

MANCHESTER DISTRICT SUSTAINABLE 2060 VISION

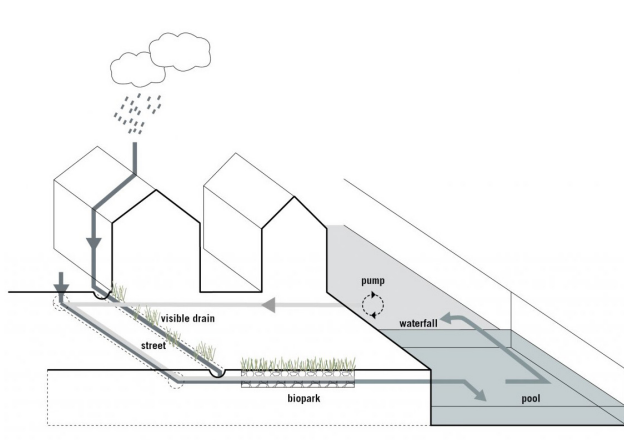
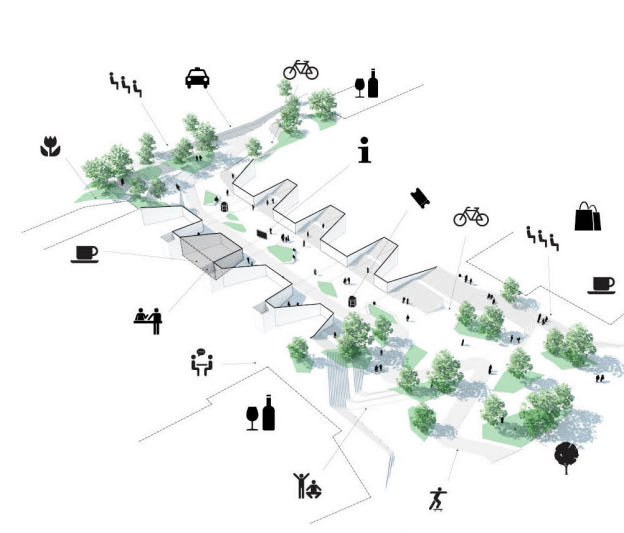
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In our masterplan vision for Manchester 2060 we have maintained the existing block structure in order to limit waste and respect the environmental process through material re-use. The existing block structure is then broken down further into a new grid that is more human-friendly in its scale. The existing three major thoroughway roads will be redeveloped to better accommodate alternative modes of transportation, such as bicycling, pedways, and street-cars. The creation of new green spaces was done by utilizing some topographical features offered by the bluff and providing further connectivity to green space surrounding the urban agriculture industrial zone via a green belt thoroughway. The road network utilizes the existing infrastructural grid where possible to allow for previous light industrial activities to continue to occur, while also retrofitting new building typologies to match the parcel shapes and lot orientations. The decision to cluster residential mixed use along the red line LRT stations was done to ensure TOD standards are met as per the MDP and CTP future intensification targets. In order to attract future families into the area, some low density residences were designed into the future plan. These areas will be low density by 2060 standards which we predict to be 20 du/acre up 8du/acre from 2019 minimums.

Under this new vision for Manchester areas are well connected by greenbelts and active transportation, the built environment consists of human-scaled forms with sustainable ecological features, and the light industrial activity will work to capture, redirect, and utilize material flows and sustainable energy sources. In 2060 Manchester will be the ultimate post-carbon complete neighbourhood, acting as a new kind of precedent for neighborhood planning in Calgary and abroad.



PRECEDENTS



Precedent 01 : Roskilde Station Area, EFFEKT

How to utilize existing transportation infrastructure to revitalize an area

- Scalable design elements:
1. Transforming transportation stations into hubs for urban activity & mixed uses
 2. Creating major connections in the area with green belt pedways
 3. Mixed use along train line includes retail, offices, and residences

<https://www.oeffekt.dk/ros>

Precedent 02 : Singapore's Vertical Farming

How to serve an dense area with little available land

- Scalable design elements:
1. Vertical farming generates significantly higher yields than traditional farming
 2. System runs on gravity aided pulley system fed by storm water
 3. Storm water and composted organic waste as plant food source

<https://permaculturenews.org/2014/01/25/vertical-farming-singapores-solution-feed-local-urban-population/>

Precedent 03 : Deutzer Hafan, COBE

How to capture and reuse storm water

1. Storm water collected and filtered through integrated water handling system
2. Using excess storm water and waste heat in the area to create a public pool
3. Waste water also used to water biopark

<http://www.cobe.dk/project/deutzer-hafen>

MANCHESTER DISTRICT DESIGN INTERVENTION

MAIN ELEMENTS

INFRASTRUCTURES

- URBAN AGRICULTURE
- STORM WATER CAPTURE
- SOLAR ENERGY

STREETSCAPES

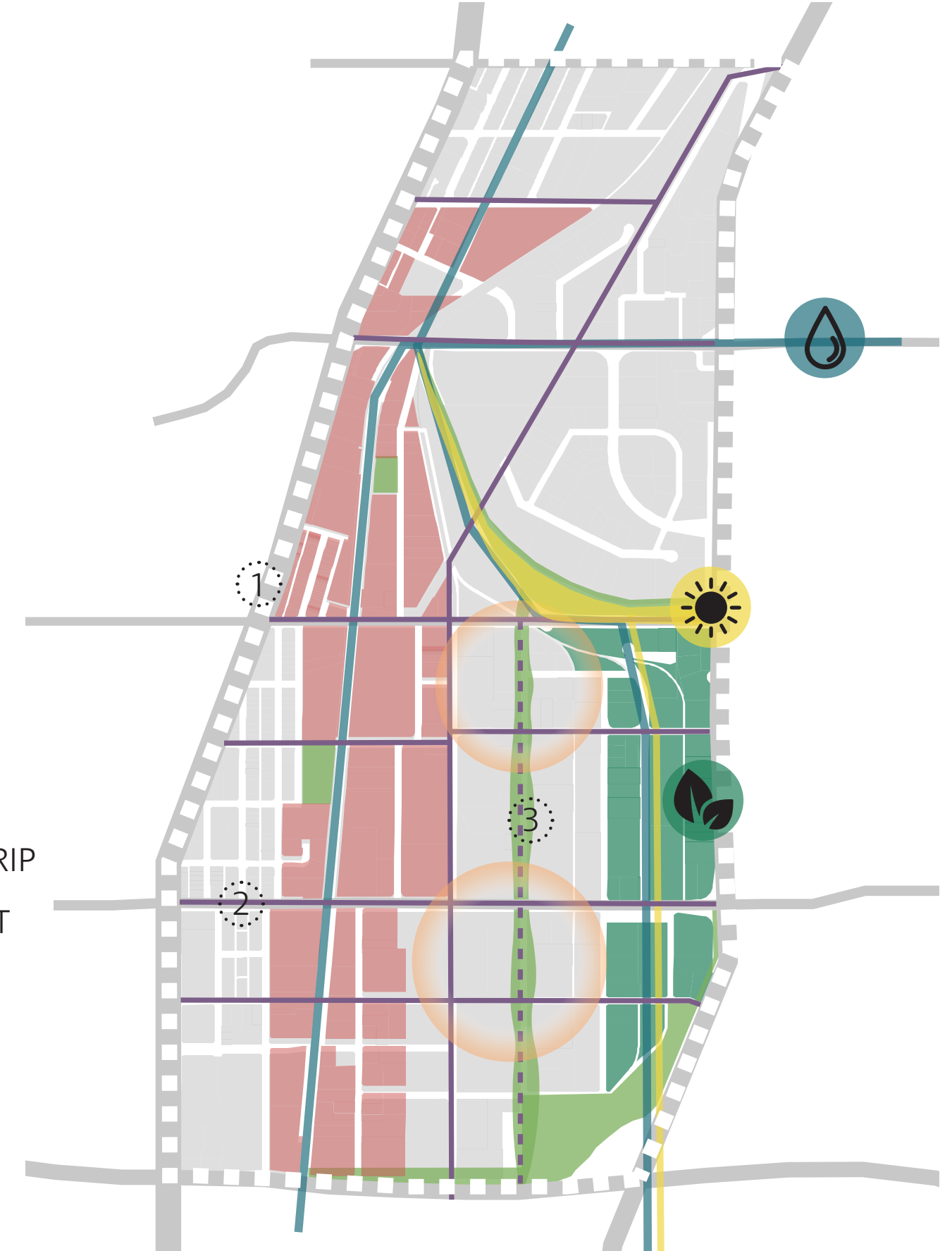
- ARTERIAL
- COLLECTOR
- LOCAL

LAND USE & POPULATIONS

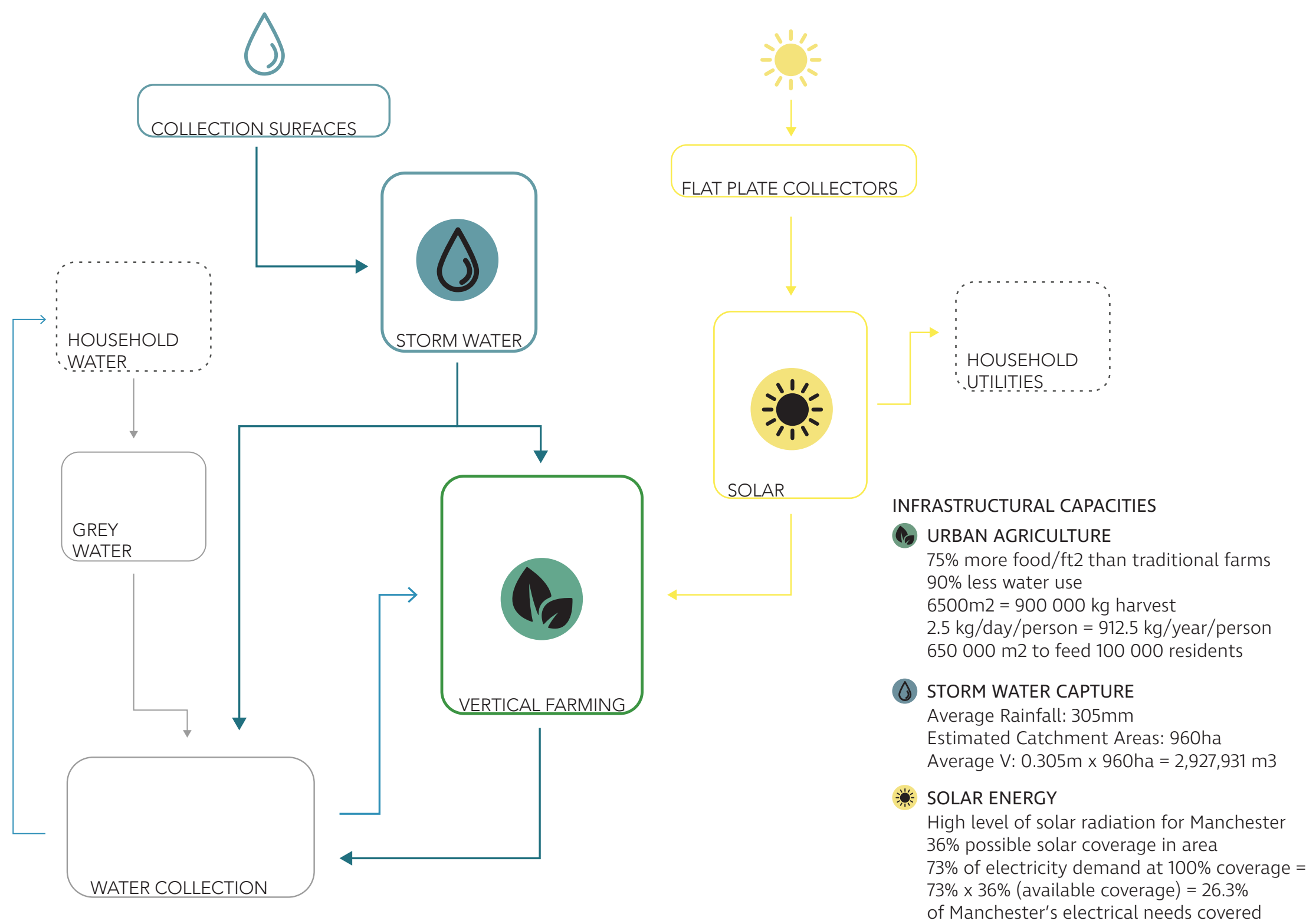
- FAMILY FRIENDLY ZONE
- MIXED USE & AMENITIES STRIP
- GREEN SPACE & GREEN BELT

TRANSIT

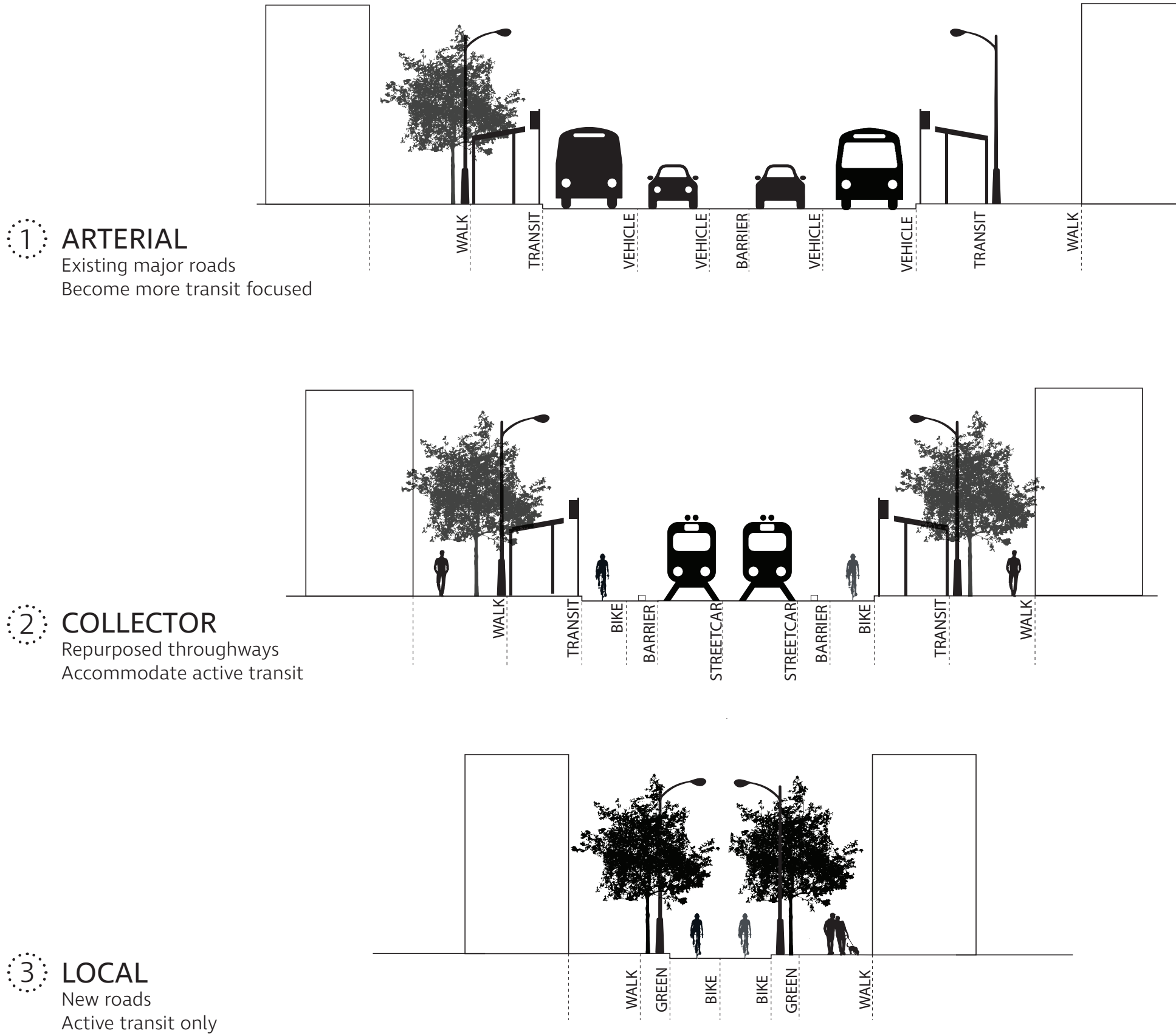
- NEW ACTIVE TRANSIT



INTERCONNECTED INFRASTRUCTURES



STREETSCAPES



MANCHESTER 2060 LEGEND

- | TRANSIT | LAND USE |
|--------------------------|---------------------------------------|
| EXISTING C-TRAIN LINE | MIXED USE (RETAIL, OFFICE, RES) |
| EXISTING HEAVY RAIL LINE | MEDIUM DENSITY RESIDENTIAL |
| EXISTING C-TRAIN STOP | LOW DENSITY RESIDENTIAL |
| EXISTING ROADS | GREEN SPACE |
| NEW PEDESTRIAN PATHS | PUBLIC SPACE |
| NEW ACTIVE TRANSIT PATHS | URBAN AGRICULTURE |
| | LIGHT INDUSTRIAL |
| | MIXED USE (INDUSTRIAL, COMM., RETAIL) |

MANCHESTER 2060

