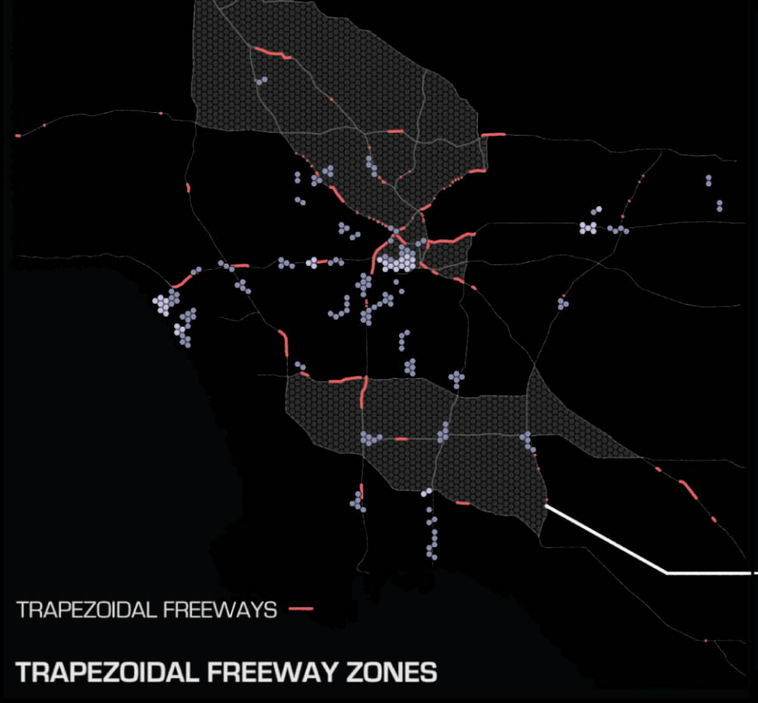
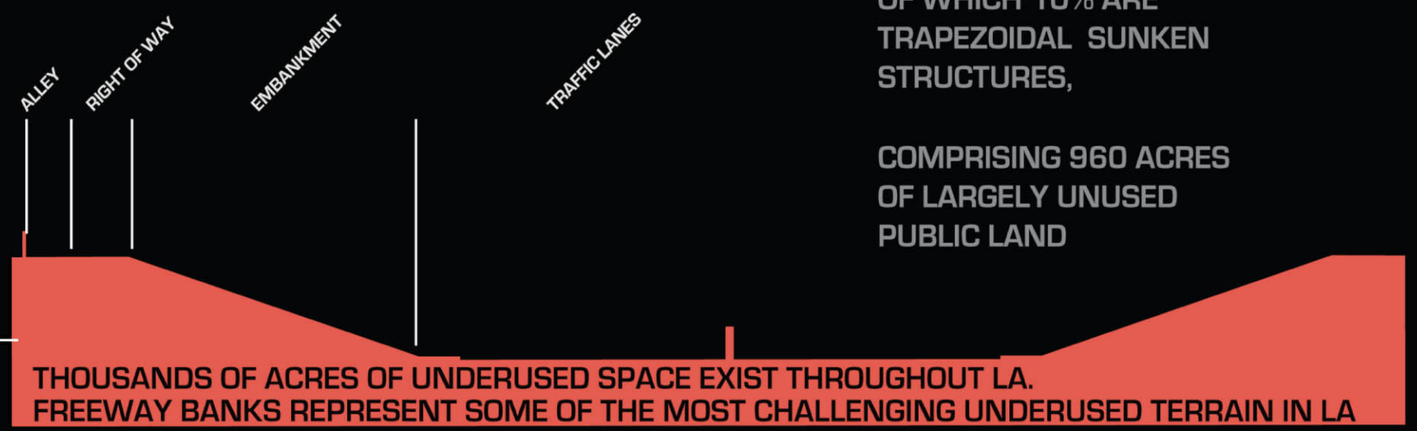
Despite the fate of suburbia, existing networks of infrastructure will likely continue to play a central role as an armature for future patterns of private and public development. This adaptive strategy is capable of transforming interstitial infrastructural sites into vibrant corridors of economic, cultural, and natural amenity. It is a strategy that pays for itself, requires no new technologies, and is minimally invasive, leaving existing freeways and surrounding neighborhoods intact.

TRANSPORTATION



TRAPEZOIDAL FREEWAY ZONES

THOUGH THE PROPOSED SYSTEM IS ADAPTABLE TO MANY SITE CONDITIONS: VACANT LOTS, HILLSIDES, RIVER EMBANKMENTS, UNDER FREEWAYS....WE HAVE CHOSEN TO FOCUS ON THE ONE OF THE MOST CHALLENGING INFRASTRUCTURAL TYPES



LA COUNTY CONTAINS 527MI OF FREEWAYS,

OF WHICH 10% ARE TRAPEZOIDAL SUNKEN STRUCTURES,

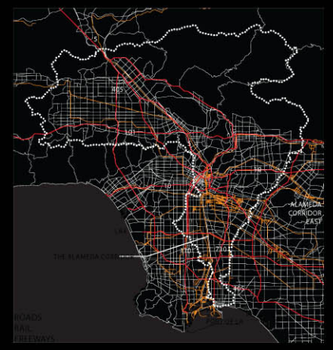
COMPRISING 960 ACRES OF LARGELY UNUSED PUBLIC LAND

THOUSANDS OF ACRES OF UNDERUSED SPACE EXIST THROUGHOUT LA.
FREEWAY BANKS REPRESENT SOME OF THE MOST CHALLENGING UNDERUSED TERRAIN IN LA

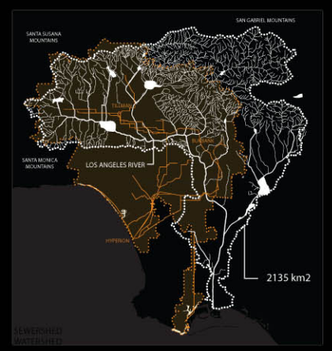
INFRUSTRUCTURE

In the face of current economic, social and ecological realities, it is now both possible and necessary to facilitate the development of alternative, emergent, and sustainable economies in the ever densifying urban centers of the world.

WASTE



WATER

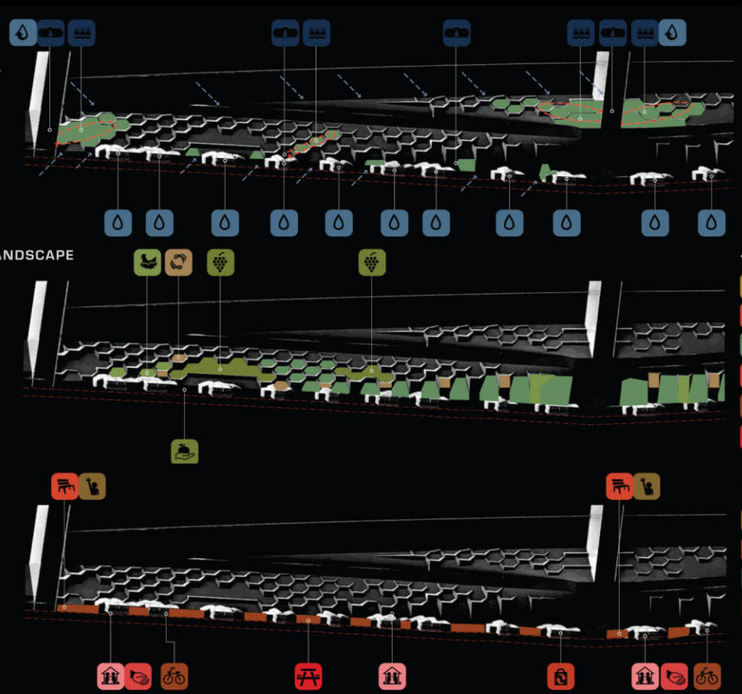


Terrabanks are capable of facilitating a wide range of landscape and program types and can be deployed using phased development strategies and dynamic land uses that respond and adjust to existing climatological, topographic, demographic, economic and local site conditions. As a Terrabank grows more productive and dense over time, its fate rests on its ability to establish strong cultural and economic ties to its host community by providing inclusive and valuable amenities, public spaces, and economic opportunities for local residents. 35% of the project area is fully ADA accessible.

WATER
- CISTERN
- WATER TREATMENT TERRACES
- DRINKING WATER TANKS
- WATER RECYCLING

PRODUCTIVE LANDSCAPE
- AGRICULTURE/ PERMACULTURE
- FARMERS MARKET
- FARM ANIMALS
- VINEYARD
- COMPOSTING SITE

FACILITIES
- COMMUNITY BUILDING
- ADMINISTRATIVE BUILDING
- PUBLIC SPACE
- SHOP/MARKET
- BICYCLE REPAIR
- COMMUNITY DINING
- VOLUNTEER SITE

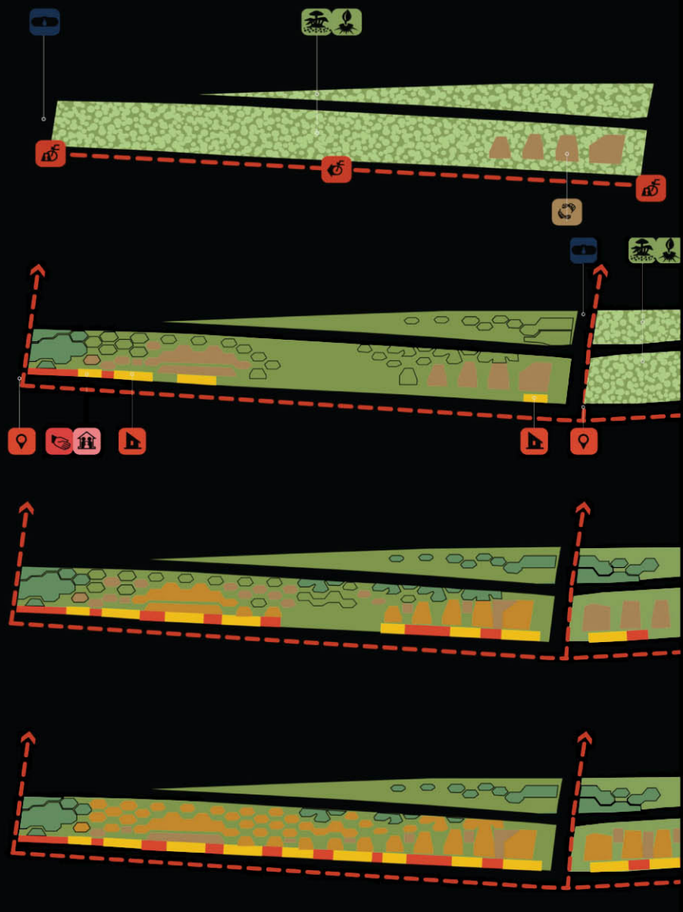


T-1
- SOIL RESTORATION BY MICHORHYZAL INOCULATION
- PHYTO REMEDIATION CLEANS METALS + CHEMICALS
- INSTALLATION OF STORMWATER STORAGE CISTERN
- ESTABLISH BIKEWAY @ EXISTING ALLEY
- BICYCLE PARKING
- COMPOSTING SITE

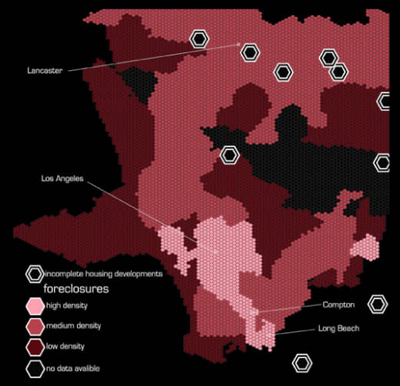
T-2
- ADMINISTRATIVE BUILDING + SERVICES ESTABLISHED
- PIONEER DWELLING PODS ESTABLISHED
- HEXA-GRID WATER QUALITY TERRACING ESTABLISHED
- NEW BUS STOP
- INSTALLATION OF 2ND STORMWATER STORAGE CISTERN

T-3
- AGRICULTURE CULTIVATION BEGINS
- SECONDARY DWELLING PODS
- HEXA-GRID CONTINUES
- PUBLIC SPACE
- BICYCLE REPAIR
- COMMUNITY DINING

T-4
- AGRICULTURE/PRODUCTIVE LANDSCAPE COMPLETE
- HOUSING COMPLETE
- HEXA-GRID COMPLETE
- SHOP/MARKET



RE-USE

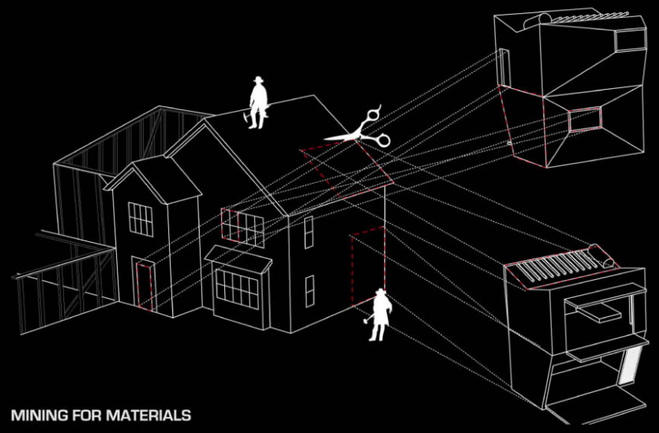


FORECLOSURES IN L.A. COUNTY - JUNE 2009

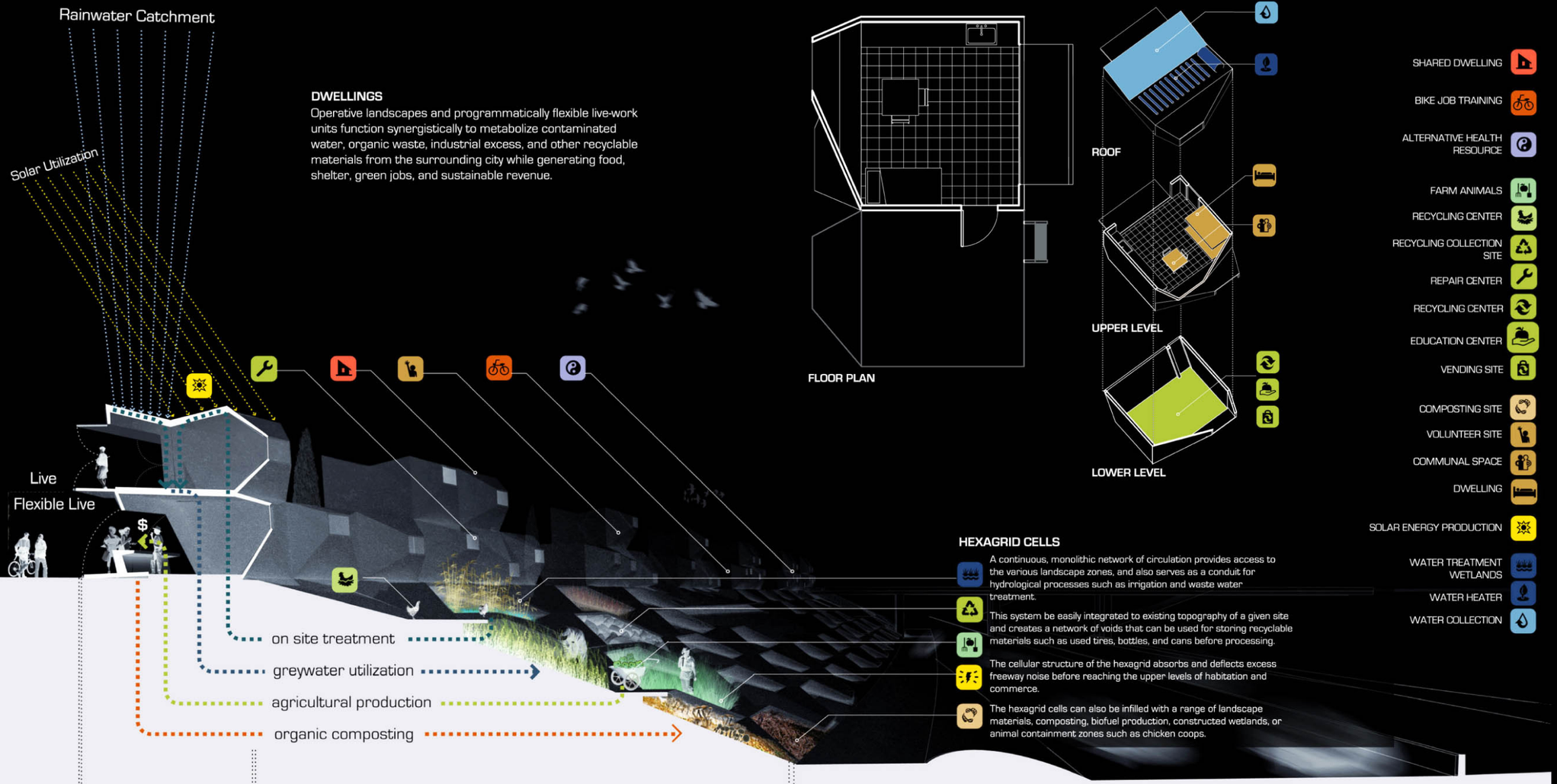
MEANWHILE, DOZENS OF INCOMPLETE HOUSING DEVELOPMENTS, STOPPED MID-CONSTRUCTION, DOT THE SOUTHLAND, FUTURES UNCERTAIN, EXPOSED MATERIALS SLOWLY DISINTEGRATING

MATERIALS

As outlying sub-urbs fall further into foreclosure and disrepair, their building materials are salvaged and grafted within the structures of the Terrabank, thus minimizing construction costs, and the need for raw material inputs.



MINING FOR MATERIALS



DWELLINGS

Operative landscapes and programmatically flexible live-work units function synergistically to metabolize contaminated water, organic waste, industrial excess, and other recyclable materials from the surrounding city while generating food, shelter, green jobs, and sustainable revenue.

FLOOR PLAN

HEXAGRID CELLS

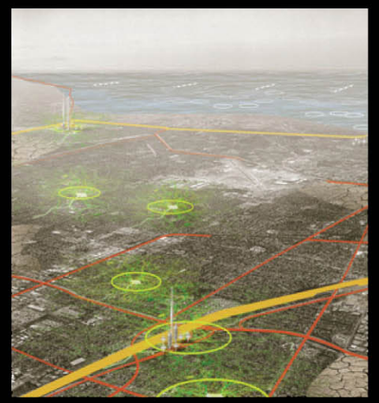
A continuous, monolithic network of circulation provides access to the various landscape zones, and also serves as a conduit for hydrological processes such as irrigation and waste water treatment.

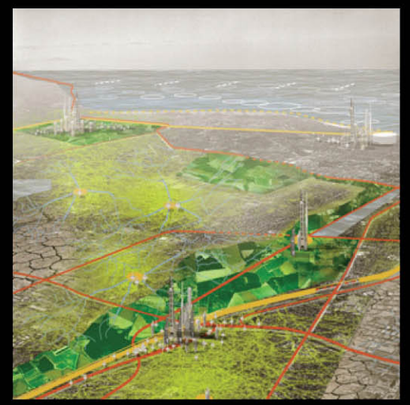
This system be easily integrated to existing topography of a given site and creates a network of voids that can be used for storing recyclable materials such as used tires, bottles, and cans before processing.

The cellular structure of the hexagrid absorbs and deflects excess freeway noise before reaching the upper levels of habitation and commerce.

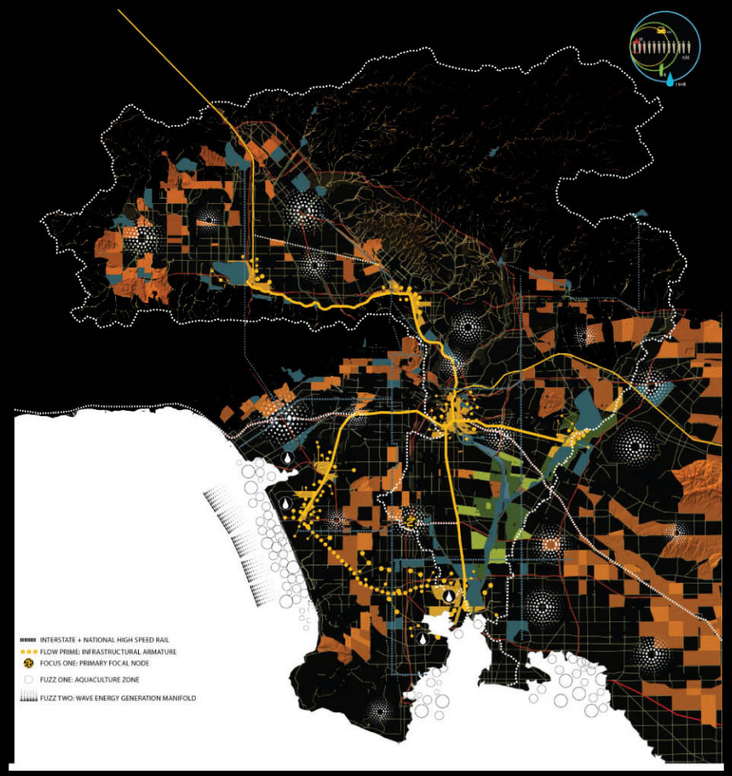
The hexagrid cells can also be infilled with a range of landscape materials, composting, biofuel production, constructed wetlands, or animal containment zones such as chicken coops.

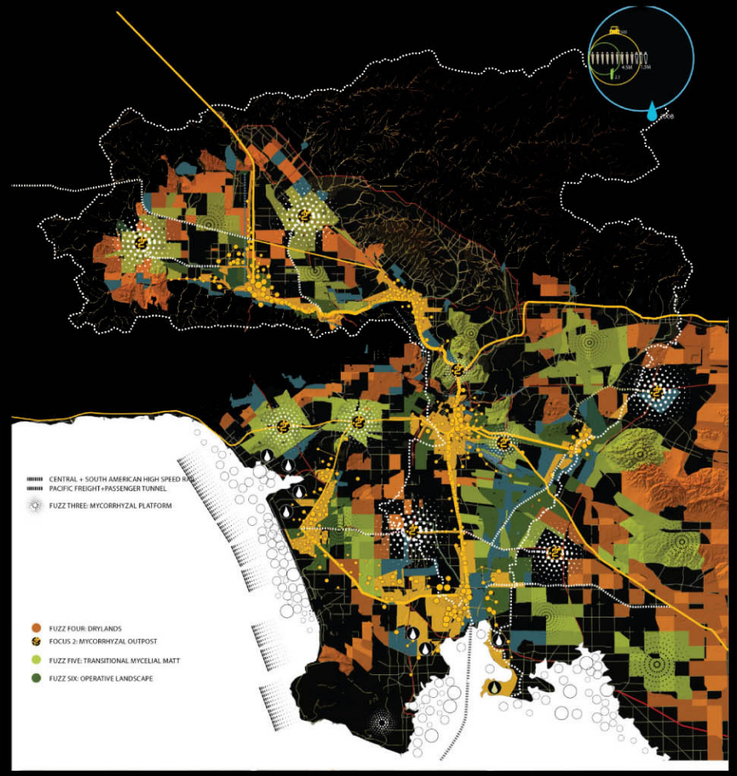
SHARED DWELLING
BIKE JOB TRAINING
ALTERNATIVE HEALTH RESOURCE
FARM ANIMALS
RECYCLING CENTER
RECYCLING COLLECTION SITE
REPAIR CENTER
RECYCLING CENTER
EDUCATION CENTER
VENDING SITE
COMPOSTING SITE
VOLUNTEER SITE
COMMUNAL SPACE
DWELLING
SOLAR ENERGY PRODUCTION
WATER TREATMENT WETLANDS
WATER HEATER
WATER COLLECTION

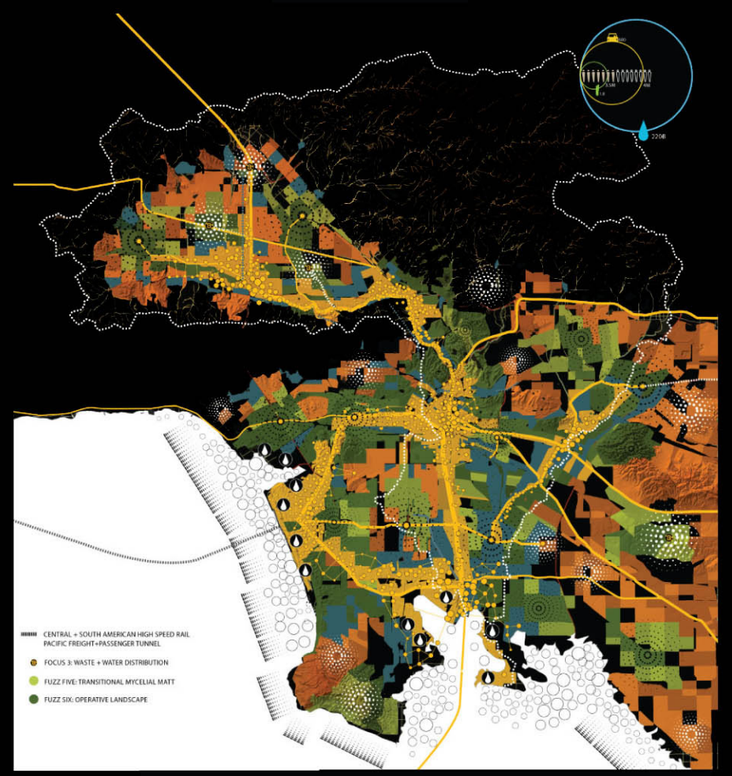


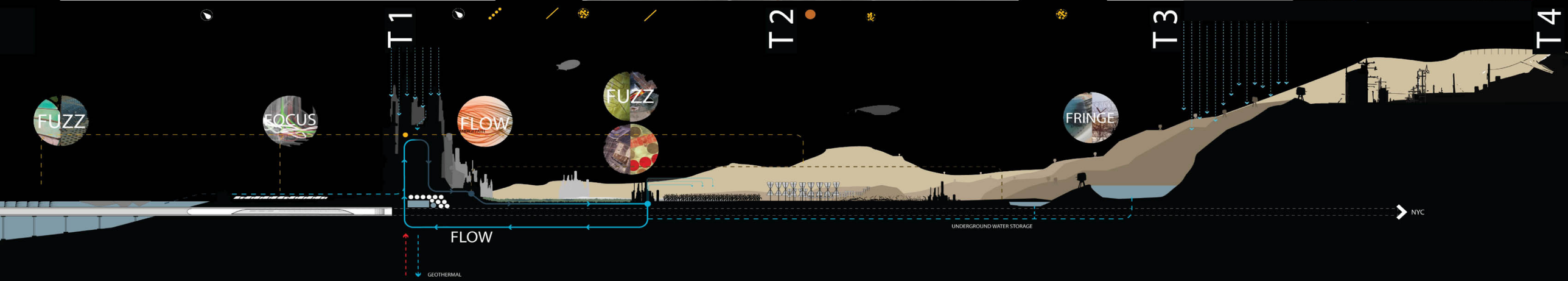


Strenghtened Transport Network
Terrabank Community
Productive Open Space A
Productive Open Space B







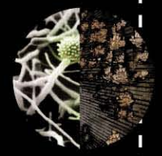


Flow begins as an infrastructural armature, giving rise to dense vertical habitation. This common hybrid infrastructure of vascular networks will emerge in alignment with the existing stormwater, transportation, power and sewage networks, with subterranean networks of tunnels serving as both conduits and water storage in impermeable and contaminated zones. Flow will serve to process human and industrial waste through mechanical and natural filtration, and then bank water into aquifers. It will also serve to convey materials, goods, and people through integrated tubular networks that will exist both above and below ground. Strategic integration with a global subterranean high speed rail network allows L.A. to maintain and expand its industrial base while becoming a vibrant employee outpost for a globally mobile workforce.

AMID THE RUBBLE

The continuing forces of economic and seismic instability diminish L.A.'s ability to support its periphery, resulting in the redistribution of many urban populations within zones of existing infrastructural confluence (primary nodes). No longer obsessively maintained, abandoned enclaves begin to succumb to an inevitable process of succession, urban mining, and desertification.

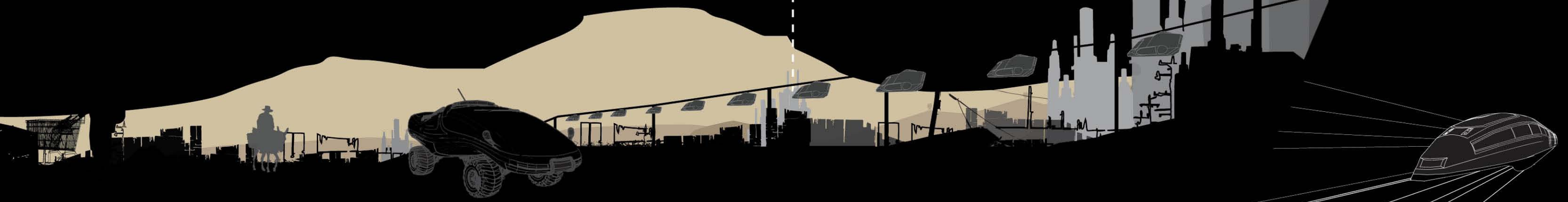
Focus represents the concentration of populations along bundled flow networks. Horizontal geographies of low density sprawl and individualized transportation dependency will be supplanted by vertical and subterranean collective zero-waste regions. A metabolic, 'no-waste' urbanism will capture, mine, and reuse all available resources. These new architectures will also include vertical agriculture, wind harnessing, solar towers, and photosynthetic energy generation. The southern and western portions of the armature will primarily serve as the locus for energy generation through off shore wave and tide power systems, and desalination. The northern extents will primarily function in large scale water capture, treatment, and storage.



EAT ME

In an effort to abate the encroaching desert and in anticipation of future land uses, L.A.s already deteriorating interstitial enclaves are strategically inoculated with the spores of voracious fungal strains, which thrive on the wood cellulose of aging structures, decomposing the acres of single-family homes to make way for future operative landscapes.

Fuzz represents the vast areas of land that will be needed to capture, detain, treat, and infiltrate stormwater, as well as productive regions for energy generation and agriculture. A mycorrhizal inoculation campaign will be deployed to remediate soil, eliminate decaying urban fabric and act as a gateway species for the emergence of productive landscapes such as: reservoirs and injection galleries, agricultural fields, algal energy generation fields, waste treatment fields, and aquaculture zones.



At the extremities of the infrastructural armature, mined abandoned enclaves become desolate no mans land awaiting absorption into the flow or inoculation.

MODE 4

_ scavengers / drifters / nomads

Mode 3 provides for movement within smaller areas which are often definable neighborhoods and which may be bound by modes 1 and 2. The typology of vehicles within mode 3 operate on the surface and include personal and public rapid tranist.

MODE 3

_ low density population

An offshoot from the Flow network, Mode 2 provides for movement within the larger subareas bound by the Flow through an elevated tram system. Mode 2 also serves through traffic but provides more direct access to abutting land uses than the Flow.

MODE 2

_ medium density population

Operating within the Flow and a key component of the bundled infrastructure, mode one is a high speed Maglev rail network that allows for movement across and between large subareas of urban regions.

MODE 1

_ high density population