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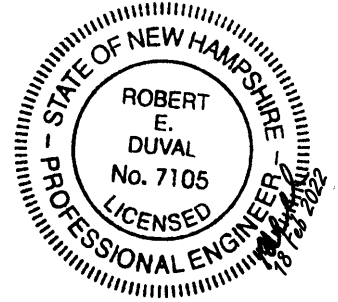
TRAFFIC MEMORANDUM

Date: February 18, 2022

To: City of Keene
3 Washington Street
Keene, NH 03431

From: Robert Duval, PE

Re: **Proposed Gravel Pit**
Route 9, Keene, NH
TFM Project No. 82549-00



INTRODUCTION

TFMoran has prepared this traffic memo on behalf of G2 Holdings, LLC to describe trip generation and the existing roadway network associated with a proposed gravel pit in Keene, NH. The site (Map 215 Lot 7) is located within the Rural Zoning District on the north side of Franklin Pierce Highway (NH 9).

The parcel currently has a gravel access drive into a small clearing. G2 Holdings, LLC is currently using the clearing as a laydown area for their landscape and sitework business. The remaining site consists of woods, steep slopes, and wetlands.

PROPOSAL

G2 Holdings, LLC is proposing to construct and operate a 10 +/- acre gravel pit located on The initial phase of the operation will be approximately 5 acres. The gravel driveway will be widened and brush trimmed as necessary to accommodate two-way traffic with adequate sight distance in both directions to support the operation.

DESCRIPTION OF ROADWAYS AND INTERSECTIONS

Franklin Pierce Highway (NH 9)

- Classification. Franklin Pierce Highway is a State-maintained principal arterial that provides east-west travel across the state from Vermont to Maine.
- Lane widths and usage. In the project vicinity, the roadway provides one 12' travel lane in each direction, with 7-8' paved shoulders.
- Pedestrian facilities. There are no sidewalks in the study area.
- Signage and markings. The posted speed limit is 55 mph. Adjacent to the existing driveway is an intersection warning sign. The road has white shoulder markings on both sides. An

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eastbound passing zone begins about 300' to the west and extends about 600' east of the driveway, followed by a two-way passing zone.

- Lighting. No roadway lighting is provided in the study area.
- Sight Distance: The existing driveway is located on a straight segment of Franklin Pierce Highway with a gentle curve right approximately 250' west of the site and remains straight approximately 2,000' to the east. The alignment is relatively flat and provides sufficient sight distance in both directions.
- Road conditions. The roadway has moderate grade change, open drainage, and normal crown. The pavement is in good condition with minimal to no cracking, little or no ruts, soft spots, potholes, or other structural defects evident.
- There are minimal other developments in the area. Adjacent uses and driveways consist of:
 - Approximately 350' to the west on the opposite side of the road is the entrance to Otter Brook Beach State Park. No other driveways are present until Sullivan Road, approximately 4,350' from the existing site driveway.
 - Approximately 2100' to the east is a driveway to small commercial home/office development. Another 1500' east of the office development is the entrance to Granite Gorge Ski Area.
- There are no other intersections in the study area.

TRIP GENERATION

Trip generation was calculated based on the applicant's anticipated pit operation schedule. Site operations will be 7am-5pm Monday through Friday, with Saturday operations 7am-12pm. The site will be occupied by 3 employees. All employees will arrive prior to AM peak hours (7-9am) and leave during PM peak hours (4-6pm).

Trucking operations are expected at 40 trucks per day or less, with arrivals on average at fifteen minute intervals. While one truck is arriving, the previous will be leaving. The last load out will typically leave around 330pm (1130am on Saturday). Employees will leave after site cleanup and equipment shutdown.

Employee & Truck Schedule

Time	Employee In	Employee Out	Truck In	Truck Out	Total Trips
Before 7 AM	3				3
7 AM – 8 AM			4	3	7
8 AM – 9:AM			4	4	8
9 AM – 10 AM			4	4	8
10 AM – 11 AM			4	4	8
11 AM – 12 PM			4	4	8
12 PM – 1 PM			4	4	8
1 PM – 2 PM			4	4	8
2 PM – 3 PM			4	4	8
3 PM – 4 PM			2	3	5
After 4 PM		3			3
Total Peak Hour Trips (Adjacent Street)			Trips In	Trips Out	Total Trips
Weekday AM (7-9am)			4	4	8
Weekday PM (4-6pm)			0	3	3
SAT (11am-1pm)			2	3	5

CONCLUSION

Based on the minimal scale of operations described above, traffic impacts associated with the project will be negligible. The traffic from this development will add 8 trips or less during all peak hours. Total weekday trips are expected to be on the order of 80 to 90 trips per day (40 - 50 on a Saturday). Most of these trips occur outside peak travel times.

The AADT of NH 9 in 2019 was 9,707 vehicles. Thus the percentage increase is less than 1%, with typically 15 minutes between successive arrivals and departures. The roadway alignment and wide shoulders will facilitate safe access and egress from the site.

We therefore find the traffic associated with this proposal can be safely accommodated by the adjacent roadway without need for improvements. Please let me know if you have any questions in regard to these items.

TFMORAN, INC.

A handwritten signature in black ink, appearing to read 'R Duval', with a stylized flourish at the end.

Robert Duval, PE
Chief Engineer