

August 23, 2019

Chad Mosley
City Engineer
Public Works Department
City of Cupertino
City Hall
10300 Torre Avenue
Cupertino, CA 95014-3255

Re: Permanente Quarry, Mine ID # 91-43-0004
Response to August 19, 2019, Meeting Re: Utility Road Grading Permit

Dear Chad,

Thank you for taking the time to meet with David Brown and Andrew Heinemann (Benchmark Resources), your consultant, John Wallace (Cotton Shires) and myself, on the morning of August 19, 2019. The purpose of our meeting was to review the work Lehigh has done in developing solutions for reengineering an unpaved utility road accessed by Lehigh and Pacific Gas & Electric Company personnel on Permanente Quarry property (the "Utility Road"). As you are aware, the existing maintenance road was modified in 2018 by Lehigh consistent with industry standards for use by off-highway vehicles. An approximately 660-foot section of the road falls within the city of Cupertino boundary. Lehigh has been working with the City of Cupertino (City) since October 2018 to address concerns over the road, with the City issuing and NOV on May 28, 2019. To date, the following steps have been taken to address this issue:

- February 22, 2019: Lehigh submitted a grading permit application form and report from our geotechnical engineers describing the conditions of the existing Utility Road.
- April 22, 2019: The City represented by yourself and Cotton Shires visited the road with Lehigh and our engineer. At that site visit, the City's consultant requested additional geological mapping of materials in the cut slope, a shallower fill slope, and potentially a narrower road.
- May 29, 2019: Lehigh submitted a revised design based on April 22 visit.
- June 19, 2019: You and Cotton Shires visited site a second time.
- July 23, 2019: A letter was sent to Lehigh with comments from the City and Cotton Shires.
- August 5, 2019: Lehigh completed analysis of design options that would meet City requirements stated in the July 23rd letter, based on the following design criteria:
 - The fill slope should be removed *or* placed in compacted lifts no steeper than 2:1 leaving a 15-foot-wide road.

- The City prefers no structures in the design.
- Cut slope of 35 degrees or shallower.
- August 19, 2019: The subject meeting is held.

The attached table and a PowerPoint showing the design concepts and the disturbance footprints were presented at the meeting. As shown in the table, all options, other than Option 1, have issues to be considered regarding the degree of grading, structures, and related permits. All options presented by Lehigh, including Option 1, meet City requirements for a static and pseudo-static stable fill slope at 2:1. Lehigh provided the City with stability calculations in previous design submissions, and the additional options provided all meet the City code requirements of 1.5:1 cut slopes or include engineered structures to meet stability. Two options (Options 3 and 4) reduce grading and additional tree removal by constructing retaining structures.

As noted in the City letter, the structures were on the outboard side of the road and an explanation was given for the need for the structures, which is to reduce or eliminate new disturbance and meet the requirements of the Mine Safety and Health Administration that all roads on-site be equipped with a barrier half the axle height of the vehicle traveling on the road.

Based on our discussions, the City requested Lehigh to develop another option that combines elements from the presented options. The City also stated it's:

- preference that all fill be removed from the slope, back to the native material;
- requirement to include any structures on the on the *in-board* side of the road, and
- Desire for a cut slope that minimizes new disturbance *and* minimizes required structures.

Lehigh requested design standards for slopes, including the native slope, which the City declined to give. Lehigh explained that the road must have a safety berm (or safety rail) because the road is on a mine property, which effectively necessitates a wider roadway than the minimum city standards.

Additional field investigations and engineering design work are needed to engineer a design meeting these new criteria given by the City at the meeting. Lehigh will need to also apply for a building permit because of the structures and potentially a tree removal permit for additional disturbance. Therefore, Lehigh is requesting a 90-day extension from the original August 31, 2019, application deadline to develop the "optimized" road section design. Lehigh is disappointed that the City will not approve any of the options presented by Lehigh as they all meet the current City ordinance described slopes and include a stamped engineers report to verify overall stability of the road.

Lehigh will submit the requested grading permit fee on or before August 31, 2019 as was requested in the letter. Lehigh wishes to memorialize the fact that the Utility road was modified in April of 2018, Lehigh has been working with the City to address their concerns since October of 2018 and now in August of 2019 the City is finally providing firm recommendations on what it will find acceptable. Due to the time it has taken the City to provide concrete direction to

Lehigh it is unlikely necessary authorizations will be acquired with enough time left before the 2019/2020 wet season to complete any construction.

We suggest we meet again once we have another design to confirm the plans meet with your thinking, prior to finalizing and applying for the various permits.

Thank you

Talia M Flagan

Talia Flagan
Mineral Resource Manager
Lehigh Hanson – West Region

Attachment Table: Permanente Utility Road, Options to Meet City Requirements.

Permanente Utility Road, Options For Modifications to Meet City Requirements

Option	Design	Comments	Permits
Option 1: Accept Submitted Design	Stantec Stamped Plan dated 5/21/2019. Fill slope will be pulled back at 2:1 except in 2 small areas where the slope will be slightly steeper. Cut slope will be cleaned, maintained, and monitored annually as with all roads on site.	The City code allows for variance to prescribed standards with a stamped report from an engineer. The plan submitted was stamped and demonstrates the overall slope with this design is stable both in static and dynamic conditions. Any sediment from the cut slope is managed through our existing stormwater systems and does not impact offsite properties or water bodies.	City Grading Permit.
Option 2: Complete Regrade	2:1 Fill Slope, 15' wide road, 1.5:1 cut slope. Guard rail and block required in some sections of Fill.	Would require a complete rebuild of the fill, road, and cut slope. Additional disturbance and tree removal and visibility offsite. Grading would go into County parcel so would have to get concurrence with the county.	<ul style="list-style-type: none"> • City Grading Permit. • City Building Permit for retaining walls. • City Tree Removal Permit. • Reclamation Plan Amendment or other concurrence form the County.
Option 3: Options 2 + Add Structures	2:1 Fill Slope, 15' road, 1.5:1 cut slope. Guard rail and block required in some sections of Fill. Retaining wall on Cut Slope to reduce disturbance.	Additional disturbance and tree removal and visibility offsite. Grading would go into County parcel so would have to get concurrence with the county.	<ul style="list-style-type: none"> • City Grading Permit. • City Building Permit for retaining walls. • City Tree Removal Permit. • Reclamation Plan Amendment or other concurrence form the County.
Option 4: Shotcrete + structures	Shotcrete Cut Slopes as is. 2:1 fill slope with guard rail and block.	City would need to concur with Caltrans design standards. Potential for increased visibility offsite	<ul style="list-style-type: none"> • City Grading Permit. • City Building Permit.