

City of Sonoma's Syndeo Vault Recommendation – Verizon Feedback Analysis Below

Note the Original Vaulting Analysis is applicable.

From: "Bascom, Jerry" [REDACTED]

Date: Friday, June 7, 2019 at 3:16 PM

To: [REDACTED]

Subject: Fwd: Sonoma Response to Vaulting - Action Required

*I just finished my discussion with Scott here are my findings*

*Pro*

1. *Environmentally controlled*
2. *If the vaults leaks, the equipment contained therein is damaged Syndeo will replace it*
3. *If the water sensor trips Syndeo will send out techs to fix it. Need to set up contractors in CA*
4. *Low Maintenance*
5. *H2O load rated vault lid*

*Cons*

1. *Sites Built So far - As of today they have only built 2 sites in Austin Texas. And five sites being installed in Virginia this summer. So not a very good track record*
  2. *TCP - this site will take about 2 weeks to construct with lane and sidewalk closures.*
  3. *Could house batteries - All depends on the cooling system. With vents it could but then you would have noise and vents sticking up in the sidewalk. With Geothermal cooling no batteries can be installed.*
  4. *Do we have Sufficient Sidewalk Space for the vault and construction? Depends on the width of the sidewalk. We would need approx 10-20 ft in length and 6-7 ft width. The design that was presented will not work for us as they are not using the correct 4G equipment. The dimensions would need to be increase both width and length and depth.*
  5. *Underground Infrastructure Interference - this would still need to be avoided*
  6. *Tree root Interference this would still need to be avoided*
  7. *Waterproof - I have seen a lot of vaults that are supposed to be waterproof with water in them. This could be due to many things including the rise in the water table, bad seals, and cracks in the vaults.*
  8. *Flooding - Always and issue with equipment on or in the ground.*
  9. *Noise - Limited noise with the Geothermal. With the vents we will have some noise. No data at this time.*
  10. *Construction Impacts - The sites will take longer to build with sidewalk and street closures. Cost will increase. See below*
  11. *Limitation on future development both for equipment changes and for subsurface infrastructure for the city*
  12. *Disconnect and meter must be on the pole or power pedestal per PG&E*
  13. *LAA, CBRS, and future 5G needs to stay on the pole so a vault will not work*
  14. *Maintenance - limited so this may be good thing, per Syndeo.*
  15. *The drawings - Equipment required for 4G is missing so the vault will need to be larger*
  16. *Coax that needs to be installed will be 8 - 1/2" or 7/8" which will cause the foundation to be replaced. We would need to verify if the pole will accept the required Coax. Pole may need to be replaced.*
  17. *Geothermal cooling loop is approx 180 feet deep Cost is dependent on local conditions. Could have environmental issues with removal of the soil*
  18. *Cost is \$30k as the estimate for Austin and they did not include any pole/foundation work. I was told that the material would be approximately \$20k. New foundation for the pole to run the larger conduit will run around \$20K, GC cost for Austin will be about \$15k, so for the Bay Area, I would increase that to about \$22.5k. So an approximate cost would be about \$60k+Geothermal cost for a steel pole.*
  19. *Estimate construction time is 3 weeks with pole and foundation work, vault installation, equipment installation.*
- Please call me if you have any questions,*

*Thanks,*

*Jerry Bascom, P.E.  
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