



**PAPIRUS**

Public Administration Procurement Innovation  
to Reach Ultimate Sustainability

The research leading to these results has received funding from the European Union  
CIP Entrepreneurship and Innovation Programme under grant agreement n° SI2.662792.



# Public Procurement TURIN

Ferruccio Doglione

19/11/2014

# Social housing in Rivalta



PAPIRUS

Centre d'Administration et de Services (C.A.S.)  
to assist the University community

## Building Owner:

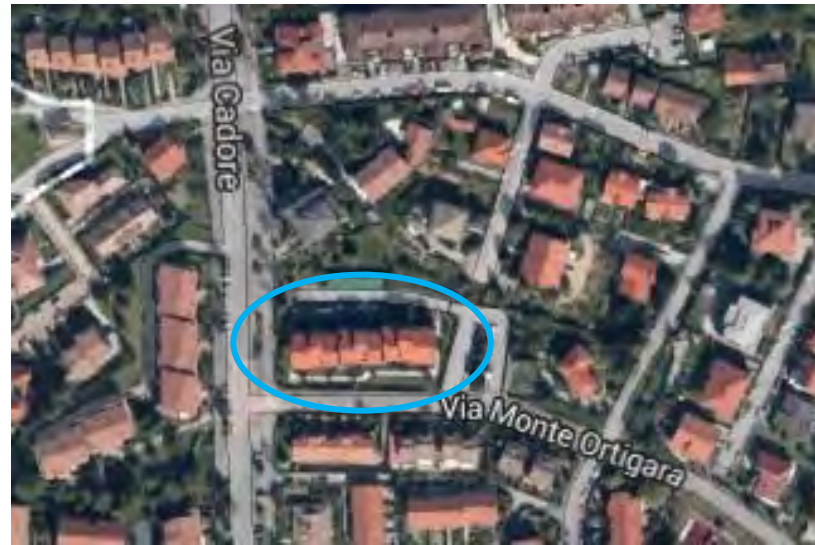
ATC Torino

## City/Country:

Turin (Italy)

## Location: Rivalta

- Rivalta is a former industrial suburb of Turin
- Nowadays the site is mainly residential



# Social housing in Rivalta

## Overview of case study:

Residential existing building to go on refurbished under the **Papirus** Project frame



## Functionality:

- The building is a social housing block, and its use is residential.
- Operation conditions are the typical of dwellings.

# Social housing in Rivalta

## Architectural Characteristics:

- Construction is made up to three blocks between 1986 and 1988
- Each block has three storey
- Total the building houses 21 dwellings:
  - Right block houses three dwellings per floor
  - Two other ones have two dwellings per floor
- Each floor gross floor area is 581,13 m<sup>2</sup>
- The total building area is **2.283,39 m<sup>2</sup>**
- The building is affected by **dampness** and **infiltrations** due to the bad wear of the roof

# Social housing in Rivalta



PAPIRUS

Financing Administration Programme (Financing)  
to Human-Urban Sustainability

- The staircases are located north face to rear of the building
- Living areas and kitchens facing to South
- Bathrooms to the North
- Bedrooms, where possible to East and West or North

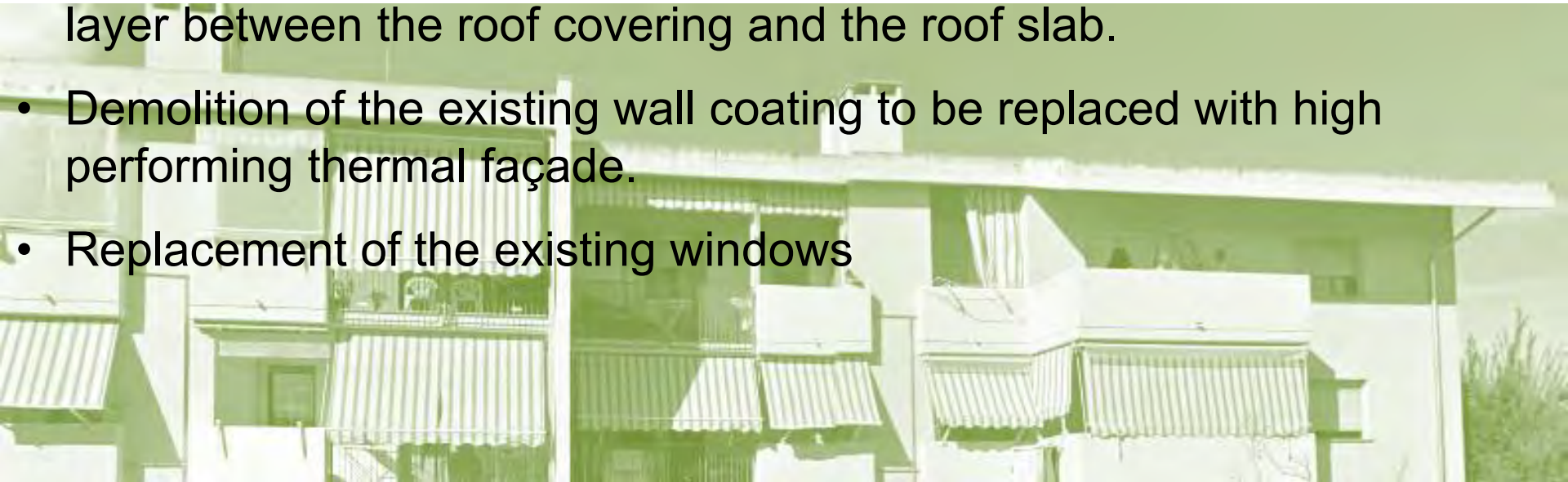


# Social housing in Rivalta

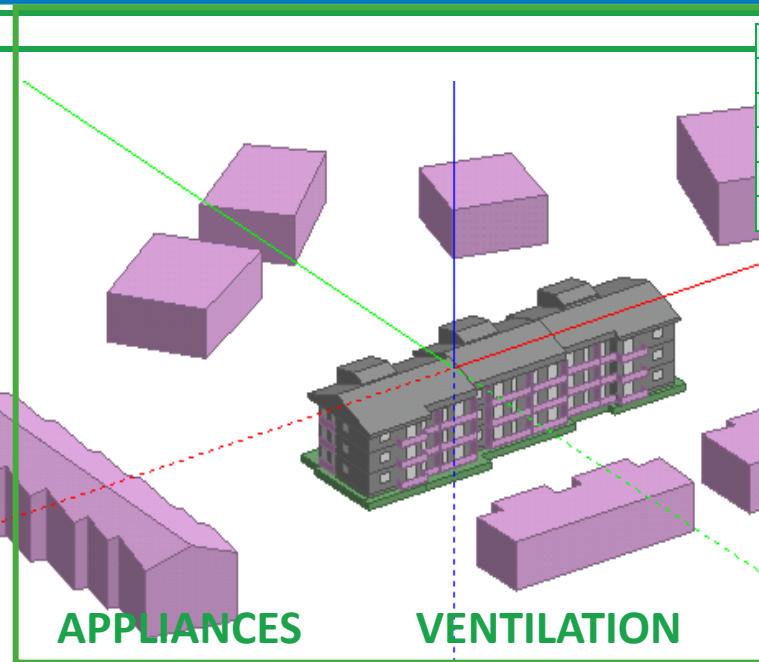
Retrofitting project includes the intervention over the roof, façade and external windows.

## Planned activities are mainly focused on:

- Supply thermal insulation to roof with the installation of an insulating layer between the roof covering and the roof slab.
- Demolition of the existing wall coating to be replaced with high performing thermal façade.
- Replacement of the existing windows



# Social housing in Rivalta



Type of building	Social housing building	Type of intervention	Retrofitting
Site name	Via Monte Ortigara, 3		
Building owner	Atc Turin		
Adress	Via Monte Ortigara,3		
City / Country	Rivalta, Turin / Italy		
Latitude	45,03° N	Longitude	7,51° E
Elevation above the sea	302 m		

Zone type	Description
Dwellings	Dwellings include all residential areas
Common areas	Common areas (staircases, common corridors). It is supposed that these zones will be almost vacant except for passing purposes. In that case, no occupancy is estimated.

## THERMAL ZONES

Zone type	Activity	Occupancy ratio (pers/m2)	Schedule
Dwellings	Standing/relaxing	0,031	WD / 23:00 – 7:00 / 100%
			WD / 7:00 – 15:00 / 25%
			WD / 15:00 – 23:00 / 50%
			Weekend – 100%
Common areas	Passing	-	-

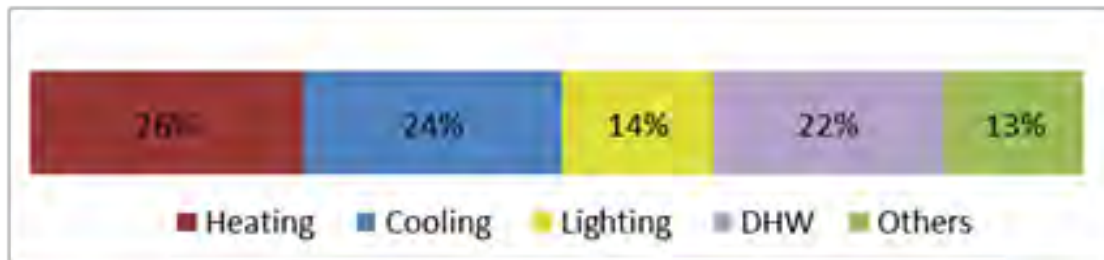
## OCCUPANCY

- APPLIANCES
- VENTILATION
- INFILTRATION
- LIGHTING
- HEATING/COOLING
- OPERATION CONDITIONS
- OPAQUE STRUCTURES
- DOMESTIC HOT WATER
- WINDOWS AND SHADINGS

# Social housing in Rivalta

## Critical points to consider:

- High exposure to solar gains in summer (south façade)
- No cooling systems projected – Need of avoiding overheating during summer season
- Special attention in order to resolve dampness and leaking existing problems
- Building will be occupied during refurbishment process
- Option to reduce existing thermal bridges





# Social housing in Rivalta

Technologies	Units
Reduce the energy losses through buildings opaque envelope	660 m <sup>2</sup>
Reduce energy losses in winter and solar gains through window in summer	198 m <sup>2</sup>
Technologies that provide good quality natural day-lighting	12 units
Technologies for light weight prefabricated panels with low specific CO2 emissions.	600 m <sup>2</sup>

**TOTAL AMOUNT: 219.600 €**

# LOT 1

## GENERAL DATA

Demo site

Via Monte Ortigara 3, Rivalta Torino – Social Housing

Type of intervention

New construction

Refurbishment

## LOT 1: SOLUTIONS TO REDUCE THE ENERGY LOSSES THROUGH BUILDINGS OPAQUE ENVELOPE

### OBJECT OF THE CONTRACT

Products to be supplied :

Integral façade solution

Partial façade solution

Integral roof solution

Partial roof solution

The object of the contract includes:

Materials supply

Materials transport\*

Installation

Finishing tasks

Type of contract according to national regulations:

Supply contract

Works contract

Application areas:

Envelope element 1

North and South Façade - East and West gable walls

Total surface

1.775,32

m<sup>2</sup>

Envelope element 2

Internal roof surface\*\*

Total surface

692,00

m<sup>2</sup>

Envelope element 3

—

Total surface

—

m<sup>2</sup>

- \*It is to be considered the transport on site for the supply
- \*\* the roof space shall be insulated at the inner leaf

# LOT 1 Budget

## ASSIGNED BUDGET FOR THE LOT

Maximum available budget for applicable items:

For façades  €

For roof  €

The budget includes:

Materials supply

Materials transport

Installation

Auxiliary support

Finishing tasks

Others:

# LOT 2

## OBJECT OF THE CONTRACT

Products to be supplied :

Glazing + frame + shading elements

The object of the contract includes:

Materials supply

Materials transport

Installation

Finishing tasks

Type of contract according to national regulations:

Supply contract

Works contract

Application areas:

Window type 1

Total surface

m<sup>2</sup>

# LOT 2 - Budget

## ASSIGNED BUDGET FOR THE LOT

Maximum available budget for applicable items:

Total budget for the acquisition of windows  €

The budget includes:

Materials supply

Materials transport

Installation

Auxiliary support

Finishing tasks

Others:

Define others:



**PAPIRUS**

Public Administration Procurement Innovation  
to Reach Ultimate Sustainability

The research leading to these results has received funding from the European Union  
CIP Entrepreneurship and Innovation Programme under grant agreement n° SI2.662792.



## ATC Torino

Contact details:

[a.gulli@atc.torino.it](mailto:a.gulli@atc.torino.it)

[p.letto@atc.torino.it](mailto:p.letto@atc.torino.it)