APPENDIX J-1

Preliminary Geotechnical Engineering Report

PRELIMINARY GEOTECHNICAL ENGINEERING REPORT for FORMER SPRING HILL MINE PROPERTY APNs 35-260-62, 63 and 64 Grass Valley, California

Prepared for:
Gallelli & Sons, LLC
4240 Rocklin Road, Suite 9
Rocklin, California 95677

Prepared by:
Holdrege & Kull
792 Searls Avenue
Nevada City, California 95959

Project No. 3292-03
September 7, 2007

HOLDREGE & KULL
CONSULTING ENGINEERS • GEOLOGISTS

Project No. 3292-03
September 7, 2007

Gallelli & Sons, LLC
4240 Rocklin Road, Suite 9
Rocklin, California 95677

Attention: Warren Hughes

Reference: ***Former Spring Hill Mine Property***
APNs 35-260-62, 63, and 64
Grass Valley, California

Subject: ***Preliminary Geotechnical Engineering Report***

Dear Mr. Hughes:

This report presents the results of our preliminary geotechnical engineering investigation for the former Spring Hill Mine property located southeast of Dorsey Drive and east of Highway 20/49 in Grass Valley, California. The site includes three parcels with a total area of approximately 26.7 acres. The Nevada County Assessor's Parcel Numbers (APNs) are 35-260-62, 63, and 64. As proposed, the project will include significant cut and fill grading to create building pads for commercial development and associated roads, parking areas, and underground utilities.

The preliminary findings presented in this report are based on a cursory surface reconnaissance at the site, review of selected geologic references and reports previously prepared for the site by Holdrege and Kull, and our experience with subsurface conditions in the area. Based on our preliminary findings, our opinion is the project as currently proposed appears to be feasible from a geotechnical engineering standpoint. We should be retained to perform a design-level investigation prior to construction to confirm the preliminary recommendations presented in this report and provide alternate recommendations, if appropriate, based on the subsurface conditions encountered. Furthermore, we should be allowed to perform testing and observation services during grading to confirm our design-level recommendations.

Please contact us if you have any questions regarding our observations or the preliminary recommendations presented in this report.

Sincerely,

HOLDREGE & KULL

Prepared by:

Zack Washburn, P.G. 8254
Staff Geologist

Reviewed by:

Rob Fingerson, G.E. 2699
Senior Engineer

copies: 4 to Gallelli & Sons / Attn: Warren Hughes

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1 INTRODUCTION

At the request of Warren Hughes of Gallelli & Sons, LLC, Holdrege & Kull (H&K) performed a preliminary geotechnical engineering investigation of the former Spring Hill Mine Property in Grass Valley, California. The preliminary geotechnical investigation was performed in general accordance with the scope of services presented in our July 17, 2007 proposal for the project, a copy of which is included as Appendix A of this report. For your review, Appendix B contains a document prepared by ASFE entitled *Important Information About Your Geotechnical Engineering Report*, which summarizes the general limitations, responsibilities, and use of geotechnical reports.

1.1 SITE DESCRIPTION

The site is comprised of three contiguous parcels, an eastern parcel (Assessor's Parcel Number (APN) 35-260-64, 11.37 acres), a northern parcel (APN 35-260-62, 1.7 acres), and a western parcel (APN 35-260-63, 13.67 acres). Figure 2 shows the approximate site boundary.

Surface topography at the site generally slopes toward the south and southwest from a relatively flat-lying area in the northern portion of the site and a knoll in the north central portion of the site. The site elevation ranges from approximately 2550 feet above mean sea level (MSL) in the southwestern portion of the site to approximately 2690 feet above MSL in the northern portion of the site. The site is generally vegetated by pine, manzanita, oak, and cottonwood trees in the southwestern portion of the site. Rock outcrop is present at several locations in the western, northern and eastern portions of the property.

1.2 PROPOSED IMPROVEMENTS

Our understanding of the project is based on our recent conversations with Warren Hughes and review of an August 2007 preliminary site plan prepared by Genesis Engineering. The preliminary site plan shows that up to 40 feet of cut is proposed in the central portion of the property and up to 60 feet of fill in the southwestern portion of the property. The plan also shows 6 smaller buildings proposed in the northern and eastern portions of the site, a large parking lot in the central and western portions of the site, and a large structure in the southwestern portion of the site.

1.3 SCOPE OF SERVICES

To prepare this report, we performed the following scope of services:

- We reviewed selected geologic and soil survey literature, as well as previous reports prepared for the site by H&K.
- We performed a cursory surface reconnaissance of the site.
- Based on observations made during our site reconnaissance, the results of our literature review, and our experience with soil conditions in the area, we prepared this report to provide preliminary geotechnical engineering recommendations for the proposed improvements.

2 SITE INVESTIGATION

The following sections summarize our literature review and field reconnaissance.

2.1 LITERATURE REVIEW

We performed a limited review of geologic literature pertaining to the project site. The following sections summarize our findings.

2.1.1 Soil Survey

The Soil Survey of Nevada County, California, Western Part (United States Department of Agriculture, Soil Conservation Service, August 1993) indicates that soil conditions across the majority of the site are mapped as Dubakella-rock outcrop complex, 5 to 50 percent slopes. Runoff is medium to rapid, based on degree of slope, and the erosion hazard is low to moderate. The central portion of the site is mapped as "Placer Diggings", although this classification appears to be incorrect based on the identification of past hard rock gold mining in this area. A limited area in the eastern portion of the site is mapped as Sites loam, 9 to 15 percent slopes. Runoff is medium on this soil and erosion hazard is moderate.

A typical profile of the Dubakella soil consists of an approximate 10-inch-thick surface layer of brown, gravelly heavy loam to gravelly clay loam. The surface layer is underlain by dark yellowish brown and brown, very cobbly clay to a depth of approximately 21 inches below the ground surface (bgs). Weathered ultrabasic rock is encountered below the cobbly clay loam.

A representative profile of the Sites Loam consists of brown and yellowish red heavy loam from the ground surface to an approximate depth of 12 inches bgs. The heavy loam is underlain by yellowish red loam and red clay, and light clay to an approximate depth of 78 inches bgs. The loam, clay, and light clay are underlain by weathered metasedimentary and basic rock.

2.1.2 Geology

The property is located in the Sierra Nevada Foothills, on the western side of the Sierra Nevada geomorphic province. The Sierra Nevada province is an elongate, north-west trending structural block that is tilted upward to form a steep scarp above the adjacent Basin and Range province to the east. The western slope of the Sierra Nevada dips gently westward, and extends beneath sediment of the Great Valley province. Sediment within the Great Valley is derived from continual uplift and erosion of the Sierra Nevada.

The Geologic Map of the Grass Valley - Colfax Area (A. Tuminas, 1983), shows that the site is underlain by serpentine rocks of the Early Mesozoic aged Ultramafic-Mafic "Basement" Unit of the Lake Combie Complex. According to the Mineral Land Classification of Nevada County (Special Report 164, California Department of Conservation Division of Mines and Geology, 1990), the site geology is mapped as the ultramafic unit of the Jurassic-aged Lake Combie Complex. The Mesozoic era occurred from approximately 245 to 65 million years ago. The Jurassic period occurred from approximately 206 to 144 million years ago.

The Map of the Spring Hill Mine (Uren, 1942) depicts buildings, mine shafts, tailing piles, and waste dumps comprising the western and central portion of the property.

The Nevada City Special Folio, California (United States Geologic Survey; 1896), depicts an east-west trending quartz vein passing through the central portion of the site. The vein apparently dips to the north.

We reviewed California Geological Survey Open File Report 96-08, Probabilistic Seismic Hazard Assessment for the State of California, and the 2002 update entitled California Fault Parameters. The documents indicate the property is located within the Foothills Fault System. The Foothills Fault System is designated as a Type C fault zone, with low seismicity and a low rate of recurrence. The 1997 edition of California Geological Survey Special Publication 43, Fault Rupture Hazard Zones in California, describes active faults and fault zones (activity within 11,000 years), as part of the Alquist-Priolo Earthquake Fault Zoning Act. The map

and documents indicate the site is not located within an Alquist-Priolo active fault zone.

2.1.3 Previous Site Investigations

H&K performed a Preliminary Endangerment Assessment (PEA) for the site dated July 6, 2007. The draft PEA has been reviewed by the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) and we are currently addressing their review comments. Additional information pertaining to mining features and associated waste rock is presented in the draft PEA.

2.2 FIELD INVESTIGATION

We performed our site reconnaissance on August 28, 2007 to observe existing surface conditions at the project site.

2.2.1 Surface Conditions

At the time of our site visit, the western and central portions of the property contained significant abandoned mine features, while the eastern portion appeared to be generally undeveloped. However, dense manzanita generally obscured the surface conditions in the south-central and eastern portions of the site. The topography of the property generally slopes toward the south and southwest from a relatively flat lying area in the northern portion of the site and a knoll in the northern central portion of the site.

We observed the location of the Spring Hill shaft in the central portion of the property as depicted in the Map of the Spring Hill Mine (Uren, 1942). The Spring Hill shaft appeared to have been capped with concrete. Approximately 500 feet northeast of the Spring Hill shaft, we observed mounded soil, rock, and wood debris that appeared to be a shaft that was backfilled or capped. An apparent shaft, approximately 10 to 15 feet wide and open to a depth of 15 feet or greater, was observed approximately 400 feet southwest of the Spring Hill shaft. Our investigation did not include assessing the method or adequacy of physical shaft closure.

Several relic concrete foundations and concrete slabs were identified at the approximate locations of historic mining features depicted on the 1942 Uren map (bin, hoist, compressor, mill, machine shop, carpenter shop, dry, furnace, superintendent residence). No structures remain in these locations. The "bin"

foundation (assumed to be for an ore bin), approximately 10 feet by 15 feet by 8 feet high, apparently served as an ore storage area between the Spring Hill shaft and the mill located to the southeast of the shaft. The mill foundation, located approximately 100 feet to the east of the bin foundation, was approximately 50 feet by 75 feet with concrete wall remnants up to 6 feet high.

Extensive surface exposures of mine waste rock were identified in the central and western portions of the site. Mine waste rock generally consisted of slightly to moderately weathered, mineralized serpentine and diabase rock with abundant quartz. The waste rock was coarse material with variable amounts of sand and gravel. The waste rock was present in several benches extending down slope to the south and southwest of the knoll-top, the location of the former mill and superintendent's residence. There was some evidence of disturbance or removal of waste rock in the area of the bin foundation. Smaller mine waste rock stockpiles of similar consistency were observed in the area between the bin and compressor foundations. Scattered waste rock was observed at the perimeter of the larger, main stockpiles of mine waste rock in the central and western portion of the site.

Mill tailings, consisting of light grey, grayish green and olive-brown silt with fine sand, were observed in the central and western portions of the site. The areas of observed tailings are down slope of the mill foundation. Two former "tailing ponds" were identified in this area.

Apparent glory holes with associated small volumes of apparent excavation spoils were observed in the eastern portion of the site.

H&K observed mine waste on approximately 6.5 acres of the 26.7-acre site, during their investigation for the PEA for the site.

2.2.2 Surface Water and Ground Water Conditions

Although we did not observe areas of saturated ground or seeps, our experience has shown that seepage will likely be encountered in excavations that reveal the contact between relatively permeable surface soil and resistant volcanic rock.

3 LABORATORY TESTING

Laboratory testing was not included in the scope of our preliminary geotechnical engineering investigation. Laboratory testing would be required as part of a design-level geotechnical engineering investigation for the project.

4 CONCLUSIONS

The following conclusions are based on our field observations and our experience in the area.

- Based on the results of our preliminary geotechnical investigation, our opinion is that the project is feasible from a geotechnical standpoint.

- Our primary concerns, from a geotechnical standpoint, are the presence of relic mine features and existing fill consisting of waste rock. In general, existing fill is not suitable to support structural improvements and we anticipate that areas of relatively shallow fill would be removed and replaced as compacted fill during site preparation and grading. Deeper areas of existing fill, particularly in the southern portion of the property will need to be evaluated as part of a design-level geotechnical investigation to determine what mitigation approaches, such as fill replacement or the use of deep foundation systems, are appropriate.

- The most notable historic mining features documented on the site were the Spring Hill shaft and the other two shafts located east and southwest of the Spring Hill shaft. If improvements are planned in the immediate vicinity of these mining features, the features should be closed per the recommendations of H&K or another qualified engineer. We would be able to provide closure recommendations as part of a design-level geotechnical engineering report.

- The July 6, 2007 draft PEA prepared by H&K recommended that the estimated 2,300 tons of waste and affected soil at the Former Mill Area should be excavated, transported offsite, and disposed at an appropriate solid waste facility. Additional characterization of the waste may be required by the landfill during the remedial action to meet their acceptance criteria.

- Based on the ultramafic and serpentine rock observed onsite and our past experience with serpentine rock in the area, we anticipate naturally-occurring asbestiform minerals may be encountered during grading. California Geological Survey Special Publication 124 (2002) states that an asbestos dust mitigation plan (ADMP) is required for grading in areas where naturally occurring asbestos (NOA) or asbestiform minerals are expected (areas where ultramafic, schistose, or serpentine rock is encountered), unless a comprehensive program of sampling and testing indicates the absence of asbestiform minerals. The ADMP is to be developed in accordance with

Section 93105 of the CalEPA's Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations.

- Based on the site geology and the presence of rock outcrop we anticipate that relatively shallow, resistant rock may be encountered, particularly in the northern and eastern portions of the site, during grading or excavation for utilities. Preliminary recommendations for resistant rock are presented in the following sections. Fill material resulting from excavation onsite may contain significant gravel and oversized rock that may require specific recommendations for use as fill. General recommendations for placement of rock fill and oversized material are presented in the following sections.

- Although we did not observe saturated surface soil and daylighting seepage during our field reconnaissance, areas of seepage will likely be encountered during grading onsite, particularly during the rainy season and/or in excavations which reveal the surface soil/weathered rock contact. Preliminary recommendations regarding subsurface drainage are presented in this report.

5 PRELIMINARY RECOMMENDATIONS

The following preliminary geotechnical engineering recommendations are based on our understanding of the project as currently proposed, our literature review, our field observations during surface reconnaissance, and our experience in the area. The recommendations are preliminary, and are provided for planning purposes. The preliminary conclusions and recommendations in this report should be verified by a design-level geotechnical engineering investigation and/or observation during grading.

5.1 GRADING

The following preliminary grading recommendations address clearing and grubbing, soil preparation, fill placement, cut and fill slope grading, erosion control, subsurface drainage, surface drainage, and construction monitoring.

5.1.1 Clearing and Grubbing

Areas proposed for fill placement, paved areas, and building pads should be cleared and grubbed of vegetation and other deleterious materials as described below.

1. Strip and remove organic surface soil containing shallow vegetation and any other deleterious materials. This organic soil can be stockpiled onsite and used in landscape areas, but is not suitable for use as fill. The actual depth of stripping may vary across the site. Areas of deeper organic surface soil may be encountered in drainage swales and low lying areas.

2. Overexcavate any existing fill, waste rock piles less than 10 feet in depth, debris and/or other onsite excavations to underlying, competent material. Possible excavations include exploratory trenches excavated by others, mantles or soil test pits, and tree stump holes. The waste rock piles consisting of coarse-grained material in the southwestern portion of the site will need to be evaluated to determine appropriate mitigation of the fill to support structures.

3. Remove all rocks greater than 8 inches in greatest dimension (oversized rock) by scarifying to a depth of 12 inches in proposed building pads and areas to support pavement, slabs-on-grade, and other flatwork. Oversized rock should be placed in deep fill per the recommendations of the project geotechnical engineer, stockpiled for later use in landscape areas or stacked rock walls, or removed from the site.

4. Vegetation, tree stumps and exposed root systems, and any other deleterious materials and oversized rocks not used in landscape areas should be removed from the site.

5.1.2 Preparation for Fill Placement

Upon completion of site clearing, grubbing and overexcavation, the exposed native soil should be observed by a representative of our firm prior to placement of fill at the project site. Fill placed on slopes steeper than 5:1, horizontal:vertical (H:V), should be benched into the existing slope to allow placement of fill in horizontal lifts.

5.1.3 Fill Placement

Fill should be placed according to the following guidelines:

1. Material used for fill construction should consist of uncontaminated, predominantly granular, non-expansive native soil or approved import soil. Rock used in fill should be no larger than 8 inches in diameter. Rocks larger than 8 inches are considered oversized material and should be placed in deep

fill per the recommendations of the project geotechnical engineer, stockpiled for use in landscape areas or rock walls, or removed from the site.

2. Oversized material may be windrowed in deeper fill under the observation of the project geotechnical engineer. The windrows should be separated by at least one equipment width. Compacted fill should be worked into the sides of each windrow, and remaining voids should be filled with smaller rock. If the oversized material is to be incorporated into a rock fill that does not permit density testing by nuclear methods, the contractor should prepare a test fill during initial fill placement to facilitate establishing a procedural specification for fill placement. The means and methods of subsequent fill placement will be evaluated for conformance with the approved test fill.

3. Imported fill material should be predominantly granular, non-expansive and free of deleterious or organic material. If imported material is required to grade the site, it should be submitted to H&K for approval and laboratory analysis at least 72 hours prior to import to the site.

4. Clay soil, if encountered, may be used as fill if mixed with granular soil at a ratio determined by the project geotechnical engineer.

5. Fill should be uniformly moisture conditioned and placed in maximum 8-inch thick loose lifts (layers) prior to compacting.

6. The moisture content, density and relative compaction of all fill should be evaluated by our firm during construction.

7. Our observation of rock outcrop in western, northern, and eastern portions of the property and our experience in the area has shown that areas of moderately or slightly weathered rock that is difficult to trench with conventional trenching equipment may be encountered during grading or trenching. Pre-ripping, blasting, or splitting may be required in these areas. The scope of a future design-level investigation should include excavation of exploratory trenches along proposed road and utility trench alignments to allow observation of subsurface soil and rock conditions.

5.1.4 Differential Fill Depth

To reduce the magnitude of differential settlement associated with variable fill depth beneath structures, we recommend that differential fill depths beneath structures should not exceed 5 feet. For example, if the maximum fill depth is 8

feet across a building pad, the minimum fill depth beneath that pad should not be less than 3 feet. If a cut-fill building pad is used in this example, the cut portion would need to be overexcavated 3 feet and replaced with compacted fill.

5.1.5 Cut/Fill Slope Grading

1. Cut and fill slopes should generally be no steeper than 2:1, H:V. Based on our experience in the area, steeper cut slope gradients may be feasible in areas that have significant rock structure. Steeper slope gradients must be verified based on the results of laboratory testing and observation of slope conditions.

2. Fill slopes should be constructed by overbuilding the slope face and then cutting it back to the design slope gradient. Fill slopes should not be constructed or extended horizontally by placing soil on an existing slope face and/or compacted by track walking.

3. Benching during placement of fill on an existing slope must extend through loose surface soil into firm material, and be performed at intervals such that no loose soil is left beneath the fill.

5.1.6 Erosion Control

Graded portions of the site should be seeded following grading to allow vegetation to become established prior to and during the rainy season. In addition, grading that results in greater than one acre of soil disturbance or in sensitive areas may require the preparation of a storm water pollution prevention plan. As a minimum, the following controls should be installed prior to and during grading to reduce erosion.

1. Prior to commencement of site work, fiber rolls should be installed down slope of the proposed area of disturbance to reduce migration of sediment and small rocks from the site.

2. Soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District.

3. Following seeding, jute netting or erosion control blankets should be placed and secured over graded slopes steeper than 2:1, H:V, to keep seeds and

straw from being washed or blown away. Tackifiers or binding agents may be used in lieu of jute netting.

4. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should surface water be directed over slope faces. The intercepted water should be discharged into natural drainage courses or into other collection and disposal structures.

5.1.7 Subsurface Drainage

If grading is performed during or immediately following the rainy season, seepage will likely be encountered. If groundwater or saturated soil conditions are encountered during grading, we anticipate that dewatering may be possible by gravity or by installation of sump pumps in excavations.

Control of subsurface seepage at the base of fill areas can typically be accomplished by placement of an area drain. Underlying, saturated soil is typically removed and replaced with free draining, granular drain rock enveloped in geotextile fabric. Fill soil can be placed over the granular rock. H&K should review proposed drainage improvements with regard to the site conditions prior to construction.

5.1.8 Surface Water Drainage

Proper surface water drainage is important to the successful development of the project. We recommend the following measures to help mitigate surface water drainage problems:

1. Slope final grade adjacent to structural areas so that surface water drains away from building pad finish subgrades at a minimum 2 percent slope for a minimum distance of 10 feet.

2. Compact and slope all soil placed adjacent to building foundations such that water is not retained to pond or infiltrate. Backfill should be free of deleterious material.

3. Direct downspouts to a solid collector pipe which discharges flow to positive drainage.

5.1.9 Construction Monitoring

Construction monitoring includes review of plans and specifications and observation of onsite activities during construction as described below.

1. We should be retained to review the final grading plans prior to construction to determine whether our recommendations have been implemented, and if necessary, to provide additional and/or modified recommendations.

2. We should be retained to perform construction monitoring during grading performed by the contractor to determine whether our recommendations have been implemented, and if necessary, provide additional and/or modified recommendations.

5.2 FOUNDATION SYSTEMS

Our preliminary opinion is that conventional shallow spread footings will be suitable for support of structures across much of the property. Footings should be founded on native, undisturbed soil, weathered rock or compacted and tested fill. Foundation design criteria and construction recommendations are typically provided as part of a design-level geotechnical engineering report.

Footings should be deepened through expansive clay soil, if encountered at the base of the footing excavations. Expansive clay soil is typically encountered in relatively thin layers near the soil/weathered rock interface.

Shallow, resistant rock which limits footing excavation may be encountered during construction in the northern and eastern portions of the property. The presence of shallow rock within building footprints may require the use of rock anchors or dowels to provide uplift and sliding resistance. H&K can provide site specific anchor recommendations during construction, if requested.

Existing deep fill is probably not suitable to support structures without mitigation. The mitigation options should be determined during the course of a design-level investigation.

6 LIMITATIONS

The following limitations apply to the findings, conclusions and recommendations presented in this report:

1. Our professional services were performed consistent with the generally accepted geotechnical engineering principles and practices employed in northern California. This warranty is in lieu of all other warranties, either expressed or implied.

2. These services were performed consistent with our agreement with our client. We are not responsible for the impacts of any changes in environmental standards, practices or regulations subsequent to performance of our services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report. This report is solely for the use of our client. Any reliance on this report by a third party is at the risk of that party.

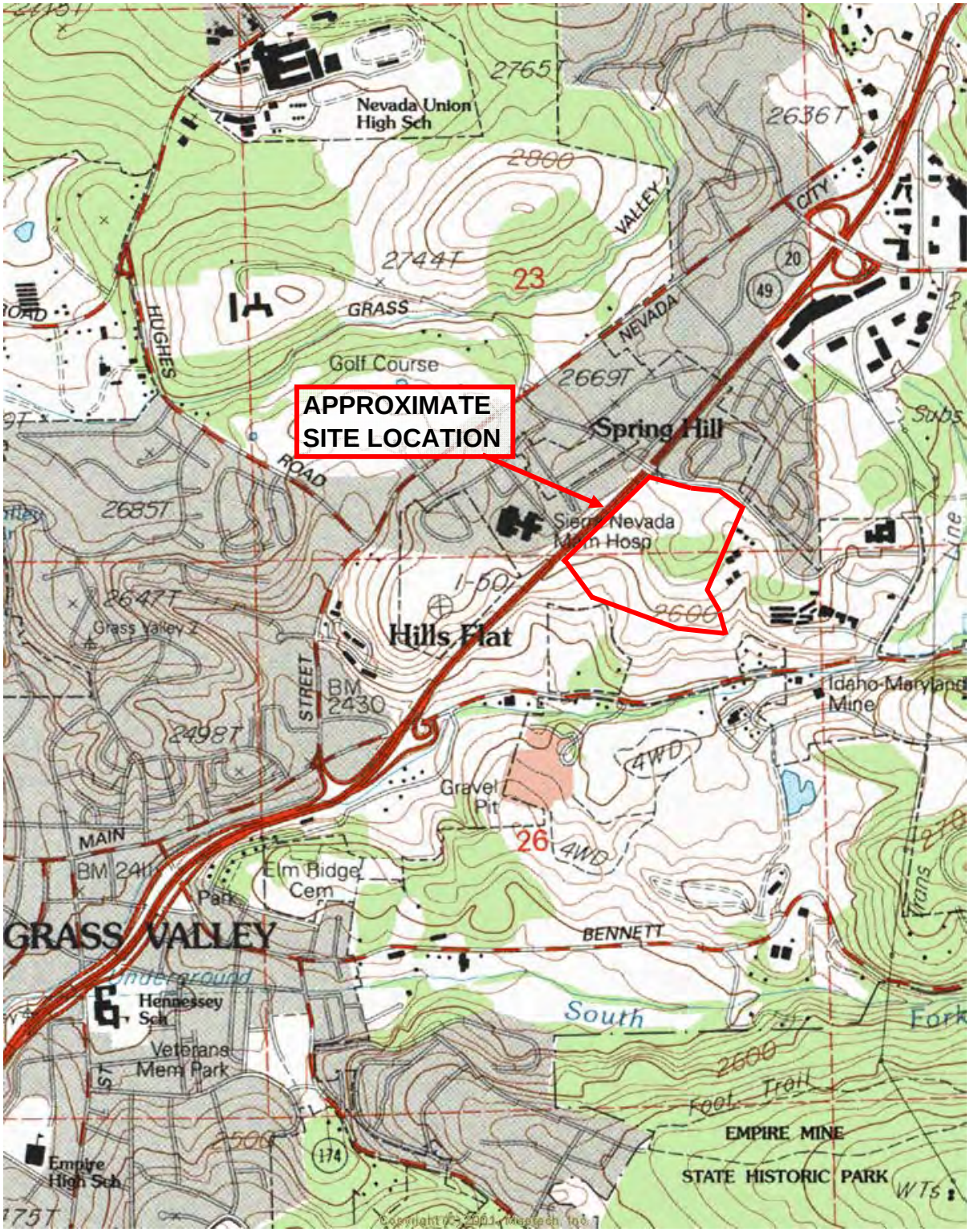
3. If changes are made to the nature or design of the project as described in this report, then the conclusions and recommendations presented in this report should be considered invalid by all parties. Only our firm can determine the validity of the conclusions and recommendations presented in this report. Therefore, we should be retained to review all project changes and prepare written responses with regards to their impacts on our conclusions and recommendations. Subsurface investigation and laboratory testing will be required to develop design-level recommendations.

4. The analyses, conclusions and recommendations presented in this report are preliminary, based on site conditions as they existed at the time we performed our surface observations. The subsurface conditions should be confirmed by a design-level geotechnical investigation prior to construction.

5. Our scope of services for the preliminary geotechnical investigation did not include evaluating the project site for the presence of hazardous materials. Please review the July 6, 2007 draft PEA for information regarding hazardous materials. Project personnel should be careful and take the necessary precautions when working with hazardous materials during construction.

6. The findings of this report are valid as of the present date. Changes in the conditions of the property can occur with the passage of time. The changes may be due to natural processes or to the works of man, on the project site or adjacent properties. In addition, changes in applicable or appropriate standards can occur, whether they result from legislation or the broadening of knowledge. Therefore, the recommendations presented in this report should not be relied upon after a period of two years from the issue date without our review.

FIGURES



NO SCALE SOURCE: GRASS VALLEY QUADRANGLE MAP (USGS, PROVISIONAL EDITION 1995)

HOLDREGE & KULL
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SITE LOCATION MAP

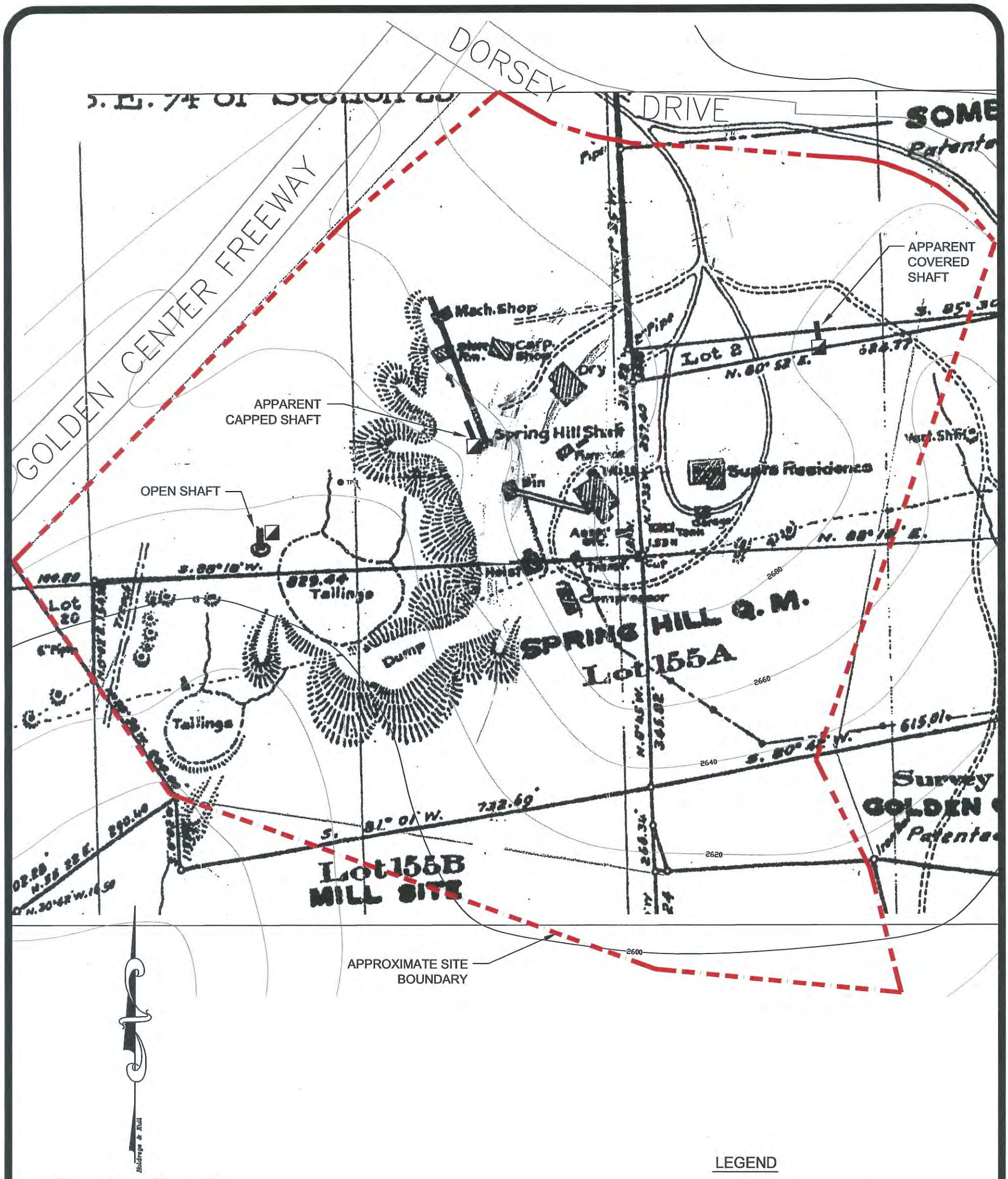
SPRING HILL MINE PROPERTY

GRASS VALLEY, CALIFORNIA

PROJECT NO. 3292-03

SEPTEMBER 2007

FIGURE 1



SITE MAP

FORMER SPRING HILL MINE PROPERTY

GRASS VALLEY, CALIFORNIA

3292–03–FIG2

HOLDREGE & KULL
CONSULTING ENGINEERS • GEOLOGISTS
792 SEARLS AVENUE
NEVADA CITY, CA 95959
(530) 478–1305 FAX 478–1019

DRAWN BY: DFD	*CHECKED BY:* ZW
PROJECT NO.: 3292–03	
DATE: SEPTEMBER 2007	
FIGURE NO.: 2	

APPENDIX A PROPOSAL

Proposal No. PN07219
July 17, 2007

Gallelli & Sons, LLC
4240 Rocklin Road, Suite 9
Rocklin, California 95677
fax: 916 415 0360

Attention: Mr. Warren Hughes

Reference: ***Former Spring Hill Mine Property***
APNs 35-260-62, 63, and 64
Nevada County, California

Subject: ***Contract Extension for Preliminary Geotechnical investigation***

Dear Mr. Hughes:

At your request, we are providing this proposal for preliminary geotechnical engineering services at the former Spring Hill Mine property located immediately southeast of Dorsey Drive and east of Highway 20/49 in Grass Valley, California. The site includes three parcels with a total area of approximately 26.7 acres. The Nevada County Assessor's Parcel Numbers (APNs) are 35-260-62, 63, and 64. The purpose of our services will be to evaluate the feasibility of the proposed development from a geotechnical/geological standpoint.

As currently proposed, the project will include commercial development of the property, with associated grading for access roads, building pads, and subsurface utilities.

SCOPE OF SERVICES

Based on our current understanding of the project, we propose to perform the following scope of services:

Field Investigation

We will perform a literature review of pertinent geologic and soil survey documents and previous reports prepared by H&K. Our field investigation will also involve a cursory site
visit to observe the existing condition of the subject property, noting existing fill, standing water and drainage, past mining features and other geotechnical or geologic features that may impact the development, as well as rock/soil types observed at the ground surface.

Preliminary Geotechnical Report

Following completion of the above tasks, we will compile a report which will include:

- Site plan showing approximate locations of geologic features;
- Description of soil and rock conditions;
- Preliminary grading and drainage recommendations;
- General conclusions regarding feasibility of the proposed improvements from a geotechnical engineering standpoint;
- Recommended foundation systems; and
- Preliminary recommendations to mitigate the presence of expansive soil, if encountered.

FEES

Our fee to provide the outlined services will be $2,400. Progress billing will be monthly on a percent complete basis. If this proposal meets your approval, please sign the enclosed terms and conditions and return one copy as our authorization to proceed.

TIMING

We will be able to start our field investigation for the project within one weeks of receiving authorization to proceed. Our report will be submitted within three weeks of completing our field investigation.

If you have any questions, please do not hesitate to contact us. Thank you for considering our firm to provide services for your project.

Sincerely,

HOLDREGE & KULL

Zack Washburn, P.G.
Staff Geologist

Authorization of Contract Extension

I hereby authorize Holdrege & Kull to implement the above scope of services for the fee outlined in this proposal. This authorization extends the existing signed contract between Gallelli & Sons, LLC and Holdrege & Kull dated March 5, 2007 to apply to the services and fees outlined in this proposal.

_____
Name

_____
Signature

_____
Date

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APPENDIX B ***IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT (Included with permission of ASFE, Copyright 2004)***

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you —* should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.

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