Reference Design v. 0.31

Purpose: to abundantly support a US population of 545,000,000 and world population 10,000,000,000 while ending the 6th extinction.

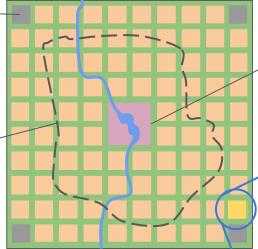
Eden·i·city (noun) 1. an eden-like city. 2. A measure of economic + ecological abundance.

> The City Car-free. Food secure. ~34 km across. 5,400,000 people.

Grid varies by topography.

Industrial District. Logistics, parking, warehousing, solar power, sewer, recycling. Zero-waste industry. Air, rail, road, hyperloop connections.

I-270 loop for scale (Columbus, Ohio, ~26 km 880,000 people). Typical trip: 20-35 minutes.



Village (600m; 6,000 people)

Permaculture Zone 1:

Aquaponic roofs

Sheltered bikeways with transparent photovoltaic roofs link all villages and towns.

Village Square with loop station.

Underground Loop Transit

unmetered, on-demand,

minutes to city center.

connects every village. Free,

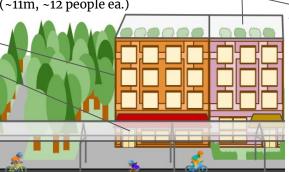
nonstop. Longest commute: 4

Permaculture Zone 3 (127m) Broadacre crops, food forests,

animal grazing & browse, ponds

Townhouses

(~11m, ~12 people ea.)



Hyperloop Connects cities. Average trip: 290 km, 17 minutes, \$13. Underground for durability, ease of permitting and to let habitats knit back together.

> Edenic cities occupy 1.4% of the land.

Permaculture Zone 5: wilderness occupies 98.6% of the land in conservation trusts. Restoration of wetlands, forests and grasslands sequesters carbon 4x faster than global per capita emissions.

Downtown 6.8 km. 432,000 people. Loop/Hyperloop stations, high-rise buildings, universities, hospitals, archives, offices, convention centers, arenas, parks, museums, shopping.

Town 2.7 km; 54,000 people, 8 villages plus a

Town center with schools, parks, mediumrise buildings; ≤10 minutes by foot+bike from every door.

Permaculture Zone 4:

Managed Woodlands (760m wide) Wide range of forest products. Fire-resistant species. Water-buffering earthworks. Recreational trails.

Block (120m; 250 people)



Permaculture Zone 2: Orchards, hedges, varied amenities (e.g. 50m natural lap pool, picnic shelters).

Footpaths

480 bike lockers along

sheltered bikeway

Sheltered bikeway.

storage.

~3 residential

Ground floor

cafe, shop, etc.

On-site energy

floors.