

Appendix C: Transportation Analysis

Introduction

To understand the implications of potential development on the transportation network, the planning team worked with the Denver Regional Council of Governments (DRCOG) to model development North of Quincy and provide a rough analysis of roadway impacts, based on certain assumptions about how development could occur.

Approach

For the area north of Quincy, the team used the Plan Map to calculate residential units (5,460 units) and retail and non-retail employment (3.7 million square feet). The planning team's assumptions are described on page C-3. DRCOG used these units to model impacts of potential Lowry Range development on the 2030 existing and planned roadway network.

Findings

Table C-1 demonstrates where additional lanes will be necessary for the 2030 roadway network. These findings will need to be fine-tuned to reflect actual development proposal(s) at some later date. However, based on initial findings, it is clear that certain road segments and intersections will need improvements to accommodate development. In particular, development shown on the Plan Map appears to affect the following roadway intersections:

- Quincy Avenue at Haysmount, east and westbound (estimated 3 additional lanes needed);
- Quincy Avenue at Gun Club, westbound (one additional lane needed); and
- Jewell at Monahan westbound (one additional lane needed).

Table C-1: DRCOG Transportation Analysis

Road	capacity per lane	# of lanes	Adjusted capacity ¹	volume (pm peak)	# of lanes required	# of lanes provided ²	Surplus/deficit lanes
Quincy							
@ Monahan							
westbound	1100	3	990	3282	3	3	0
eastbound	1100	3	990	2521	3	3	0
@ Hayesmount							
westbound	550	1	495	2097	4	1	-3
eastbound	550	1	495	1757	4	1	-3
@ Gun Club							
westbound	950	3	855	3028	4	3	-1
eastbound	950	3	855	2528	3	3	0
total							
Jewell							
@ Monahan							
westbound	950	1	855	1367	2	1	-1
eastbound	950	1	855	1150	1	1	0
@ Gun Club							
westbound	950	3	855	1777	2	2	0
eastbound	950	3	855	2042	2	2	0
Monahan							
nb @ Quincy	1100	2	990	2295	2	2	0
sb @ Quincy	1100	2	990	1873	2	2	0
vc ratio @ LOS E	0.9						

1. Maximum capacity reduced to allow for LOS E

2. # of lanes provided is based on DRCOG 2030 network

Source: Denver Regional Council of Governments, September 2006.

Lowry Range Development Assumptions

The Plan Map shows approximately 2,275 acres of Urban Development north of Quincy Avenue and 600 acres of future development. Based on assumptions about typical densities for the region, the Urban Development Area (excluding the Future Development Area) could accommodate the following units of development:

- 5,460 residential units.
- 3.7 million square feet of new commercial and industrial development.

These units are included for purposes of estimating transportation impacts only; they are not meant to construe or imply any assurances that this amount of development is appropriate or would be approved by the County.

The team assumed the development mix would be sixty percent (60%) residential, at a density of four (4) units per acre; fifteen percent (15%) commercial/jobs mix, with a Floor Area Ratio of 0.25; and, twenty-five percent (25%) civic space (including roads, open space, parks, and other public facilities).

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