c Ratio		0.02	0.6	52	0.23	1.03	0.96	0.03	1.12	0.04	0.40	0.03	0.06		
Green Ratio		0.47	0.4	17	0.47	0.66	0.66	0.66	0.23	0.23	0.43	0.23	0.23		
Uniform Dela	ny d ₁	15.1	21.	.2	16.8	29.4	16.6	6.2	40.8	31.5	21.1	31.4	31.6		
Delay Factor	k	0.11	0.2	21	0.11	0.50	0.47	0.11	0.50	0.11	0.11	0.11	0.11		
Incremental I	Delay d ₂	0.1	1.	.5	0.2	47.7	17.2	0.0	86.5	0.0	0.4	0.0	0.1		
PF Factor		1.000	_	000	1.000	1.000	1.000	1.000	1.000	_	1.000	1.000	1.000	1	
Control Delay	У	15.2	-	2.7	16.9	77.1	33.7	6.2	127.3		21.5	31.5	31.7	1	
Lane Group I		В	C		В	E	C	A	F	C	C	C	C		
Approach De		+	_	1.3			46.8	1.4	+	80.6		<u> </u>	31.6		
Approach LC				2			D		1	F		1	C		
Intersection [-	48			+		Intersec	etion !			-	D		
	University of Florida	All Division			-	1		CS+TM V				enerated:			

				SH	IORT	REPC	RT								
General Int						Site I	nformati	on							
Analyst Agency or 0 Date Perfor Time Period	med 3/8/10	nnection	@ SR			Area Juriso		All La	SR 46 at CR 46A All other areas Lake County 2032						
Volume an	d Timing Input	_													
voidine dii	a rinning input		EB			WB		T	NB		1	SB			
		LT	TH	RT	LT	TH	RT	L		RT	LT	TH	RT		
Number of I	Lanes	1	1			2	1				2		1		
Lane Group		L	T			T	R		3		L		R		
Volume (vp	h)	7	1229			1093	677				749		31		
% Heavy Ve	ehicles	11	11			11	11				2		2		
PHF		0.95	0.95			0.95	0.95				0.95		0.95		
Pretimed/A	ctuated (P/A)	Α	A			A	A				Α		Α		
Startup Los	t Time	2.0	2.0			2.0	2.0	T			2.0		2.0		
Extension o	f Effective Green	2.0	2.0			2.0	2.0		W.		2.0		2.0		
Arrival Type		3	3			3	3		7		3		3		
Unit Extens	Init Extension		3.0			3.0	3.0	\top			3.0		3.0		
Ped/Bike/RTOR Volume		0	0		0	0	0	0	0		0	0	0		
Lane Width		12.0	12.0			12.0	12.0	Ť		1	12.0		12.0		
Parking/Gra	ide/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/Hou	ur		115-5	Lei					3 500						
Bus Stops/H	DOTAL V	0	0			0	0		11 - 3		0		0		
Minimum Pe	edestrian Time		3.2			3.2			3.2			3.2			
Phasing	EW Perm	02	03		04		SB On		06		07		08		
Timing		G = / =	G = Y =		G = Y =		G = 27. $Y = 5$	9	G = Y =		=	G = Y =			
Duration of	Analysis (hrs) =		1-		11-		1 - 3				= 120.0	_			
	up Capacity,		l Delay	, and	LOS	Deterr	ninatio	n	0,0,0,0		12010				
			EB			WB			NB		T	SB			
Adjusted Flo	ow Rate	7	1294			1151	713				788		33		
Lane Group	Capacity	236	1143			2175	1455				799		368		
v/c Ratio		0.03	1.13			0.53	0.49				0.99		0.09		
Green Ratio)	0.67	0.67			0.67	1.00				0.23		0.23		
Uniform Del		6.8	20.0			10.3	0.0		1		45.9		36.1		
Delay Facto		0.11	0.50			0.13	0.11			-	0.49	-	0.11		
Incremental		0.1	70.8			0.2	0.3		-	1	28.3	-	0.11		
PF Factor	2	1.000	1.000			1.000	0.950	_	_	-	1.000		1.000		
Control Dela	av	6.8	90.7			10.5	0.3			-	74.2		36.2		
Lane Group		A	F			B	A		+	+	E		D		
Approach D		1	90.3			6.6	171			_	+	72.7	10		
Approach Lo		-	F			A					+-	E	-		
Intersection		+	47.5				Intersect	ion I	OS		+				
IIICI SCUIUII	Delay		47.0				mersect	IOH L	.03			D			

				SH	IORT	REPO									
General Infor	rmation					Site Ir	nformatio	on							
Analyst Agency or Co. Date Performe Time Period		nts				Interse Area T Jurisd Analys	Гуре	All o Sen	WB Frontage Rd@SR 46 All other areas Seminole County 2032						
Volume and	Timing Input														
			EB			WB			NB			SB			
North an aft a	6.55	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Number of La	nes	1	2	-		2	1	-	-	-	1		1		
Lane Group		L	T	-		T	R	-			L		R		
Volume (vph)		440	1380			1380	200	-			200		580		
% Heavy Vehi	icles	11	11	4		11	11	-		_	11		11		
PHF	CAT 1 200 IN A	0.95	0.95			0.95	0.95				0.95		0.95		
Pretimed/Actu		Α	Α	-		Α	Α				A		Α		
Startup Lost T		2.0	2.0			2.0	2.0				2.0		2.0		
Extension of E	Effective Gree	en 2.0	2.0			2.0	2.0				2.0		2.0		
Arrival Type	nit Extension nd/Bike/RTOR Volume ne Width		3			3	3				3		3		
Unit Extension	1	3.0	3.0			3.0	3.0				3.0		3.0		
Ped/Bike/RTC	OR Volume	0	0		0	0	0	0	0		0	0	0		
Lane Width		12.0	12.0			12.0	12.0				12.0		12.0		
Parking/Grade/Parking		N	0	N	N	0	N	N	0	N	N	0	N		
Parking/Hour															
Bus Stops/Ho		0	0			0	0			_	0		0		
Minimum Ped		LEWE	3.2		-	3.2	00.0	4	3.2		1	3.2			
Phasing	EB Only G = 20.0	EW Pern G = 43.0		03	04 G =		SB On G = 12.		06 G =	-	07	G=	80		
	Y = 5	Y = 5	Y		Y =		Y = 5		Y =		=	Y =			
Duration of An									Cycle Le	ngth C	= 90.0				
Lane Group	p Capacity	, Contro	ol Dela	y, and	LOS	Deterr	ninatio	n							
			EB			WB			NB			SB			
Adjusted Flow	Rate	463	1453			1453	211				211		611		
Lane Group C	apacity	441	1557			1557	970				217		598		
v/c Ratio		1.05	0.93			0.93	0.22				0.97		1.02		
Green Ratio		The second second	0 10			0.48	0.67				0.13		0.41		
		0.76	0.48			00	0.07						DC F		
Uniform Delay	/ d ₁	0.76 28.4	22.1			22.1	5.8				38.8		26.5		
Uniform Delay Delay Factor k			-			-	-				38.8 0.48		0.50		
	(28.4	22.1			22.1	5.8				_		-		
Delay Factor k	(28. <i>4</i> 0.50	22.1 0.45			22.1 0.45	5.8 0.11				0.48		0.50 42.4		
Delay Factor k	elay d ₂	28.4 0.50 56.5	22.1 0.45 10.7			22.1 0.45 10.7	5.8 0.11 0.1				0.48 53.0		0.50 42.4		
Delay Factor k Incremental Delay PF Factor	elay d ₂	28.4 0.50 56.5 1.000	22.1 0.45 10.7 1.000			22.1 0.45 10.7 1.000	5.8 0.11 0.1 1.000				0.48 53.0 1.000		0.50 42.4 1.000		
Delay Factor k Incremental Delay PF Factor Control Delay Lane Group Lo	elay d ₂	28.4 0.50 56.5 1.000 84.9	22.1 0.45 10.7 1.000 32.8			22.1 0.45 10.7 1.000 32.8	5.8 0.11 0.1 1.000 6.0				0.48 53.0 1.000 91.9	74.8	0.50 42.4 1.000 68.9		
Delay Factor k Incremental D PF Factor Control Delay	os	28.4 0.50 56.5 1.000 84.9	22.1 0.45 10.7 1.000 32.8 C			22.1 0.45 10.7 1.000 32.8 C	5.8 0.11 0.1 1.000 6.0				0.48 53.0 1.000 91.9	74.8 E	0.50 42.4 1.000 68.9		

HCS+TM Version 5.4

General Inf	ormation			3	HUKI	REPO		10.50					
						Site	Informat		10 = : :				
Analyst Agency or C Date Perfori Time Period	med 3/8/10	Connection) @ SR			Area Juris	section Type diction ysis Year	Pk All Lai	other area ke County	as	Wekiva		
Volume and	d Timing Inpu	t											
		1.7	EB	Low		WB			NB			SB	
Number of L	anee	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group			+-	+			2		2	-	+-	2	1
Volume (vpl		_	+	-	-		1070	-	T 240	-	+	T	R
% Heavy Ve		_	+	-	-		1270	-	310	_	+	1270	310
PHF	HICIES	-	-	+			11	-	11	_		11	11
Pretimed/Ac	atuated (D/A)	-		-		-	0.95	-	0.95	_		0.95	0.95
***			-	-		-	A	-	A	_	-	A	A
Startup Lost	f Effective Gre	on	-	-			2.0	_	2.0	_	-	2.0	2.0
Arrival Type		en	-	+		-	2.0		2.0	-	+	2.0	2.0
Unit Extensi			-	-					3		-	3	3
	OR Volume	0	0	-		0	3.0	_	3.0	-	-	3.0	3.0
Lane Width	OR volume	-	0	0	0	0	0	-	0	0	0		
Parking/Gra	de/Parking	N	0	N	N	0	12.0 N	N	12.0	N	N	12.0	12.0
Parking/Hou		74	+	TV	/V	-	IV .	70	10	70	- IV	0	N
Bus Stops/H							0		0	_	+	0	0
	destrian Time		3.2			3.2	-		3.2		1	3.2	-
Phasing	WB Only	02		03		04	Thru &	RT	06	T	07		08
Timing	G = 10.0	G =	G=		G=		G = 60	0.0	G =		3 =	G =	
	Y = 5 Analysis (hrs) =	Y =	Y =		Y =		Y = 5		Y =	_	′=	Y =	
	up Capacity		ol Dela	v and	2011	Dotor	minatio	\n	Cycle Ler	igth C) = 8U.	0	-
Lane Oro	up Capacity	, contro	EB	iy, and	T	WB		1	NB			SB	
Adjusted Flo	w Dota		T	T	1	T	1337	-	V Ages a	T	+	1337	ſ
Adjusted Fid	w Rate						2		326				326
Lane Group	Capacity						2575	×	2444			2444	1455
v/c Ratio							0.52		0.13			0.55	0.22
Green Ratio						1	1.00		0.75			0.75	1.00
Uniform Dela	ay d₁						0.0		2.8			4.2	0.0
Delay Factor	rk			1	1	+	0.12		0.11			0.15	0.11
Incremental						1	0.2		0.0			0.3	0.1
PF Factor	. 4			+-		1	0.950	-	1.000			1.000	0.950
Control Dela	у					1	0.2		2.8		1	4.5	0.1
Lane Group				1		1	A		A			A.S	A
	roach Delay				-	0.2	1,,		2.8		+	3.6	17
Approach LC					+-	A		-	A.		+		
Intersection		-	2.2		-	А	Intersec				-	A	

General Info	ormation		_	Sh	IORT			- 12					
						Salar V	nformatio		R 46 Existi	na at V	Vekiva		
Analyst Agency or Condition Period Time Period	ned 03/09/2010) ice Road Co	oncept			Area Jurisd	Гуре	Pk All	wy other area ke County	as			
Volume and	Timing Input												
			EB	T ==		WB			NB			SB	
Number of La	anes	LT 1	TH	RT	LT	TH	RT	L1	TH	RT	LT 2	TH	RT
Lane Group	ancs	L		-	-	-	-	-	-	-	L		-
Volume (vph)	310	_	-	-		-	-	-	-	1270		\vdash
% Heavy Vel		11	-	+-	+	-				-	11		-
PHF	1110100	0.95	-	+	-	+		_	-		0.95		
Pretimed/Act	tuated (P/A)	A		-		+			-		0.93 A		\vdash
Startup Lost		2.0				-					2.0		-
	Effective Gree			-	1	1					2.0		-
Arrival Type		3			-	-	+-		+	-	3		
Unit Extension	on	3.0			+	1	+		+	-	3.0		
Ped/Bike/RT		0	0		0	0		0	0	-	0	0	
Lane Width		12.0	-	-	<u> </u>	+		-	+		12.0	-	-
Parking/Grad	sing/Grade/Parking N C				N	0	N	N	0	N	N	0	N
Parking/Hour					1								
Bus Stops/Ho		0	20 %						JEG-		0		
	destrian Time		3.2			3.2			3.2			3.2	
Phasing	EB Only	02 G =	0	3	04		SB Onl		06		07		8
Timing		G = Y =	G = Y =		G = Y =		G = 51. Y = 5	0	G = Y =	G Y		G = Y =	
Duration of A	nalysis (hrs) =								Cycle Ler			10.50	
Lane Grou	up Capacity) o to us		_					
		, Control	Delay	, and	LOS [eterr	ninatio	n					
		, Control	Delay EB	, and	LOS E	WB	ninatio	n	NB			SB	
Adjusted Flov		326		, and	LOS		ninatio	n	NB		1337	SB	
Adjusted Flov Lane Group (w Rate			, and	LOS		ninatio	n	NB		1337	SB	
Lane Group (w Rate	326		, and	LOS		ninatio	n	NB			SB	
	w Rate	326 386		, and	LOS		ninatio	n	NB		2013	SB	
Lane Group (v/c Ratio	w Rate Capacity	326 386 0.84		, and	LOS		ninatio	n	NB		2013 0.66 0.64	SB	
Lane Group (v/c Ratio Green Ratio	w Rate Capacity	326 386 0.84 0.24		, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1	SB	
Lane Group (v/c Ratio Green Ratio Uniform Dela Delay Factor	w Rate Capacity by d ₁	326 386 0.84 0.24 29.1		, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1 0.24	SB	
Lane Group (v/c Ratio Green Ratio Uniform Dela Delay Factor Incremental [w Rate Capacity by d ₁	326 386 0.84 0.24 29.1 0.38		, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1 0.24 0.8	SB	
Lane Group (v/c Ratio Green Ratio Uniform Dela Delay Factor Incremental D	w Rate Capacity y d ₁ k Delay d ₂	326 386 0.84 0.24 29.1 0.38 15.7		, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1 0.24	SB	
Lane Group (v/c Ratio Green Ratio Uniform Dela Delay Factor Incremental DE PF Factor Control Delay	w Rate Capacity y d ₁ k Delay d ₂	326 386 0.84 0.24 29.1 0.38 15.7 1.000		, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1 0.24 0.8 1.000 10.0	SB	
Lane Group (v/c Ratio Green Ratio Uniform Dela	w Rate Capacity y d ₁ k Delay d ₂	326 386 0.84 0.24 29.1 0.38 15.7 1.000 44.8 D		, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1 0.24 0.8 1.000		
Lane Group (v/c Ratio Green Ratio Uniform Dela Delay Factor Incremental DE PF Factor Control Delay Lane Group L	w Rate Capacity y d ₁ k Delay d ₂ / _OS	326 386 0.84 0.24 29.1 0.38 15.7 1.000 44.8 D	EB	, and	LOS		ninatio	n	NB		2013 0.66 0.64 9.1 0.24 0.8 1.000 10.0	10.0 A	

Camanal Ind				SI	IORT	REPC							
General Inf	rormation					Site I	nformati		_				
Analyst Agency or 0 Date Perfor Time Period	med 03/03/2010					Area Jurisd	ection Type liction sis Year	46A All	Frontage West other area ninole Co 2	as	Old CR		
Volume an	d Timing Input												
			EB			WB			NB			SB	
Number of I	anee	LT 1	TH 1	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		L	T	+	_	1	1	-			1	-	1
Volume (vpl		33	607	-		675	10	-		-	L		R
% Heavy Ve		11	11	-				-			10		105
PHF	enicles	0.95	0.95	-	-	11	11				11		11
	ctuated (P/A)	-	_			0.95	0.95	-		-	0.95		0.95
Startup Lost		2.0	2.0			A 2.0	2.0	-		-	A 2.0		A
	f Effective Greer		2.0	-		2.0	2.0	-	-	-	2.0		2.0
Arrival Type		3	3	-	-	3	3	-				_	2.0
Unit Extensi		3.0	3.0	-	-	3.0	3.0	-	+		3		3
	TOR Volume	0	0	-	0	0	0	0	0		3.0		3.0
Lane Width	TOT Volume	12.0	12.0	-	-	12.0	12.0	0	0		12.0	0	12.0
	ne Width 1 rking/Grade/Parking			N	N	0	N	N	0	N	N N	0	12.0 N
Parking/Hou			0		1		1	1,4	1	-70	1,4	-	70
Bus Stops/F		0	0		1	0	0				0		0
Minimum Pe	edestrian Time		3.2			3.2			3.2			3.2	
Phasing	EW Perm	02)3		14	SB Onl		06		07		08
Timing		G = / =	G = Y =		G = Y =		G = 25.		G =	G		G =	
Duration of	Analysis (hrs) =		Υ =		Υ =	-	Y = 5	_	Y = Cycle Lei	Y agth C		Y =	
	up Capacity,		l Delay	. and	LOS	Deterr	ninatio		Dy Cic Lci	igui o	- 33.0		
			EB	,		WB			NB		T	SB	
Adjusted Flo	w Rate	35	639			711	11		T		11		111
Lane Group	Capacity	300	1081			1081	919				428		383
v/c Ratio		0.12	0.59			0.66	0.01		7		0.03		0.29
Green Ratio		0.63	0.63			0.63	0.63				0.26		0.26
Uniform Dela	ay d ₁	7.0	10.3			11.0	6.5				26.0		27.9
Delay Factor	rk	0.11	0.18			0.23	0.11				0.11		0.11
ncremental	Delay d ₂	0.2	0.9			1.5	0.0				0.0		0.4
PF Factor	-	1.000	1.000		1	1.000	1.000				1.000		1.000
Control Dela	ıy	7.1	11.2			12.5	6.5				26.0		28.3
Lane Group	LOS	A	В			В	Α				С		C
	proach Delay 10.9				12.4					+	28.1		
Approach LC						В		-			1	C	-
ntersection		1	13.0				Intersect	ion I C	16		+	В	
	University of Florida,	All Diekt- 5					OS+ TM Ver				Generated:		7 6 -

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				S	HORT	REPO	RT						
General In	formation					Site Ir	nformat	ion					
Analyst Agency or (Date Perfor Time Period	med 03/03/2010					Interse Area - Jurisd Analys	Гуре	Rd(All d Ser	Frontage OldCR4 other area ninole Co 2	16A as			
Volume an	d Timing Input						SIE I VALEI						
			EB	1114		WB			NB			SB	
NI SALAMANA	I San	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of	V-V-ASCO	1	1	1	1	1	1	1	1	1	1	1	1
Lane Group		L	T	R	L	T	R	L	T	R	L	T	R
Volume (vp		10	588	19	15	640	125	35	48	87	15	30	10
% Heavy V	enicles	11	11	11	11	11	11	11	11	11	11	11	11
PHF		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
	ctuated (P/A)	A	A	A	Α	Α	Α	Α	Α	Α	Α	Α	Α
Startup Los		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	of Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type		3	3	3	3	3	3	3	3	3	3	3	3
Unit Extens		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	TOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Gra		Ν	0	N	N	0	N	Ν	0	N	N	0	Ν
Parking/Hor Bus Stops/F		0	0	0	0		-						
	edestrian Time	U	3.2	0	0	3.2	0	0	3.2	0	0	3.2	0
Phasing		W Pern		03	4)4	NS Pe	rm I	06	4	07		08
		= 51.0			G=	74	G = 20		G =	G:		G =	00
Timing		= 5	Υ =		Y =		Y = 5		Y =	Υ =		Y =	
	Analysis (hrs) = 0		<u> </u>						Cycle Le	ngth C	95.0		
Lane Gro	oup Capacity,	Contro		y, and	LOS		ninatio	on					
			EB	1 5.5		WB	Total	-	NB			SB	1
Adjusted Flo	ow Rate	11	619	20	16	674	132	37	51	92	16	32	11
Lane Group	Capacity	390	919	1164	426	919	1164	265	360	536	261	360	536
v/c Ratio		0.03	0.67	0.02	0.04	0.73	0.11	0.14	0.14	0.17	0.06	0.09	0.02
Green Ratio		0.69	0.54	0.80	0.69	0.54	0.80	0.21	0.21	0.37	0.21	0.21	0.37
Uniform Del	lay d ₁	8.2	16.0	1.9	7.3	16.8	2.1	30.5	30.5	20.2	30.0	30.2	19.1
Delay Facto		0.11	0.25	0.11	0.11	0.29	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Incremental		0.0	2.0	0.0	0.0	3.1	0.0	0.2	0.2	0.2	0.1	0.1	0.0
PF Factor	2	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000
Control Dela	ay	8.2	17.9	1.9	7.4	19.9	2.1	30.7	_	20.4	30.1	30.3	19.1
Lane Group		A	В	A	A	В	A	C	C	C	C	C	В
			17.3	1		16.8	1 74	+	25.4	1	+	28.1	
	proach LOS B					B		-	C C		-		
Intersection		+	18.3		-	D	Interes	Hear I			-	C	
	B University of Florida, A	1					Intersec	uon L	US			В	

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0 11.6				SH	IORT	REPO							
General Inf	ormation	_			-	Site I	nformati	_	-	D.10	147.7.		
Analyst Agency or C Date Perfor Time Period	med 03/03/201					Area Jurisd	ection Type liction sis Year	Pin All	Frontage es Bl other area ninole Co 22	as	Wekıva		
Volume and	d Timing Input												
			EB	1		WB			NB			SB	
Number of L	anaa	LT 1	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	TALL THE STATE OF		1 T	-	-	1	1	-	-	-	1		1
		L			-	T	R	-	-		L		R
Volume (vpl		66	624	-	-	680	127	-			102		100
% Heavy Ve	enicies	11	11	-	-	11	11	-			2		2
PHF	1 (. l /D/A)	0.95	0.95		-	0.95	0.95	-		_	0.95		0.95
	ctuated (P/A)	A	A		-	Α	Α	4			Α		Α
Startup Lost		2.0	2.0	-		2.0	2.0	-			2.0		2.0
	f Effective Gree		2.0	_	_	2.0	2.0	_			2.0		2.0
Arrival Type		3	3			3	3	_			3		3
Unit Extensi		3.0	3.0			3.0	3.0				3.0		3.0
The second second second second	TOR Volume	0	0		0	0	0	0	0		0	0	0
Lane Width						12.0	12.0	_			12.0		12.0
		N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hou Bus Stops/H		0		-	-		-	-					
	edestrian Time	0	3.2	-		3.2	0	-	120		0	0.0	0
Phasing	EW Perm	02		03		3.2	SB On	l	3.2		07	3.2	000
	G = 60.0	G =	G=	,,,	G=	4	G = 25.		G =	G	= 07	G =	80
Timing	Y = 5	Y =	Y =		Y =		Y = 5		Y =	Y		Y =	
	Analysis (hrs) =								Cycle Le	ngth C	= 95.0		
Lane Gro	up Capacity	, Contro		, and	LOS	Deterr	ninatio	n					
			EB			WB			NB		1	SB	
Adjusted Flo	w Rate	69	657			716	134				107		105
Lane Group	Capacity	297	1081			1081	919		1		466		417
v/c Ratio		0.23	0.61			0.66	0.15				0.23		0.25
Green Ratio		0.63	0.63			0.63	0.63		1111		0.26		0.26
Uniform Dela	ay d ₁	7.6	10.5			11.1	7.1				27.4		27.6
Delay Factor		0.11	0.19			0.24	0.11				0.11		0.11
Incremental	Delay d ₂	0.4	1.0			1.5	0.1				0.3		0.3
PF Factor		1.000	1.000			1.000	1.000				1.000		1.000
Control Dela	ıy	8.0	11.5			12.6	7.2				27.7		27.9
Lane Group	LOS	A	В			В	A				C		C
				-		11.8	1				+	27.8	1 -
Approach LC						B					+	C	
Intersection I		_	13.4				Intersect	ion L	20		-		
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Short Report Page 1 of 1

				S	HORT	REPO							
General Inf	formation					Site Ir	format						
Analyst Agency or 0 Date Perfor Time Period	med 3/8/2010					Area T Jurisd Analys	уре	Rive All o Ser	Frontage er Rd other area ninole Co 2	as	Vekiva		
Volume an	d Timing Input							-					
			EB			WB		= -	NB			SB	
Ni walazy af I	0.000	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of I		1	1	1	1	1	1	1	1	1	1	1	1
Lane Group		L	T	R	L	T	R	L	T	R	L	T	R
Volume (vpl		25	516	185	117	646	57	136	5	149	35	5	25
% Heavy Ve	enicies	11	11	11	11	11	11	2	2	2	2	2	2
PHF	-t1-1/D/A	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
	ctuated (P/A)	A	A	A	Α	Α	Α	Α	Α	Α	Α	Α	Α
Startup Los		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	f Effective Green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival Type		3	3	3	3	3	3	3	3	3	3	3	3
Unit Extens		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	TOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Gra		N	0	N	Ν	0	N	N	0	N	N	0	N
Parking/Hou Bus Stops/F		0	0	0	0	0	0	0	0				-
	edestrian Time	U	3.2	0	0	3.2	0	0	3.2	0	0	3.2	0
Phasing		W Perr		03	1 0	3.2	NS Pe	rm I	06	\vdash	07		08
		= 51.0			G=	7-4	G = 20		G =	G		G=	50
Timing		= 5	Υ:		Y =		Y = 5		Y =	Υ:	=	Y =	
	Analysis (hrs) = 0								Cycle Le	ngth C	= 95.0		
Lane Gro	up Capacity,	Contro		ay, and	LOS		ninatio	on			_		
			EB	1	-	WB			NB	_		SB	
Adjusted Flo	ow Rate	26	543	195	123	680	60	143	5	157	37	5	26
Lane Group	Capacity	386	919	1164	479	919	1164	296	392	583	296	392	583
v/c Ratio		0.07	0.59	0.17	0.26	0.74	0.05	0.48	0.01	0.27	0.13	0.01	0.04
Green Ratio)	0.69	0.54	0.80	0.69	0.54	0.80	0.21	0.21	0.37	0.21	0.21	0.37
Uniform Del		8.4	14.9	2.2	7.0	16.9	2.0	33.0	29.7	21.0	30.4	29.7	19.3
Delay Facto		0.11	0.18	0.11	0.11	0.30	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Incremental		0.1	1.0	0.1	0.3	3.2	0.0	1.2	0.0	0.3	0.2	0.0	0.0
PF Factor		1.000	1.000	_	1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000
Control Dela	av	8.5	15.9	2.3	7.3	20.1	2.0	34.2	_	21.3	30.6	29.7	19.3
Lane Group	·	A	B	A	A.	C	A	C	C	C	C	C	B
		11	12.2	14	1	17.0	17	1	27.5	10	+	26.2	1 10
Approach Lo					-			-	C C		+		
		-	B		-	В	last a		-		-	С	
Intersection	Delay University of Florida		17.1		1		Intersec				Senerated:	В	

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SHORT REPORT General Information Site Information Analyst KNM Intersection Part Interse

Volume a	nd Timing Inp	ut								***			
			EB		77.77	WB			NB		T	SB	-
Manage		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of		1		2				1	2			2	1
Lane Grou		L		R				L	T			T	R
Volume (v	ph)	33		617				471	2254			741	749
% Heavy \	/ehicles	9		9	7			11	11		-	11	11
PHF		0.95		0.95				0.95	0.95			0.95	
Pretimed/A	Actuated (P/A)	A		A		-		A	A		-		0.95
Startup Los	st Time	2.0		2.0			1	2.0	2.0			A	A
Extension	of Effective Gre	en 2.0		2.0				2.0				2.0	2.0
Arrival Typ		3	+	3					2.0			2.0	2.0
Unit Extens		3.0		3.0				3	3			3	3
	RTOR Volume		-					3.0	3.0			3.0	3.0
Lane Width		0	0	40				0	0		0	0	0
THE PARTY OF THE PARTY.		12.0		12.0				12.0	12.0			12.0	12.0
Parking/Ho	ade/Parking	N	0	N				N	0	Ν	Ν	0	N
Bus Stops/		0		-									/ [
	edestrian Time		3.2	0				0	0			0	0
Phasing	EB Only			10					3.2			3.2	
	G = 15.0	02 G =	G =	03	04		NS Per		06		07		08
Timing	Y = 5	Y =	Y =	-	G = Y =		G = 95		G =	G =		G =	
Duration of	Analysis (hrs) =	A CONTRACTOR OF THE PARTY OF TH			11-		Y = 5	_	Y =	Y =	400.0	Y =	
	un Canacity		N-1		20.5				Cycle Leng	Jui C =	120.0		

		EB	WB		NB	SB	
Adjusted Flow Rate	35	607		496	2373	780	788
Lane Group Capacity	207	2623		472	2580	2580	1455
v/c Ratio	0.17	0.23		1.05	0.92	0.30	0.54
Green Ratio	0.13	1.00		0.79	0.79	0.79	1.00
Uniform Delay d ₁	46.9	0.0		12.5	9.6	3.4	-
Delay Factor k	0.11	0.11		0.50	0.44		0.0
Incremental Delay d ₂	0.4	0.0		55.4	6.0	0.11	0.14
PF Factor	1.000	0.950		1.000	1.000	0.1	0.4
Control Delay	47.3	0.0		67.9	15.6	1.000	0.950
Lane Group LOS	D	A		E	B B	3.5	0.4
Approach Delay	2.					I A	A
Approach LOS	A			_	24.6	1.9	
ntersection Delay	14.		F-2-		С	А	
pryright © 2005 University of Florid			Inte	rsection LOS	5	В	

0					SHOR	TREP	ORT							
General Infor						Sit	e Inforr	natio	n					
Analyst Agency or Co.	KNM HNTB					Inte	ersection	n	US 1	7/92 and	1-4 EB	Ramps		
Date Performe Time Period	ed 3/24/08 Build I-4 C 417	onnection	@ SR			Are Jur	ea Type isdiction alysis Ye	1	Sem	her areas inole Cou Build	s Inty			
Volume and 1	Timing Input					1	, 0.0	- Cui	2002	Dulla	_			
			EB			W	В			NB		T	SB	
Number of Lar	200	LT	TH	RT		_		RT	LT	TH	RT	LT	TH	R
Lane Group	103	2	+-		1	1	1	_	1	2			2	1
Volume (vph)		L 0770			L	T	R		L	T			T	R
		976	-		85	61	10	7	285	675			701	65
% Heavy Vehic	cies	2			9	9	9		11	11			11	11
		0.95			0.95	0.95	0.9	5	0.95	0.95			0.95	0.9
Pretimed/Actua		A			A	A	A		Α	A			A	A
Startup Lost Ti		2.0			2.0	2.0	2.0)	2.0	2.0			2.0	2.0
Extension of Ef	fective Gree	n 2.0			2.0	2.0	2.0		2.0	2.0			2.0	2.0
Arrival Type		3			3	3	3		3	3			3	3
Unit Extension		3.0			3.0	3.0	3.0)	3.0	3.0			3.0	3.0
Ped/Bike/RTOF	R Volume	0	0		0	0	0		0	0		0	0	0
Lane Width		12.0			12.0	12.0	12.	0	12.0	12.0		<u> </u>	12.0	12.0
Parking/Grade/	Parking	N	0	N	N	0	N		N	0	N	N	0	N
Parking/Hour														+ **
Bus Stops/Hour		0			0	0	0		0	0			0	0
Minimum Pedes			3.2			3.2				3.2			3.2	
C	Excl. Left 6 = 40.0	WB Only G = 15.0		03		04		Only		IS Perm		07		08
	= 5	Y = 5	G =		G = Y =		G = Y = (= 35.0	G=		G =	
Duration of Ana		0.25								= 5 ycle Leng	Y =		Y =	-
Lane Group	Capacity,	Control	Delay	, and	LOS D	etermi	nation	1	10	yole Leng	1110-	120.0		
			EB			WB	natio:	T		NB			SB	
Adjusted Flow R	ate	1027			89	64	113	30	00	711			738	692
ane Group Cap	acity	1146			828	218	864	29	91	1358			951	1212
/c Ratio		0.90			0.11	0.29	0.13	1.0	23	0.52			0.78	0.57
Green Ratio		0.33			0.50	0.13	0.58	0.4	-	0.42	-	-		
Iniform Delay d		38.0			15.9	47.7	11.3	27		26.1	-		0.29	0.83
elay Factor k		0.42			0.11	0.11	0.11	0.5		0.13			38.9	3.2
cremental Dela	y d ₂	9.4			0.1	0.11	_	-					0.33	0.17
F Factor		1.000			1.000	1.000	0.1	61.		0.4			4.1	0.7
ontrol Delay		47.5			15.9	48.4	1.000	1.0		.000	-		1.000	1.000
ane Group LOS		D				_	11.3	88	_	26.5			43.0	3.8
proach Delay		-	47.5		В	D	В	F		C			D	Α
oproach LOS						21.8 C		1_		45.0			24.1	
tersection Delay										D			С	
	/		36.0						LOS		-			

SHORT REPORT General Information Site Information Analyst KNM Intersection Agency or Co. HNTB CR 15 @ Orange Blvd Date Performed 3/24/08 Area Type All other areas Jurisdiction Build I-4 Connection @ SR Seminole County Time Period Analysis Year 417 2032 Build Volume and Timing Input EB WB NB SB LT TH RT LT TH RT LT TH RT LT TH RT Number of Lanes 1 1 1 1 1 1 Lane Group L R L T T R Volume (vph) 474 86 88 1022 539 214 % Heavy Vehicles 2 2 2 2 2 2 PHF 0.95 0.95 0.95 0.95 0.95 0.95 Pretimed/Actuated (P/A) A A A A A A Startup Lost Time 2.0 2.0 2.0 2.0 2.0 2.0 Extension of Effective Green 2.0 2.0 2.0 2.0 2.0 2.0 Arrival Type 3 3 3 3 3 3 Unit Extension 3.0 3.0 3.0 3.0 3.0 3.0 Ped/Bike/RTOR Volume 0 0 40 0 0 0 0 0 Lane Width 12.0 12.0 12.0 12.0 12.0 12.0 Parking/Grade/Parking N 0 N N 0 N N N Parking/Hour Bus Stops/Hour 0 0 0 0 0 0 Minimum Pedestrian Time 3.2 3.2 3.2 Phasing EB Only 02 03 04 NS Perm 06 07 08 G = 30.0G = G= G = Timing G = 60.0G = G = G= Y = 5Y = Y = Y = Y = 5Y = Y = Y = Duration of Analysis (hrs) = 0.25 Cycle Length C = 100.0 Lane Group Capacity, Control Delay, and LOS Determination WB NB SB Adjusted Flow Rate 1076 499 48 93 567 225 1583 Lane Group Capacity 531 1118 1118 392 950 v/c Ratio 0.94 0.03 0.24 0.96 0.51 0.24 Green Ratio 0.30 1.00 0.60 0.60 0.60 0.60 Uniform Delay d₁ 34.1 0.0 9.3 18.9 11.5 9.3 Delay Factor k 0.45 0.11 0.11 0.47 0.12 0.11 Incremental Delay do 24.9 0.0 0.3 18.5 0.4 0.1 PF Factor 1.000 0.950 1.000 1.000 1.000 1.000 Control Delay 59.1 0.0 9.6 37.5 11.9 9.5 Lane Group LOS E A A D B A Approach Delay 53.9 35.2 11.2 Approach LOS D D B Intersection Delay 31.7 Intersection LOS C

	1	-	+	1	-	1	1	1	1	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	^	7	ሻሻ	^	7	ሻ	^	7	ሻሻ	ተተ	7
Volume (vph)	213	609	90	315	672	393	245	1164	1170	457	850	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	3433	3539	1583	1770	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	662	98	342	730	427	266	1265	1272	497	924	210
RTOR Reduction (vph)	0	0	81	0	0	21	0	0	2	0	0	123
Lane Group Flow (vph)	232	662	17	342	730	406	266	1265	1270	497	924	87
Turn Type	Prot		Perm	Prot		pt+ov	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	I SELLE	1	6	67	3	8	81	7	4	1-12-39
Permitted Phases			2									4
Actuated Green, G (s)	13.5	25.5	25.5	17.5	29.5	54.5	27.2	72.5	96.5	18.5	63.8	63.8
Effective Green, g (s)	16.0	28.0	28.0	20.0	32.0	57.0	29.7	75.0	99.0	21.0	66.3	66.3
Actuated g/C Ratio	0.10	0.18	0.18	0.12	0.20	0.36	0.19	0.47	0.62	0.13	0.41	0.41
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5		6.5	6.5		6.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	177	619	277	429	708	564	329	1659	979	451	1466	656
v/s Ratio Prot	0.13	0.19		0.10	c0.21	0.26	0.15	0.36	c0.80	c0.14	0.26	
v/s Ratio Perm			0.01									0.05
v/c Ratio	1.31	1.07	0.06	0.80	1.03	0.72	0.81	0.76	1.30	1.10	0.63	0.13
Uniform Delay, d1	72.0	66.0	55.0	68.0	64.0	44.6	62.4	35.1	30.5	69.5	37.1	29.0
Progression Factor	1.00	1.00	1.00	0.82	0.71	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	174.3	56.2	0.4	6.4	35.0	2.9	13.6	3.4	141.2	73.0	2.1	0.4
Delay (s)	246.3	122.2	55.5	62.4	80.4	41.5	76.0	38.5	171.7	142.5	39.2	29.5
Level of Service	F	F	E	E	F	D	E	D	F	F	D	С
Approach Delay (s)	H Speller	144.6			65.2			102.5			69.4	- 7 1
Approach LOS		F			E			F			E	
Intersection Summary	allius si	S. don't	S. Sing				91198		V. 17			TE DE
HCM Average Control Dela			92.7	Н	CM Leve	of Service	e		F			
HCM Volume to Capacity ra	atio		1.22	1960				Labor	Te ill	11-		
Actuated Cycle Length (s)			160.0		um of los				12.0			
Intersection Capacity Utiliza	ation		112.3%	10	CU Level	of Service		11111	Н	100		
Analysis Period (min)			15									
c Critical Lane Group					III-III-	111111	1			TE I		

	*	-	7	1	+	*	1	1	1	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	^	7	ሻሻ	^	7	ሻ	4	77	ሻ	↑	7
Volume (vph)	30	1613	697	771	1448	67	227	64	609	295	372	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	1681	1721	2787	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	3433	3539	1583	1681	1721	2787	1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	1753	758	838	1574	73	247	70	662	321	404	37
RTOR Reduction (vph)	0	0	121	0	0	28	0	0	32	0	0	31
Lane Group Flow (vph)	33	1753	637	838	1574	45	156	161	630	321	404	6
Turn Type	Prot		Perm	Prot		Perm	Split		pt+ov	Split		Perm
Protected Phases	5	2	11 -1/	1	6	10168	8	8	81	4	4	TATA
Permitted Phases			2			6						4
Actuated Green, G (s)	4.6	68.5	68.5	31.5	95.4	95.4	11.5	11.5	48.5	25.5	25.5	25.5
Effective Green, g (s)	6.1	71.0	71.0	33.0	97.9	97.9	13.0	13.0	50.0	27.0	27.0	27.0
Actuated g/C Ratio	0.04	0.44	0.44	0.21	0.61	0.61	0.08	0.08	0.31	0.17	0.17	0.17
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5	6.5	5.5	5.5		5.5	5.5	5.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	67	1570	702	708	2165	969	137	140	871	299	314	267
v/s Ratio Prot	0.02	c0.50		c0.24	0.44		0.09	c0.09	0.23	0.18	c0.22	
v/s Ratio Perm			0.40			0.03						0.00
v/c Ratio	0.49	1.12	0.91	1.18	0.73	0.05	1.14	1.15	0.72	1.07	1.29	0.02
Uniform Delay, d1	75.4	44.5	41.4	63.5	21.7	12.4	73.5	73.5	48.8	66.5	66.5	55.5
Progression Factor	0.90	1.15	1.22	1.10	0.31	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	53.4	2.1	87.2	0.7	0.0	119.0	122.0	3.0	73.0	151.0	0.0
Delay (s)	68.0	104.5	52.6	157.3	7.4	1.8	192.5	195.5	51.8	139.5	217.5	55.5
Level of Service	E	F	D	F	Α	Α	F	F	D	F	F	E
Approach Delay (s)	DET !	88.5			57.8			97.9			176.7	
Approach LOS		F			E			F			F	
Intersection Summary				100				Mal &			Vi 11.22	SHE.
HCM Average Control Delay			88.5	Н	CM Leve	of Service	e		F			
HCM Volume to Capacity ratio			1.17									
Actuated Cycle Length (s)			160.0		um of los				16.0			
Intersection Capacity Utilization	1		107.5%	IC	U Level	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

	1	-	*	1	+	1	1	1	-	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	个 个			^	7	ሻሻ		77			
Volume (vph)	365	2152	0	0	1652	445	634	0	1206	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			1 1 1 1
Lane Util. Factor	0.97	0.95			0.95	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	3539			3539	1583	3433		2787			- 417.
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	3539	I CA		3539	1583	3433	- Take	2787	Talk a		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	2339	0	0	1796	484	689	0	1311	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	127	0	0	4	0	0	0
Lane Group Flow (vph)	397	2339	0	0	1796	358	689	0	1307	0	0	0
Turn Type	Prot					Perm	Prot		custom			
Protected Phases	5	2			6	1000	8	K-Tack.				"信息
Permitted Phases						6			8			
Actuated Green, G (s)	14.5	89.0	123/12	1	69.0	69.0	58.5		58.5			日の具作響
Effective Green, g (s)	16.0	92.0			72.0	72.0	60.0		60.0			
Actuated g/C Ratio	0.10	0.58			0.45	0.45	0.38		0.38			100
Clearance Time (s)	5.5	7.0			7.0	7.0	5.5		5.5			
Vehicle Extension (s)	3.0	3.0		14-14-12	3.0	3.0	3.0		3.0		T (5.1.3)	
Lane Grp Cap (vph)	343	2035			1593	712	1287		1045			
v/s Ratio Prot	0.12	c0.66	16.575	7-18-75	0.51	all self	0.20	-9-9				
v/s Ratio Perm						0.23			c0.47			
v/c Ratio	1.16	1.15			1.13	0.50	0.54		1.25			135
Uniform Delay, d1	72.0	34.0			44.0	31.3	39.1		50.0			
Progression Factor	0.91	0.99			0.25	0.02	1.00		1.00			
Incremental Delay, d2	74.2	67.8			58.2	0.2	0.4		120.7			
Delay (s)	139.9	101.5			69.2	1.0	39.5		170.7			
Level of Service	F	F			E	Α	D		F			
Approach Delay (s)		107.1			54.7			125.5			0.0	1.5
Approach LOS		F			D			F			Α	
Intersection Summary	图》	671-61			51,4514				1540			POYER
HCM Average Control Delay		La particular de	95.3	Н	CM Leve	of Service	e		F			
HCM Volume to Capacity ratio		A B	1.19	1-1-1		EZ Z	1	15.34				
Actuated Cycle Length (s)			160.0			t time (s)			8.0			
Intersection Capacity Utilizatio	n		108.3%	IC	CU Level	of Service		1 100	G			111//
Analysis Period (min)	174		15									
c Critical Lane Group	75 1	- 11	10		-		. F 48	7 F F 1		1.1	12	

	1	-	7	1	+	*	1	1	1	-	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	^	7	ሻሻ	^	7	ሻሻ	^	7	ሻ	^	7
Volume (vph)	1086	1521	750	317	661	122	1018	993	499	113	659	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1180	1653	815	345	718	133	1107	1079	542	123	716	454
RTOR Reduction (vph)	0	0	321	0	0	104	0	0	128	0	0	337
Lane Group Flow (vph)	1180	1653	494	345	718	29	1107	1079	414	123	716	117
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2	1.30	- 1141	6		3	8	HITT. II	7	4	TELL P
Permitted Phases			2			6			8			4
Actuated Green, G (s)	42.5	59.5	59.5	12.5	29.5	29.5	39.5	53.4	53.4	10.6	24.5	24.5
Effective Green, g (s)	44.0	62.0	62.0	14.0	32.0	32.0	41.0	55.9	55.9	12.1	27.0	27.0
Actuated g/C Ratio	0.28	0.39	0.39	0.09	0.20	0.20	0.26	0.35	0.35	0.08	0.17	0.17
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5	6.5	5.5	6.5	6.5	5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	944	1371	613	300	708	317	880	1236	553	134	597	267
v/s Ratio Prot	c0.34	c0.47		0.10	0.20	575	c0.32	0.30	No. 15	0.07	c0.20	
v/s Ratio Perm			0.31			0.02			0.26			0.07
v/c Ratio	1.25	1.21	0.81	1.15	1.01	0.09	1.26	0.87	0.75	0.92	1.20	0.44
Uniform Delay, d1	58.0	49.0	43.6	73.0	64.0	52.2	59.5	48.7	45.9	73.5	66.5	59.7
Progression Factor	1.00	1.10	1.29	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	113.4	93.2	1.1	98.9	37.4	0.6	125.3	7.1	5.5	52.9	105.2	1.2
Delay (s)	171.5	147.1	57.5	171.9	101.4	52.7	184.8	55.8	51.4	126.3	171.7	60.9
Level of Service	F	F	E	F	F	D	F	E	D	F	F	E
Approach Delay (s)	Gust =	135.0	100		116.3	W. Commis		107.3			128.5	
Approach LOS		F			F	Jan 1		F			F	
Intersection Summary	May to the					数有型	15 at	n hatile 7			Helf Its	10.019/
	CM Volume to Canacity ratio 123.0			Н	CM Leve	of Service	e	vitus and an	F			
HCM Volume to Capacity ra					5 32	100	2176					
actuated Cycle Length (s) 160.0				um of los				12.0		1 2		
ntersection Capacity Utilization 111.7%			10	CU Level	of Service		die /	Н	1017-			
Analysis Period (min)			15									
c Critical Lane Group	1	The state of							1	Unit in		

	4	×	2	-	X	1	7	*	~	4	K	×
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	7		77					44	7	1/1	^	
Volume (vph)	250	0	430	0	0	0	0	880	878	332	996	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	100	4.0	- Dieze				4.0	4.0	4.0	4.0	PART
Lane Util. Factor	1.00		0.88					0.95	1.00	0.97	0.95	
Frt	1.00	Sing.	0.85	1-21-				1.00	0.85	1.00	1.00	1.2.1
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770		2787			1 3	E	3539	1583	3433	3539	177
Flt Permitted	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770		2787	2017			" The state of	3539	1583	3433	3539	7.30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	0	467	0	0	0	0	957	954	361	1083	0
RTOR Reduction (vph)	0	0	195	0	0	0	0	0	359	0	0	0
Lane Group Flow (vph)	272	0	272	0	0	0	0	957	595	361	1083	0
Turn Type	Prot		custom						Perm	Prot		
Protected Phases	8	1711/2	S. E. A.	35 IF 18	17 1 5 5	1,45,74	HON FUL	2	Artords	1	6	AV-1191
Permitted Phases	12.000		8	11322712					2			
Actuated Green, G (s)	21.9	100	21.9	100	R (1)		The First	53.5	53.5	17.6	77.6	- 1
Effective Green, g (s)	21.9		21.9					56.0	56.0	20.1	80.1	
Actuated g/C Ratio	0.20		0.20	100	1517 1-11	The State of	Walter .	0.51	0.51	0.18	0.73	175 15
Clearance Time (s)	4.0	-	4.0					6.5	6.5	6.5	6.5	
Vehicle Extension (s)	3.0	-1155	3.0	THE REAL PROPERTY.	- 11	- 1	E COLUMN	3.0	3.0	3.0	3.0	15 5 5
Lane Grp Cap (vph)	352		555					1802	806	627	2577	
v/s Ratio Prot	c0.15	E. G. Park			and and	T-03-1	1000	0.27		c0.11	0.31	
v/s Ratio Perm	245 22.5 (6) (4)		0.10						c0.38			
v/c Ratio	0.77	2531	0.49	7.44	West State			0.53	0.74	0.58	0.42	1000
Uniform Delay, d1	41.7		39.1					18.2	21.2	41.1	5.9	
Progression Factor	1.00	Sale Con	1.00	217 A	1911 3 10	Wiles.		1.00	1.00	0.99	0.36	7 To -
Incremental Delay, d2	10.1		0.7				NACCO ACCO	1.1	6.0	2.8	0.4	
Delay (s)	51.8	NET TO	39.8		157			19.3	27.2	43.2	2.5	1 1 /
Level of Service	D		D					В	С	D	Α	
Approach Delay (s)	N 10 17 78	44.2	250 200	F- 15101	0.0	1	A LONG	23.3		2	12.7	100
Approach LOS		D			Α	311111111111111111111111111111111111111		С			В	
Intersection Summary					Table 1				JAN 18	CONTRACTOR OF THE	garage and	37-1
HCM Average Control Dela			23.3	Н	CM Leve	l of Servic	е		С			
HCM Volume to Capacity r	atio	1 1 1 1 1	0.71	No.				Car Shirt	GERRY	19-5-10		
Actuated Cycle Length (s)			110.0		um of los				12.0			
Intersection Capacity Utiliz	ation		87.7%	IC	U Level	of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												- 0 : 41

	3	-	7	1	+	*_	1	7	1	\	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER
Lane Configurations	ሻሻ	^			^	7	ሻሻ		7		
Volume (vph)	616	514	0	0	681	64	647	0	613	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	THE R.		4.0	4.0	4.0	e continu	4.0		
Lane Util. Factor	0.97	0.95			0.95	1.00	0.97		1.00		
Frt	1.00	1.00	Ashier .		1.00	0.85	1.00	(Bar)	0.85	F-105 1	A Travella
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00		
Satd. Flow (prot)	3433	3539		100	3539	1583	3433	Will d	1583		
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00		
Satd. Flow (perm)	3433	3539	MARINE.		3539	1583	3433		1583		4,250
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	670	559	0	0	740	70	703	0	666	0	0
RTOR Reduction (vph)	0	0	0	0	0	50	0	0	212	0	0
Lane Group Flow (vph)	670	559	0	0	740	20	703	0	454	0	0
Turn Type	Prot					Perm	Prot		custom		
Protected Phases	5	2	1 -11-11	107.72	6	4213	4	F 40 8 100	TOTAL !		100
Permitted Phases						6			4		
Actuated Green, G (s)	27.4	62.5	F 40 1474	- 1	28.6	28.6	34.5	146 3	34.5	10000	
Effective Green, g (s)	29.9	65.0			31.1	31.1	37.0		37.0		
Actuated g/C Ratio	0.27	0.59	4-11-		0.28	0.28	0.34	Was in a	0.34	1	The state of
Clearance Time (s)	6.5	6.5			6.5	6.5	6.5		6.5		
Vehicle Extension (s)	3.0	3.0	16.0 TO 15.	To all the	3.0	3.0	3.0	111	3.0		
Lane Grp Cap (vph)	933	2091			1001	448	1155		532		
v/s Ratio Prot	c0.20	0.16	150	5/100	c0.21	- 6 M - TO	0.20	to two	1-5M		
v/s Ratio Perm	110 00000-00					0.01			c0.29		
v/c Ratio	0.72	0.27		- 3,713	0.74	0.04	0.61	6 5 51	0.85	THE STATE	
Uniform Delay, d1	36.2	10.9			35.8	28.7	30.5		34.0		
Progression Factor	0.79	0.50			0.78	0.61	1.09	+122 /	1.16		CVI TERUS
Incremental Delay, d2	2.2	0.3			4.8	0.2	2.4		15.8		
Delay (s)	30.8	5.7	900	7	32.9	17.7	35.5	THE REAL PROPERTY.	55.1	101/15	
Level of Service	С	Α			С	В	D		E		
Approach Delay (s)		19.4		1	31.6	163-57		45.0	11 - 11 - 11	0.0	
Approach LOS		В			С			D		Α	
Intersection Summary	火 等 四		ARE TO		Joseph Sey		Aller !	PART I	1 - 15 11		
HCM Average Control Delay	1		32.6	Н	CM Leve	of Service	е		С		
HCM Volume to Capacity ra		STALE.	0.78	4 18	11.0		- 12	Street, and	16 Tem		19.30:X
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)			12.0		
Intersection Capacity Utiliza	tion	1 13 1	87.7%			of Service		- July	E	-14.4 Non	The state of
Analysis Period (min)			15								
c Critical Lane Group	1 5,500			18 18	21-35-27		10/3300		USAS S		

	1	*	1	1	1	1	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	7	44	7	ሻ	^	
Volume (vph)	195	425	788	777	573	627	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1583	3539	1583	1770	3539	ALL CHARLES IN THE STATE OF THE
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	212	462	857	845	623	682	
RTOR Reduction (vph)	0	395	0	232	0	0	
Lane Group Flow (vph)	212	67	857	613	623	682	
Turn Type		Perm		Perm	Prot		
Protected Phases	8		2	STANFALLS.	1	6	CONTRACTOR AND SAME IN THE SAME
Permitted Phases	421	8	12.00	2			
Actuated Green, G (s)	13.4	13.4	38.9	38.9	38.2	83.6	
Effective Green, g (s)	15.9	15.9	41.4	41.4	40.7	86.1	
Actuated g/C Ratio	0.14	0.14	0.38	0.38	0.37	0.78	
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	256	229	1332	596	655	2770	
v/s Ratio Prot	c0.12	- 6/2/8	0.24	6.00	c0.35	0.19	
v/s Ratio Perm		0.04		c0.39			
v/c Ratio	0.83	0.29	0.64	1.03	0.95	0.25	
Uniform Delay, d1	45.7	42.0	28.2	34.3	33.7	3.2	
Progression Factor	1.06	1.52	0.51	0.29	0.89	0.33	The state of the s
Incremental Delay, d2	19.0	0.7	1.9	40.1	21.1	0.2	
Delay (s)	67.3	64.7	16.3	50.2	51.0	1.2	
Level of Service	Е	Е	В	D	D	Α	
Approach Delay (s)	65.5	1.75	33.1		11 3	25.0	
Approach LOS	E		С			С	
Intersection Summary		1					
HCM Average Control Dela			36.2	Н	CM Level	of Service	D D
HCM Volume to Capacity r	atio		0.96	100			
Actuated Cycle Length (s)			110.0		um of lost		12.0
			86.5%	10	CU Level	of Service	AND ENVIOLENCE OF
Analysis Period (min)			15				
c Critical Lane Group							

	1	-	1	1	+	1	1	1	1	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	↑	7	ሻ	7	7	ሻሻ	^	7	ሻሻ	^	*
Volume (vph)	53	21	137	338	42	1080	126	799	288	311	725	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1524	1504	3433	3539	1583	3433	3539	1583
Flt Permitted	0.15	1.00	1.00	0.65	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	277	1863	1583	1204	1524	1504	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	23	149	367	46	1174	137	868	313	338	788	46
RTOR Reduction (vph)	0	0	113	0	130	130	0	0	216	0	0	29
Lane Group Flow (vph)	58	23	36	367	480	480	137	868	97	338	788	17
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8	188	5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	26.2	23.4	23.4	45.4	35.1	35.1	5.0	30.5	30.5	11.6	37.1	37.1
Effective Green, g (s)	33.2	26.9	26.9	48.9	38.6	38.6	8.5	34.0	34.0	15.1	40.6	40.6
Actuated g/C Ratio	0.30	0.24	0.24	0.44	0.35	0.35	0.08	0.31	0.31	0.14	0.37	0.37
Clearance Time (s)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	169	456	387	628	535	528	265	1094	489	471	1306	584
v/s Ratio Prot	0.02	0.01		c0.10	0.31	1651-8	0.04	c0.25		c0.10	0.22	Banc
v/s Ratio Perm	0.08		0.02	0.16		c0.32			0.06			0.01
v/c Ratio	0.34	0.05	0.09	0.58	0.90	0.91	0.52	0.79	0.20	0.72	0.60	0.03
Uniform Delay, d1	30.4	31.8	32.1	21.5	33.8	34.0	48.8	34.8	28.0	45.4	28.2	22.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.07	0.69	1.81	1.00	0.76	0.73
Incremental Delay, d2	1.2	0.0	0.1	1.4	17.4	19.3	1.2	4.4	0.7	4.8	1.9	0.1
Delay (s)	31.6	31.8	32.2	22.9	51.3	53.3	53.2	28.5	51.2	50.0	23.3	16.2
Level of Service	С	С	С	С	D	D	D	С	D	D	С	В
Approach Delay (s)		32.0		THE PARTY	45.5	41.5	105	36.4	n-me.	X-12-71	30.7	-37
Approach LOS		С			D			D			С	
Intersection Summary			li con	الرباء عبد				3000		PORTE	Blok :	HA PA
HCM Average Control Delay			38.0	Н	CM Leve	of Service	е		D			
HCM Volume to Capacity rati	0		0.82									
ctuated Cycle Length (s) 110.0		110.0	S	um of los	t time (s)			16.0				
tersection Capacity Utilization 80.0%			IC	U Level	of Service			D				
Analysis Period (min)			15									
c Critical Lane Group												

	1	→	7	1	+	*	1	1	1	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	^	7	*	↑	7	ሻሻ	^	7	77	个 个	7
Volume (vph)	86	188	173	247	168	201	311	1208	121	143	558	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.64	1.00	1.00	0.40	1.00	1.00	0.34	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)	1196	3539	1583	754	1863	1583	1240	3539	1583	376	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	204	188	268	183	218	338	1313	132	155	607	108
RTOR Reduction (vph)	0	0	164	0	0	99	0	0	64	0	0	55
Lane Group Flow (vph)	93	204	24	268	183	119	338	1313	68	155	607	53
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2	1	1.	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	15.4	11.8	11.8	33.0	23.9	23.9	60.9	54.2	54.2	56.1	51.8	51.8
Effective Green, g (s)	18.4	14.3	14.3	34.5	26.4	26.4	63.9	56.7	56.7	59.1	54.3	54.3
Actuated g/C Ratio	0.17	0.13	0.13	0.31	0.24	0.24	0.58	0.52	0.52	0.54	0.49	0.49
Clearance Time (s)	5.5	6.5	6.5	5.5	6.5	6.5	5.5	6.5	6.5	5.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227	460	206	395	447	380	884	1824	816	363	1747	781
v/s Ratio Prot	0.02	0.06		c0.11	0.10		c0.03	c0.37	3 34 17	0.02	0.17	
v/s Ratio Perm	0.05		0.02	c0.11		0.08	0.19		0.04	0.21		0.03
v/c Ratio	0.41	0.44	0.12	0.68	0.41	0.31	0.38	0.72	0.08	0.43	0.35	0.07
Uniform Delay, d1	40.3	44.2	42.3	30.8	35.2	34.4	11.3	20.5	13.5	16.4	17.0	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.88	0.84	1.57	0.67	0.28
Incremental Delay, d2	1.2	0.7	0.3	4.6	0.6	0.5	0.1	1.3	0.1	0.5	0.3	0.1
Delay (s)	41.5	44.9	42.5	35.3	35.8	34.8	9.4	19.5	11.4	26.3	11.7	4.1
Level of Service	D	D	D	D	D	С	Α	В	В	С	В	Α
Approach Delay (s)		43.3			35.3			17.0			13.4	
Approach LOS		D			D			В			В	
Intersection Summary		HOSPON'S		1-24		1419 T	DESCRIPTION OF	0.00	16 50 39			No.
HCM Average Control Delay	1		22.7	Н	CM Leve	of Servi	ce		C			
HCM Volume to Capacity ra	tio	1111	0.68			(S)(C)			1.50			
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)			12.0			
Intersection Capacity Utiliza	tion	F	69.7%		CU Level		9		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	ተተተ	7	1,1	ተተተ	7	ሻሻ	↑	7	Ť	†	7
Volume (vph)	62	1790	398	555	1982	13	842	71	527	41	37	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	3433	1863	1583	1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	1946	433	603	2154	14	915	77	573	45	40	158
RTOR Reduction (vph)	0	0	187	0	0	7	0	0	183	0	0	80
Lane Group Flow (vph)	67	1946	246	603	2154	7	915	77	390	45	40	78
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	5	2		1	6		8	8	AT TENED	4	4	
Permitted Phases			2			6		- Marian	8			4
Actuated Green, G (s)	4.4	39.5	39.5	16.5	51.6	51.6	23.5	23.5	23.5	4.5	4.5	4.5
Effective Green, g (s)	6.9	42.0	42.0	19.0	54.1	54.1	26.0	26.0	26.0	7.0	7.0	7.0
Actuated g/C Ratio	0.06	0.38	0.38	0.17	0.49	0.49	0.24	0.24	0.24	0.06	0.06	0.06
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	111	1942	604	593	2501	779	811	440	374	113	119	101
v/s Ratio Prot	0.04	c0.38	The same	c0.18	0.42		c0.27	0.04	E 72-3	0.03	0.02	-
v/s Ratio Perm			0.16			0.00			0.25		- Dargood	c0.05
v/c Ratio	0.60	1.00	0.41	1.02	0.86	0.01	1.13	0.17	1.04	0.40	0.34	0.78
Uniform Delay, d1	50.2	34.0	24.9	45.5	24.6	14.3	42.0	33.5	42.0	49.5	49.3	50.7
Progression Factor	1.07	0.58	0.42	1.00	1.00	1.00	0.76	0.74	0.58	1.00	1.00	1.00
Incremental Delay, d2	6.7	18.1	1.5	41.3	4.2	0.0	69.8	0.7	52.3	2.3	1.7	30.3
Delay (s)	60.7	37.7	11.9	86.8	28.8	14.3	101.9	25.4	76.6	51.8	51.0	81.1
Level of Service	E	D	В	F	С	В	F	С	E	D	D	F
Approach Delay (s)	15.00	33.8	10 mg	ie Sans	41.4	134	14.00	88.9	1 7	TRE	70.7	1 2 2 1
Approach LOS		C			D			F			E	
Intersection Summary	-	BUT IN		esele y		100,	Control		Market Market			
HCM Average Control Delay			50.3	Н	CM Leve	of Service	e		D			
HCM Volume to Capacity ratio			1.02					1				
Actuated Cycle Length (s)			110.0			t time (s)			16.0			
ntersection Capacity Utilization 91.1%								F			- 13	
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተተ	7	ሻሻ	1111	7	ሻሻ	^	7	ሻ	↑	7
Volume (vph)	297	1570	843	335	2319	146	718	66	289	144	62	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.86	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	3433	6408	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	3433	6408	1583	3433	1863	1583	1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	323	1707	916	364	2521	159	780	72	314	157	67	216
RTOR Reduction (vph)	0	0	340	0	0	94	0	0	241	0	0	181
Lane Group Flow (vph)	323	1707	576	364	2521	65	780	72	73	157	67	35
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Actuated Green, G (s)	15.5	45.5	45.5	12.5	42.5	42.5	22.5	11.6	11.6	14.4	3.5	3.5
Effective Green, g (s)	18.0	48.0	48.0	15.0	45.0	45.0	25.0	14.1	14.1	16.9	6.0	6.0
Actuated g/C Ratio	0.16	0.44	0.44	0.14	0.41	0.41	0.23	0.13	0.13	0.15	0.05	0.05
Clearance Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	290	2219	691	468	2621	648	780	239	203	272	102	86
v/s Ratio Prot	c0.18	0.34	ALVESTA	0.11	c0.39	1	c0.23	0.04		0.09	c0.04	- 111-
v/s Ratio Perm			c0.36			0.04			0.05			0.02
v/c Ratio	1.11	0.77	0.83	0.78	0.96	0.10	1.00	0.30	0.36	0.58	0.66	0.41
Uniform Delay, d1	46.0	26.3	27.4	45.9	31.7	20.0	42.5	43.5	43.8	43.2	51.0	50.3
Progression Factor	1.07	0.73	0.74	1.04	0.98	1.84	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	81.9	2.1	9.3	3.1	5.0	0.1	32.2	0.7	1.1	3.0	14.2	3.2
Delay (s)	131.1	21.3	29.6	50.7	36.1	36.9	74.7	44.2	44.9	46.2	65.2	53.5
Level of Service	F	С	С	D	D	D	Е	D	D	D	E	D
Approach Delay (s)		35.9			37.8			64.8			52.7	
Approach LOS		D			D			E			D	
Intersection Summary		gottani				200	N's				· · · · · · · · · · · · · · · · · · ·	UEWS
HCM Average Control Delay			42.1	Н	CM Leve	of Service	е		D			
HCM Volume to Capacity ratio)		1.01						100			
ctuated Cycle Length (s) 110.0			S	um of los	time (s)			20.0				
Intersection Capacity Utilization	on		87.2%		CU Level				E			
Analysis Period (min)			15									
c Critical Lane Group							J. 111		1			

	•	-	*	1	+	*	1	†	-	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	ተተተ			ተተተ	7	77		77			
Volume (vph)	445	1637	0	0	2425	925	629	0	711	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	The state	No.	4.0	4.0	4.0	38 3.	4.0		17-12-18	e 15
Lane Util. Factor	0.97	0.91			0.91	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			5085	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085	1 EF LIFE TO		5085	1583	3433		2787	- Herry		a isa
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	484	1779	0	0	2636	1005	684	0	773	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	347	0	0	45	0	0	0
Lane Group Flow (vph)	484	1779	0	0	2636	658	684	0	728	0	0	0
Turn Type	Prot					Perm	Prot		custom			
Protected Phases	5	2	1411	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	6	F-5 (4.5.74)	8	-	9 710 11	25. 1		1:3
Permitted Phases						6			8			
Actuated Green, G (s)	11.5	73.5	11 2 3 3	3000	55.5	55.5	23.5	0.51	23.5	0. 2. 7	1 35 1	3-1- 6
Effective Green, g (s)	14.0	76.0			58.0	58.0	26.0		26.0			
Actuated g/C Ratio	0.13	0.69	710-4		0.53	0.53	0.24		0.24		2-11/1	
Clearance Time (s)	6.5	6.5			6.5	6.5	6.5		6.5			
Vehicle Extension (s)	3.0	3.0	they were		3.0	3.0	3.0	1276	3.0	Carried II	BIR CAS	C W. S
Lane Grp Cap (vph)	437	3513			2681	835	811		659			
v/s Ratio Prot	c0.14	0.35	ST CAS		c0.52	For III SAY	0.20	1	PINE STE	STEEL TO	A LANGE	STEP N
v/s Ratio Perm	The second second	-				0.42			c0.26			
v/c Ratio	1.11	0.51	Will stead	1941	0.98	0.79	0.84	2 1, 10	1.10	THE WAY		a Lab
Uniform Delay, d1	48.0	8.1			25.5	21.0	40.1		42.0			-
Progression Factor	1.05	0.90	100	-117	0.49	1.51	1.00	5.0	1.00			MOS
Incremental Delay, d2	72.0	0.4			7.3	2.8	10.4		67.3	A Second		
Delay (s)	122.5	7.7			19.8	34.5	50.5	SETT	109.3		T. S. VIS	ins.
Level of Service	F	Α			В	С	D		F			
Approach Delay (s)		32.2	15 15 15		23.8	The state of the	y H	81.7		The	0.0	100
Approach LOS		С			С			F			Α	
Intersection Summary	阿尔德里		Eller H	477			of the same		15 1150	Y MAN		
HCM Average Control Dela			37.9	Н	CM Leve	of Servic	е		D			
HCM Volume to Capacity ra	atio		1.03	Alberta.			4.75			1.5		
Actuated Cycle Length (s)			110.0	S	um of los	time (s)			12.0			
Intersection Capacity Utiliza	ition	-, day	87.5%	IC	U Level	of Service	1 1 1		E			1 47
Analysis Period (min)			15									
c Critical Lane Group												

	1	-	74	~	+	1	1	1	1	1	+	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL2	SBL	SBR	NWL	NWR	3 4 30
Lane Configurations		ተተተ	7		ተተተ		ሻሻ		7			
Volume (vph)	0	1240	650	0	2194	0	842	0	528	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0	4.0		4.0		4.0	Mark.	4.0			- 15
Lane Util. Factor		0.91	1.00		0.91		0.97		1.00			
Frt		1.00	0.85		1.00		1.00	The Late	0.85			
Flt Protected		1.00	1.00		1.00		0.95		1.00			
Satd. Flow (prot)		5085	1583	1	5085	300	3433	E130 1	1583			0.00
Flt Permitted		1.00	1.00		1.00		0.95		1.00			
Satd. Flow (perm)		5085	1583		5085		3433		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	1348	707	0	2385	0	915	0	574	0	0	
RTOR Reduction (vph)	0	0	347	0	0	0	0	0	1	0	0	
Lane Group Flow (vph)	0	1348	360	0	2385	0	915	0	573	0	0	I I I I I I I I I I I I I I I I I I I
Turn Type			Perm				Prot		custom			
Protected Phases	117	2			6	5 -1900	4	-		ME AN		A 7/3 -
Permitted Phases			2						4	-	111	
Actuated Green, G (s)	-1	53.5	53.5	1172	53.5	15	43.5	3	43.5	1 2 7 3		3
Effective Green, g (s)		56.0	56.0		56.0		46.0		46.0			
Actuated g/C Ratio	10-15	0.51	0.51	1	0.51	E. (*	0.42	477 13	0.42	Fire yeur	Tarthag - W	00154
Clearance Time (s)		6.5	6.5		6.5		6.5		6.5			
Vehicle Extension (s)	A New	3.0	3.0	W. W	3.0		3.0		3.0	the from	1 31/4	
Lane Grp Cap (vph)		2589	806		2589		1436		662			
v/s Ratio Prot	-	0.27	11 15-11	180	c0.47		0.27			Vita - 1		11/01
v/s Ratio Perm			0.23						c0.36			
v/c Ratio	I SEV	0.52	0.45	77.5	0.92	Pan -	0.64	100	0.87	100	1	Life L
Uniform Delay, d1		18.0	17.2		25.0		25.4		29.2			
Progression Factor	1556	0.56	1.46	Sec. 15-16-	0.54		1.00	1201 12	1.00	2 - 12	100	L. C.
Incremental Delay, d2		0.6	1.4		2.4		2.2	1000	14.2			
Delay (s)		10.7	26.5	1100	16.0		27.6	14.72	43.4	MARK		7/2-3
Level of Service		В	С		В		С		D			
Approach Delay (s)		16.1			16.0		- 10.78	33.7	1-1-1	0.0	24	1 7 3
Approach LOS		В			В			С		Α		
Intersection Summary	What I				YAN TO	机铁矿	1000		18 C. F. C.	if all the		17 4/13
HCM Average Control Delay			20.5	H	CM Level	of Service	e		С			
HCM Volume to Capacity ratio			0.90									- 0.00
Actuated Cycle Length (s)			110.0	Si	um of lost	time (s)			8.0			
Intersection Capacity Utilization	1111		81.8%	IC	U Level	of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

	*	→	7	1	+	*	1	1	-	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	ተ ተጉ		*	ተተተ	7	7	↑	7	*5	र्स	7
Volume (vph)	94	1532	4	54	1946	260	22	93	201	357	18	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	1.00	11-1-0	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5083		1770	5085	1583	1770	1863	1583	1681	1693	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.62	1.00	1.00	0.51	0.49	1.00
Satd. Flow (perm)	1770	5083	Ladin	1770	5085	1583	1160	1863	1583	896	875	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	1665	4	59	2115	283	24	101	218	388	20	60
RTOR Reduction (vph)	0	0	0	0	0	136	0	0	118	0	0	46
Lane Group Flow (vph)	102	1669	0	59	2115	147	24	101	100	202	206	14
Turn Type	Prot			Prot		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	5	2	to soull	1	6		3	8	E 1709 P	7	4	
Permitted Phases						6	8		8	4		4
Actuated Green, G (s)	9.7	51.7		6.1	48.1	48.1	16.3	14.2	14.2	31.2	31.2	22.6
Effective Green, g (s)	12.2	55.7		8.6	52.1	52.1	21.3	16.7	16.7	33.7	33.7	25.1
Actuated g/C Ratio	0.11	0.51		0.08	0.47	0.47	0.19	0.15	0.15	0.31	0.31	0.23
Clearance Time (s)	6.5	8.0		6.5	8.0	8.0	6.5	6.5	6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	196	2574		138	2408	750	250	283	240	367	365	361
v/s Ratio Prot	c0.06	c0.33		0.03	c0.42	14.4	0.00	0.05	Fail F	0.06	c0.07	
v/s Ratio Perm						0.09	0.01		0.06	0.10	c0.11	0.01
v/c Ratio	0.52	0.65	111-1	0.43	0.88	0.20	0.10	0.36	0.42	0.55	0.56	0.04
Uniform Delay, d1	46.1	20.0		48.4	26.1	16.8	36.3	41.8	42.2	30.2	32.0	33.0
Progression Factor	1.03	0.64	THE NAME OF	1.20	0.49	0.07	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	1.0		0.8	2.1	0.2	0.2	0.8	1.2	1.8	2.0	0.0
Delay (s)	49.5	13.8	41.3/4.4	59.1	14.8	1.4	36.4	42.6	43.4	32.0	34.0	33.1
Level of Service	D	В		E	В	Α	D	D	D	С	С	С
Approach Delay (s)		15.9			14.3	19 (5.11)	The ICS	42.7			33.0	
Approach LOS		В			В			D			С	
Intersection Summary		HAR THE				Harael.	S-11.			17 30	elist 3	
HCM Average Control Dela	•		18.5	Н	CM Level	of Service	ce		В			
HCM Volume to Capacity ra	atio		0.75				Side		311			-
		110.0		um of lost			16.0					
tersection Capacity Utilization		69.8%	IC	CU Level	of Service	9		С				
Analysis Period (min)			15									
c Critical Lane Group												

	-	*	1	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ተተተ	7	ሻሻ	ተተተ	77	77	
Volume (vph)	1613	297	156	1794	657	383	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	1.00	0.97	0.91	0.97	0.88	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	EUN AND SHOULD BE
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	5085	1583	3433	5085	3433	2787	
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	5085	1583	3433	5085	3433	2787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	1753	323	170	1950	714	416	Approximation of the second of
RTOR Reduction (vph)	0	160	0	0	0	306	management of the second of th
Lane Group Flow (vph)	1753	163	170	1950	714	110	
Turn Type	,,,,,,	Perm	Prot	,000		Perm	
Protected Phases	2			6	8		ELECTION CONTRACTOR
Permitted Phases	1 1 1 1 1 1 1 1 1	2				8	
Actuated Green, G (s)	52.6	52.6	10.8	69.9	26.1	26.1	A THE REPORT OF THE PERSON OF
Effective Green, g (s)	55.6	55.6	13.3	72.9	29.1	29.1	
Actuated g/C Ratio	0.51	0.51	0.12	0.66	0.26	0.26	
Clearance Time (s)	7.0	7.0	6.5	7.0	7.0	7.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	表现 医二甲基乙烯二苯二甲基乙烯
Lane Grp Cap (vph)	2570	800	415	3370	908	737	
v/s Ratio Prot	c0.34	I Siena	0.05	c0.38	c0.21	Part Carl	
v/s Ratio Perm		0.10				0.04	
v/c Ratio	0.68	0.20	0.41	0.58	0.79	0.15	
Uniform Delay, d1	20.5	15.0	44.7	10.1	37.6	31.0	
Progression Factor	0.69	1.30	1.46	0.20	0.78	0.50	
Incremental Delay, d2	1.2	0.5	0.4	0.4	3.6	0.1	
Delay (s)	15.4	19.9	65.5	2.5	33.0	15.7	有名字是是一种的
Level of Service	В	В	Е	Α	С	В	
Approach Delay (s)	16.1	AT AT A		7.5	26.6	THE RESERVE	
Approach LOS	В			Α	С		
Intersection Summary	A Company	e e e	A The B	TOWNS!	0235		THE RESERVE OF THE PROPERTY.
HCM Average Control Dela	ay		14.9	Н	CM Leve	l of Service	В
HCM Volume to Capacity r	•	I I	0.71	200	ALC: U	1200	DANS STATE NAME OF THE
Actuated Cycle Length (s)			110.0	S	um of los	t time (s)	12.0
Intersection Capacity Utiliza	ation		64.4%			of Service	Carrier C
Analysis Period (min)			15				
	ation		and broken transfer		JU Level	or Service	Ventaria de la Companya de la Compa

	1	-	-	*	1	1
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ħ	ተተተ	ተተተ	7	7	7
Volume (vph)	35	1605	2011	319	288	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	5085	5085	1583	1770	1583
Flt Permitted	0.06	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	115	5085	5085	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	1745	2186	347	313	67
RTOR Reduction (vph)	0	0	0	142	0	5
Lane Group Flow (vph)	38	1745	2186	205	313	62
	Perm	1740	2100	Perm	313	Perm
Turn Type Protected Phases	reiiii	2	6	reiiii	4	renn
Permitted Phases	2		0	6	4	4
	61.5	C1 E	C1 E	6	34.5	
Actuated Green, G (s)	20402A11	61.5	61.5	61.5		34.5
Effective Green, g (s)	65.0	65.0	65.0	65.0	37.0	37.0
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.34	0.34
Clearance Time (s)	7.5	7.5	7.5	7.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	68	3005	3005	935	595	532
v/s Ratio Prot	1. 1.	0.34	c0.43	2 1/3/1	c0.18	
v/s Ratio Perm	0.33			0.13		0.04
v/c Ratio	0.56	0.58	0.73	0.22	0.53	0.12
Uniform Delay, d1	13.7	14.0	16.1	10.6	29.4	25.2
Progression Factor	1.57	1.20	0.95	2.46	1.00	1.00
Incremental Delay, d2	25.2	0.7	1.2	0.4	3.3	0.4
Delay (s)	46.8	17.5	16.5	26.4	32.7	25.7
Level of Service	D	В	В	С	С	С
Approach Delay (s)		18.1	17.9	7300	31.5	VI G SI E
Approach LOS		В	В		С	
Intersection Summary	STATE OF THE STATE	THE WORLD	FRANKITE	100		10 1 10 A
HCM Average Control Delay			19.1	Ü	CM Lovo	of Service
HCM Volume to Capacity ratio		State of the	0.65	10	CIVI LEVE	of Service
Actuated Cycle Length (s)			110.0	C	um of lost	time (a)
		AV 17	The state of the state of the state of			
Intersection Capacity Utilizatio	II.		61.5%	IC.	o Level (of Service
Analysis Period (min)			15	-		
c Critical Lane Group				1		

	•	-	-	1	←	*	1	1	-	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተተ	7	7	ተተተ	7	ሻ	↑	7	ሻ	↑	7
Volume (vph)	122	1176	42	134	1661	215	300	161	99	133	77	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.57	1.00	1.00	0.65	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1054	1863	1583	1205	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	1278	46	146	1805	234	326	175	108	145	84	109
RTOR Reduction (vph)	0	0	29	0	0	133	0	0	80	0	0	90
Lane Group Flow (vph)	133	1278	17	146	1805	101	326	175	28	145	84	19
Turn Type	Prot		Perm	Prot		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	- 5	2		1	6	lante.	3	8		7	4	
Permitted Phases			2			6	8		8	4		4
Actuated Green, G (s)	10.6	35.6	35.6	12.1	37.1	37.1	41.3	26.5	26.5	24.7	16.4	16.4
Effective Green, g (s)	13.1	39.6	39.6	14.6	41.1	41.1	43.8	29.0	29.0	29.7	18.9	18.9
Actuated g/C Ratio	0.12	0.36	0.36	0.13	0.37	0.37	0.40	0.26	0.26	0.27	0.17	0.17
Clearance Time (s)	6.5	8.0	8.0	6.5	8.0	8.0	6.5	6.5	6.5	6.5	6.5	6.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	211	1831	570	235	1900	591	556	491	417	381	320	272
v/s Ratio Prot	0.08	0.25	- S. V.	c0.08	c0.35	WINDY.	c0.11	0.09	A SHI	0.04	0.05	100
v/s Ratio Perm			0.01			0.06	c0.12		0.02	0.07	0.00	0.01
v/c Ratio	0.63	0.70	0.03	0.62	0.95	0.17	0.59	0.36	0.07	0.38	0.26	0.07
Uniform Delay, d1	46.1	30.1	22.8	45.1	33.5	23.1	24.5	32.9	30.4	31.9	39.5	38.2
Progression Factor	1.00	1.00	1.00	1.53	0.44	0.38	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.0	2.2	0.1	3.5	8.9	0.4	1.6	2.0	0.3	0.6	2.0	0.5
Delay (s)	52.2	32.3	22.9	72.7	23.5	9.2	26.1	34.9	30.7	32.6	41.5	38.7
Level of Service	D	С	С	E	С	Α	С	С	С	С	D	D
Approach Delay (s)	- 91	33.8	Paul Is	1619	25.2		THE	29.5		-171-4	36.8	
Approach LOS		С			С			С			D	
Intersection Summary			The same			N. E.			1791			
HCM Average Control Delay			29.4	H	CM Level	of Service	е		С			
HCM Volume to Capacity ratio			0.72						IE SAY			
Actuated Cycle Length (s)			110.0	S	um of lost	time (s)			8.0			
Intersection Capacity Utilization			72.9%	IC	U Level o	of Service			С			
Analysis Period (min)			15									
c Critical Lane Group									12:5			

	→	7	1	4-	1	-	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations			ሻ	^	*		
Volume (vph)	0	0	290	690	136	0	The substant of the substant o
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		16.46	6.0	6.0	6.0	7.51	
Lane Util. Factor			1.00	0.95	1.00		
Frt	1	Sales I	1.00	1.00	1.00		
Flt Protected			0.95	1.00	0.95		
Satd. Flow (prot)	Her is	7/1/2	1770	3539	1770		
Flt Permitted			0.95	1.00	0.95		
Satd. Flow (perm)			1770	3539	1770		encompared to the late of the late
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	0	315	750	148	0	
RTOR Reduction (vph)	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	315	750	148	0	
Turn Type			Perm				
Protected Phases	35	Prince 1	# J CF	6	8		
Permitted Phases			6				
Actuated Green, G (s)			48.2	48.2	9.8	1/1/16	
Effective Green, g (s)		poster set	48.2	48.2	9.8	W1717	
Actuated g/C Ratio	60/160	F-1/45.25	0.69	0.69	0.14		
Clearance Time (s)			6.0	6.0	6.0		
Vehicle Extension (s)	A 17 9 6 1	17:05	3.0	3.0	3.0		
Lane Grp Cap (vph)			1219	2437	248		
v/s Ratio Prot		The state of	10-7-27	c0.21	c0.08	West of the	
v/s Ratio Perm			0.18	COLL	00.00		
v/c Ratio		1153 351	0.26	0.31	0.60	Total lates	
Uniform Delay, d1		45 57 111	4.1	4.3	28.2		
Progression Factor	W. Had		1.00	1.00	0.47		TO BE PLOTTED AND THE CONTROL OF THE PARTY OF THE PARTY.
Incremental Delay, d2			0.5	0.3	3.8		NOT THE RESIDENCE OF THE LOCAL WAS A SECTION OF THE
Delay (s)	435 A 16	E 2'93.	4.6	4.6	17.1	EHVISON I	
Level of Service			Α	Α	В		THE STATE OF THE STATE OF THE STATE OF
Approach Delay (s)	0.0			4.6	17.1	E More had	[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]
Approach LOS	Α			Α	В		
Intersection Summary	22 (A71)			the state of		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
HCM Average Control Delay			6.2	Н	CM Level	of Service	Α
HCM Volume to Capacity ratio	1	400	0.36				
Actuated Cycle Length (s)			70.0	S	um of lost	time (s)	12.0
Intersection Capacity Utilization		-7	66.8%		U Level c		CONTRACTOR
Analysis Period (min)			15				20 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
c Critical Lane Group							

	1	-	*	1	+	1	1	†	-	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ		7	ሻ	↑	7		र्स			1→	
Volume (vph)	5	0	695	21	815	14	3	1271	0	0	8	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0	6.0	37-51-	6.0	A Alexander		6.0	14.014W
Lane Util, Factor	1.00		1.00	1.00	1.00	1.00	1000120000	1.00				
Frt	1.00	-31 (12)	0.85	1.00	1.00	0.85		1.00		Test S		100
Flt Protected	0.95		1.00	0.95	1.00	1.00		0.96				
Satd. Flow (prot)	1770		1583	1770	1863	1583	A BOLL	1795		3 2 - 1 - 1		L. TELE
Flt Permitted	0.30	Design Bess	1.00	0.95	1.00	1.00	1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	1.00				- 200
Satd. Flow (perm)	555	The state of	1583	1770	1863	1583	19.44	1863		, P. T 1-1-		S. 18-18
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92
Adj. Flow (vph)	5	0	755	23	886	15	3	1	0			2
RTOR Reduction (vph)	0	0	138	0	0	3	0	0	0			0
Lane Group Flow (vph)	5	0	617	23	886	12	0	4	0			0
Turn Type	custom		custom	Perm		Perm	Perm	10000000				
Protected Phases	e de la	a char			6			8	5.00	audie u	4	10
Permitted Phases	2	200	2	6		6	8		10 / 2 / 3 / 2	0,	100000000000000000000000000000000000000	
Actuated Green, G (s)	57.2		57.2	57.2	57.2	57.2	71.5	0.8	St. 10 4 / 1	Units 17	0.8	TEST SO
Effective Green, g (s)	57.2		57.2	57.2	57.2	57.2		0.8				LUCATION S
Actuated g/C Ratio	0.82	77 SA	0.82	0.82	0.82	0.82		0.01			and the second section is a second	
Clearance Time (s)	6.0		6.0	6.0	6.0	6.0		6.0		2,8/200703		JI - ESER
Vehicle Extension (s)	3.0	1 - 124/	3.0	3.0	3.0	3.0	3-91-15	3.0	1-12	5000		12. 11.08
Lane Grp Cap (vph)	454		1294	1446	1522	1294		21				
v/s Ratio Prot	a state	- 14-0			c0.48		110 110		1	1-12-21-11		SEF. 188
v/s Ratio Perm	0.01	2000	0.39	0.01	00.10	0.01		0.00			00.00	2000
v/c Ratio	0.01	To all the	0.48	0.02	0.58	0.01		0.19		The to the	0.43	Spille
Uniform Delay, d1	1.2	Table 1985	1.9	1.2	2.2	1.2		34.3		4		
Progression Factor	1.00	WHEN.	1.00	0.50	1.41	0.39	A PARCE	0.36				15.7
Incremental Delay, d2	0.0		1.3	0.0	1.6	0.0		4.4				LEAD FO
Delay (s)	1.2	FIG. 1	3.2	0.6	4.7	0.5		16.7	E = E78 , 11			
Level of Service	Α	The same	Α	Α	Α	Α		В	The second second			
Approach Delay (s)		3.2	all the	E ST ST	4.6	S. C. C.	15-1-151	16.7	1. T. C. C.			SA W
Approach LOS		Α			Α	2 1 2 8 1 6	(Gar Classe)	В	11200000000		D	
Intersection Summary	- 11 th - 19/15							126 14 14			Will be	
HCM Average Control Dela	ay		4.2	Н	CM Level	of Servic	е		Α			
HCM Volume to Capacity ra		19-57	0.58	100	11-2-2-2	3000	of the same	14.57.75.1	J. 178	the same	NO.	
Actuated Cycle Length (s)			70.0	Si	um of lost	time (s)			12.0			
Intersection Capacity Utiliza	ation	100	68.0%			of Service	1	TOTAL S	С	47375	1.00 0.98 1.00 1817 1.00 1817 1.00 1817 0.92 0.92 0 9 0 2 0 9 4 0.8 0.8 0.01 6.0 3.0 21 c0.00 0.43 34.4 1.00 13.5 47.9 D 47.9 D	
Analysis Period (min)			15			eyle (eth M. F.C.)			1.25			
c Critical Lane Group						Table 1			Maria de la companya del companya de la companya de la companya del companya de la companya de l			

	•	-	7	1	+	1	1	1	-	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ť	44	7					↑	7	ሻ	↑	
Volume (vph)	7	493	252	0	0	0	0	129	71	174	116	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0					6.0	6.0	6.0	6.0	19.00
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	5.4
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583					1863	1583	1770	1863	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.67	1.00	
Satd. Flow (perm)	1770	3539	1583				الماليا	1863	1583	1244	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	536	274	0	0	0	0	140	77	189	126	0
RTOR Reduction (vph)	0	0	108	0	0	0	0	0	60	0	0	0
Lane Group Flow (vph)	8	536	166	0	0	0	0	140	17	189	126	0
Turn Type	Perm		Perm						Perm	Perm		
Protected Phases	AT LET	2		11111	1. 1. 10.	1-612757	1-14/15	8		\$10 March	4	
Permitted Phases	2		2					and the state of	8	4		
Actuated Green, G (s)	42.3	42.3	42.3	155.5	7 14 12 12 1	47.19.	130	15.7	15.7	15.7	15.7	
Effective Green, g (s)	42.3	42.3	42.3					15.7	15.7	15.7	15.7	
Actuated g/C Ratio	0.60	0.60	0.60		是 智丽		Sales.	0.22	0.22	0.22	0.22	3 4
Clearance Time (s)	6.0	6.0	6.0				-	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0			200 100		3.0	3.0	3.0	3.0	100 300
Lane Grp Cap (vph)	1070	2139	957					418	355	279	418	
v/s Ratio Prot		c0.15	[T. [] A		7 -1		THE STATE	0.08	TO VOICE		0.07	47
v/s Ratio Perm	0.00		0.10						0.01	c0.15		
v/c Ratio	0.01	0.25	0.17					0.33	0.05	0.68	0.30	1
Uniform Delay, d1	5.5	6.5	6.1				Make a	22.8	21.3	24.8	22.6	
Progression Factor	0.75	0.81	0.36		E Barry		7300	1.00	1.00	0.82	0.78	1300
Incremental Delay, d2	0.0	0.3	0.4					0.5	0.1	6.3	0.4	
Delay (s)	4.1	5.5	2.6	G. Car To	No. of the last		S. 148	23.2	21.4	26.7	18.1	
Level of Service	Α	Α	Α					С	С	С	В	
Approach Delay (s)		4.5	1 2 2 2	1	0.0			22.6		Well in	23.2	200
Approach LOS		Α			Α		*	С		an design	С	
Intersection Summary			15 - 15 M		E 2/41							THE ST
HCM Average Control Delay			11.8	Н	CM Level	of Service	е		В			
HCM Volume to Capacity ratio			0.37	MARIE		44.3.3	I THE	China and		-dill's		TE ST
Actuated Cycle Length (s)			70.0	Sı	um of lost	time (s)			12.0			
Intersection Capacity Utilization)	1	45.6%			f Service	Half Se		Α			
Analysis Period (min)			15									
c Critical Lane Group	2.34		4.3914		- 114	- 150 N			Brack!			

	1	-	*	1	+	1	1	1	*	1	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	77	†		ሻ	↑ ↑			र्स	7		4	7
Volume (vph)	426	1205	89	41	846	23	- 51	14	24	64	21	453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	V 24		4.0	4.0	6 7 - 10	4.0	4.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00	10/4/20		1.00	0.85	7	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	3433	3503		1770	3525	3. 6. 6		1792	1583	1	1795	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.76	1.00		0.77	1.00
Satd. Flow (perm)	3433	3503	13-11-18	1770	3525		17.04	1421	1583		1431	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	463	1310	97	45	920	25	55	15	26	70	23	492
RTOR Reduction (vph)	0	5	0	0	2	0	0	0	17	0	0	220
Lane Group Flow (vph)	463	1402	0	45	943	0	0	70	9	0	93	272
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4	11. 11. 11.	3	8	11-50	12 16 1	2		LI INST	6	
Permitted Phases							2		2	6		6
Actuated Green, G (s)	18.8	51.0		4.4	36.6		ST Book	36.1	36.1	18/1-10	36.1	36.1
Effective Green, g (s)	20.3	53.5		5.9	39.1			38.6	38.6		38.6	38.6
Actuated g/C Ratio	0.18	0.49		0.05	0.36	Carried St.		0.35	0.35	Hartest (0.35	0.35
Clearance Time (s)	5.5	6.5		5.5	6.5			6.5	6.5		6.5	6.5
Vehicle Extension (s)	3.0	3.0	HE KIN	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	634	1704		95	1253			499	555		502	555
v/s Ratio Prot	c0.13	c0.40	F 1 3 176	0.03	0.27	1111	A LIGHT		17:	5 P. S.		490
v/s Ratio Perm								0.05	0.01		0.06	c0.17
v/c Ratio	0.73	0.82		0.47	0.75	100		0.14	0.02	1	0.19	0.49
Uniform Delay, d1	42.3	24.2		50.5	31.2			24.4	23.3		24.8	28.0
Progression Factor	1.00	1.00	175-11-0	0.90	1.01	100		1.00	1.00		1.00	1.00
Incremental Delay, d2	4.3	3.3		3.5	2.5			0.6	0.1		0.8	3.1
Delay (s)	46.6	27.5		49.2	34.0			25.0	23.4		25.6	31.1
Level of Service	D	C		D	C			C	C		C	C
Approach Delay (s)		32.3			34.7			24.5			30.2	50000
Approach LOS		С			C			C			С	
Intersection Summary				M	类理器	7965						(3-6-5)
HCM Average Control Dela			32.4	H	CM Level	of Service	е		С			
HCM Volume to Capacity ra	atio		0.70							11.2		
Actuated Cycle Length (s)			110.0		um of lost				12.0			
Intersection Capacity Utiliza	ition		65.7%	IC	U Level o	of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

	*	-	+	*	1	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	(1) 10 10 10 10 10 10 10 10 10 10 10 10 10
Lane Configurations		4			*4		
Volume (vph)	4	7	0	0	705	19	化水化学 医电影电影 医上颌 医肾经疗的
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		6.0	TOP OF	STATE OF STA	6.0	nth, the	
Lane Util. Factor	10000	1.00	2000		1.00		
Frt		1.00	1000	-1446	1.00		
Flt Protected		0.98			0.95		
Satd. Flow (prot)		1832	STATE OF		1770	reng Haine	TENNAL SERVICE STATE OF THE PROPERTY.
Flt Permitted		0.98			0.95		
Satd. Flow (perm)	30 11	1832			1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	4	8	0	0	766	21	
RTOR Reduction (vph)	0	0	0	0	1	0	
Lane Group Flow (vph)	0	12	0	0	786	0	
Turn Type	Perm						
Protected Phases		2	AND SE	100	4	4 4 9 7	
Permitted Phases	2	on terrestor			in Electronia		AND THE RESERVE OF THE PROPERTY OF THE SECURIOR
Actuated Green, G (s)		1.6	Maria Car		56.4	The service of	
Effective Green, g (s)		1.6			56.4		
Actuated g/C Ratio	The Walls	0.02	17 1 15	S 1 5 1 7 6 1	0.81		7. 扩展发展 斯尼斯克雷尔 (CVC) 15. N
Clearance Time (s)		6.0		the state of the s	6.0	MANUAL BURNEY	
Vehicle Extension (s)		3.0	Proved I		3.0		
Lane Grp Cap (vph)		42			1426		
v/s Ratio Prot	743		The France	100	c0.44	THE PERSON	學學生的名字學者 医克里氏性皮肤炎 化二
v/s Ratio Perm		0.01				-n-/	Wordship Co. C. C. Concept and Co. C.
v/c Ratio	E TORK	0.29	10000	DOM: NO	0.55	No. 17 Table	
Uniform Delay, d1		33.6	The second second		2.4	والماهودية	
Progression Factor	- 1/17	1.00		E POR	0.91		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
Incremental Delay, d2		3.7			1.4		
Delay (s)		37.4			3.5		
Level of Service	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	D	- Tripenta ai	III.	Α		
Approach Delay (s)		37.4	0.0	70.00	3.5	100	
Approach LOS	#0/J##110011	D	Α		Α		William Control of the Control of th
Intersection Summary							
HCM Average Control Delay			4.0	НС	CM Level	of Service	A
HCM Volume to Capacity ratio		127,124	0.54				
Actuated Cycle Length (s)			70.0	Su	m of lost	time (s)	12.0
Intersection Capacity Utilization	11.2	6.5	56.9%		U Level o		B
Analysis Period (min)			15	1,000		The state of the s	
c Critical Lane Group				de files			Virginia (C. C. Sallanda et al. 1911)

	-	7	*	-	7	1	
Movement	EBT	EBR	WBL	WBT	NEL	NER	
Lane Configurations			Y	^	ሻ		
Volume (veh/h)	0	0	210	630	140	0	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		是14位。15位为16位置,最高的15位置。15位为16位。
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	The state of the s
Hourly flow rate (vph)	0	0	228	685	152	0	· 中心 医克里氏性结束 (1) 11 11 11 11 11 11 11 11 11 11 11 11 1
Pedestrians					110000000000000000000000000000000000000		
Lane Width (ft)		37/8	Marie W				正等。1984年198日上海中区公司李安林。
Walking Speed (ft/s)							
Percent Blockage	William I	1		(24)			
Right turn flare (veh)							
Median type	None	MA 12		None			
Median storage veh)							
Upstream signal (ft)						Lair.	[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]
pX, platoon unblocked						THE REAL PROPERTY AND ADDRESS OF THE PARTY AND	
vC, conflicting volume	SVET PORT		0		799	0	THE SECOND SECON
vC1, stage 1 conf vol		uniterally soon				10/10	
vC2, stage 2 conf vol					1000	4 3 4 2 7 8	
vCu, unblocked vol		TO CONTRACT OF THE PARTY OF THE	0		799	0	
tC, single (s)			4.1	dia (ov)	6.8	6.9	TEXATELE PROPERTY OF THE PARTY.
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %	1000		86		45	100	
cM capacity (veh/h)	A Tomote		1622		278	1084	Charles Alland Control of Charles
Direction, Lane #	WB 1	WB 2	WB3	NE 1			ABOUT VALUE AND COMPLETED AS
Volume Total	228	342	342	152	5.000		
Volume Left	228	0	0	152			7101 1- 1- 1- 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Volume Right	0	0	0	0	THE W	FE TON	
cSH	1622	1700	1700	278		DOLDS COMMIN YOU	
Volume to Capacity	0.14	0.20	0.20	0.55			在10年,10年,10年,10年,10年,10年,10年,10年,10年,10年,
Queue Length 95th (ft)	12	0	0	76			
Control Delay (s)	7.6	0.0	0.0	32.7		EN PLAN	
Lane LOS	Α	The second second		D			
Approach Delay (s)	1.9	Bath Mark		32.7		150	A CARDON CHARLES AND A CARDON CONTRACTOR
Approach LOS				D			A STATE OF THE STA
Intersection Summary							
Average Delay			6.3				
Intersection Capacity Utiliza	ition	C. C.	44.6%	IC	U Level	of Service	A
Analysis Period (min)			15				
			100			100	THE RESERVE OF THE PROPERTY OF

	_#	-	7	*	+	*	9	*	-	6	×	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	ሻ	^	7					†	7	ሻ	^	
Volume (veh/h)	35	287	188	0	0	0	0	105	85	29	181	0
Sign Control		Free			Free			Stop			Stop	
Grade	(har see	0%	1		0%	15 Sty 12 St		0%			0%	10,000
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	312	204	0	0	0	0	114	92	32	197	0
Pedestrians												
Lane Width (ft)						112	7. The 1		The state of	- X	1970	
Walking Speed (ft/s)												
Percent Blockage			20 20 20			Phys. 34		500		The Park		
Right turn flare (veh)									19			
Median type		None		T alem	None	5-27	1.71	Ti Jak		10/90		4200
Median storage veh)												
Upstream signal (ft)						2 /-6-3	The Asia	The still				4 5 3
pX, platoon unblocked												
vC, conflicting volume	0			516			486	388	156	289	592	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			516			486	388	156	289	592	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	79	89	93	52	100
cM capacity (veh/h)	1622		# 1 × 1	1046			283	532	862	469	408	1084
Direction, Lane #	EB 1	EB 2	EB3	EB 4	NE 1	SW 1	SW 2			E E Jak		
Volume Total	38	156	156	204	207	32	197		THE STATE OF			
Volume Left	38	0	0	0	0	32	0					
Volume Right	0	0	0	204	92	0	0					113.04
cSH	1622	1700	1700	1700	964	469	408					
Volume to Capacity	0.02	0.09	0.09	0.12	0.21	0.07	0.48				111	
Queue Length 95th (ft)	2	0	0	0	20	5	64					
Control Delay (s)	7.3	0.0	0.0	0.0	11.8	13.2	21.8		State and a			73214
Lane LOS	Α				В	В	С					
Approach Delay (s)	0.5			A TOTAL	11.8	20.6	1/25	1484.7		A THE	FF 1 - 1 - 1	
Approach LOS					В	С						
Intersection Summary	Market							12/3/2			6年11日	
Average Delay			7.5									
Intersection Capacity Utiliza	ition	5 6 43	30.6%	IC	U Level	of Service			Α	EW. F	- iii - La	
Analysis Period (min)			15									