

APPENDIX



Financial plan

Financial plan

This appendix documents the methodology and assumptions used for the 2022 update to the 2050 Metro Vision Regional Transportation Plan and carried forward into the currently adopted Transportation Improvement Program.

A long-range transportation plan must contain a financial plan that demonstrates how the adopted plan can be implemented, indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan and recommends financing strategies for needed projects and programs. The purpose of the financial plan is to demonstrate fiscal constraint, which ensures that the transportation plan reflects realistic assumptions about future revenues for investment.

The Denver Regional Council of Governments, in coordination with the Colorado Department of Transportation, Regional Transportation District, local governments, special districts and authorities, and various special funding agencies, estimated total revenues available for transportation purposes. The financial analysis covers 30-years — 2021 through 2050 — split into three 10-year funding tiers. The analysis includes federal, state, local and private revenues. The major steps for developing the financial plan included:

- 1) Estimating the amount of revenue available out to 2050 for all aspects of the transportation system in coordination with regional, state and federal partners.
- 2) Determining the amount available for multimodal capital projects versus funding allocated to programmatic expenses.
- 3) Evaluating and prioritizing multimodal capital projects to determine the best use of limited regional funding.

2022 update

As part of the 2022 update to the 2050 RTP, DRCOG staff worked with CDOT to determine the appropriate changes to the financial plan. The changes were made to reflect the cycle amendments and greenhouse gas analysis strategic changes that affected the project and program investment mix,

In an effort to not rebuild the financial plan or alter its underlying assumptions, the following strategic changes have been made and are reflected in the subsequent tables. The changes reflect the passage of Colorado's SB21-260 and the federal Infrastructure Investment and Jobs Act, which provided additional funding sooner than expected.

- Adding over \$274 million in the 2020-2029 staging period to reflect additional funding from SB21-260 and the Infrastructure Investment and Jobs Act.
- Adding \$540 million in Multimodal Transportation and Mitigation Options Fund dollars across the life of the plan since SB21-260 extended the program.
- Adding over \$21 million in additional Federal Highway Administration discretionary grants in the 2020-2029 staging period to reflect the region's history of successful grant submittals.

The 2050 RTP is fiscally constrained in current year (2020) and year-of-expenditure dollars, and within the three 10-year funding tiers established. Unless otherwise specified, the revenues and expenditures are shown in year-of-expenditure dollars.

Table 1: Summary of 2050 RTP revenues and expenditures

Funding tier	Revenues (year of expenditure)	Expenditures (year of expenditure)	Balance*
2021-2030	\$57,378,718,191	\$56,871,361,720	\$507,356,471
2031-2040	\$64,191,782,526	\$63,026,997,057	\$1,164,785,469
2041-2050	\$65,575,158,249	\$62,948,532,926	\$2,626,625,323
2021-2050 total	\$187,145,658,966	\$182,846,891,704	\$4,298,767,262

*Any remaining balance of revenues shown is reallocated to additional programmatic investments to zero out the balance.

Summary of revenues

Table 2: 2050 RTP revenues by funding tier

Funding tier	Revenues (current year)	Revenues (year of expenditure)
2021-2030	\$50,650,390,735	\$ 57,378,718,191
2031-2040	\$46,011,770,512	\$64,191,782,526
2041-2050	\$37,147,761,089	\$65,575,158,249
2021-2050 total	\$133,809,922,336	\$187,145,658,966

The funding estimated to be available through the plan's horizon year from federal, state, local and private sources for the 2050 RTP is \$187.1 billion. Within this estimate:

- DRCOG administered funds: \$5.9 billion.
- Colorado Department of Transportation administered funds: \$26.8 billion.
- Regional Transportation District administered funds: \$49.8 billion.
- Other Regional Roadway System funds: \$14.7 billion.
- Non-Regional Roadway System funds: \$89.8 billion

Revenue forecast methodology

Table 3: 2050 RTP revenues by funding source or program (2021-2050)

Funding source or program	2021-2030	2031-2040	2041-2050	2021-2050 total
DRCOG administered funds				
Surface Transportation Block Grant-Metro	\$483,335,447	\$634,325,124	\$832,112,361	\$1,949,772,933
Transportation Alternative	\$55,784,409	\$72,860,802	\$95,198,475	\$223,843,686
Congestion Mitigation and Air Quality	\$480,009,654	\$614,551,745	\$774,423,216	\$1,868,984,615
Regional measure	\$195,288,955	\$461,190,909	\$574,433,162	\$1,230,913,026
Multimodal Transportation and Mitigation Options Funds	\$223,901,064	\$140,821,652	\$175,399,439	\$540,122,154
Federal Transit Administration Section 5310	\$32,543,315	\$40,534,103	\$50,486,972	\$123,564,391
DRCOG subtotal:	\$1,470,862,845	\$1,964,284,334	\$2,502,053,626	\$5,937,200,804

Funding source or program	2021-2030	2031-2040	2041-2050	2021-2050 total
Colorado Department of Transportation administered funds				
Surface treatment	\$825,904,313	\$1,028,699,433	\$1,281,289,498	\$3,135,893,243
Structures	\$250,784,753	\$312,363,222	\$389,061,862	\$952,209,837
Highway Safety Improvement Program	\$187,868,403	\$245,967,548	\$321,925,387	\$755,761,338
Funding Advancement for Surface Transportation and Economic Recovery Safety	\$532,280,157	\$815,663,152	\$1,233,358,214	\$2,581,301,523
Regional Priority Projects	\$216,522,239	\$269,687,784	\$335,907,763	\$822,117,787
Strategic projects	\$1,868,005,710	\$2,746,022,205	\$3,420,289,057	\$8,034,316,972
Asset management	\$986,881,213	\$1,236,361,215	\$1,546,809,480	\$3,770,051,908
Mobility	\$54,544,347	\$67,937,336	\$84,618,881	\$207,100,563
Strategic transit	\$307,138,633	\$422,464,955	\$526,198,316	\$1,255,801,904

Funding source or program	2021-2030	2031-2040	2041-2050	2021-2050 total
Bridge enterprise	\$679,124,135	\$999,297,542	\$1,334,753,511	\$3,013,175,188
Commission contingency	\$169,590,658	\$211,232,477	\$263,099,158	\$643,922,294
Toll revenue	\$584,145,601	\$343,839,845	\$-	\$927,985,446
Financing mechanism	\$633,138,458	\$-	\$-	\$633,138,458
Funding Advancement for Surface Transportation and Economic Recovery Transit	\$35,000,000	\$35,000,000	\$35,000,000	\$105,000,000
Federal Transit Administration Section 5311	\$6,134,744	\$8,697,251	\$12,148,297	\$26,980,292
Colorado Department of Transportation subtotal:	\$7,337,063,363	\$8,743,233,965	\$10,784,459,424	\$26,864,756,752

Funding source or program	2021-2030	2031-2040	2041-2050	2021-2050 total
Regional Transportation District administered funds				
Sales and use tax	\$9,901,869,642	\$12,973,588,828	\$14,875,032,883	\$37,750,491,353
Farebox revenues	\$1,429,184,631	\$2,188,253,068	\$2,975,226,822	\$6,592,664,520
Federal Transit Administration formula funds	\$1,294,882,171	\$1,830,542,483	\$2,370,388,477	\$5,495,813,131
Regional Transportation District subtotal:	\$12,625,936,443	\$16,992,384,379	\$20,220,648,182	\$49,838,969,004

Funding source or program	2021-2030	2031-2040	2041-2050	2021-2050 total
Other revenues for regional system				
Federal Highway Administration discretionary	\$68,674,653	\$94,039,525	\$117,130,284	\$279,844,461
Federal Transit Administration discretionary	\$206,178,172	\$86,016,318	\$85,997,152	\$378,191,642
Toll authority	\$1,819,488,138	\$1,704,107,921	\$1,449,570,327	\$4,973,166,387
Local or private (capital)	\$1,573,760,036	\$1,659,157,542	\$1,330,195,548	\$4,563,113,126
Local or private (preservation, enhancement and operations)	\$962,446,803	\$1,198,768,991	\$1,493,118,466	\$3,654,334,260
Local or private (bridges)	\$213,169,544	\$265,511,858	\$330,706,468	\$809,387,870
Other regional system subtotal:	\$4,843,717,346	\$5,007,602,156	\$4,806,718,245	\$14,658,037,746

Funding source or program	2021-2030	2031-2040	2041-2050	2021-2050 total
Revenues for non-regional facilities				
Local or private (preservation, enhancement and operations)	\$5,453,865,217	\$6,793,024,284	\$8,461,004,641	\$20,707,894,142
Local or private (bridges)	\$1,055,999,200	\$1,315,292,535	\$1,638,253,564	\$4,009,545,299
Local or private (new minor arterials, collectors and local roads)	\$24,591,273,777	\$23,375,960,873	\$17,162,020,568	\$65,129,255,218
Non-regional subtotal:	\$31,101,138,194	\$31,484,277,692	\$27,261,278,774	\$89,846,694,660
GRAND TOTAL:	\$57,378,718,191	\$64,191,782,526	\$65,575,158,249	\$187,145,658,966

Unless otherwise noted, a standard inflation rate of 2.22% is used to inflate current year into year-of-expenditure dollars. The 2.22% is obtained from FHWA FAST Act 2016-2020 Estimated Apportionment document. This value is consistent with FAST Act appropriations and was agreed upon by the Colorado Department of Transportation and the Regional Transportation District during the interagency process. Revenues are inflated each year out to 2050. While revenues are shown in 10-year funding tiers in this document, DRCOG staff performed more detailed fiscal constraint analysis.

The table below uses DRCOG’s Surface Transportation Block Grant-Metro program to illustrate the year of expenditure analysis performed by staff. The revenue across five-years is combined to provide an available amount to program within that time period and for projects to draw from. Project costs were then inflated to the mid-point of a five-year funding tier to provide better fiscal constraint analysis but provide some flexibility in project implementation.

Surface transportation block grant-metro example

Year	Current year	Year of expenditure	Five-year total
2021	\$41,710,826	\$42,636,806	\$225,262,024
2022	\$41,928,649	\$43,810,945	
2023	\$42,149,278	\$45,019,199	
2024	\$42,369,827	\$46,259,421	
2025	\$42,593,181	\$47,535,652	
2026	\$42,816,454	\$48,845,657	\$258,073,423
2027	\$43,042,531	\$50,193,669	
2028	\$43,268,527	\$51,577,362	
2029	\$43,494,442	\$52,997,655	
2030	\$43,723,159	\$54,459,080	

Year	Current year	Year of expenditure	Five-year total
2031	\$43,951,794	\$55,959,168	\$295,648,531
2032	\$44,183,231	\$57,502,667	
2033	\$44,414,584	\$59,087,008	
2034	\$44,645,854	\$60,713,240	
2035	\$44,879,924	\$62,386,449	
2036	\$45,113,910	\$64,103,907	\$338,676,593
2037	\$45,350,696	\$65,870,940	
2038	\$45,587,396	\$67,684,710	
2039	\$45,826,896	\$69,550,795	
2040	\$46,066,309	\$71,466,242	
2041	\$46,308,520	\$73,436,896	\$387,968,878
2042	\$46,550,644	\$75,459,684	
2043	\$46,792,681	\$77,535,946	
2044	\$47,037,514	\$79,671,942	
2045	\$47,282,259	\$81,864,410	
2046	\$47,519,999	\$84,102,560	\$444,143,484
2047	\$47,758,935	\$86,401,901	
2048	\$47,999,071	\$88,764,105	
2049	\$48,240,415	\$91,190,891	
2050	\$48,482,973	\$93,684,025	
2021-2050 total	\$1,351,090,482	\$1,949,772,933	

DRCOG revenues

DRCOG relies on the Program Distribution from the Colorado Department of Transportation to develop revenue forecasts for funds DRCOG administers. For the development of the Program Distribution, CDOT adopted a high-revenue scenario beginning in 2025. The Program Distribution is a statewide process, so DRCOG staff participated in CDOT's process to determine the proportion and amounts in each program area and funding type available to the DRCOG region. As the Program Distribution was developed for the 2045 Statewide Transportation Plan, DRCOG staff forecast out to 2050 the remaining five years needed for the 2050 RTP. Staff used the average growth rate experienced in each program area (e.g., surface treatment, structures, bridge enterprise, etc.) and funding type (e.g., Surface Transportation Block Grant-Metro, Transportation Alternative, Highway Safety Improvement Program, etc.) to forecast out the remaining five years of the plan horizon.

Funding administered by DRCOG and included in the Program Distribution includes federal formula funds Surface Transportation Block Grant-Metro program funds, Transportation Alternative program funds, and Congestion Mitigation and Air Quality Improvement program funds. The funding sources amount to more than \$4 billion over the plan's horizon.

Multimodal Transportation and Mitigation Options Funds

With the passage of SB21-260, the Multimodal Options Fund program was extended past its original expiration date and renamed to the Multimodal Transportation and Mitigation Options Funds program. DRCOG staff relied on guidance developed by CDOT to estimate revenue available through the program. More than \$540 million is available through the life of the plan.

Regional funding measure

The Denver region has a recent history of passing regional transportation funding measures, which DRCOG staff took into consideration when developing revenue forecasts. DRCOG staff assumed the passage of a quarter-cent sales tax in the Denver region, with funding becoming available in 2025 to match CDOT's Program Distribution high-revenue assumptions. Modeled on the Empower-Metropolitan Planning Organizations framework that DRCOG staff have been involved in, the regional funding measure assumes \$131 million (2020 dollars) brought in each year to the region. \$32.75 million would be available to DRCOG, with the remaining amount directed to local governments in the region. Over the plan's horizon, the regional funding measure totals over \$1.2 billion available to program.

Federal Transit Administration formula funds (5310)

DRCOG staff reviewed the fiscal year 2019 Full Year Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Apportionments for the Denver-Aurora, Colorado, urbanized area to determine a base year value to inflate out to 2050. Over \$123.5 million is available through the life of the plan.

For the above-mentioned funds, DRCOG staff applied an average annual inflation rate of 2.22% to reach year-of-expenditure dollars.

Colorado Department of Transportation revenues

The Colorado Department of Transportation is anticipated to have an estimated \$26.8 billion through the plan horizon. Funds identified as CDOT-administered include program areas and fund types identified in the Program Distribution and two transit funds identified through collaboration with the Regional Transportation District.

Program Distribution

Program Distribution is a part of the Statewide Transportation Plan and outlines the assignment of projected revenues to various program areas for the time period of the plan. Program Distribution provides a long-term view of what revenues are likely to look like, and how they will likely be allocated among programs in the future. It is for planning purposes only and does not represent a budget commitment by the Colorado Transportation Commission. Final numbers for each year will be a result of updated revenue estimates and annual budget adoption.

CDOT, with participation from DRCOG, developed the 2045 Program Distribution. Funding is broken into program areas and includes existing federal and state sources. Only funding that can be generated under current law and average economic conditions into the future is included.

As the Program Distribution was developed for the 2045 Statewide Transportation Plan, DRCOG staff forecast out to 2050 the remaining five years needed for the 2050 RTP. Staff used the average growth rate experienced in each program area (e.g., surface treatment, structures, bridge enterprise, etc.) and funding type (i.e. Surface Transportation Block Grant-Metro, Transportation Alternative, Highway Safety Improvement Program, etc.) to forecast out the remaining five years of the plan horizon.

Toll revenues

CDOT, through the High-Performance Transportation Enterprise, developed toll revenue forecasts for five projects anticipated to contribute toll revenue. The projects are anticipated to be open to traffic in the 2020-2029 and 2030-2039 funding tier, so toll revenue is only shown within those two tiers of the plan.

Funding Advancement for Surface Transportation and Economic Recovery Transit

Funding Advancement for Surface Transportation and Economic Recovery Transit funds are not indexed and as such are not inflated out to 2050 to reflect their diminishing purchasing power. The funds assume \$3.5 million available each year.

Federal Transit Administration formula funds (Section 5311)

For CDOT-controlled Federal Transit Administration formula Section 5311 funds, DRCOG staff assumed a 2020 current-year estimate of \$500,000. Section 5311 funds assumed an average annual growth of \$7,500 out to 2050.

For the above-mentioned funds, DRCOG staff applied an average annual inflation rate of 2.22% to applicable funds.

Regional Transportation District revenues

DRCOG relies on forecasts developed by the Regional Transportation District to develop revenue projections for funding administered by RTD. RTD provides year-of-expenditure forecasts to DRCOG staff. The forecasts include a specific average annual inflation rate that DRCOG staff use to deflate year-of-expenditure dollars back to current-year dollars. An exception is RTD's Debt Service program, as debt service is set in year-of-expenditure dollars and does not change with the inflation rate.

RTD's transit revenues include sales and use taxes, farebox revenues and Federal Transit Administration formula grants (sections 5305, 5307, 5337 and 5339). Across the program areas RTD has identified in its financial planning process, an estimated \$49.8 billion is anticipated to be available through the plan horizon.

DRCOG staff worked with RTD staff to determine revenue forecasts. However, because of COVID-19, RTD staff reduced its revenue forecasts to reflect the immediate budgetary shortfalls the agency was experiencing during the pandemic.

Other regional system revenues

This funding includes assumptions about federal discretionary awards, toll authority funding and local funding. DRCOG worked with the Colorado Department of Transportation, the Regional Transportation District and federal partners to develop reasonable forecasts using historic expenses. Improvements funded with the sources are on the Regional Roadway System. Approximately \$14.7 billion is anticipated through the plan horizon year.

Federal Highway Administration discretionary awards

As the region has a history of receiving federal discretionary grants, DRCOG staff averaged the annual Federal Highway Administration discretionary funding awards from the 2012-2015, 2016-2019 and 2020-2023 Transportation Improvement Programs to develop award forecasts. Staff excluded Transportation Infrastructure Finance and Innovation Act funds in fiscal years 2012, 2017 and 2018 totaling \$576 million, and excluded Infrastructure For Rebuilding America grant funding in fiscal year 2019 totaling \$65 million due to the size of the awards.

The average annual award was \$6.7 million in 2020 dollars. Beginning in 2022 and using year-of-expenditure dollars, the total amount available from 2022-2050 amounted to \$279.8 million. Since the awards used in the calculation included grants to local, regional and state agencies, DRCOG staff proposed splitting the available revenue equally between DRCOG and CDOT for projects.

Federal Transit Administration discretionary awards

As the region has a history of receiving federal discretionary grants, DRCOG staff coordinated with CDOT, RTD, the Federal Highway Administration and Federal Transit Administration to determine a reasonable number of Federal Transit Administration awards to the region through the plan horizon.

The six projects identified are bus rapid transit projects identified in RTD's Regional Bus Rapid Transit Feasibility Study. The awards were calculated to cover half of a project's cost and were programmed to eligible bus rapid transit projects likely to receive federal grants. Six awards of Capital Investment Grants - 5309 funds are programmed in the 2050 RTP for a total of \$378.2 million.

Public Highway Authorities

After reviewing the [2020 E-470 Master Plan](#) adopted in July 2020, DRCOG staff set up a coordination call with staff and officials from the E-470 Public Highway Authority. DRCOG staff confirmed the implementation timelines for air quality regionally significant projects.

Costs in the master plan are inflated using an average annual inflation rate of 1.94% based on a current-year value from 2019. DRCOG staff incorporated the existing list of projects and investments from the master plan into the 2050 RTP with minor adjustments. The investments include air quality regionally significant projects, pavement overlays, interchange signalizations and geometric improvements, multi-use trails and the Renewal and Replacement Program.

Because the master plan only covers projects and program investments out to 2040, DRCOG staff reached an agreement to only forecast out the Renewal and Replacement Program to 2050. The Renewal and Replacement Program covers costs associated with maintenance, replacement, support and upgrades on the tollway.

DRCOG staff also coordinated with the Jefferson Parkway Public Highway Authority to determine revenues and project costs to include in the 2050 RTP. Approximately \$5.0 billion is programmed to projects and programs administered by public highway authorities.

Local and private funding

To develop revenue forecasts for local government and private developer funding, DRCOG staff used the Federal Highway Administration's Form 536 reports from 2015-2018. The Form 536 reports document receipts and expenses on transportation from all municipalities in every state. DRCOG staff averaged the expenses for maintenance, enhancement and operations, resurfacing, snow removal, and traffic enforcement to develop annual revenue assumptions. The calculated average was then carried forward through the life of the plan. DRCOG staff assumed only 15% of available revenue was available for expenses on the Regional Roadway System.

DRCOG staff developed revenue assumptions for bridges and culverts on the regional roadway system using Colorado Department of Transportation-provided bridge data. DRCOG staff estimated the total cost to replace or rehabilitate bridges and culverts. The estimates are based on the annual elimination of the backlog of poor bridges in 20 years as well as sustaining existing conditions.

For the above-mentioned funds, minus the E-470 Public Highway Authority funding, DRCOG staff applied an average annual inflation rate of 2.22% to develop year-of expenditure forecasts.

Non-regional system revenues

This category includes any funding by local governments and private developers. It is anticipated to be spent on non-regionally significant improvements on new minor, collector and local roads. The roads are not eligible for regional funding, so improvements are funded 100% by local governments or private developers. DRCOG used historic expenses to calculate future revenues available.

Similar to the forecasts developed above, DRCOG staff used the Federal Highway Administration's Form 536 reports from 2015 to 2018. DRCOG staff averaged the expenses for maintenance, enhancement and operations, resurfacing, snow removal and traffic enforcement to develop annual revenue assumptions. The calculated average was then carried forward through the life of the plan. However, 85% of available revenue was assumed to be spent on improvements off the regional roadway system.

The revenue assumptions for bridges and culverts off the Regional Roadway System were developed using the same Colorado Department of Transportation-provided bridge data as the on-system bridges. DRCOG staff estimated the total cost to replace or rehabilitate bridges and culverts. The estimates are based on the annual elimination of the backlog of poor bridges in 20 years as well as sustaining existing conditions.

The full estimated amount of non-regional system funds is \$89.8 billion. For the above-mentioned funds, DRCOG staff applied an average annual inflation rate of 2.22% to develop year-of expenditure forecasts.

Summary of expenditures

Table 4: 2050 RTP expenditures by funding tier

Funding tier	Expenditures (current year)	Expenditures (year of expenditure)
2021-2030	\$50,202,527,759	\$59,871,361,720
2031-2040	\$45,176,868,604	\$63,026,997,057
2041-2050	\$35,659,800,518	\$62,948,532,926
2021-2050 total	\$131,039,196,881	\$182,846,891,704

The estimated expenditure through the plan’s horizon year from federal, state, local and private sources for the 2050 RTP is \$182.8 billion. Any remaining balance of revenues after the interagency process is reallocated to additional programmatic investments to zero out any balance.

Expenditure forecast methodology

Capital projects versus programmatic expenses

In the development of the 2050 RTP, DRCOG staff, in consultation with staff from the Colorado Department of Transportation and the Regional Transportation District, developed revenue allocations for each program area and funding type. Revenue allocations determine how much of each program area and funding type are available to capital projects. The effort was complex, as many funding sources are restricted to specific uses and others can be flexed between uses and modes. The allocation process, and the results shown, are multimodal in nature and reflect all program distribution revenue sources: roadways, transit, bicycle and pedestrian, and other multi-modal transportation system components.

- Capital projects are major projects that are individually listed in the plan. Examples range from road widenings, new roads and bus rapid transit projects to major active transportation, safety and freight projects.
- Programmatic expenses include lump sums of funding to be spent on small-scale projects that are not listed individually. Examples include system preservation, local bus service, roadway operations, sidewalks and safety.

Based on consultation with CDOT, roughly 62% of available CDOT-administered funding is allocated to programmatic expenses that are not individually listed projects. The amounts reflect continued and expected investments towards maintaining, preserving and operating the multimodal transportation system.

As DRCOG staff had the most flexibility with DRCOG-administered funding, staff allocated 82% of available DRCOG-administered funds toward major capital projects. This intentionality allowed staff to include capital projects reflective of the region's priorities across regional transit, active transportation and safety.

Table 5: DRCOG and Colorado Department of Transportation revenues and expenditure categories (2021-2050) in current-year dollars

Funding program	Planning purpose revenues (2021-2050)	Expenditure categories			
		Capital projects		Programs and categories	
DRCOG administered funds	Totals	%	Amount	%	Amount
Surface Transportation Block Grant-Metro	\$1,351,090,482	85%	\$1,148,426,910	15%	\$202,663,572
Transportation Alternative	\$155,235,214	75%	\$116,426,411	25%	\$38,808,804
Congestion Mitigation and Air Quality	\$1,301,660,165	70%	\$911,162,115	30%	\$390,498,049
Regional measure	\$818,750,000	100%	\$818,750,000	0%	\$0
Multimodal Transportation and Mitigation Options Fund	\$401,700,000	100%	\$401,700,000	0%	\$0
Section 5310	\$123,564,391	0%	\$0	100%	\$123,564,391
DRCOG subtotal:	\$4,152,000,251	82%	\$3,396,465,436	18%	\$755,534,816

Funding program	Planning purpose revenues (2021-2050)	Expenditure categories			
		Capital projects		Programs and categories	
Colorado Department of Transportation administered funds	Totals	%	Amount	%	Amount
Surface treatment	\$2,191,494,180	15%	\$328,724,127	85%	\$1,862,770,053
Structures	\$665,444,310	10%	\$66,544,431	90%	\$598,899,879
Highway Safety Improvement Program	\$523,903,713	0%	\$0	100%	\$523,903,713
Funding Advancement for Surface Transportation and Economic Recovery Safety	\$1,746,977,715	15%	\$262,046,657	85%	\$1,484,931,057
Regional Priority Projects	\$574,530,510	40%	\$229,812,204	60%	\$344,718,306
Strategic projects	\$5,525,000,000	80%	\$4,420,000,000	20%	\$1,105,000,000

Funding program	Planning purpose revenues (2021-2050)	Expenditure categories			
		Capital projects		Programs and categories	
Asset management	\$2,632,507,082	0%	\$0	100%	\$2,632,507,082
Mobility	\$144,730,590	0%	\$0	100%	\$144,730,590
Strategic transit	\$870,000,000	25%	\$217,500,000	75%	\$652,500,000
Bridge enterprise	\$2,065,108,209	10%	\$206,510,821	90%	\$1,858,597,388
Commission contingency	\$450,000,000	20%	\$90,000,000	80%	\$360,000,000
Toll revenue	\$775,000,000	100%	\$775,000,000	0%	\$0
Financing mechanism	\$560,000,000	100%	\$560,000,000	0%	\$0
Funding Advancement for Surface Transportation and Economic Recovery Transit	\$105,000,000	0%	\$0	100%	\$105,000,000
Section 5311	\$18,487,500	0%	\$0	100%	\$18,487,500
Colorado Department of Transportation subtotal:	\$18,848,183,809	38%	\$7,156,138,240	62%	\$11,692,045,569

Estimated project costs

Transit allocations were based on Regional Transportation District estimates and staff guidance. Most transit-related revenue sources are prescribed for specific uses, such as the FasTracks sales and use tax. Only two individually listed projects in the 2050 RTP include Regional Transportation District administered funding; \$30 million to the State Hwy. 119 bus rapid transit project and \$700 million to implementing the peak period service plan for Northwest Rail. The remaining amount of revenue is dedicated to programmatic expenses to maintain and operate the existing transit system.

Finally, local funds were allocated to preservation and maintenance, Regional Roadway System roadways, non-Regional Roadway System roadways and other activities based on information obtained from local governments, special districts and authorities.

DRCOG relies on planning-level cost estimates from project sponsors. Estimated costs include, as appropriate, preliminary engineering, right-of-way and construction costs. Current year (2020) project costs were forecast to the future year the project is expected to be complete or open to service to reflect the trend of increasing project costs.

DRCOG staff inflated costs for individually identified projects using a static 2.34% based on the average annual percent change from 2012-2019 in the Colorado construction cost index. An exception was projects identified by the E-470 Public Highway Authority. Its 2020 Master Plan used an average annual inflation rate of 1.94%.

DRCOG staff forecast project costs out to the midpoint of a corresponding five-year funding tier. The table on the following pages illustrates five example projects with project costs calculated in current year (2020) and year of expenditure dollars. Based off the five-year funding tiers established for revenues, project costs are inflated to the mid-point of a five-year funding tier to provide fiscal constraint analysis and provide some flexibility in project implementation. The example projects below are shown as programmed in a particular funding tier through a "O." Projects programmed then draw down the available revenue in a five-year funding tier until revenue is exhausted.

Estimated project cost example

Project	Current year (2020)		2023 (2021-2025)		2028 (2026-2030)		2033 (2031-2035)	
A	\$100,000,000		\$107,185,549		\$120,327,059		\$135,079,786	O
B	\$50,000,000		\$53,592,775		\$60,163,529		\$67,539,893	
C	\$75,000,000		\$80,389,162		\$90,245,294	O	\$101,309,840	
D	\$100,000,000		\$107,185,549	O	\$120,327,059		\$135,079,786	
E	\$25,000,000		\$26,796,387		\$30,081,765		\$33,769,947	

Estimated project cost example

Project	2038 (2036-2040)		2043 (2041-2045)		2048 (2046-2050)	
A	\$151,641,275		\$170,233,289		\$191,104,782	
B	\$75,820,638	O	\$85,116,645		\$95,552,391	
C	\$113,730,956		\$127,674,967		\$143,328,586	
D	\$151,641,275		\$170,233,289		\$191,104,782	
E	\$37,910,319		\$42,558,322		\$47,776,195	O

Project prioritization

DRCOG coordinated with the Colorado Department of Transportation, the Regional Transportation District and local governments to develop a performance-based approach to request and evaluate candidate projects. The projects were considered for inclusion in the 2050 RTP. The process reflected both regional and subregional needs, and supports the themes outlined in Metro Vision.

DRCOG staff considered 137 candidate projects in the project evaluation process for inclusion in the 2050 RTP with regional funding. The candidate projects ranged from managed lane projects and road widenings to active transportation and safety projects. Key considerations in the evaluation of the candidate projects to determine the best available use of limited regional funding included:

- The 2050 candidate project solicitation and evaluation process adopted by the DRCOG Board. It reflected the unique roles of the regional agencies and local governments.
- The priorities expressed from the public and stakeholder engagement. It included the results from multiple rounds of meetings with the Civic Advisory Group and Youth Advisory Panel.
- The 2050 candidate project qualitative scoring results. Each project was evaluated against the Metro Vision themes and federal performance measures. The scores were provided to the committees and Board to help guide discussions.
- The input from the 2050 RTP Regional Evaluation Panel. The panel was composed of local government representatives. Panel members reviewed the scores of candidate projects and provided guidance on project selection considerations.
- DRCOG travel demand estimates that were conducted to determine future average daily traffic.
- The draft 2050 financial plan and investment strategy that outlined regional priorities. Priorities include safety and vision zero, air quality, regional transit, active transportation, freight and multimodal mobility.

The prioritized list of projects was then matched to potential revenue given project eligibility, availability of local match and availability of funding within each funding tier of the 2050 RTP. The process was iterative, requiring repeated balancing across funding sources and funding tiers of the 2050 RTP (2030, 2040 or 2050).

Locally funded projects

In addition to the regional evaluation process that determines which candidate projects are included in the plan and programmed with regional funding, DRCOG staff worked with local governments and public highway authorities to identify locally funded regionally significant capacity projects that will be completed by 2050.

The category of fiscally constrained regionally significant capacity projects are those funded entirely with 100% locally derived funding sources. The projects are typically, but not exclusively, funded by local governments through funding sources they control, such as general fund revenues, developer contributions or other revenue sources.

Conclusions

The 2022 update to the 2050 RTP is fiscally constrained in current year (2020) and year-of-expenditure dollars. Further, with the additional breakdown and analysis by 10-year funding tiers, the 2050 RTP demonstrates fiscal constraint across the plan's horizon.