

Scope of work for job:

*1) Test mount TV antenna/check wires: mount if reception good.*

**-result A:** Found multiple old dish network antennas on roof and places to mount antenna; test mount / signal reception test resulted in poor reception; project halted.

*2) Open all house outlets and fixtures to check for loose connections/dangerous splices;-see pic; fix as needed.*

**-result A:** Living room dimmer respliced, dining room dimmer replaced & respliced.

**-result B:** Opened everything but newish work in garage: all ok wiring wise but many outlet boxes in house / outlets fitting / seating is crumbly/loose: Necessitates more finishing work then there could be for any that are replaced. Most old boxes are metal as well, and ungrounded. Recommend grounding. Much more old wiring found then expected.

**-result C:** Found 2nd Subpanel ( old ) in garage with lots of old wiring; partial locator test of its circuits revealed it's mostly serving garage. IE time to completely isolate each circuit not allocated.

**-result D:** Finding of 2nd Subpanel necessitated inspection of main panel: discovered that apparently approximately 1/3-1/2 of house is running from old 30amp shared neutral breaker. Please google the phrase " Shared Neutral " or speak to your electrician. This breaker / circuit should be replaced / repulled. Not a recommended configuration for modern day electric use / circuit design. Can result in overload to neutral, not good when combined with old wires. Speak to an electrician; here's a link if you are curious now....

<http://www.google.com/url?sa=t&rct=j&q=shared>

[%20neutral&source=web&cd=2&cad=rja&uact=8&ved=0CDMQFjAB&url=http%3A%2F%2Fstatic.schneider-electric.us%2Fdocs%2FCircuit%2520Protection%2FMiniature%2520Circuit%2520Breakers%2FArc%2520Fault%2520Circuit%2520Interrupters-AFCI%2F0760DB0203R902.pdf&ei=6z6CU4fjC8TvoATr0ILQCg&usg=AFQjCNG8wV-QG3tr3UXmLMhJZMR-zPDMNQ](http://www.google.com/url?sa=t&rct=j&q=shared%20neutral&source=web&cd=2&cad=rja&uact=8&ved=0CDMQFjAB&url=http%3A%2F%2Fstatic.schneider-electric.us%2Fdocs%2FCircuit%2520Protection%2FMiniature%2520Circuit%2520Breakers%2FArc%2520Fault%2520Circuit%2520Interrupters-AFCI%2F0760DB0203R902.pdf&ei=6z6CU4fjC8TvoATr0ILQCg&usg=AFQjCNG8wV-QG3tr3UXmLMhJZMR-zPDMNQ)



3) *Cover and reseal loose kitchen outlet. Test if served by GFCI.*

**-result A:** Reseating and covering done. Further work will require cut in and shimming and plenty of finish... Drywall crumbly. Fail GFCI test--not connected to GFCI by sink. Needs to be replaced with GFCI or connected to existing GFCI by sink.



4) *Convert living room outlet box that I covered and removed junk from on first visit with dual duplex ( 4 total ) outlets. Necessitates id'ing circuits from kitchen sub panel with a eye to load management. Had found Romex run that went almost all the way to outlet install point under house and appeared to be in bundle going into kitchen Subpanel.*

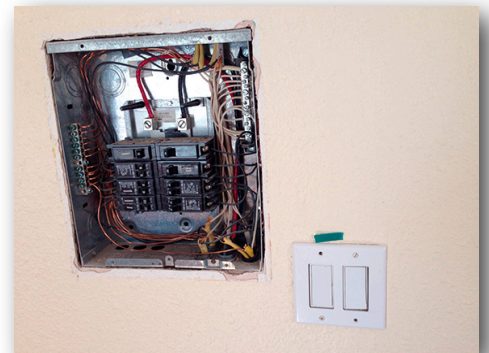
**-result A:** Romex run found to end short of kitchen Subpanel: see pic, I pulled it out. Necessitated work to find alternate solution with existing circuits to avoid opening kitchen wall.



**-result B:** Kitchen Subpanel discovered to be doing relatively little relative to wiring of rest house; please refer to **results 2C and 2D**. Breaker labeling not accurate for Sump pump and Furnace, relabeled.

5) *Convert kitchen light switch to dual duplex one switch and one outlet. Necessitated inspection of wire routing and box and availability of neutral. un id'd wires present.*

**-result A:** Drywall crumbly, necessitating more than avg finish time. Switch part of 3 way system with switch on wall near kitchen subpanel. locating neutral not performed.



### **Summary:**

**In order to power living room outlet one new circuit is an option.**

**In order to complete item 5 neutral must be id'd, pulled, found. 3 way system needs to be managed properly. More id work necessary.**

**Recommend partial house rewire, replace main panel. Load balance to / with kitchen Subpanel.**