



# COLORADO

## Department of Transportation

Region 1  
2829 W. Howard Place  
Denver, CO 80204

### INTERNAL MEMO

TO: Tamara Burke, Environmental Project Manager  
FROM: Barbara Stocklin-Steely, Senior Historian, Region 1  
DATE: January 28, 2022  
RE: Historic Property Clearance – I-70 Eisenhower-Johnson Memorial Tunnel Drainage & Heat Trace Project, Clear Creek and Summit Counties, CDOT 24210

This design-build project focuses on issues associated with freezing of existing water lines, seep lines and fire hydrant connections, emergency generators, fan motors, and the water treatment plant and piping system. Visible improvements include construction of new piping and fire hose connections inside the two tunnel bores to replace existing water lines and hydrants underneath the roadway/raised tunnel walkway (vertical piping with valves will be installed at up to 30 locations inside each of the two tunnel bores along or behind the modern replica tile wall panels); and installation of a new emergency generator with transformer to replace existing emergency generators (in Sound Attenuated Weatherproof Enclosure about 210 feet southeast of the west Tunnel portal along with a fuel tank and step-up electrical transformer). This review is based on preliminary design information provided by Atkins and environmental requirements included in the Design Build Contractor RFP issued in December 2021. The project is using only state funds; however, Section 106 of the National Historic Preservation Act applies because portions of the work occur within United States Forest Service (USFS) rights-of-way.

#### **Section 106 Process:**

On December 23, 2021, CDOT coordinated this project with the State Historic Preservation Office (SHPO) and three consulting parties, Clear Creek County, Summit County, and the USFS per 36 CFR 800, the 2014 *Programmatic Agreement among FHWA, the Advisory Council on Historic Preservation, the Colorado State Historic Preservation Officer, and CDOT Regarding Compliance with Section 106 of the National Historic Preservation Act*, and the 2016 *Memorandum of Understanding between the Bureau of Land Management, CDOT, FHWA and the USDA, Forest Service Rocky Mountain Region*. CDOT identified one age-eligible property within the project's Area of Potential Effects: Eisenhower-Johnson Memorial Tunnel (5CC.892.3/5CC.1189.4), an officially National Register of Historic Places (NRHP) eligible property.

Based on preliminary design materials and project RFP Environmental Requirements, CDOT made a Section 106 finding of **no adverse effect**. This finding carries the following **conditions**:

- CDOT will prioritize placement of the vertical piping behind the non-historic tile panel walls wherever possible. Space behind the wall panels vary by location. If there is space behind the wall panel for the vertical piping, CDOT will place the pipe behind the wall panel; the fire hose connection will protrude through sawcut joints in the existing tile wall panels but will not extend beyond the toe of the roadside concrete barrier.
- In cases where an installation in front of the tile roadway panels is required due to insufficient space behind the tile wall panels, CDOT will modify or remove an existing 2003 historic replica "corner" light as needed to create a gap for the new six-inch water pipe to extend down from the plenum through the ceiling as follows:
  - The new pipe will come down through the tunnel ceiling between the existing lights and not in front of them (the six-inch pipe will either be flush or recessed behind the face of the light fixture).
  - The new vertical pipe will be located at the center of existing joints between tile tunnel wall panels.
  - A 10-inch gap will be sawcut between the wall panels (at existing joints) and the front of the new pipe will be flush with the face of the existing tile wall panels. Where the pipe can be recessed further in between the wall panels, a new metal plate will be added to cover the pipe. The new plate will be flush with the face of the wall panel.
  - The pipe will be placed in front of the original porcelain enamel coated metal panels in the north tunnel. These panels will not be cut (These panels do not exist in the south tunnel bore and the pipe will be fixed directly to the tunnel wall for that application).
  - A new fire department connection will be added to the end of the pipe that will not extend out beyond the toe of the roadside concrete barrier.
  - All new pipe, pipe fittings and cover plates will be painted to match the existing wall panels.
  - This scenario (most visible) is shown in the photo rendition provided in Attachment 3 of the SHPO correspondence.

- In terms of the new generator and related improvements
  - the new generator will be located approximately 210 feet (at its closest point) from the West Ventilation Building and West Tunnel portal along EB I-70 on the south side of I-70. This area is already dedicated to re-fueling and maintenance activities at the Tunnel, and contains existing diesel fuel tanks.
  - A new low concrete barrier (about 30-inches high) with fine mesh chain link fence up to 6-feet in height above will extend around the perimeter of the generator and adjacent fuel tanks.
  - CDOT will follow the I-70 Design Guideline Color Palette for the Crest of the Rockies segment of I-70 for the generator, related equipment and fencing (see Attachment 2 in SHPO correspondence).
  - The new generator will be 12ft wide x 20 ft high and 40 ft long. A transformer will be located on the back (south side) of the generator and is 11ft. wide X 6 ft high and 10' long.
- CDOT historians will review the project design as it moves forward to full construction drawings to ensure that the design remains consistent with the design concepts delineated in this letter.
- CDOT will also coordinate further with USFS on final design concepts to ensure they are consistent with the Section 106 review.

CDOT sent its findings to the SHPO, consulting parties and the SHPO on December 23, 2021. The SHPO concurred on January 11, 2022; the two consulting parties did not respond. The USFS had no additional comments on the design, and concurred with the use of the I-70 Design Guideline Color Palette for the Crest of the Rockies segment of I-70 via emails dated December 23, 2021.

#### **Section 4(f) Evaluation:**

Section 4(f) historic does not apply to this project since no federal transportation funds or Federal Highway Administration (FHWA) approvals are required.

Sincerely,

*Barbara Stocklin-Steely*

Barbara Stocklin-Steely, Senior Historian, Region 1

Attachments: Section 106 Correspondence

**The Section 106 process is CONDTINALLY cleared for this project. CDOT must ensure that all of the conditions highlighted in yellow above are met. Since a Section 106 letter went to SHPO, on Top Part of 128 form, CHECK box for HISTORY, with the CLEARANCE date of 01/28/2022**

**The Section 4(f) of the U.S. Department of Transportation Act of 1966 process for this project does not apply. On Top Part of 128 form, DO NOT CHECK box or provide date for Section 4(f) Historic**

**In Section C. Permits and Additional Requirements, under "Other" please fill in "History – Approval of Plans" and leave box unchecked and date blank.**



HISTORY *Colorado*

11 January 2022

HC #80816

Vanessa Halladay  
Region 1 Environmental Manager  
Colorado Department of Transportation  
2829 W. Howard Pl.  
Denver, CO 80204-2305

RE: Determinations of Eligibility and Effect, Interstate 70 Eisenhower-Johnson Memorial Tunnel Drainage and Heat Trace Project, CO703-482 (CDOT #24210), Clear Creek and Summit Counties

Dear M. Halladay:

Thank you for your recent correspondence received 23 December 2021, concerning a proposal to conduct utility repairs and upgrades at the Eisenhower-Johnson Memorial Tunnel complex. Our office has reviewed the submitted materials. The Tunnel complex (5CC.1189.4, 5ST.892.3) is eligible for listing on the National Register of Historic Places.

We concur with your assessment that the proposed scope of work will have no adverse effect on historic properties. Because the work will result in a finding of *no adverse effect*, we believe that a Section 4(f) exemption pursuant to 23.CFR.774.13(a) is appropriate in this case.

If you have any questions, please contact Joseph Saldibar, Architectural Services Manager, at (303) 866-3741 or (303) 842-5619.

Sincerely,

Dawn DiPrince  
State Historic Preservation Officer



# COLORADO

## Department of Transportation

Region 1  
Planning & Environmental  
2829 W. Howard Place  
Denver, CO 80204-2305

December 23, 2021

Ms. Dawn DiPrince  
State Historic Preservation Officer  
History Colorado  
1200 Broadway  
Denver, CO 80203

**SUBJECT:** *Determinations of Eligibility and Effects, Interstate 70 (I-70) Eisenhower-Johnson Memorial Tunnel Drainage & Heat Trace Project, Clear Creek and Summit Counties, C0703-482 (CDOT #24210)*

Dear Ms. DiPrince,

This letter and the attached documents constitute a request for concurrence on Section 106 determinations of National Register of Historic Places (NRHP) Eligibility and Effects for a Colorado Department of Transportation (CDOT) project located at the Eisenhower-Johnson Memorial Tunnel (Tunnel consisting of the 1973 Eisenhower and 1979 Johnson bores) on I-70 in Clear Creek and Summit Counties. Federal funding from the Federal Highway Administration (FHWA) is anticipated. CDOT, acting on behalf of the FHWA, is coordinating the project's Section 106 of the National Historic Preservation Act of 1966 (per 36 CFR 800) compliance. The project location is shown on Attachment 1 to this letter.

### Project Description

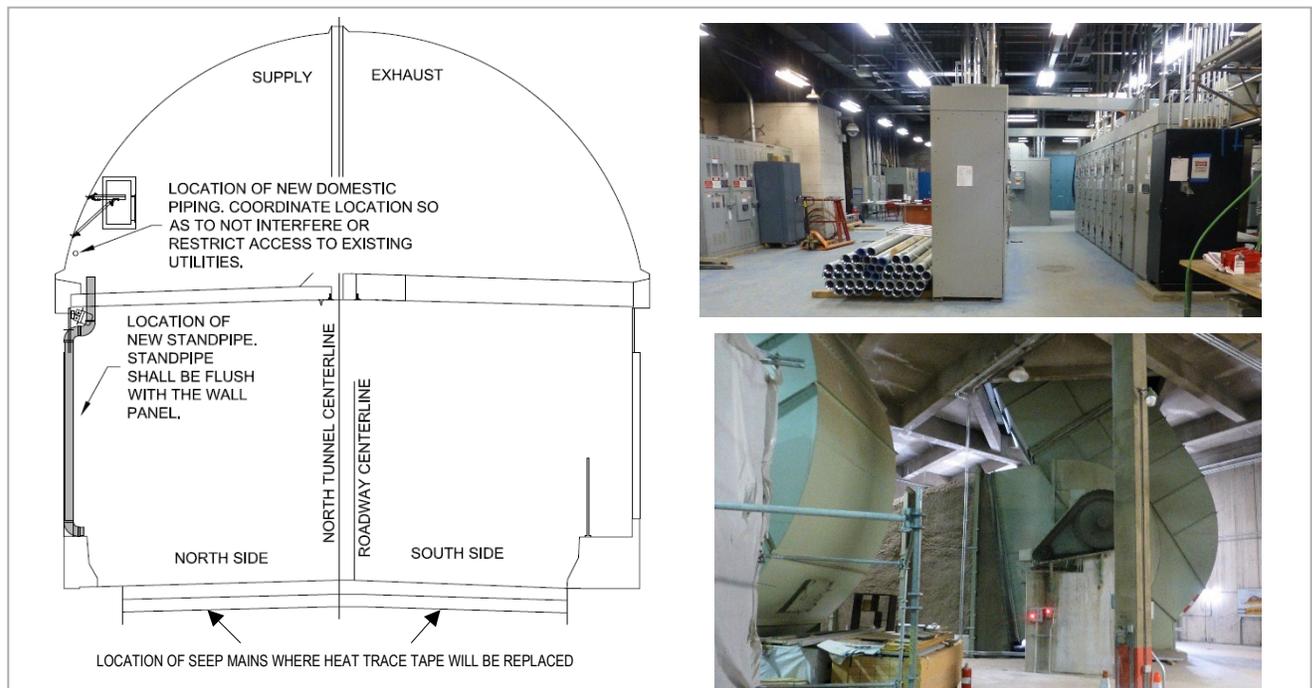
This design-build project is one of several anticipated to perform upgrades, enhancements, and maintenance of tunnel infrastructure systems over the next couple of years. Project 24210 focuses on issues associated with freezing of existing water lines, seep lines and fire hydrant connections, emergency generators, fan motors, and the water treatment plant and piping system. More specifically:

#### **Work Items Hidden From Public View:**

- *Install a new domestic water supply line to connect the west portal to the east portal in the north (Eisenhower) bore.* The project will install a new pipe, along with pipe insulation, heat tape and a booster pump in the plenum space above the drop ceiling. See Figure 1 below.
- *Replace and/or install new heat trace tape wrapping the two PVC 8-inch seep water mains located underneath the roadway surface in the north (Eisenhower) bore and the two 12-inch seep mains underneath the roadway in the south (Johnson) bore.* These improvements are needed to prevent freezing of pipes and lane closures during winter months. The project will install one or more ductile iron roadway drain collectors within or adjacent to roadway in the north bore. See Figures 1 and 4 below.
- *Replace existing heat tape on exterior roof drains.* The project will replace the heat tape on exterior roof drains in kind. These drains are located inside the east/west ventilation buildings and fan ducts and are not visible to the travelling public.
- *Upgrade water treatment plant inside the basement of the east and west ventilation buildings.* This includes installation of membrane filter system at each plant and additional piping to increase chlorine contact time.
- *Rebuild existing motors for the 16 ventilation fans (air supply and exhaust fans).* The fans are located on the second floor of the east and west ventilation buildings. There will be no change to the fan vents extending above the roof surface of the two buildings. See Figure 3 below.
- *Replace electrical panels and controls in the east and west electrical rooms and cross-cut electrical rooms.* The electrical upgrades will also include replacement of heat tape on branch circuiting and installation of new monitoring and alarming for the new heat tape system for electrical conduit. See Figure 2 below.

### Visible Improvements inside Tunnels/at Tunnel Entries:

- *Construct new piping and fire hose connections inside the two tunnel bores to replace existing water lines and hydrants underneath the roadway/raised tunnel walkway.* A new water line will run through the tunnel bores in the plenum (above the drop ceiling, not visible from roadway). New vertical piping with valves will be installed at up to 30 locations inside each of the two tunnel bores along (or behind) the modern replica tile wall panels (original tile panels replaced 1995 and 2009). The piping will be located on the driver's right-hand side, i.e., north side of the north bore and south side of the south bore; the new vertical 6-inch piping will extend up to 30 feet vertically along (or behind) tunnel walls and will be spaced about 275 feet apart. These improvements are needed to prevent freezing of pipes and lane closures during winter months, and to improve access and reliability to the Tunnel's fire suppression system. The project will abandon the existing water line and related hydrants underneath the roadway/raised walkway. See Figure 1 below and Attachment 3.
- *Install a new emergency generator with transformer to replace existing emergency generators.* The Project will install a new Emergency Diesel Generator System to handle peak and emergency demands in a Sound Attenuated Weatherproof Enclosure located about 210 feet southeast of the west Tunnel portal along with a fuel tank and step-up electrical transformer. The new larger generator is needed since the existing generators, located inside the two ventilation buildings, do not have sufficient power to operate the Tunnel in case of a power outage. A new low concrete barrier (about 30-inches high) with fine mesh chain link fence up to 6-feet in height above will extend around the perimeter of the generator and adjacent fuel tanks. The new generator enclosure and fencing shall meet the I-70 Mountain Corridor Aesthetic Guidelines along with outdoor rating guidelines. See Attachment 2 for additional information.



**Figure 1 (Above):** Cross-section of North (Eisenhower) Tunnel Bore Showing Location of New Domestic Piping in Plenum, new Fire House Connections along Tunnel Walls, and Seep Water Mains Below Roadway Level. Cross-section is Identical for South Bore.

**Figure 2 (Top Right):** Electrical Room inside East Ventilation Building Main Floor where Electrical Panels and Controls will be Upgraded (Identical Work is Planned in West Ventilation Building).

**Figure 3: (Middle Right):** Second Floor of East Ventilation Building where Ventilation Fan Motors will be Rebuilt (Identical Work is Planned for West Ventilation Building).

**Figure 4: (Bottom Right):** Example of Iron Roadway Drain Collector Proposed to be Installed in Roadway of North Bore.

All work will occur within highway right of way (ROW) and easements, including land owned by the United States Forest Service (USFS) adjacent to the west Tunnel portals.

### Area of Potential Effects

The Area of Potential Effects (APE) accounts for direct and indirect effects to historic properties caused by the proposed undertaking, and includes the project limits, as well as the boundaries of historic resources that may be directly or indirectly affected by the project. The APE reflects the boundaries of the Eisenhower-Johnson Memorial Tunnel Historic District included on a revised 1403 Architectural Inventory Form for 5ST.892/5CC.1189.4 completed by CDOT in November 2021. This APE extends about 700 feet east of the east Tunnel portal and about 925 feet west of the west Tunnel portal to incorporate historic approach roadways and key viewsheds of the Tunnel and its associated East and West Ventilation Buildings. The revised survey form was recently transmitted to your office related to a proposed new snowplow building planned northwest of the west Tunnel portal. A corrected and updated version of the survey form is included with this letter. The APE is depicted on Attachment 1.

### Survey Methodology and NRHP Eligibility Determination

Barbara Stocklin-Steely, CDOT senior historian for Region 1, conducted a search of the COMPASS database maintained by History Colorado’s Office of Archaeology and Historic Preservation (OAH) in an effort to identify previously recorded historic resources within, adjacent to or intersecting the APE. The COMPASS search results are shown in Table 1 below.

Table 1: COMPASS Search Results

Site Number	Resource Name	National Register of Historic Places Eligibility Determination
5CC.1189.2	I-70 Segment	Not Eligible - Field (2002)
5CC.1189.4	Eisenhower-Johnson Memorial Tunnel (I-70)	Eligible - Official (2006 and 2014)
5ST.892.1	I-70 Segment	Not Eligible - Field (2002)
5ST.892.3	Eisenhower-Johnson Memorial Tunnel (I-70)	Eligible - Official (2006 and 2014)

The only previously recorded resource within the APE is the Eisenhower-Johnson Memorial Tunnel (5CC.1189.4/5ST.892.3), an officially NRHP eligible resource spanning the Clear Creek-Summit County line. In March 2005, the Advisory Council on Historic Preservation approved a Section 106 exemption relieving federal agencies from Section 106 compliance for undertakings on the Interstate Highway System (including I-70), with several exceptions. The same year legislation passed exempting the Interstate Highway System from Section 4(f) of the Department of Transportation Act of 1966 compliance. The Eisenhower-Johnson Memorial Tunnel (5CC.1189.4/5ST.892.3) is included in the FHWA list of *Nationally and Exceptionally Significant Features of the Federal Interstate System*. As such, the Tunnel (as defined by the revised survey form) remains subject to the Section 106 and Section 4(f) review processes. However, the remaining components of I-70 adjacent to the project APE remain exempt from Section 106 and Section 4(f) review.

The State Historic Preservation Office (SHPO) previously determined the Tunnel **Officially Eligible** for listing in the NRHP (2006 and 2014). As discussed above, CDOT revised the 1403 Architectural Inventory Form for 5ST.892/5CC.1189.4 in November 2021; this revised form was submitted to your office recently related to the proposed snowplow building project. The revised survey form concluded that the Tunnel complex represents a groundbreaking feat of engineering planning, design, and construction and is considered exceptionally significant, meeting Criterion Consideration G which applies to a less than 50-year old property. In addition, the Tunnel complex meets NRHP Criterion A in the area of Transportation because of the decades of planning, politics and lobbying by Colorado businesses, politicians and CDOT to complete I-70 on a route through the Continental Divide and the Colorado Rockies, and to obtain the funding and support by the FHWA to fund both tunnel bores. The completion of the Eisenhower bore in 1973, followed by the Johnson bore in 1979, has had a significant impact on transportation patterns in the state; the completion of the tunnels represented a significant project and closed a significant east-west transportation gap for the interstate highway system. The EJMT complex also meets Criterion C in the areas of Engineering and Architecture. The construction of the EJMT was a major engineering feat for its time due to the length and height of the two bores, which required innovations in tunneling techniques, structural reinforcement, and air ventilation. The East and West Ventilation buildings were designed in 1967 by Tippetts-Abbett-McCarthy-Stratton Engineers and Architects, NY and completed in 1973. The architects designed the matching buildings with both Brutalist and New Formalist influences, making them two of the most substantial and well-recognized Modernist buildings in Colorado. The

2021 survey form for the Eisenhower-Johnson Tunnel expands the boundary of the property to include all character-defining features associated with the Tunnel's original construction as denoted on the corrected 2021 survey form attached to this letter.

### **Effects Determinations for the Eisenhower-Johnson Memorial Tunnel (5CC.1189.4 / 5ST.892.3)**

The proposed project will continue CDOT's pattern of performing ongoing and routine "in kind" repairs on the NRHP eligible Eisenhower-Johnson Memorial Tunnel wherever possible and to sensitively upgrade infrastructure systems in a manner that protects historic building fabric and is compatible with the character-defining features of the Tunnel.

Most of the project work will occur within secondary spaces of the Eisenhower-Johnson Memorial Tunnel, either below the roadway, in the plenum (above the drop ceiling at roadway level), or inside the original operational/utilitarian spaces of the East and West Ventilation Buildings which flank the Tunnel openings on the east and west sides. This work, which will not be visible from any public spaces, includes the new domestic water supply line (in the plenum space above the drop ceiling), heat trace tape wrapping for seep water mains (underneath the roadway/raised walkway surfaces), heat tape on roof drains (inside building and behind parapet), and electrical and water treatment plant upgrades (inside buildings).

Two work items will have some visibility: the new piping and fire hose connections inside the two tunnel bores and the new emergency generator proposed southwest of the West Ventilation Building and the South (Johnson) eastbound Tunnel bore. In terms of the new piping and fire hose connections, CDOT considered simply replacing the heat tape on the existing water line underneath the roadway, but the heat tape has a limited service life and would require frequent maintenance and replacement. CDOT also studied the possibility of placing the 30 vertical pipes proposed for each Tunnel bore behind the tile roadway walls where they would not be visible to the public, and has determined that this application may be possible in some - but not all - cases. In cases where this less obtrusive solution is not possible due to insufficient space behind the tile walls, CDOT will drop the new 6-inch wide pipe below the plenum on the front (or roadway) side of the tile panels down to the top of the roadway barrier where a fire hose connection will be provided as shown in Attachment 3. CDOT has made it a priority to minimize visual impacts of pipes, and to retain the visual continuity of continuous smooth tile walls, and corner tube lighting to the extent possible.

In an effort to minimize the visibility of the new vertical 6-inch pipes and fire hose connections:

- CDOT will prioritize placement of the vertical piping behind the non-historic tile panel walls wherever possible. Space behind the wall panels vary by location. If there is space behind the wall panel for the vertical piping, CDOT will place the pipe behind the wall panel; the fire hose connection will protrude through sawcut joints in the existing tile wall panels but will not extend beyond the toe of the roadside concrete barrier.
- In cases where an installation in front of the tile roadway panels is required due to insufficient space behind the tile wall panels, CDOT will modify or remove an existing 2003 historic replica "corner" light as needed to create a gap for the new six-inch water pipe to extend down from the plenum through the ceiling as follows:
  - The new pipe will come down through the tunnel ceiling between the existing lights and not in front of them (the six-inch pipe will either be flush or recessed behind the face of the light fixture).
  - The new vertical pipe will be located at the center of existing joints between tile tunnel wall panels.
  - A 10-inch gap will be sawcut between the wall panels (at existing joints) and the front of the new pipe will be flush with the face of the existing tile wall panels. Where the pipe can be recessed further in between the wall panels, a new metal plate will be added to cover the pipe. The new plate will be flush with the face of the wall panel.
  - The pipe will be placed in front of the original porcelain enamel coated metal panels in the north tunnel. These panels will not be cut (These panels do not exist in the south tunnel bore and the pipe will be fixed directly to the tunnel wall for that application).
  - A new fire department connection will be added to the end of the pipe that will not extend out beyond the toe of the roadside concrete barrier.
  - All new pipe, pipe fittings and cover plates will be painted to match the existing wall panels.
  - This scenario (most visible) is shown in the photo rendition provided in Attachment 3.

In terms of the new generator and related improvements, The new generator will be located approximately 210 feet (at its closest point) from the West Ventilation Building and West Tunnel portal along EB I-70 on the south side of I-70. This area is already dedicated to re-fueling and maintenance activities at the Tunnel, and contains existing diesel fuel tanks.

In terms of the location of the generator, CDOT's first preference would have been to locate the new generator inside one of the two Tunnel buildings. However, the new generator is much larger than the existing generators and will not fit inside the buildings. The generator is also too heavy to place on the roof. CDOT also considered locating the generator immediately along the south side of the West ventilator building. This location would have been closer to the Tunnel portal than the currently proposed location, requiring less underground wiring to connect to the Tunnel's systems. Unfortunately, this area is subject to frequent avalanche activity making it a poor location for a generator. An avalanche could either damage the generator or cover it in snow, making it unable to function without proper ventilation and rendering it inoperable during a power outage. The area north of the highway along WB I-70 is being re-purposed as a truck washing area and CDOT is also building a new CDOT staff building there. The existing generators are located on the south side of I-70 near the west Tunnel portals, making a location on the east end of the Tunnel also impractical. As shown in the exhibits provided in Attachment 2, the new generator and related equipment will be located 210 feet from the Tunnel West Ventilation Building at its closest point, and will be relatively inobtrusive given that it is grouped with existing equipment some distance from the west Tunnel portals. However, this location will have some visibility for the traveling public. Before and after simulations are shown in Attachment 2. CDOT plans to follow the I-70 Design Guideline Color Palette for the Crest of the Rockies segment of I-70 for the generator, related equipment and fencing (see Attachment 2). The use of this color palette will also help to make the improvements blend in with the surrounding landscape.

CDOT has concluded that proposed improvements are consistent and compatible with the historic character of the Tunnel; that original materials are being retained (porcelain enamel panels); that the overall project will not diminish the Tunnel's integrity of design, materials or workmanship; and that the improvements will not diminish the integrity of setting, feeling or association experienced by drivers entering or exiting this historic utilitarian transportation structure. CDOT is meeting the *Secretary of the Interior's Rehabilitation Standards* for the project. CDOT historians will review the project design as it moves forward to ensure that the design remains consistent with the design concepts delineated in this letter. For these reasons, CDOT has made a determination of **No Adverse Effect** with regard to the Eisenhower-Johnson Tunnel (5CC.1189.4/5ST.892.3).

#### **Section 4(f) Notification of Historic Transportation Facilities Exception**

A site is considered a historic resource under Section 4(f) of the US Department of Transportation Act of 1966 (USDOT) if it is on or determined eligible for listing on the NRHP. The project results in a Section 106 Finding of **No Adverse Effect** for the Eisenhower-Johnson Memorial Tunnel (5CC.1189.4/5ST.892.3). Based on this finding, FHWA may apply Section 4(f) exception 23 CFR 774.13(a) regarding the restoration, rehabilitation or maintenance of historic transportation facilities. This exception is applicable when an undertaking involves a historic transportation facility, such as a highway or Tunnel, but is determined to "not adversely affect the historic qualities of the facility that caused it be on or eligible for the National Register."

#### **Summary**

At this time, we request your concurrence with the determinations of eligibility and effects finding outlined above, and your acknowledgement of the Section 4(f) notification.

CDOT plans to concurrently send information on this project to the USFS, consistent with the 2016 Memorandum of Understanding executed between the Bureau of Land Management, CDOT, FHWA, and USFS. This coordination is necessary given that the generator improvements are located on USFS property. CDOT also is concurrently providing information on this project to two consulting parties under the Section 106 process, Clear Creek and Summit Counties. We will notify you of any substantive comments received from these parties. If you require additional information, please contact CDOT Region 1 Senior Historian Barbra Stocklin-Steele at [barbara.stocklin@state.co.us](mailto:barbara.stocklin@state.co.us).

Sincerely,

*Danny Herrmann for*

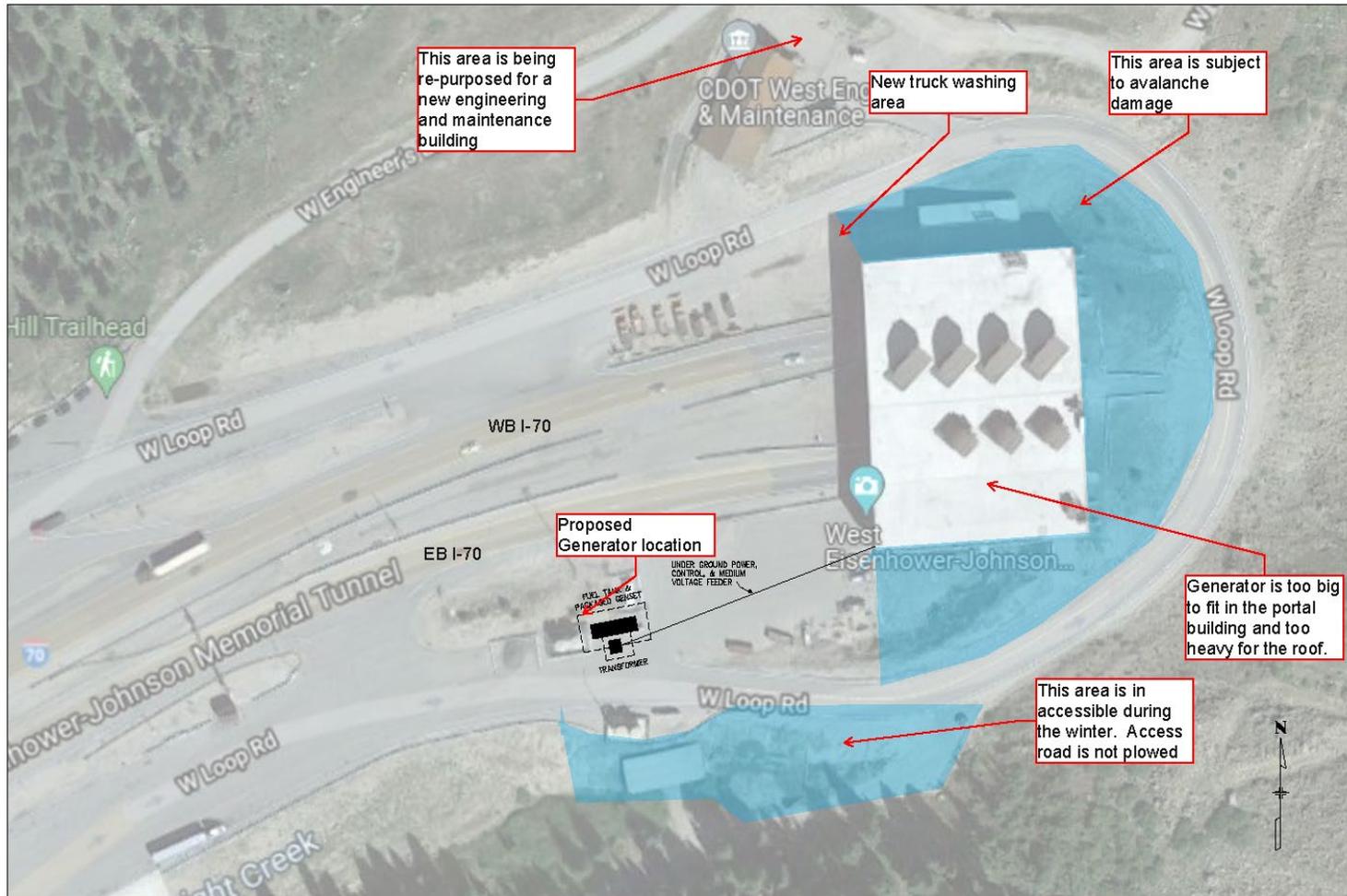
Vanessa Halladay, Region 1 Environmental Manager

#### Attachments:

- Attachment 1 - Location and Area of Potential Effects Map
  - Attachment 2 - Information on New Emergency Generator Proposed Near West Ventilation Building
  - Attachment 3 - Information on New Piping and Fire Hose Connections Proposed Inside Tunnel Bores
- Revised Architectural Inventory Form 5CC.1189.4/5ST.892.3 (Updated December 2021)



**ATTACHMENT 2: INFORMATION ON NEW EMERGENCY GENERATOR NEAR WEST VENTILATION BUILDING**



NOTE: NOT TO SCALE

**PK Electrical, Inc.**  
 Engineering · Design · Consulting

691 Sierra Rose Dr., Ste. B | Reno, Nevada 89511 | 775.828.9310  
 5105 BTC Parkway, Ste. 420 | Greenwood Village, CO 80111 | 720.484.3190  
 pk-electrical.com © 2008-2021 PK Electrical, Inc.

DRAWN:	PKE
CHECKED:	LS
DATE:	11/12/2021
JOB NUMBER:	21047
DESIGNED BY:	AW

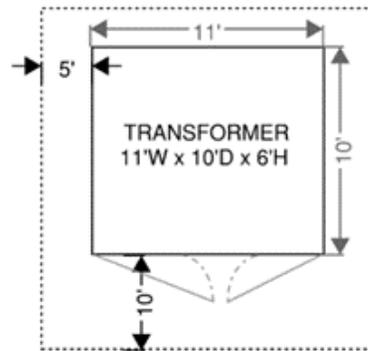
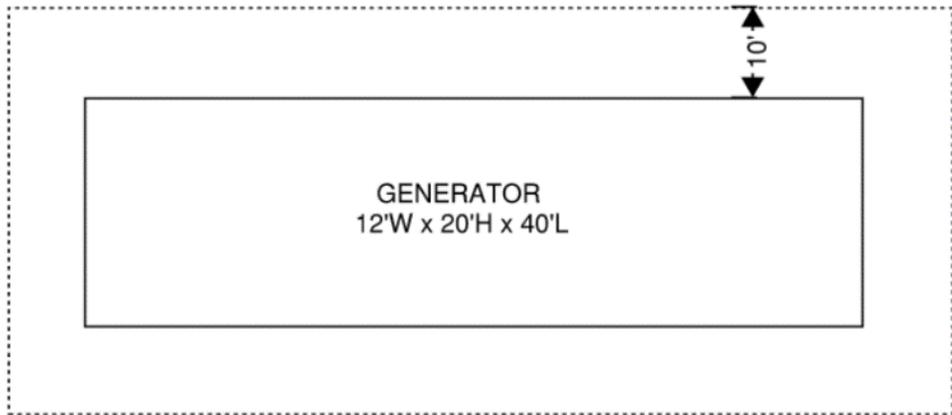
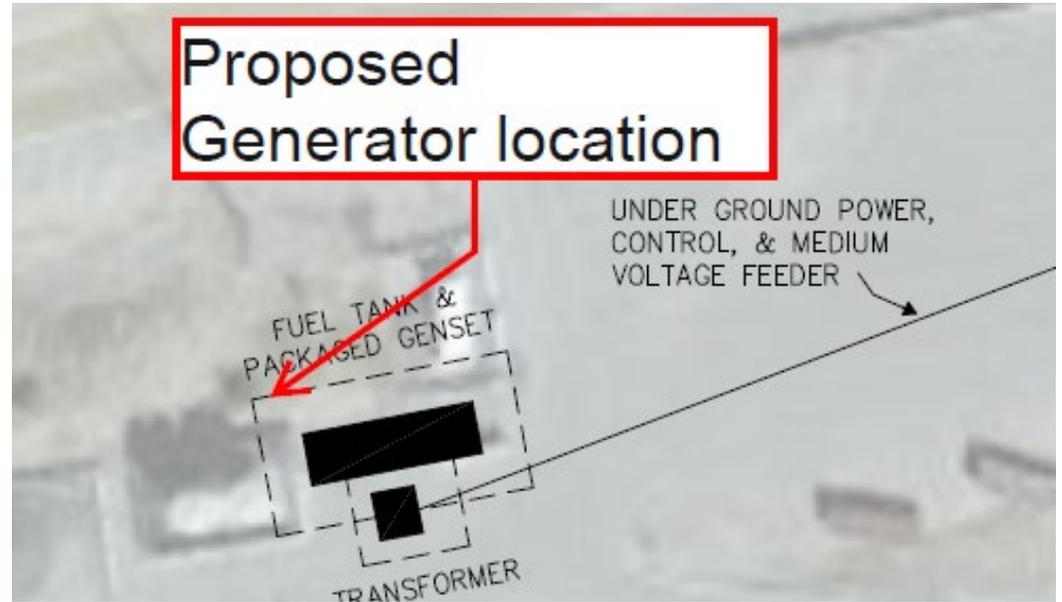
**EISENHOWER/JOHNSON MEMORIAL TUNNEL  
 ELECTRICAL EQUIPMENT LOCATIONS  
 CONSIDERED FOR EMERGENCY GENERATOR**

**ATTACHMENT 2 (CONTINUED): INFORMATION ON NEW EMERGENCY GENERATOR NEAR WEST VENTILATION BUILDING**

The new generator will be 12ft wide x 20 ft high and 40 ft long and require a 10' clear space around it for ventilation.

A transformer will be located on the back (south side) of the generator so that it will not be visible to the traveling public on I-70. The transformer is 11ft. wide X 6 ft high and 10' long, and require a 10' clear space around it for ventilation.

Blow up view of site plan on prior page is located to right. Dimensions of Generator and Transformer shown below. A photograph of a similar Generator along CDOT rights-of-way is shown on bottom right.



ATTACHMENT 2 (CONTINUED): INFO. ON NEW EMERGENCY GENERATOR NEAR WEST VENTILATION BUILDINGS



BEFORE: View Looking East at West Entrance to Tunnel Currently

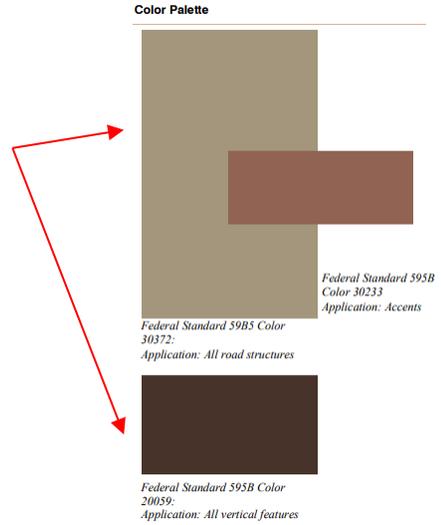


AFTER: View Looking East at West Entrance to Tunnel with New Generator

**ATTACHMENT 2 (CONTINUED): INFO. ON NEW EMERGENCY GENERATOR NEAR WEST VENTILATION BUILDINGS**

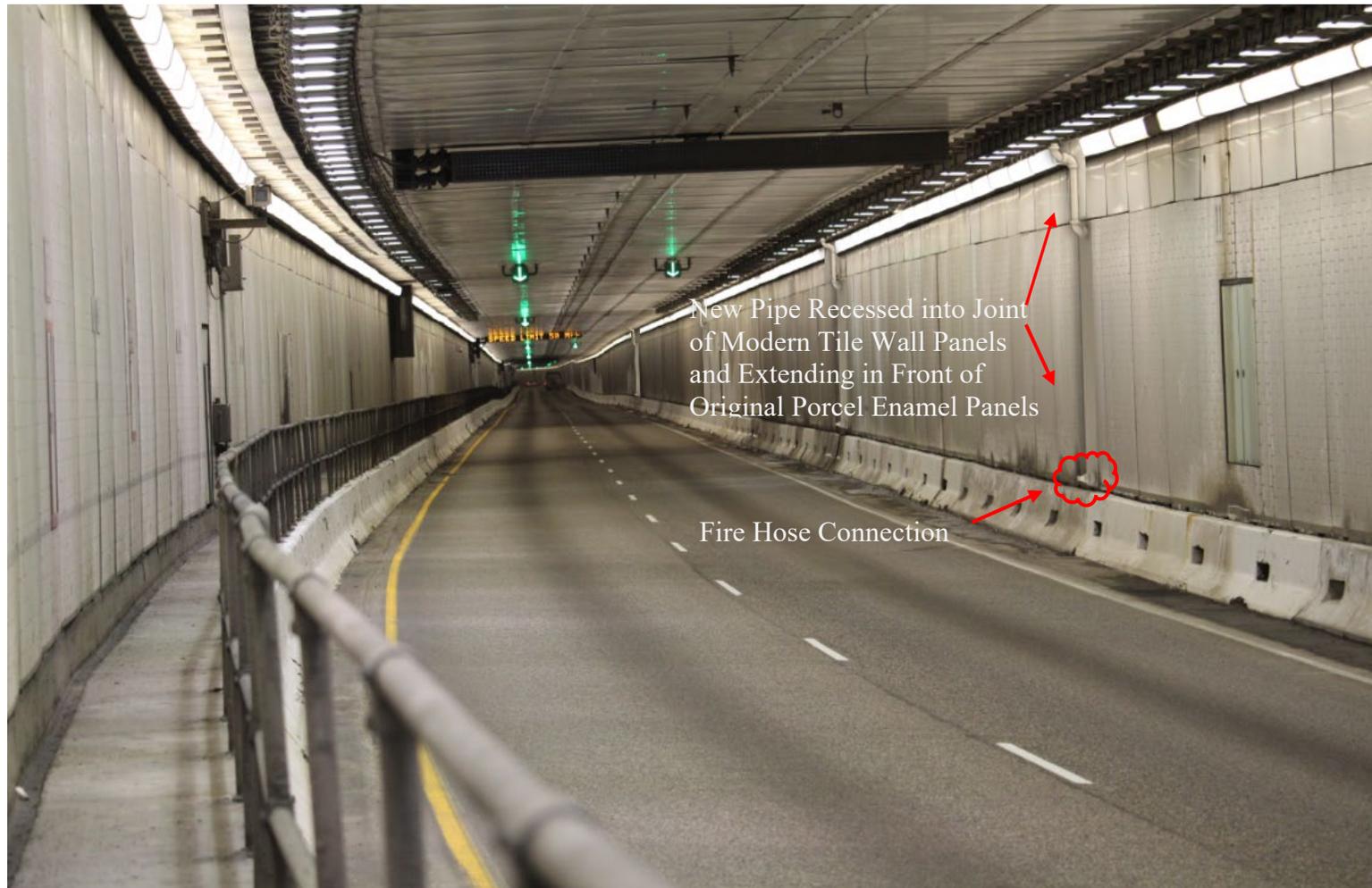
*Note: The Color Palette shown for the generator structure and fencing will follow the I-70 Crest of the Rockies design guidelines. The generator and transformer enclosures will be Federal Standard 30372 while the fencing (mesh, posts, etc.) and the structure's railing and stairs on back side of generator will be painted or stained Forest Service Brown (Federal Standard 20059) as shown below (and on right).*

The new generator will be placed adjacent to existing fuel tanks in an area that was reserved for maintenance and equipment on the earliest site plans of the Tunnel complex. The new generator and existing fuel tanks will be fenced at the request for the USFS.





**ATTACHMENT 3 (CONTINUED): NEW PIPING AND FIRE HOSE CONNECTIONS PROPOSED WITHIN TWO TUNNEL BORES.**



**Photo Rendition Showing New Piping and Fire Hose Connections Proposed Inside Each Tunnel Bore.**

This shows pipe extending in an elbow down from plenum (above the drop ceiling) to run in between the 2003 tube light fixtures, then running vertically in front of historic porcelain enamel panels (with no attachments), then continuing down recessed into the existing tile wall panels at joints with cover plate, ending at fire hose connection just above existing concrete roadway barrier. Up to 30 locations are proposed along one wall in each Tunnel bore, approximately 275 feet apart.

***NOTE: CDOT will prioritize running vertical pipe entirely behind the wall (except for fire hose connection) in locations where that is feasible.***



STATE OF  
COLORADO

Stocklin - CDOT, Barbara <barbara.stocklin@state.co.us>

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**RE: Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, Section 106 Review, CO703-482 (CDOT #24210)**

1 message

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**Fuller, Thomas -FS** <thomas.l.fuller@usda.gov>  
To: "Stocklin - CDOT, Barbara" <barbara.stocklin@state.co.us>  
Cc: "Pierce, Jared - FS" <jared.pierce@usda.gov>

Fri, Jan 28, 2022 at 11:02 AM

Hi Barbara, no the WRNF Heritage Department had no additional comments on this project.

Thanks for checking, Tom Fuller



**Thomas L. Fuller**  
Heritage Program Manager/Tribal Liaison

**Forest Service**

**White River National Forest, Supervisor's Office**

**o: 970-945-3204**  
**c: 970-628-6184**  
**f: 970-945-3266**  
[thomas.l.fuller@usda.gov](mailto:thomas.l.fuller@usda.gov)

[900 Grand Ave.](#)  
Glenwood Springs, CO 81601  
[www.fs.fed.us](http://www.fs.fed.us)



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**From:** Stocklin - CDOT, Barbara <barbara.stocklin@state.co.us>  
**Sent:** Thursday, January 27, 2022 11:08 AM  
**To:** Fuller, Thomas -FS <thomas.l.fuller@usda.gov>  
**Cc:** Pierce, Jared - FS <jared.pierce@usda.gov>  
**Subject:** Re: Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, Section 106 Review, CO703-482 (CDOT #24210)

Hi, I just wanted to confirm that USFS did not have any additional comments on the Section 106 submittal. We will keep you informed and provide you updated information as the project moves forward through the design-build process. Thanks, Barbara

Barbara Stocklin-Steely, MS

Senior Historian, Region 1 Planning and Environmental

[REDACTED]

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2829 W. Howard Place, Denver, CO 80204



On Thu, Dec 23, 2021 at 10:21 AM Stocklin - CDOT, Barbara <[barbara.stocklin@state.co.us](mailto:barbara.stocklin@state.co.us)> wrote:

Hi,

Consistent with the 2016 MOU Between BLM, CDOT, FHWA and USFS, I am sending you information on the CDOT proposed Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, CO703-482 (CDOT #24210). You are also considered a consulting party in the Section 106 process.

CDOT, on behalf of FHWA, is coordinating the Section 106 of the National Historic Preservation Act process. Please review the attached letter sent to the State Historic Preservation Office, and let me know if you have any comments on CDOT's Section 106 findings within 30 calendar days (January 24, 2021). I am including Jared in this email since he was in an earlier meeting with USFS regarding the project, and provided input on the generator design (located outside of the tunnels).

Thanks, Barbara

**Barbara Stocklin-Steely, MS**  
**Senior Historian, Region 1 Planning and Environmental**



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Stocklin - CDOT, Barbara <barbara.stocklin@state.co.us>

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**RE: Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, Section 106 Review, CO703-482 (CDOT #24210)**

1 message

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**Pierce, Jared - FS** <jared.pierce@usda.gov>

Thu, Jan 27, 2022 at 3:20 PM

To: "Stocklin - CDOT, Barbara" <barbara.stocklin@state.co.us>, "Fuller, Thomas -FS" <thomas.l.fuller@usda.gov>

Hi Barbara,

Thanks for the heads up, I don't have any additional comments.

Best regards,



**Jared Pierce**

**Forest Landscape Architect**

**Forest Service**

**White River National Forest**

p: 970-945-3263

c: 970-274-7755

[jared.pierce@usda.gov](mailto:jared.pierce@usda.gov)

900 Grand Ave  
Glenwood Springs, CO 81601  
[www.fs.fed.us](http://www.fs.fed.us)



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**From:** Stocklin - CDOT, Barbara <barbara.stocklin@state.co.us>

**Sent:** Thursday, January 27, 2022 11:08 AM

**To:** Fuller, Thomas -FS <thomas.l.fuller@usda.gov>

**Cc:** Pierce, Jared - FS <jared.pierce@usda.gov>

**Subject:** Re: Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, Section 106 Review, CO703-482 (CDOT #24210)

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Senior Historian, Region 1 Planning and Environmental



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CDOT, on behalf of FHWA, is coordinating the Section 106 of the National Historic Preservation Act process. Please review the attached letter sent to the State Historic Preservation Office, and let me know if you have any comments on CDOT's Section 106 findings within 30 calendar days (January 24, 2021). I am including Jared in this email since he was in an earlier meeting with USFS regarding the project, and provided input on the generator design (located outside of the tunnels).

Thanks, Barbara

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Stocklin - CDOT, Barbara &lt;barbara.stocklin@state.co.us&gt;

**RE: Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, Section 106 Review, CO703-482 (CDOT #24210)**

1 message

Pierce, Jared - FS &lt;jared.pierce@usda.gov&gt;

Thu, Dec 23, 2021 at 1:49 PM

To: "Stocklin - CDOT, Barbara" &lt;barbara.stocklin@state.co.us&gt;, "Ryer - CDOT, Basil" &lt;basil.ryer@state.co.us&gt;

Cc: "Fuller, Thomas -FS" &lt;thomas.l.fuller@usda.gov&gt;, "Ebbert, Cynthia -FS" &lt;cynthia.ebbert@usda.gov&gt;

Good afternoon Barbara and Basil,

Thank you for including me on your email regarding the Tunnel project. I have been coordinating color selections for the generator building so I appreciate seeing facility colors are important to the NHPA process. However, I am a little confused now about the colors identified in the letter to SHPO and if these are the same colors that are being specified to the contractors. Of the two colors I have heard about most recently, I would be more in favor of the colors identified in the letter to SHPO over the lighter color of the attendant building and office building identified in an email from Basil. The main color (Fed Std 30372) and the accent color (Fed Std 20059) identified in the letter are taken from the I-70 Crest of the Rockies Design Guidelines. The main color appears to be similar to the natural colors of the surrounding rocky slopes and the darker accent color would help to break up the larger mass of one single color on the generator building. My concern with the lighter color of the attendant/office building is that it appears to be lighter than the natural colors of the surrounding rocky slopes so would not be as successful in blending facilities into the surrounding environment. I agree with minimizing number of different colors used in one place but I would not recommend using a color that does not blend well with the environment. I also agree with using the color selections identified in the Aesthetic Guidelines as a starting point and in an effort to incorporate color consistency into all I-70 projects unless there is a very site specific stone or soil color that could be used to select a more site specific color for a very site specific facility or structure (eg. red sandstone in the West Vail Pass project).

Thank you again for keeping me informed and part of the review process.

Best regard,



Jared Pierce

Forest Landscape Architect

Forest Service

White River National Forest

p: 970-945-3263

c: 970-274-7755

[jared.pierce@usda.gov](mailto:jared.pierce@usda.gov)900 Grand Ave  
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**From:** Stocklin - CDOT, Barbara <[barbara.stocklin@state.co.us](mailto:barbara.stocklin@state.co.us)>  
**Sent:** Thursday, December 23, 2021 10:21 AM  
**To:** Fuller, Thomas -FS <[thomas.l.fuller@usda.gov](mailto:thomas.l.fuller@usda.gov)>  
**Cc:** Pierce, Jared - FS <[jared.pierce@usda.gov](mailto:jared.pierce@usda.gov)>  
**Subject:** Eisenhower Johnson Tunnel - Drainage, Heat Trace, and Generator Project, Clear Creek and Summit Counties, Section 106 Review, CO703-482 (CDOT #24210)

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CDOT, on behalf of FHWA, is coordinating the Section 106 of the National Historic Preservation Act process. Please review the attached letter sent to the State Historic Preservation Office, and let me know if you have any comments on CDOT's Section 106 findings within 30 calendar days (January 24, 2021). I am including Jared in this email since he was in an earlier meeting with USFS regarding the project, and provided input on the generator design (located outside of the tunnels).

Thanks, Barbara

Barbara Stocklin-Steely, MS

Senior Historian, Region 1 Planning and Environmental



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Stocklin - CDOT, Barbara &lt;barbara.stocklin@state.co.us&gt;

## CDOT Project at Eisenhower-Johnson Memorial Tunnel - Section 106 review Project 24210

1 message

**Stocklin - CDOT, Barbara** <barbara.stocklin@state.co.us>

Thu, Dec 23, 2021 at 9:29 AM

To: frollenhagen@co.clear-creek.co.us, Adam Springer &lt;aspringer@co.clear-creek.co.us&gt;, planning@summitcountyco.gov

Hi,

We are sending you information on CDOT's proposed drainage, heat trace and generator project at the Eisenhower-Johnson Memorial Tunnel, slated for 2022.

You are receiving this email as a consulting party under the Section 106 of the National Historic Preservation Act Process. The purpose of the Section 106 process is to ensure that federally funded projects take into account the effects of their actions on properties of historic significance. As part of this process, we are soliciting any comments you may have regarding historic properties that may be affected by the above-referenced project. To learn more about the Section 106 process go here: <https://www.achp.gov/protecting-historic-properties/section-106-process/introduction-section-106>

The attached letter (with attachments) reflect CDOT's findings regarding the effects of the project on historic properties. The only historic property within the project area is the Tunnel itself. CDOT has made a finding of "no adverse effect" in terms of the project's effect on the historically significant Eisenhower-Johnson Tunnel.

Please review the materials, and if you would like to provide comments, please do so within 30 calendar days, **no later than Monday, January 24, 2022**. If we do not hear from you by that date, we will assume you have chosen not to comment on CDOT's findings.

Please do not hesitate to let me know if you have questions or concerns.

Barbara Stocklin-Steely, MS  
Senior Historian, Region 1 Planning and Environmental

COLORADO  
Department of Transportation

P (303) 757-9397

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### 2 attachments

**24210\_EJMT\_Drainage\_Generator\_122321.pdf**  
2988K**5ST.892\_3\_5CC.1189\_4\_red.pdf**  
5606K