



## EXHIBIT B

August 17, 1999

Greenridge, LLC  
P.O. Box 774944  
Steamboat Springs, CO 80477

Attn: Chris Wittemeyer

Job No. 99-4118

Subject: Preliminary Geologic Hazard  
Evaluation, The Meadows at Stagecoach  
Land Preservation Subdivision, Routt  
County, Colorado.

Gentlemen:

As requested, NWCC, Inc. (Northwest Colorado Consultants, Inc.) has prepared this letter to outline the subsurface soil conditions encountered within the proposed Meadows at Stagecoach Land Preservation Subdivision to be developed within a parcel of land located in portions of Sections 8 and 17, Township 3 North, Range 84 West in Routt County, Colorado. We previously completed a letter for a preliminary geologic hazard evaluation at the site under this job number and dated August 12, 1999.

We visited the project site on August 16, 1999 and excavated six test pits across the proposed development areas to investigate the subsoil conditions across the site. The subsoils encountered in the test pits generally consisted of a layer of natural topsoil materials overlying natural sands and gravels and/or weathered sandstone-claystone and sandstone-claystone bedrock. The topsoil materials were approximately 6 to 12 inches in thickness. The sands and gravels and weathered bedrock extended to depths of approximately 4 to 9 feet. Sandstone-claystone bedrock of the Browns Park Formation was encountered below the natural sands and gravels and weathered bedrock in all of the test pits and extended to the maximum depth explored.

Based on the relatively shallow bedrock depths encountered in the test pits, it is our professional opinion that this site is not located within a slope failure complex (SFC) as indicated by county geologic hazard maps. Smaller, isolated areas of slope instability associated with deep overburden soils may be still present within the property, however we have not observed areas of active slope failure at this time. Preliminary construction considerations for roadways and residential buildings will be presented when the laboratory testing program has been completed.

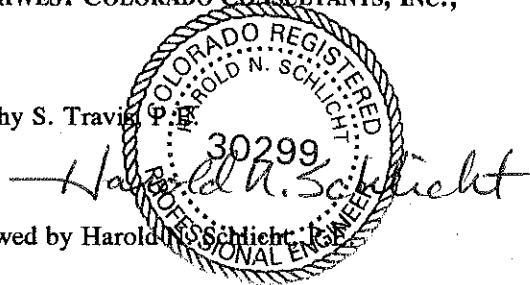
A laboratory testing program including swell-consolidation testing, as well as natural moisture-density and classification testing of the materials is currently under way to determine the swell potential, strength correlation and general classification of the on-site materials. This laboratory testing will provide documentation, preliminary design values and information for roadway construction and foundation design, however, the test results are not necessary for a general site stability assessment. The laboratory test results will be forwarded upon completion.

If you have any questions regarding this letter, our observations or preliminary recommendations, or if we may be of further service, please contact this office.

Sincerely,

NORTHWEST COLORADO CONSULTANTS, INC.,

Timothy S. Travis, P.E.



Reviewed by Harold N. Schlicht, P.E.



August 12, 1999

Greenridge, LLC  
P.O. Box 774944  
Steamboat Springs, CO 80477

Attn: Chris Wittemeyer

Job No. 99-4118

Subject: Preliminary Geologic Hazard  
Evaluation, The Meadows @ Stagecoach  
Land Preservation Subdivision, Routt  
County, Colorado.

Gentlemen:

As requested, NWCC, Inc. (Northwest Colorado Consultants, Inc.) has completed a Preliminary Geologic Hazard Evaluation for a portion of the proposed The Meadows @ Stagecoach Land Preservation Subdivision to be developed within a 653 acre parcel of land located in portions of Sections 8 and 17, Township 3 North, Range 84 West in Routt County, Colorado.

Purpose & Scope: The scope of this preliminary investigation includes a cursory field observation of the proposed development area where previous mapping efforts indicate a potential geologic hazard (i.e. slope failure complex), a review of available literature and the preparation of this letter outlining our preliminary recommendations concerning this potential geologic hazard. The content of this investigation is preliminary in nature and suitable for general planning purposes, but does not preclude the need for detailed soil investigations for individual building structures, roadway construction or other areas where geologic hazards exist.

Proposed Construction: We understand that the owner proposes to develop this portion of the property (Lots 10-21) into 12 single family residence home sites zoned as AF. Water and sewage service will be provided by the development of on-site sewage disposal systems and/or water wells. Approximately 3 miles of roadway will also be constructed for this portion of the subdivision.

Field Investigation: The field investigation for the project was conducted on August 6, 1999 with Chris Wittemeyer a representative of Greenridge, LLC. We observed an area designated by the Routt County resource maps as "Slope Failure Complex". The potentially unstable slope area is located within Lots 10-21 of the subdivision and represents an area of relatively steep natural slopes.

This portion of the site is located in an aspen and pine forest which was generally well vegetated with natural grasses, weeds and deciduous brush. The topography of the site is highly variable and generally

slopes moderately to strongly down to the east-northeast on the order of 10 to 20 percent. However, steeper slopes on the order of 30 to 40 percent were observed on Lots 20 and 21. We did not observe areas of obvious slope instability in the area of Lots 10-21, however our observations were limited by the dense surface vegetation.

Geologic Hazard Review: Regional geologic mapping of the area indicates that the near surface bedrock consists of the Tertiary Browns Park Formation and this is consistent with other subsurface investigations completed by our firm in this area. Based on the site conditions observed during our field investigation and the subdivision maps provided by the client, it appears that the steeper slopes are generally outside of developed areas of the property including proposed building envelopes and roadways. Therefore, it does not appear that this potential geologic hazard will be affected by construction of the subdivision roadways or individual home sites. However, we recommend that further subsurface investigations be completed to determine the depth and type of overburden soils as well as complete a formal stability evaluation of the roadway cuts and fills. In addition, potential areas for construction of on-site sewage disposal systems should be carefully considered for the subject lots. Wastewater effluent from sewage disposal systems can potentially increase slope instability and should not be discharged above steep slopes.

It should also be noted for potential homeowner's that the overburden clays and some of the bedrock materials encountered in this area can exhibit varying degrees of swell potential. This geologic hazard can require special design and construction considerations for structure foundations and slabs.

If you have any questions regarding this letter, our observations or preliminary recommendations, or if we may be of further service, please contact this office.

Sincerely,

**NORTHWEST COLORADO CONSULTANTS, INC.,**

Timothy S. Travis, P.E.

Reviewed by Brian D. Len, P.E.

Possible new conditions:

9 #1 A plat note and language in the development agreement and covenants shall be added alerting the landowner and potential buyers of the possibility of unstable slope conditions.

10 #2 The laboratory testing results, as referred to in the NWCC letter dated August 17, 1999, shall be submitted that will provide documentation, preliminary design values and information for roadway construction and foundation design prior to approval of building permits and additional road construction.

11 #3 Prior to the BCC hearing and approval, the applicant shall submit a complete geologic analysis performed by a qualified geologic consultant for all lots and any roadway improvements stating the absence of "slope failure complex."

Doug - #3 ADDED - + BUTLER BOWARD

FREBO - w/ info - APPROVES

Doug - PROVIDED GOOD GEO INFO, MOVE FORWARD w/ BUTLER BOWARD

TRON - THIS IS BETTER USE - COMPARED TO OTHER POSSIBLE USES.  
However additional info by NWCC prior to BCC -

DIANE - LPS DESIGN GUIDELINES #6 - ADDITIONAL info to BCC + PLAT NOTE

SHELLY - APP w/ PLAT NOTE - COMPLIANCE w/ HALL'S OPINION

BILL T. - COMPLIANCE w/ HALL'S INFO, + PLAT NOTE.

Motion

BILL-T. - APPROVE LPS w/ ADDITIONAL INFO PROVIDED TO P.C.

~~CONCURRENCE~~ FINDINGS OF FACT. 11.3 (in packet) A, B, C

COND'S.

BILL - STRIKE #11,



August 24, 1999

Greenridge, LLC  
P.O. Box 774944  
Steamboat Springs, CO 80477

Attn: Chris Wittemeyer

Job No. 99-4118

Subject: Preliminary Geologic Hazard  
Evaluation, The Meadows at Stagecoach  
Land Preservation Subdivision, Routt  
County, Colorado.

Gentlemen:

As requested, NWCC, Inc. (Northwest Colorado Consultants, Inc.) has prepared this report to outline the subsurface soil conditions encountered within the proposed Meadows at Stagecoach Land Preservation Subdivision to be developed within a parcel of land located in portions of Sections 8 and 17, Township 3 North, Range 84 West in Routt County, Colorado. We previously completed two letters for a preliminary geologic hazard evaluation at the site under this job number and dated August 12 and 17, 1999.

**Site Conditions:** The project site consists mainly of vacant, undisturbed land which is accessed by a single main roadway and another short cul de sac which have currently been roughed-in. The site is generally well vegetated throughout and consists of moderate to dense and mature aspen and pine forest with open, grassy meadows located in the lower elevation areas.

The topography of the site is variable and generally consists of knolls and moderately sloping, low ridgelines which slope down to the north and east. The natural slopes generally range from steep (50 percent) to strongly sloping (10 to 15 percent), however, localized flat and gently sloping areas are also present. Two small, seasonal drainages are located within the property and were dry at the time of our investigation.

The topography of the site consists of an erosional land form in which areas of more resistant bedrock materials form knolls and gently sloping ridge lines. These features are accentuated by erosion and down cutting along small seasonal drainages which carry surface runoff from the area. The variable topography across the site can be attributed to the site drainage and underlying bedrock conditions.

**Subsurface Conditions:** We visited the project site on August 16, 20 and 23, 1999 and excavated twelve test pits across the proposed development to investigate the subsoil conditions across the site. The subsoils encountered in the test pits generally consisted of a layer of topsoil materials overlying natural sands and gravels and/or weathered sandstone-claystone and sandstone-claystone bedrock. The topsoil materials were approximately 6 to 12 inches in thickness. The sands and gravels and weathered bedrock

extended to depths of approximately 4 to 13 feet. Sandstone-claystone bedrock of the Browns Park Formation was encountered below the natural sands and gravels and weathered bedrock in all of the test pits and extended to the maximum depth investigated.

**Geologic Hazard Evaluation:** Our reconnaissance of the proposed development areas did not reveal any areas of recent slope failures. Based on our observations made at the site, the relatively shallow bedrock depths encountered in the test pits and our experience with similar sites, it is our professional opinion that this site is not located within a slope failure complex (SFC) as indicated by county geologic hazard maps. The relatively shallow bedrock depths are consistent with a stable, mature, erosional land form which continues to respond to erosional forces by the deposition of alluvial soils in localized low-lying areas and drainages. Smaller, isolated areas of slope instability associated with deep alluvial soils may be still present within the property, however we have not observed areas of active slope failure within the property at this time.

A laboratory testing program including swell-consolidation testing, as well as natural moisture-density and classification testing of the materials is currently under way to determine the swell potential, strength correlation and general classification of the on-site materials. This laboratory testing will provide documentation, preliminary design values and information for roadway construction and foundation design, however, the test results are not necessary for a general site stability assessment. A final geologic hazard assessment report will be finalized upon completion of the laboratory testing program.

If you have any questions regarding this letter, our observations or preliminary recommendations, or if we may be of further service, please contact this office.

Sincerely,

NORTHWEST COLORADO CONSULTANTS, INC.,

Harold N. Schlacht, P.E. 30299

