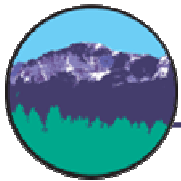


# Fort Carson Regional Growth Plan Transportation Impacts and Analysis



Pikes Peak Area  
Council of Governments

Communities Working Together



January 14, 2010





# Analysis Overview

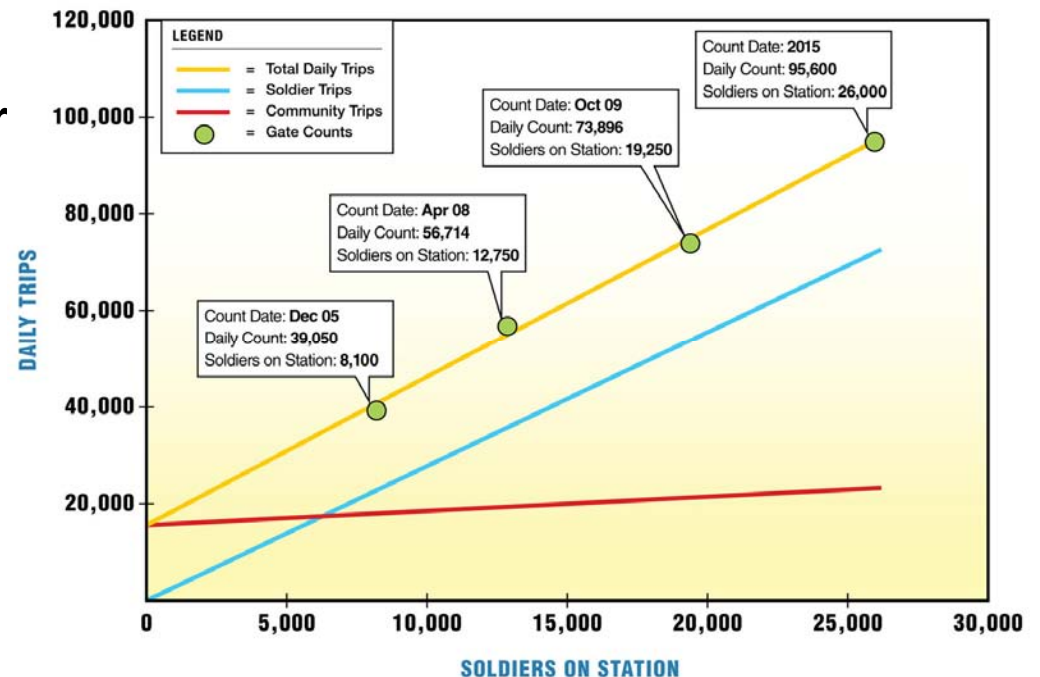
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- Three Scenarios
  - Existing
  - Future No Deployments With Existing Gates
  - Future No Deployments With Additional Gates
- Historic Gate Counts Used to Extrapolate Future Traffic
- Existing Scenario Uses 2010 Model
- Future Scenarios Use 2015 Model
- Model Calibration
  - Trips Generated By Post Adjusted to Existing and Future Traffic Projections
  - Distribution to Gates Adjusted By Existing Patterns and Future Patterns Estimated in the *Fort Carson Comprehensive Transportation Plan*

# Trends in Post Generated Traffic



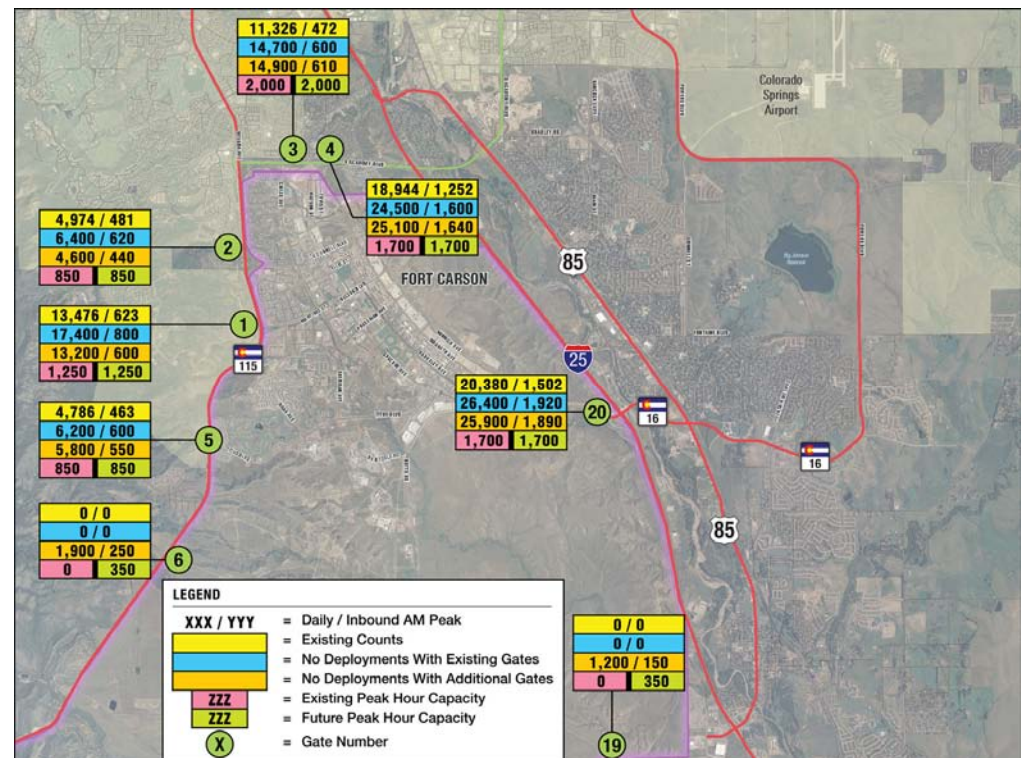
- 2009 Counts 90% higher than 2005 Counts
- Soldiers on Station Increased by 137%
- Gate Counts a Function of Soldiers on Station
- Community Trips Relatively Stable
  - Weekend Counts
  - Employees Working on Post
- 2009 – 3.84 Trips Per Soldier on Station
- Decrease in SOV's as Percentage of Traffic
  - 2005 - 93%
  - 2009 - 79%





# Existing and Future Gate Counts

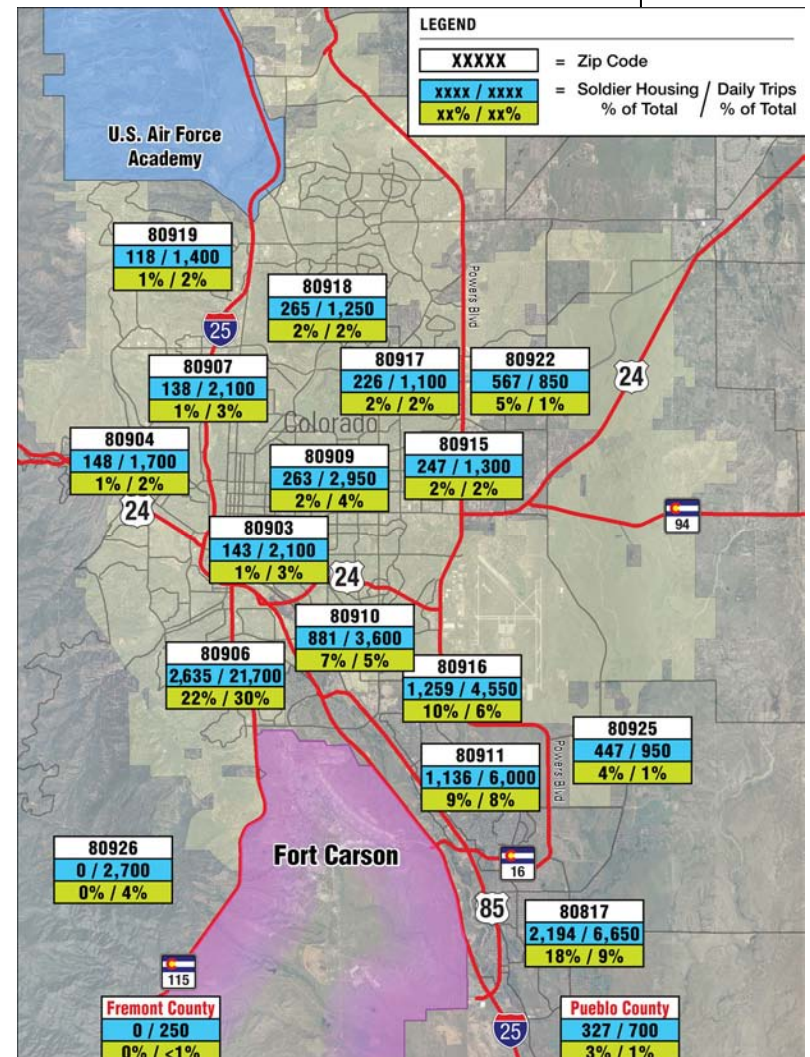
- Future Gate Counts
  - No Deployments (26,000 Soldiers on Station)
  - Daily Trip Rate of 3.84 per Soldier on Station
  - Projected Daily Volumes – 95,600 (30% Greater Than Oct. 09 Count)
  - Gate Distributions From Gannett-Fleming *Fort Carson Transportation Plan*
- 55% Use Gates 4 and 20
- 2% Drop at Gate 20 With Gate 19
- 25% Drop at Gates 1 and 2 With Gate 6
- Gate Capacity
  - Sufficient With Deployments
  - Without Deployments, Potential Capacity Issues at Gates 4 and 20
  - Gate 19 Has Additional Utility Depending on Street Connections and Development in Fountain and South





# Housing Data and Model Assignment

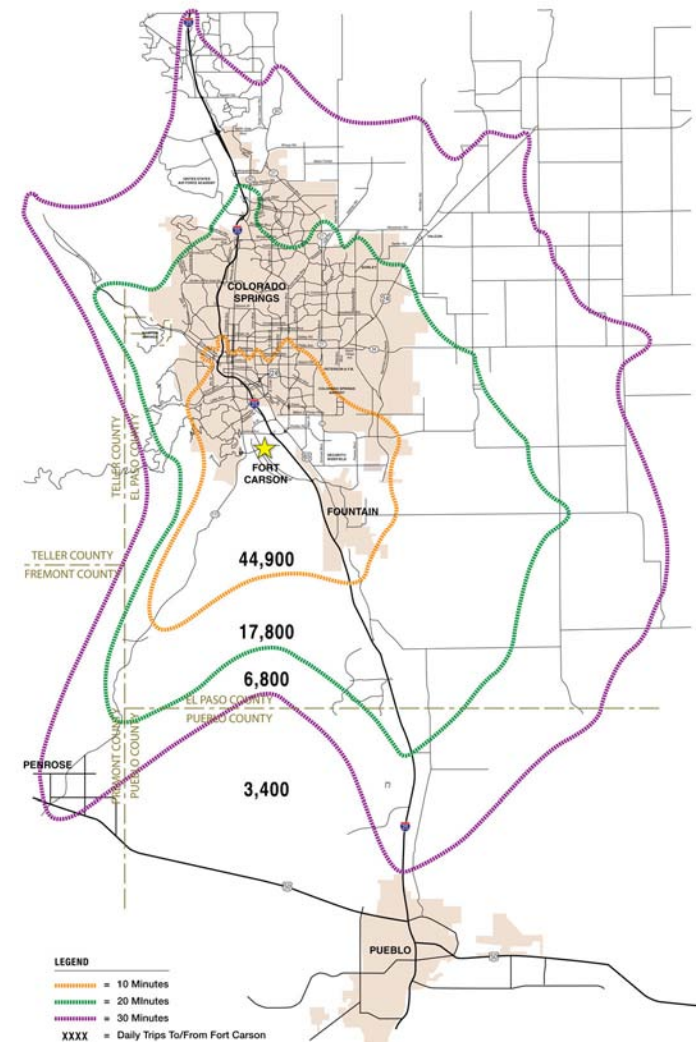
- Existing Housing Numbers
  - Soldier Off-Post Households (DRAFT BBC Data)
  - 66% of Households in Zip Codes North and East of the Post
- 2010 Model Assignment
  - Two Way Trips
  - 58% of Trips to Zip Codes North and East of the Post
- Preliminary Observations
  - Percentage of Households Greater Than Trips For Security / Widefield / Fountain Areas
  - Percentage of Trips Greater Than Households in Area North of the Post





# 2010 Travel Time Contours

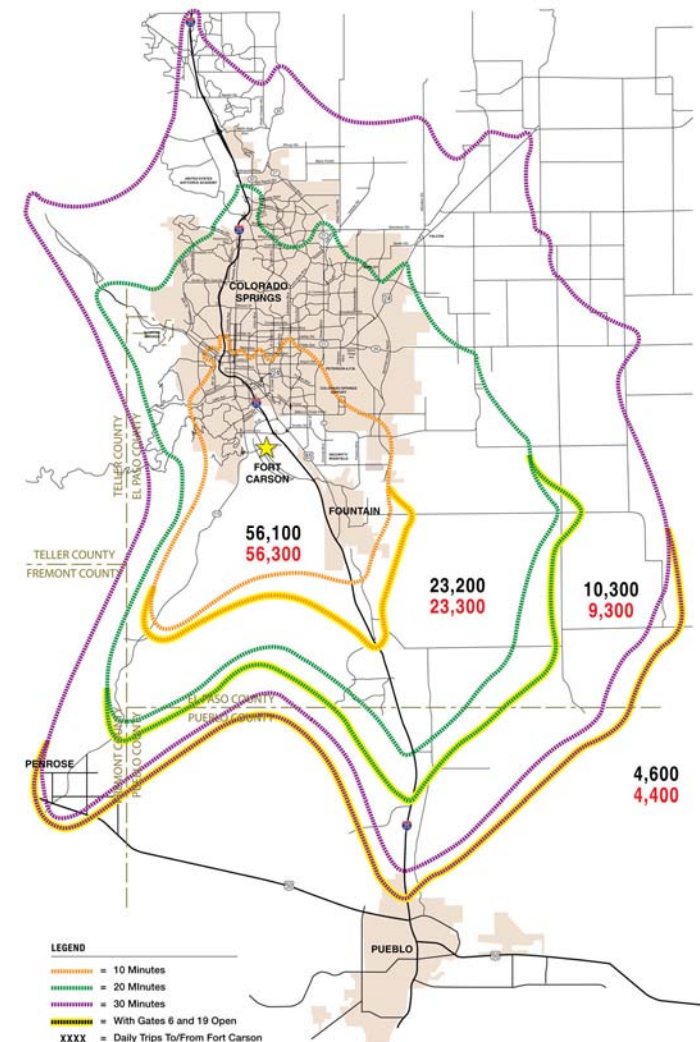
- Travel Times to/from Each Gate
- Add 3-5 Minutes for Travel Time On Post
- 2010 Travel Demand Model With Existing Post Traffic
- Shows Trips to/from Gates Within Each Time Contour
  - 64% of Trips Within 10 Minutes
  - 87% of Trips Within 20 Minutes
- Penrose, North Pueblo and Monument Are 30 Minutes from a Gate





# 2015 Travel Time Contours

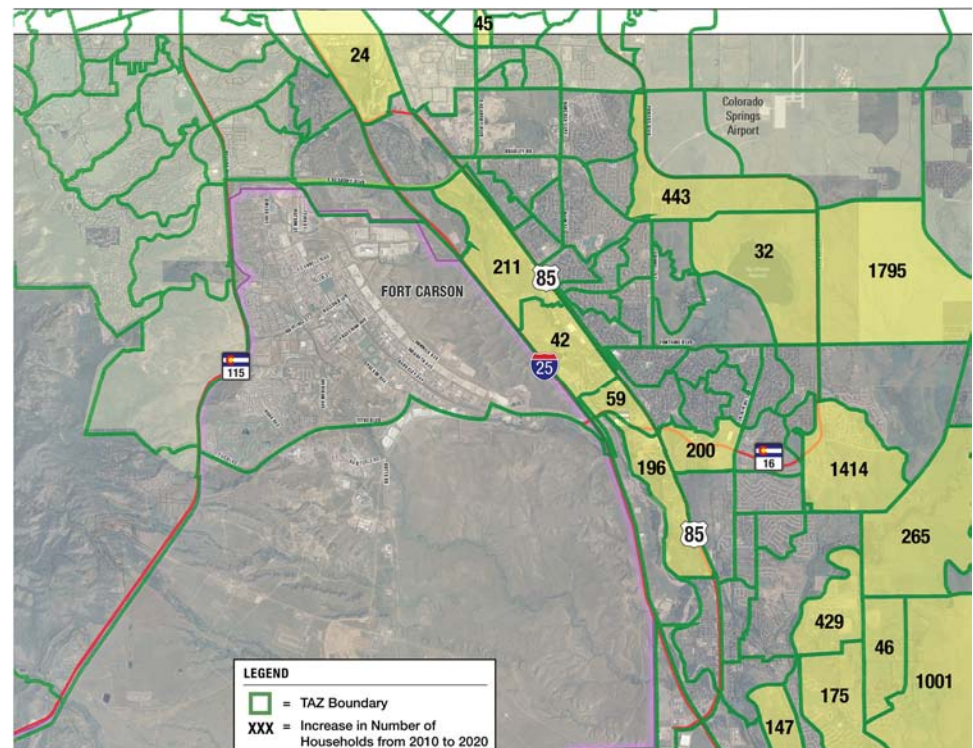
- Based on 2015 Travel Demand Model With No Deployments
- Two Scenarios
  - Existing Gates
  - Gates 6 and 19 Open
- Same Distribution of Trips Within Each Corridor as 2010
  - 64% of Trips Within 10 Minutes
  - 87% of Trips Within 20 Minutes
- New Gates Push Time Bands Further South Along I-25 and SH 115





# Household Development

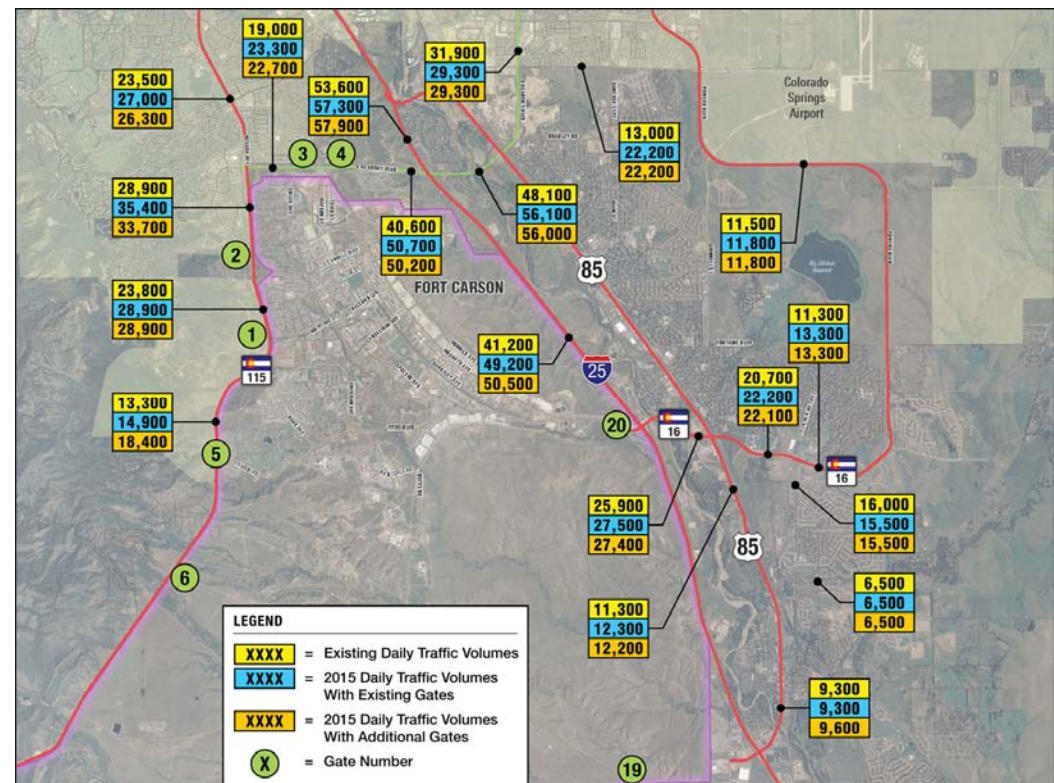
- Projected PPACG Increase in Households Within 10-Minute Travel Time Band
- Fountain Approved PUD's Include Over 14,000 Households
- Pueblo West has 7,000 Undeveloped Lots in its North Area
- Pueblo Springs Ranch, Over 70,000 Households Plan Under Development





# Daily Traffic Volumes

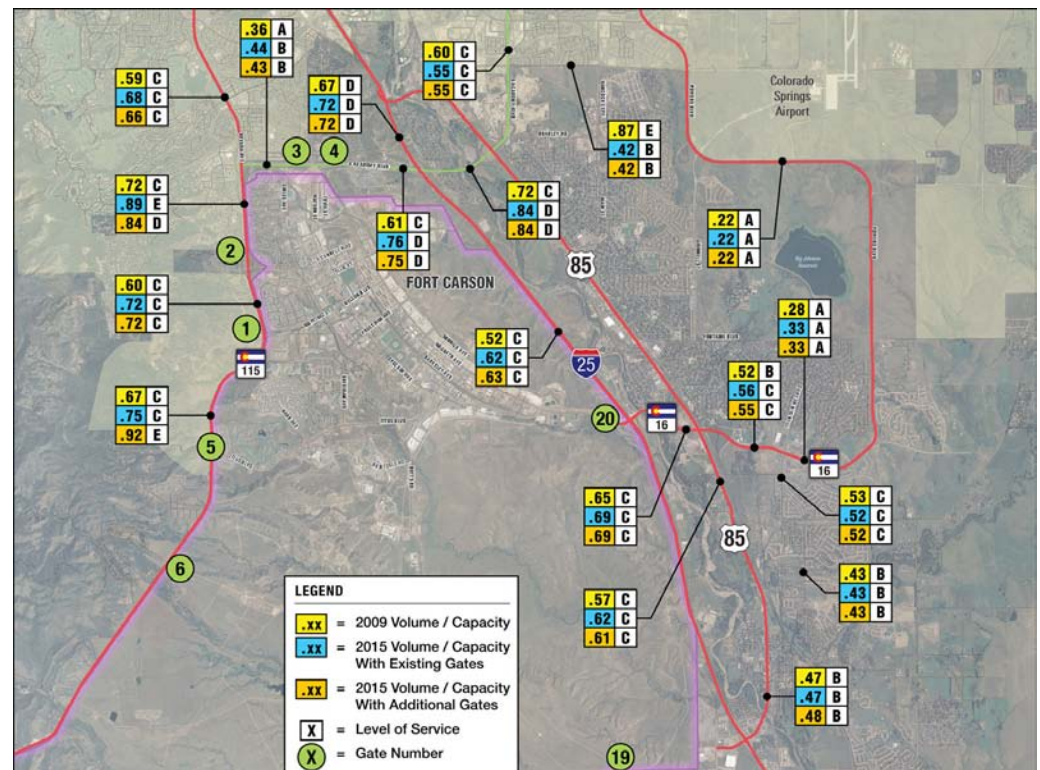
- Existing Counts (Jan. 2010)
  - South Academy Volumes as High as I-25 Volumes
  - SH 16 Volumes 22K to 26K West of Fountain Mesa Road
  - SH 115 Volumes 24K to 29K Between Gate 2 and S. Academy
- Future Traffic Volumes
  - Volume Changes With Existing Gates
    - S. Academy - 17 to 25 percent
    - SH 16 - 6 to 7 percent
    - SH 115 - 12 to 22 percent
    - Milton Proby - 69 percent
  - Volume Changes With Gates 6 and 19
    - Same Changes on S. Academy, SH 16, Milton Proby
    - SH 115 - 12 to 31 percent



# Volume / Capacity and Level of Service



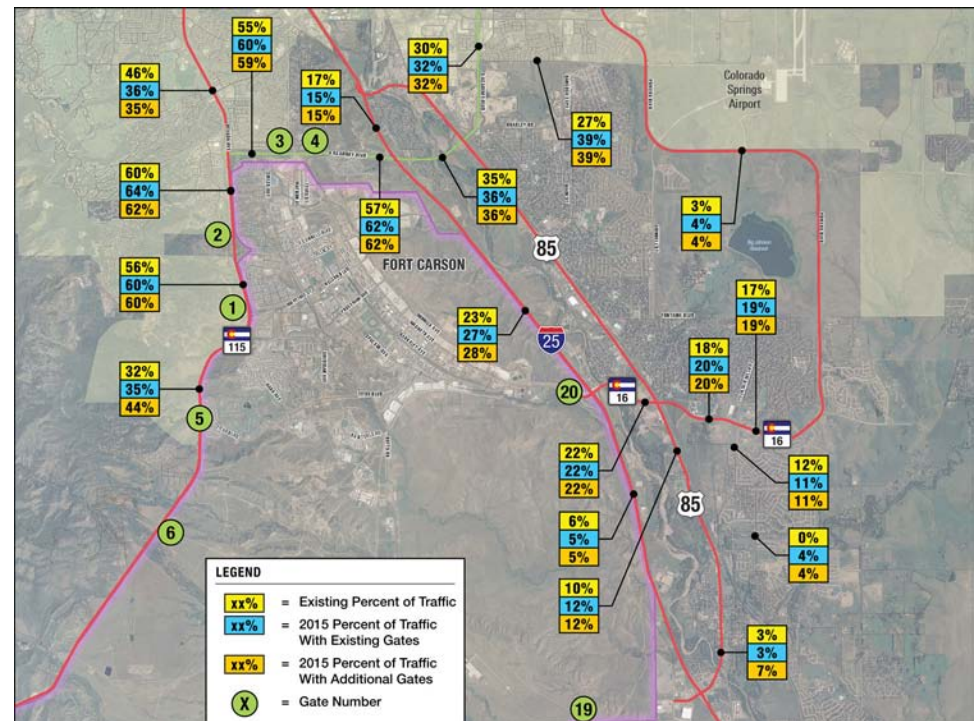
- LOS D Typical Planning Level of Service
- Most Roadway Segments in Existing Scenario LOS D or Better
- Future Scenarios
  - Most Roadways LOS D or Better
  - LOS E Between Gates 1 and 5 on SH 115. Planned Widening Results in LOS C
  - Milton Proby LOS Improves
  - Academy Improvements Accommodates Potential Post Traffic Increases



# Fort Carson Impacts to Area Roadways



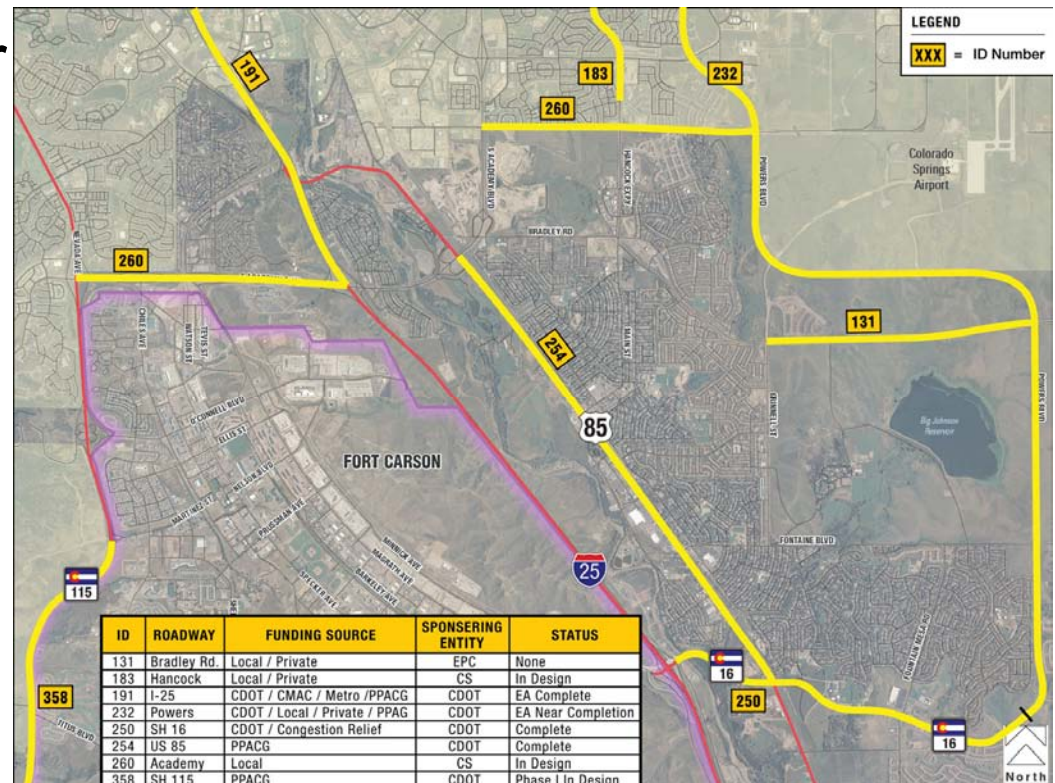
- Existing Conditions
  - About 60% on Arterial Streets Adjacent to Post
  - Between 15% to 25% on I-25
  - Between 30% to 35% on Academy East of Post
  - About 20% on SH 16
- Future Scenarios
  - Most Cases Percentage of Post Traffic on Area Roadways Does Not Change Substantially
  - Milton Proby and SH 115 North of Gate 5 Increased by Over 10 Percentage Points



# Fiscally Constrained Regional Projects Near Fort Carson



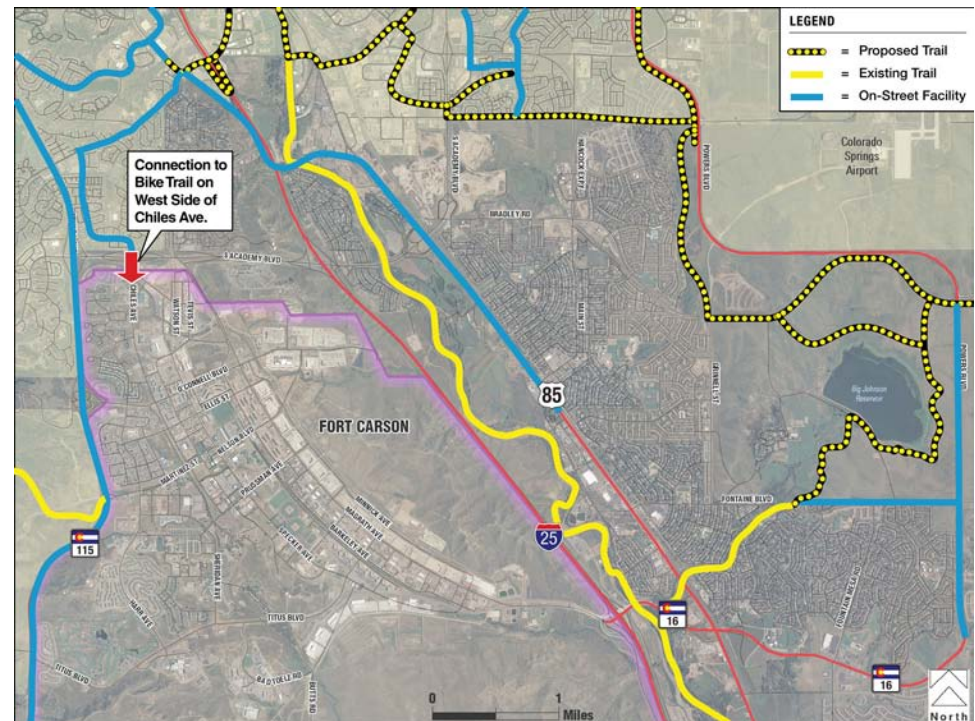
- Fiscally Constrained Projects in 2035 Regional Transportation Plan
- Roadway Capacity Improvements
- ID - Identification Number From the RTP
- Table Identifies
  - Sponsoring Agency
  - Funding Source
  - Status





# Bike and Pedestrian Facilities

- Existing and Proposed Future Trails
- On-Street Facilities
- Grant to Improve Trail Access Near the PPCC Campus
- Access to Post
  - Gate 3 To Link Trail Near PPCC Campus to Bike Trail on West Side of Chiles
  - Access to/from East Limited By Gate Restrictions





# Summary of Findings

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- Existing / Planned Roadway System Generally Sufficient to Accommodate Future Post Travel Demand
- Deficiencies and Needs
  - Gate Capacity/Operations
  - Bike Access
  - Transit Service
- Opportunities
  - Existing Gate Improvements
  - Gates 6 and 19
  - Trail Connections
  - Restore & Enhance Transit Service