

# GROUP - 3

## Residential Building Planning to Maximize the solar Insolation on Building Roofs and Facades

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## INTRODUCTION

### GIVEN DATA

- Given Area: 47,000 m<sup>2</sup>
- Available Area for Residential Building: 23,000 m<sup>2</sup>
- Allocated Population: 2000 people
- Required Floor Area: 50,000 m<sup>2</sup>
- Assume 100m<sup>2</sup> = 1 apartment for 4 people
- Total apartments = 500
- Area allotted for Solar PV: 8000 m<sup>2</sup>

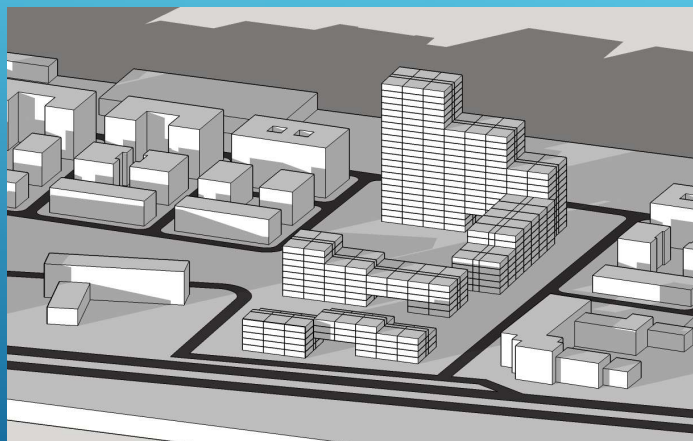
### PLANNED DATA

- Open area: 37,823 m<sup>2</sup>
- Used area: 7,204 m<sup>2</sup>
- Area available on the Roof: 6,303 m<sup>2</sup>
- Area available on Southern Façade: 6,330 m<sup>2</sup>
- Area of Solar System on the Roof: 5,000 m<sup>2</sup>
- Area of Solar System on Façade: 3,000 m<sup>2</sup>
- Number of apartments: 503
- The MAX 22 floors
- The MIN 4 floors

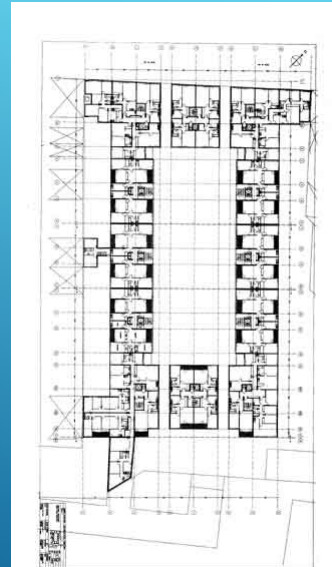
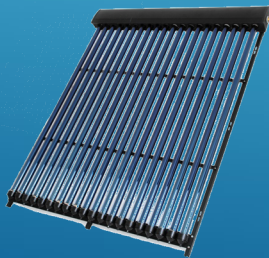
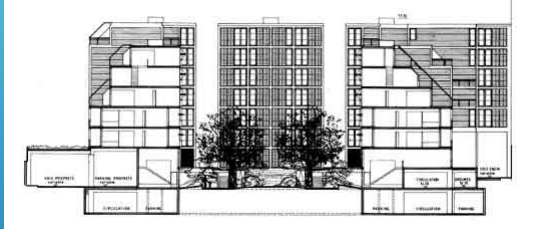
## SITE PLAN



## REFERENCE BUILDING



## REFERENCE STS



## EXPOSITION

9 am



## EXPOSITION

12 pm



## EXPOSITION

3 pm



THANK YOU FOR YOUR ATTENTION!