

Memorandum

To: Forrest Killingsworth – SSJID

Copy: Jake Feriani, KC Nelson and Kim Tarantino – P&P

From: Scott Lewis, Project Director/Principal Tunneling Consultant

Subject: Canyon Tunnel – Schell Road Usage

Project No.: 1055-24-002/Phase 1

Date: November 12, 2024

This Memorandum (memo) summarizes the estimated increase in vehicular construction traffic along Schell Road as a direct impact of the Canyon Tunnel Project. Access to the downstream portion of the Project will begin off Sonora Road, north onto Schell Road for approximately 0.4 miles (asphalt pavement) at which point the access road branches off Schell Road to the northeast and continues on private property for approximately 1.7 miles to the construction site (unpaved gravel road).

Based on the current design, Provost & Pritchard (P&P) has estimated the impact of vehicular traffic that will increase during construction. Each phase of construction will vary slightly based on the demand of imported materials and equipment for each phase, but we have put together a good faith estimate of increased traffic to be expected. We have included the following estimates based on previous experience with similar projects which will include the frequency of material and equipment deliveries, duration of construction and the number of shifts worked per day.

As currently estimated, the Canyon Tunnel Project will begin construction in the summer months of 2025 and will continue through the spring of 2028. Construction is anticipated to include two 10-hour shifts Monday through Saturday with no anticipated work taking place on Sunday. The construction crew, anticipated to include 20 individuals staying at local hotels in Oakdale, will travel to the site each construction day in two separate shifts, each with approximately 10 individuals. One phase of the project will require two shifts for approximately 325 working days, preceded and succeeded by a phase requiring one shift for approximately 150 working days each.

Concrete delivery trucks are anticipated to deliver concrete to the construction site 3 times per day for most of the project and for short durations (approximately 1 month) will include up to approximately 11 deliveries per day. The Contract Documents will specify that heavy-duty trucks, which generally includes concrete trucks and semi-trailer trucks, will not be allowed to pass through the town of Knights Ferry. We have included additional vehicular traffic for Canyon Tunnel Project oversight, construction management and maintenance for the full duration of the project.

During mobilization and demobilization of certain project phases, the homeowners should expect an increase in traffic for a short period of time, which we estimate anywhere from 5 to 10 days.

Originally 15 round trips per day for 450 workdays were anticipated along Schell Road for spoils off haul to an offsite location using semi-trailer trucks. SSJID has subsequently determined that excavation spoils will be disposed onsite, which eliminates approximately 15 trips per day for 390 workdays along Schell Road.

The table below estimates the maximum round trips per day along Schell Road. If production is slower, the round trips per day would be fewer and the number of workdays would increase accordingly.

Continuous Traffic

Trip Type	Round Trips per Day	Workdays
Construction Workers	20	325
	10	300
	2	104
Construction Management	6	500
Concrete Deliveries – Tunnel Liner/Portal/Flume	3	400

Good Faith Estimate of Average Trips per Day	31	780*
--	----	------

* 130 weeks at 6 days per week

Additional Periodic Traffic

Trip Type	Round Trips per Day	Workdays
Concrete Deliveries – Tunnel Invert	11	37
Upstream Spoils	7	60
Misc. – Equipment, Rock, Deliveries	6	50

SSJID has previously performed similar canal and tunnel construction projects utilizing earthwork contractors and the same access road off Schell Road that will be used for the Canyon Tunnel Project. We have included these projects and dates as a reference of construction projects that increased vehicular traffic in the past and have estimated the number of round trips per day for each project:

- November 2019 – January 2020 – Drill Tech Drilling and Shoring – Joint Supply Canal Maintenance
 - Scaling of approximately 400 cy rock (no export of material)
 - Drilled and installed approximately 420 rock bolts
 - Placed 45 cy of shotcrete canal liner
 - Installed 4,700 square feet of wire mesh and cable netting along canal

2019/2020

Trip Type	Round Trips per Day	Workdays
Construction Workers	8	51
Construction Management	2	
Concrete/Material Deliveries, Misc.	1	
Estimated Totals	11	51

- November 2020 – January 2021 – Drill Tech Drilling and Shoring – Joint Supply Canal Maintenance
 - Scaling of approximately 600 cy of rock (no export of material)
 - Placed 109 cy of shotcrete canal liner

2020/2021

Trip Type	Round Trips per Day	Workdays
Construction Workers	8	48
Construction Management	2	
Concrete/Material Deliveries, Misc.	2	
Estimated Totals	12	48

- October 2023 – January 2024 – Drill Tech Drilling and Shoring – Long Tunnel Upstream Portal Shoring Project
 - Scaling of approximately 80 cy of rock (no export of material)
 - Drilled and installed approximately 250 rock bolts
 - Placed 170 cy of shotcrete at tunnel portal

2023/2024

Trip Type	Round Trips per Day	Workdays
Construction Workers	5	61
Construction Management	2	
Concrete / Material Deliveries, Misc.	2	
Estimated Totals	9	61

Please contact P&P if you have any questions.