

North I-25 FEIS Travel Modeling

Model Development Options

The Travel Forecast Working Group (TFWG) met to discuss the travel modeling for the FEIS. The combined model was no longer up to date with the MPO models, and updating the combined model was considered. After some discussion, a range of options were identified for the FEIS combined model:

- A. “Use Existing 2030”. This would be the application of the 2030 combined model, with no changes to the model structure.
- B. “Use Existing 2030 and Document the Likely Effect of 2035”. A technical memorandum would be prepared that provides a quantitative analysis of the changes between the 2030 and 2035 datasets, and the likely result on highway and transit forecasts.
- C. “Use Existing Model Structure But Update the Networks and Land Use Datasets to 2035”. The current structure and program code of the combined model would be retained, but the networks and land use datasets from the adopted 2035 RTPs from NFRMPO and DRCOG would be used. In addition, a 2035 No-Action model run would be produced.
- D. “Full Redevelopment”. This would involve updating the combined model to reflect the new zone systems, improved models from the respective regions, and other improvements. In addition, a 2035 No-Action model run would be produced.

It was recognized that Option A would clearly be the least expensive option. However, after some discussion, it was suggested that updating to the 2035 data set would be beneficial for the long term validity of the FEIS and ROD. After much discussion, it was thought that given general direction from the federal agencies recently on other projects, a more direct approach would be preferable than Option B. It was recognized that Option D would be by far the most expensive option. Furthermore, it was noted that a key element of the combined model is the long bi-regional trips, which were based on origin and destination survey data from the Census and the DRCOG roadside survey. Since no new survey data is available, a major rebuilding of the combined model would not be worthwhile. For this reason, Option B of using the current model structure but updating the networks and land use to 2035 was recommended.

Updated Components of Combined Model

Title

MPO Model	Component	Updated Combined Model
DRCOG	New Zones	No
	New 2005 & 2035 Socio-economics	Yes
	Updated model resource code	No
	Highway Network updates to 2005 and 2035	2005: Changes to major facilities in northern area (Inclusion of E-470 and Northwest Parkway; review of laneage on I-25) 2035: Changes to major facilities in northern area (review of laneage on I-25)
	Transit Network updates to 2005 and 2035	2005: No changes 2035: Updated headway and station set for North Metro and Northwest Rail
NFRMPO	New Zones	No
	New 2005 & 2035 Socio-economics	Yes
	Updated model resource code: New revalidated model with full mode choice module	No
	Highway Network updates to 2005 and 2035	2005: Updated laneage and facility type on arterials 2035: Updated laneage and facility type on arterials
	2005 & 2035 Transit Network	2005: Recoded *.rts to basically match NFR area transit coding 2035: Recoded *.rts to basically match NFR area transit coding for background routes; Added Mason Street BRT; Included Greeley-Loveland E-W

Approach to Model Network Update

Merge New Highway Networks

- + accurate
- + less labor for network coding
- new networks have new zones
 - require script changes
 - require matrixgrower changes
 - require model overlap area recoding
 - require revising zone overlap area land use treatment
 - require reforming bi-regional trip table
 - other ?
- + better to match new models for validation

Title

Recode Existing Highway Networks

- labor intensive
- less accurate
- less regional
- + preserves existing combined model structure
- validation not a good match

Transit

RTD area:

- Merged Highway Networks
 - Use COG's new route system
- Recoded Highway networks
 - Recode old route system to match new route system
 - Geographic area?
 - Validation?

NFR area:

- Code route system to match new NFRMPO model

Model Development Tasks

- ☐ Obtain NFRMPO 2005 & 2035 model Data
- ☐ Obtain DRCOG 2005 & 2035 model Data
- ☐ Test Model Operation
- ☐ Review file management procedures
- ☐ Define coding QC procedures
- ☐ Code 2005 Highway Network
 - Original combined 2001 as base
 - match MPO 2005 networks
 - Include 2005 traffic counts
- ☐ QC 2005 highway network coding
- ☐ Code 2035 No-Action Highway Network
 - Original combined 2030 No Action as base
 - match MPO 2035 networks; except for I-25 in study area
- ☐ QC 2035 highway network coding
- ☐ Prepare 2005 zonal land use files in combined model format
- ☐ Prepare 2035 zonal land use files in combined model format
- ☐ Recode RTD area 2005 transit network
 - Original combined 2001 route system as base

Title

- Match RTD 2005 routes
 - geographic focus?
- ☐ Code NFR area 2005 transit network
 - Original combined 2001 route system as base
 - Match new NFRMPO Model 2005 route coding
- ☐ QC 2005 route system coding
- ☐ Recode RTD area 2035 transit network
 - Original combined 2030 No-Action route system as base
 - Match RTD 2035 routes
 - geographic focus?
- ☐ Code NFR area 2035 transit network
 - Original combined 2030 No-Action route system as base
 - Match new NFRMPO Model 2035 route coding
- ☐ QC 2035 route system coding
- ☐ Validation

Task Schedule

	Task	Completion Date
<input type="checkbox"/>	Obtain NFRMPO 2005 & 2035 model Data	October 10, 2008
<input type="checkbox"/>	Obtain DRCOG 2005 & 2035 model Data	October 17, 2008
<input type="checkbox"/>	Meet with RTD	October 17, 2008
<input type="checkbox"/>	Review file management procedures	October 24, 2008
<input type="checkbox"/>	Review coding QC procedures	October 24, 2008
<input type="checkbox"/>	Code 2005 Highway Network <ul style="list-style-type: none"> ▪ Original combined 2001 as base ▪ match MPO 2005 networks ▪ Include 2005 traffic counts 	October 31, 2008
<input type="checkbox"/>	QC 2005 highway network coding	November 14, 2008
<input type="checkbox"/>	Code 2035 No-Action Highway Network <ul style="list-style-type: none"> ▪ Original combined 2030 No Action as base ▪ match MPO 2035 networks; except for I-25 in study area 	October 31, 2008
<input type="checkbox"/>	QC 2035 highway network coding	November 14, 2008
<input type="checkbox"/>	Prepare 2005 zonal land use files in combined model format	October 31, 2008
<input type="checkbox"/>	Prepare 2035 zonal land use files in combined model format	October 31, 2008
<input type="checkbox"/>	Recode RTD area 2005 transit network <ul style="list-style-type: none"> ▪ Original combined 2001 route system as base ▪ Match RTD 2005 routes <ul style="list-style-type: none"> ○ geographic focus? 	November 7, 2008
<input type="checkbox"/>	Code NFR area 2005 transit network	November 7, 2008

Title

	<ul style="list-style-type: none"> ▪ Original combined 2001 route system as base ▪ Match new NFRMPO Model 2005 route coding 	
<input type="checkbox"/>	QC 2005 route system coding	November 14, 2008
<input type="checkbox"/>	Recode RTD area 2035 transit network <ul style="list-style-type: none"> ▪ Original combined 2030 No-Action route system as base ▪ Match RTD 2035 routes <ul style="list-style-type: none"> ○ geographic focus? 	November 7, 2008
<input type="checkbox"/>	Code NFR area 2035 transit network <ul style="list-style-type: none"> ▪ Original combined 2030 No-Action route system as base ▪ Match new NFRMPO Model 2035 route coding 	November 7, 2008
<input type="checkbox"/>	QC 2035 route system coding	November 14, 2008
<input type="checkbox"/>	Validation <ul style="list-style-type: none"> ▪ Check highway volumes for reasonableness <ul style="list-style-type: none"> ○ Compare to original combined model; new NFRMPO models, and new DRCOG models ▪ Check transit volumes for reasonableness <ul style="list-style-type: none"> ○ Compare to original combined model; new NFRMPO models, and new DRCOG models 	December 5, 2008

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Date: April 24, 2009
To: Chris Primus
From: Jim Baker
Subject: North I-25 EIS Rail Travel Time Estimates

As requested, we have reviewed prior rail time estimates for this project and have suggested some modifications to reflect the service as proposed in this project's Draft Committee Vision Plan.

Prior estimates completed by Smith Myung were based on alignment drawings that were provided to him by Carter Burgess in 2005/2006. We do not have copies of those drawings, but are assuming that there have been no significant changes that would drastically affect travel times.

One significant alignment change is in Longmont. The prior work assumed the alignment coming south from Longmont would turn east towards I-25, with a station stop at Sugar Mill. The Draft Committee Vision Plan assumes North I-25 rail service will now use the Northwest rail line for service to/from downtown Denver. Thus, there will no longer be a stop at Sugar Mill. Instead, southbound trains will operate to 1st and Terry, then continue south on the Northwest rail line. It appears that the station-to-station distance from SH 66 to 1st and Terry is similar to the station-to-station distance from SH 66 to Sugar Mill. Thus, we have kept this travel time estimate unchanged.

When reviewing the prior travel time estimates, we noticed speed assumptions through Fort Collins and Loveland that appear inappropriate. The prior travel time estimate assumes 65-75 mph maximum speeds through Fort Collins and 70 mph maximum speeds through Loveland. We have modified this assumption to assume 25-35 mph maximum speeds through Fort Collins and 35 mph maximum speeds through Loveland. These changes have resulted in 4 minutes of additional travel time from Longmont to Fort Collins.

Finally, the prior travel time estimate for a North Metro rail service extension from 162nd Avenue to CR 8/I-25 remains unchanged from the prior work effort.

Tables 1 and 2 present station-to-station travel time estimates for the Northwest-BNSF rail line extension from Longmont to Fort Collins, and for the North Metro rail line extension from 162nd Avenue to CR 8/I-25. Table 3 presents resulting average speeds between stations. Average speeds remain unchanged from your current coded network speeds, with the exception of the following three links:

- Fort Collins to CSU
- CSU to South Transit Center
- Loveland-29th Street to Loveland-US 34

Average speeds for these three links should be changed to reflect the revised travel times presented in this memo.

Table 1

DENVER I-25 NORTH EIS
DMU SOUTHBOUND TRAVEL TIME ESTIMATES
Fort Collins to 1st & Terry in Longmont
Draft Committee Vision Plan

Station	Max Spd . (mph)	Distance (miles) Incr. Total	Run Time (hr:min:sec)	Delay Time (hr:min:sec)	Dwell Time (hr:min:sec)	Total Time (hr:min:sec)
Fort Collins		0.00			0:00:00	0:00:00
	25	1.23	0:03:13	0:00:00		
CSU		1.23			0:01:00	0:04:13
	35	3.75	0:06:50	0:00:00		
South Transit Center		4.98			0:01:00	0:12:03
	50	0.44	0:01:01	0:00:00		
Start of Curve 1		5.42			0:00:00	0:13:04
	50	0.17	0:00:13	0:00:00		
End of Curve 1		5.59			0:00:00	0:13:17
	75	1.07	0:01:21	0:00:00		
Start of Curve 2		6.66			0:00:00	0:14:38
	75	0.20	0:00:10	0:00:00		
End of Curve 2		6.87			0:00:00	0:14:48
	75	0.85	0:00:41	0:00:00		
Start of Curve 3		7.72			0:00:00	0:15:29
	75	0.19	0:00:09	0:00:00		
End of Curve 3		7.91			0:00:00	0:15:38
	75	1.15	0:00:56	0:00:00		
Start of Curve 4		9.06			0:00:00	0:16:34
	65	0.25	0:00:14	0:00:00		
End of Curve 4		9.31			0:00:00	0:16:48
	65	0.43	0:00:24	0:00:00		
Start of Curve 5		9.74			0:00:00	0:17:12
	50	0.19	0:00:14	0:00:00		
End of Curve 5		9.92			0:00:00	0:17:26
	70	2.01	0:02:22	0:00:00		
Loveland - 29th St		11.93			0:01:00	0:20:48
	35	1.80	0:03:30	0:00:00		
Loveland - US 34		13.73			0:01:00	0:25:18
	35	0.19	0:00:35	0:00:00		
Start of Curve 1		13.92			0:00:00	0:25:53
	45	0.18	0:00:20	0:00:00		
End of Curve 1		14.10			0:00:00	0:26:13
	45	0.40	0:00:32	0:00:00		
Start of Curve 2		14.51			0:00:00	0:26:45
	45	0.20	0:00:16	0:00:00		
End of Curve 2		14.70			0:00:00	0:27:01
	45	0.39	0:00:33	0:00:00		
Start of Curve 3		15.09			0:00:00	0:27:34
	30	0.28	0:00:34	0:00:00		
End of Curve 3		15.38			0:00:00	0:28:08
	30	0.02	0:00:03	0:00:00		
Start of Curve 4		15.40			0:00:00	0:28:11
	30	0.35	0:00:42	0:00:00		
End of Curve 4		15.75			0:00:00	0:28:53
	30	0.04	0:00:05	0:00:00		
Start of Curve 5		15.79			0:00:00	0:28:58
	30	0.24	0:00:29	0:00:00		
End of Curve 5		16.03			0:00:00	0:29:27
	75	4.04	0:04:22	0:00:00		
Berthoud - SH 56		20.07			0:01:00	0:34:49

DENVER I-25 NORTH EIS
DMU SOUTHBOUND TRAVEL TIME ESTIMATES
Fort Collins to 1st & Terry in Longmont
Draft Committee Vision Plan

Station	Max Spd . (mph)	Distance (miles) Incr. Total	Run Time (hr:min:sec)	Delay Time (hr:min:sec)	Dwell Time (hr:min:sec)	Total Time (hr:min:sec)
	50	0.78	0:01:26	0:00:00		
Start of Curve 1		20.86			0:00:00	0:36:15
	50	0.51	0:00:36	0:00:00		
End of Curve 1		21.36			0:00:00	0:36:51
	55	0.33	0:00:25	0:00:00		
Start of Curve 2		21.69			0:00:00	0:37:16
	55	0.14	0:00:09	0:00:00		
End of Curve 2		21.83			0:00:00	0:37:25
	55	0.02	0:00:02	0:00:00		
Start of Curve 3		21.85			0:00:00	0:37:27
	60	0.18	0:00:15	0:00:00		
End of Curve 3		22.04			0:00:00	0:37:42
	65	0.70	0:00:43	0:00:00		
Start of Curve 4		22.74			0:00:00	0:38:25
	60	0.13	0:00:08	0:00:00		
End of Curve 4		22.87			0:00:00	0:38:33
	60	0.04	0:00:02	0:00:00		
Start of Curve 5		22.91			0:00:00	0:38:35
	60	0.14	0:00:09	0:00:00		
End of Curve 5		23.05			0:00:00	0:38:44
	60	0.11	0:00:07	0:00:00		
Start of Curve 6		23.17			0:00:00	0:38:51
	60	0.25	0:00:15	0:00:00		
End of Curve 6		23.42			0:00:00	0:39:06
	60	1.36	0:01:23	0:00:00		
Start of Curve 7		24.78			0:00:00	0:40:29
	45	0.19	0:00:15	0:00:00		
End of Curve 7		24.97			0:00:00	0:40:44
	50	0.44	0:00:35	0:00:00		
Start of Curve 8		25.41			0:00:00	0:41:19
	40	0.26	0:00:23	0:00:00		
End of Curve 8		25.67			0:00:00	0:41:42
	75	1.80	0:02:25	0:00:00		
Longmont - SH 66		27.46			0:01:00	0:45:07
	40	1.91	0:03:12	0:00:00		
Start of Curve 1		29.37			0:00:00	0:48:19
	35	0.26	0:00:27	0:00:00		
End of Curve 1		29.63			0:00:00	0:48:46
	35	0.01	0:00:01	0:00:00		
Start of Curve 2		29.64			0:00:00	0:48:47
	35	0.19	0:00:20	0:00:00		
End of Curve 2		29.84			0:00:00	0:49:07
	35	0.53	0:00:54	0:00:00		
Start of Curve 3		30.36			0:00:00	0:50:01
	35	0.18	0:00:19	0:00:00		
End of Curve 3		30.54			0:00:00	0:50:20
	35	0.01	0:00:01	0:00:00		
Start of Curve 4		30.56			0:00:00	0:50:21
	35	0.06	0:00:06	0:00:00		
End of Curve 4		30.61			0:00:00	0:50:27

DENVER I-25 NORTH EIS
DMU SOUTHBOUND TRAVEL TIME ESTIMATES
Fort Collins to 1st & Terry in Longmont
Draft Committee Vision Plan

Station	Max Spd . (mph)	Distance (miles) Incr. Total	Run Time (hr:min:sec)	Delay Time (hr:min:sec)	Dwell Time (hr:min:sec)	Total Time (hr:min:sec)
	35	0.07	0:00:07	0:00:00		
Start of Curve 5		30.68			0:00:00	0:50:34
	35	0.11	0:00:12	0:00:00		
End of Curve 5		30.80			0:00:00	0:50:46
	35	0.22	0:00:22	0:00:00		
Start of Curve 6		31.01			0:00:00	0:51:08
	35	0.06	0:00:06	0:00:00		
End of Curve 6		31.07			0:00:00	0:51:14
	35	0.03	0:00:04	0:00:00		
Start of Curve 7		31.11			0:00:00	0:51:18
	35	0.05	0:00:06	0:00:00		
End of Curve 7		31.16			0:00:00	0:51:24
	35	0.04	0:00:04	0:00:00		
Start of Curve 8		31.20			0:00:00	0:51:28
	35	0.10	0:00:10	0:00:00		
End of Curve 8		31.30			0:00:00	0:51:38
	25	0.05	0:00:13	0:00:00		
1st and Terry		31.34			0:01:00	0:52:51
TOTAL			0:45:51	0:00:00	0:07:00	0:52:51
Avg Stn Spacing = 4.48 miles			Avg Speed = 35.58			

Notes:

Distances and curve restrictions from plan drawings provided by Carter Burgess, July 2006.

Some design curves from drawings not noted since operating speeds dictated by acceleration/deceleration rather than design speed.

Table 2

**DENVER I-25 NORTH EIS
EMU SOUTHBOUND TRAVEL TIME ESTIMATES**
North Metro Line extension to CR 8/I-25
Draft Committee Vision Plan

Station	Max Spd . (mph)	Distance (miles)		Run Time (hr:min:sec)	Delay Time (hr:min:sec)	Dwell Time (hr:min:sec)	Total Time (hr:min:sec)
		Incr.	Total				
County Rd 8 / I-25			0.00			0:00:00	0:00:00
	50	0.42		0:01:00	0:00:00		
Start of Curve 9			0.42			0:00:00	0:01:00
	60	0.40		0:00:33	0:00:00		
End of Curve 9			0.82			0:00:00	0:01:33
	60	0.06		0:00:04	0:00:00		
Start of Curve 10			0.88			0:00:00	0:01:37
	60	0.25		0:00:15	0:00:00		
End of Curve 10			1.14			0:00:00	0:01:52
	70	0.60		0:00:41	0:00:00		
Start of Curve 11			1.74			0:00:00	0:02:33
	70	0.24		0:00:12	0:00:00		
End of Curve 11			1.98			0:00:00	0:02:45
	70	0.14		0:00:07	0:00:00		
Start of Curve 12			2.12			0:00:00	0:02:52
	75	0.46		0:00:28	0:00:00		
End of Curve 12			2.58			0:00:00	0:03:20
	75	1.32		0:01:03	0:00:00		
Start of Curve 13			3.90			0:00:00	0:04:23
	75	0.28		0:00:14	0:00:00		
End of Curve 13			4.19			0:00:00	0:04:37
	75	1.06		0:00:57	0:00:00		
Start of Curve 14			5.25			0:00:00	0:05:34
	75	0.46		0:00:26	0:00:00		
End of Curve 14			5.71			0:00:00	0:06:00
	40	0.13		0:00:22	0:00:00		
162nd Ave./N. Metro			5.84			0:01:00	0:07:22
TOTAL				0:06:22	0:00:00	0:01:00	0:07:22
Avg Stn Spacing = 1.95 miles				Avg Speed = 47.57			

Notes:

Distances and curve restrictions from plan drawings provided by Carter Burgess October 4, 2005.

Dent segment from I-25 to SH 7 scaled from Mapquest. (Curve restriction based on rough estimate.)

Table 3
NORTHWEST RAIL BNSF RAIL EXT. TIMES

Segment	Distance	Time	Avg. Speed
Fort Collins			
	1.23	0:04:13	17.50
CSU			
	3.75	0:07:50	28.72
South Transit Center			
	6.95	0:08:45	47.66
Loveland-29th St.			
	1.80	0:04:30	23.99
Loveland-US 34			
	6.34	0:09:31	40.00
Berthoud-SH 56			
	7.39	0:10:18	43.03
Longmont-SH 66			
	3.88	0:07:44	30.12
Longmont-1st & Terry			
Total	31.34	0:52:51	35.58

NORTH METRO RAIL EXT. TIMES

Segment	Distance	Time	Avg. Speed
CR 8/I-25			
	5.84	0:07:22	47.57
162nd Street/N. Metro			

DRAFT

FEIS 2035 MODEL VALIDATION

Purpose

This document summarizes the validation findings for the FEIS travel demand model (Travel Model). The FEIS Travel Model updates previous efforts undertaken for the DEIS by including more recent information for roadways, transit enhancements, 2005 land use inputs, and 2035 land use inputs for the North I-25 EIS Study Area. These updates rely on information provided by North Front Range, Metropolitan Planning Organization (NFRMPO) and Denver Regional Council of Governments, Metropolitan Planning Organization (DRCOG).

The intent is to compare new forecasts results (year 2005 and 2035) with those forecasts done for the DEIS (year 2001 and 2030). In the case of 2005 forecasts, comparisons are also made against field observations. In the end, the purpose of this documentation is to demonstrate the Travel Model still is valid and useful for travel forecasting purposes.

The following sections of this document provide quantitative and writing explanation of the following:

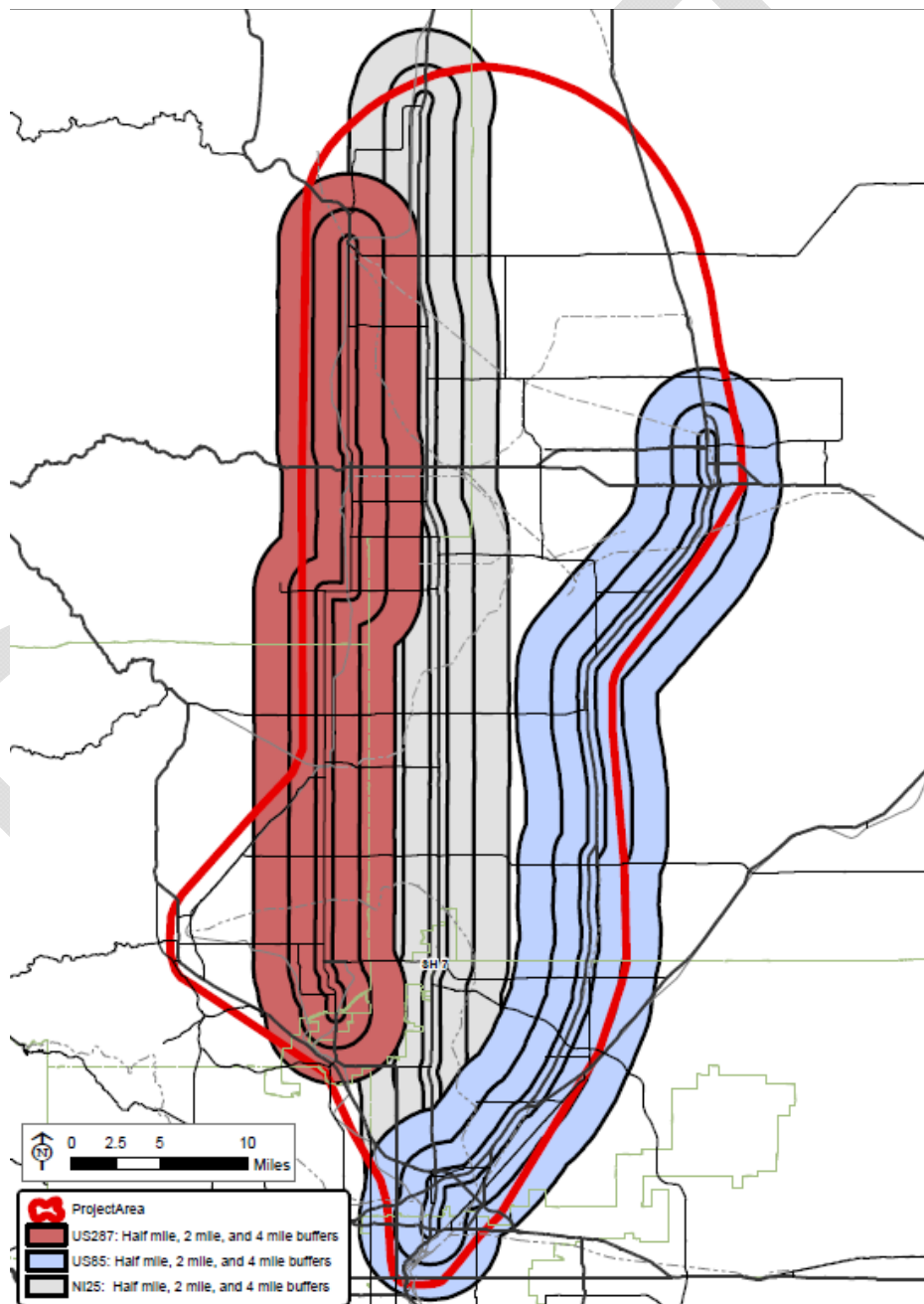
- Input Comparisons
 - TAZ level differences in socio-economic inputs for 2005 and 2035
 - Quantify differences in socio-economic input data for the ½ mile and 4 mile buffer around planned transit stations
- Trip Generation by Trip Purpose
 - Comparison of FEIS Travel Model trip rates to DEIS trip rates
 - Comparison of FEIS Travel Model trip rates to NFRMPO and DRCOG trip rates
- Trip Distribution by Trip Purpose
 - Comparison of FEIS Travel Model trips to DEIS trips
 - Comparison of FEIS Travel Model trips to NFRMPO and DRCOG trips
- Mode Choice by Trip Purpose
 - Comparison of FEIS Travel Model trips to DEIS trips

- Comparison of FEIS Travel Model trips to NFRMPO and DRCOG trips
- Trip Assignment
 - VMT comparisons FEIS to DEIS by alternative
 - VMT comparisons FEIS to NFRMPO and DRCOG
 - I-25 roadway assignments FEIS to DEIS
 - Screenline comparisons FEIS to DEIS and comparison to NFRMPO and DRCOG
- Transit Boarding Comparison
 - Comparison of 2030 DEIS transit boarding and 2035 FEIS boardings by route/mode

Input Comparisons

Both DRCOG and NFRMPO provided new socio-economic (or Land use) input data for years 2005 and 2035. A comparison of the base year – 2001 (DEIS) and 2005 (FEIS) – and a comparison of the planning horizon year – 2030 (DEIS) and 2035 (FEIS) – follows.

The three major corridors – I-25, US-287, and US-85 were analyzed separately. A graphical depiction of the areas used is provided below, with a summary of the findings, and the data following.



In the base years, population increases north of E-470 between 2001 and 2005 within the 2-mile buffer of all three major corridors:

- I-25 – increase of 112% (27,500 people), with most of the growth between SH-14 and SH-60.
- US-287 – increase of 10% (25,600 people), with most of the growth north of SH-60.
- US-85 – increase of 6% (5,300 people), with growth near both ends of the corridor.

In the base years, employment increases in the I-25 and US-287 corridors:

- I-25 – increase of 20% (5,300 jobs), with most of the growth between SH-14 and SH-60 and between SH-119 and E-470.
- US-287 – increase of 9% (12,300 jobs), with most of the growth near both ends of the corridor.
- US-85 – decrease of 14% (7,600 jobs), mostly north of SH-60.

In the planning horizon, population differences north of E-470 between 2030 and 2035 within the 2-mile buffer of all three major corridors are much more moderate:

- I-25 – overall population projections in the corridor are lower by a minor amount (1%), but shifts in the allocation of the population are observed, with increases between SH-14 and SH-119 and decreases at the ends of the corridor.
- US-287 – overall increase in the population projection of 1% (4,400 people), with most of the growth north of SH-60.
- US-85 – overall increase in the population projection of 11% (15,600 people), with a 46% higher projection south of SH-119 and a 15% lower projection north of SH-60.

In the planning horizon, employment differences north of E-470 between 2030 and 2035 display similar patterns as the base year, but again are more moderate:

- I-25 – overall employment projections in the corridor are higher by 17% (23,500 jobs), with substantially higher projections south of SH-60.
- US-287 – overall increase in the employment projection of 2% (3,000 jobs).
- US-85 – overall decrease in the employment projection of 6% (4,000 jobs); however, the projections are higher in 2035 south of SH-60.

Overall, within the 2-mile buffers north of E-470, growth is still projected to occur between 2005 and 2035 in all three corridors, but at different rates:

- I-25 – population is projected to increase by 300%, compared to the DEIS projection of 750%. Employment is projected to increase by 430%, compared to the DEIS projection of 450%.

- US-287 – population is projected to increase by 34%, compared to the DEIS projection of 46%. Employment is projected to increase by 18%, compared to the DEIS projection of 26%.
- US-85 – population is projected to increase by 65%, compared to the DEIS projection of 57%. Employment is projected to increase by 26%, compared to the DEIS projection of 38%.

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NI25 Centerline																		
Half Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
Wellington to SH 14	22	5922	2009	3651	1684	2236	1644	82%	551	33%	7413	5967	9143	8333	-1443	-19%	-811	-9%
SH 14 to SH 60	56	10345	1548	2159	4898	5986	609	39%	1087	22%	10796	10161	25945	25019	-641	-6%	-935	-4%
SH 60 to SH 119	15	8322	747	679	405	713	-70	-9%	309	76%	5645	12801	3215	9796	7156	127%	6582	205%
SH 119 to E470	35	8115	821	5003	665	647	4181	509%	-18	-3%	19141	13741	22872	32767	-5398	-28%	9893	43%
SUBTOTAL	128	32704	5125	11492	7652	9582	6364	124%	1929	25%	42995	42670	61175	75915	-326	-1%	14729	24%
E470 to Denver	65	6951	28906	32044	21603	22360	3140	11%	760	4%	36770	39094	54532	52318	2325	6%	-2216	-4%
TOTALS	193	39655	34031	43536	29255	31942	9504	28%	2689	9%	79765	81764	115707	128233	1999	3%	12513	11%
2 Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
Wellington to SH 14	69	26698	6141	10227	3701	4595	4086	67%	895	24%	42030	36295	17328	16092	-5734	-14%	-1236	-7%
SH 14 to SH 60	127	41355	11707	21252	18765	22308	9542	82%	3547	19%	67898	72889	68509	68984	4997	7%	473	1%
SH 60 to SH 119	25	31951	3681	5828	1599	2554	2148	58%	956	60%	16663	43678	9278	25933	27018	162%	16656	180%
SH 119 to E470	59	33514	3142	14881	1642	1503	11742	374%	-139	-8%	83820	55673	46147	53806	-28147	-34%	7658	17%
SUBTOTAL	280	133518	24671	52188	25707	30960	27518	112%	5259	20%	210411	208535	141262	164815	-1866	-1%	23551	17%
E470 to Denver	154	30848	153886	171690	59659	60083	17806	12%	427	1%	211252	220967	110666	109567	9718	5%	-1095	-1%
TOTALS	434	164366	178557	223878	85366	91043	45324	25%	5686	7%	421663	429502	251928	274382	7852	2%	22456	9%
4 Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
Wellington to SH 14	114	59911	16068	21573	13687	16173	5505	34%	2487	18%	64585	57278	31623	30659	-7309	-11%	-962	-3%
SH 14 to SH 60	231	82682	66988	89325	47934	59398	22338	33%	11468	24%	149639	167870	110034	115253	18234	12%	5220	5%
SH 60 to SH 119	56	64758	10403	13517	3610	4976	3110	30%	1365	38%	32754	63518	13257	32970	30763	94%	19712	149%
SH 119 to E470	91	66754	11756	29974	2930	2885	18216	155%	-46	-2%	144374	117598	54589	60974	-26777	-19%	6383	12%
SUBTOTAL	492	274105	105215	154389	68161	83432	49169	47%	15274	22%	391352	406264	209503	239856	14911	4%	30353	14%
E470 to Denver	311	68966	323469	353243	129268	124150	29775	9%	-5120	-4%	443751	468691	197096	204635	24936	6%	7537	4%
TOTALS	803	343071	428684	507632	197429	207582	78944	18%	10154	5%	835103	874955	406599	444491	39847	5%	37890	9%

US 287 Centerline																		
Half Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
SH 14 to SH 60	120	10940	38596	44390	47406	48595	5788	15%	1186	3%	55916	55093	59851	55548	-817	-1%	-4302	-7%
SH 60 to SH 119	45	9126	21687	21556	8926	9258	-133	-1%	332	4%	26307	23332	10179	11192	-2972	-11%	1014	10%
SH 119 to E470	50	9264	16357	16774	8088	8894	417	3%	803	10%	23467	24468	10208	10508	1002	4%	300	3%

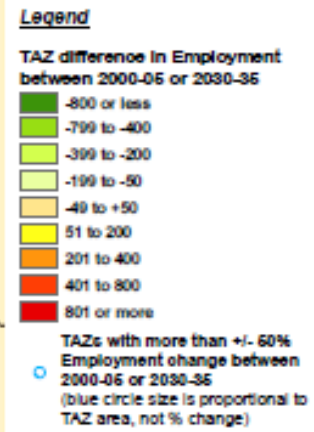
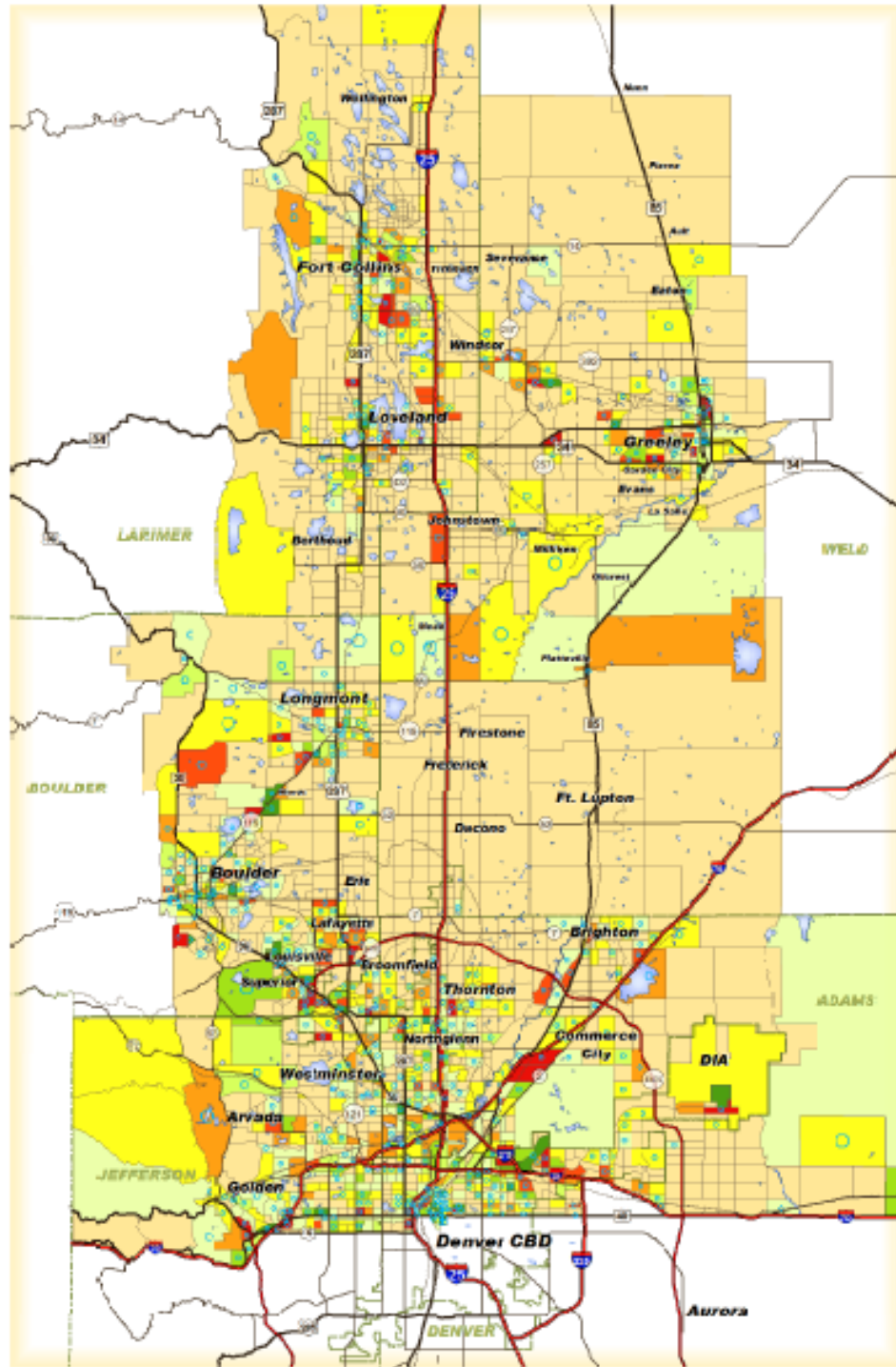
SUBTOTAL	215	29330	76640	82720	64420	66747	6072	8%	2321	4%	105690	102893	80238	77248	-2787	-3%	-2988	-4%
E470 to Denver	2	177	1	43	62	18	42	4200%	-45	-73%	56	41	61	18	-16	-29%	-44	-72%
TOTALS	217	29507	76641	82763	64482	66765	6114	8%	2276	4%	105746	102934	80299	77266	-2803	-3%	-3032	-4%
2 Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
SH 14 to SH 60	258	46725	145936	167876	92950	101520	21940	15%	8568	9%	207360	214425	117597	117319	7063	3%	-278	0%
SH 60 to SH 119	83	36884	63433	65163	22223	22600	1732	3%	379	2%	81338	80845	25983	28235	-493	-1%	2248	9%
SH 119 to E470	103	36052	42923	44871	19252	22564	1948	5%	3314	17%	80026	77899	25940	26997	-2131	-3%	1061	4%
SUBTOTAL	444	119661	252292	277910	134425	146684	25620	10%	12261	9%	368724	373169	169520	172551	4439	1%	3031	2%
E470 to Denver	20	3349	7463	7764	1366	1286	301	4%	-81	-6%	7848	7735	1405	1650	-116	-1%	243	17%
TOTALS	464	123010	259755	285674	135791	147970	25921	10%	12180	9%	376572	380904	170925	174201	4323	1%	3274	2%
4 Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
SH 14 to SH 60	407	101741	195524	234616	115604	126583	39093	20%	10980	9%	336409	346097	182502	169297	9689	3%	-13206	-7%
SH 60 to SH 119	101	75885	77986	84860	27330	27366	6871	9%	38	0%	110148	116157	35225	38620	6011	5%	3394	10%
SH 119 to E470	165	68268	77217	82080	33663	38651	4862	6%	4986	15%	150916	149202	58536	60407	-1711	-1%	1875	3%
SUBTOTAL	673	245894	350727	401556	176597	192600	50826	14%	16004	9%	597473	611456	276263	268324	13989	2%	-7937	-3%
E470 to Denver	67	14629	38476	40307	18863	25873	1830	5%	7014	37%	57099	58777	32483	47128	1678	3%	14644	45%
TOTALS	740	260523	389203	441863	195460	218473	52656	14%	23018	12%	654572	670233	308746	315452	15667	2%	6707	2%

US 85 Centerline																		
Half Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
Greeley to SH 60	36	4493	18582	18804	22761	13648	223	1%	-9115	-40%	21946	19785	25739	14430	-2158	-10%	-11312	-44%
SH 60 to SH 119	8	9740	2546	3019	704	799	472	19%	93	13%	3461	4028	872	2110	567	16%	1238	142%
SH 119 to E470	25	9570	8137	8614	4104	4621	475	6%	514	13%	13986	19378	4792	7243	5392	39%	2452	51%
SUBTOTAL	69	23803	29265	30437	27569	19068	1170	4%	-8508	-31%	39393	43191	31403	23783	3801	10%	-7622	-24%
E470 to Denver	48	9316	7427	10250	21808	20610	2825	38%	-1203	-6%	14734	18326	24593	27803	3595	24%	3212	13%
TOTALS	117	33119	36692	40687	49377	39678	3995	11%	-9711	-20%	54127	61517	55996	51586	7396	14%	-4410	-8%
2 Mile Buffer																		
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
Greeley to SH 60	86	20850	56683	59481	43689	35671	2796	5%	-8016	-18%	75209	63878	54473	38939	-11336	-15%	-15534	-29%
SH 60 to SH 119	8	39041	4946	5114	1421	1315	171	3%	-106	-7%	8103	8420	2106	4873	316	4%	2767	131%
SH 119 to E470	43	37756	28055	30340	9368	9881	2287	8%	511	5%	57567	84181	12035	20825	26617	46%	8793	73%
SUBTOTAL	137	97647	89684	94935	54478	46867	5254	6%	-7611	-14%	140879	156479	68614	64637	15597	11%	-3974	-6%
E470 to Denver	176	40552	115629	124662	87755	83473	9035	8%	-4285	-5%	180524	215231	124160	141213	34704	19%	17058	14%
TOTALS	313	138199	205313	219597	142233	130340	14289	7%	-11896	-8%	321403	371710	192774	205850	50301	16%	13084	7%
4 Mile Buffer																		

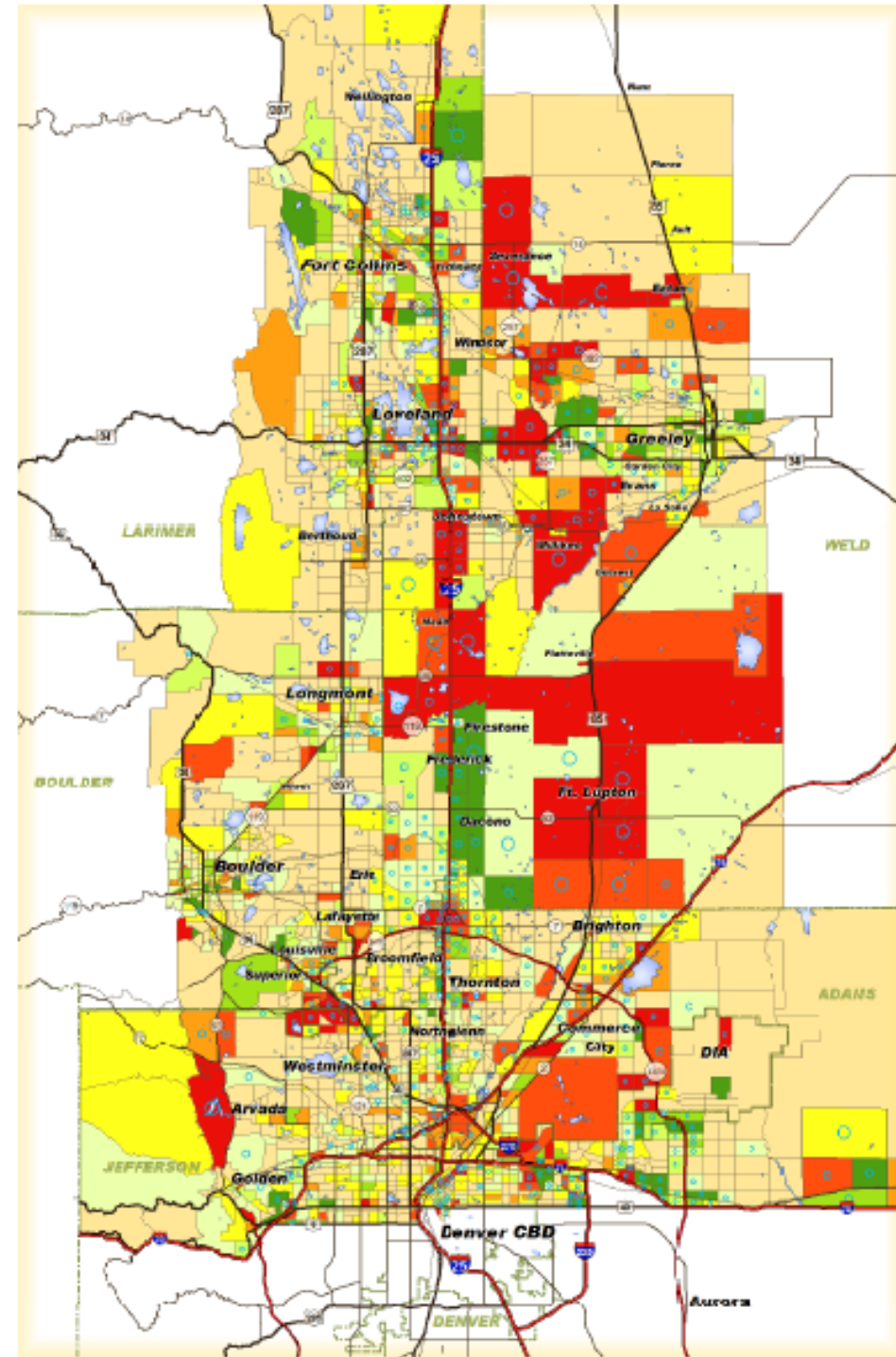
Segment	No. of Parcels	Acres	POP 01	POP 05	EMP 01	EMP 05	POP 01 TO 05	Percentage	EMP 01 TO 05	Percentage	POP 30	POP 35	EMP 30	EMP 35	POP 30 TO 35	Percentage	EMP 30 TO 35	Percentage
Greeley to SH 60	129	50100	82780	91142	53509	46464	8362	10%	-7049	-13%	127660	108978	70394	52805	-18684	-15%	-17591	-25%
SH 60 to SH 119	11	76966	7503	7704	2052	1607	199	3%	-446	-22%	15054	14835	3492	8648	-219	-1%	5156	148%
SH 119 to E470	71	75151	36377	42332	11846	13224	5956	16%	1379	12%	98667	142954	18368	33442	44288	45%	15074	82%
SUBTOTAL	211	202217	126660	141178	67407	61295	14517	11%	-6116	-9%	241381	266767	92254	94895	25385	11%	2639	3%
E470 to Denver	408	88600	376563	403706	336254	296804	27145	7%	-39447	-12%	539962	603515	419343	445737	63552	12%	26391	6%
TOTALS	619	290817	503223	544884	403661	358099	41662	8%	-45563	-11%	781343	870282	511597	540632	88937	11%	29030	6%

Employment Projections Analysis (updated 6/10/2009)

Comparison of 2000 and 2005 Employment by TAZ

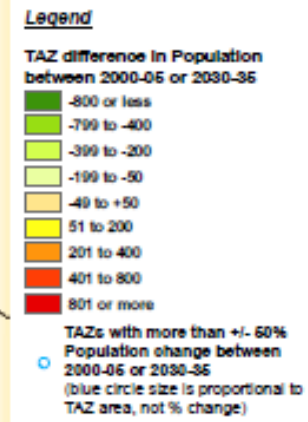
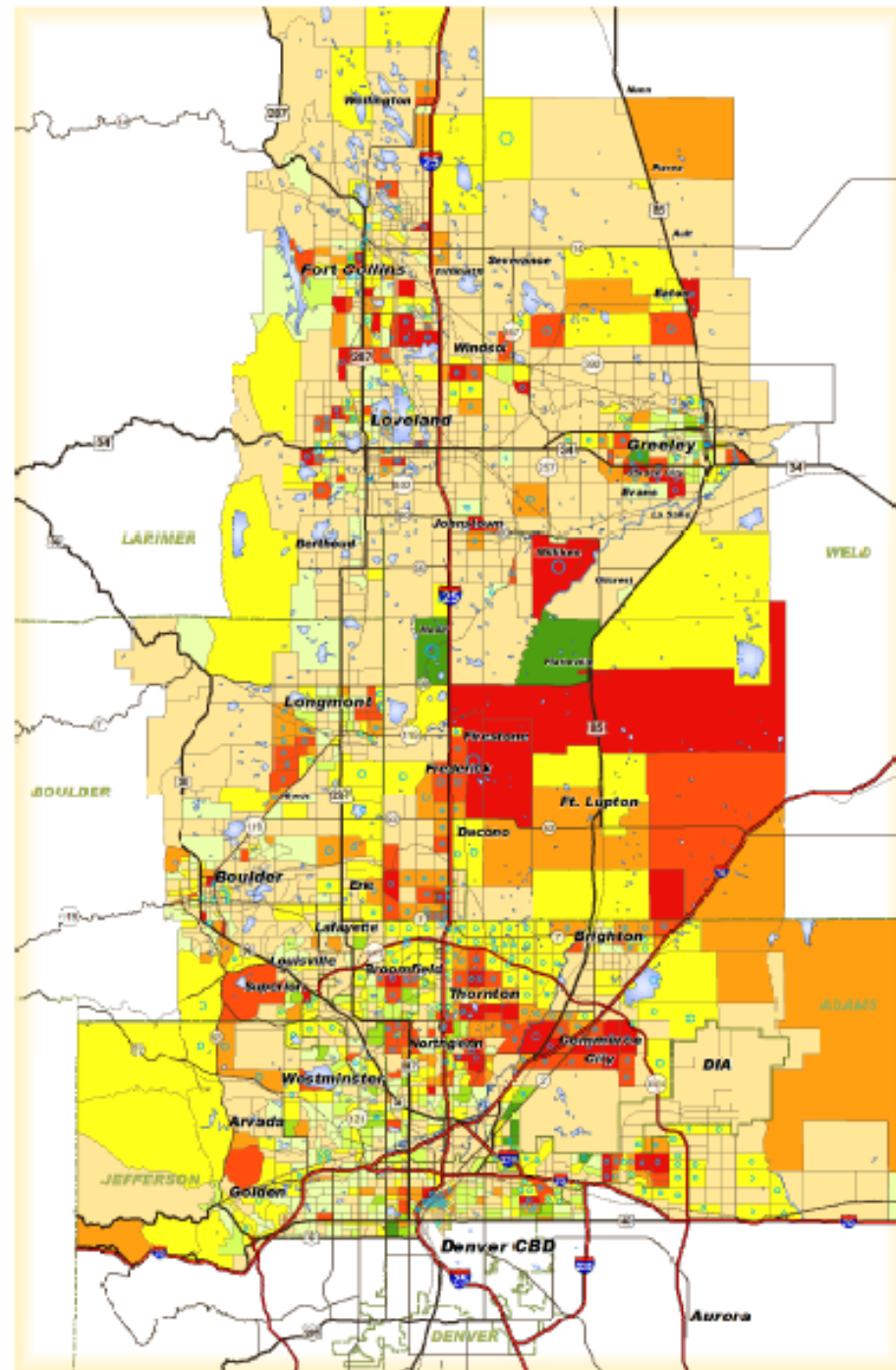


Comparison of 2030 and 2035 Employment by TAZ

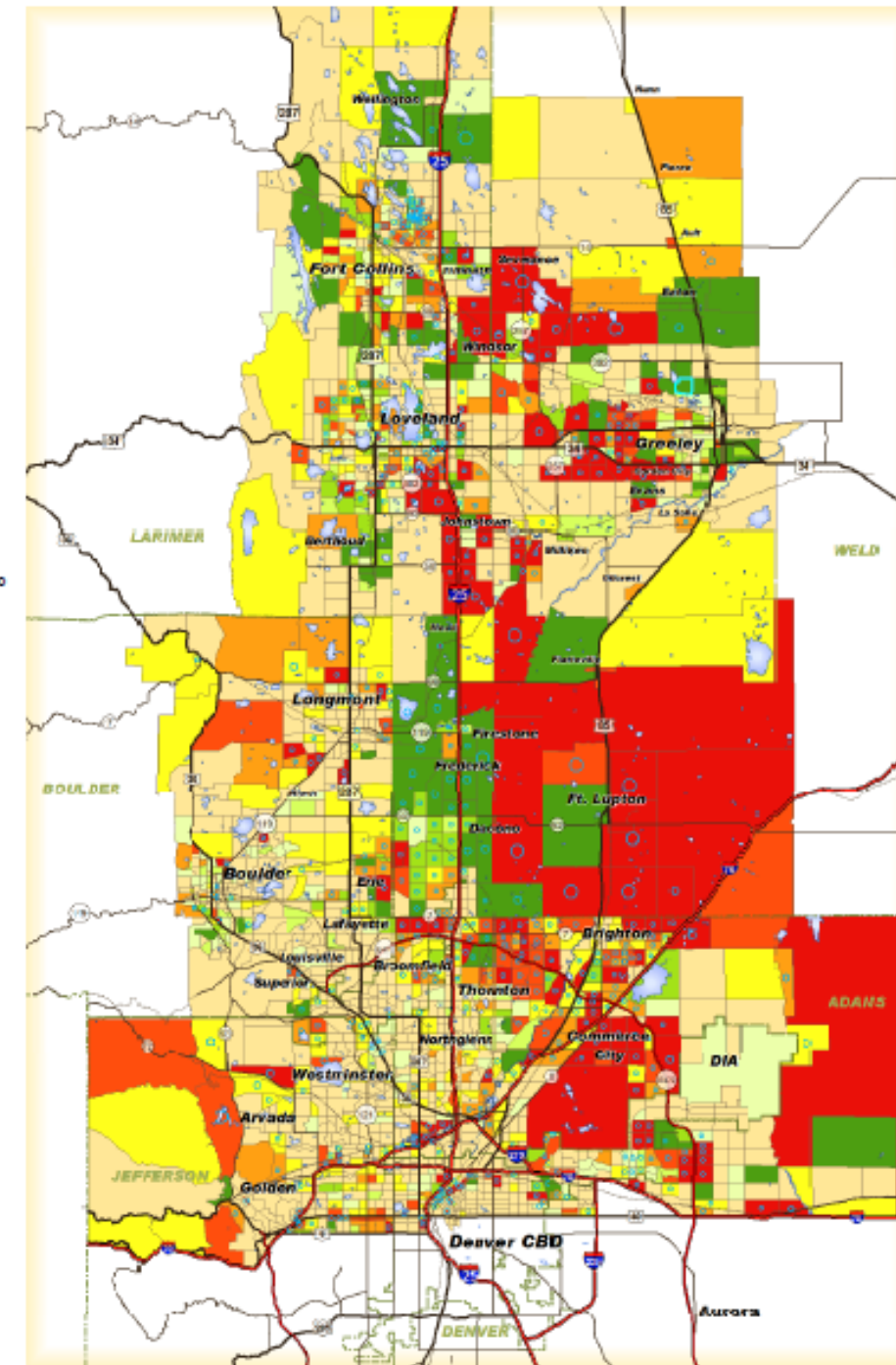


Population Projections Analysis (updated 6/10/2009)

Comparison of 2000 and 2005 Population by TAZ



Comparison of 2030 and 2035 Population by TAZ



Trip Generation

- Trip Generation by Trip Purpose
 - Comparison of FEIS Travel Model trip rates to DEIS trip rates
 - Comparison of FEIS Travel Model trip rates to NFRMPO and DRCOG trip rates

Trip Types – 2005 Model

	Original NFR Model 2005 - ref		Original DRCOG Model 2005 - ref	NFR+ DRCOG 2005 - ref	Bi Regional 2005	NFR+ DRCOG+ Bi	Combined Model 2005
Trip Purpose		Trip Purpose					
HBW	345,944	HBW_Li	102,654		740		169,716
		HBW_Mi	1,354,025		4,619		1,570,664
		HBW_Hi	598,249		1,888		684,048
Total HBW	345,944	Total HBW	2,054,928	2,400,872	7,247	2,408,119	2,424,428
HBS	334,088	HNW	4,779,417				5,807,504
HBU	105,778						
HBO	775,500						
Total HNW	1,215,366	Total HBNW	4,779,417	5,994,783	19,822	6,014,605	5,807,504
WBO	223,814	NHB	3,215,185				3,810,550
OBO	376,734						
Total NHB	600,548	Total NHB	3,215,185	3,815,733	12,030	3,827,763	3,810,550
IE	138,106	IE	323,052				274,768
Total IE	138,106	Total IE	323,052	461,158	-	461,158	274,768
		COM	1,098,889				1,103,882
		Total Com	1,098,889	1,098,889	3,468	1,102,357	1,103,882
EE	6,983	EE	15,404				7,653

Total EE	6,983	Total EE	15,404	22,387	-		7,653
Grand Total	2,313,930	Grand Total	11,486,875	13,793,822	42,567	13,836,389	13,428,785

Trip Types – 2035 Model

	Original NFR Model 2035 - ref		Original DRCOG Model 2035 - ref	NFR+ DRCOG 2035 - ref	Bi Regional 2035	NFR+ DRCOG+ Bi	Combined Model 2035
Trip Purpose		Trip Purpose					
HBW	597,193	HBW_Li	172,866		7,501		274,688
		HBW_Mi	2,275,569		26,756		2,624,409
		HBW_Hi	1,013,876		12,019		1,167,276
Total HBW	597,193	Total HBW	3,462,311	4,059,504	46,276	4,105,780	4,066,373
HBS	577,244	HNW	5,807,504				8,746,897
HBU	172,813						
HBO	1,316,522						
Total HNW	2,066,579	Total HBNW	5,807,504	7,874,083	40,531	7,914,614	8,746,897
WBO	387,040	NHB	3,810,550				6,384,756
OBO	643,056	Total NHB	3,810,550	4,840,646	25,244	4,865,890	6,384,756
Total NHB	1,030,096						
IE	263,884	IE	274,768				629,594
Total IE	263,884	Total IE	274,768	538,652	-	538,652	629,594
		COM	1,103,882				1,752,215
		Total Com	1,103,882	1,103,882	3,468	1,107,350	1,752,215
EE	13,172	EE	39,092				21,143
Total EE	13,172	Total EE	39,092	52,264	-	52,264	21,143

Grand Total	3,970,924	Grand Total	14,498,107	18,469,031	115,519	18,584,550	21,600,978
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Mode Choice

- Mode Choice by Trip Purpose
 - Comparison of FEIS Travel Model trips to DEIS trips
 - Comparison of FEIS Travel Model trips to NFRMPO and DRCOG trips

Trip Modes – 2005 Model

Original NFR Model 2005 - ref		Original DRCOG Model 2005 - ref		NFR+ DRCOG 2005 - ref	Bi Regional 2005	NFR+ DRCOG+ Bi	Combined Model 2005
Trip Purpose		Trip Purpose					
HBW DA	246,103	HBW DA	1,671,117		5,664		1,999,547
HBW SR2	56,088	HBW SR2	428,476		1,169		251,746
HBW SR 3	26,475	HBW SR 3	241,927		515		81,036
PWL	1,029	HBW T-DACC	34,066		1		29,032
PWE	0	HBW T-WACC	66,285		0		63,066
PWP	0						
PDE	0						
PDP	0						
Total HBW	329,695	Total HBW	2,441,871	2,771,566	7,349	2,778,915	2,424,427
HBO	1,215,366	HNW DA	2,048,211		8,488		2,495,510
		HNW SR2	1,546,208		3,247		1,884,822
		HNW SR3	1,114,308		1,350		1,353,820
		Subtotal Auto	4,708,727				5,734,152
		HNW T-DACC	16,137		2		15,699
		HNW T-WACC	54,553				52,581
Total HNW	1,215,366	Total HBNW	4,779,417	5,994,783	13,087	6,007,870	5,802,432
NHB	600,548	NHB DA	1,660,096		6,252		1,970,033
		NHB SR2	897,596		1,690		1,065,176
		NHB SR3	632,221		681		750,258
		Subtotal Auto	3,189,913				
		NHB Transit	48,538		0		50,505
Total NHB	600,548	Total NHB	3,238,451	3,838,999	8,623	3,847,622	3,835,972
Grand Total	2,145,609	Grand Total	10,459,739	12,605,348	29,059	12,634,407	12,062,830

Trip Modes – 2035 Model

Original NFR Model		Original DRCOG Model		NFR+ DRCOG	Bi Regional	NFR+ DRCOG+	Combined Model 2035 No Action
2035 - ref		2035 - ref		2035 - ref	2035	Bi	
Trip Purpose		Trip Purpose					
HBW DA	425,638	HBW DA	2,755,154		11,696		3,270,711
HBW SR2	48,493	HBW SR2	362,669		2,436		427,767
HBW SR 3	12,908	HBW SR 3	118,183		1,069		140,137
PWL	1,593	HBW T-DACC	88,806		3		89,049
PWE	0	HBW T-WACC	137,498		0		138,708
PWP	532						
PDE	0						
PDP	537						
Total HBW	489,701	Total HBW	3,462,310	3,952,011	15,204	3,967,215	4,066,372
HBO	2,066,579	HNW DA	3,158,684		18,878		3,883,355
		HNW SR2	2,261,832		6,640		2,801,370
		HNW SR3	1,578,695		2,622		1,955,882
		Subtotal Auto	6,999,211				8,640,607
		HNW T-DACC	43,686		4		45,244
		HNW T-WACC	90,479		0		93,717
Total HNW	2,066,579	Total HBNW	7,133,376	9,199,955	28,144	9,228,099	8,779,568
NHB	1,030,096	NHB DA	2,793,024		13,119		3,293,135
		NHB SR2	1,510,160		3,547		1,780,564
		NHB SR3	1,063,679		1,430		1,254,139
		Subtotal Auto	5,366,863				6,327,838
		NHB Transit	107,086		0		108,098
Total NHB	1,030,096	Total NHB	5,473,949	6,504,045	18,096	6,522,141	6,435,936
Grand Total	3,586,376	Grand Total	16,069,635	19,656,011	61,444	19,717,455	19,281,876

Trip Assignment

- Trip Assignment
 - VMT comparisons FEIS to DEIS by alternative
 - VMT comparisons FEIS to NFRMPO and DRCOG
 - I-25 roadway assignments FEIS to DEIS
 - Screenline comparisons FEIS to DEIS and comparison to NFRMPO and DRCOG

2030 DEIS VMT, VHT and Speed Comparison MPO Reference Runs compared to North I-25

	Original NFR 2030 Model	Original DRCOG 2030 Model	Sum of Original DRCOG + NFR 2030 Models	Combined 2030 Model
Facility Type	Daily VMT	Daily VMT	Daily VMT	Daily VMT
1	4,933,448	41,605,731	46,539,179	44,465,990
2	2,485,624	8,644,479	11,130,103	10,940,525
3	5,193,803	35,543,791	40,737,594	39,709,444
4	2,883,832	7,315,469	10,199,301	11,068,946
Other	3,783,639	16,293,965	20,077,604	19,574,557
Total	19,280,346	109,403,435	128,683,781	125,759,462

Facility Type	Daily VHT	Daily VHT	Daily VHT	Daily VHT
1	81,054	900,081	981,135	948,606
2	47,952	244,546	292,498	294,471
3	151,722	1,276,572	1,428,294	1,473,080
4	92,678	319,993	412,671	478,884
Other	155,710	936,861	1,092,571	1,141,038
Total	529,116	3,678,053	4,207,169	4,336,079

Facility Type	Daily Avg. Speed	Daily Avg. Speed	Daily Avg. Speed	Daily Avg. Speed
1	60.9	46.2	53.5	46.9
2	51.8	35.3	43.6	37.2
3	34.2	27.8	31.0	27.0
4	31.1	22.9	27.0	23.1

Other	24.3	17.4	20.8	17.2
Total	40.5	29.7	35.1	29.0

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**2035 FEIS VMT, VHT and Speed Comparison
MPO Reference Runs compared to North I-25**

	Original NFR 2035 Model	Original DRCOG 2035 Model	Sum of Original DRCOG + NFR Models 2035	FEIS Combined Model No Action 2035
Facility Type	VMT	VMT	VMT	VMT
1	4,868,403	43,384,070	48,252,473	46,770,429
2	2,787,992	9,009,630	11,797,622	12,343,485
3	4,845,527	40,221,133	45,066,660	44,401,766
4	3,256,303	9,294,428	12,550,731	11,992,092
5	2,316,437	6,383,370	8,699,807	7,614,040
6	144,974	1,609,020	1,753,994	1,695,446
7	280,523		280,523	
8	2,125,158	9,276,520	11,401,678	10,896,098
Total	20,625,317	119,178,171	139,803,488	135,713,356

Facility Type	VHT	VHT	VHT	VHT
1	271,037	985,432	1,256,469	1,023,619
2	65,567	275,652	341,219	347,738
3	147,184	1,431,972	1,579,156	1,610,393
4	111,961	402,595	514,556	507,704
5	83,894	384,858	468,752	449,838
6	9,412	63,299	72,711	67,387
7	11,370		11,370	
8	85,006	499,656	584,662	606,105
Total	785,431	4,043,464	4,828,895	4,612,784

Facility Type	Avg. Speed	Avg. Speed	Avg. Speed	Avg. Speed
1	18	44	38.4	45.7
2	42.5	32.7	34.6	35.5
3	32.9	28.1	28.5	27.6
4	29.1	23.1	24.4	23.6
5	27.6	16.6	18.6	16.9
6	15.4	25.4	24.1	25.2
7	24.7		24.7	

8	25	18.6	19.5	18
Overall Avg	26.3	29.5	29.0	29.4

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Transit Results

- Transit Boarding Comparison
 - Comparison of 2030 DEIS transit boarding and 2035 FEIS boardings by route/mode

Ridership Comparison

				2030 DEIS		2035 FEIS	
Type	Technology	Route	Description	A	B	A	B
Major Routes	Rail	FC_DUS	Ft. Collins to DUS	4,320		4,175	
	Comm Bus	Greeley_DUS	Greeley to DUS	1,120		1,185	
	Comm Bus	GLY_DIA	Greeley to DIA	419		437	
	BRT	FC_DUS	Ft. Collins to DUS		2,872		3,467
	BRT	Greeley_DUS	Greeley to DUS		2,623		3,002
	BRT	FC_DIA	Ft. Collins to DIA		347		359
		Total Major Route Boardings		5,859	5,843	5,797	6,828
Feeder Routes		GRLYFC	Greeley to Ft. Collins	1,870		1,212	
		GRLYLVD	Greeley to Loveland	2,522		2,382	
		52FDR	Firestone, Fred., Dacono, Erie	476		366	
		MJBFDR	Milliken-Johnstown-Berthoud	161		243	
		FTLupton	Ft. Lupton Feeder		489		413
		JnsTwnFdr	Johnstown Feeder		496		508
		LovelandFdr	Loveland Feeder		504		463
		Windsor Feeder	Windsor Feeder		74		306
		Total Feeder Route Boardings		5,030	1,564	4,203	1,690

DRCOG AREA Reference Run 2005	
MODE	Boardings
4	65145.9291
5	132271.3014
6	19724.5553
7	21808.752
8	5644.3074
9	31626.0034
10	4849.6024
11	2429.0712
12	18397.6703
Grand Total	301897.1925

DRCOG AREA Combined Model 2005	
MODE	Boardings
4	68999.4614
5	146098.8954
6	16415.144
7	18105.6683

8	5975.7867
9	33227.9843
10	4413.6574
11	10961.7201
12	23107.7727
Grand Total	327306.0903

	Original NFR 2005 Model	Original DRCOG 2005 Model	Sum of Original DRCOG + NFR Models 2005	FEIS Combined Model 2005
Facility Type	VMT	VMT	VMT	VMT
1	2,869,506	25,865,181	28,734,687	27,161,691
2	1,658,013	4,328,941	5,986,954	5,615,087
3	3,033,703	20,656,867	23,690,570	23,749,189
4	1,776,008	7,319,745	9,095,753	9,223,708
5	1,032,386	3,699,346	4,731,732	4,234,384
6	50,139	1,026,647	1,076,786	33,377
7	80,440		80,440	
8	1,060,761	5,121,868	6,182,629	6,060,175
Total	11,560,956	68,018,595	79,579,551	76,077,611

Facility Type	VHT	VHT	VHT	VHT
1	40,556	461,816	502,372	487,352
2	29,637	94,014	123,651	122,271
3	77,139	636,655	713,794	757,718
4	43,712	243,977	287,689	312,267
5	26,778	173,184	199,962	206,547
6	1,847	32,916	34,763	33,377
7	1,517		1,517	
8	42,418	272,468	314,886	336,282
Total	263,604	1,915,030	2,178,634	2,255,814

Facility Type	Avg. Speed	Avg. Speed	Avg. Speed	Avg. Speed
1	70.8	56	57.2	55.7
2	55.9	46	48.4	45.9
3	39.3	32.4	33.2	31.3
4	40.6	30	31.6	29.5
5	38.6	21.4	23.7	20.5
6	27.1	31.2	31	1
7	53		53	
8	25	18.8	19.6	18
Overall Avg	43.8	33.7	37.2	28.8

	Original NFR 2035 Model	Original DRCOG 2035 Model	Sum of Original DRCOG + NFR Models 2035	FEIS Combined Model No Action 2035
Facility Type	VMT	VMT	VMT	VMT
1	4,868,403	43,384,070	48,252,473	46,770,429
2	2,787,992	9,009,630	11,797,622	12,343,485
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6	15.4	25.4	24.1	25.2
7	24.7		24.7	
8	25	18.6	19.5	18
Overall Avg	26.9	26.9	26.6	27.5