

MEMORANDUM

TO: CTIO BOARD OF DIRECTORS
FROM: NICK FARBER, CTIO DIRECTOR
KELLY BROWN, CTIO TOLLING OPERATIONS MANAGER
SUBJECT: APPROVAL OF THE FISCAL YEAR 2022-23 TOLLING OPERATIONS AND
MAINTENANCE INTRA-AGENCY AGREEMENT BETWEEN CTIO AND CDOT
DATE: MAY 18, 2022

Purpose

To present the Fiscal Year (FY) 2022-23 Tolling Operations and Maintenance (TOMs) IAA, including the FY 2022-23 Statement of Work (SOW), between the Colorado Transportation Investment Office (CTIO)¹ and the Colorado Department of Transportation (CDOT).

Action

CTIO staff is seeking CTIO Board approval of Resolution #388 authorizing the TOMs IAA and proposed SOW between CTIO and CDOT for FY 2022-23.

Background

In recognition of the specialized operations and maintenance (O&M) expertise that CDOT provides to CTIO, CTIO and CDOT determined a new O&M sharing methodology in 2021, that provides an upfront payment to CDOT to cover Express Lane O&M costs for the upcoming year through a new annual Tolling Operations and Maintenance (TOMs) IAA. This IAA documents the terms of the overall business relationship between CDOT and CTIO. It includes the SOW CTIO wants CDOT to provide in FY 2022-23, the cost calculations to deliver the work, and the process by which CDOT charges CTIO for the fair market value of the services provided. It ensures a proactive approach to determining O&M costs and removes the burden of the prior pro-rata methodology of calculating the total number of vehicles that use the General Purpose and Express Lanes to determine a payment amount. As the Express Lane Network grows, the new structure will help address the challenges this growth creates and will ensure a more equitable approach to O&M cost sharing in the future.

The three areas of services covered under the SOW are:

- Roadway Maintenance
 - Specifics the CDOT O&M responsibilities related to the Express Lanes. This includes items such as snow and ice removal, guardrail, and pothole repair.
- Operational Support
 - Monitoring and response to traffic and incident management in Express Lanes to ensure traffic is free-flowing and safe for the traveling public.
- Intelligent Transportation Systems (ITS) maintenance and monitoring

¹ The High Performance Transportation Enterprise (HPTE) is now doing business as the Colorado Transportation Investment Office (CTIO). CTIO is how the enterprise refers to itself now and in the future. However, the HPTE name is retained for legislative and legal documents.

- Electronic tolling equipment is essential to the safe and smooth operation of the Express Lanes across the network. CDOT ITS plays a key role in ensuring the network and overall system are working to collect tolls and convey information to the users that travel in the Express Lanes.

See Exhibit A under Attachment A for a complete description of all activities to be performed by CDOT and the costs to be paid by CTIO.

Key Policy Considerations

- The fee-for-service model describes the business relationship between CTIO and CDOT and enables CDOT to recoup the fair market value of its services to CTIO in an exchange transaction.
- The fee for service TABOR enterprise model has been validated by the Colorado Attorney General's Office in a legal opinion discussing the hospital provider fee.
- Documents the necessary contractual obligations between CDOT and CTIO.
- Approval of the IAA will reinforce the mutually beneficial partnership between CDOT and CTIO and fairly compensates CDOT for the services it provides to CTIO in relation to O&M.
- CTIO and CDOT approved a new memorandum of understanding (MOU) in January 2021. The MOU highlights how HPTE and CDOT work together to improve the state surface transportation system. The MOU details the business relationship at a high level. However, section six of the MOU specifies that CTIO and CDOT will develop a new IAA on operations and maintenance of Express Lanes from 2021 onward to reflect the expansion of the Express Lanes Network as facilities move from under construction to operational. This IAA meets that requirement.

Options/Decision Matrix

1. Approve Resolution #388 TOMs IAA and proposed SOW for FY 2022-23. **Staff Recommendation.**
2. Review the statement of work and IAA, but with instructions to add a statement of work for particular projects or programs. Staff would make the necessary revisions and return with a revised statement and increased budget supplement at the beginning of the next fiscal year.
3. Review the statement of work and IAA, but with instructions to eliminate the statement of work for particular projects or programs. Staff would make the necessary revisions and return with a revised statement and revised budget at the beginning of the next fiscal year.

Attachments

Attachment A. Tolling Operations and Maintenance IAA

Attachment B. Resolution #388

For the Paying State Agency:

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High Performance Transportation Enterprise
2829 W.Howard Place
Denver, CO 80222
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For the Performing State Agency:

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SIGNATURE PAGE

THE PARTIES HERETO HAVE EXECUTED THIS AGREEMENT

Each person signing this Agreement represents and warrants that the signer is duly authorized to execute this Agreement and to bind the Party authorizing such signature.

STATE OF COLORADO Jared S. Polis, Governor	
High Performance Transportation Enterprise Nicholas J. Farber, Director	Department of Transportation Shoshana M. Lew, Executive Director
_____ Nicholas J. Farber, Director	_____ Stephen Harleson, P.E, Chief Engineer
Date: _____	Date: _____
In accordance with §24-30-202, C.R.S., this Agreement is not valid until signed and dated below by the State Controller or an authorized delegate.	
STATE CONTROLLER Robert Jaros, CPA, MBA, JD	
By: _____	
Effective Date: _____	

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1. PARTIES

This Interagency Agreement (this “Agreement”) is entered into by and between the High Performance Transportation Enterprise (HPTE), and the Colorado Department of Transportation (CDOT) who are named on the Cover Page of this Agreement. HPTE and CDOT may each individually be referred to as a “Party” and collectively as the “Parties.” Each Party is an agency of the STATE OF COLORADO, hereinafter called the “State.”

2. TERM AND EFFECTIVE DATE

A. Effective Date

This Agreement shall not be valid or enforceable until the Effective Date.

B. Term

The Parties’ respective performances under this Agreement shall commence on the Agreement Performance Beginning Date shown on the Cover Page for this Agreement and shall terminate on the Agreement Expiration Date shown on the Cover Page for this Agreement unless sooner terminated or further extended in accordance with the terms of this Agreement.

C. Termination for Convenience

Either Party may terminate this Agreement for convenience by giving the other Party 90 days prior written notice setting forth the date of termination.

3. STATEMENT OF WORK AND BUDGET

A. Work

CDOT shall complete the Work as described in this Agreement and in accordance with the provisions of Exhibit A. HPTE shall have no liability to compensate CDOT for the delivery of any goods or the performance of any services that are not specifically set forth in this Agreement.

B. Goods and Services

CDOT shall procure goods and services necessary to complete its obligations using Agreement funds and shall not increase the maximum amount payable hereunder by the HPTE.

4. PAYMENTS TO CDOT

A. Maximum Amount

Payments to the CDOT are limited to the unpaid, obligated balance of the Agreement funds. HPTE shall not pay the CDOT any amount under this Agreement that exceeds the Agreement Maximum Amount for that State Fiscal Year shown on the Cover Page for this Agreement.

B. Payment Procedures

- i. CDOT shall initiate payment requests by invoice to HPTE, in a form and manner approved by HPTE. To facilitate Fiscal Year End closing, final invoices for each Fiscal Year should be submitted to the HPTE by July 15th of the following Fiscal Year.
- ii. HPTE shall pay each invoice within 30 days following the HPTE receipt of that invoice, so long as the amount invoiced correctly represents work completed by CDOT and previously accepted by HPTE during the term that the invoice covers.

5. RECORDS, MAINTENANCE, AND INSPECTION

A. Maintenance

During the term of this Agreement and for a period terminating upon the later of (i) the six year anniversary of the final payment under this Agreement or (ii) the resolution of any pending Agreement matters (the "Record Retention Period"), each Party shall maintain, and allow inspection and monitoring by the other Party, and any other duly authorized agent of a governmental agency, of a complete file of all records, documents, communications, notes, and other written materials, electronic media files, and communications, pertaining in any manner to the work or the delivery of services or goods hereunder.

B. Inspection

HPTE shall have the right to inspect the CDOT's performance at all reasonable times and places during the term of this Agreement. The CDOT shall permit HPTE, and any other duly authorized agent of a governmental agency having jurisdiction to monitor all activities conducted pursuant to this Agreement, to audit, inspect, examine, excerpt, copy and/or transcribe the CDOT's records related to this Agreement during the Record Retention Period to assure compliance with the terms hereof or to evaluate performance hereunder. Monitoring activities controlled by HPTE shall not unduly interfere with the CDOT's performance hereunder.

6. CONFIDENTIAL INFORMATION

Each Party shall treat the confidential information of the other Party with the same degree of care and protection it affords to its own confidential information unless a different standard is set forth in this Agreement. Each Party shall notify the other Party immediately if it receives a request or demand from a third party for records or information of the other Party.

7. DISPUTE RESOLUTION

The failure of a Party to perform its respective obligations in accordance with the provisions of this Agreement is a breach of this Agreement. In the event of disputes concerning performance hereunder or otherwise related to this Agreement, the Parties shall attempt to resolve them at the divisional level. If this fails, disputes shall be referred to senior departmental management staff designated by each Party. If this fails, the executive director of each Party shall meet and attempt resolution. If this fails, the matter shall be submitted in writing by both Parties to the State Controller, whose decision shall be final.

8. NOTICES AND REPRESENTATIVES

Each individual identified as a Principal Representative on the Cover Page for this Agreement shall be the Principal Representative of the designating Party. All notices required or permitted to be given under this Agreement shall be in writing, and shall be delivered **(A)** by hand with receipt required, **(B)** by certified or registered mail to such Party's Principal Representative at the address set forth on the Cover Page or **(C)** as an email with read receipt requested to the Principal Representative at the email address, if any, set forth on the Cover Page for this Agreement. Either Party may change its Principal Representative by notice submitted in accordance with this section without a formal amendment to this Agreement. Unless otherwise provided in this Agreement, notices shall be effective upon delivery of the written notice.

9. GENERAL PROVISIONS

A. Assignment

The rights and obligations of each Party under this Agreement are personal to such Party and may not be transferred or assigned without the prior, written consent of either Party. Any attempt at assignment or transfer without such consent shall be void. Any assignment or transfer of a Party's rights and obligations approved by the Party shall be subject to the provisions of this Agreement.

B. Counterparts

This Agreement may be executed in multiple, identical, original counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

C. Digital Signatures

If any signatory signs this Agreement using a digital signature in accordance with the Colorado State Controller Contract, Grant, and Purchase Order Policies regarding the use of digital signatures issued under the State Fiscal Rules, then any agreement or consent to use digital signatures within the electronic system through which that signatory signed shall be incorporated into this Agreement by reference.

D. Third Party Beneficiaries

Except for the Parties' respective successors and assigns, this Agreement does not and is not intended to confer any rights or remedies upon any person or entity other than the Parties. Enforcement of this Agreement and all rights and obligations hereunder are reserved solely to the Parties. Any services or benefits which third parties receive as a result of this Agreement are incidental to this Agreement and do not create any rights for such third parties.

EXHIBIT A, STATEMENT OF WORK AND BUDGET

1. Background

- A. CDOT is an agency of the State of Colorado authorized pursuant to § 43-1-105, C.R.S. to plan, develop, construct, coordinate, and promote an integrated transportation system in cooperation with federal, regional, local, and other state agencies.
- B. Pursuant to § 43-1-110, C.R.S., the executive director of CDOT is authorized to execute certain agreements on behalf of CDOT.
- C. HPTE was created pursuant to § 43-4-806(2), C.R.S., and operates as a government-owned business within CDOT.
- D. Pursuant to § 43-4-806(6)(g), C.R.S., HPTE is empowered to enter into contracts or agreements with any public entity to facilitate a public-private partnership, including, but not limited to, an agreement in which the Enterprise, on behalf of CDOT, provides services in connection with a surface transportation infrastructure project.
- E. HPTE is further empowered, pursuant to § 43-4-806(6)(h), C.R.S., to make and enter into all other contracts and agreements, including intergovernmental agreements under § 29-1-103, C.R.S., that are necessary or incidental to the exercise of its powers and performance of its duties.
- F. The business purpose of HPTE, as provided for in § 43-4-806(2)(c), C.R.S. is to pursue public-private partnerships and other innovative and efficient means of completing surface transportation infrastructure projects, which HPTE may agree to complete for CDOT under agreements entered into with the Department in accordance with § 43-4-806(6)(f), C.R.S.
- G. On September 30, 2013, and as amended and restated on January 20, 2021, CDOT and HPTE entered into a Memorandum of Understanding, which set forth each Party's operating roles and responsibilities as they relate to their respective missions and provided, in relevant part, that CDOT is to be reimbursed by HPTE for personal goods or services procured by.
- H. HPTE acknowledges that CDOT possesses operations and maintenance (“O&M”) expertise unavailable to HPTE, which enables it to ensure the effective, efficient, and safe operations of Express Lanes.
- I. CDOT and HPTE previously entered into various Intra-Agency Agreements for Express Lane corridors in which HPTE agreed to compensate CDOT for the operations, maintenance, and rehabilitation of the Express Lanes by allocating costs based on a proportion of the total number of vehicles using the Express Lane and the general purpose lanes (the “**Pro-Rata O&M Cost Calculation**”).
- J. Those Intra-Agency Agreements are fully incorporated by reference herein and are as follows: (1) the Intra-Agency Agreement for the C-470 Project Express Lanes Project as amended and executed on October 20, 2016; (2) the Intra-Agency Agreement for the Mountain Express Lanes Project, executed on January 28, 2021; (3) the Intra-Agency Agreement for I-25 North Segment 2 Project as executed on August 2, 2016; and (4) the Intra-Agency Agreement for the I-25 North Segment 3 Project, as amended and executed on February 24, 2016 (collectively the “**Express Lanes IAAs**”).

- K. Kiewit Meridiam Partners (KMP) is the Developer for the Central 70 Project on the I-70 corridor in Denver in which the O&M Work is allocated subject to its Construction Contract with Jorgensen Associates, Inc. and to which HPTE shall continue to rely on the Pro-Rata O&M Cost Calculation.
- L. Plenary Roads Denver (PRD) is the U.S. 36 Concessionaire and performs snow and ice removal as well as general purpose maintenance on the U.S. 36 Express Lane corridor and the I-25 Central Express Lane. U.S. 36 payment obligations are detailed in the Amended and Restated U.S. 36 Concession Agreement ([2014](#)) and will not be included as part of this Agreement.
- M. For the purpose of this IAA, the Parties acknowledge and agree that larger capital maintenance items are not contemplated or included in this Agreement.
- N. Given the practical difficulties in capturing the true values of the Pro-Rata O&M Cost Calculation and the ongoing maturation of HPTE's business practices, the Parties now desire to adjust how HPTE compensates CDOT for the operations, maintenance, and rehabilitation of the Express Lanes ("**Services**") by providing payment to CDOT on an upfront basis rather than the retroactive O&M Cost Calculation.
- O. HPTE has prepared a new statement of work ("**Statement of Work**") describing the Services HPTE has requested CDOT to provide HPTE during the 2022-23 fiscal year in this Exhibit A.
- P. In order to ensure the efficient running of surface transportation infrastructure projects that involve Express Lanes once they become operational, HPTE desires that CDOT utilize its expertise in operations and maintenance to provide the Services, in exchange for which HPTE agrees to compensate CDOT in the amounts set forth in the Statement of Work.
- Q. HPTE shall continue to be an enterprise for purposes of Section 20 of Article X of the Colorado Constitution ("TABOR"), so long as it receives less than ten percent (10%) of its total revenues in grants from all Colorado state and local governments combined.
- R. Pursuant to §§ 24-77-102(7)(b) and 43-4-803(13)(b), C.R.S., grants do not include revenues or income derived from any authorized rate, fee, assessment, or other charge imposed by an enterprise for the provision of goods or services by such enterprise.
- S. On March 11, 1997, in Opinion No. 97-01, the Colorado Attorney General also concluded, inter alia, that a designated enterprise may continue to qualify as an enterprise under TABOR, even though it receives a direct appropriation of monies, so long as the appropriation constitutes revenues resulting from the provision of goods or services pursuant to § 24-77-102(7)(b)(II), C.R.S.
- T. Citing Nicholl v. E-470 Public Highway Authority, 896 P.2d 859 (Colo. 1995), the Colorado Attorney General further noted that the very concept of an enterprise under TABOR envisions an entity that is owned by a government institution, but is financially distinct from it, and also, that the financial affairs of the enterprise must be those of a self-supporting business-like activity that provides goods and services for a fee.

- U. On February 29, 2016, in Opinion 16-01, the Colorado Attorney General also concluded, inter alia, that an enterprise must charge a fee in exchange for a government service, and a fee for service arrangement - broadly construed - is nearly synonymous with enterprise status.
- V. CDOT and HPTE each hereby affirm that, consistent with Colorado law, moneys paid by the HPTE to CDOT under this Agreement are not grants of money from HPTE to CDOT, but rather, payment for the Services to be provided by CDOT as set forth in the Statement of Work.

2. Responsibilities

- A. CDOT shall provide the Services set forth in this Statement of Work over a one-year period, commencing on July 1, 2022, and ending on June 30, 2023, which comprises the 2022-23 fiscal year.
- B. No later than January 15th and July 15th of the fiscal year, CDOT shall submit to HPTE a progress report. The progress report will include a narrative summary of CDOT's activities by Express Lane corridor, during the previous six month period (July 1-December 31, 2022, and January 1-June 30, 2023), as well as a detailed report on the progress being made in the performance of the Services. The submissions of the semi-annual reports will be used by CDOT and HPTE to recognize revenue and expenses, respectively, and are to be tied to the specific tasks, and categories of work within each task, described in the Statement of Work.
- C. The Parties may agree to modify the specific tasks set forth in the Statement of Work to be undertaken by CDOT during the term of this Agreement, provided that such modifications do not result in an increase or decrease in the overall estimated value of the Services to be provided under this Agreement. Any such modifications shall be specifically identified, and their estimated values reconciled, in the progress report submitted by CDOT on July 15th following the close of the prior fiscal year. Any modifications to the Statement of Work resulting in an increase or decrease in the overall estimated value of the Services shall not be undertaken unless agreed to in writing by the Parties in an amendment to this Agreement.

3. Payment Process

- A. CDOT intends to record the full Agreement Funds as unearned revenue, and recognize revenue on a pro-rata basis as Services are performed during the course of the fiscal year. CDOT will conduct a "true-up" of balances by Express Lane at both mid-year (January) and at the end of the fiscal year (July), to coincide with the Services actually provided, in conjunction with the preparation and submission of the progress reports described in Section 2.
- B. The Services to be provided, and the Agreement Funds, therefore, are for the full fiscal year covered by this Agreement, as may be amended from time to time. Milestone deadlines contained in the Statement of Work are for informational and work progress tracking purposes only and are not binding on CDOT. Services provided by CDOT within the fiscal year shall be compensated as part of the Agreement Funds provided for herein. No deductions shall be made for Services completed outside the timeframes set forth in the Statement of Work, provided such Services are completed within the current fiscal year.
- C. Any Services not completed within the term of this Agreement shall be reflected in the progress report submitted by CDOT on July 15th following the close of the prior fiscal year. In the event the value of the Services actually completed during the fiscal year is less than was estimated in the Statement of Work, CDOT may be required to reimburse HPTE for the

value of Services not completed. The value of the uncompleted portion of the Services, if any, shall reflect the fair market value of the same, and shall be mutually agreed upon and set forth in writing by the Parties in an amendment to this Agreement.

4. Renewal

- A. It is expressly contemplated that the Parties intend to extend this Agreement for additional one-year terms for services to be provided by CDOT to HPTE in future fiscal years. Such extensions shall be documented by formal written notice pursuant to Section 8 of the Agreement and shall include an updated statement of the services to be provided in the subsequent fiscal years.
- B. CDOT agrees to work with HPTE to draft and finalize a Statement of Work and costs for services for the upcoming fiscal year on a mutually agreed upon timeline.
- C. If the scope of services and payment amount for the following fiscal year are deemed acceptable by HPTE, the same shall be set forth in a written amendment executed and approved by the Parties.
- D. If during its budget approval process for the following fiscal year, the HPTE Board of Directors allocates funds for CDOT in the full amount included in the proposed scope of services submitted by CDOT, such proposed scope of services shall be deemed approved by HPTE, notwithstanding any failure of the Parties to execute a written amendment prior to the July 1 start of the subsequent fiscal year. The Parties shall thereafter execute a written amendment for such subsequent fiscal year, the terms and conditions of which shall not be inconsistent with the budget action taken by the HPTE Board of Directors.
- E. If the scope of services and payment amount to be provided by CDOT are approved by HPTE as provided for in this Section, HPTE agrees that it shall pay CDOT the agreed upon payment amount for the following fiscal year by July 15th.
- F. If the Parties are unable to agree upon a scope of services and payment amount for the following fiscal year prior to June 30 of any year, this Agreement shall terminate and be of no further force and effect for the subsequent fiscal year.

5. Consideration; Exchange Transaction

The Parties acknowledge that the mutual promise and covenants contained herein, and other good and valuable considerations, are sufficient and adequate to support this Agreement. The Parties further acknowledge that, for accounting purposes, this Agreement represents an exchange transaction for HPTE's purchase of specific services provided by CDOT at the market value of such services.

6. Description of Duties

6.1 Organizational Overviews

High Performance Transportation Enterprise (HPTE)

In order to accelerate the development and delivery of critical transportation infrastructure projects through the use of innovative financing, the Colorado Department of Transportation (CDOT) utilizes the expertise and legal power of the High Performance Transportation Enterprise (HPTE). In 2009, the HPTE was created under 43-4-806 C.R.S., known as FASTER, in order to accelerate

critical surface transportation infrastructure projects throughout the state. To achieve this objective, the HPTE was given the power to enter into public-private partnerships, impose user fees on surface transportation projects, issue revenue bonds, and enter into private commercial loan agreements. HPTE is also the Colorado tolling entity (the successor to the Colorado Tolling Enterprise), managing Colorado’s network of tolled Express Lanes. By law, HPTE is required to “aggressively” pursue innovative finance solutions to improve Colorado’s surface transportation infrastructure. Due to the Taxpayer Bill of Rights (TABOR) restrictions, CDOT cannot exercise these powers. Although a division of CDOT, HPTE is an independent, government-owned business and TABOR enterprise, which exempts it from certain TABOR restrictions. The powers given to the HPTE through statute provide a direct benefit to CDOT and the traveling public by accelerating surface transportation infrastructure projects that ordinarily would not be undertaken due to a constrained fiscal environment.

CDOT Division of Maintenance and Operations (DMO)

DMO staff are responsible for the daily maintenance and operation of the state transportation system. This includes Maintenance Program Areas focused on activities such as snow and ice removal and pavement repair, and programs focused on ensuring the system operates efficiently, such as Courtesy Patrol and Heavy Tow services to remove inoperable vehicles from traffic, and real-time travel information provided to travelers via Variable Message Signs, or the COTRIP website. Intelligent Transportation Systems (ITS) and Network Services is a Division of Maintenance and Operations and supports CDOT teams, regions, and HPTE with their ITS and network needs to implement technologies to communicate better, decrease travel times, and create a safer driving environment for the traveling public. ITS has three main areas of focus, field operations, network services, and engineering.

6.2 Fiscal Year Services to be Provided for HPTE Express Lanes

HPTE currently has 156 lane miles of Express Lanes and is directly responsible for operation and maintenance on 112 of those lane miles. By contracting with the CDOT Division of Maintenance and Operations (DMO) to perform certain services for Express Lanes that are in operation, (I-25 North US36 to Northwest Parkway (Segments 2 and 3), I-25 South GAP Castle Rock to Monument, I-70 Mountain Express Lanes and C-470 I-25 to Wadsworth), HPTE is able to ensure that all Express Lanes facilities are working correctly and safely for the users that choose to pay a fee for a reliable trip time. For the 2022-23 fiscal year, HPTE has tasked CDOT DMO to oversee work in three core areas:

A. Roadway Maintenance

Regular roadway maintenance is essential to help preserve Express Lanes in their originally constructed condition, ensure user safety, and provide efficient, convenient travel. The safe and efficient operations of Express Lanes are dependent on ensuring that the roadway is clear of debris, free from potholes, and cleared of snow and ice during winter weather events. Guardrails, attenuators, and other roadside safety items must be kept in working condition. To ensure roadway maintenance is carried out to a high standard, HPTE has tasked CDOT with performing the following activities in the Express Lanes:

- a. Repair and replacement of guardrails, bridge rail, concrete barrier, and attenuators to ensure they are in working condition;

- b. Snow and ice removal;
- c. Lane striping, lane sweeping/cleaning;
- d. Trash and debris removal;
- e. Pothole filling, crack sealing, joint repairs, concrete slab replacements, and any additional pavement maintenance;
- f. Regular cleaning of static Express Lane signs if not they are not easily readable;
- g. Repair of damaged static Express Lane signs; and
- h. Lane closures and temporary traffic control to perform any of the roadway maintenance activities listed above.

B. Intelligent Transportation Systems (ITS) Maintenance and Monitoring

Timely electronic tolling equipment maintenance is an essential part of a successful Express Lane system. Extended periods of equipment downtime results in loss of revenue and reduces HPTE's ability to pay back the debt it incurred to help build the project, and to provide funding for additional construction projects in the corridor. CDOT ITS plays a critical role in maintaining the electronic toll collection system, the fiber-optic network that the system runs on, and the various signs and communication devices that convey information to the traveling public. To ensure these important functions are carried out to a high standard, HPTE has tasked CDOT with performing the following ITS activities in and on behalf of the Express Lanes:

- a. Regular maintenance and monitoring of the fiber optic network to ensure it is in working condition and that network downtime is minimized as much as possible;
- b. The Network Operation Center (NOC) staff assists with triaging tickets and dispatch related to devising failures. Additionally, NOC staff provide advanced notification of fiber maintenance, continued notifications in the event of fiber outages, and provide proactive responsiveness and resolution to problems and incidents discovered;
- c. Device maintenance, lane closures, temporary traffic control, and associated activities will be billed as needed at to HPTE at the rates outlined in Appendix B;

C. Operational Support

Oversight and monitoring of the Express Lanes are critical to mitigate accidents, identify incidents that require an immediate response, become familiar with behaviors of the corridors, flag issues related to safety, and follow up by reporting the information to prompt a change in process or practices. The CDOT Traffic Operations Center (TOC) monitors roadway traffic throughout the state of Colorado. The TOC operators and dispatchers coordinate with local agencies along those corridors, various jurisdictions, and key partners such as CDOT Incident Commanders, First Responders, Safety/Courtesy Patrol which align with the common goal of optimizing the performance of the entire surface transportation system.

The team is located in Golden, CO, and the high-level duties of the Center are to provide system monitoring (traffic operations, infrastructure, and equipment health), event management, and crisis management. It is HPTE's goal to provide excellent service and meet the expectations of Express Lane users. This is accomplished by proactive monitoring of system health and immediate response to failures and traffic events that allow us to generate the maximum traffic flow as well as maximizing the toll revenue collection that will allow us to meet the obligations and commitments incurred when the lanes and associated construction were established. To ensure these important goals are carried out to a high standard, HPTE has

tasked CDOT with performing the following operational support activities on behalf of the Express Lanes:

- a. Monitor all Express Lanes, including coverage of After Hours operations as defined by traffic operations center (TOC) business rules for each individual Express Lanes corridor;
- b. Monitor all Express Lanes as part of the overall system monitoring, and provide coverage to support the tolling team to support in the event of absences that impact the staff due to planned/unplanned time off and training.
- c. Courtesy Patrol on Express Lane corridors carrying out traffic management, incident recovery, and verification of the status of the corridor during peak hours within the project limits;
- d. Communication with the traveling public if an event or accident occurs using the tools available in the TOC including ReadyOp, Twitter, Google Traffic, and other platforms;
- e. Ensure that tolls are not charged, by notifying the Tolling team, if an event is triggered in the General Purpose lane that diverts traffic into the Express Lane;
- f. Use of Variable Message Signs (VMS) for Express Lanes messaging. Examples would include: Express Lane closures, safety campaigns (e.g.: don't cross double white lines), toll fee changes, messaging about new lanes that are opening.

While we work together as an operations group, there are some very specific focuses of the respective teams. The Traffic Operators will give first priority to incident recovery. The Tolling Operators will prioritize the tolling system health and react to alerts and notifications for equipment and/or system failures. The addition of the Tolling Maintenance team provides ongoing and uninterrupted monitoring of the tolling equipment. They are also an extra set of eyes for road conditions and can provide valuable information regarding the state of a corridor (debris, damage..etc.).

The Tolling Operations group is increasing its staff to monitor Tolling Equipment and the Express Lanes Network Corridors, the Tolling Operators will provide support to the Traffic Operators in the TOC and assist with situational awareness, incident recovery and other elements of support. The Tolling Operators will work closely with the Tolling Maintenance teams to report equipment failures and document lane closures into the Lane Aware System, generating the daily log every two hours and other duties. Additionally, they will send down toll rates for the MEXL, create toll voids based on accidents and events that occur and that are reported from the Traffic Operations team.

7. Terms and Conditions

7.1 Statement of Work Duration

This Statement of Work documents the duties and tasks that HPTE directs CDOT to manage, oversee, and implement for the Fiscal Year 2022-2023. This Statement of Work outlines services that will be provided by CDOT over a one-year period that will commence on July 1, 2022, and end on June 30, 2023.

7.2 Payment for Services

Associated costs for specific areas of work are outlined below. In exchange for completing the tasks outlined under this Statement of Work, HPTE will compensate CDOT with an upfront payment for its services. HPTE has also included a 15% contingency by corridor to account for any work that may come up on an as needed basis. HPTE will reserve the contingency to be used as needed and it will not be included as part of the pre-payment to CDOT. Work will be agreed on by HPTE and CDOT and billed to HPTE for payment out of the contingency funds.

Any operations and maintenance that needs to be completed and is outside the scope of work for this agreement, CDOT will notify HPTE of the needed work in a written statement, outlining the nature and price of the tasks, requesting HPTE’s approval 30 days before the work is to be completed. Upon HPTE’s approval, CDOT will then invoice HPTE. HPTE then has 30 days to pay the invoice.

7.3 Progress Reporting

On the 15th of January and July of each fiscal year, CDOT will submit a progress report that includes a summary of activities performed on the corridor for the previous six months as well as a status report on the progress being made to accomplish the tasks outlined in this Statement of Work. The submission of the semi-annual reports will be used by CDOT and HPTE to recognize revenue and expenses, respectively.

8. Summary of Total Fees by Roadway for FY 2022-23 for Statement of Work Activities:

Type of Maintenance	I-25 North (US36 to E470)	I-70 Mountain Express Lanes	I-25 South GAP	C-470	Total
Roadway Maintenance	\$88,000.00	\$58,488.00	\$144,000.00	\$120,000.00	\$410,488.00
ITS Maintenance and Monitoring	\$23,282.82	\$25,399.44	\$38,099.16	\$31,749.30	\$118,530.73
Operational Support	\$80,500.00	\$143,000.00	\$214,500.00	\$214,000.00	\$652,000.00
Contingency	\$28,767.42	\$34,033.12	\$59,489.87	\$54,862.40	\$177,152.81
Total	\$220,550.25	\$260,920.56	\$456,089.04	\$420,611.70	\$1,358,171.54

Appendix A (Roadway Maintenance), Appendix B (ITS Maintenance and Monitoring) and Appendix C (Operational Support), and provide a detailed breakdown of the SOW calculations.

Appendix A: Roadway Maintenance

The roadway maintenance calculation uses historical O&M cost data from CDOT DMO to determine a cost per lane mile on Express Lane corridors. The cost per lane mile is then multiplied by the number of Express Lane miles in a specific corridor to calculate the total. The table below outlines the cost per Express Lane for Roadway O&M:

Corridor	Per Lane Mile Cost	Number of Express Lane Miles	Total
I-25 North (US36 to Northwest Parkway/E-470)	\$4,000	22	\$88,000
I-25 South GAP (Castle Rock to Monument)	\$4,000	36	\$144,000
I-70 Mountain Express Lanes	\$2,437	24	\$58,488
C-470 (I-25 to Wadsworth Blvd)	\$4,000	30	\$120,000
Total		112	\$410,488

Appendix B: ITS Maintenance and Monitoring

1.Operational ITS costs

Currently, the ITS Network Operations Center (NOC) has eight full-time staff and can support ticket monitoring and dispatching in HPTE corridors during business hours (4:00 am to 8:30 pm), Monday through Friday (7:00 AM to 4:00 PM) Saturday and Sunday.

The cost for ITS Network FTEs, contractors, software and tools, and lane closures to complete tickets within HPTE corridors averages approximately 2% of the total ITS ticketing volume costs. To determine an annual reimbursement for the cost associated with maintaining devices in HPTE corridors via tickets submitted, 2% was applied to the average total ITS tickets annual cost.

Base Support (Estimated Annual Average: \$18,199.33): This is ticketing tracking and dispatch only. The staff employed in the NOC are Professional Network and Systems Engineers and are employed through a contract with Convendis, two FTEs, and a Supervisor FTE. In addition, there is an overhead expense associated with the software and tools needed to log, track and manage tickets.

Calculation

[[Total Costs of FTEs/Contractors/Software in the NOC] x [Percentage of HPTE Tickets received within the NOC based on previous year]] + [3% Overhead] = [Network Monitoring Annual Reimbursement] = (\$883,462.44 x 2% = \$17,669.25) + \$530.08 = **\$18,199.33**

2. Communication Infrastructure Maintenance Costs:

Currently, ITS dark fiber is used to support communication for HPTE corridors. The current assumption is that each corridor shown uses four strands of ITS dark fiber to support the HPTE vendor tolling equipment. Any routes that ETC will be managing will need to be converted to from dark fiber rates to circuit rates, which currently is not reflected.

Maintenance of fiber routes includes preventative maintenance, inventorying, and emergency and extraordinary repairs. Preventative maintenance on these fiber routes includes periodic inspection

of the facility, reinstallation of knocked down fiber location markers and replacement of damaged or missing fiber location markers, clearing and cleaning debris from pull boxes so that they are visible, performing locates within three (3) business days from receipt of UNCC notice. An accurate geospatial inventory of the route has to be maintained with UNCC to support appropriate locates. Emergency and extraordinary repairs occur when fiber cables have been damaged, cut or severed.

Calculation

[[Total Corridors miles] X [M&O Annual Fee per mile per strand] x [Number of Fibers] = HPTE Annual M&O] + [[Total Corridors miles] X [Locate/811 Annual Cost per mile per strand, plus 20% overhead] x [Number of Fibers] = HPTE Annual M&O] = [Fiber Maintenance Annual Reimbursement]

Total Corridor Miles: 234.3 x \$34.95 x 4 strands per mile = \$32,755.14 M&O cost share to HPTE

Total locates and UNCC tickets: 234.3 x \$16.62 x 4 strands per mile = \$15,576.26

[Communication Infrastructure Annual Reimbursement] = **\$48,331.40**

FLIR software is used for the VMS (Variable Message Signs) and VTMS (Variable Toll Message Signs) and is tied to the control of the reversible lanes. This software is also required to update toll rates.

3. Conclusion:

An estimated total annual reimbursement is shown in the table below. The methodology to determine the Operational and Maintenance costs as documented above.

To ensure the equitable distribution of ITS costs across the Express Lanes Network, the total reimbursement cost was calculated on a lane mile basis and multiplied by the number of lane miles for each Express Lane facility (e.g. I-70 Mountain Express Lane - 12 lane miles x \$1039.54 = \$12,474.52). The values and methodologies used to determine the reimbursement will be assessed/updated annually.

Operational ITS Costs	\$18,199.33
Communication Infrastructure Maintenance Costs	\$48,331.40
Annual Flir Software Renewal	\$52,000.00
Total Payment	\$118,530.73

ITS costs will be split out by Express Lane corridors as show in the table below:

Corridor	Number of Express Lane Miles	Percentage Share of the Express Lane Network	Share of ITS Costs
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I-25 North (US36 to Northwest Parkway/E-470)	22	19.64%	\$23,282.82
I-25 South GAP (Castle Rock to Monument)	36	32.14%	\$25,399.44
I-70 Mountain Express Lanes	24	21.43%	\$38,099.16
C-470 (I-25 to Wadsworth Blvd)	30	26.79%	\$31,749.30
Total	112	100.00%	\$118,530.73

4. ITS Rates (paid for out of contingency):

Any device maintenance and associated activities (lane closures, device troubleshooting on-site, etc), ITS hourly estimated costs including salaries, benefits, and vehicle costs: \$53.70 per hour during regular business hours for FY 21-22. 1.5x during off-hours and weekends. Plus any material costs.

If fiber splicing is being requested, that is not part of maintenance or repairs: \$65 per spliced strand per location. Anything above and beyond the aforementioned operations costs, like remote troubleshooting of HPTE equipment, will be charged at \$50.65 per hour during regular business hours, 1.5x during NOC off hours. If any circuits are requested to support managed lanes, they will need to be negotiated.

Appendix C: Operational Support

CDOT/CTIO Agreement for Managed Lane Operations (Ops Centers and Safety Patrol)				
Facility	I-70 MEXL	I-25 Segment 2&3	C470	I-25 South Gap
Hours of Operation	Sat/Sun - 0900-2000 hrs	24/7/365	24/7/365	24/7/365
	Holidays (e.g. Mondays, Thanksgiving, Christmas)			
	Total - 1168 hrs/year and 100 days/year			
CTIO Coverage	0600-2000hours 7 days/week	0600-2000hours 7 days/week	0600-2000hours 7 days/week	0600-2000hours 7 days/week
CTIO Duties	Tolling Operations	Tolling Operations	Tolling Operations	Tolling Operations
	Tolling System/Device Management	Tolling System/Device Management	Tolling System/Device Management	Tolling System/Device Management
	Active Monitoring	Active Monitoring	Active Monitoring	Active Monitoring
	Golden Ops Center - Incident Management	Golden Ops Center - Incident Management	Golden Ops Center - Incident Management	Golden Ops Center - Incident Management
CDOT Duties	Safety Patrol Provider	Safety Patrol Provider	Safety Patrol Provider	Safety Patrol Provider

Fiscal Year 2022-23 Tolling Operations and Maintenance (TOMs) Interagency Agreement (IAA)

CDOT Level of Effort	<u>Incident Management: EB MEXL</u>	<u>Incident Management:</u>	<u>Incident Management:</u>	<u>Incident Management:</u>
	Average Annual Total Incident Duration: 260 hrs/yr	Average Annual Total Incident Duration: 43 hrs/yr	Average Annual Total Incident Duration: 192 hrs/yr	Average Annual Total Incident Duration: 213 hrs/yr
	Cost per Year: 260 hrs/yr *\$31/hr = \$8,060	Cost per Year: 43hrs/yr * \$31/hr = \$1,333	Cost per Year: 192 hrs/yr * \$31/hr = \$5,952	Cost per Year: 213 hrs/yr * \$31/hr = 6,603
	<u>Incident Management: WB MEXL</u>			
	Average Annual Total Incident Duration: 235hrs/yr			
	Cost per Year: 235 hrs/yr * \$31/hr = \$7,285			
	Safety Patrol (1 Light Duty/and 0.5 Rollback):	Safety Patrol (1 units):	Safety Patrol (assume 2 units):	Safety Patrol (assume 2 units):
	Light Duty = \$94/hour *1200 = \$112,800	Light Duty = \$69/hour	Light Duty = \$69/hour	Light Duty = \$69/hour
	Roll Back = \$135/hour * (1200*0.5) = \$81,000	Hours/year = [(14*5)+(9*2)]*52 = 4,576	Hours/year = [(14*5)+(9*2)]*52 = 4,577	Hours/year = [(14*5)+(9*2)]*52 = 4,577
Subtotal = \$193,800/year	Subtotal = \$69/hour * 4,576 hours = \$315,744	Subtotal = \$138/hour * 4,576 hours = \$631,488	Subtotal = \$138/hour * 4,576 hours = \$631,488	
# of Lanes (Managed vs GP) = 66%	# of Lanes (Managed vs GP) = 25%	# of Lanes (Managed vs GP) = 33%	# of Lanes (Managed vs GP) = 33%	
Total: say \$128,000	Total: say \$79,000	Total: say \$208,000	Total: say \$208,000	
Annual Total Cost	Operation Center: \$15,000	Operation Center: \$1,500	Operation Center: \$6,000	Operation Center: \$6,500
	Safety Patrol: \$128,000	Safety Patrol: \$79,000	Safety Patrol: \$208,000	Safety Patrol: \$208,000
	Total: \$143, 000	Total: \$80,500	Total: \$214,000	Total: \$214,500
		Grand Total		
		\$29,000		
		\$623,000		

Resolution – HPTE #388

Approving the Tolling Operations and Maintenance Intra-Agency Agreement between the High Performance Transportation Enterprise and the Colorado Department of Transportation

WHEREAS, pursuant to C.R.S. § 43-4-806, *et seq.*, the General Assembly of the State of Colorado (“State”) created the Colorado High Performance Transportation Enterprise (“HPTE”) as a government-owned business within the Colorado Department of Transportation (“CDOT”) to pursue innovative means of more efficiently financing important surface transportation projects that will improve the safety, capacity, and accessibility of the surface transportation system; and

WHEREAS, pursuant to C.R.S. § 43-4-806(6)(h), HPTE is empowered to make and enter into all other contracts and agreements, including intergovernmental agreements under C.R.S. § 29-1-103, that are necessary or incidental to the exercise of its powers and performance of its duties; and

WHEREAS, CDOT and HPTE previously entered into various Intra-Agency Agreements for Express Lane corridors in which HPTE agreed to compensate CDOT for the operations, maintenance, and rehabilitation of the Express Lanes by allocating costs based on a proportion of the total number of vehicles using the Express Lane and the general purpose lanes (the “Pro-Rata O&M Cost Calculation”); and

WHEREAS, given the practical difficulties in capturing the true values of the Pro-Rata O&M Cost Calculation and the ongoing maturation of HPTE’s business practices, CDOT and HPTE now desire to adjust how HPTE compensates CDOT for the operations, maintenance, and rehabilitation of the Express Lanes (“Services”) by providing payment to CDOT on an upfront basis rather than the retroactive O&M Cost Calculation; and

WHEREAS, HPTE acknowledges that CDOT possesses operations and maintenance (“O&M”) expertise unavailable to HPTE, which enables it to ensure the effective, efficient, and safe operations of Express Lanes; and

WHEREAS, for the upcoming fiscal year, CDOT has prepared a new Statement of Work describing the services HPTE has requested CDOT to provide HPTE during the 2022-23 fiscal year, which is attached hereto and incorporated herein as Exhibit A (the “Statement of Work”) to the Tolling Operations and Maintenance Intra-Agency Agreement (the “Agreement”); and

WHEREAS, in order to ensure the efficient running of surface transportation infrastructure projects that involve Express Lanes once they become operational, HPTE desires that CDOT utilize its expertise in operations and maintenance to provide the Services, in exchange for which HPTE agrees to compensate CDOT in the amounts set forth in the Statement of Work; and

WHEREAS, the HPTE Board of Directors (“Board”) has reviewed the Statement of Work attached as Exhibit A to the Agreement, and finds the compensation amounts set forth to constitute fair and reasonable compensation for the specific Services to be provided by CDOT to HPTE during the 2022-23 fiscal year as detailed in the Statement of Work; and

WHEREAS, the HPTE Board has reviewed the Agreement, by this Resolution accepts, and confirms the findings and statements contained in the recitals.

NOW THEREFORE BE IT RESOLVED, the HPTE Board hereby approves the Tolling Operations and Maintenance Intra-Agency Agreement in substantially the form presented and authorizes the HPTE Director, or his designee, to execute the Agreement with such changes therein and additions thereto, including revisions or modifications to the Statement of Work, as the HPTE Director or his designee may determine to be necessary or appropriate.

Signed as of May 18, 2022

Simon Logan
Secretary, HPTE Board