“We have an obligation and a responsibility to be investing in our students and our schools. We must make sure that people who have the grades, the desire and the will, but not the money, can still get the best education possible.”

- Barack Obama
“Education is the great engine of development”
- Nelson Mandela
CONTENT

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RESEARCH & OBSERVATIONS | CHICAGO

FOOD

MUSIC

ART
Former Steel-Industry
View from the North side of the site
“The Sustainable Chicago action plan offers concrete initiatives, metrics, and strategies aimed at advancing Chicago’s goal of becoming the most sustainable city in the country. From improving citywide energy efficiency and promoting diversified transit options, to launching citywide recycling, the roadmap is robust and comprehensive, touching upon the full spectrum of life for Chicagoans, whether at home, at work, on our streets or in our parks.”

- Rahm Emanuel, Mayor
RESEARCH & OBSERVATIONS | PROBLEMS
To achieve the goal of Chicago to become the most sustainable city in the country, they need to introduce a recycle-industry. To give a boost to South Works, this area needs to be the place where the recycle-industry have to be introduced. The recycle-industry ensures not only a cleaner and sustainable city, but also a more attractive economical city and the neighbourhood. It provides jobs and incomes for the existing neighbourhood and can be a new platform for investment and businesses.

Education will be introduced in South Works as a connection between the recycle-industry and the neighbourhood. Education gives the neighbourhood the possibility to educate themselves and re-educate to become part of this new recycle-ideology.

So...
“Education is the most powerful weapon which you can use to change the world”
- Nelson Mandela
RESEARCH QUESTIONS

- What kind of recycle-industry?
- How to connect recycle-industry with neighbourhood?
- What kind of education?
- How to connect recycle-industry with education?
- How to connect neighbourhood with education?
WHAT KIND OF RECYCLE-INDUSTRY? | RECYCLE-INDUSTRY & REPRODUCTION
WHAT KIND OF RECYCLE-INDUSTRY? I RECYCLE-INDUSTRY & REPRODUCTION
HOW TO CONNECT RECYCLE-INDUSTRY & NEIGHBOURHOOD? | GREEN LOOP

Extend the grid
HOW TO CONNECT RECYCLE-INDUSTRY & NEIGHBOURHOOD? | GREEN LOOP

Connect existing & new green
HOW TO CONNECT RECYCLE-INDUSTRY & NEIGHBOURHOOD? I GREEN LOOP

Connect GREEN STREAM to existing ECO-Boulevard
HOW TO CONNECT RECYCLE-INDUSTRY & NEIGHBOURHOOD? | GREEN LOOP

Existing neighbourhood
WHAT KIND OF EDUCATION? | VOCATIONAL SCHOOL
HOW TO CONNECT RECYCLE-INDUSTRY & EDUCATION? | VOCATIONAL SCHOOL
HOW TO CONNECT RECYCLE-INDUSTRY & EDUCATION? | SHAPE
HOW TO CONNECT RECYCLE-INDUSTRY & EDUCATION? | MATERIAL
HOW TO CONNECT RECYCLE-INDUSTRY & EDUCATION? | INTERIOR LOOK
HOW TO CONNECT NEIGHBOURHOOD & EDUCATION? | SHAPE

UPPER FLOOR PLAN
- parlor
- bedroom
- bedroom
- kitchen
- bedroom

FIRST FLOOR PLAN
- bedroom
- living room
- bedroom
- parlor

7.5 m
35 m
8 m
5.5 m
33
HOW TO CONNECT NEIGHBOURHOOD & EDUCATION? | INTERIOR LOOK
Based on reference of 22000 m2
Interactive Exhibition: Simulation rooms + Mediatheek of material samples
Corten Steel

Reversible wall heating: Heating & Cooling

Windmill in the top of the cylinder: Energy
173 m
50 m
20 m
16 m
Photovoltaic glass: Energy + Shade

(Rain) Water features: Air humidity + Irrigation of the plants

Trees: Shade + Filtration of air
- Triple Glazing 24mm
- Structural Glazing Profile 80mm x 160mm
- Red Cedar Slats 80mm x 20mm
- Watertight Vapor Open-UV resistant foil
- Kerto panel 24mm
- Kerto O/S 75mm
- Insulation
- I-profile 180mm x 400mm
- Kerto O/S 75mm
- Damp proof foil
- Kerto panel 24mm
Wooden slats

Green root:
Filtration of air & rainwater +
Climate control

Flexibility in floors heights

Auditorium

Library

Offices

Materialisation

Wooden slats

Green roof:
Filtration of air & rainwater +
Climate control

Flexibility of boxes
- Sedum plants 60mm
- Roof Garden Substrate
- System Filter
- Floratherm-VD-Element
- Water Protection Mat
- Root-Resistant Roof Covering
- Kerto Riga Floor System
- Climate ceiling AdeRo
- Red Cedar Slat 80mm x 20mm
- Wood Laths 23mm x 75mm
- Watertight-Vapor Open-UV resistant foil
- Kerto panel 24mm
- Kerto G/S 75mm
- Insulation
- Kerto G/S 75mm
- Damp proof foil
- Kerto panel 24mm

Ventilation pipes d.200mm
GREEN STREAM
- Supplies wc’s, water features and irrigation of trees and plants. Excess of water goes to the Green Stream.
- Contributes to improve air humidity in the Engine.

RAINWATER STORAGE TANK
- Supplies wc’s, water features and irrigation of trees and plants. Excess of water goes to the Green Stream.

GEOTHERMAL HEAT EXCHANGER
- For passive tempering of incoming fresh air to shaft and low radiant ceiling and wall heating system, by transferring energy from the earth to the Boxes and the Cylinders.

TREES & PLANTS
- Trees and plants absorb CO₂ and release O₂. Passive filtration and removal of air contaminants. Trees also provide shade in the Engine.

WINDMILL
- Offset grid power demands (in the top of the cylinders).

PHOTOVOLTAIC GLASS
- Offset grid power demands. Glass also provides the shade in the Engine.

GREEN ROOF
- Provides increased thermal mass and reduces heat gains of the Boxes. It also filtrates fresh air and rainwater.

AIR INTAKE
- Fresh air comes through the geothermal coils on the roof of the Boxes. Air can be pre-heated or pre-cooled.

EXHAUST AIR
- Natural exhaust air to outside by the air pressure differences.

WATER FEATURES
- Contribute to improve air humidity in the Engine.

CLIMATE CEILING
- Satisfy heating & cooling needs of the Boxes and tempering of the incoming air.

CLIMATE WALL
- Satisfy heating & cooling needs of the Cylinders and the Engine.