



CELEBRATING 25 YEARS OF EXCELLENCE

2016
ANNUAL REPORT



E-470 Route



View of the Flatirons and Rockies from E-470 in Adams County.

Celebrating 25 Years of Excellence

OUR SILVER ANNIVERSARY AS A TOLLING INDUSTRY LEADER

On June 1, 1991, the five-mile first segment of the E-470 tollway opened to traffic. It was the culmination of a joint effort by three counties and five municipalities who banded together to accomplish what the financially challenged state and federal transportation agencies could not do: build and operate an eastern metro Denver beltway.

Even with its initial modest size, E-470 was already being heralded as big on innovation. It was among the first tollways in the nation to offer the option of nonstop,

open-road tolling at highway speeds. This convenient method of tolling collection, called ExpressToll, became the game-changing breakthrough in tolling convenience.

Still, even E-470's initial and most optimistic supporters likely never envisioned E-470 would become a cashless tollway or a major player in the growth of the tolling industry. Yet, 25 years later, E-470 has established a global reputation for innovation and tolling excellence.

E-470 Public Highway Authority Leadership

BOARD OF DIRECTORS



JOSH MARTIN
Chair
Council Member,
Town of Parker



HEIDI WILLIAMS
Vice-Chair
Mayor,
City of Thornton



CHAZ TEDESCO
Secretary/Treasurer
Commissioner,
Adams County



STEVEN DOUGLAS
Council Member,
City of Commerce City



STEVE HOGAN
Mayor,
City of Aurora



BILL HOLEN
Commissioner,
Arapahoe County



DICK McLEAN
Mayor,
City of Brighton



ROGER PARTRIDGE
Commissioner,
Douglas County

EXECUTIVE LEADERSHIP



TIM STEWART
Executive Director



DAVID KRISTICK
Deputy Executive
Director,
Director of Operations



SANDRA BISH
Director of Information
Technology



JASON MYERS
Director of
Finance



NEIL THOMSON
Director of Engineering
and Roadway
Maintenance

E-470: Governed by eight local governments

The 75-mph E-470 toll road forms a 47-mile semi-circular beltway around metropolitan Denver's eastern area and provides access to Denver International Airport. E-470 connects in the south to the I-25/C-470 interchange in Douglas County, and in the north to the I-25/Northwest Parkway interchange in Adams County. The highway was built in segments, with the first segment opening in June 1991 and the final segment opening in January 2003.

The toll road has been financed, constructed, operated and maintained by the E-470 Public Highway Authority and is not taxpayer funded. The Authority is a political subdivision of the State of Colorado, operating as an "enterprise" under state statute and thus is self-sustaining, generating its own revenues without recourse to taxpayer funds. The Authority is composed of its eight member jurisdictions, including five municipalities (Aurora, Brighton, Commerce City, Parker, and Thornton) and three counties (Adams, Arapahoe and Douglas). Each jurisdiction has one voting member on the E-470 Board of Directors.

Non-Voting Local Governments

- City of Arvada
- City and County of Broomfield
- City of Greeley
- City of Lone Tree
- Weld County

Non-Voting Agencies

- Colorado Department of Transportation (CDOT)
- Denver Regional Council of Governments (DRCOG)
- Regional Air Quality Council (RAQC)
- Regional Transportation District (RTD)



E-470, looking west from the interchange with Parker Road. This interchange marked the eastern end of the tollway's first five-mile segment.

In E-470's silver anniversary year, many shining successes

BUILDING ON A QUARTER-CENTURY OF TOLLING EXCELLENCE

For the staff, the board, the customers and other stakeholders who have contributed to E-470's success, 2016 was a year of celebration, marking the 25th anniversary of the opening of the first five miles of the tollway on June 1, 1991.

On that day, the governor and other elected officials and VIPs took turns at the podium, hailing the vision and tenacity of the local governments who had banded together to create the legal underpinnings, public support and financial foundation necessary to build the tollway without taxpayer dollars.

The speakers that day extolled the progressive thinking that was on display in the form of ExpressToll – making E-470 one of the first toll roads in the nation to offer open-road, nonstop tolling at highway speeds.

AT THE TOLLING INDUSTRY FOREFRONT

ExpressToll was the first shining example of E-470's toll industry leadership. More innovations developed over time, including the introduction in early 2009 of License Plate Toll (LPT) and then, on July 4 of that year, taking the groundbreaking step of closing the toll booths and coin collection baskets and adopting all-electronic tolling (AET).

The Authority's willingness to take on new challenges was on display again when the International Bridge, Tunnel and Turnpike Association (IBTTA) honored E-470 with the Toll Excellence Award for E-470's solar energy program. In 2012, E-470 created an agreement to secure, at no cost to E-470, solar collector installations that over a 20-year period will save more than \$1 million in energy costs and help to prevent an estimated 24,000 metric tons of carbon dioxide emissions.

Today, E-470 is calling on its 25 years of tolling expertise to deploy its tolling technology for the benefit of several other tolling agencies. E-470 provides them with toll system design and integration as well as ExpressToll billing and back-office capabilities, and the services of the ExpressToll Service Center.

The agencies E-470 supports are: the Northwest Parkway Public Highway Authority in Broomfield; the High-Performance Transportation Enterprise (HPTE), which is a unit of the Colorado Department of Transportation (CDOT); and HPTE's concessionaire, Plenary Roads Denver (PRD). PRD operates CDOT's I-25 Express Lanes in central Denver and the Denver-Boulder US 36 corridor, and CDOT operates the I-70 Mountain Express Lane and the I-25 North Express Lanes.

Today E-470 is more than just an exceptionally well-run toll road. E-470 is a regional transportation resource, working collaboratively with other tolling agencies to improve mobility in the state of Colorado.

ACHIEVEMENTS IN 2016

- E-470 had record traffic and toll revenues, continuing its string of record-breaking annual traffic each year since 2013. Traffic, as measured in transactions, rose 7.2 percent and net toll revenues grew 11.4 percent over 2015.
- Construction work to widen an eight-mile stretch of E-470 from two lanes to three lanes in each direction began in the spring. The project is scheduled to be completed by December 2017.
- E-470 provided further system design and installation support to PRD for the US 36 Phase II lanes, which opened in March 2016; CDOT's I-25 North Express Lanes, which opened in July 2016; as well as technical toll collection support related to CDOT's High Occupancy Vehicle (HOV) and motorcycle rule changes.

- On July 1, new and improved temporary license plates became required by Colorado law, a change championed by E-470. The new plates are mounted in the rear license plate area and have improved readability. (See page 8.) The new temporary plates also aid law enforcement officers in performance of their duties.
- Even though 2016 traffic grew 7.2 percent over 2015, accidents in 2016 dropped 15.9 percent.
- In September, E-470 was honored to host the 84th annual IBTTA conference. IBTTA is the worldwide association representing toll facility owners and operators and the businesses that serve them.
- E-470 gave back to the community. The E-470 Good Guys, a volunteer group that assists a wide variety of non-profit organizations, ranging from the Food Bank of the Rockies to Habitat for Humanity and more than ten other organizations.
- The E-470 Transportation Safety Foundation, a separate nonprofit organization that raises its own funds, awarded \$2,500 grants to seven organizations seeking support for specific transportation safety initiatives, such as providing child safety seats for low-income families.



E-470 staff posed for this 25th anniversary celebration photo.



E-470 GRAND OPENING CEREMONIES JUNE 1, 1991

Included among the speakers welcoming the public to the first segment of E-470 at the opening ceremonies were Governor Roy Romer (left), Congressman Dan Schaefer (above, center) and Dr. Ray Chamberlain, Executive Director of the Colorado Department of Transportation. Steve Hogan, former Executive Director of E-470 (above left) and Jim Sullivan, former Douglas County Commissioner (above right), join the greeting of guests.

THE ROAD AHEAD

- E-470 took steps to create even closer working relationships with local governments and economic groups and is developing a long-term capital plan for the maintenance and growth of the tollway.
- E-470 began assessing the impact of new housing and commercial developments planned for the E-470 corridor, including the 1,500-room Gaylord Rockies Resort and Convention Center scheduled to open in 2018 near Denver International Airport.

Quotes from the E-470 25th Anniversary Video

To commemorate the 25th anniversary, E-470 created a video providing a look back to E-470's beginnings. Below are several quotes excerpted from the video. (The video can be found on E-470's YouTube channel.)

"When I think of E-470, I think of a bootstraps approach, where several governments came together with citizens and identified the need and identified the financing mechanism, and went out and got it done."

Bill Owens, former Colorado legislator and governor.
Co-sponsor of the Public Highway Authority Act.

In promoting the idea of E-470, "I presented the E-470 project to every relevant group using Victor Hugo's quote, 'Nothing is as powerful as an idea whose time has come,'"

John Arnold, first E-470 Executive Director

"There are parts of the city (Aurora) that wouldn't exist without E-470."

Steve Hogan, Mayor of Aurora, Colorado,
former E-470 Executive Director, current E-470 board member

"You're never done building a toll road. You're always doing something to build a better experience."

The late Ed DeLozier, former E-470 Executive Director

"At the very beginning, there was the thought that E-470 was going to be built with excellence in mind. . . And you can say we have had 25 years of excellence."

John McCuskey, former E-470 Executive Director

"We would not be here if it were not for the people who helped support us. . . not the least of which are our customers who have chosen for over 25 years to take advantage of the convenience and safety that we provide."

Tim Stewart, current Executive Director

Some of E-470's foremost milestones in its 25 years of road operations

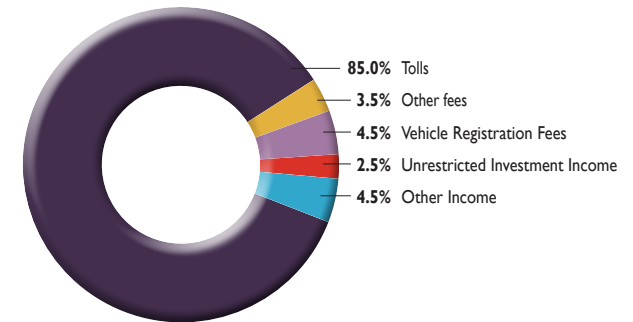
- 1991:** First segment of E-470, five miles long, opens on June 1 to traffic. The segment stretches from the I-25/C-470 interchange to Parker Road.
- 1998:** Two new sections open: One from 56th Avenue to 120th Avenue, providing access to Denver International Airport; and the other from Parker Road to Smoky Hill Road.
- 1999:** Additional section opens from Smoky Hill Road to 56th Avenue, providing a continuous drive from E-470's southern I-25/C-470 interchange to Denver International Airport and 120th Avenue.
- 2002:** Additional section opens from 120th Avenue to US 85.
- 2003:** Final section opens, from US 85 to the new I-25/ Northwest Parkway interchange in Thornton, completing the 47-mile E-470 semi-circular beltway. The Northwest Parkway opened to traffic on November 24, 2003 using ExpressToll toll collection and back-office services.
- 2006:** E-470 flyby at I-70 interchange opens, eliminating the only signalized stop for through-drivers on the highway. ExpressToll customers can now use their transponders on the new tolled Express Lanes on I-25 in metro Denver operated by the Colorado Department of Transportation's High Performance Transportation Enterprise.
- 2007:** Flyover ramp at I-70 interchange opens, creating a seamless connection from northbound E-470 to westbound I-70.
- 2009:** License Plate Toll (LPT) introduced, cash toll collection discontinued, All Electronic Tolling (AET) begins.
- 2010:** Median cable barrier installation along the entire road is completed.
- 2011:** Speed limit increased from 70 mph to 75 mph.

2016 Financial Overview

2016 OPERATING REVENUES

	2016 Budget	2016 Actual
Tolls	\$ 178,766,000	\$ 192,810,649
Other fees	5,585,000	8,057,936
Vehicle Registration Fees	10,107,000	10,275,305
Unrestricted Investment Income	6,000,000	6,041,739
Other Income	4,410,000	10,598,761
Total	\$ 204,868,000	\$ 227,784,390

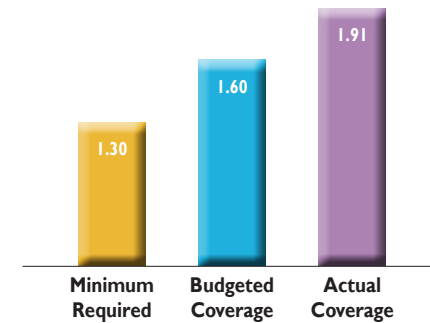
2016 REVENUES: \$227.8 MILLION



2016 OPERATING BUDGET

	2016 Budget	2016 Actual
Operating Revenues	\$ 204,868,000	\$ 227,784,390
Operating Expenses	(49,164,550)	(42,334,906)
Vehicle registration fee debt service	0	0
Net income available for senior debt service	\$ 155,703,450	\$ 185,449,484
Aggregate senior bonds debt service	\$ 97,278,000	\$ 97,231,865
Senior bonds debt service coverage ratio	1.60	1.91

2016 DEBT SERVICE COVERAGE



As reported in the audited financial statements issued by the Authority on April 21, 2017.

2016 Financial Statements

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

	For the Year Ended December 31, 2016
Operating Revenues	
Tolls	\$ 192,810,649
Other fees	8,057,936
Tolling services	<u>5,347,486</u>
Total operating revenues	\$ 206,216,071
Operating Expenses	
Toll road operations	37,840,809
Salaries and benefits	7,650,271
General and administrative	<u>2,737,944</u>
Total operating expenses before depreciation	48,229,024
Depreciation	<u>36,298,284</u>
Total operating expenses	<u>84,527,308</u>
Operating income	121,688,763
Nonoperating Revenues (Expenses)	
Vehicle registration fees	10,275,305
Investment income	6,281,525
Net change in fair value of derivative instruments and investments	983,385
Interest expenses	(95,196,983)
Other income	<u>4,254,486</u>
Total nonoperating expenses	<u>(73,402,282)</u>
Change in net position	48,286,481
Net Position, beginning of year	<u>(532,518,958)</u>
Net Position, end of year	<u>\$ (484,232,477)</u>

STATEMENT OF NET POSITION

	As of December 31, 2016
Assets and Deferred Outflows of Resources	
Current unrestricted assets	\$ 173,713,062
Current restricted assets	53,800,534
Capital assets (net of accumulated depreciation)	594,941,616
Other noncurrent assets	<u>194,651,266</u>
Total assets	1,017,106,478
Deferred outflows of resources	<u>88,443,295</u>
Total assets and deferred outflows of resources	<u>1,105,549,773</u>
Liabilities	
Other current liabilities	38,924,359
Current bonds payable	82,095,000
Other noncurrent liabilities	51,062,826
Noncurrent bonds payable	<u>1,417,700,065</u>
Total liabilities	1,589,782,250
Net Position	
Net investment in capital assets	(16,897,085)
Restricted for debt service	18,542,565
Unrestricted deficit	<u>(485,877,957)</u>
Total net position	<u>(484,232,477)</u>
Total liabilities and net position	<u>\$ 1,105,549,773</u>

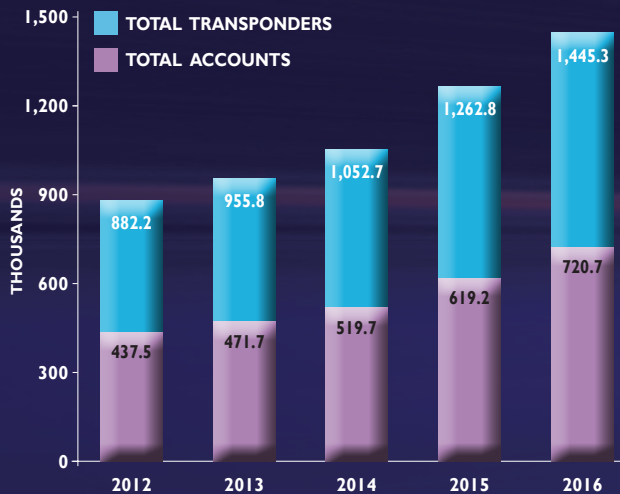


E-470 I-25/C-470 interchange in Douglas County.

- 2012:** Solar power system completed; 22 arrays serve 17-mile stretch of E-470.
- 2013:** Five-mile stretch of deer fencing installed, reducing deer-vehicle collisions there 74 percent.
E-470 wins the IBTTA Presidential Award for its solar power program.
- 2014:** E-470 opens new Quebec Street interchange in Thornton.
- 2015:** Provided toll system integration services for Phase I US 36 Express Lanes and for I-70 Mountain Express Lane (I-70 MEXL).
ExpressToll and LPT toll collection begins on Phase I US 36 Express Lanes and I-70 MEXL.
- 2016:** Construction begins on an estimated \$90 million self-funded project to widen the tollway by a third lane in both directions from Parker Road to Quincy Avenue.
E-470 hosts IBTTA Annual Meeting and Exhibition.
Provided toll system integration services for CDOT's I-25 North Express Lanes and US 36 Phase II Express Lanes.
New, more readable temporary license plates become required by a state law initiated by E-470.

As reported in the audited financial statements issued by the Authority on April 21, 2017.

EXPRESSTOLL ACCOUNTS AND TRANSPONDERS



Above, E-470 in Douglas County. Below left, morning commuters in Aurora.

Financial Highlights

REVENUE REACHES NEW HEIGHTS, OPERATING COSTS LOWER THAN BUDGETED

Traffic and net toll revenue set new records in 2016.

The increase in toll revenues reinforces E-470's ability to meet its debt obligation to bondholders plus have the reserves required to reinvest in the road, making certain it continues to provide the kind of driving experience customers expect in return for their toll dollars.

Here are the financial highlights for the year:

RECORD TRAFFIC AND TOLL REVENUES

- Traffic, as measured in toll transactions, increased 7.2 percent over 2015, with transactions increasing from 74.6 million to 80.0 million. This was 8.6 percent more than the 73.6 million budgeted, and continued the string of annual record-setting traffic totals that began in 2012.
- E-470 broke its all-time, single-day traffic record on September 30, 2016 with 294,425 transactions.

- The increase in traffic, combined with a nominal January 1 toll increase, resulted in an 11.4 percent, \$19.8 million increase over 2015, to \$192.8 million in net toll revenues in 2016.

OPERATING EXPENDITURES

- Operating costs were \$42.3 million in 2016, compared to the \$49.2 million budgeted.
- A large portion of E-470's operating costs are directly related to processing and collecting the growing volume of tolls. While E-470 toll transactions have risen, so have toll transactions on the new toll facilities in the state where ExpressToll provides back-office and toll collection services. The costs incurred on behalf of other tolling agencies are reimbursed to the Authority by the applicable toll operator of each facility.



OUR FINANCIAL FOCUS: STABLE DEBT AND CASH MANAGEMENT

- The rise in traffic and net toll revenues helped contribute to three ongoing principal financial goals: (1) continue a stable debt management program with sufficient reserves and liquidity, (2) avoid issuing additional debt and (3) ensure the capability to self-fund capital projects. The most notable current project includes the estimated \$90 million road widening project which began in 2016 in the southeastern section of the E-470 corridor; the project is scheduled for completion by December 2017.
- Revenue targets continue to align with debt service requirements and other goals. E-470 has approximately \$1.5 billion in outstanding bond debt. In 2016, E-470 made \$97.2 million in debt service payments to bondholders. E-470's debt service obligation is scheduled to increase from 2017 to 2020, at which point E-470 will have a call opportunity to level future debt service in that year and going forward.

DEBT SERVICE COVERAGE RATIO SURPASSED

Debt service coverage, a critical financial metric, exceeded the Master Bond Resolutions requirement of producing net income at least 1.3 times the aggregate senior debt service payment for the year. E-470 had budgeted for a 2016 ratio of 1.60; it achieved an even higher ratio of 1.91.

BOND RATING AGENCIES DEMONSTRATE CONFIDENCE IN E-470

The bond investment community continued to show confidence in E-470 bonds. E-470 received solid ratings from the three major rating agencies.

In June 2016, Moody's Investors Service, one of the nation's top three bond rating agencies, upgraded the E-470 Public Highway Authority toll revenue bonds from Baa1 to an A3 rating. The rating outlook was stable.

During 2016, E-470's Fitch rating was BBB and

Standard & Poor's rating was BBB+; both were assigned stable outlooks.

E-470's strong performance in 2016 set the stage for good news from the bond rating agencies. In February 2017, in conjunction with the 2017 bond transaction, Fitch announced that it had upgraded its rating from BBB to BBB+ with a stable outlook. Shortly thereafter, Standard & Poor's announced that it had increased its rating from BBB+ to A- with a stable outlook. Moody's rating remained at A3 with a stable outlook.

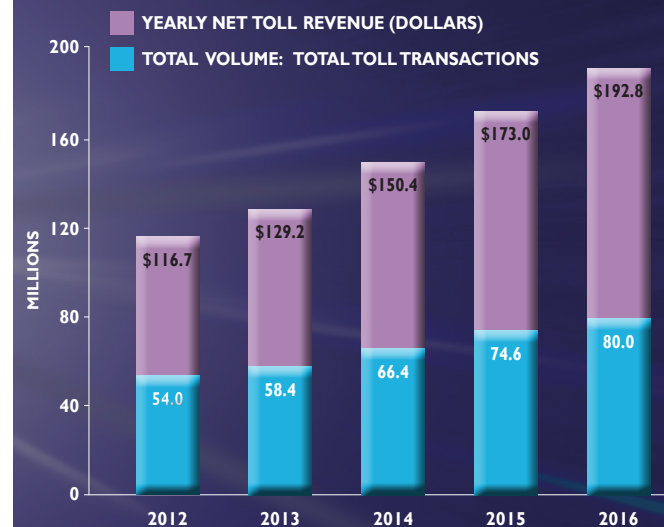
BOND TRANSACTIONS IN 2016 AND PLANS FOR 2017

An \$11.2 million debt defeasance in September 2016, accomplished with cash reserves, enabled E-470 to retire outstanding bonds early and relieve a part of the escalating debt service in 2017 and 2018. Looking ahead to 2017, E-470 has a refunding opportunity of approximately \$138 million to achieve lower interest costs.



Entering E-470 at I-25/Northwest Parkway in Thornton.

E-470 YEARLY NET TOLL REVENUE AND TRANSACTIONS



Before and after. E-470 initiated a change in Colorado's temporary vehicle registration tags. Read more on page 4.



Above right: Placing bridge girders. Eleven bridge structures will be widened to accommodate extra lanes along an eight-mile stretch of E-470.
 Above left: E-470 Executive Director Tim Stewart leads a pre-construction open house dialogue with residents who live near the tollway expansion project.
 Left center: On-ramp in the construction area. Bottom left: Widening the way for tollway expansion.

Road widening project underway

GETTING AHEAD OF THE CURVE ON BURGEONING TRAFFIC NUMBERS

E-470's overriding aim is to plan ahead to ensure it provides the level of service customers have come to expect.

To that end, E-470 commissioned a study to help identify priorities for tollway expansion or other roadway improvements. An eight-mile stretch of the tollway in E-470's southeastern corridor area – from Parker Road to Quincy Avenue – was identified as an area where expanding the number of lanes would be required to meet the Authority's high level of service standards. The decision was made by the board of directors to move forward and begin the estimated \$90 million expansion project, funded with cash reserves, now before traffic

flow and safety would be compromised, and construction would be more difficult and disruptive to customers.

So, in April 2016, E-470 broke ground and began construction. The project is scheduled for completion in December 2017.

The project includes visual buffering between the widening area and adjacent homes.

Utilizing several communication channels, E-470 was diligent in 2016 to keep affected residents apprised of construction plans and progress, temporary detours, scheduled night work, and development and execution of the buffering plan.

ExpressToll: The back office and customer service hub for Colorado's tolled facilities

THE ONE-STOP TOLL SHOP

The ExpressToll Service Center began collecting tolls and providing its back-office services to an outside toll agency – the Northwest Parkway Public Highway Authority – in late 2003. In 2006, ExpressToll began providing service to the Colorado Department of Transportation's I-25 Express Lanes in metro Denver.

Several years passed before more roadways called upon ExpressToll for comprehensive tolling services.

Those new tolled facilities are operated by Plenary Roads Denver (PRD) and the High-Performance Transportation Enterprise (HPTE), which is a division of CDOT. (PRD is HPTE's concessionaire for operation and maintenance of HPTE's US 36 and I-25 Express Lanes in metro Denver.) CDOT's Express Lanes are an essential component of its strategy to tackle traffic congestion in the metro Denver area and to alleviate jams on eastbound I-70 in the mountains west of Denver.

DEVELOPING AND INSTALLING THE SYSTEM SOLUTIONS

The ExpressToll Service Center not only runs the back-office billing operations for CDOT and provides

a highly skilled customer service center, it serves as the toll integrator, including toll equipment installation, toll system and software developments, and system testing for CDOT's expansion of the Express Lanes.

During 2016, the ExpressToll Service Center completed these toll integration projects for CDOT and PRD:

▪ US 36 Phase II Express Lanes:

Tolling began on March 30 on the second and final phase of the US 36 Express Lanes, extending the completed link between Denver and Boulder. The first phase opened in July 2015.

▪ **I-25 North Express Lanes:** This segment opened in July 2016 and extended Express Lanes from US 36 to 120th Avenue in Westminster. The next

segment, continuing north to the E-470/Northwest Parkway interchange, is scheduled to open in 2018.

▪ **System changes:** CDOT policy and business rule changes related to HOV and motorcycles required system modifications to the toll collection system.



The new I-25 North Express Lanes remained behind barricades as ExpressToll technicians completed tolling equipment installation near 104th Avenue. The downtown Denver skyline is visible in the distance.

ExpressToll by the numbers

The ExpressToll Service Center staff keeps pace with the rapidly growing volume of customer service calls and images processed.

By year-end 2016:

ExpressToll accounts opened in 2016	134,707
Total active ExpressToll accounts	720,700
Total outstanding ExpressToll transponders	1,445,352
Total HOV transponders distributed	123,303
Number of ExpressToll customer call center staff	69
Inbound customer service calls (up 10.1%)	890,040
Imaging (License Plate Toll identification) staff	98
Image transactions processed (up 19.0%)	59,661,641
ExpressToll customer service satisfaction survey rating (out of a possible 5)	4.56



The ExpressToll Service Center is open seven days a week. Pictured here is Marie Boling, "ExpressToll Employee of the Year."



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