



August 21, 2015

Summit Mountain Holding Group
c/o Ms. Andrea Milner
3632 North Wolf Creek Drive
Eden, Utah 84310

IGES Project No. 01628-005

Subject: Fire Access on unpaved roads
The Ridge Nests Development
Powder Mountain Resort
Weber County, Utah

References: IGES, 2014, Geotechnical Investigation, The Ridge Nests Development, Powder Mountain Resort, Weber and Cache Counties, Utah, Project No. 01628-008, dated September 16, 2014.

Ms. Milner:

As requested, IGES is providing the following letter addressing the concerns of the Weber County engineering/planning departments regarding suitability of unpaved roads for a 75,000 lb fire truck. In order to access the Ridge Nest Development, a fire truck would need to travel on Summit Pass Road and Heartwood Drive. Portions of Summit Pass Road were paved during 2014 construction, roadbase and granular borrow were also placed and compacted well beyond Heartwood Drive. At present the Summit Pass Road is paved to just east of Skier Bridge #1. Pavement ends approximately 260 feet from the intersection with Heartwood Drive. At present Heartwood Drive is under construction and asphalt paving is scheduled for placement on both roads starting September 21, 2015. We understand the proposed pavement section for both roads will consist of 4-in. Asphalt, 6-in. roadbase and 10-in. granular borrow. Roadbase and granular borrow are being derived from excavations within the project area. A separation geotextile was placed on Summit Pass Road (between granular borrow and roadbase), but will not be used on Heartwood Drive.

Previous Investigation

IGES completed geotechnical/geologic reconnaissance of the Ridge Nest Development area in September 2014. That investigation determined that the majority of the subsurface in the area is comprised of bedrock (dolomite) with a minor portion of colluvial deposits comprised of sand and silt with boulders. Subsurface soils and rock encountered in our investigation are considered to be capable of providing good to excellent pavement support.

Observations

Roadbase is currently in place on Summit Pass Road and has been traversed by heavy equipment throughout the 2015 construction season. Loaded haul trucks (Volvo A40F) have

traversed the area repeatedly and the roadbase has not rutted under the heavy loads. When loaded the gross weight of these trucks can exceed 150,000 lbs, The geotextile used on Summit Pass Road would be expected to minimize rutting in the area.

Heartwood Drive is currently under construction. The road was cut to subgrade in 2014, granular borrow was placed and completed recently and roadbase was being placed and compacted during our observations on August 20, 2015. Roadbase was being hauled in and additional loaded trucks were hauling through the area to a soil ski ramp off the end of Bridge #1. Both roadbase and waste soils were being transported with fully loaded Volvo A40F haul trucks. IGES watched several loaded trucks traverse the area and did not observe any rutting or pumping of the compacted roadbase or granular borrow.

Trucks were not driving through the cul-de-sac at the end of Heartwood Drive. Based on our previous reconnaissance, the road subgrade in this area would likely have been cut into bedrock and the subgrade relatively stable. Because it is in a low area where water can potentially pond haul trucks would be required to enter the cul-de-sac off a short, steep slope. We assume that Geneva was avoiding this route to minimize any disturbance to granular borrow at the bottom of that slope. Roadbase will be hauled in from the other end of the Heartwood Drive and we do not anticipate disturbance if the loaded trucks come from the gentle slope to the west.

Drainage Considerations

At the time of our observations the site was dry and there had been no precipitation for several days prior. The Ridge Nest portion of the development is near the top of the slope and there is very little area that will contribute run-on in to Heartwood Drive. A ditch has been excavated on the uphill side of the Heartwood Drive where it is at the base of cut slopes. It appears that the roadway has a drainage break near the entrance to parking area shown on development plans. Runoff will be diverted east towards the cul-de-sac, or west-southwest towards Summit Pass Road.

As the drainage channel approaches Summit Pass Road, surface water will enter a relatively flat area prior to being diverted under the road in a concrete culvert as it joins with east-flowing run-off from Summit Pass Road. Depending on the magnitude of precipitation or snowmelt some ponding could occur at this location. If the culvert functions properly, this area should drain fairly quickly, limiting the potential for saturation of the subgrade.

At the east end of Heartwood Drive there is a cul-de-sac that has been cut into the existing grade. The surrounding ground is elevated above the roadway and, at present, it is unclear how water will be drained from the area. This could saturate the area needed for emergency vehicles to turn around.

Conclusions and Recommendations

Excess moisture typically has an adverse impact on unpaved roads. However, through the construction season this year, unpaved portions of Summit Pass Road where roadbase was placed last year have been very resistant to rutting under heavy construction traffic even on rainy days. The regular construction loading that the unpaved road sections have already held

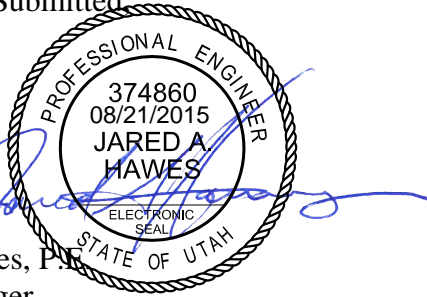
up under is in excess (heavier trucks, more frequent trips) than those that would be applied by a 75,000 lb fire truck that would come only in an emergency situation.

Based on the progress of construction and the location of the road sections in question, it is likely that these areas will be among the first that are paved should asphalt placement begin as planned on September 21, 2015. At worst these road sections will all have compacted granular borrow and roadbase within the next few days. IGES does not have any concerns with the suitability of unpaved portions of Summit Pass Road or Heartwood Drive observed on August 20, 2015 to support emergency vehicle traffic even if weather or other delays prevent them from being paved as planned.

Closure

We appreciate the opportunity to provide you with our services. If you have any questions please contact the undersigned at your convenience (801) 748-4044.

Respectfully Submitted
IGES, Inc.



Jared A. Hawes, PE
Project Manager