

Sustainability

Environmental

Optimal use of Natural Organic resources developing reciprocity between environment and inhabitants.

Social

Education/training of all end users, providing sustainable reciprocity of inhabitants and environments relationship. Community gathering locations bond fires, designated yoga and free fitness/aerobics park/section. Events and festivals to maintain awareness and contribution to optimal success of system.

Durable

Planet preservation low carbon foot-print minimizing maintenance and reconstruction with room for expandability.

Introduction to Vision

Buildings too, are children of Earth and Sun. -- Frank Lloyd Wright--

We are approaching Montpelier from a retrofit perspective to preserve its organic, sacred appeal, while matching it with a balance of Hybrid designs. Each application will be sealed envelopes, reciprocating energy to its surroundings as would a plant in nature. We aim to make use of upcycling building materials for interior design as well as exterior design i.e. the **Student Dorms** are made using stackable shipping crates equipped with the retrofit kit, playing their part in minimizing the CO2 footprint. The **Retrofit kits** are to be implemented into every structure, making them all more efficient while paying it forward through creating more jobs and producing clean energy.

Redirecting and Recycling Energy

- The **Solar Panel Farm** is created based on the Nellis Solar Power Plant model located in Nevada using ground-mounted solar system employs an advanced sun tracking system, designed and deployed by SunPower. It produces over 32GW hours since going online providing over 25% of energy used for its application.
 - For residential and commercial upgrades, each facility will implement the “**Retrofit kit**”
 - With use of water towers, implement Heat Recovery technology for large dwelling units i.e. Hotels-Apt-Dorms-Gyms-Rec Centers. Windows collect BTUs and redistribute it to heat water.
 - Reclaiming hot water heat from chiller tower, use rejected heat and insert into water stream to serve for hot water through electric reheat Rain reclamation systems for park reservation/gardens and indoor agriculture
 - Hydronics loop melting snow on roofs to collect water and route to reclamation tanks.
 - Farmers Market will host vendors and food carts in a retrofitted warehouse space that also is home for farm-to-table restaurants, a courtyard with vertical and traditional agriculture, and an urban grow-room (vertical farming).
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Highlights

Farmers Market: innovative hybrid, tastefully mixing tradition and technology!

Shared Work Space: the UNITY in community!

Multi-Level Family Rec-Center: awesome fusion of entertainment family fun and education!

Transportation

- 100% Electrical cars are the only personal vehicles allowed in the city zone as well as “Go Vermont!” carpool vehicles that comply with energy regulations. A special pass/permit will be required for compact parking spaces/passenger unloading zones. There will be shuttles that provide transportation to pedestrians to get them throughout the district, balancing light rails with precise routes for more rapid experience. Offsite commuter parking lots outside of city district will be shuttled into downtown or carpooled. Widen bike lanes to accommodate influx of biking throughout district.
 - The Bike Stations are available 24hrs at the entrance and exits of the district as well as all throughout the district so that users can grab and go from anywhere; similar to employees and Google Headquarters. And when you are finish, just park it in the convenient bike racks located outside of every building and along the park/recreation trails. Reps will assist with maintaining even distribution of bikes availability.
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Fun and Affordable

Outdoor Parks and Landscaping

- Skate Parks (2) locations throughout district; can be converted to Snow Park during winter.
- **Gardens and Plant Life preservations**, art sculptures, small sitting areas with mini outdoor stage for small functions and gatherings. Increase in plant life will assist with reducing CO2.

New Development Commercial and Public Facilities

- **Affordable Living** units and **Elderly Suites** are “Plug and play” insulated shells and cargo crates, using energy efficient components from **Retro fit kits**. Essentially all buildings, old and new will use kits; number and type of components will vary by case. Also explore eco cost effective materials such as hemp plant based brick/mortar, chill water towers, and geothermal plant.
 - **Bookstore with performing Arts Center** has organic café inside with specialty drink options.
 - “Farm to Table” restaurants and food cart/mini car vendors designated areas (instead of trucks)
 - **Multi-Level Family Recreation Center** will be similar to YMCA or BGClub; facility provides afterschool programs, fitness, library, and arcade. Recreation will consist of tennis, basketball/volleyball, indoor pool and skate-park and driving range on the roof accompanied by green roof vegetation and solar power technology. Cafeteria serves (fruits and veggie based menu) from local farmers and gardens.
 - **Science Center** will host traveling exhibits but will be anchored by a cutting edge, hands-on astronomy program.
 - **The Shared Work Space** will operate similar to the inclusive, co-working facility in Oakland, Ca. The Impact Hub. Shared work space minimizing overhead allowing companies and entrepreneurs to rent space as needed, essentially networking and influencing partnerships to transform ideas and business.
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References

- <https://netzerovt.org/resources/>
 - <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>
 - <http://www.skepticalscience.com/co2-plant-food.htm>
 - http://www.brainyquote.com/quotes/authors/f/frank_lloyd_wright.html
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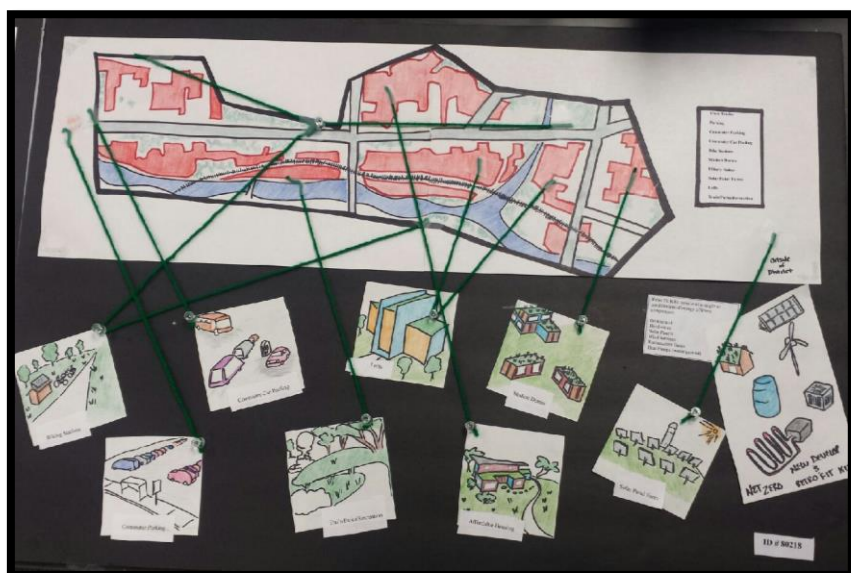
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District Map



POI Map



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