P4 PRESENTATION

COMPLEX PROJECTS STUDIO - PILSEN, CHICAGO, USA
Introduction

- Chicago trip

CHICAGO RIVER ST. PATRICK'S DAY

WILLIS TOWER

LAKE SHORE DRIVE
INDUSTRIAL CORRIDOR OF PILSEN

IN SPITE OF THE STRICT POLICY, FACILITIES DO NOT ONLY EMERGE INSIDE THESE CORRIDORS: THE ENTIRE CITY IS FLOODED WITH MANUFACTURING.
the Industrial Corridor in Pilsen is not functioning as intended.
Residents in Chicago’s Pilsen neighborhood complained for years about midday morning smoke rolling down their narrow streets but had little evidence it was harmful.

Now they have proof:

New monitoring data obtained for the Tribune revealed high levels of lead fill air at school.

By Michael Hawthorne

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Readings from Pilsen monitor spark investigation by federal, state EPA

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Why is the City of Chicago still holding on to these PMD's?
PILSEN MASTERPLAN
RE-POSITION PILSEN

CATALYZE WITH PROGRAM
CONNECT WITH THE RIVER
CONTEXTUALIZE USING LOCAL QUALITIES
PILSEN MASTERPLAN
RE-POSITION PILSEN
EDUCATION
PRODUCTION
CONSUMPTION
HEALTH
RECREATION

CATALYZE

REVIVE THE RIVER

ENGAGE NEIGHBORING COMMUNITIES

ACTIVATE KEY POINTS WITH SPECIFIC PROGRAM

WATER TAXI
PILSEN MASTERPLAN
RE-POSITION PILSEN
RE-USE INDUSTRIAL HERITAGE
CONTEXTUALIZE

GREEN NETWORK
OF PRODUCTIVE AND RECREATIONAL NATURE

RIVERFRONT PASSAGE WAY
INTEGRATED WITH GREEN BELT CHICAGO
PART 2

PROJECT: THE GATEWAY MARKET

SITUATION
LOCATION
POTENTIALS
CHALLENGES
PROGRAM TYPE
DESIGN GOALS

CONCEPT

TYPOLOGY

FIRST LAYER
PROGRAM
NETWORK
FORM

SECOND AND THIRD LAYER
FORM
CONSTRUCTION

CLIMATE SYSTEM
SITUATION - DAN RYAN EXPRESSWAY BRIDGE POTENTIALS: ACCESS (CAR)

PARKING DISTANCE FROM HIGHWAY EXITS

WALKING DISTANCE FROM PARKING SPACES

POTENTIALS: ACCESS (CAR)

W. CERMAK RD.

S. HALSTED ST.

INTERSTATE 90/94

Bridgeport

Little Village

Pilsen

Little Italy

Chinatown

The Loop

W. Cermak Rd.

S. Halsted St.
POTENTIALS: INDUSTRIAL HERITAGE

- Services Employees International Union (HCII, Illinois & Indiana Union HQ)
- Rubin Manufacturing Inc. / Union Line, Inc. (clothing manufacturing)
- Former artists lofts and antique shop
- 123DJ.com - audio warehouse outlet
- COLORPHONIC - large scale printing
- ART METAL DESIGN STUDIO
- Shervan Salon (Spa, Beauty & Personal Care)
- Energym Fitness & Juice Bar
- Apartments (built 1904)
CHALLENGES

NOISE, DUST AND POLLUTION

Produced by the highway above.

SUNLIGHT

Large pockets of shadow.

WIND

Strong prevailing winds from the south-west.
What type of program can we use to catalyze this particular site?
BIERGARTEN AT THE STANDARD
UNDERNEATH THE HIGH LINE, NEW YORK, USA

CATALYZE

EATALY, CHICAGO
FOOD HALL IN DOWNTOWN CHICAGO

CATALYZE

PILSEN MARKET, CHICAGO
SEASONAL FARMERS MARKET IN PILSEN

FOOD HALLS

FARMERS MARKETS
MICRO FARMING COMMUNITY GARDENS

16.450 m²

CATALYZE ADDITIONAL PROGRAM

EDUCATION PRODUCTION CONSUMPTION

MICRO FARMING COMMUNITY GARDENS
CTALYZE
Create program that contains consumption, production and education

CONNECT
Use the building to create a flow towards the river

CONTEXTUALIZE
Re-use and integrate the industrial heritage

Utilize the large pockets of light

RIVERFRONT PASSAGE
CENTRALIZED NETWORK
MAXIMISE NATURAL LIGHT

DESIGN THEMES

CONTEXTUALIZE
Utilize the large pockets of light

RIVERFRONT PASSAGE
Use the building to create a flow towards the river

CENTRALIZED NETWORK

MAXIMISE NATURAL LIGHT
EMPHASISING MOVEMENT
THE NAME EXPRESSES THE ROLE OF A GATEWAY TO PILSEN, WHILE EMPHASIZING MOVEMENT TO THE RIVERFRONT

MORPHOLOGICAL REFERENCE
Heydar Aliyev Center, Isreal - by Zaha Hadid
NEW RETAIL SPACE

CONNECT

MAIN STREET
4 METERS WIDE, CAPACITY 3,000+ P/HOUR

MAIN NETWORK FLOW
UNINTERRUPTED PASSAGE TO THE RIVER

ONE COLUMN REPLACED
EXISTING CONSTRUCTION STRENGTHENING LOCALLY
CONNECT

EMERGING MARKET
MARKET SPACE IS CREATED BY LIFTING UP THE GROUND
CURVED ROOFS
Roof reaches the ground for easy access.

PUBLIC ROOF SPACES
Additional public space above central square.

TRIBUNES DIRECTED AT ATRIUMS
Tribunes provide seatings for shows or cooking demonstrations.
Printed concrete flooring
Different imprints and colorations, resembling a flowing river

Fully glazed facade
Hanging from wires in between steel portal constructions

Printed concrete walls
Earth wall imprint concrete sandwich panels
CULINARY SCHOOL

COOKING DEMONSTRATIONS
STUDENTS/TEACHERS CAN OFFER PUBLIC COOKING COURSES

NEW GLASS FACADE
SQUARE IS A MITIGATION ZONE BETWEEN CULINARY SCHOOL AND THE MARKET

11.050 m²
STUDENT HOUSING
5,400 m²

SUPERMARKET
2,800 m²

OFFICES & SERVICES
4,000 m² = offices for rent,
2,800 m² = market services (incl. 55 m²)

RESTAURANT & BAR
850 m²

NORTH BUILDING (CURRENT SITUATION)

SOUTH BUILDING (CURRENT SITUATION)
CATALYZE

FRONT FACADE
Facade located alongside Cermak Road

MAIN ENTRANCE
The beginning of the main street leading all the way to the river

INFORMATION KIOSK
Fitted with a digital screen for information and advertisements
RESTAURANTS
1,050 m² = restaurants, 650 m² = café-diners
600 m² = bar

MEXICAN RESTAURANT
LOCATED AROUND THE CENTRAL SQUARE

RESTAURANT INTERIOR
INTERIOR CONCEPT FOR THE MEXICAN RESTAURANT
CATALYZE

SHOP-IN-SHOPS
SELLING ESSENTIALS, IMAGE: A CONCEPT INTERIOR OF THE BAKERY

SMALL BOULEVARD
IMAGE: SHOP-IN-SHOPS ON THE LEFT, COFFEE EXPRESS ON THE RIGHT

COFFEE EXPRESS
QUICK COFFEE-2-GO, IMAGE: A CONCEPT INTERIOR OF THE COFFEE SHOP
FOOD FAB-LAB
300 m² (3d printed food)

MARKET STANDS
4500 m² = market space, + 5000 m² variable

CATALYZE
TYPOLOGY: COVERED MARKET

HIGHWAY

MARKET COVER

MARKET

SECOND AND THIRD LAYER
MARKET COVER AND HIGHWAY LEVEL

CERMAK Rd.
SPACE OPENING UP TOWARDS RIVER

ATRIUMS FORM AT OPENINGS

CONNECT
CONTEXTUALIZE

WEST-ATRIUM

EAST-ATRIUM
PTFE (POLY-TETRA-FLUORO-ETHYLENE)
ALSO KNOWN AS TEFLON (BRANDNAME)

PTFE PROPERTY CHART
- REFLECTS 75%
- TRANSMISSION 15%
- DIRT REPELSION
- FIRE RESISTANCE
- UV-RESISTANCE
PART ROOF, PART CEILING
THE DESIGN MAXIMISES THE USE OF THE EXISTING STRUCTURE

ROOF CONSTRUCTION
TWO FREE STANDING ROOFS
CLIMATE: SYSTEM

CLIMATE DESIGN

CLIMATE: RAINWATER

WATER FILTRATION
SOIL FILTRATION IS MADE VISIBLE THROUGH GLAZED CONSTRUCTION ELEMENT
CLIMATE DESIGN

UV-LIGHT PURIFICATION
UV-LIGHT PURIFIES WATER, WHILE ELUMINATING THE MAIN STREET
CLIMATE DESIGN

GROUND VENTILATION (15 ºC)
TO THE RIVER

UV-FILTER
HEAT-PUMP
SOLAR POWER
RAINWATER
SOIL-FILTER

CLIMATE: SYSTEM

EXPECTED POPULATION
BASED ON REFERENCE: MARKET HALL, ROT.

MORE PEOPLE = INCREASED COOLING DEMANDS

HEAT DEMAND
ON AVERAGE
24,000 / DAY
10 HOURS

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CLIMATE: SYSTEM

SOLAR PANELS
PLACED ON ROOF OF EXISTING BUILDING

COOLING ROOF
PTFE REFLECTS 75% OF THE LIGHT, THUS ACTING AS A COOLING ROOF

GROUND VENTILATION
VENTILATION DUCTS PASS THROUGH THE GROUND, PRE-HEATING FRESH AIR

15 ºC
15 º