



## Floyd Hill - PLT Meeting SUMMARY

August 27, 2019, 9 AM to 11 AM  
CDOT Golden - Lookout Mountain Conference Room

### 1. Project Status and Planning Update

Neil Ogden, CDOT, updated the group on the Floyd Hill process and status:

Over the summer, the project team has continued to collect existing conditions data for the Floyd Hill Project. Construction funding has not been identified but CDOT is currently working toward completing the Floyd Hill Design and NEPA Study.

CDOT is also undertaking a 10-year transportation planning process. As part of this process, CDOT has been meeting with many local jurisdictions (e.g. Clear Creek County, Gilpin County); from these initial talks, local jurisdictions continue to indicate that the Floyd Hill Project is a priority project. The planning process is anticipated to be completed late this fall but CDOT wanted to engage this group now to provide an update so we are prepared if this project is determined to be one of the statewide priorities after the process is complete. CDOT is currently working to secure funding for the remainder of the NEPA study, and CDOT will continue to work to identify additional design and construction funding to advance the project

### 2. Alternatives Update

Neil explained that CDOT is now looking at an additional alternative for the segment between US 6 and Hidden Valley. Based on feedback from FHWA, CDOT management, and industry, there is a desire to develop a Canyon Viaduct (bridge) Alternative.

Anthony Pisano walked the group through the Canyon Viaduct alternative, which would move both eastbound (EB) and westbound (WB) I-70 to the south and would be on a combination of structures (bridges) and benching into the rock. WB US 6 would enter I-70 on an on-ramp farther west than the Tunnel Alternative and would not require a flyover. EB, US 6 access would be through Hidden Valley to the frontage road, the same as in the Tunnel Alternative.

Atkins displayed the centerlines of the alignments for both the Tunnel Alternative and the Canyon Viaduct Alternative on the screen using Google Earth.

- Both alternatives are identical along the east section of the project which starts at the top of Floyd Hill and then continues down the hill towards US 6.
- They are also identical along the west section of the project between the Hidden Valley Interchange and the Veterans Memorial Tunnels.
- The alignments differ along the central section which is located between a point just east of the WB I-70 exit ramp to US 6 and the Hidden Valley Interchange. Our discussion focused on this section.

### Tunnel Alternative - Central Section - See Figure 1 Attached

#### **I-70 Alignment**

- **WB I-70.** WB I-70 shifts to the west just east of the exit ramp to US 6. WB traffic would be on a viaduct that would parallel I-70 and cross over US 6 into a tunnel. The viaduct will touch down on existing I-70 for a short distance to accommodate the WB exit ramp traffic to US 6. The tunnel will be located underneath the first of two hills in the canyon at the bottom of Floyd Hill. At the outlet of the tunnel, the WB alignment stays north of existing I-70 and traverses around the second hill on a bench cut into the rock. At the end of the east section, the WB alignment shifts south and ties into the existing WB alignment just east of the Hidden Valley Interchange.
- **EB I-70.** EB I-70 remains within the existing roadway prism just east of the exit ramp to US 6. Flatter curves will be constructed to improve the design speed. The existing EB I-70 bridge over Clear Creek will be replaced and will move the new EB alignment to the existing WB alignment. The roadway will create a rock cut in the first of two hills in the canyon at the bottom of Floyd Hill. This rock cut is required to flatten the EB I-70 geometry to meet design speed requirements. EB I-70 remains on an alignment similar to WB I-70 just south of the second hill (where WB I-70 is elevated above EB on a bench section). At the end of the east section, the EB alignment shifts south and ties into the existing EB alignment just east of the Hidden Valley Interchange.

#### **US 6 Alignment**

EB and WB US 6 will follow the existing EB I-70 alignment through the canyon. US 6 crosses to the south side of Clear Creek just east of the Hidden Valley Interchange and ties into the existing CR 314 alignment.

#### **Access to US 6**

- **WB I-70 Exit to US 6.** The exit ramp will be shifted slightly east of the existing fill slope and will be located on structure or retaining wall. The access will remain close to its current location
- **US 6 access to EB I-70.** A new ramp will be constructed at the bottom of the hill to provide access from US 6 to EB I-70.

- **US 6 access to WB I-70.** WB US 6 traffic will remain on US 6 through the canyon. A new flyover ramp will elevate traffic over I-70 and provide access just east of the Hidden Valley Interchange. This ramp will be braided with the WB I-70 exit ramp to Central City Parkway. This means that the Central City Parkway traffic will exit I-70 before the WB US 6 traffic enters I-70.
- **EB I-70 Exit to US 6.** EB I-70 traffic headed to US 6 will exit at Hidden Valley and will make a slight right to where the new CR 314 / US 6 alignment ties into the Hidden Valley interchange.

**Greenway Alignment.** The Greenway is located on its existing alignment.

**AGS.** The AGS alignment would remain south of I-70 and would not conflict with this alternative.

### Canyon Viaduct Alternative - Central Section - See Figure 2 Attached

#### **I-70 Alignment**

- **WB I-70.** WB I-70 shifts to the west just east of the exit ramp to US 6. The viaduct will touch down on existing I-70 for a short distance to accommodate the WB exit ramp traffic to US 6. WB traffic would be on a viaduct that would parallel I-70 and turn west at US 6 and remain on a viaduct down the median of I-70. The viaduct will be constructed above the existing bridges at the bottom of the hill and stay about 30 feet above the existing roadway when it is located along the median. The WB I-70 alignment crosses south of Clear Creek and cuts through a ridge then crosses back to the north side of the Creek. The WB alignment crosses existing I-70 and traverses along the second hill on a bench cut into the rock. At the end of the east section, the WB alignment shifts south and ties into the existing WB alignment just east of the Hidden Valley Interchange
- **EB I-70.** EB I-70 parallels WB I-70. EB and WB will be separate structures.

#### **US 6 Alignment**

EB and WB US 6 will follow the existing EB I-70 alignment through the canyon. US 6 crosses to the south side of Clear Creek just east of the Hidden Valley Interchange and ties into the existing CR 314 alignment.

#### **Access to US 6**

- **WB I-70 Exit to US 6.** The exit ramp will be shifted slightly east of the existing fill slope and will be located on structure or retaining wall. The access will remain close to its current location. The alignment for this alternative is farther east than on the Tunnel Alternative and will likely require more structure.
- **US 6 access to EB I-70.** A new ramp will be constructed at the bottom of the hill to provide access from US 6 to EB I-70.
- **US 6 access to WB I-70.** WB US 6 traffic will connect to the new WB viaduct near the location of the existing ramp. The profile of the ramp will be elevated on a walled section and transition to a new bridge structure. The ramp will then tie into the new I-70 WB viaduct on the right side (instead of the left entrance that exists today). This

access is different from the tunnel alternative in that it will not need a flyover or braided ramp near the Hidden Valley interchange. This will result in reduced rock cuts along WB I-70.

- **EB I-70 Exit to US 6.** EB I-70 traffic headed to US 6 will exit at Hidden Valley and will make a slight right to where the new CR 314 / US 6 alignment ties into the Hidden Valley interchange.

**Greenway Alignment.** The Greenway is located on its existing alignment.

**AGS.** The AGS alignment would remain south of I-70 and would not conflict with this alternative. It would likely be in the same cut as I-70 in the location where I-70 crosses to the south side of the creek. The Canyon Viaduct Alternative may provide an opportunity for a wider transportation corridor south of Clear Creek and provide more space for the creek.

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CDOT is not favoring one alternative or another. Considering the Canyon Viaduct Alternative will:

- Allow us to evaluate both a Tunnel and Canyon Viaduct alternative to make our final selection stronger and more informed.
- Make it easier for a contractor to advance either alternative.
- A Canyon Viaduct alternative will provide a back-up plan in case there is a fatal flaw in the geotechnical analysis of the tunnel or if the tunnel is determined to be infeasible for any reason.

**PLT Question:** We left some of the concepts behind during the Concept Development Process. Are we revisiting these concepts?

**Answer:** During the Concept Development Process, we looked at variations of this alternative. The current alternative is more of a refinement and combination of some of the concepts evaluated previously. As we have been advancing the concepts and have more information on geologic conditions, we have a more complete understanding of potential impacts of a tunnel and a viaduct alternative. Given this information, it is prudent to look at other options.

**PLT Question:** How much of I-70 is elevated in the Canyon Viaduct Alternative?

**Answer:** All of I-70 is above the existing I-70 and out of the canyon in the central section. EB and WB I-70 are either on a bridge or benched. The elevation varies from approximately 30 feet to 50 feet.

**PLT Question:** Does maintenance prefer to maintain a tunnel or a bridge?

**Answer:** As we analyze both alternative using the NEPA process, we will look at both alternatives and seek maintenance input and preferences. Both a viaduct and a tunnel are expected to require significant maintenance.

**PLT Comment:** This will reduce truck impacts on local roads.

**PLT Question:** How might the Canyon Viaduct Alternative change the approach to Exit 243 to Central City Parkway? We would like to see an improvement at this exit if there is going to be an improvement to that interstate.

**Answer:** All the improvements to the Hidden Valley interchange will be same for both interchanges. There was a specific interest in the EB exit ramp. The ramp configuration will be the same for both alternatives.

**PLT Question:** Are wildlife crossings still part of this?

**Answer:** Yes, both will have underpasses in the central and west sections and both will have the overpass on the east end; the Canyon Viaduct would be more open and likely provide better crossing opportunities.

**PLT Question:** Where is CR 314 in relation to the current EB or WB lanes in the Canyon Viaduct Alternative?

**Answer:** It is on EB for now, but it can be anywhere in the existing corridor. There could be an opportunity to regrade the bank of the creek and reclaim some additional property.

**PLT Response:** We may want to consider giving some space between the road and creek. It would be good to get it onto WB so there could be potential creek access areas, pull outs, view areas.

As the project moves forward, the Floyd Hill process will shift, focusing on NEPA, and allowing NEPA to do its job by evaluating the two different alternatives.

### 3. NEPA Process and Schedule

This fall, we will consider some additional refinements to the Tunnel Alternative and continue to develop the Canyon Viaduct Alternative to provide enough detail for NEPA to perform impact analysis in early 2020. The NEPA process will include a thorough analysis to support decision making. The core values and context considerations will be important inputs to the NEPA evaluation of the alternatives. Some considerations will be project requirements (e.g., safety, emergency access), and others may be discriminating measures in comparing the alternatives (e.g., relative benefits to wildlife movements).

CDOT presented a draft high-level schedule, outlined below. It was noted that this is preliminary and will depend on whether additional funding can be secured and if the project is determined to be a priority following the statewide planning process.

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- Develop and Refine EA Alternatives: September - December 2019

- September TT Mtg - Introduce / review Canyon Viaduct Alternative
- October TT Mtg - Review Tunnel Alternative refinements, including Frontage Road alignment
- November & December TT Mtgs - Refine and review alternatives for NEPA analysis
- **NEPA Impact Analysis: January - May 2020**
  - January PLT Meeting: Review alternatives for NEPA analysis and public meeting preparation
- **Public Meeting: February 2020 (update project progress, next steps, and NEPA alternatives)**
  - March PLT/TT Mtg - Follow up from Public Mtg.
- **NEPA EA Preparation: June - August 2020**
  - May/June TT Mtg - Review preliminary impacts and mitigation
  - July PLT/TT Mtg - Updates on impacts and mitigation; public hearing preparation
- **NEPA Completion (pending funding availability): September - December 2020**
  - October PLT/TT Mtg - Review public and agency comments and responses

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After the Draft Schedule was presented, a discussion followed:

- We will be looking at the critical issues/context considerations document through a more rigorous NEPA lens with supporting data to consider and weigh issues.

- The NEPA process will help us uncover any major issues that may come up as we begin to evaluate the alternatives.
- The public meeting in February will show both alternatives (Tunnel and Canyon Viaduct) because the public has not yet seen the Canyon Viaduct Alternative or a refined Tunnel Alternative. After the EA is released, there will be a public hearing (next fall).
- Part of the NEPA process will include a geotechnical investigation for the tunnel and for rock cuts that may be needed for the Canyon Viaduct Alternative, as well as additional geotechnical considerations for the Tunnel Alternative.
- We will do cost estimates for the alternatives - they will both be expensive. Finances are not a discriminator in terms of the decision-making. But finances are something that will need to be understood for the contracting community and CDOT. Construction costs are not a criterion in a NEPA analysis, but it needs to be fundable.

#### 4. CSS Process and Planning

The CSS process and NEPA are aligned - the next phase of NEPA will not be different than what we have been doing, but NEPA will add a level of rigorous analysis and data-collection. It will be a similar process that we worked through with the Twin Tunnels and WB PPSL NEPA/CSS processes.

**TT Question:** Will the CSS process involve drafting a critical issues/context considerations matrix for the Canyon Viaduct Alternative?

**Answer:** Yes. The TT will run the Canyon Viaduct Alternative through the critical issues matrix. It is likely that the matrix will be completed this fall. Once we finalize the matrix, all of the matrices that the TT has worked on will be incorporated into the NEPA documentation.

- The September TT meeting will include a high-level overview of the issues of the Canyon Viaduct Alternative and revisit the context considerations/critical issues and measures of success.
  - The September meeting will likely include a lot of TT questions and revisiting the work we have already done.
- The October TT meeting will also allow time to review past discussions, including discussions around the Tunnel Alternative and Frontage Road location.
- The goal would be to run the alternatives through the CSS Critical Issues/Context Considerations Matrices during the November/December timeframe.

**ACTION:** Project Team to revise the DRAFT Project Schedule to reflect the discussion about matrices and CSS process involvement.

It was noted that the purpose of the Critical Issues Matrix will be to look at all of the information through the lens of the context considerations, core values, pros and cons, and critical issues. Since both alternatives will be evaluated in NEPA, the Matrix exercise will not be used to recommend alternatives to move forward. The goal is to move both alternatives (Tunnel and Canyon Viaduct) through NEPA so they can be evaluated more in-depth.

The PLT agreed that the sequencing of the PLT and TT meetings as outlined in the DRAFT Project Schedule is a good starting place and has room for flexibility as the process moves forward. Cindy Neely reminded the group that the PLT role was not to evaluate or recommend alternatives but to guide the process and that the TT needed to be engaged in the evaluation of the alternatives.

The PLT agreed that a September TT meeting should be scheduled.

## 5. Public Involvement

It was noted that there will be a Public Meeting and Public Hearing as the project moves forward. The Project Team reminded the PLT that it is vital that they use their networks to get the word out about these meetings so people who are interested can attend. Both the first Floyd Hill meeting and the statewide planning meeting were well attended, and the group agreed the public meeting format has been effective.

During the fall, the Project Team will come back to the PLT with more details and a plan for public engagement.

## 6. Next Steps/Action Items

Vanessa Henderson, CDOT, reminded the group that the ITF (i.e ALIVE, SWEEP, Section 106) meetings will be scheduled again as the process moves forward.

**ACTION:** CDR will schedule a TT meeting for September and send out the Context Considerations documents to the TT prior to the meeting.

**ACTION:** The Project Team will revise the DRAFT Project Schedule to reflect the discussion about matrices and CSS process involvement.

**ACTION:** PLT to provide any additional input on the project schedule.

**ACTION:** PLT to look at the TT membership roster and confirm that the members are accurate/correct.

## 7. Attendees



Amy Saxton, Cindy Neely (Clear Creek County), Jon Cain (Idaho Springs), Lynette Hailey (I-70 Coalition), Scott Haas (USFS), Wendy Koch (Town of Empire), Tyler Larson, Anthony Pisano (Atkins), Stephen Harelson, Tyler Brady, Neil Ogden, Vanessa Henderson, Kevin Brown (CDOT), Jonathan Bartsch, Taber Ward (CDR), Kevin Shanks (THK), Mandy Whorton (Peak Consulting)

**Phone:** Margaret Bowes (I-70 Coalition), Daniel Miera (Central City), Shaun Cutting (FHWA)



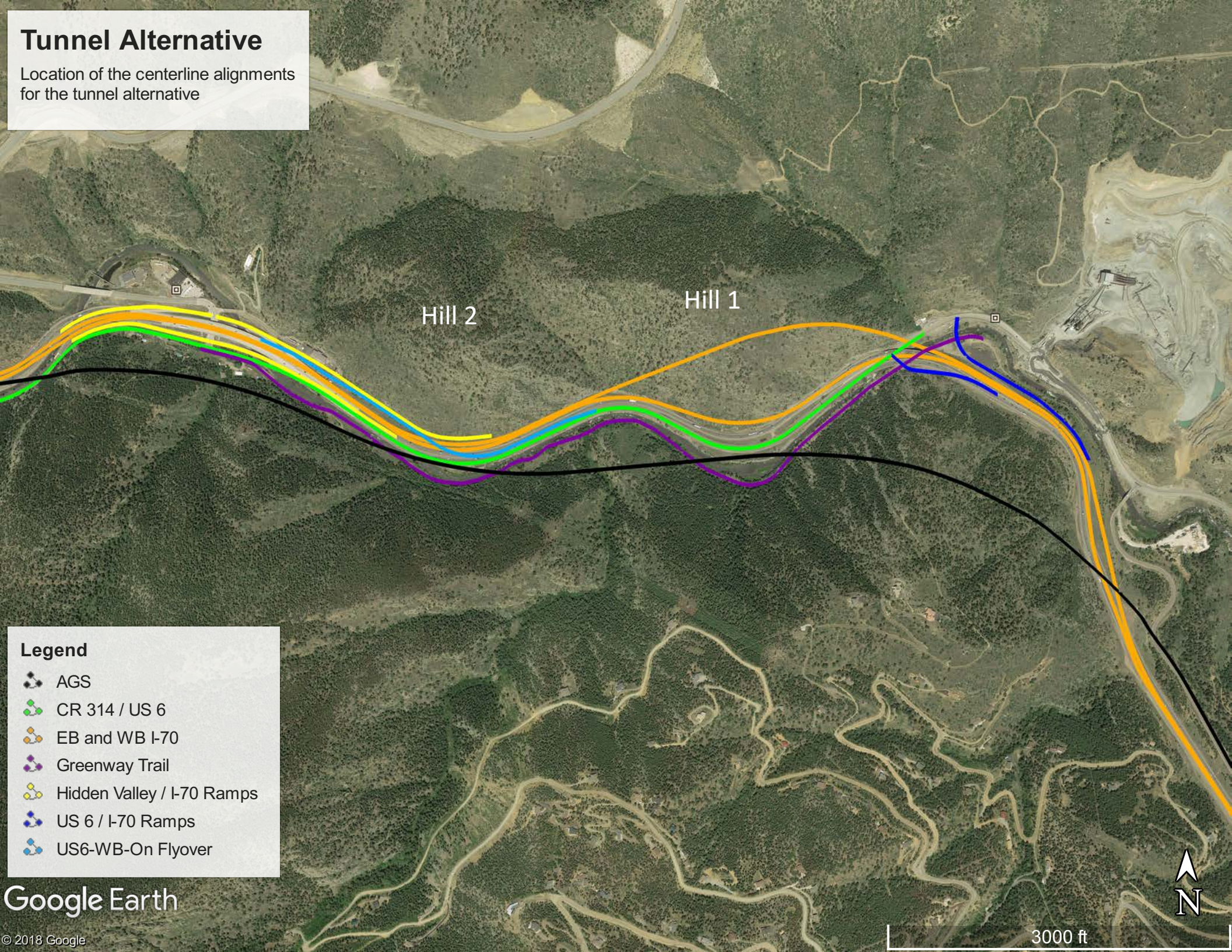
## Floyd Hill - Draft Project Schedule

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# Tunnel Alternative

Location of the centerline alignments for the tunnel alternative



Hill 2

Hill 1

## Legend

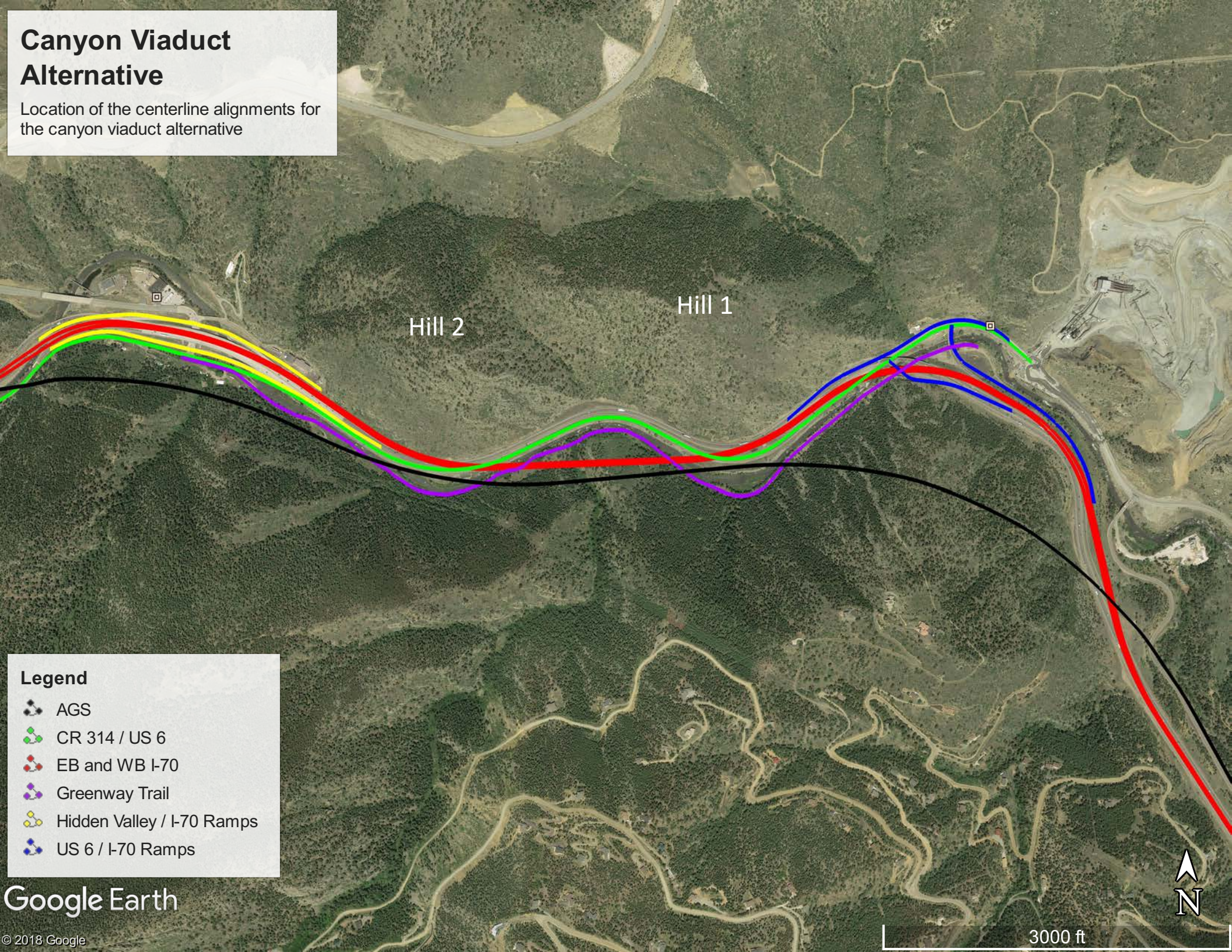
- AGS
- CR 314 / US 6
- EB and WB I-70
- Greenway Trail
- Hidden Valley / I-70 Ramps
- US 6 / I-70 Ramps
- US6-WB-On Flyover





# Canyon Viaduct Alternative

Location of the centerline alignments for the canyon viaduct alternative



Hill 2

Hill 1

## Legend

- AGS
- CR 314 / US 6
- EB and WB I-70
- Greenway Trail
- Hidden Valley / I-70 Ramps
- US 6 / I-70 Ramps

