

CAPITOL UTILITY SPECIALISTS
DRY UTILITY DESIGN • PLANNING • CONSULTING

MEMORANDUM

TO: GREG BARDINI – MORTON & PITALO
FROM: GARY KRAUSE
SUBJECT: GOLD RUSH RANCH – PRELIMINARY ASSESSMENT, DRY UTILITIES
DATE: FEBRUARY 5, 2007

Per your request, we visited the Gold Rush Ranch site and met with the utility companies to assess the utility issues the project will bring. Using the Conceptual Land Use/Lot Summary Gold Rush Ranch Plan and Vicinity Map prepared by Morton & Pitalo as a guide to the site, and input from our meeting the utility companies, following are our initial thoughts and observations. Please bear in mind they constitute a preliminary overview.

PG&E Electric: PG&E has two 60 kV transmission lines near the site. One is south of the project, extending east-west on the south side of Highway 88. The other is northeast of the project, extending northwest-southeast crossing Valley View Way, and south of the Highway 49 bypass. While of no direct benefit to the project, it at least assures us of essentially unlimited power.

The site is currently served from PG&E's Martell Substation. Martell is almost loaded to capacity though does have room for expansion if necessary. Another substation is located to the west of the development (Clay Substation) and has a planned increase for 2008. PG&E will likely transfer load from Martell to Clay to free up capacity to serve Gold Rush Ranch as our load develops. So, bottom line, PG&E's electric facilities will be more than adequate to serve the additional 5 to 6 megawatts of power that Gold Rush Ranch will require.

Adjacent to the site on the east side of Ridge Road, there are high voltage distribution lines (single phase and three phase, 12 kV) serving residences and small businesses. A radial tap off this line serves an existing house on the site near the proposed Village F. There are also high voltage distribution lines on the project site side of Ridge Road near the proposed Village A Park. The on-site facilities are of limited value to us for serving future villages and commercial sites and will likely be abandoned or upsized and either rearranged, relocated or converted to underground. But the important thing here is that PG&E presently has an electric system serving the area, so there is no offsite bring-up required for the electric distribution.

On the south end of Valley View Way (northeast corner of the project), PG&E has a primary 12 kV electric underground distribution line stubbed roughly 275' south of Bowers Street towards the project entrance. Though PG&E intends to serve the project from Highway 88, this is a potential alternate feed for the project should it be desirable to bring facilities from this direction.

PG&E Natural Gas: PG&E has three gas regulator stations along Ridge Road – one at the northwest corner of Ridge Road and Bowers Street, another at the southeast corner of the project's

entry intersection and the third at the intersection of Ridge Road and Highway 88. A 10” steel transmission main operating at about 300 psig runs along the west side of Ridge Road and the north side of Highway 88.

The transmission line is good news in one sense but could be bad news in another. It’s good news in that the developers of large projects in rural areas located far from existing developed areas ordinarily encounter significant bring-up costs. That will not be an issue here. But the line is probably only 36” deep and follows the existing grade along the west side of Ridge Road. If the development agreement requires the road to be widened, this transmission line will very likely have to be moved. Relocating or lowering it will be expensive, therefore the planners and civil engineers should do their very best to design around it -- place it in a park site, golf course, running trail or whatever – but try to avoid it if at all possible. Assume the coordination time required to relocate a gas transmission line at a minimum of a year, could be two years, with costs in the \$200 to \$300/ft range (much more for short dips). Important Point: If the transmission line or gas regulator stations require relocation, it is imperative that they be noted in the EIR. (as a negative declaration). Not addressing it now will likely cause significant issues later.

Six to ten homes and several businesses take natural gas service off the regulator stations on Ridge Road. In the event of a road or intersection widening there is good possibility the distribution lines and or the regulator stations will require relocation. Any required relocations will be at developer expense.

There does not appear to be a gas main in Bowers Street heading east or on Valley View Way extending south towards the project entrance. But should it be necessary, we could extend gas from the regulator station at Ridge and Bowers Street west and south along this route to feed the project.

ATT Telephone: AT&T has multiple overhead distribution lines (copper cables) traversing the area and serving the same customers as PG&E along Highway 88 & Ridge Road. There do not appear to be any underground ATT lines along Ridge Road in the vicinity of the development (with the exception of an underground drop serving the existing house near the proposed Village F), though we did observe underground telephone lines on Bowers Street and Valley View Way. Similar to PG&E, overhead lines on the west side of Ridge Road will likely need to be abandoned or upsized and either relocated or converted to underground. We noted two fiber lines on the north side of Highway 88. One belongs to AT&T and we’ve been told the other is owned by Volcano Telephone. The AT&T fiber line is good news, as it assures fiber service is available near the site. The Volcano fiber line has no value to us, though in the event of a road or intersection widening it could become an expensive obstacle that needs to be dealt with.

With the exception of the AT&T fiber line, most of the AT&T phone system we observed along Highway 88 and Ridge Road appear to be antiquated (a POTS type copper system). The central office (CO) that serves the site is the Jackson Wire Center. It’s located in downtown Jackson next to the elementary school and AT&T confirmed its a bit antiquated (a Tier II or III Wire Center). So currently (without a substantial investment and significant upgrades) the more advanced electronics necessary to provide the new telecom products and services we are looking for (digital video, high speed data transfer, internet, etc., etc.) do not exist. The good news is AT&T is in the process of reinforcing and upgrading its system with a new fiber trunk, but its time frames to complete are still unknown.

We discussed and are requesting that AT&T provide FTTP (fiber to the premises) to the development. The planning engineer we dealt with indicated that may very well be possible. If so, Gold Rush Ranch will have state of the art telecommunications services.

Comcast: There are no cable television facilities along Ridge Road adjacent to the site, though there are underground cable facilities along Valley View Way and Bowers Street. We observed and confirmed overhead Comcast fiber facilities on Hw 49, and have been told it has fiber on Hwy 88. (If true that would indicate there may actually be 3 fiber lines on Hwy 88, though we visually only confirmed two fiber lines which we're told belong to AT&T and Volcano).

Comcast intends to serve the project site via a feed south from Highway 49 and the Ridge Road intersection to the main project entry. It also has a conduit system on Bowers and Valley View as an optional feed to the project.

The Comcast representative we dealt with indicated their plan is to serve the development with the complete triple play (dial tone, video and internet). It expects to have dial tone (voice over internet) up and running to the area this summer, so it should have ample time to work the bugs out before the site is ready for service. So it appears we will have two (AT&T being the other) full service telecommunications providers competing and serving the project.

Summary: From a utility perspective we like it, and we're not anticipating any cost prohibitive challenges in serving this development. The utility companies already have distribution facilities in the general vicinity of the project with the idea to improve their existing facilities, so we have ready sources of gas, electric, telephone and cable television to extend from.

The most significant concern we have is the possible relocation costs associated with the gas transmission main and the regulator stations along Ridge Road, which could be considerable for a project of this size. Again, do everything in your power to avoid having to relocate them and be sure to reference any possible relocations in the EIR.

The fact that AT&T has fiber upgrades in the works is good news for the project. And if AT&T is able to provide FTTP service we discussed that is even better. We also like the fact Comcast is on the verge of offering a wide array of fiber based services. Two competing fiber providers serving the project is excellent news indeed.

Of course, we anticipate the usual challenges – construction near, under and around PG&E a natural gas transmission main facility, conversions of existing overhead facilities to underground, etc., etc. But with the one exception noted above (the potential gas relocations), extension costs should fall within the normal ranges for a project of this magnitude.

Finally, these are just our initial observations and concerns based on two site visits to the project and one meeting with the utility companies. Once improvement plans are available we will want to start the formal investigation processes.

Should you so desire, I would be happy to meet with you and the team to review and discuss the issues presented.

Best Regards,

Gary Krause