

Regional Transportation Committee

Meeting date: July 15, 2025

Agenda Item #: 7 (Attachment E)

2050 Regional Transportation Plan Update – Scenarios Results

Agenda item type: Discussion

Summary

Results from the scenario planning effort for the update to the 2050 Metro Vision Regional Transportation Plan.

Background

An early and significant effort while developing the original 2050 Metro Vision Regional Transportation Plan was developing and testing multiple transportation and land use scenarios. The future analysis is not intended as a rigorous “evaluation”, to “choose” a specific scenario (or hybrid), or to label a particular scenario “good” or “bad” based on its characteristics or results. The objective is to understand how and to what extent each scenario influences regional relationships between urban form, transportation system approaches, travel and mobility patterns.

At the November 2024 RTC meeting, staff provided a recap of the previous scenario planning analysis results from 2020, discussed the latest population and employment forecasts for the region, and sought feedback from members on the most important topics impacting transportation and land use in the region. Staff similarly sought feedback from the Transportation Advisory Committee and Board of Directors.

At the December RTC meeting, staff provided an update on the results from committee feedback and identified potential next steps for the scenario planning analysis. Since the December series of committee meetings, DRCOG staff have been coding, modeling, and compiling the results of the scenarios. Staff have tested a land use scenario and three transportation scenarios, as well as several combination scenarios.

As shown in the attached presentation (Attachment 1) and handouts (Attachment 2 and 3), there are a substantial amount of scenario outcome results. The presentation also defines and illustrates each of the land use and transportation scenarios. DRCOG staff will walk through the scenario outcome results at the July meeting.

Advisory groups

DRCOG staff have convened two advisory groups for the development of RTP: a Civic Advisory Group and a Youth Advisory Panel. The Civic Advisory Group is made up of interested residents who may not have participated in transportation planning previously. The Youth Advisory Panel includes high school age representatives from DRCOG’s member government youth boards and commissions to hear younger voices and priorities. DRCOG staff will highlight some of the feedback we’ve received so far.

Action by others

None



Previous discussion/action

[November 19, 2024](#) – Regional Transportation Committee

[December 17, 2024](#) – Regional Transportation Committee

Recommendation

None

Attachments

1. DRCOG staff presentation.
2. Scenario results handout.
3. Additional scenario results breakdown.

For more information

If you need additional information, please contact Alvan-Bidal Sanchez, Regional Transportation Planning Program Manager, at 720-278-2341 or asanchez@drcog.org.

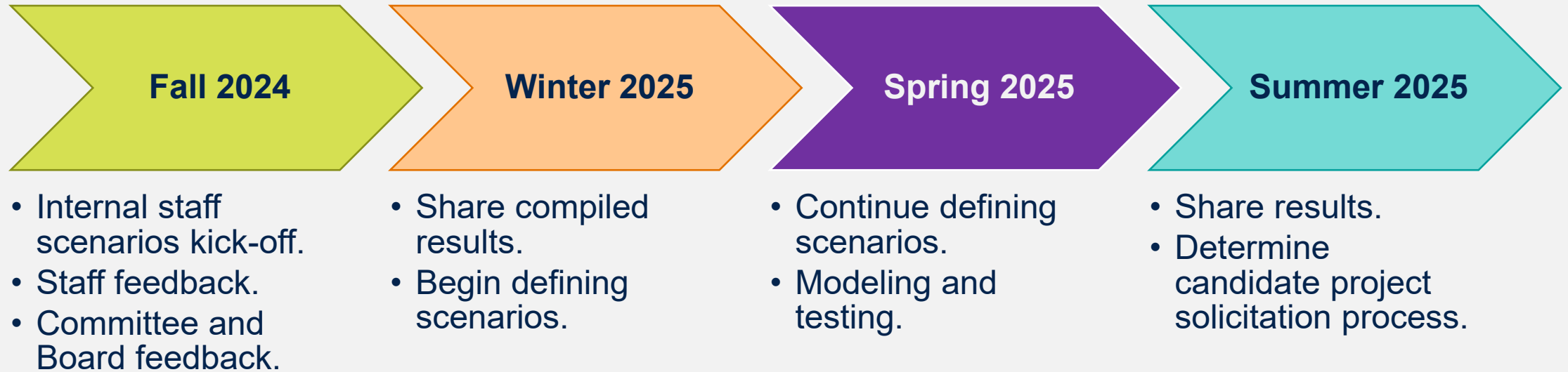




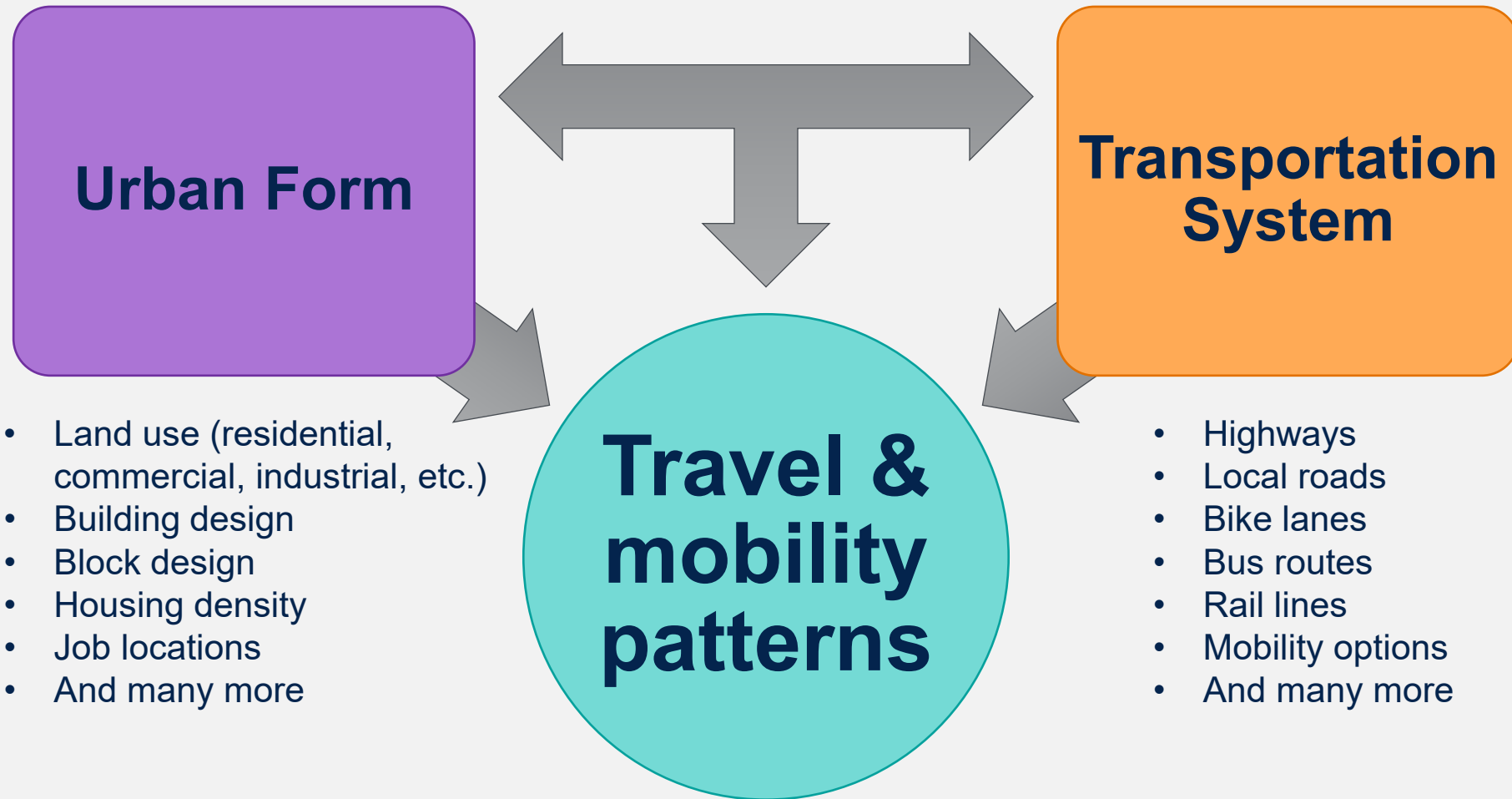
2050 RTP Update: Scenario results

Regional Transportation Committee: July 15, 2025

Schedule



Understanding relationships



DRCOG's approach



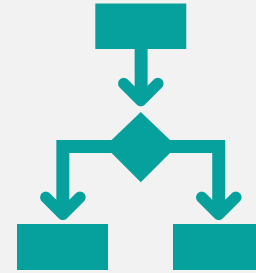
Explores “**what if**” alternative futures



Relative comparisons between scenarios and baseline



Not rigorous evaluation of scenarios, nor choosing/ judging scenarios



Choices & tradeoffs from individual scenarios



Provide **guidance and direction** for plan development

Scenarios modeled

Transportation Scenarios

Adopted RTP



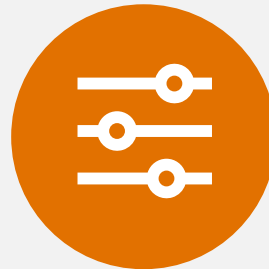
Complete Streets



Transit



Limited Roadway Expansion



Land Use Scenarios

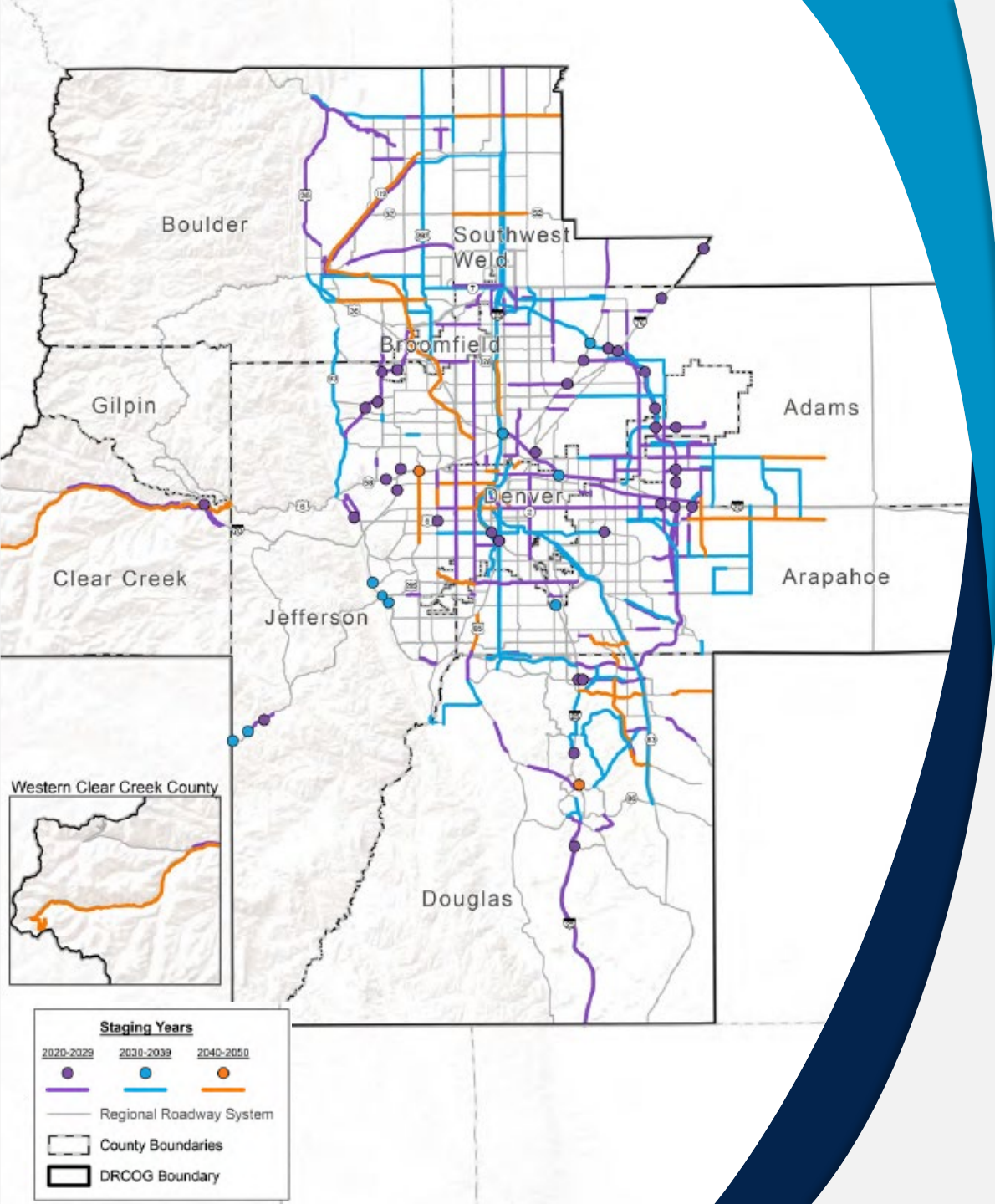
Current Land Use



Transit-Focused



Adopted RTP investments



Multimodal mobility

Multimodal capital projects

\$6.9 billion



Air quality

Transportation Improvement Program set-asides

\$375 million



Regional transit

Regional bus rapid transit projects
Corridor transit planning projects and program

\$1.2 billion
\$940 million



Safety

Arterial safety and Regional Vision Zero projects

\$548 million



Active transportation

Active transportation program

\$970 million



Freight

Freight program

\$220 million



Local projects

Locally funded projects

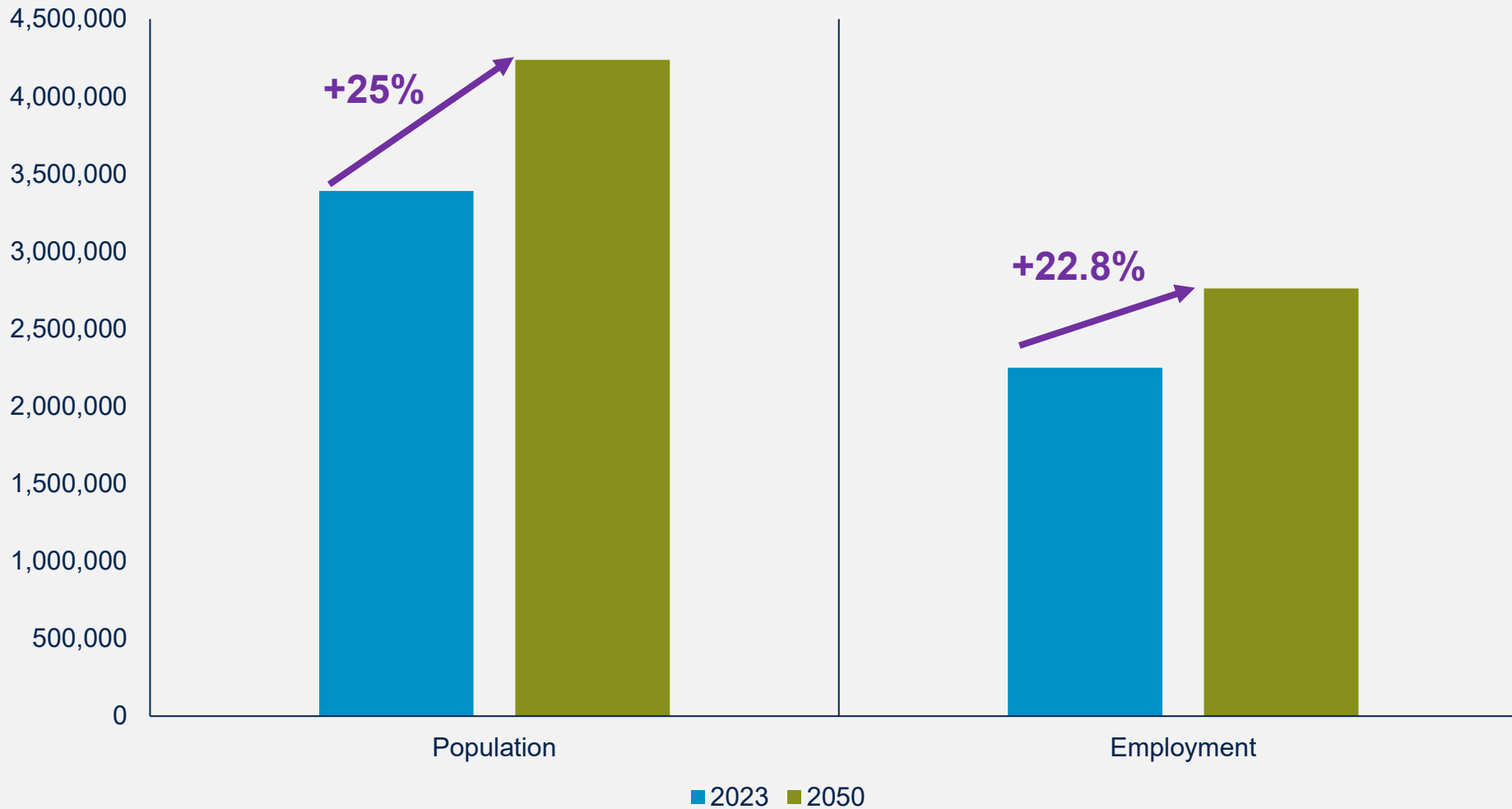
\$4.0 billion

Current land use

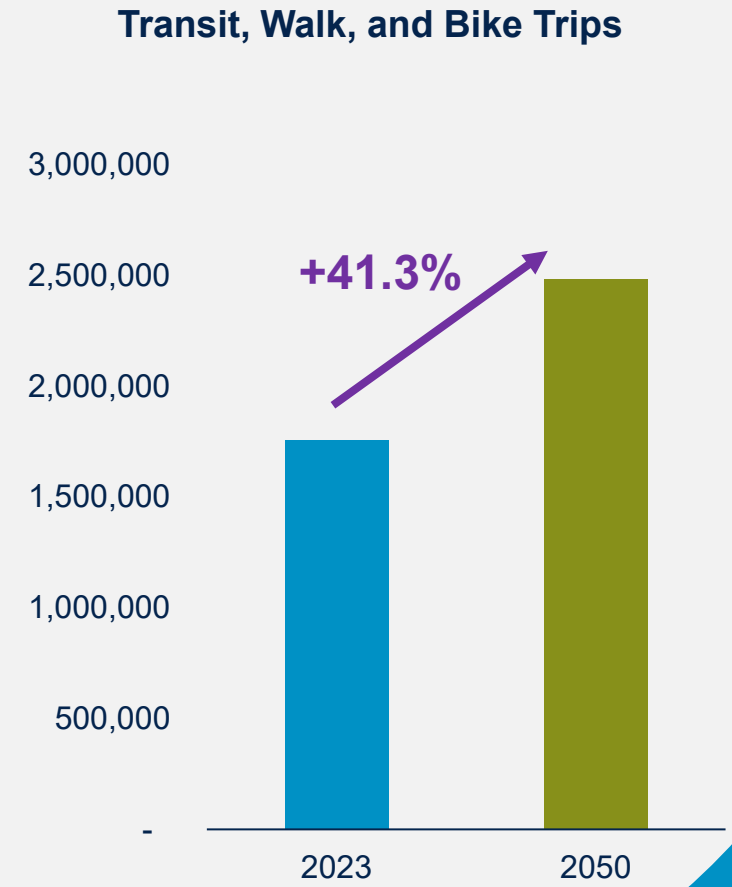
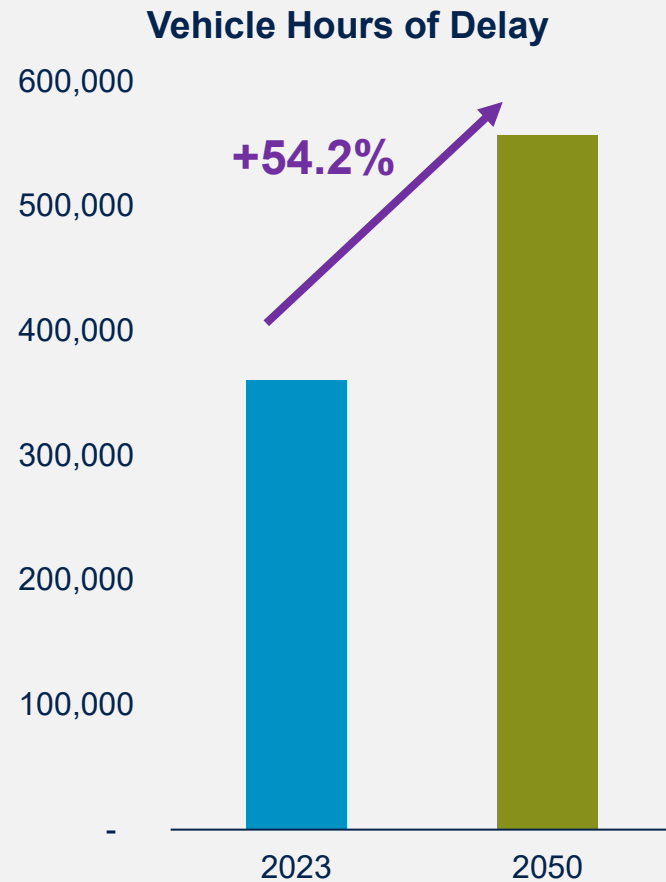
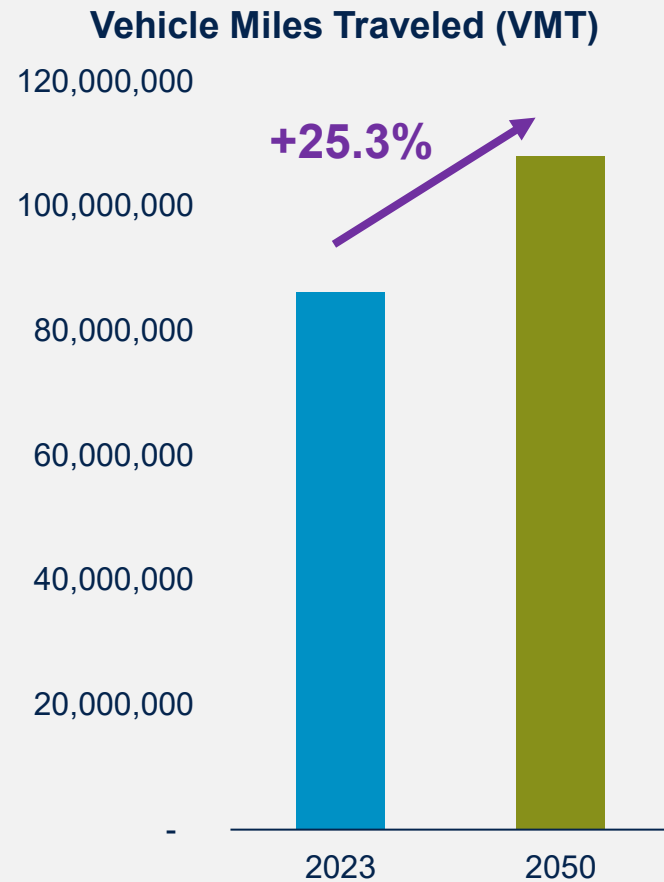
- New population and employment forecasts which show **slower growth** and **more older adults**.
- Based on **existing zoning** across the region.
- Incorporates **under construction** and **planned developments** to be completed in the next few years.

A growing region

Population and Employment Estimates from 2023 to 2050



A growing region – transportation impacts



Key takeaways, so far

- **Land use is not the primary driver** of mobility changes alone.
- **Complementary transportation strategies are needed** in combination with land use changes around planned transit investment.
- In addition to regional changes, there are significant changes possible at the **community** and **neighborhood level**.
- Select transportation scenarios meet Metro Vision targets for VMT, non-SOV trips, and delay, but **transportation-land use combinations show greater magnitude of change**.



Transportation scenarios

Transportation scenario combinations

Current Land Use



Adopted RTP



Complete Streets



Transit



Limited Roadway Expansion

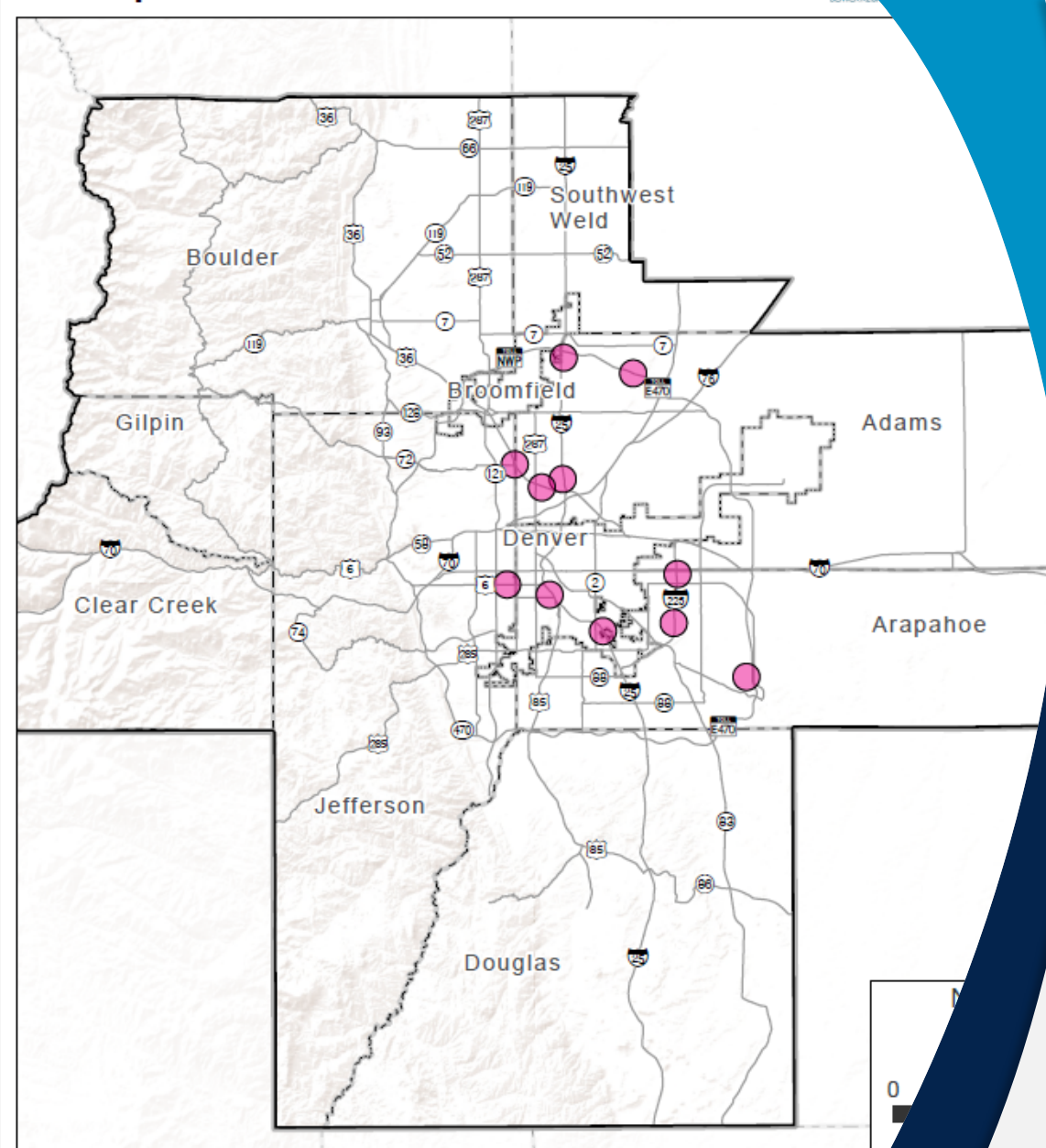


Complete Streets scenario



A safe and comfortable transportation network for all modes and users.

- Active transportation is encouraged through **more bicycle and pedestrian infrastructure** and **more e-bikes and e-scooters**.
- **Increasing telecommuting.**
- **Communities are reconnected** by building new overpasses or underpasses across select limited access freeways.



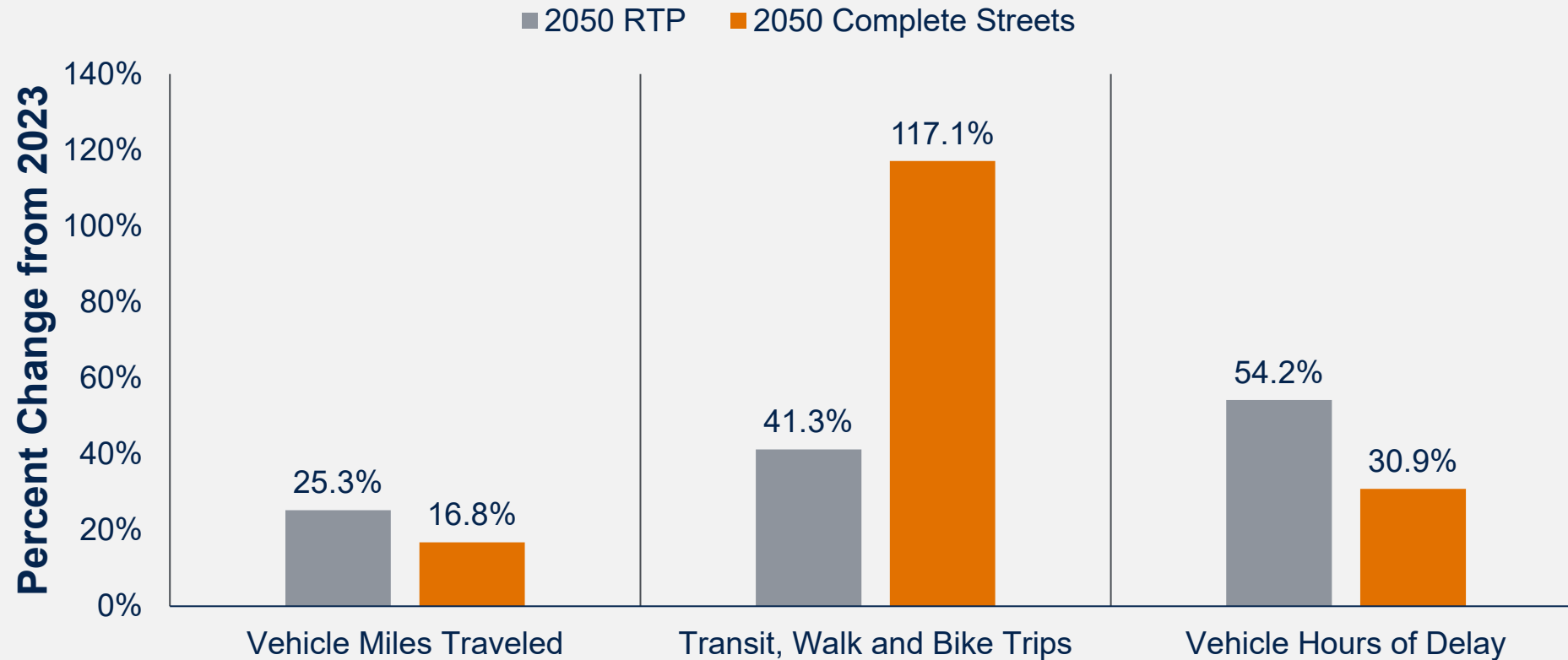
- New Overpass/Underpass
- Major roads
- ▭ County boundaries
- ▭ DRCOG boundary

Source
Esri
Local
Mod



Complete Streets comparison

i Compared to 2023 conditions.

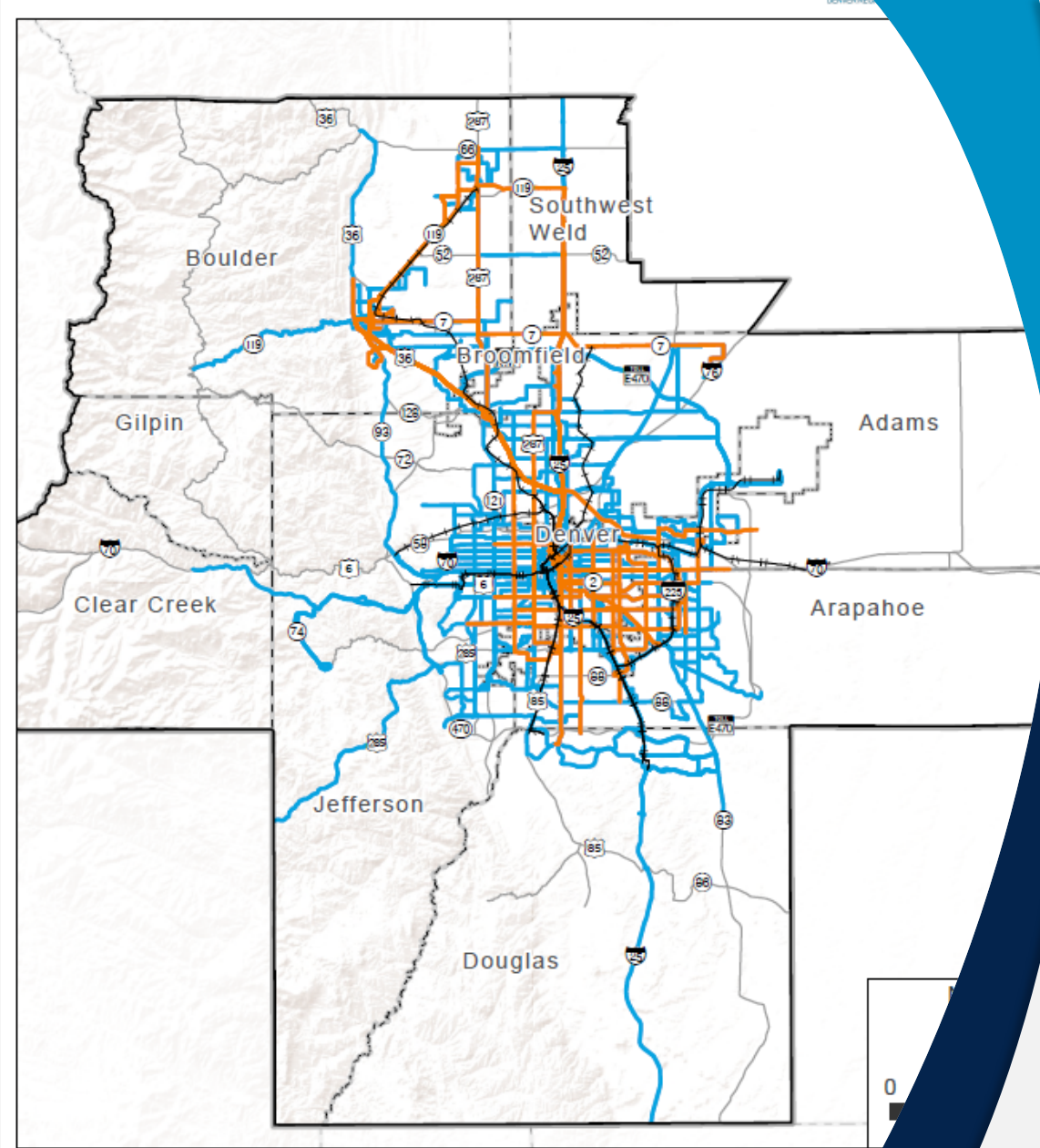




Transit scenario

i Provide more transit options and expand the region's rapid transit network.

- Complete **Fastracks** and **expand commuter rail**.
- Expand **bus rapid transit network**, additional **high-frequency transit** corridors, and **increased transit service**.
- Expand **microtransit** service.
- **Zero fares** and **8000+ bus stops** improved.



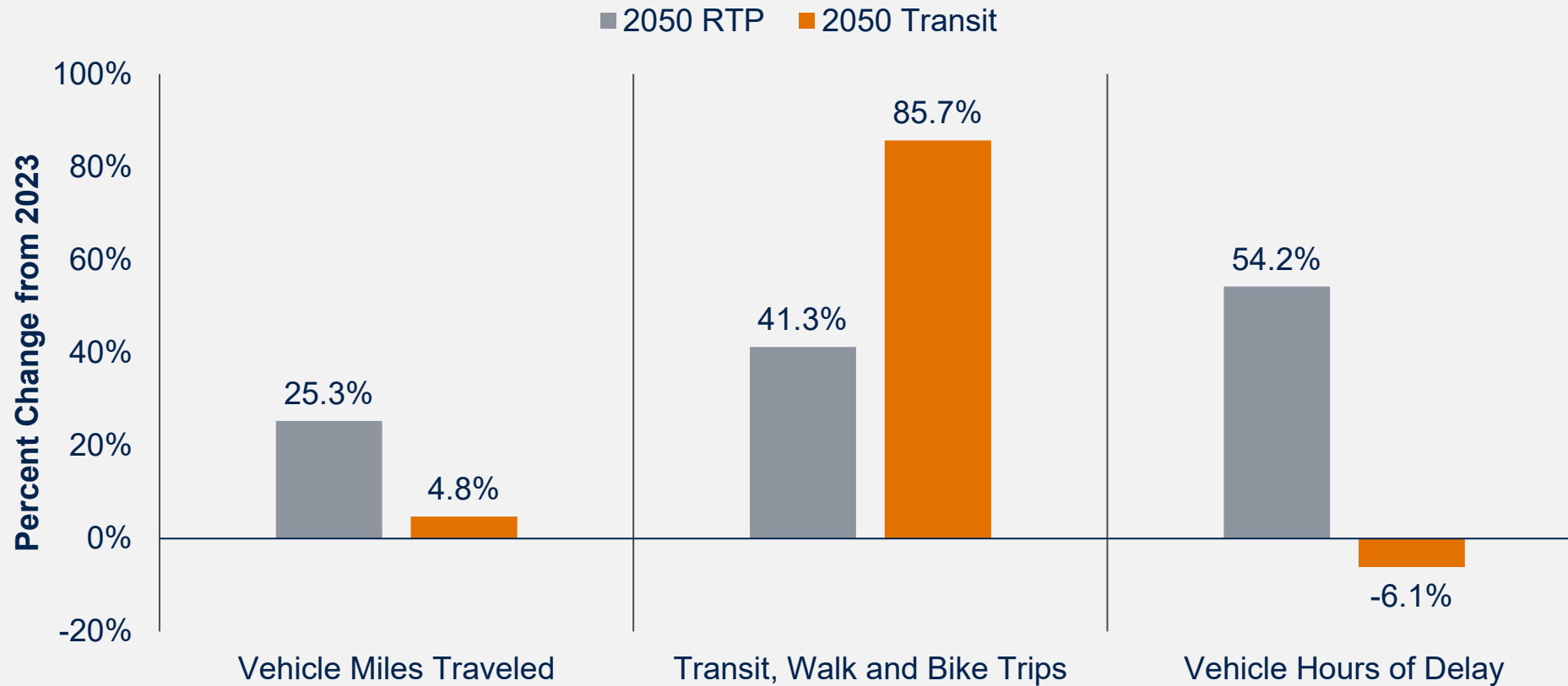
— Bus
— Bus Rapid Transit
+ Rail
— Major roads
— County boundaries
— DRCOG boundary

Source
Esri
Local
Mod



Transit comparison

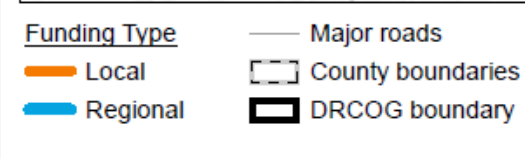
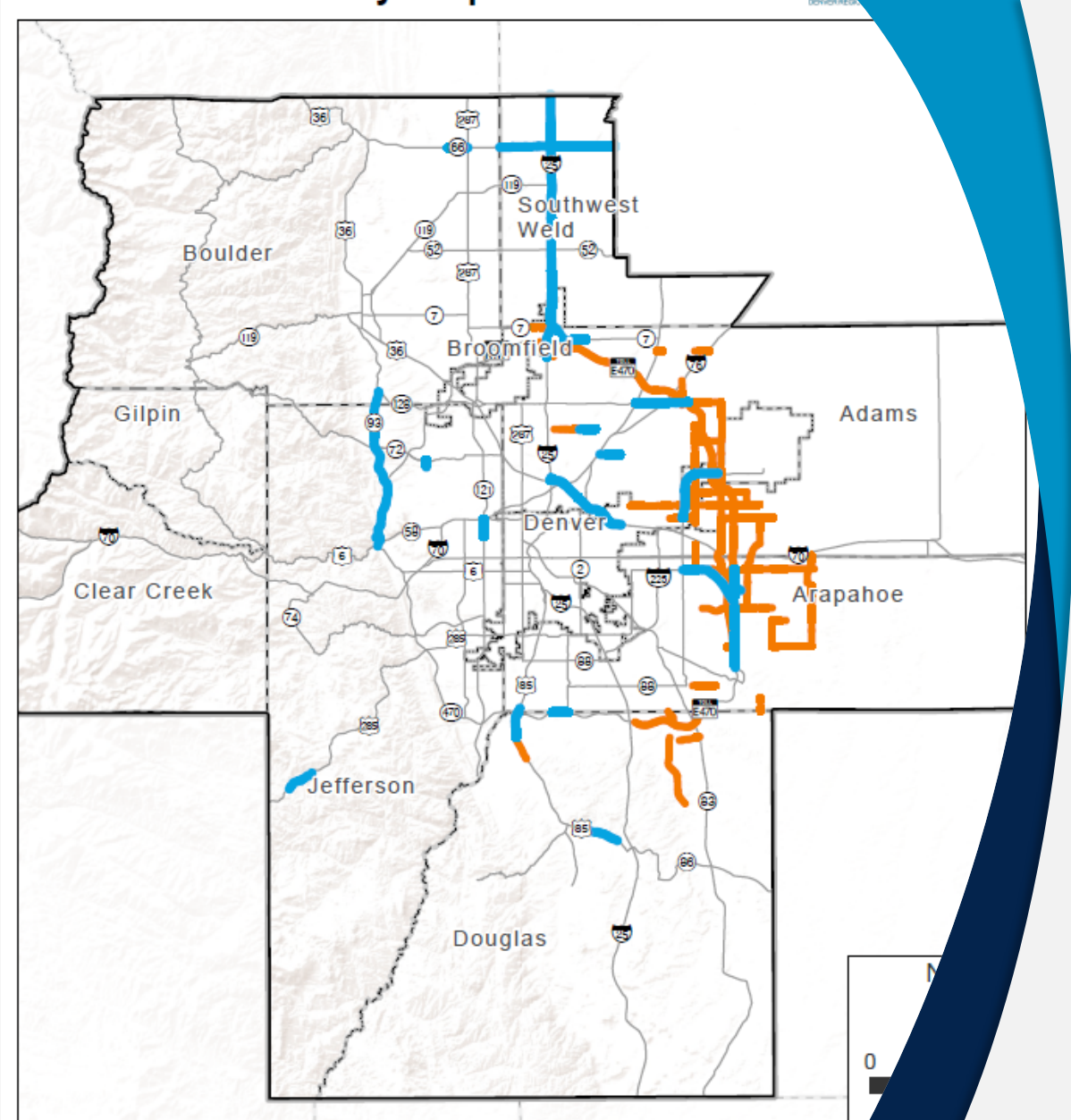
i Compared to 2023 conditions.





Limited roadway expansion scenario

- The adopted RTP, except:
 - No additional regionally-funded **roadway capacity** projects.
 - No additional locally-funded roadway capacity projects **wider than 4-lanes**.



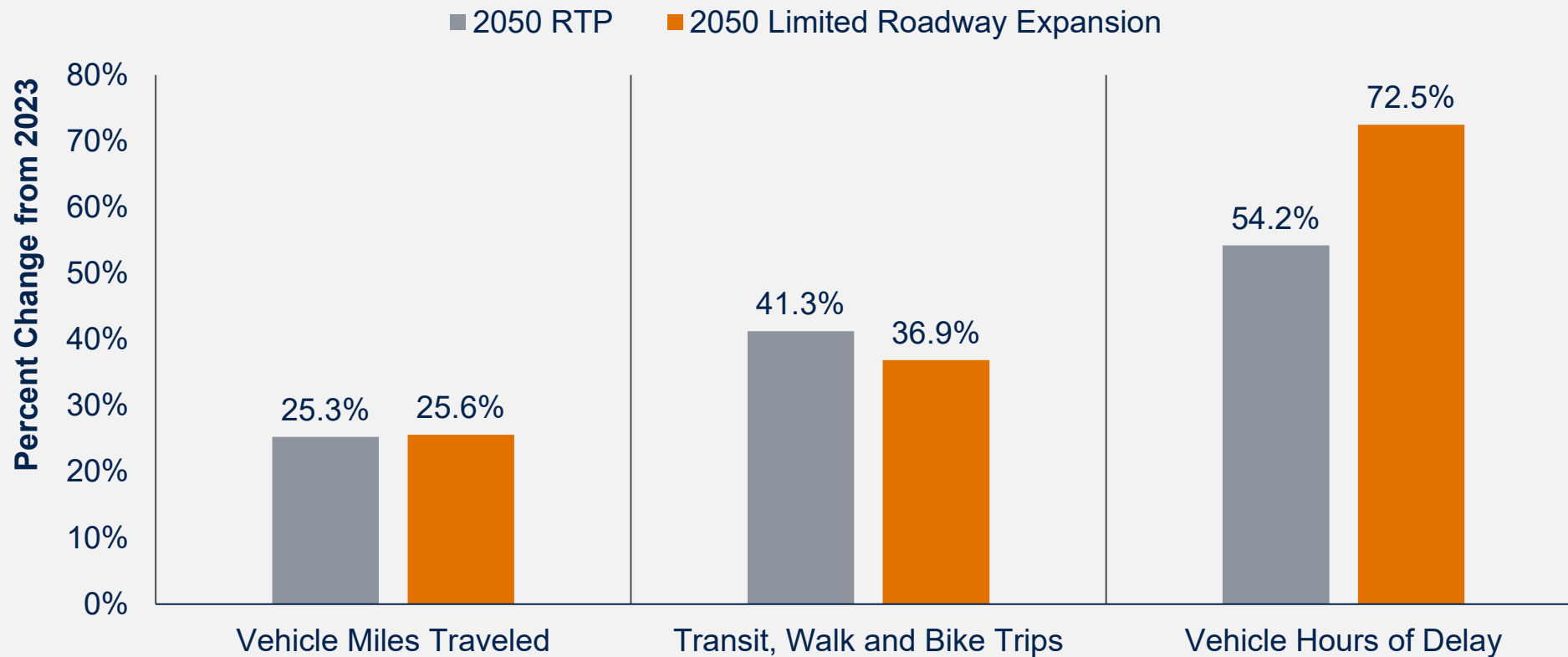
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Limited roadway expansion comparison

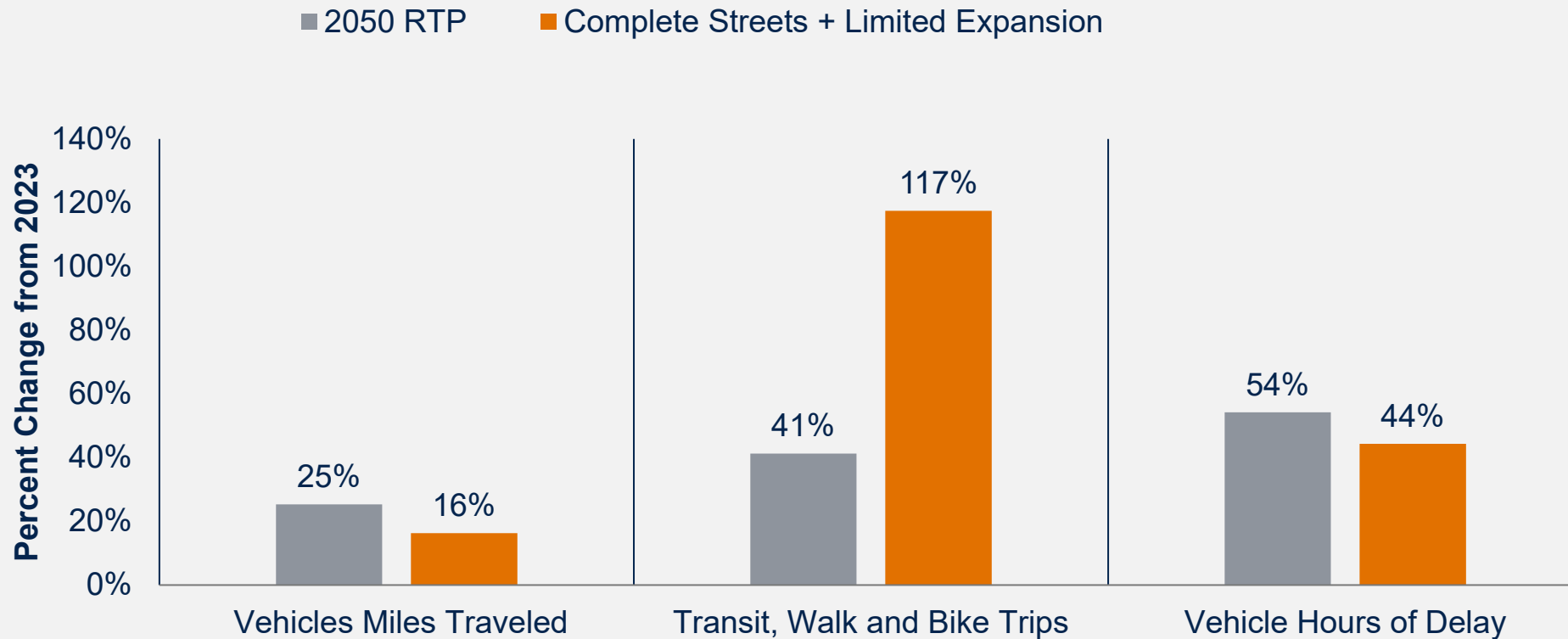
Compared to 2023 conditions.



Complete Streets + Limited Roadway Expansion

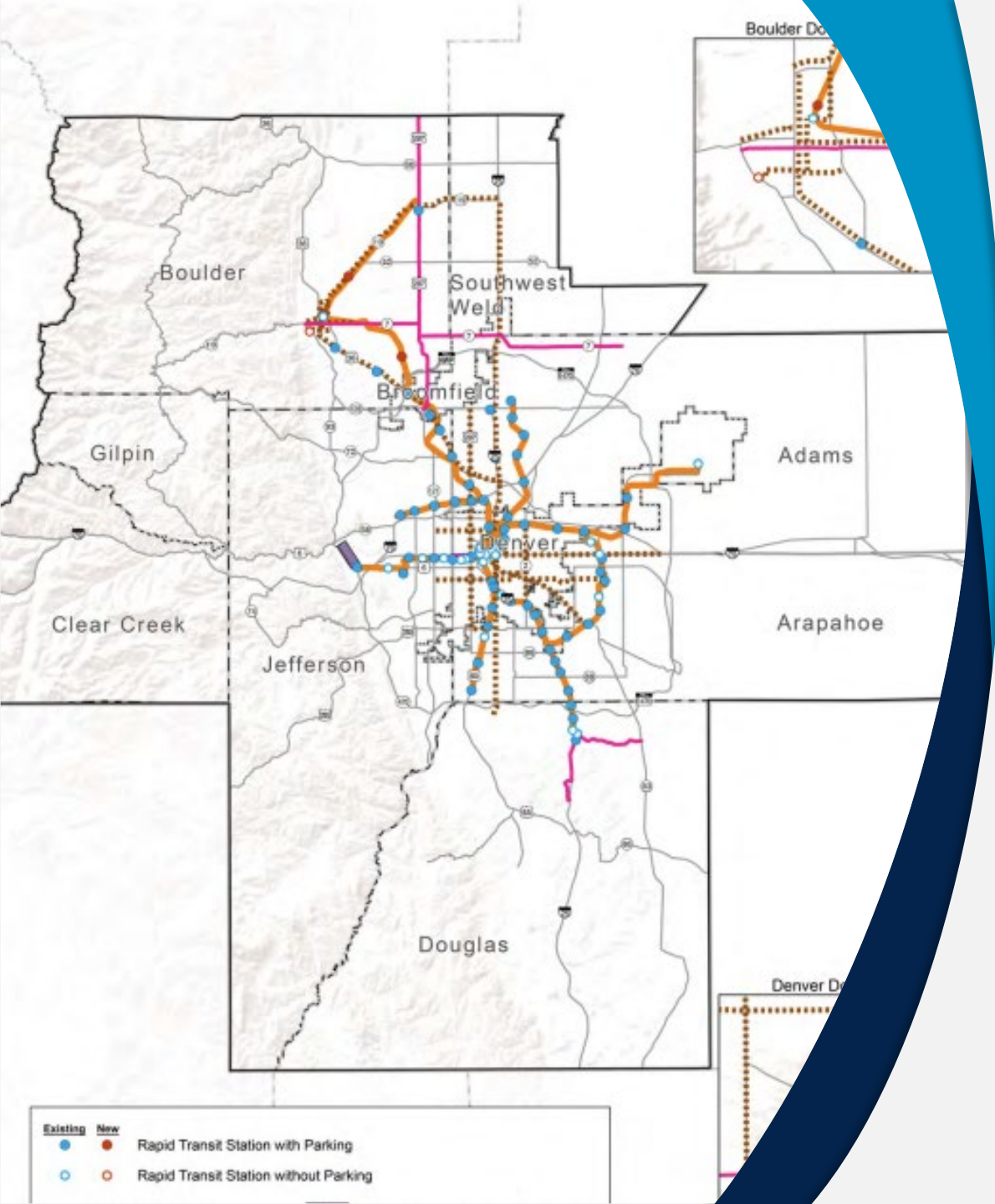


i Compared to 2023 conditions.





Land use scenario



Transit-focused

i Allow for more residential development around transit corridors and stations.

- 2050 RTP **fiscally constrained transit investments.**
- Increase capacity to **40 dwelling units per acre** in high frequency transit corridors.
 - Decrease capacity outside high frequency transit corridors.

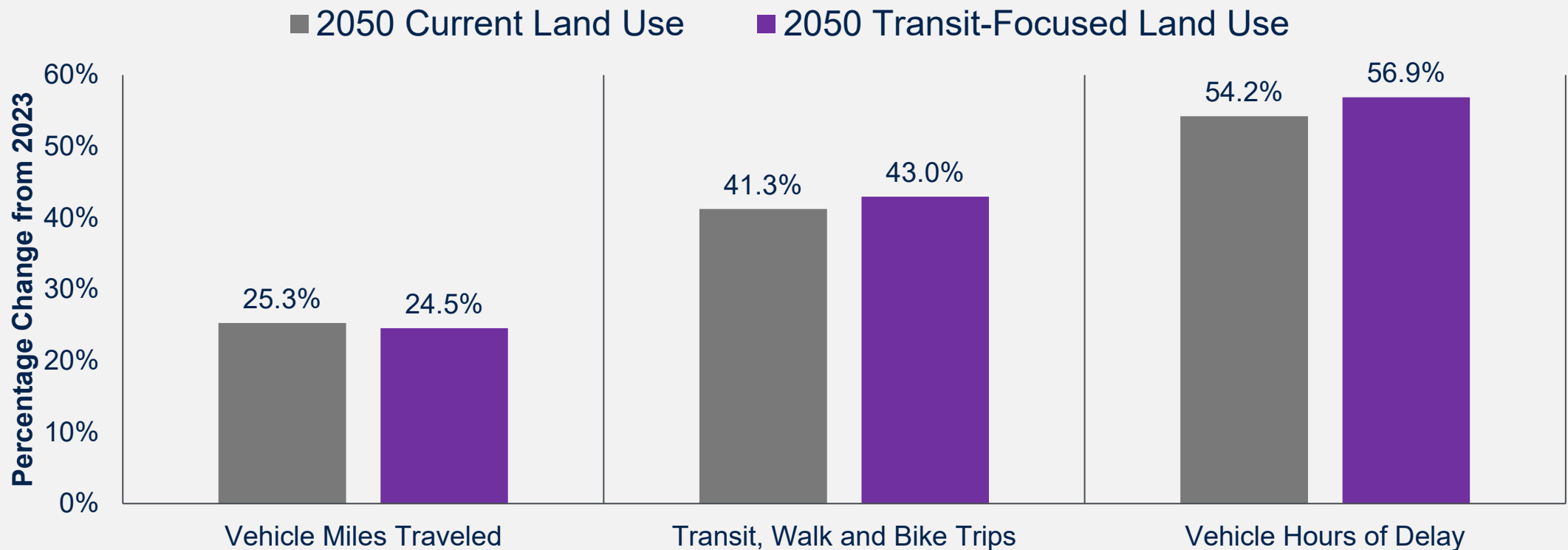
Location choice in scenario geographies

Scenario	Geography	2023 share of households	2050 share of households	Share of household growth
Current land use	Transit-focused	35%	36%	38%
Transit-focused	Transit-focused	35%	41%	57%



Transit-focused+ land use comparison

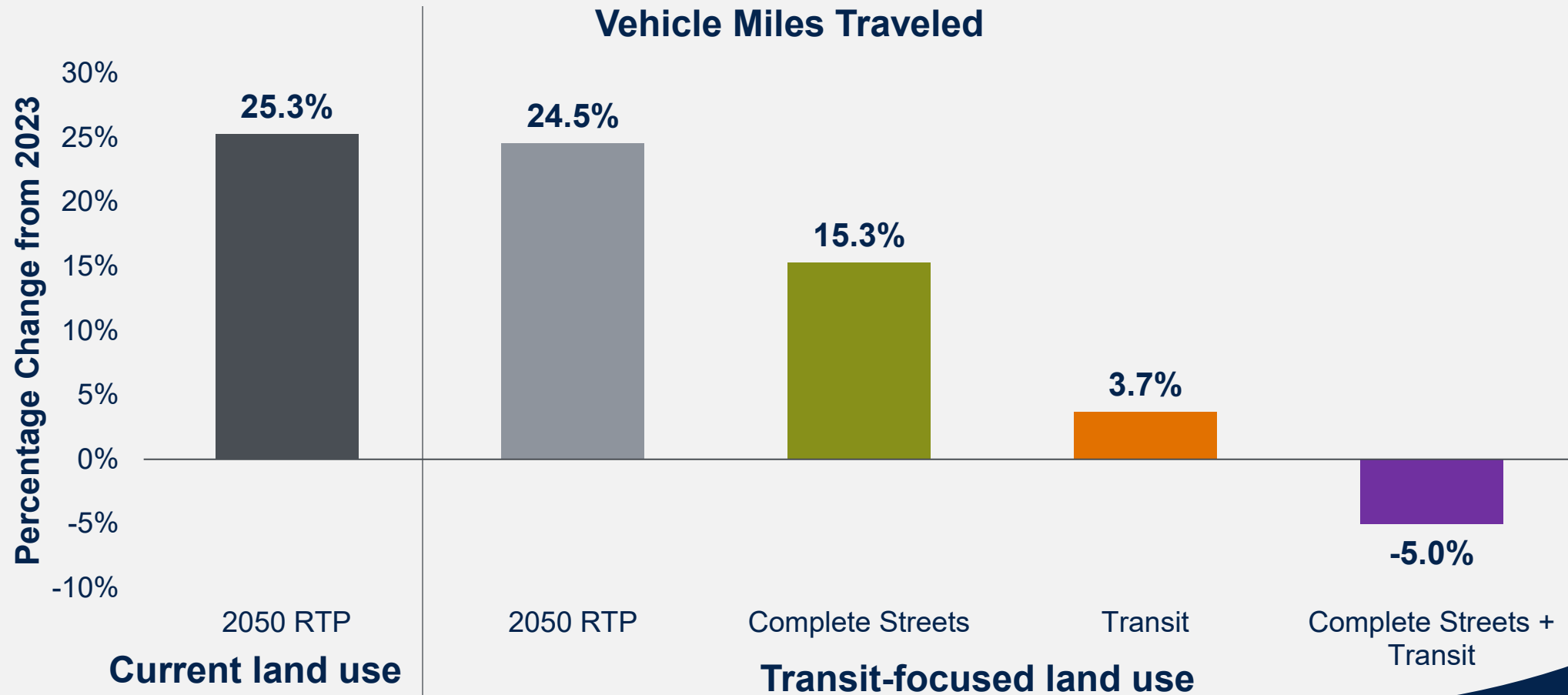
i Compared to 2023 conditions.





Scenario comparisons – vehicle miles traveled

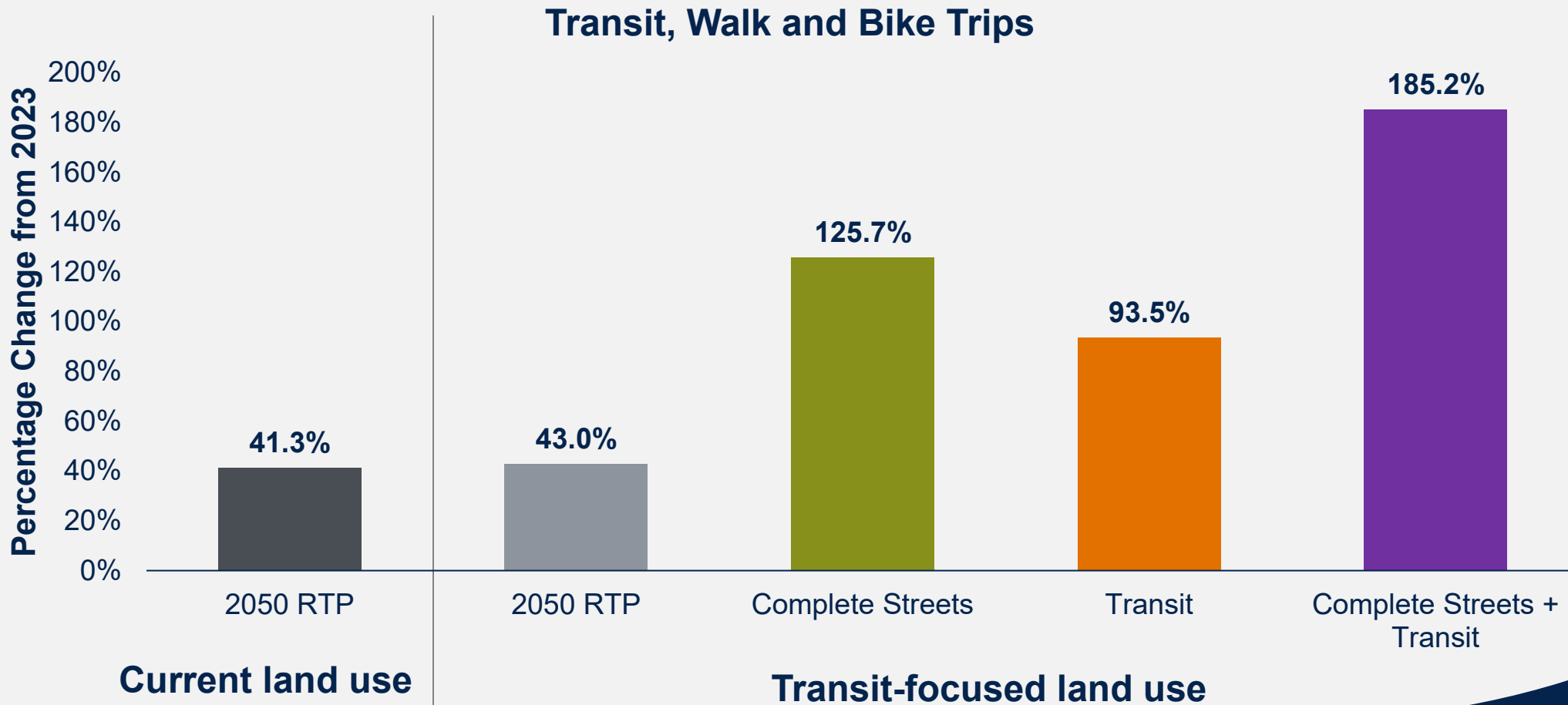
i Compared to 2023 conditions.





Scenario comparisons – transit, walk, bikes trips

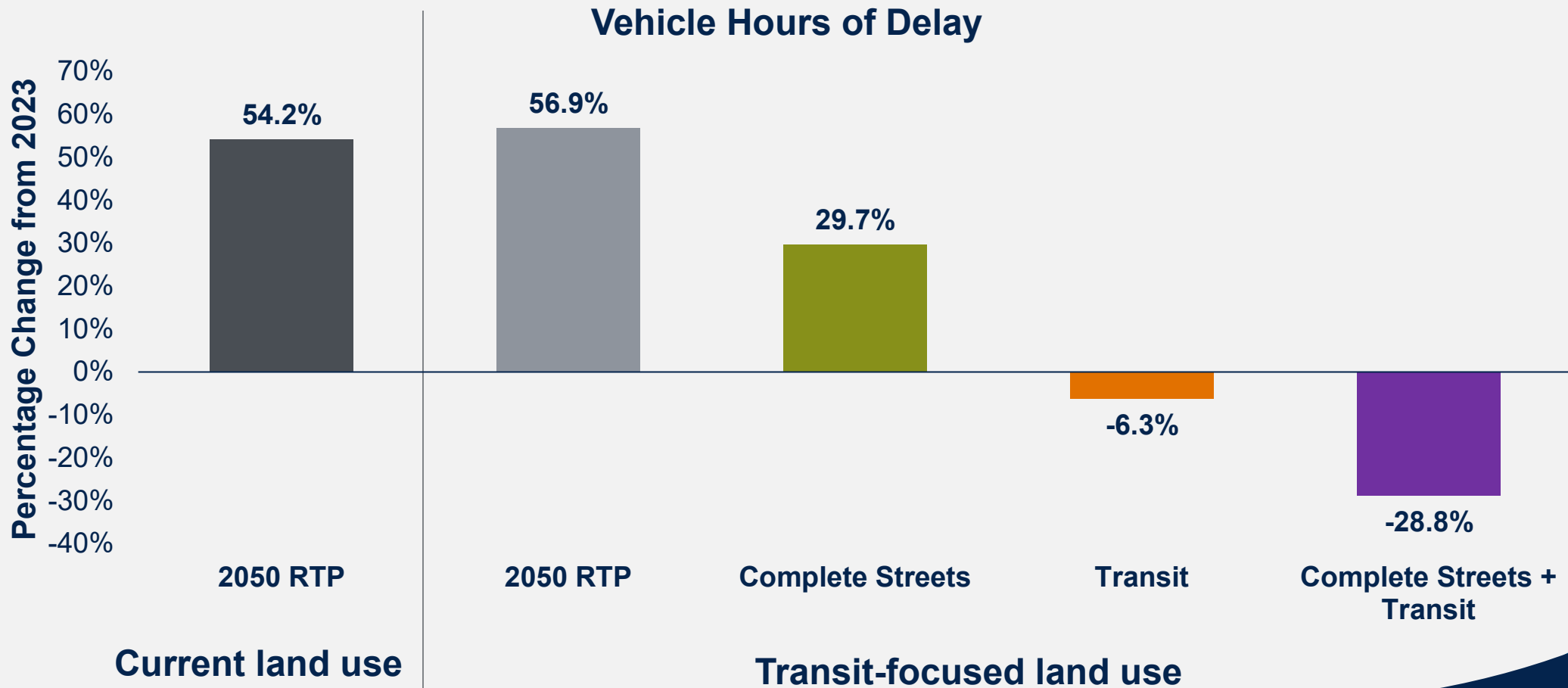
i Compared to 2023 conditions.





Scenario comparisons – vehicle hours of delay

i Compared to 2023 conditions.



Microtransit example



Microtransit services extend the reach of RTD's fixed-route transit service and present a convenient option for riders.

- Residents have **more freedom and are better connected** to everyday services like healthcare, grocery stores, laundromats, pharmacies, and schools.
 - Additional 150-250 rides per day.
- Hiring preferences provide **jobs to local residents** who know the community.

Key takeaways

- **Land use is not the primary driver** of mobility changes alone.
- **Complementary transportation strategies are needed** in combination with land use changes around planned transit investment.
- In addition to regional changes, there are significant changes possible at the **community** and **neighborhood level**.
- Select transportation scenarios meet Metro Vision targets for VMT, non-SOV trips, and delay, but **transportation-land use combinations show greater magnitude of change**.



Next steps

- **Developing a report** on this scenario planning effort.
- **Meeting discussions with the TAC** on leveraging the results from scenarios.

Advisory groups



CIVIC ADVISORY GROUP

“...convened to develop the plan with guidance from **interested residents** who represent the **diversity of communities** and **experiences** in the Denver region and who **may not have participated** in transportation planning previously.”



YOUTH ADVISORY PANEL

“...convened to ensure that **younger voices** were heard during the plan process. The panel brought together **high school age representatives** from DRCOG’s member government **youth boards and commissions** throughout the region.”

Civic Advisory Group visioning takeaways

What does the ideal Denver region feel like?

- **Comfortable.**
- **Connected.**
- Brings us closer to **community and culture.**

What's missing?

- **Safety** is missing.
- Access to **food.**
- System-wide **solutions.**

What do you want your neighborhood to look like in 25 years?

- Access to **recreation.**
- Thriving **community.**
- Neighbor's **basic needs** are met.
- Transportation **options.**





Youth Advisory Panel visioning takeaways

What does the ideal Denver region feel like?

- **Accessible** to all.
- Incorporates **technology**.
- **Efficient and organized**.

What's missing?

- **Forward-thinking**.
- Connection to **opportunity** (especially education).

What do you want your neighborhood to look like in 25 years?

- Access to **activity**.
- Thriving **community**.
- **Organized** well.

Contact information

Alvan-Bidal Sanchez, AICP

Program manager

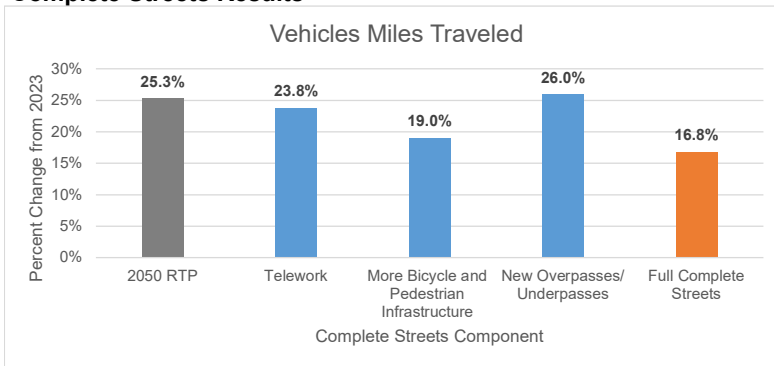
asanchez@drcog.org

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Transportation Scenario	Baseline	Base Transportation Scenario		Limited Roadway Expansion		Complete Streets		Transit		Transit + Complete Streets combination	
Year and Land Use Scenario (Average Weekday)	2023 Base	2050 Base	2050 Transit-focused, Base	2050 Limited Roadway Expansion	2050 Transit-focused, Limited Roadway Expansion	2050 Complete Streets	2050 Transit-focused, Complete Streets	2050 Transit	2050 Transit-focused, Transit	2050 Transit Complete Streets	2050 Transit-focused, Transit + Complete Streets
Demographics and Development											
Population	3,390,222	4,236,727	4,236,527	4,236,727	4,236,527	4,236,727	4,236,527	4,236,727	4,236,527	4,236,727	4,236,527
Employment	2,248,497	2,760,264	2,761,118	2,760,264	2,761,118	2,760,264	2,761,118	2,760,264	2,761,118	2,760,264	2,761,118
Teleworkers on Typical Day	416,617	492,814	495,853	493,552	496,244	706,398	711,779	498,747	501,657	714,936	719,322
Households in Urban Centers	248,797	362,738	388,652	362,738	388,652	362,738	388,652	362,738	388,652	362,738	388,652
Jobs in Urban Centers	921,380	1,068,225	1,068,319	1,068,225	1,068,319	1,068,225	1,068,319	1,068,225	1,068,319	1,068,225	1,068,319
Vehicle and Person Measures											
Total Person Trips	14,982,493	18,499,883	18,546,444	18,492,839	18,544,746	18,335,023	18,390,942	18,377,328	18,443,504	18,231,466	18,286,968
Vehicle Trips	9,982,834	12,169,544	12,208,218	12,255,783	12,207,829	11,067,469	10,993,137	11,308,338	11,255,608	10,023,938	9,945,411
Vehicle Miles Traveled (VMT)	86,159,372	107,952,035	107,306,615	108,227,402	106,900,093	100,665,534	99,308,093	90,258,251	89,320,973	82,798,449	81,814,055
VMT per Capita	25.8	26.0	25.8	26.1	25.7	24.3	23.9	21.8	21.5	20.0	19.7
Person Miles Traveled (PMT)	120,565,632	151,574,232	150,909,532	152,006,634	150,401,569	142,655,022	140,972,886	134,898,651	133,927,610	125,981,033	124,825,258
PMT / Grand Total PMT											
Autos & Trucks	96.5%	96.1%	96.0%	96.1%	96.0%	95.3%	95.1%	90.3%	90.0%	88.7%	88.5%
Transit (including walking or driving to transit)	1.4%	2.3%	2.5%	2.4%	2.6%	2.7%	2.8%	7.7%	8.0%	8.5%	8.8%
Walk and Bike	0.8%	0.9%	0.8%	0.8%	0.8%	1.4%	1.5%	1.1%	1.1%	1.9%	1.9%
Transit, Walk, and Bike	*	3.2%	3.4%	3.2%	3.4%	4.1%	4.3%	8.8%	9.1%	10.4%	10.7%
% of Households Making Transit Trips	6.0%	8.6%	9.5%	9.0%	9.6%	8.6%	9.0%	18.0%	18.6%	17.2%	17.7%
Delay											
Vehicle Hours of Delay	360,796	556,444	566,070	622,330	619,517	472,260	468,127	338,738	337,994	258,619	256,841
Daily Person Minutes of Delay per Capita	8.6	10.6	10.8	11.9	11.8	9.0	9.0	6.5	6.5	4.9	4.9
% of Total VMT in Severe Congestion	11.2%	16.2%	16.7%	18.6%	18.7%	15.0%	15.2%	8.1%	8.2%	6.9%	7.0%
Share of Work Trips Non SOV	19.9%	24.3%	24.5%	23.8%	24.5%	31.1%	32.1%	30.6%	31.4%	38.7%	39.7%

Transportation Scenario	2023 Base	2050 RTP	Complete Streets				Transit	
			Telework	More Bicycle and Pedestrian Infrastructure	New Overpasses/Underpasses	Full Complete Streets	With Fares	Zero Fares
Vehicles Miles Traveled	86,159,372	107,952,035	106,674,621	102,565,665	108,535,549	100,665,534	93,175,336	90,258,251
Transit, Walk and Bike Trips	1,757,268	2,482,304	2,374,701	3,852,637	2,408,641	3,815,743	2,986,004	3,263,709
Vehicle Hours of Delay	360,796	556,444	527,191	511,785	565,069	472,260	365,782	338,738
Transit Trips	185,789	358,949	361,411	363,018	374,316	348,677	657,536	943,287
Walk and Bike Trips	1,571,479	2,123,355	2,013,290	3,489,619	2,034,325	3,467,066	2,328,468	2,320,422
Teleworkers on Typical Day	416,617	492,814	709,036	492,201	493,048	706,398	497,602	498,747
VMTper Capita	25.83	26.03	25.72	24.73	26.17	24.27	22.47	21.76
PMT - Transit	1,724,935	3,516,799	3,441,592	3,984,725	3,626,872	3,813,917	7,177,937	10,410,948
PMT Walk & Bike	1,005,110	1,314,105	1,212,754	2,032,211	1,225,330	2,016,415	1,453,650	1,445,006
Vehicles Miles Traveled		25.3%	23.8%	19.0%	26.0%	16.8%	8.1%	4.8%
Transit, Walk and Bike Trips		41.3%	35.1%	119.2%	37.1%	117.1%	69.9%	85.7%
Vehicle Hours of Delay		54.2%	46.1%	41.8%	56.6%	30.9%	1.4%	-6.1%
Transit Trips		93.2%	94.5%	95.4%	101.5%	87.7%	253.9%	407.7%
Walk and Bike Trips		35.1%	28.1%	122.1%	29.5%	120.6%	48.2%	47.7%
Teleworkers on Typical Day		18.3%	70.2%	18.1%	18.3%	69.6%	19.4%	19.7%
VMTper Capita		0.8%	-0.4%	-4.3%	1.3%	-6.0%	-13.0%	-15.8%
PMT - Transit		103.9%	99.5%	131.0%	110.3%	121.1%	316.1%	503.6%
PMT Walk & Bike		30.7%	20.7%	102.2%	21.9%	100.6%	44.6%	43.8%

Complete Streets Results



Transit Results

