



**COLORADO**

Department of  
Transportation

# Addressing Colorado's Major Mobility Issues

Colorado Department of Transportation  
High Performance Transportation Enterprise



# INNOVATIVE ERA OF TRANSPORTATION



- Innovative era of **CHOICE**  
How you get from point A to B
- Innovative era of **FUNDING**  
How you pay for transportation
- Innovative era of **PARTNERSHIPS**  
How a project gets built



# OLD versus NEW TRANSPORTATION



## OLD

- Build roadways for cars and trucks
- Add lanes when congested



## NEW

- Increase choice in travel (transit, carpool, single occupant)
- Increase mobility through operational improvements
- Use pricing on new express lanes to manage travel reliability and growth
- Promote options for walking & biking



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# **CHOICE** **NEW CDOT STRATEGY**

# **EXPRESS LINES**

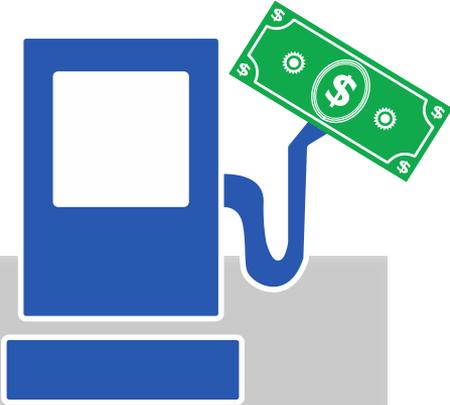
- Reduce delay on most seriously congested corridors
- Use toll pricing to manage congestion
- Maintain reliable travel times now and in the future
- Promote transit and carpooling (where viable)



# OLD versus NEW FUNDING

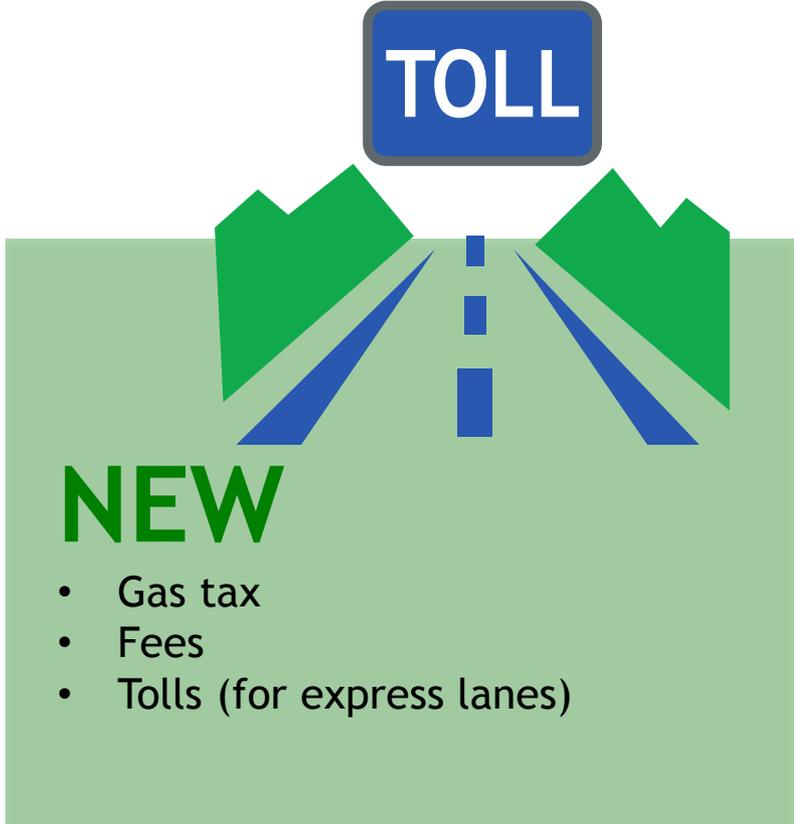
**OLD**

- Gas tax



**NEW**

- Gas tax
- Fees
- Tolls (for express lanes)





# OLD versus NEW PROJECT DELIVERY



## OLD

- Secure funding from state or feds (supported by gas tax)
- Design project
- Select low bid or best value
- Build



## NEW

- Strategies for limited funds
  - Design Bid Build, Design Build, CMGC
- Public Private Partnership (P3) Partner may finance, design, build, operate and maintain in return for:
  - Toll revenue - OR -
  - Annual performance payments
- Secure long-term performance guarantees for fixed price
- P3 not a solution for every corridor



# OLD versus NEW PARTNERSHIPS



## OLD

- CDOT planned with partners, secured funding and delivered



## NEW

- Multi-lateral partnerships engaging:
  - Local governments, planning entities, RTD, state, federal, TIFIA, P3, etc. to make it work
  - Planning, financing and delivering
  - Example U.S. 36



# CDOT'S APPROACH



**Launch RAMP (Responsible Acceleration of Maintenance and Partnerships)**  
Short-term to accelerate major corridors and other projects around state



**CDOT's Office of Major Project Development (OMPD) oversees corridors**



**Work with HPTE, innovative financing arm, to determine viability of P3 for corridors**  
Working on initial Traffic & Revenue studies and Value for Money reports on each corridor

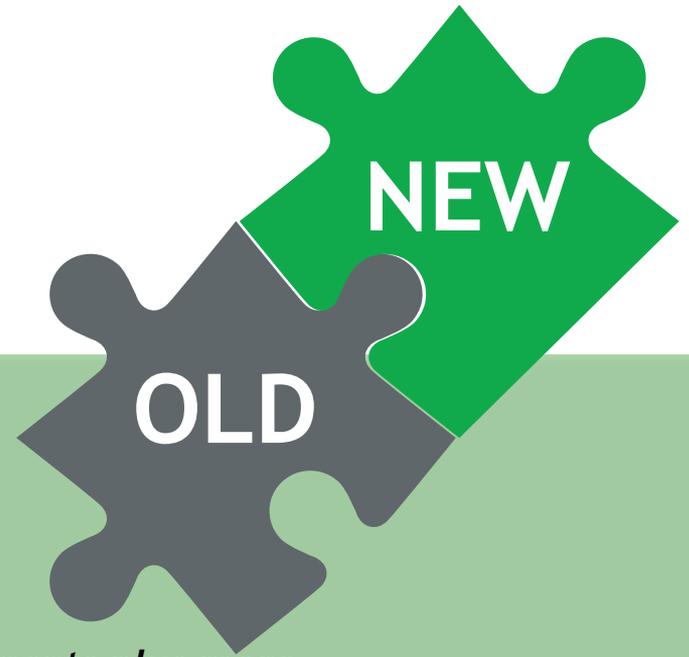


# HOW DO WE DECIDE?



## OLD

- Available funding
- Level of design
- Lowest bid
- Best value (scope)
- Need for innovation in design and construction



## NEW

### *Old requirements plus more*

- Evaluate risks and value of transfer
  - Toll revenue risk
  - Long-term annual maintenance risk
  - Long-term reconstruction risk (capital maintenance)
  - Long-term operations risk



# PUBLIC ENGAGEMENT

**1**

WHAT  
Identify  
project -  
EIS



Public  
involvement  
and  
education

**2**

WHEN  
Construct  
and open  
project



Public  
engagement  
and  
education

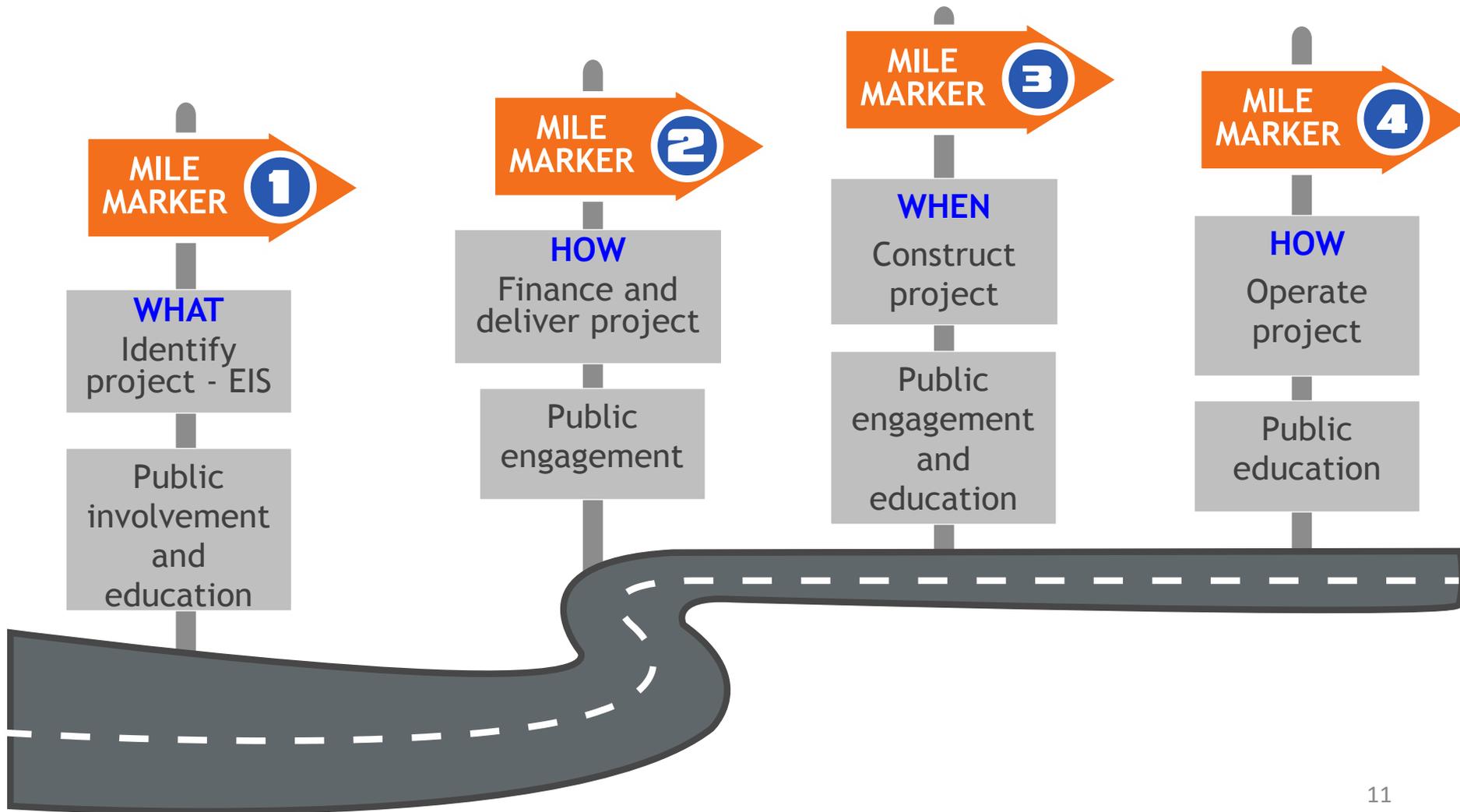
Public involvement = Iterative outreach to develop plans based on public input and feedback

Public engagement = Outreach to explain and gather feedback

Public education = Outreach to inform and educate public



# PUBLIC ENGAGEMENT





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# **COLORADO'S** **EXPRESS LANE** **CORRIDORS**

**C-470**

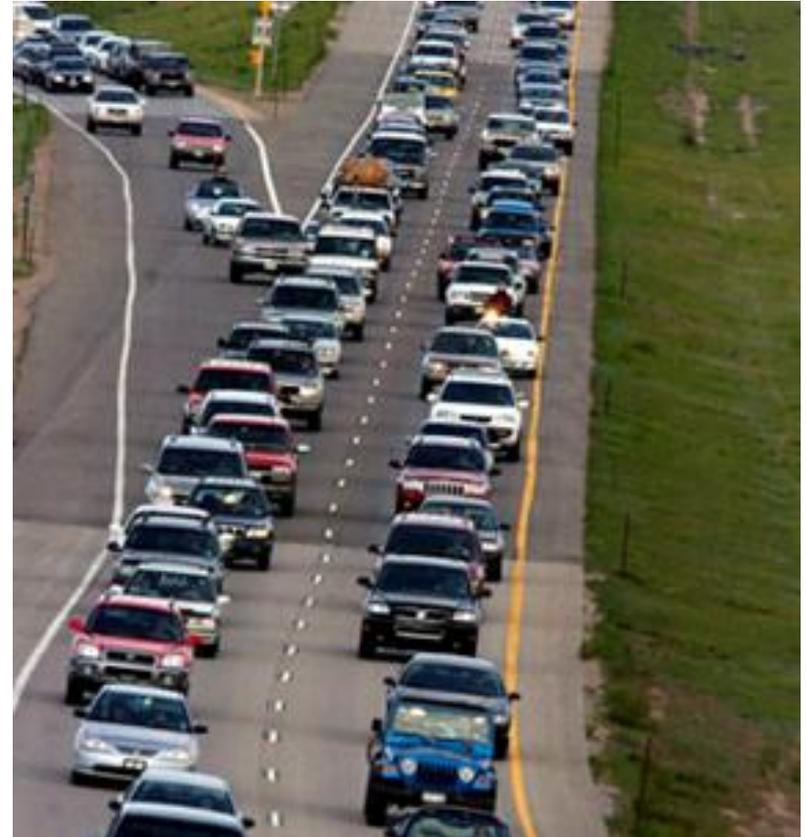
**I-70 WEST**

**NORTH I-25**

**I-70 EAST**



- Corridor Needs: \$400 million
- Proposed Project Cost: \$230 million
- RAMP: \$100 million
- Work: Adds new tolled Express Lanes, improves general purpose lanes from I-25 to Wadsworth
- Benefits:
  - Mobility: Reduces travel time 20 minutes in express lanes in 2016 and up to 70 minutes by 2035
  - Economic: Provides access for I-70 corridor tourism. Is crucial link for commuters to and from downtown Denver and for businesses along I-25
- Choice



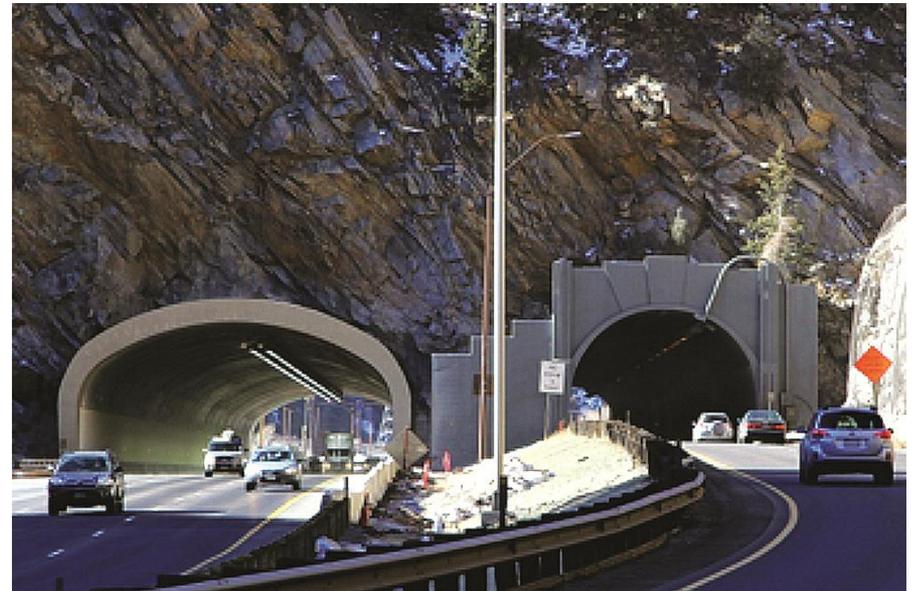


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# I-70 WEST

- Corridor Needs: \$11 billion
- Construction Activities: Eastbound Peak Period Shoulder Lanes (PPSL) and Westbound Twin Tunnel expansion
- RAMP: \$20 million (eastbound PPSL), \$55 million (westbound Twin Tunnel)
- Benefits:
  - Mobility: Reduces travel time 30 minutes (EB PPSL), westbound Twin Tunnel paves way for future PPSL
  - Economic: Provides access for I-70 corridor tourism, supports significant economic commercial vehicle traffic
- Choice





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# NORTH I-25

Corridor Needs: \$1 billion

## U.S. 36 to 120th Ave.

- Project Cost: \$66 million
- Work: Adds new tolled Express Lane each direction from U.S. 36 to 120th Ave.
- Benefits:
  - Mobility: Reduces travel time 22% in express lanes, 10% in general purpose lanes
  - Economic: Supports continued economic growth along corridor
- Other:
  - Not part of U.S. 36 concessionaire agreement
  - Connects to existing I-25 Express Lanes
- Choice

## 120th Ave. to E-470/SH 7

- Total Cost: \$55 million
- RAMP: \$55 million
- Work: Adds new tolled Express Lane each direction I-25 from 120<sup>th</sup> Avenue to E-470/SH 7
- Benefits:
  - Mobility: Reduces travel time 25% in express lanes, 12% in general purpose lanes
  - Economic: Supports continued economic growth along corridor
- Other:
  - Connects to previous project and I-25 Express Lanes
- Choice



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# I-70 EAST

- Corridor Needs: \$1.8 billion (phased project)
- Work: Reconstructs a 50-year old stretch of interstate. EIS proposes adding two tolled express lanes each direction from I-25 to Tower Road
- Travel-time benefits in 2035 over “No Action” between I-25 & Tower Rd:
  - Express Lanes: 17 minutes compared to 60 minutes
  - General Purpose Lanes: 35 minutes compared to 60 minutes





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# I-70 EAST Phase I

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- First phase—\$1.05B
  - Remove viaduct between Brighton and Colorado Blvd; reconstruct as a lowered highway with a cover
  - Potential to extend managed lanes further east to optimize connectivity (funding dependent)
  
- Will require multiple funding sources; including:
  - Bridge Enterprise
  - SB 228
  - DRCOG





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A photograph showing a line of cars in traffic on a snowy mountain road at night. The cars' taillights are illuminated, and the surrounding landscape is dark with snow-covered mountains and trees.

# Addressing Colorado's Major Mobility Issues

## High Performance Transportation Enterprise



# WHAT IS HPTE?

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- High Performance Transportation Enterprise pursues innovative means of more efficiently financing important transportation projects
- Partner + Innovate + Accelerate
- Innovative means of financing projects include, but are not limited to:
  - Public-private partnerships
  - Operating concession agreements
  - User fee-based project financing
  - Annual performance payment agreements
- HPTE operates as a government-owned business within CDOT



# PARTNERSHIPS COLORADO STRATEGY



Pursue innovative  
financing that:

- Advances funding, scope or schedule for needed corridors
- Guarantees performance of high levels of service and maintenance
- Retains state ownership of transportation assets
- Is transparent to the public

# Public Private PARTNERSHIPS



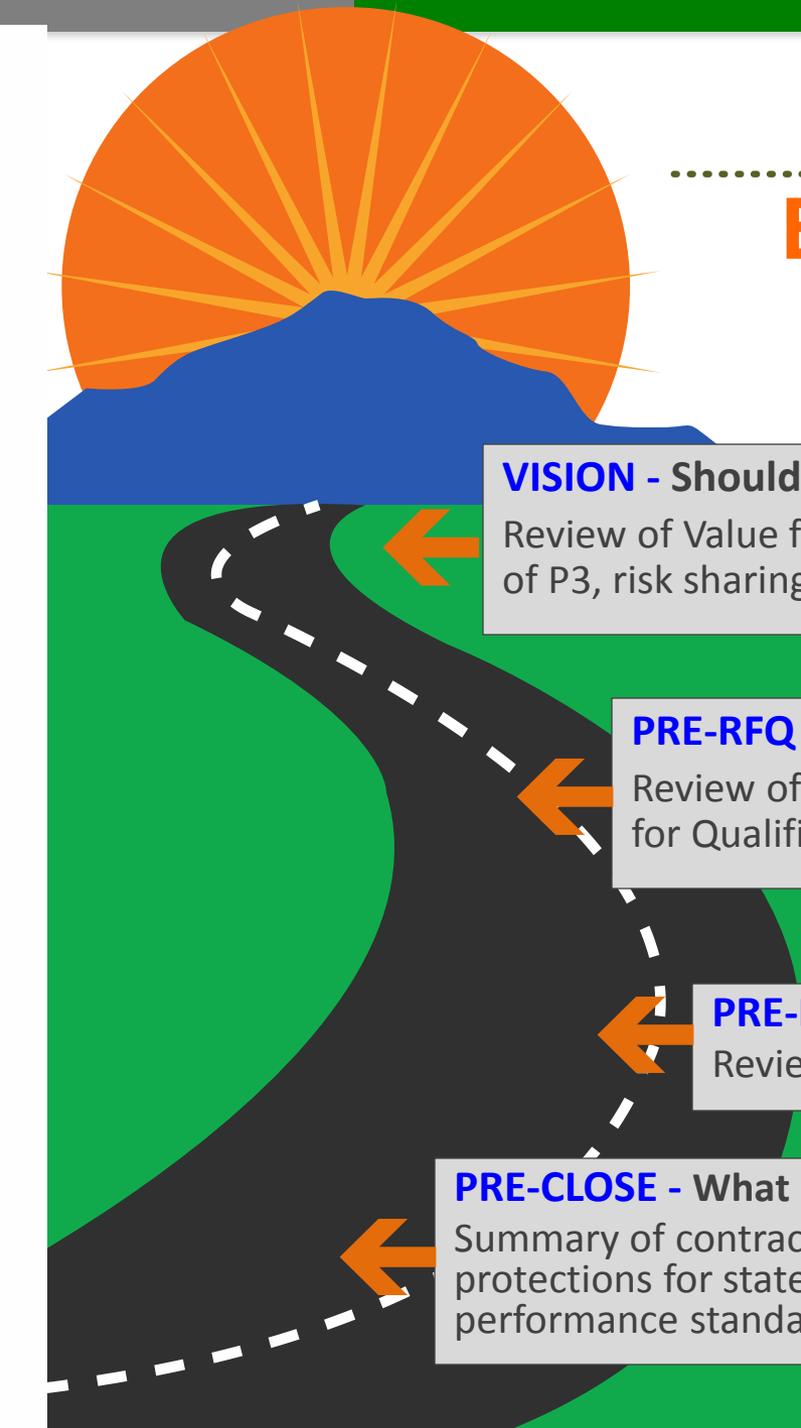
## P3 BENEFITS:

- Accelerated construction schedules, increased scope
- Reduced risk for taxpayers
- Private sector investment over “whole life cycle” of infrastructure upgrades
- Long-term performance requirements

# ANALYZING CORRIDORS



- Examine cost (construction + lifecycle) data, potential revenues
- Provide matrix of risks and identify best value
- Consider what possible risks to transfer:
  - Toll revenues?
  - Long-term annual and capital maintenance costs?
  - Ongoing operations?
  - Innovation of design, construction schedule and scope potential?



# Stakeholder/Public ENGAGEMENT PROCESS

## **VISION** - Should we go P3?

Review of Value for Money report (type of P3, risk sharing, value to taxpayers)

## **PRE-RFQ** - What kind of partner do we want?

Review of final decision and elements of a Request for Qualifications for partners

## **PRE-RFP & SELECTION** – What is the proposed partnership?

Review elements of Request for Proposals and possible partners

## **PRE-CLOSE** - What is the deal?

Summary of contract elements, protections for state & public, performance standards

# C-470 CONSIDERATIONS

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- Level 2 Traffic & Revenue Study finalized June 2014
- Preliminary results: Project could generate enough revenue to borrow \$100 Million. Further analysis is necessary.
- Value for Money Analysis to start Summer 2014
  - **Initial assessments indicate Design-Build likely**
- Public Town Hall (vision outreach) in early Autumn 2014

# I-70 WEST CONSIDERATIONS



**EXPRESS**  
**LANES** | **I-70**  
**WEST**

- Level 1 Traffic & Revenue Study in process
  - Looking at a range of alternatives including:
    - Two/Three Lane Reversible
    - Peak Period Shoulder Lane (east and westbound)
  - Working through CSS process to evaluate whether any options move forward for additional analysis
- Moving forward
  - Exploring ideas to leverage eastbound PPSL revenues to fund a westbound PPSL project

# NORTH I-25 CONSIDERATIONS



- Level 1 Traffic & Revenue Study completed in 2013
  - Conducted meetings with P3 industry
  - Initial assessments indicate North I-25 preferred alternative is not feasible at this time for P3
- Moving forward with projects to 120<sup>th</sup> and from 120<sup>th</sup> to E-470/SH 7
  - Wait for toll revenues to “season” before re-evaluating financing alternatives for corridor

# I-70 EAST CONSIDERATIONS

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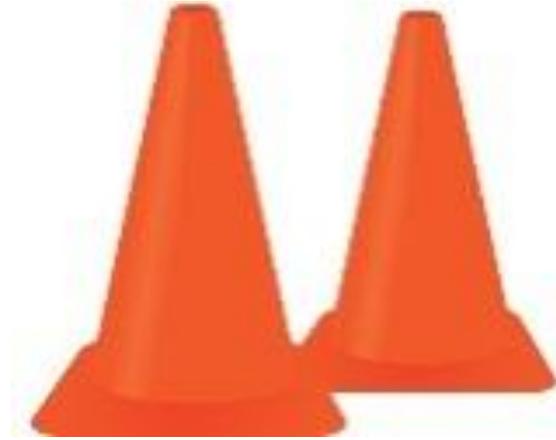


- Value for Money Analysis (VFM) completed 2013
- VFM considered three different P3 models
  - Toll Risk
  - Annual Performance Payments
  - Design, Build, Finance
- Projected toll revenue does not generate sufficient revenues to cover capital costs
  - Express lane tolls will be used to manage traffic
  - Need to look for financial partnerships with local governments
- Annual performance payment model currently being considered

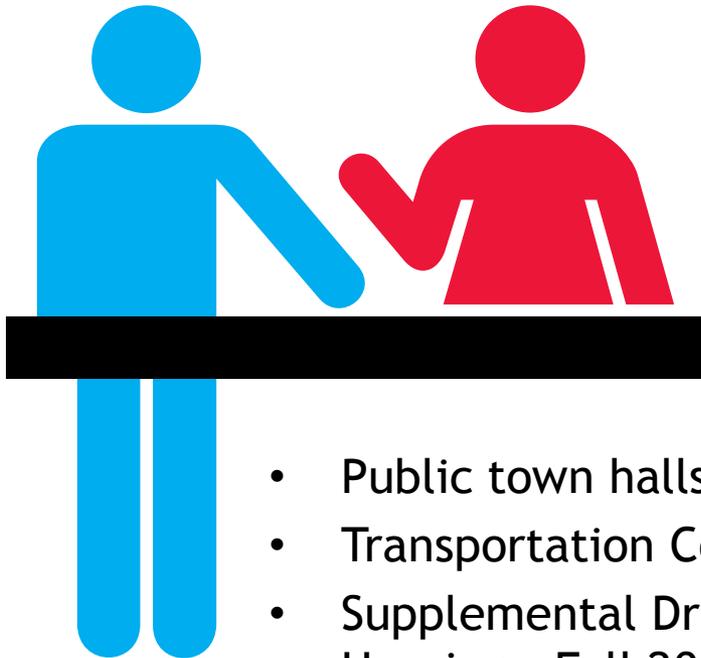
# I-70 EAST CONSIDERATIONS

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- P3 option builds on Design-Build or CMGC benefits through:
  - Potential for innovation, cost and time savings
  - Construction duration
  - Assured program delivery
- Potential to optimize and guarantee performance of “whole life cycle” of I-70 through long-term operations and maintenance
  - Spreads the financial risks and obligations over a greater period
  - Could impact how concessionaire builds project
  - Transfers risk and provides performance guarantees for roadway where state might not be able to (i.e. major rehab)



# I-70 EAST NEXT STEPS



- Public town halls (vision outreach): July 2014
- Transportation Commission P3 action in July 2014
- Supplemental Draft Environmental Impact Statement Public Hearing: Fall 2014



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**Questions?**