A number of strategies which mitigate exposure to environmental toxins are brought together to provide an urban refuge from air and electro pollution. Reversing the conventional morphology of Toronto’s most prevalent condition, the suburb, the program is separated into mechanical support at the street and dwelling at the back of the property, where magnetic field exposure from power distribution lines (extremely low frequency EMR) and air contamination from passing cars is reduced. Solar power collection (DC current), AC to DC current inversion (from city supply) and all other electro polluting processes occur in the support building. DC power, conditioned air and water are supplied to the dwelling below grade.

The conceptual model for the dwelling is an “umbrella” which protects its occupants from surrounding wireless communication networks. The upper envelope, a mirror clad insulated magnesium concrete shell, both reflects and absorbs microwaves (cell phone frequencies). Glazing filters as well as dense tree planting block signals at ground level. Since microwaves are thought to stimulate a stress response in the body, preventing the deepest and most reparative stage of sleep (Delta sleep), with potential effects of accelerated aging and early onset of age related disease, the sleeping quarters are the most intensely protected areas.
Saltwater pools and concrete floors provide a grounded conduit to normalize electrical charges in the body. Since wireless devices would simply intensify signals to penetrate the shielding, a docking system allows for continued use through hardwired terminals.