

## **Slide 1**

Welcome and thank you for coming.

This is the information meeting for the Eisenhower/Johnson Memorial Tunnel Fixed Fire Suppression System design build project.

## **Slide 2**

For those of you not familiar with Colorado, the EJMT facility is located about 60 miles west of Denver on I-70. The length of the westbound (north) tunnel is 1.693 miles, and the length of the eastbound (south) tunnel is 1.697 miles (outside face to outside face of the ventilation buildings).

The east portal is in Clear Creek County, while the west portal is in Summit County.

The Continental Divide also crosses the EJMT.

The EJMT is the gateway to the Colorado Rocky Mountains.

Tourism is the second largest industry in the state.

Replacement of the EJMT is estimated at \$1.5 billion, so we really need to protect our asset.

## **Slide 3**

This project has state and federal funding.

We received \$5 million from the Colorado Department of Labor and Employment.

This is a high priority project for CDOT.

We have applications out for funding, but this project will be funded and moving forward.

The total budget for this project is between \$20 million and \$25 million.

The photo on this slide is from May 2013 when the Governor, John Hickenlooper, signed House Bill 1252 giving our project the \$5 million from the Department of Labor and Employment.

## **Slide 4**

I am Raelene Shelly, Project Manager.

Introduce Steve Harelson (Resident Engineer), Del Walker (Parsons), and Matt Greer (FHWA).

Ralph Trapani also with Parsons is working on this project as well.

## **Slide 5**

This is the first project of its kind in the world!

No other tunnel has been retrofitted with a fixed fire suppression system!

We are writing history with this!

## **Slide 6**

Project Goals

## **Slide 7**

The photo on this slide is from October 2011, when a truck carrying dog food caught on fire outside the tunnel. Our maintenance crews at the EJMT complex respond to emergencies both inside and near the tunnel.

## **Slide 8**

This is a Class C motor home that burned in the tunnel in 2000.

It was estimated to be about a 20 MW fire.

There was major damage to the tile panels and lighting due to this fire.

## Slide 9

All of the 52 maintenance employees working at the EJMT are trained in basic firefighting, while some have more advanced training and skills.

Average response time is 8 minutes when our crews at the EMJT respond.

This is in part due to the time it takes to stop traffic and clear vehicles from the tunnel.

Silver Plume and Georgetown are on the east side, and Silverthorne and Dillon are on the west side of the tunnel.

Response time from one of the local entities is at least 15 minutes and in bad weather, this becomes closer to 30 minutes.

The photo on this slide is a picture of our crews fighting a motor home fire.

The motor home caught fire due to an electrical malfunction.

It was located about 500 feet from the entrance to the east portal.

## Slide 10

As you can see, the tunnel is at a very high elevation.

It is located at the top of a long, steep grade which causes vehicles to overheat.

With this high elevation comes certain challenges such as, breathing issues, cold temperatures, and snow about 10 months of the year.

The tunnel sees a lot of traffic throughout the year.

The 30,000 vehicles per day is an average.

The highest traffic volume ever experienced in one day through the tunnel was 50,918 vehicles which occurred on August 2, 2009.

Traffic mix includes buses, passenger vehicles, freight trucks, and hazardous loads on certain occasions.

US 6 (Loveland Pass) is the alternative route around the tunnel. It is required that haz-mat loads use US 6 and not go through the tunnel.

However, at this time, haz-mat loads are only allowed through the tunnel when US 6 is closed.

Even when this happens, the haz-mat trucks are escorted through the tunnel at the top of every hour.

The Region 1 Lane Closure Strategy will give guidance as to when a lane can be closed, which direction, and for how long.

The project traffic control will be managed by the EJMT staff, but the Lane Closure Strategy will be provided as a reference in the RFP.

The average snowfall at the tunnel is 420 inches or 35 feet based on a 31-year average.

There are 27 known avalanche paths along I-70 approaching the tunnel.

## Slide 11

The east portal is in Arapaho National Forest, and the west portal is in White River National Forest.

The tunnel has easements with both forests, and the project needs to stay within the limits of those easements.

Clear Creek runs on the east side of the tunnel.

Straight Creek runs on the west side of the tunnel.

In regards to Buy America, all steel and iron to be used in the project needs to be American.

At this point in time, the design fire is 200 MW; however, the final decision will be portrayed in the RFP.

The photo on the slide is of the west side of the tunnel during a snow storm.

## **Slide 12**

This slide highlights some project components which we think will be needed on the project. We are requiring a backup generator to be a part of each proposal. The extra storage tank may be for supply and/or drainage collection. There is an existing 120,000 gallon water tank.

The photo on the slide is of the existing water supply tank. The west portal of the tunnel is barely shown on the slide, just to the right of the tank.

## **Slide 13**

These are typical sections of each tunnel bore. Please note the different ventilation configurations in each tunnel. The finished interior, where the roadway is located, is 16 feet high by 30 feet wide. The rock bore measures nearly 50 feet high and 40 feet wide. This larger bore is how the ventilation ducts are able to be over the roadway. There is an 8 inch water main and a 12 inch sewer main, amongst other utilities under the roadway. There are several conduits attached to the fresh air side of the divider wall in each tunnel. There are 28 fans that supply fresh air and remove carbon monoxide from the tunnels.

## **Slide 14**

These are some elements of the Design Build Contract.

## **Slide 15**

Our conceptual design plans are for a water mist system; however we are open to other suppression systems. The proposed system could be mist, deluge, foam, or some combination thereof, or even another system that will meet the performance requirements in the RFP.

We have a conditional clearance with the State Historical Preservation Office (SHPO) that says the work will result in no adverse effect to the tunnel complex. This does not mean that we cannot impact the tunnel, or change the appearance of the interior; it just means we will have to get another clearance from SHPO. This will require additional time which will vary depending on the significance of deviation from the conceptual plan. This clearance will need to be received before construction can begin.

We will provide the geometric grid for the EJMT configuration for you to use in a Computational Fluid Dynamics model.

The photo on the slide is of the filtration ponds on the west side of the tunnel. There is an 18 inch pipe at the bottom of the last pond that feeds the 120,000 gallon fresh water supply tank.

## **Slide 16**

This project will have a DBE and an OJT goal established. The goals will be specified in the Request for Proposal. There will be no SBE goal required on this project.

## Slide 17

The prequalification applications for CDOT can be found at the web addresses shown.

If you have never done work with CDOT, either design or construction, these applications will need to be submitted to CDOT.

The Consultant application is for design.

The Contractor application is for construction.

In order to do any work on a fire suppression system in Colorado, your company needs to be certified with the Colorado Division of Fire Protection & Control.

## Slide 18

This is a brief description of what to expect during this process. There is a project schedule on a future slide.

RFQs will be provided to all teams that submit a Letter of Interest by September 12, 2013.

Once we are in the RFQ phase, there will only be one point of contact...me.

Please use the email address provided to send correspondence.

Only questions sent to the project manager **in writing to the email address provided** will be answered.

## Slide 19

Again, another brief description of what to expect.

There will be a stipend, and the amount of the stipend still needs to be finalized.

## Slide 20

This is the project schedule.

Please take a moment to review the dates.

The tunnel tours will start at 9:30 am.

Meet on the east side of the tunnel.

I suggest you bring a sack lunch, as the tour is expected to last until about 3:30 pm.

Steel toed boots, hardhats, and vests are also required.

Photos of the tunnel will be allowed.

Each company is allowed to bring 3 or 4 people to the tour.

There is a maximum number of people allowed at the tunnel for a tour at one time.

Tours will be on a first come, first served basis.

When one tour is full, we will schedule the second tour.

You will be notified of your tour day, once we have it figured out.

Everyone going to the tunnel for a tour must pass a background check first.

If someone does not pass, we will let the project manager for your company know.

## Slide 21

Note the project completion date of late fall 2016.

The ability to meet or exceed the schedule will be a factor in the selection criteria.

## Slide 22

Here is my contact information and the email address.

Please remember, only written inquiries, submitted to this email address, will be accepted and responded to.

## **Slide 23**

Here is the project website.

The photo on this slide is from the original construction of the Eisenhower Tunnel.

## **Slide 24**

Any questions?