

21.0_SEPP 65 Analysis – Lewisham Estate Master Plan

This following report outlines the performance of the proposed Master Plan at Old Canterbury Road and Longport Street, Lewisham according to the points as set out in the Residential Flat Design Code as referenced under SEPP 65.

Building Types

1) Building Heights, Massing and Scale

Performance: The building heights have been determined through analysis of the site to be of a suitable scale in response to context, view analysis, shadow studies, solar access, surrounding bulk and scale, topography and consultation with local council planners. See master plan document for details (12.5, 20.3). The building massing has been designed with consideration of the surrounding urban fabric and the scale of public domain and urban spaces. For example, the buildings along Old Canterbury road are 4 storeys with a 2 storey setback to the street. Other buildings will include suitable setbacks at 4 storeys to create a predominant street wall podium at 4 storeys to define outdoor spaces and streets. The maximum height of 9 storeys corresponds to the McGill precinct master plan prepared by Marrickville Council.

2) Building Depth

Performance: The building blocks have been designed generally with a maximum of 18m internal width with additional balcony zone beyond to meet the requirements of the SEPP 65 guidelines. (20.11) In some instances this dimension is 17m and in some instances it is greater than 18m. However, this only occurs where units are designed as cross-over cross ventilated units which therefore comply with the intent of the control to ensure units receive an acceptable level of natural ventilation and solar amenity.

3) Building Separation

Performance: Generally the block massing has been designed in accordance with the SEPP 65 criteria. Buildings are generally 12m apart, greater than 4 storey are to have a separation of 18m between living areas. Some buildings are closer when living areas face onto blank walls or non habitable spaces. Lower buildings have a building separation of 12m between living areas with some building separations being 6m or less where non-habitable rooms or blank walls face each other. Typically parks, streets and public open spaces are used to provide separation between buildings. (See 12.11)

4) Street Setbacks

Performance: The criteria for the design of setbacks and streetscape is set out in section 20.3 of the master plan document. These sections set guidelines for setbacks to public realm, private realm and streetscape building articulation zones. (12.12)

Site Design

5) Open Space

Performance: Following consultation with the local council and Department of Planning the master plan has been designed to incorporate substantial public open space and park land. These parks have been located to maximise permeability and connectivity to the surrounding urban fabric and for maximum exposure for the building blocks. This park is located wholly on the subject site. This allows the completed central park to occur in the first stage without relying on the amalgamation of other sites or lots.

The space is open to a further space oriented east west ensuring that the central green space is addressed by the greatest number of units.

6) Orientation

Performance: The master plan provides for a mixture of east-west and north-south facing unit blocks. This is in response to a range of urban design criteria including view sharing, solar access as well as to promote maximum connectivity of the surrounding urban fabric to the proposed greenways belt and public open space and connectivity to the existing street grid.

Unit Amenity

7) Natural Ventilation

Performance Criteria: 60% of units should be naturally cross ventilated.

Performance: The block massing plan allows for blocks of a suitable size and orientation such that this criteria can be met with suitable detailed planning. The detailed conceptual planning in section 12 as well as the SEPP 65 compliance analysis in section 20.1 demonstrate that a ratio of 77.2% of units can achieve natural ventilation.

8) Sun Penetration

Performance Criteria: 70% of apartment living rooms should receive direct sun penetration for minimum 2 hours per day between 9 am and 3pm. Maximum 10% of apartments to be south facing single aspect apartments.

Performance: The master plan provides for a mixture of east-west and north-south facing unit blocks. This is to achieve a suitable urban design outcome. Detailed conceptual floor plans have been prepared in section 16. A detailed analysis of its performances against the requirements of SEPP 65 has been undertaken in section 20.2 as well as detailed elevational shadow studies (20.4). These studies demonstrate that a ratio of 73% of units can achieve required solar amenity.

9) Building Depth

Performance Criteria: Preferred maximum internal building depth should be 18m.

Performance: The building blocks have been designed generally with a maximum of 18m internal width with additional balcony zone beyond to meet the requirements of the SEPP 65 guidelines. (20.11) In some instances this dimension is 17m and in some instances it is greater than 18m. However, this only occurs where units are designed as cross-over cross ventilated units which therefore comply with the intent of the control to ensure units receive an acceptable level of natural ventilation and solar amenity.

10) Unit depth

Performance Criteria: The maximum internal unit depth for single aspect units should be 8m.

Performance: The detailed planning studies in section 16 show that single aspect units are 8m in depth. In some cases this increases to 10m. It is common that this block can be designed to ensure compliance with this control and therefore, it is assumed that this criteria may be met.

11) Kitchens

Performance Criteria: 25% of kitchens to be naturally ventilated. The rear of kitchens to be maximum of 8m from glazing.

Performance: It is common that this block can be designed to ensure compliance with this control and therefore, it is assumed that this criteria may be met with further study.

12) Unit sizes

Performance: It is assumed that the building blocks will be designed to comply with minimum unit sizes. The density yield analysis has been calculated based on minimum unit areas.

13) Ceiling heights

Performance Criteria: The minimum ceiling height for living areas is 2700mm.

Performance: It is assumed that the building blocks will be designed to comply with minimum ceiling heights. The building heights have been determined based on minimum ceiling heights.

14) Units off Corridors

Performance Criteria: The recommended maximum number of units addressing a single corridor is 8.

Performance: The buildings have generally been designed to be maximum of 40m in length. Typically this configuration ensures that the maximum number of units addressing a single corridor is 8. In some cases some corridors serve more than 8 units however, these are generally served by more than one core and with detailed development can be configured to ensure compliance with this control.

15) Balcony depth

Performance Criteria: The minimum depth of balconies is 2m.

Performance: The building massing and building setbacks and separations have been designed to allow for a minimum of 2m balconies within a balcony articulation zone.

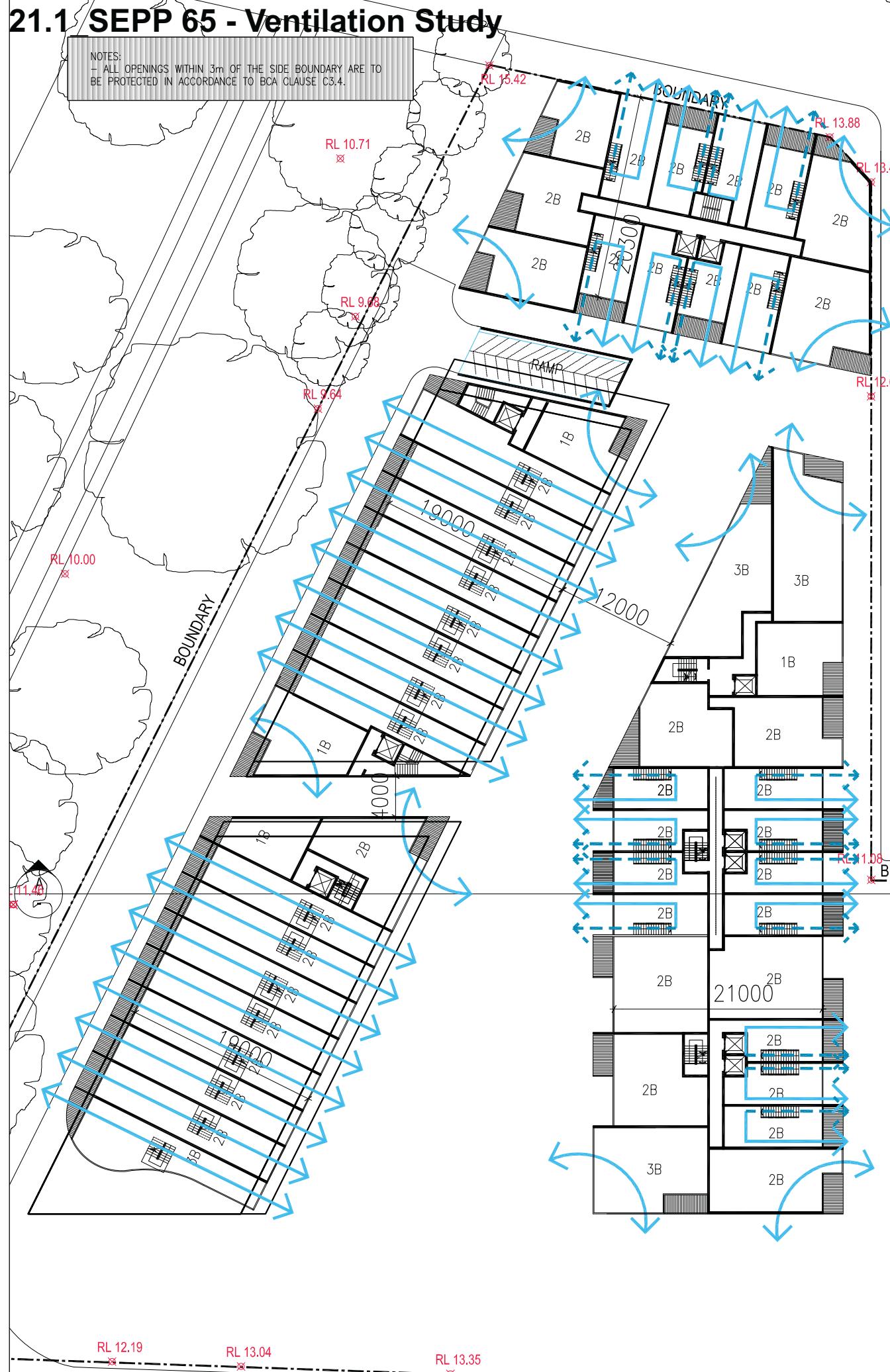
16) Storage

Performance Criteria: The minimum requirements for storage are set out in the design code.

Performance: It is assumed that all units will be designed to meet the criteria of the minimum unit storage areas.

21.1 SEPP 65 - Ventilation Study

NOTES:
- ALL OPENINGS WITHIN 3m OF THE SIDE BOUNDARY ARE TO BE PROTECTED IN ACCORDANCE TO BCA CLAUSE C3.4.

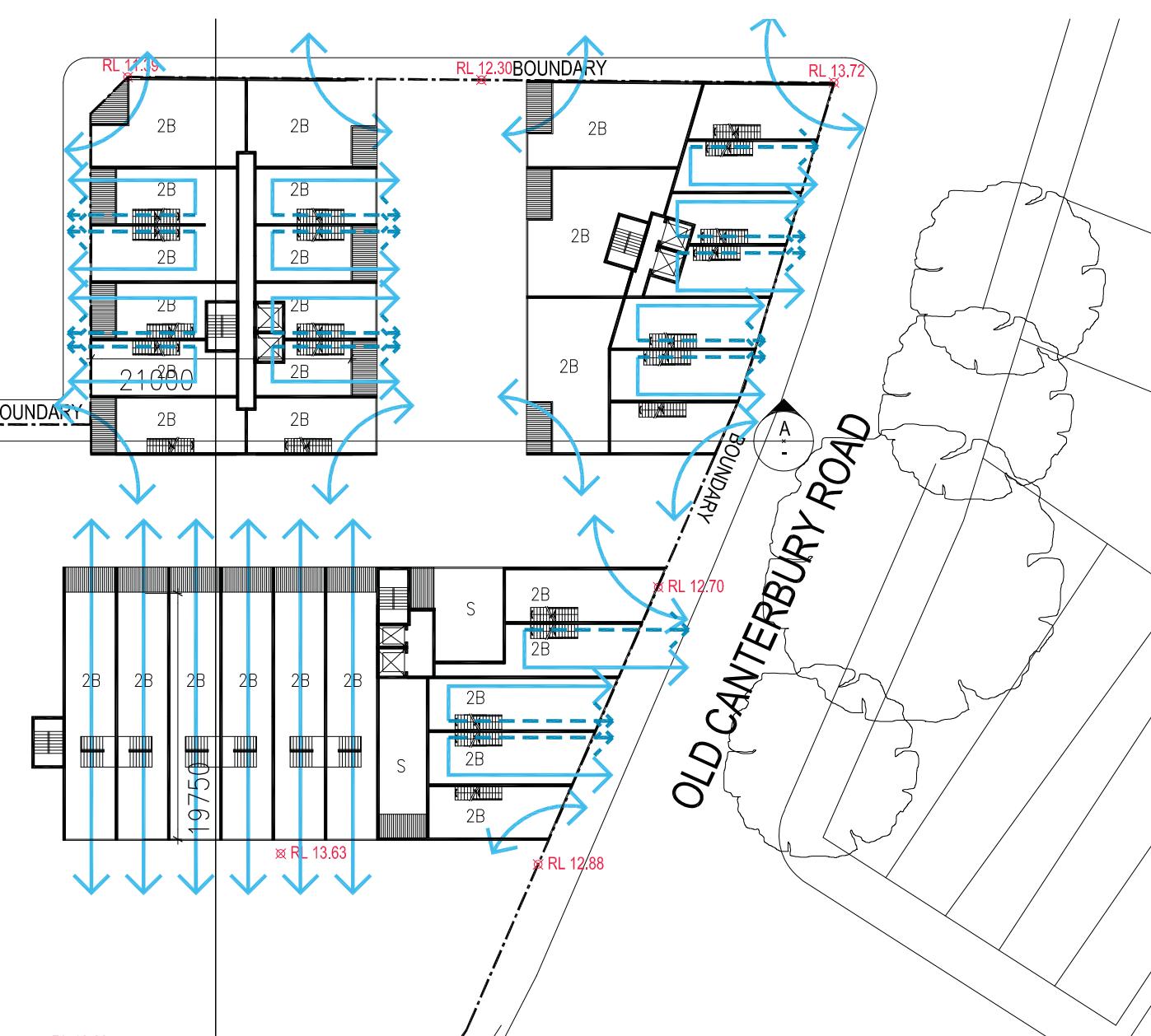


SOLAR STUDY

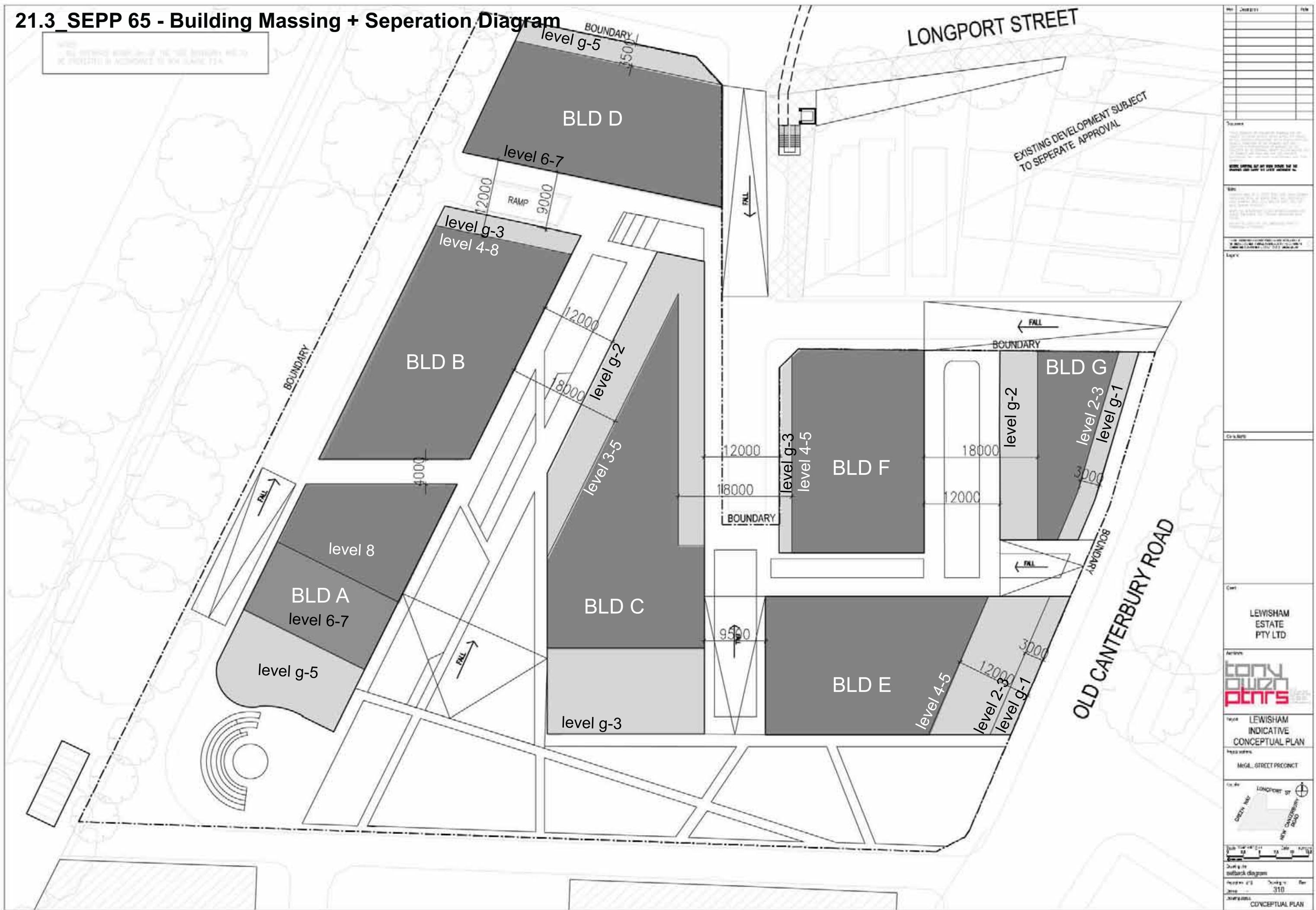
Sixty percent (60%) of residential units should be naturally ventilated

	LOWER GROUND	GROUND	LVL 1	LVL2	LVL3	LVL4	LVL5	LVL6	LVL7	LVL8	TOTAL
BLOCK A	3	3	6	6	6	6	6	5	4	2	47
BLOCK B	3	7	6	7	6	7	6	7	6	4	59
BLOCK C	4	7	9	9	5	5	5	-	-	-	44
BLOCK D	3	8	8	8	8	8	8	6	6	-	63
BLOCK E	2	7	6	7	6	5	4	-	-	-	37
BLOCK F	3	7	7	7	7	7	7	-	-	-	45
BLOCK G	2	5	6	5	5	-	-	-	-	-	23

318 UNITS / 412 units
77.2%



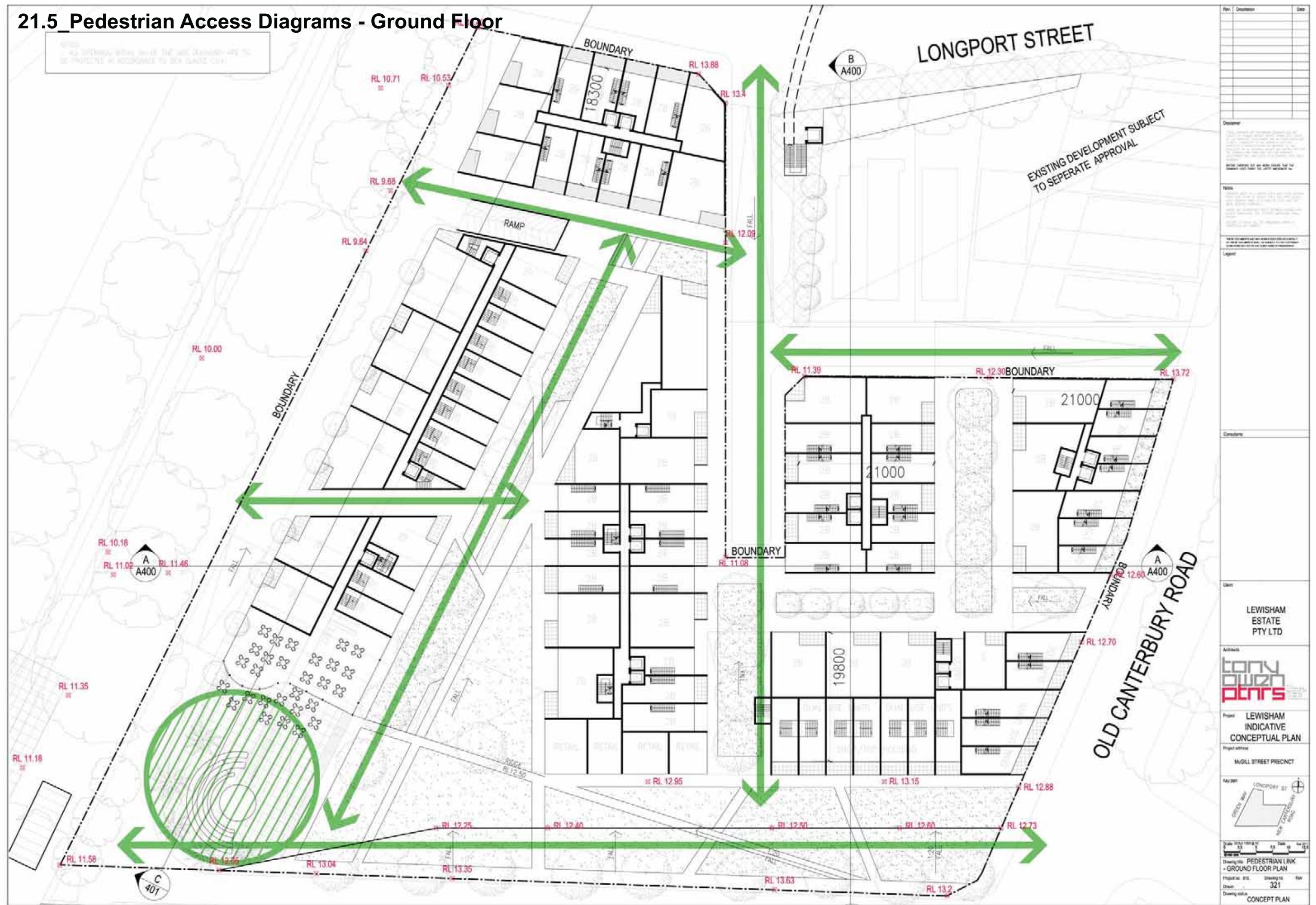
21.3_SEPP 65 - Building Massing + Separation Diagram



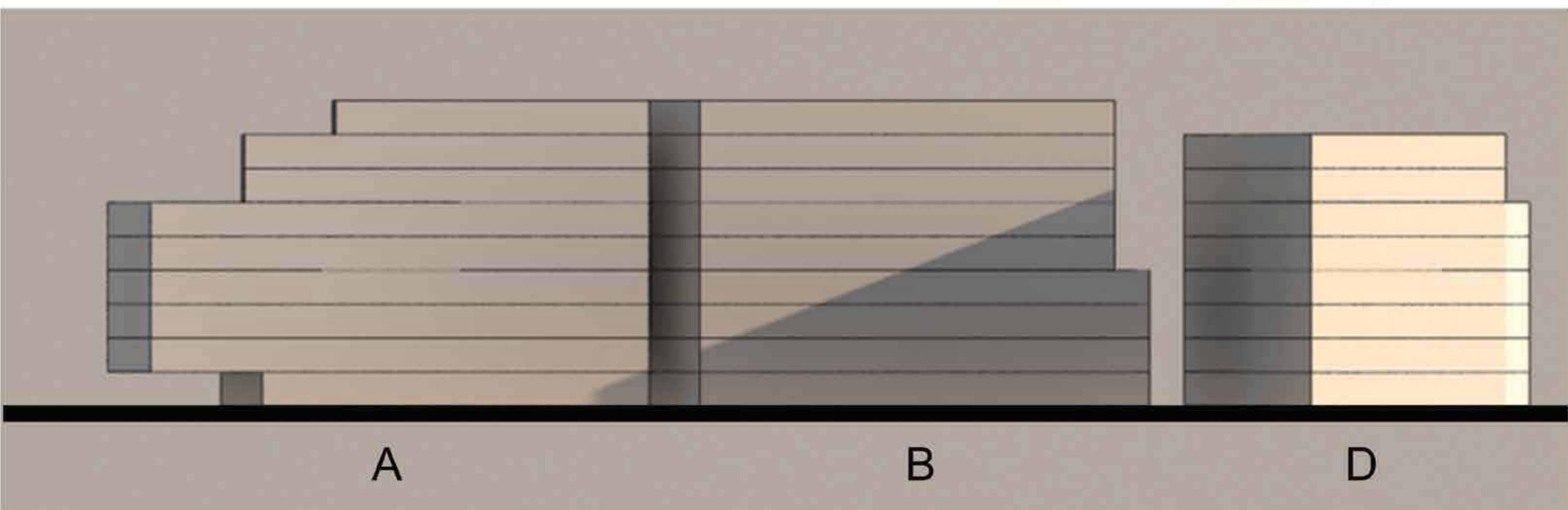
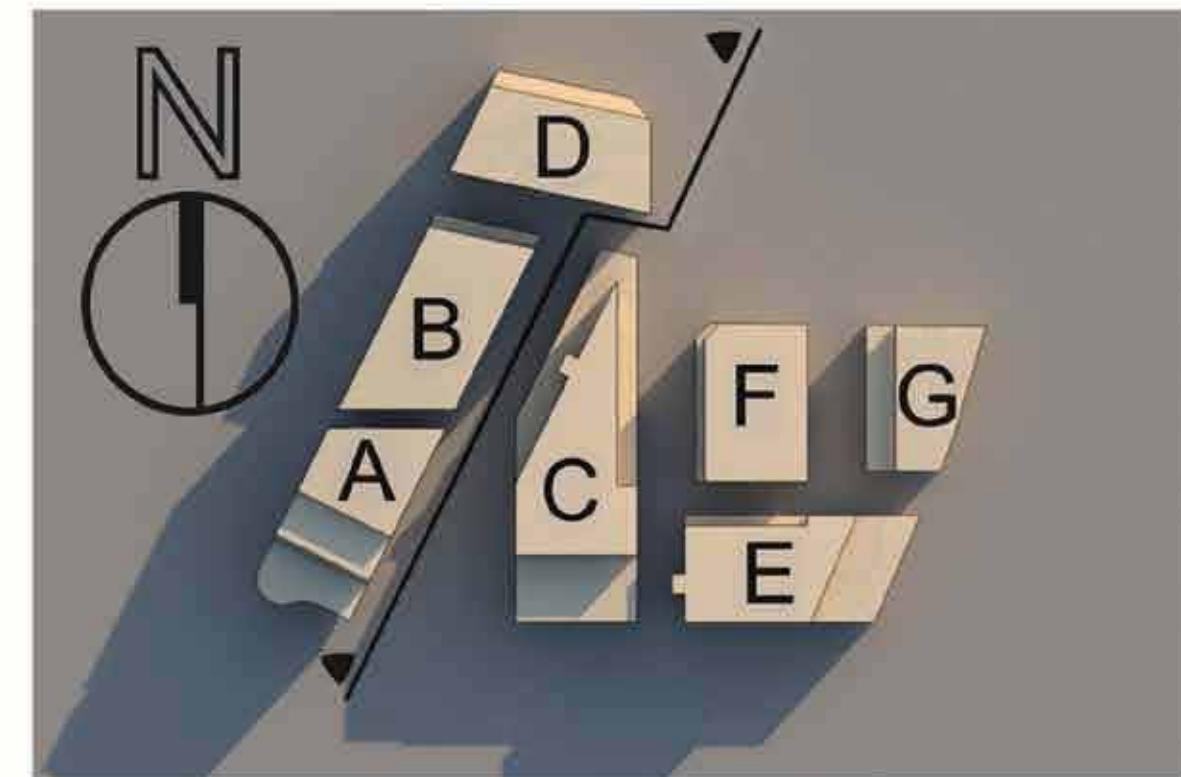
21.4_Pedestrian Access Diagrams - Lower Ground Floor



21.5_Pedestrian Access Diagrams - Ground Floor



21.6_SEPP 65 - Solar Access (Elevation Study)

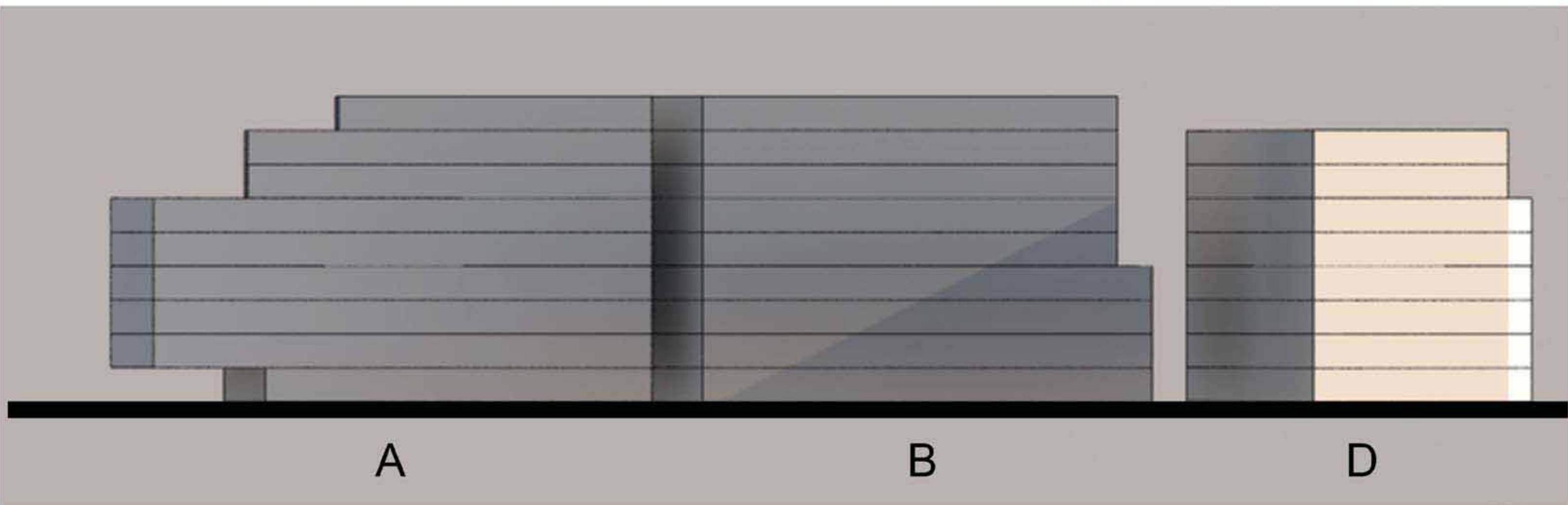
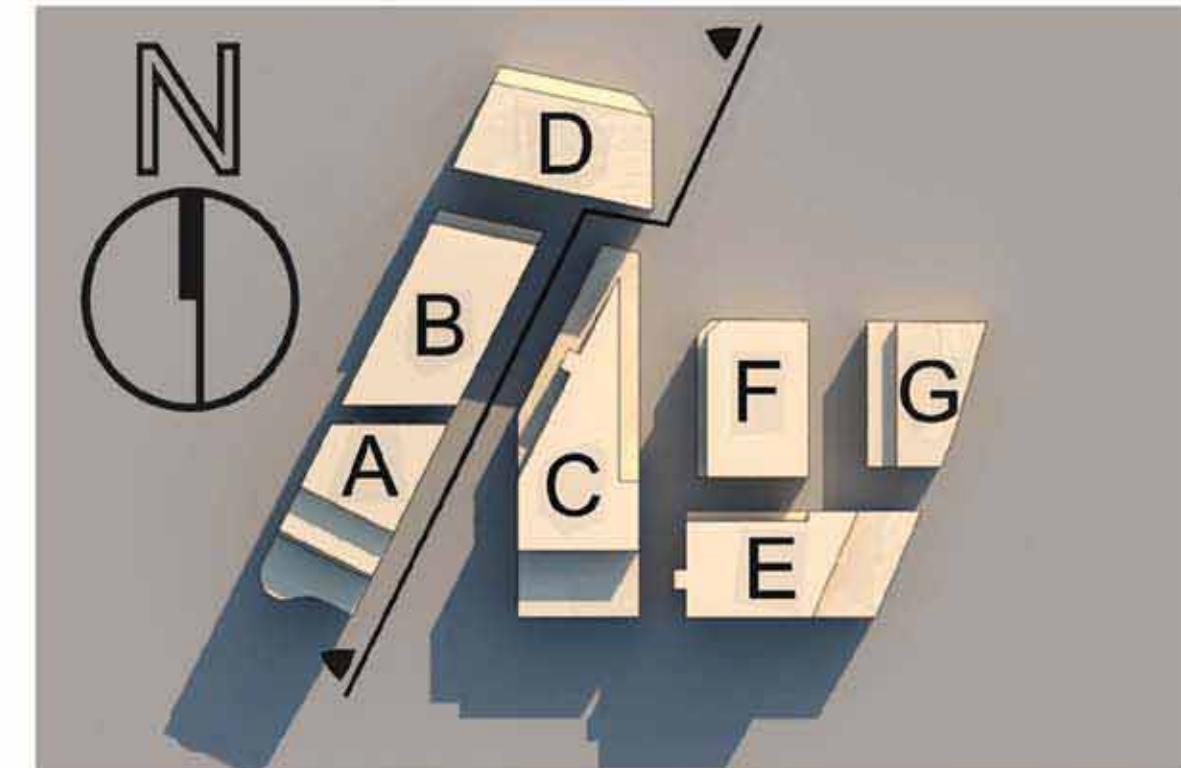


9:00 am - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

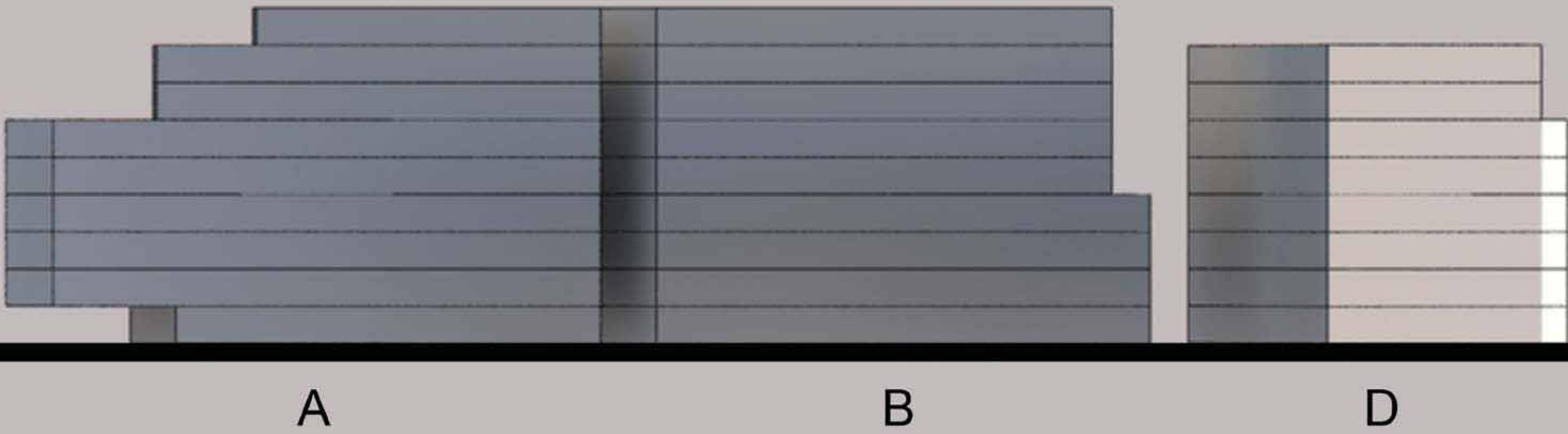
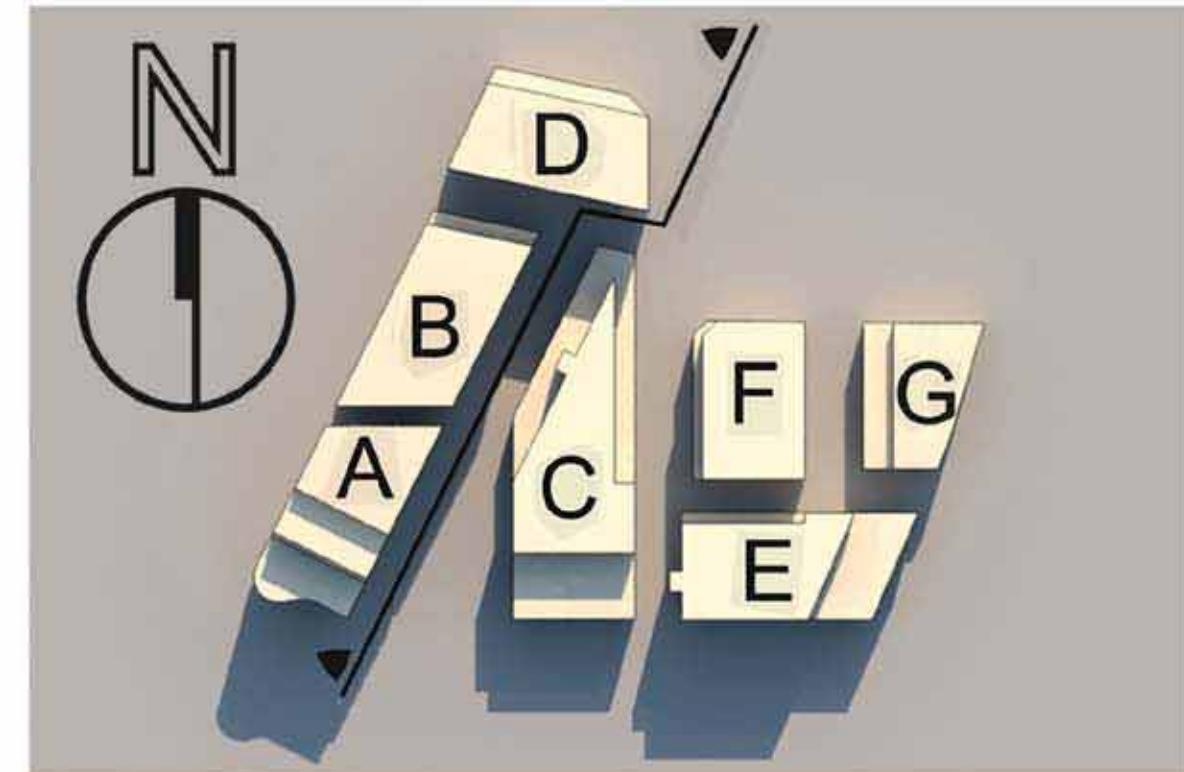


10:00 am - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

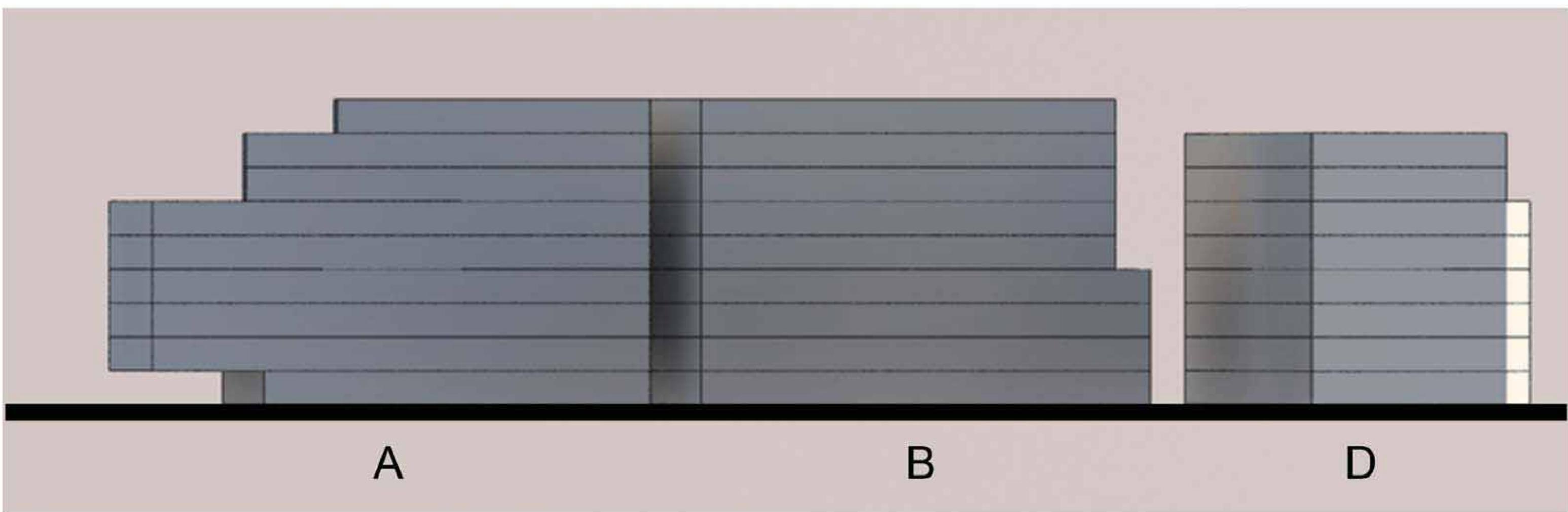
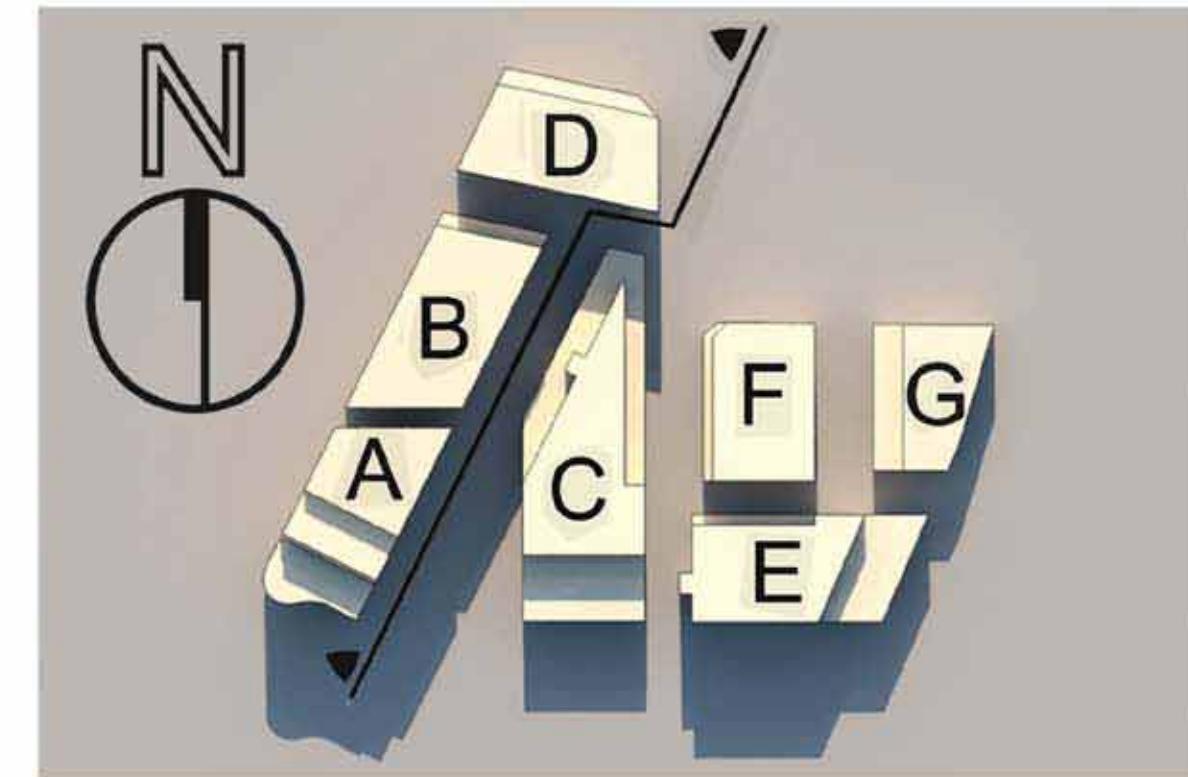


11:00 am - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

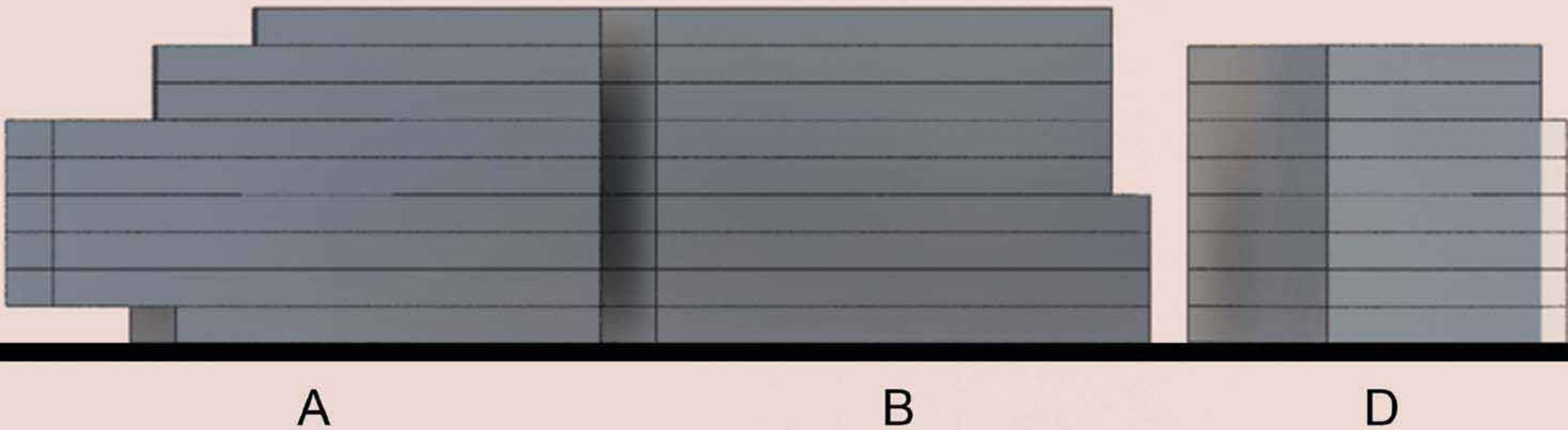
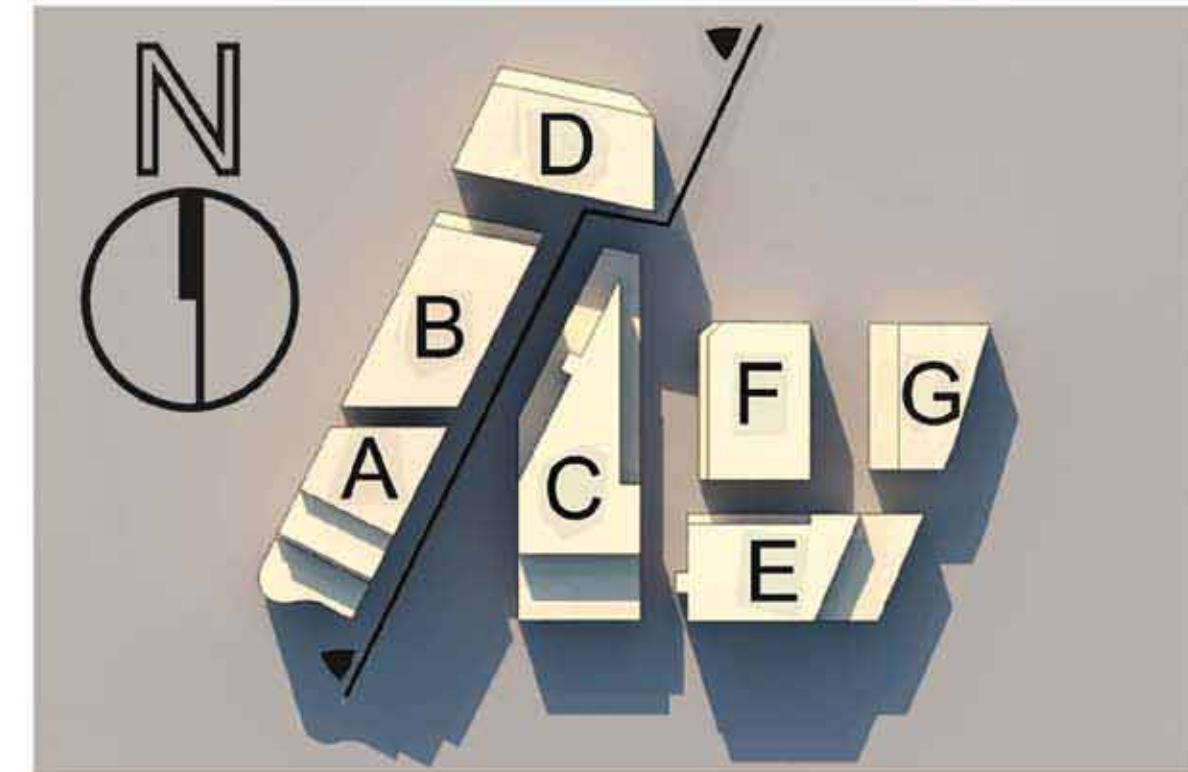


12:00 - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

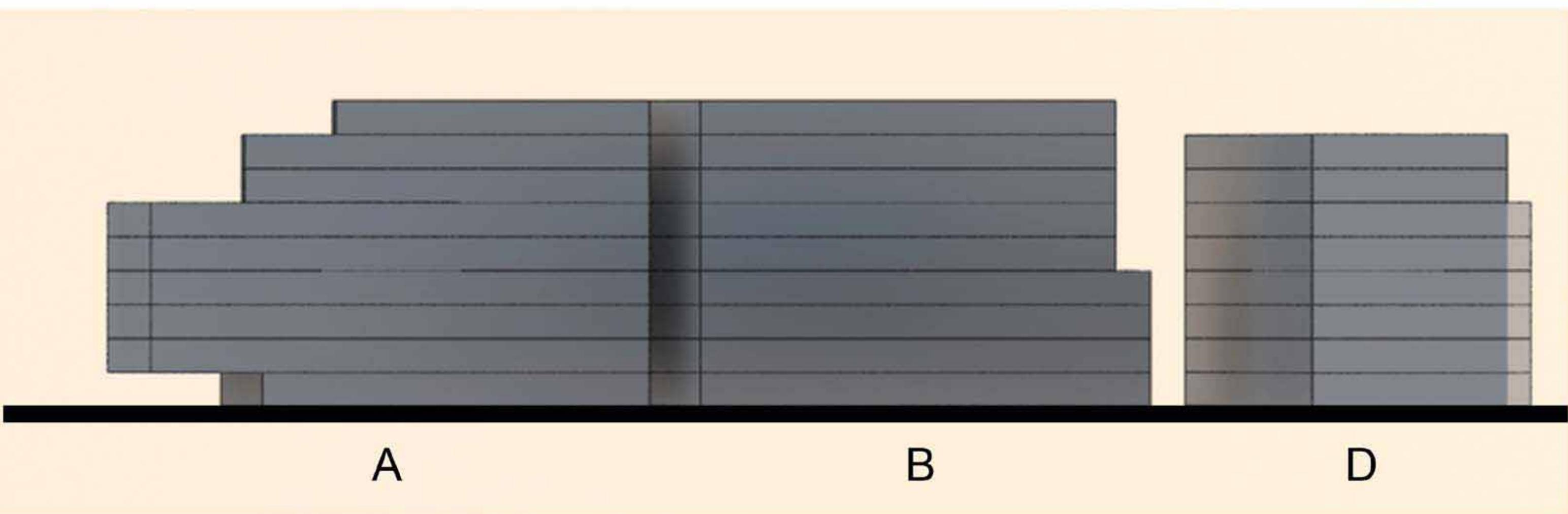
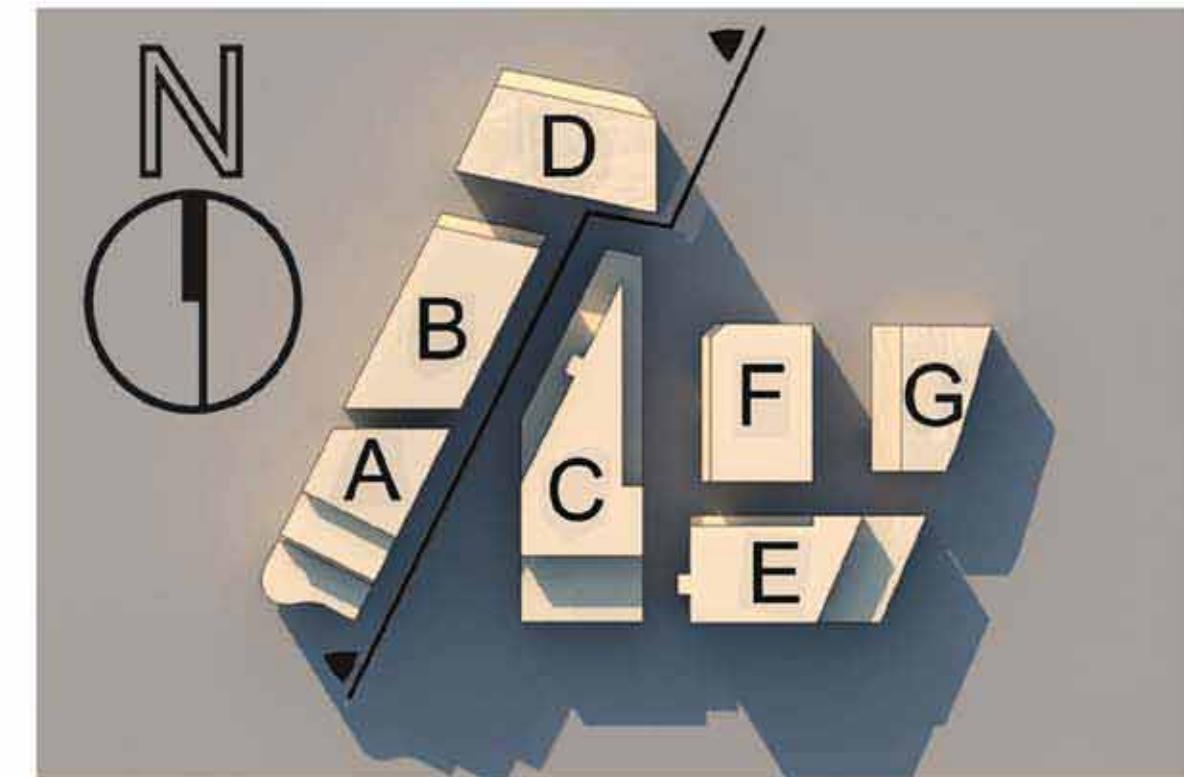


1:00 pm - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

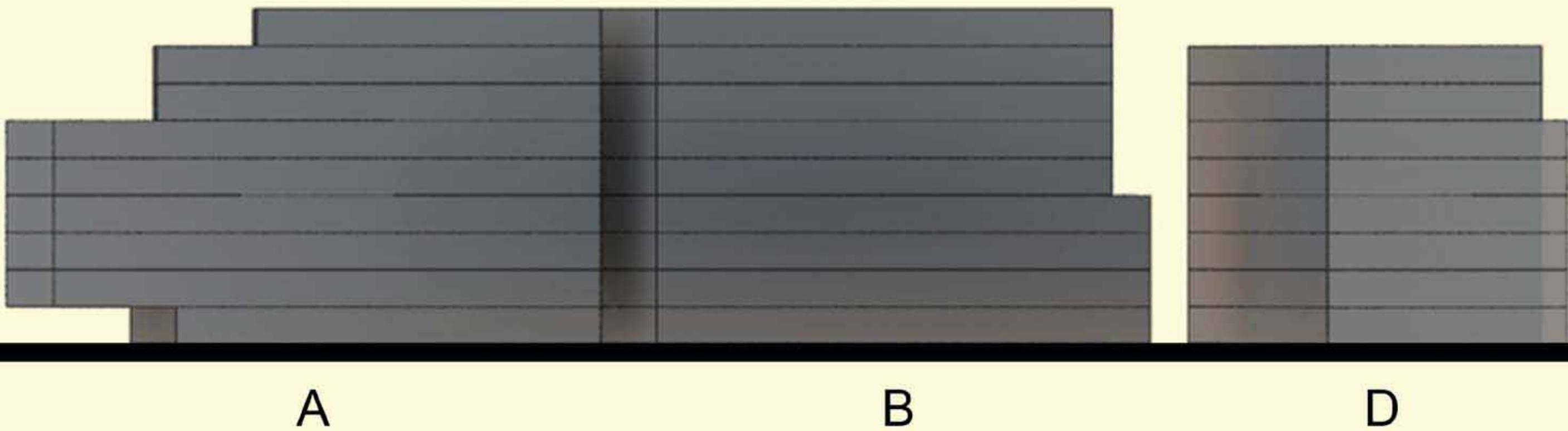
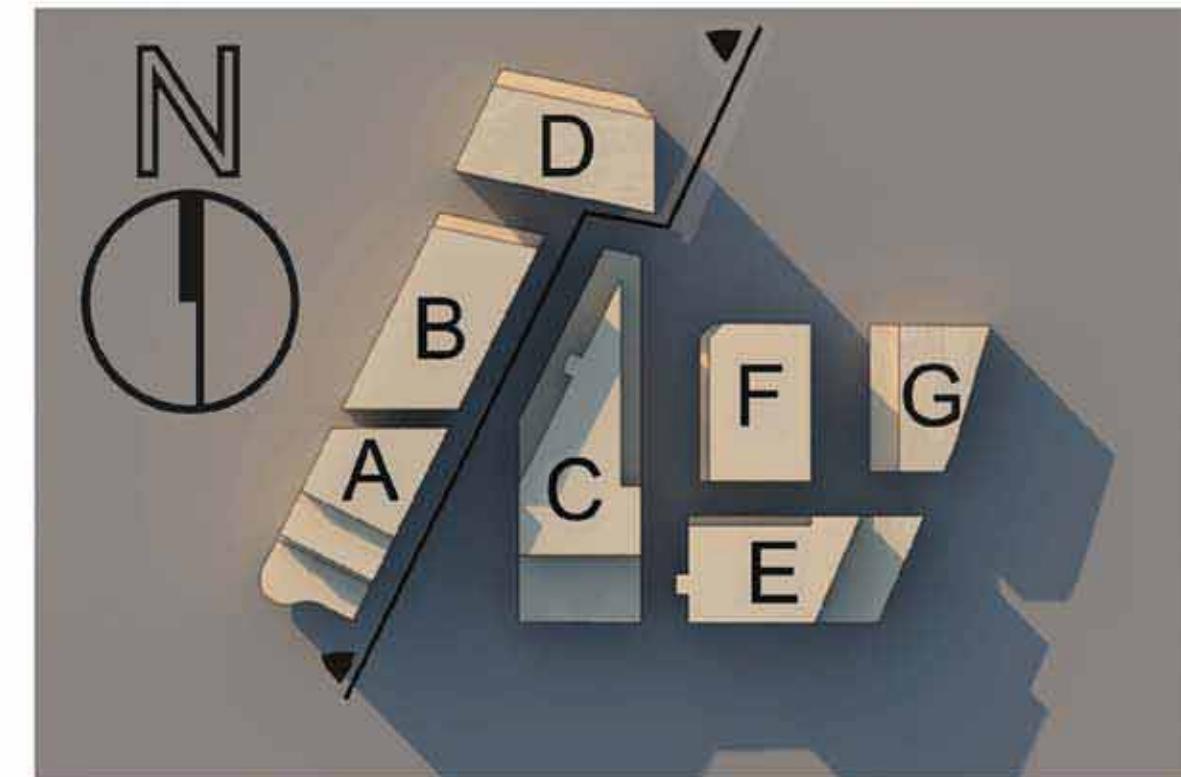


2:00 pm - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



B

A

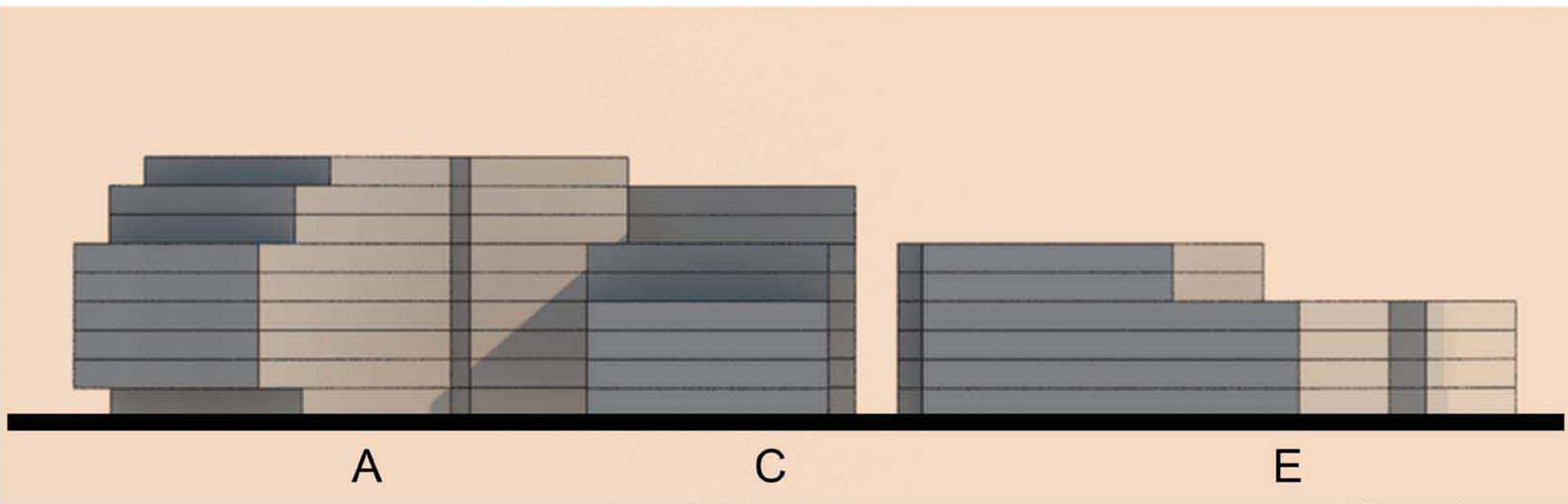
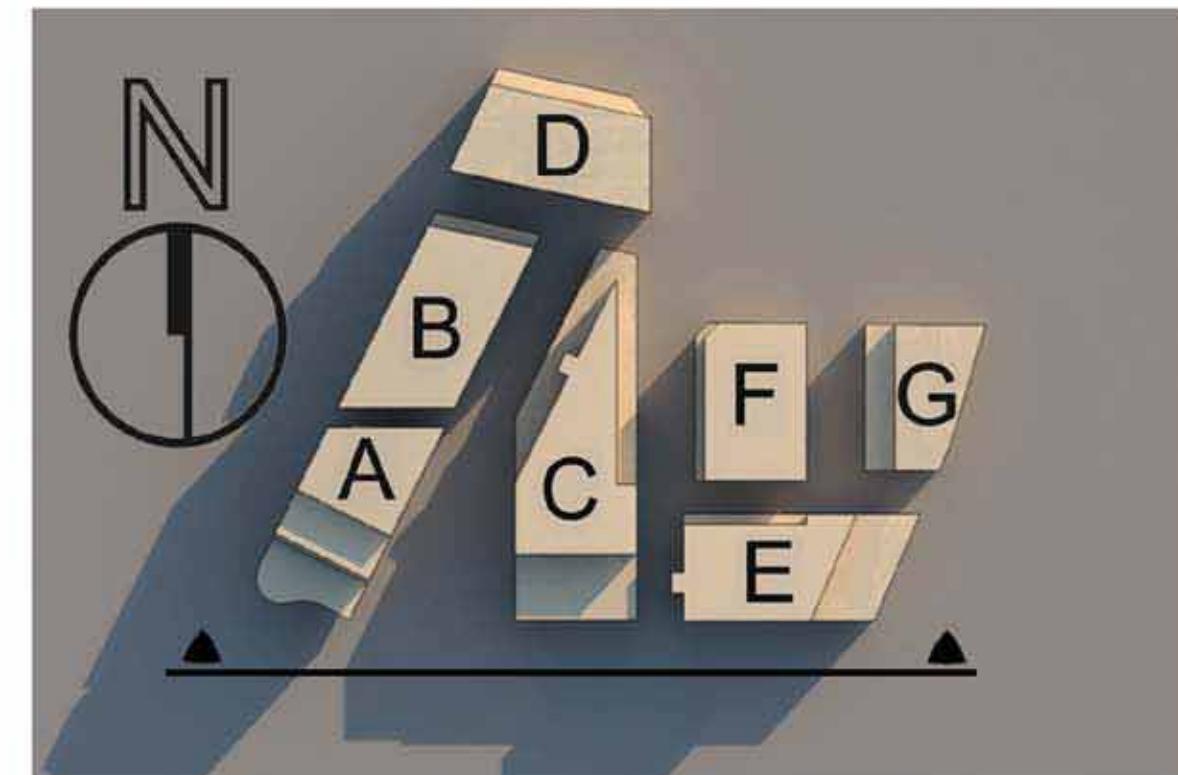
D

3:00 pm - June 21
South-East Facade

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

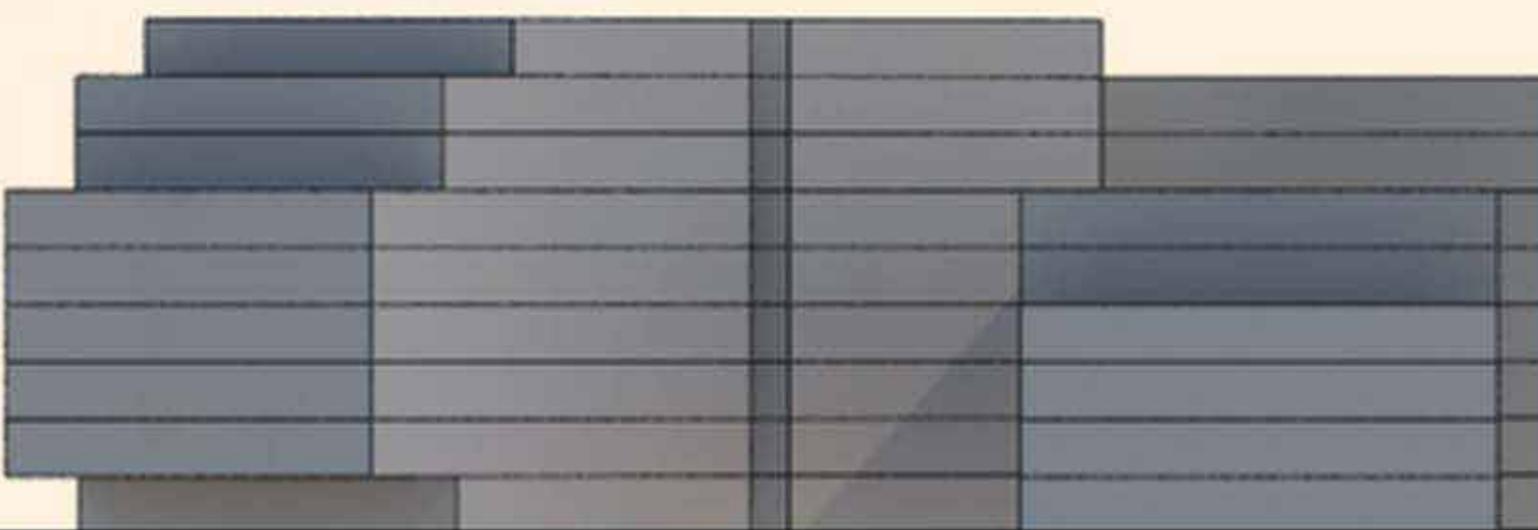
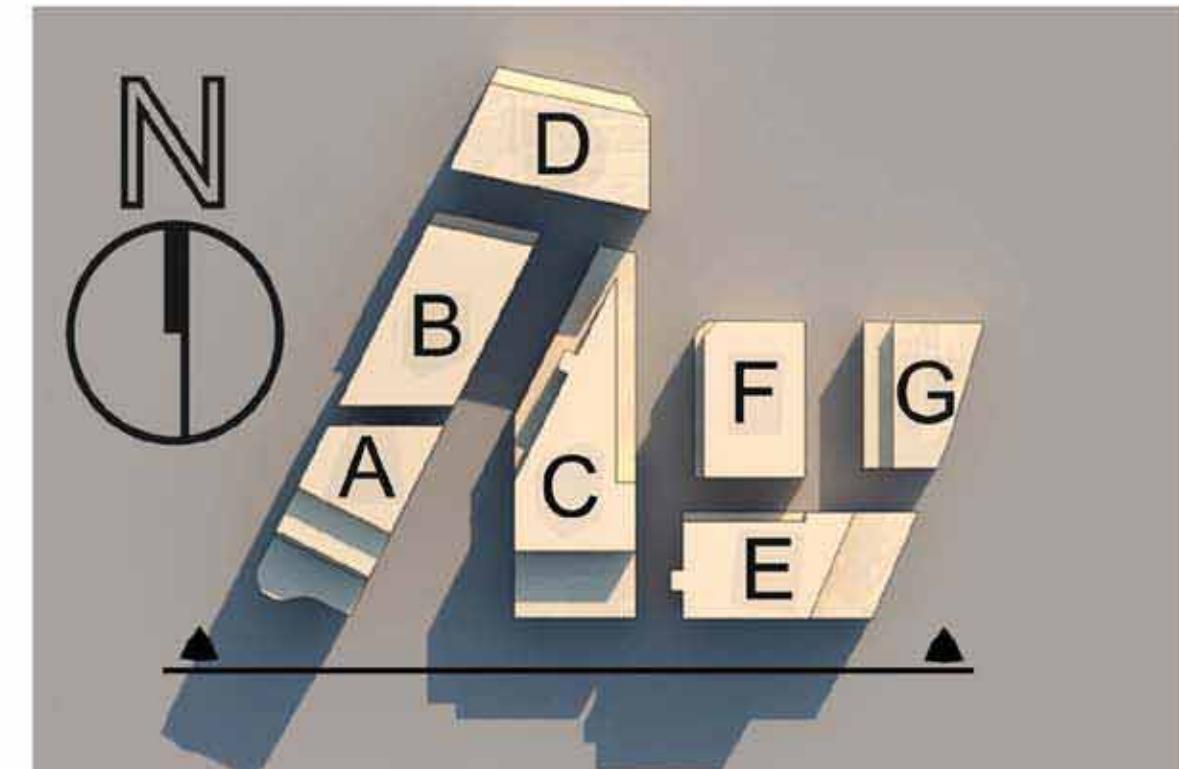


9:00 am - June 21
South Facade
Buildings A-C-E

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

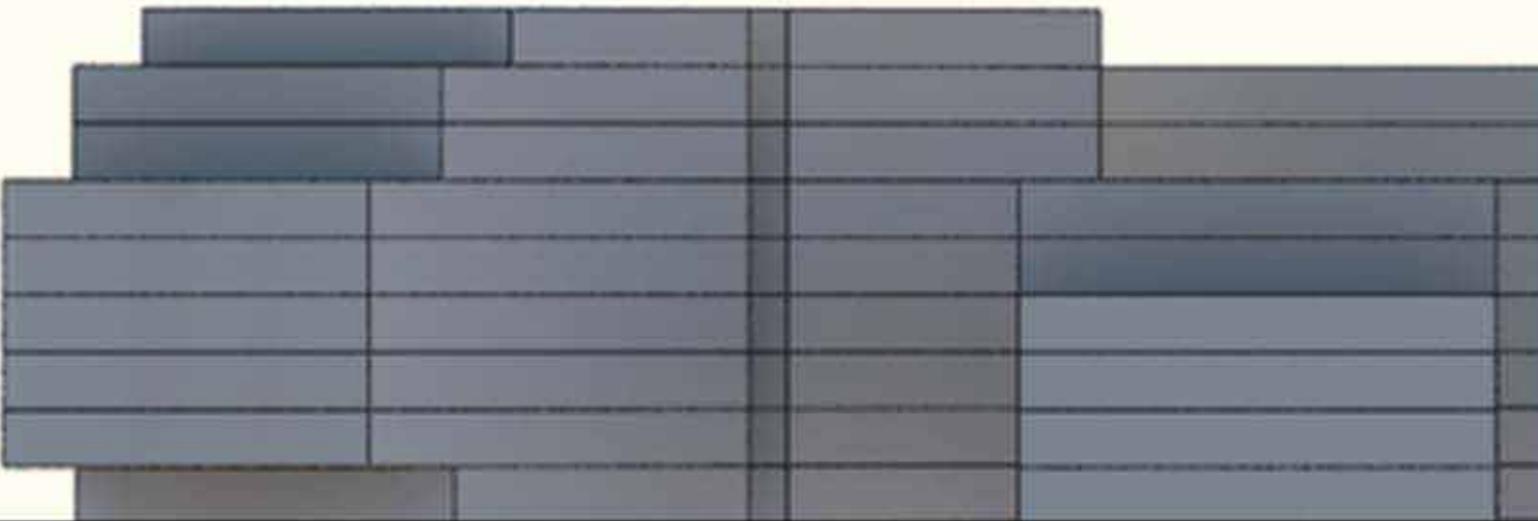
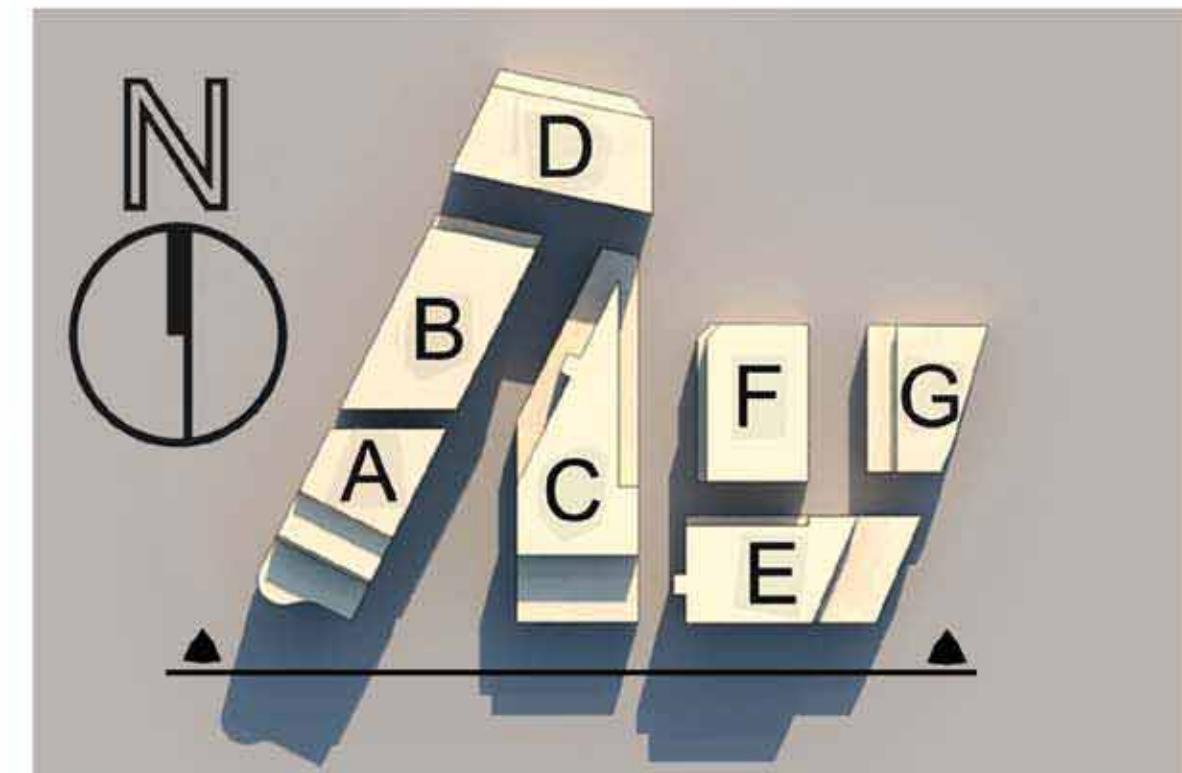
E

10:00 am - June 21
South Facade
Buildings A-C-E

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

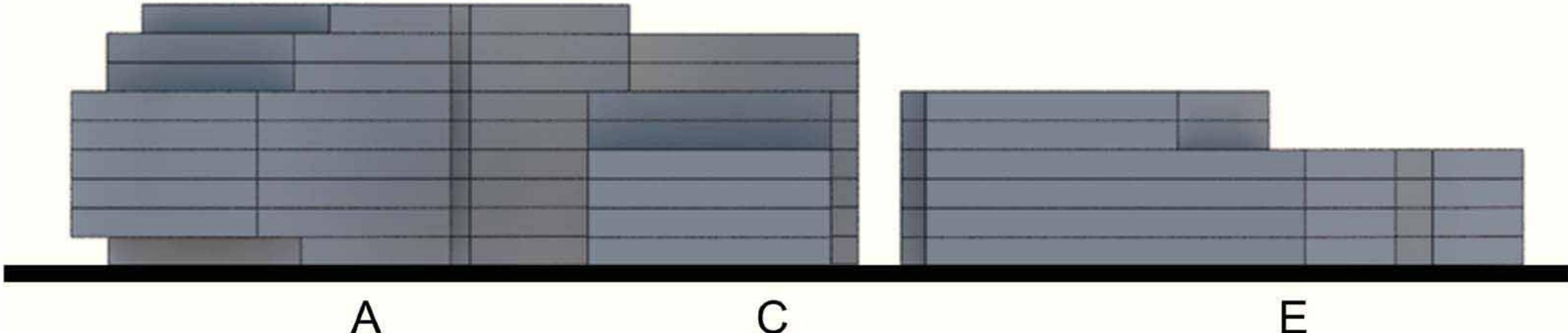
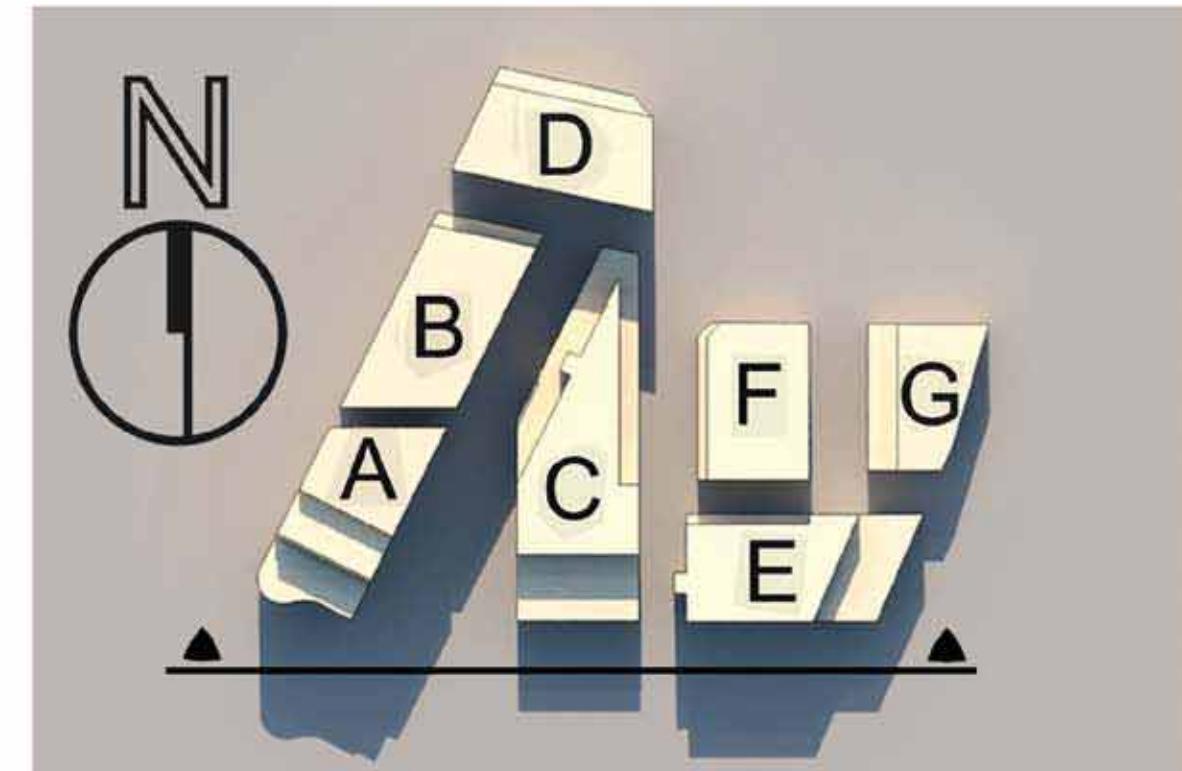
E

11:00 am - June 21
South Facade
Buildings A-C-E

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

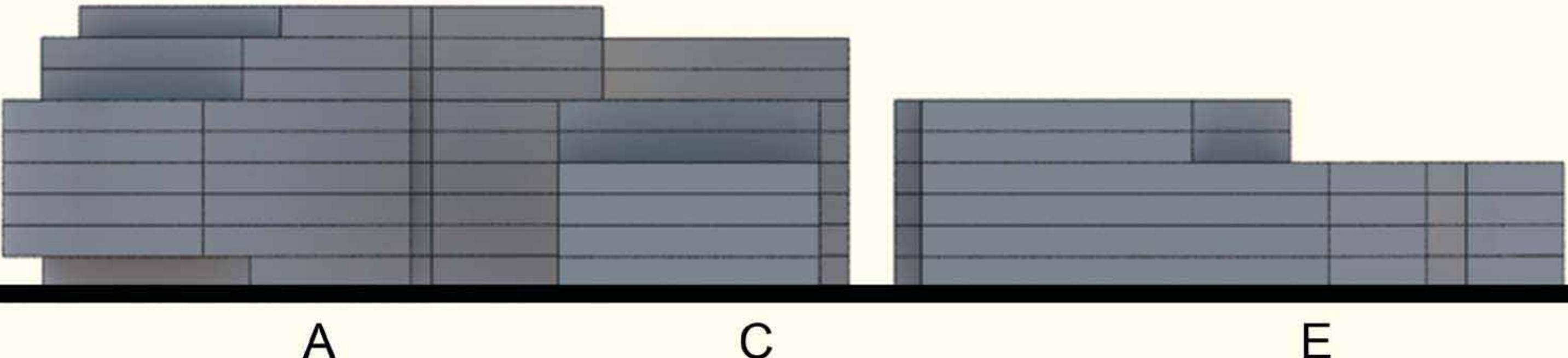
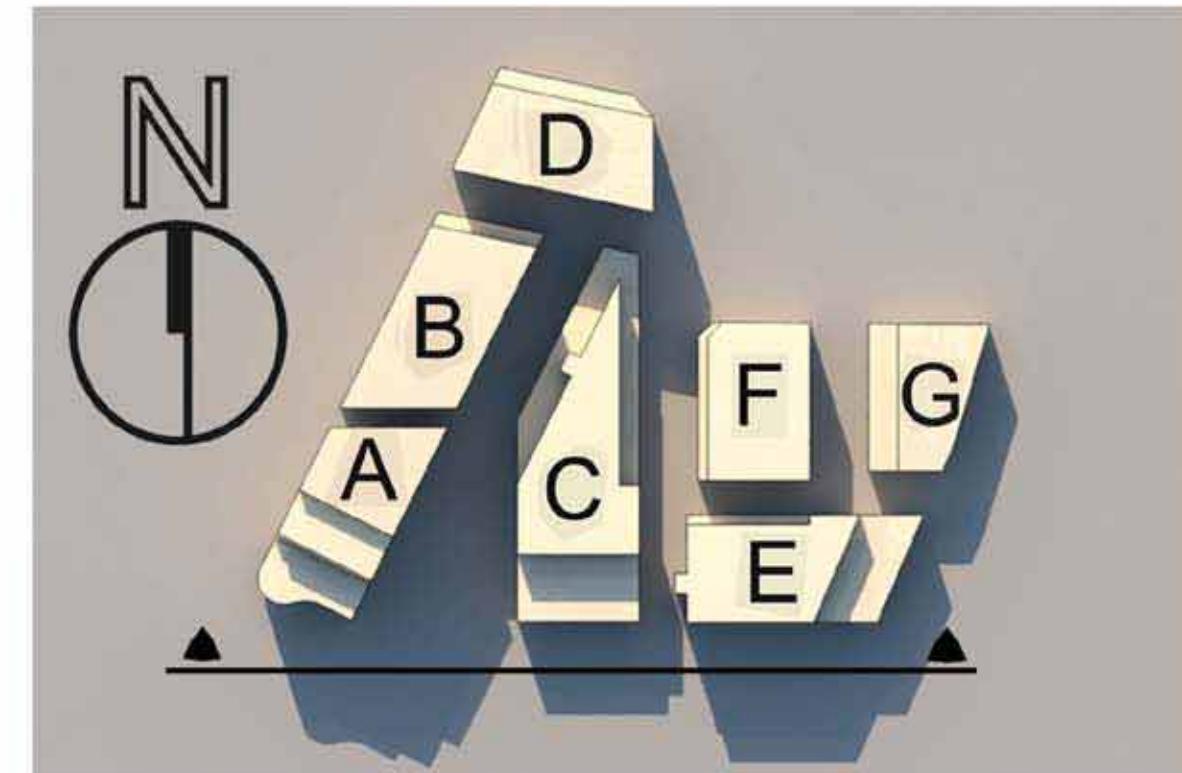


12:00 - June 21
South Facade
Buildings A-C-E

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

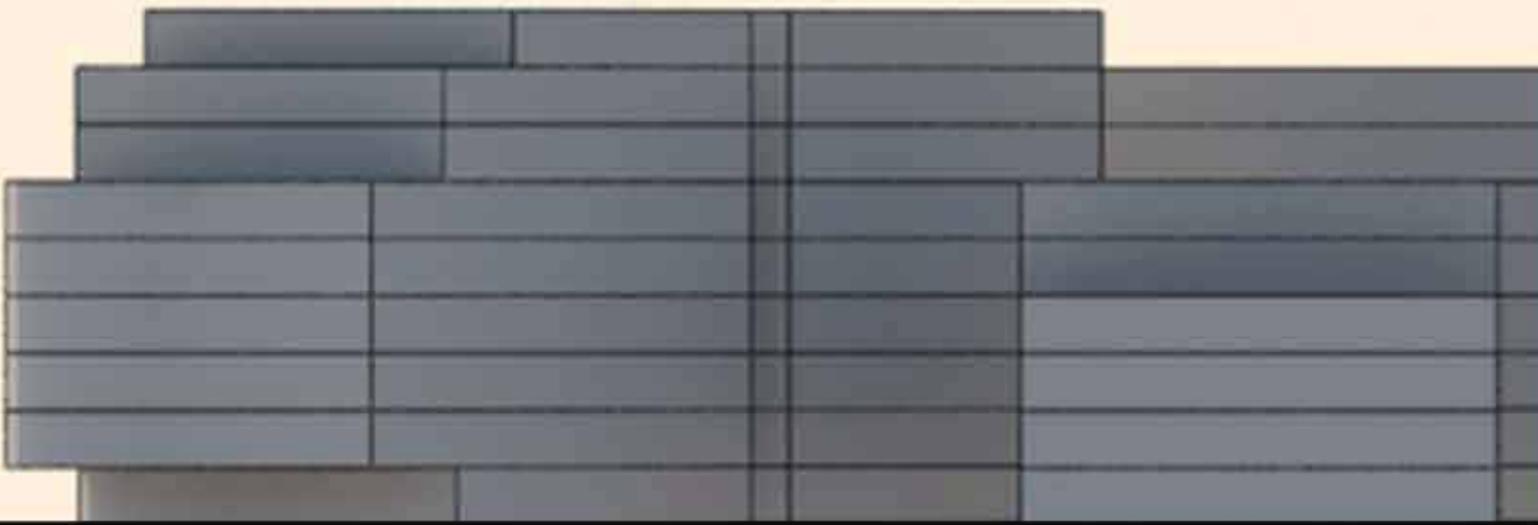
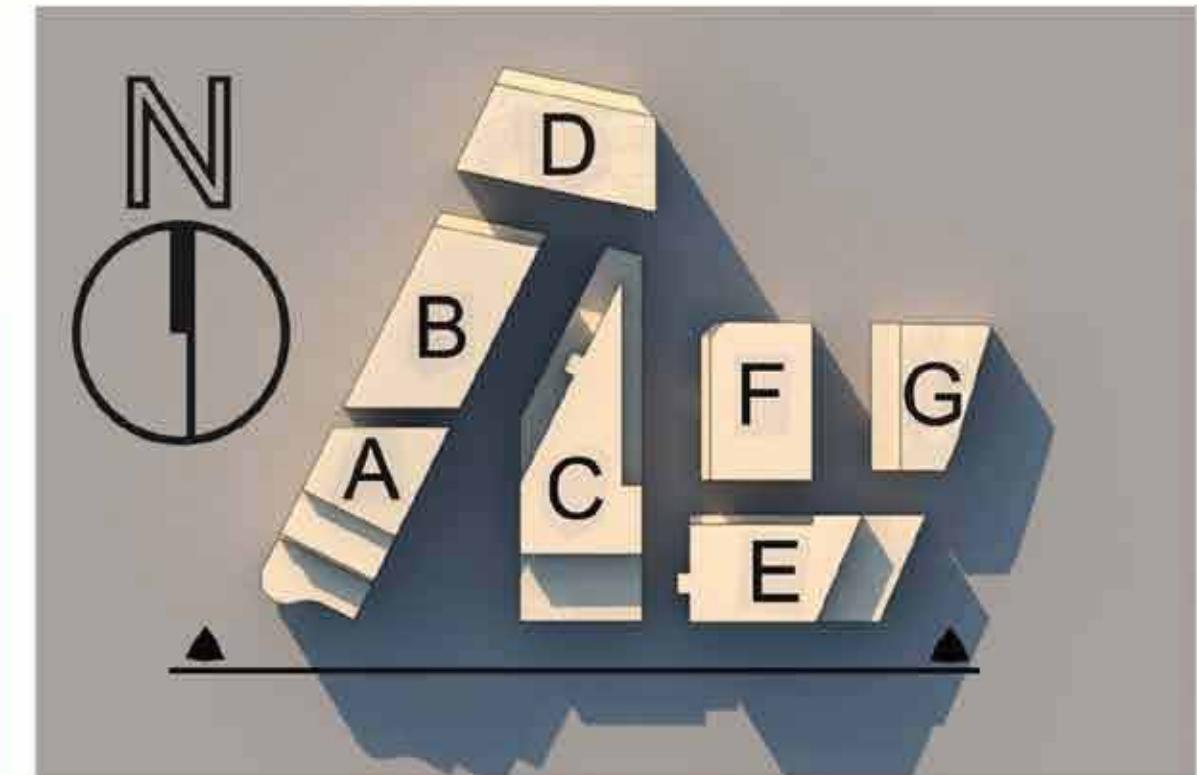


1:00 pm - June 21
South Facade
Buildings A-C-E

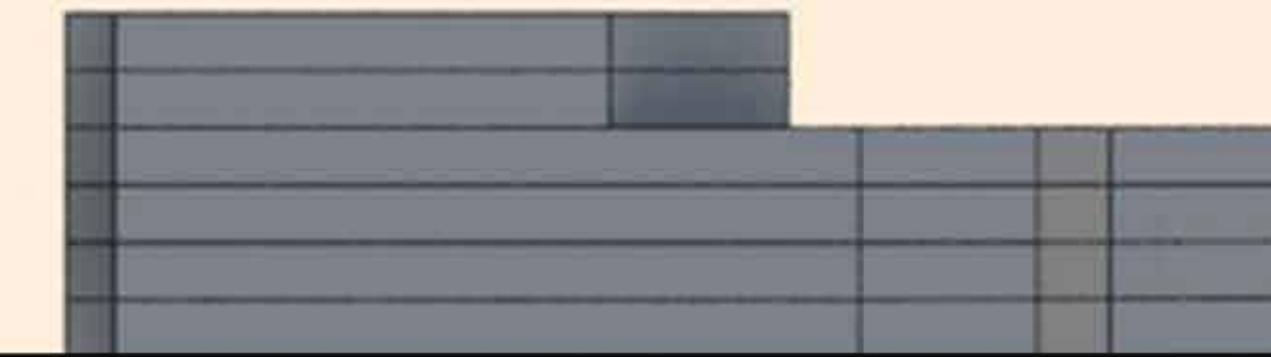
Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A



C

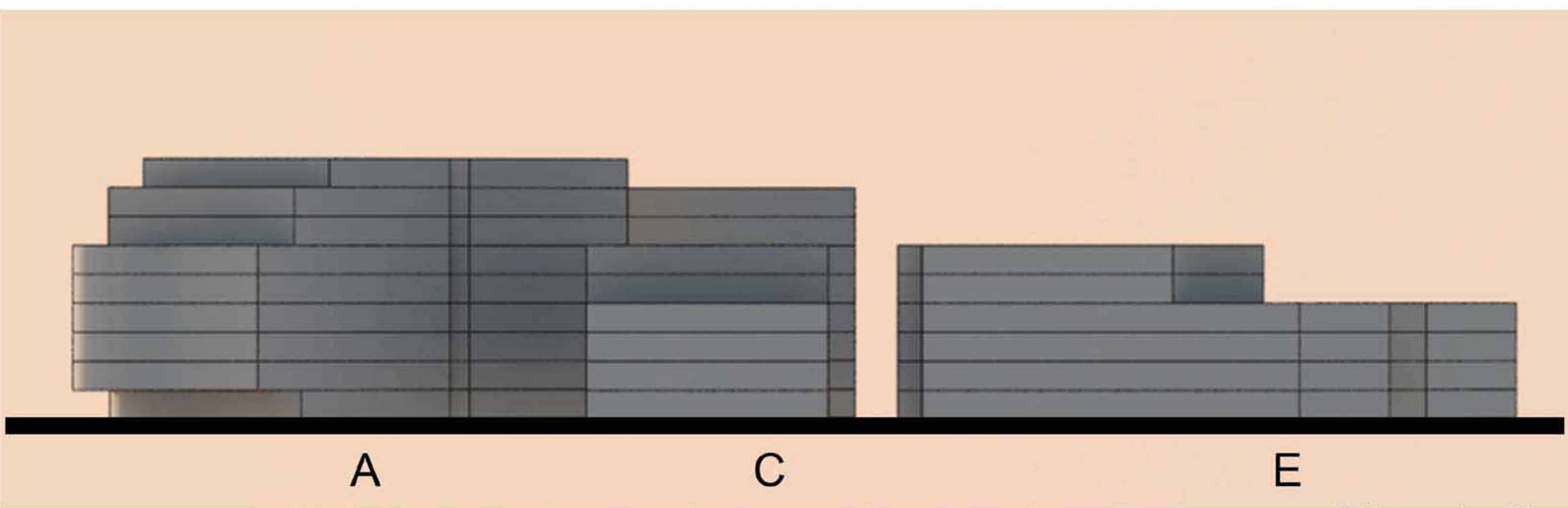
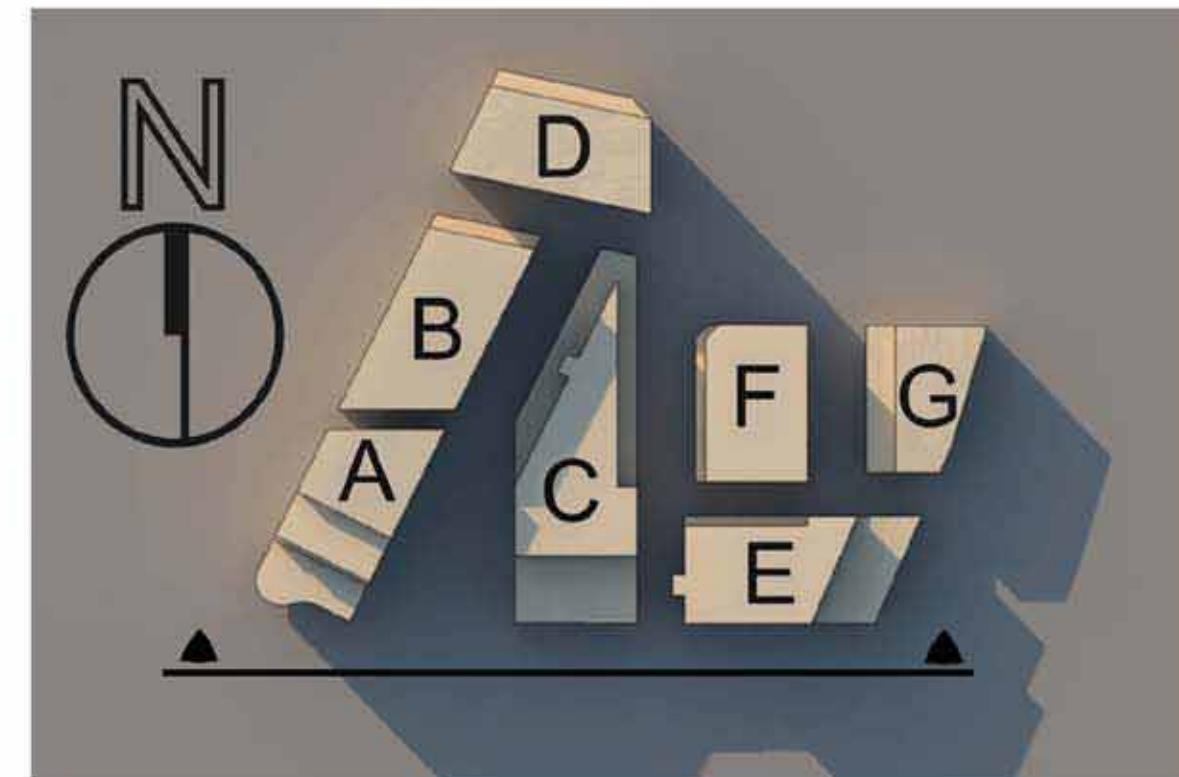
E

2:00 pm - June 21
South Facade
Buildings A-C-E

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

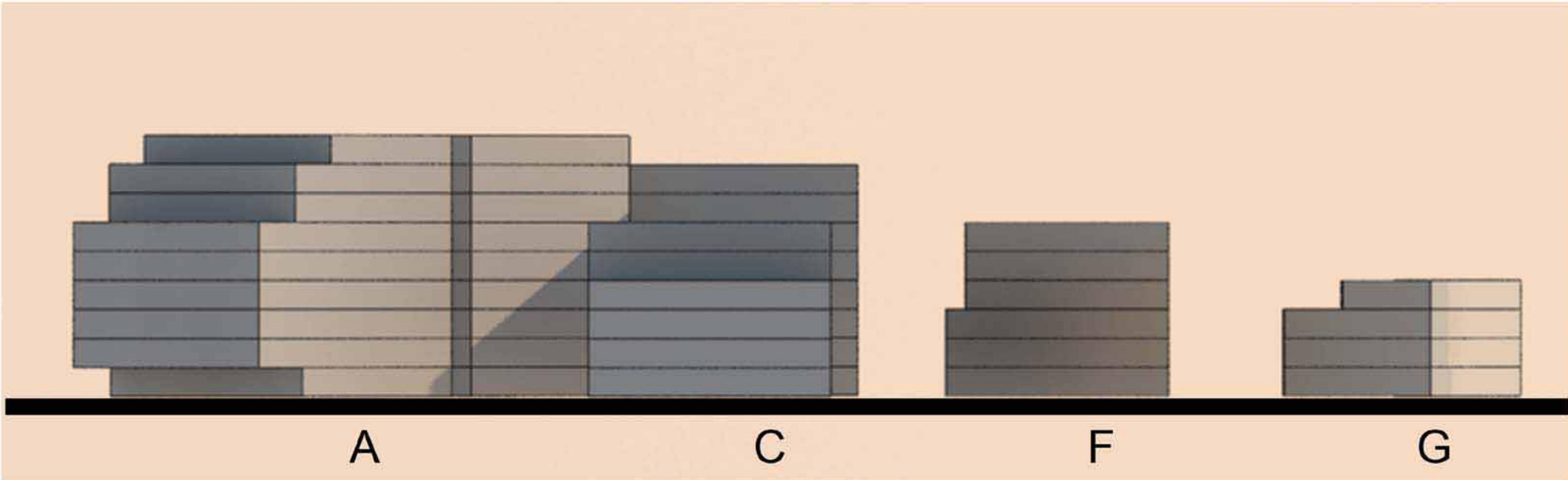
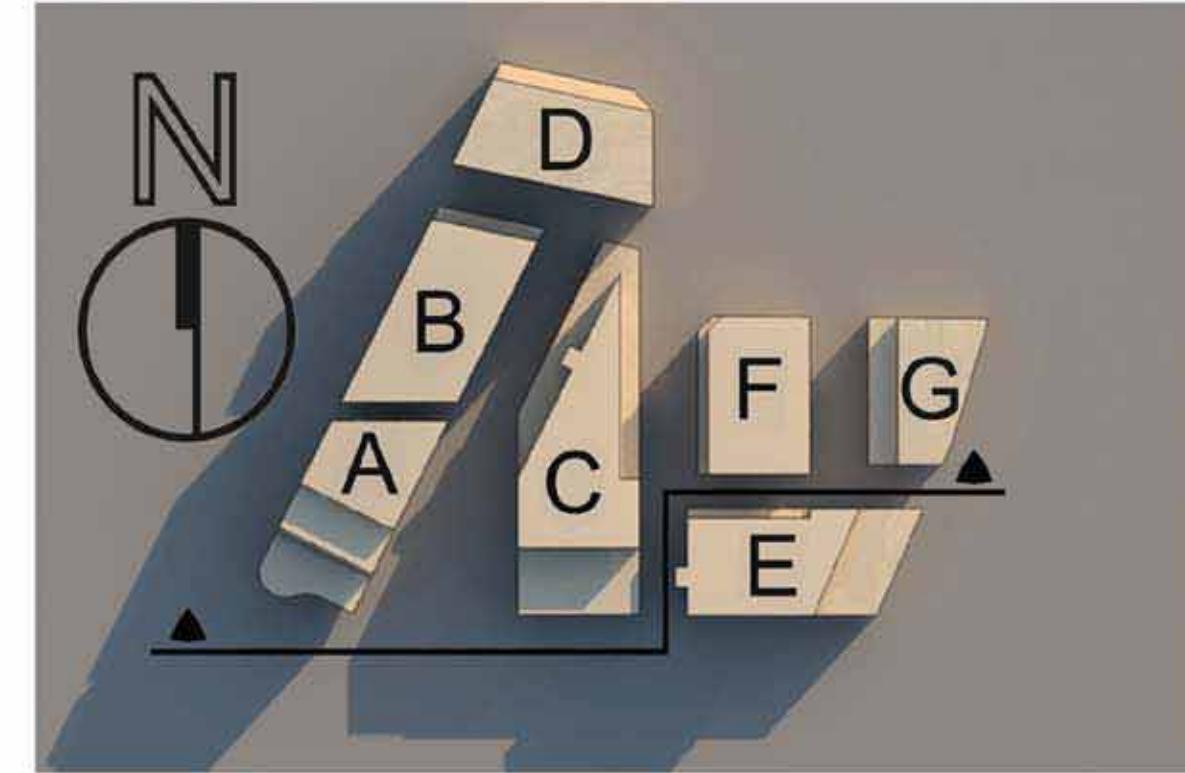
E

3:00 pm - June 21
South Facade
Buildings A-C-E

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

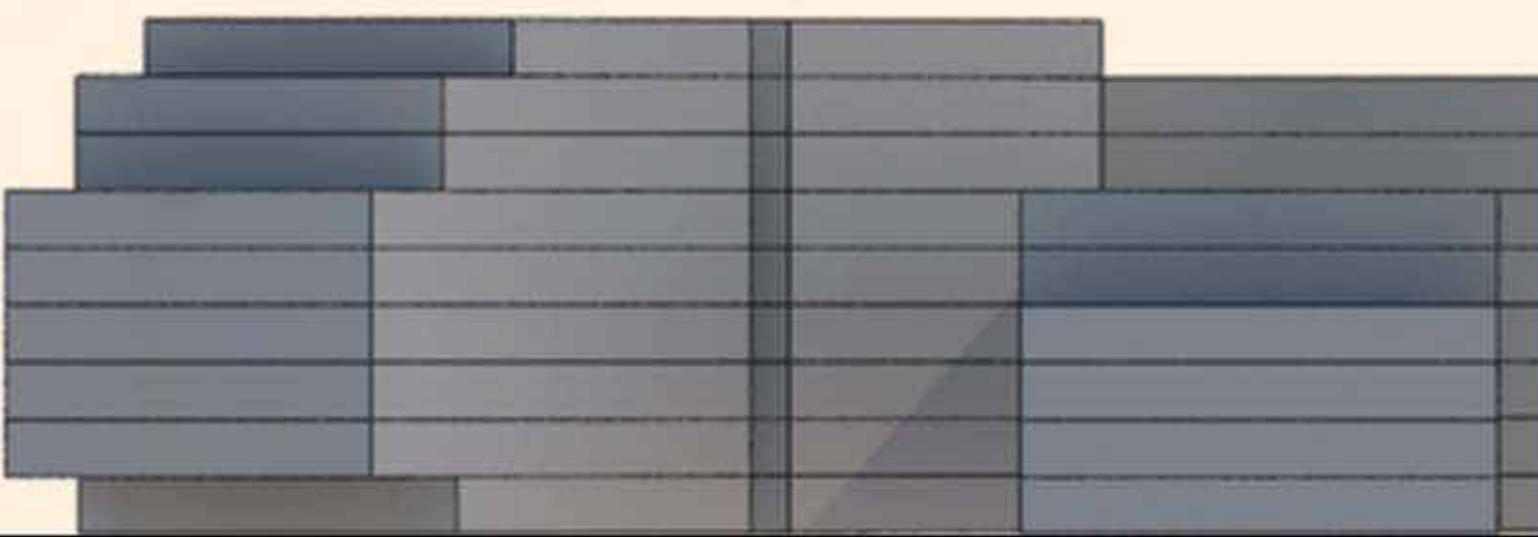
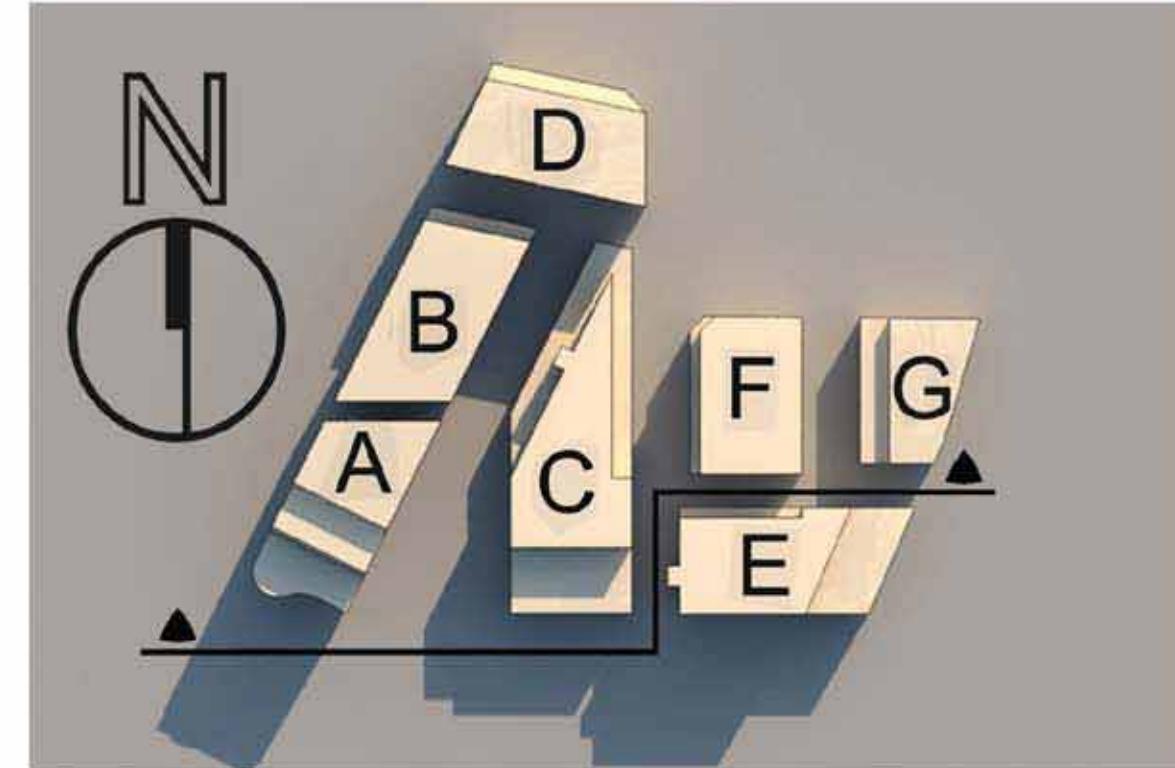


9:00 am - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

F

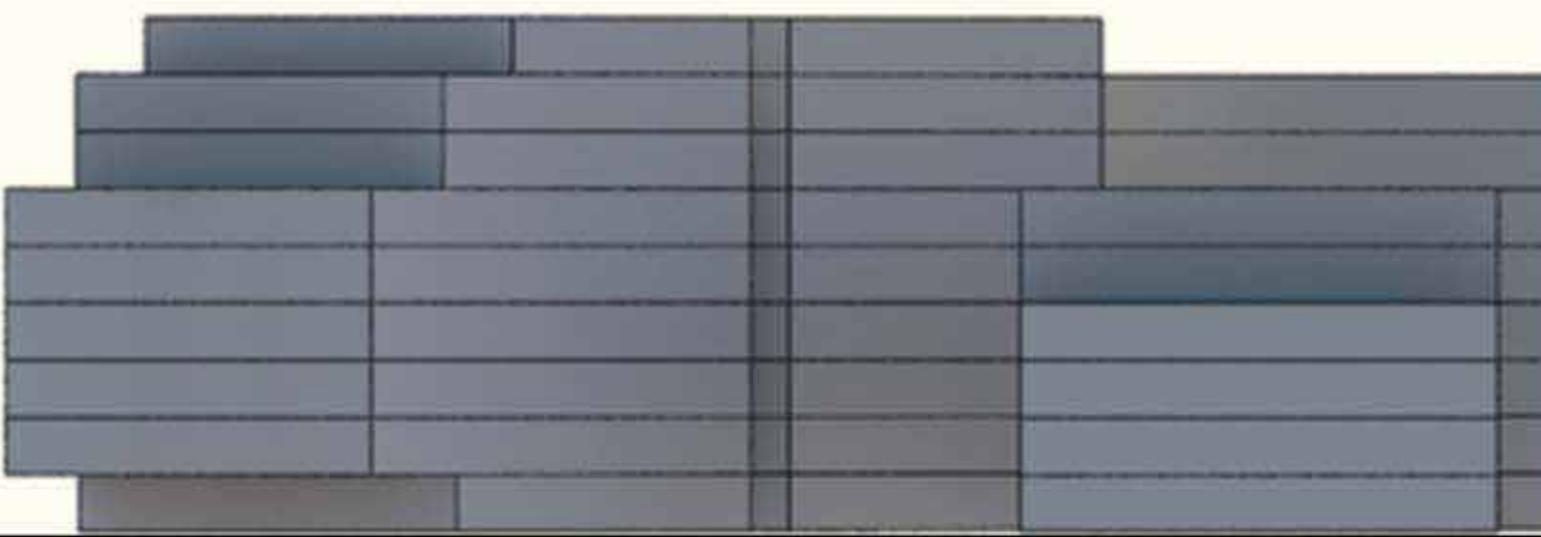
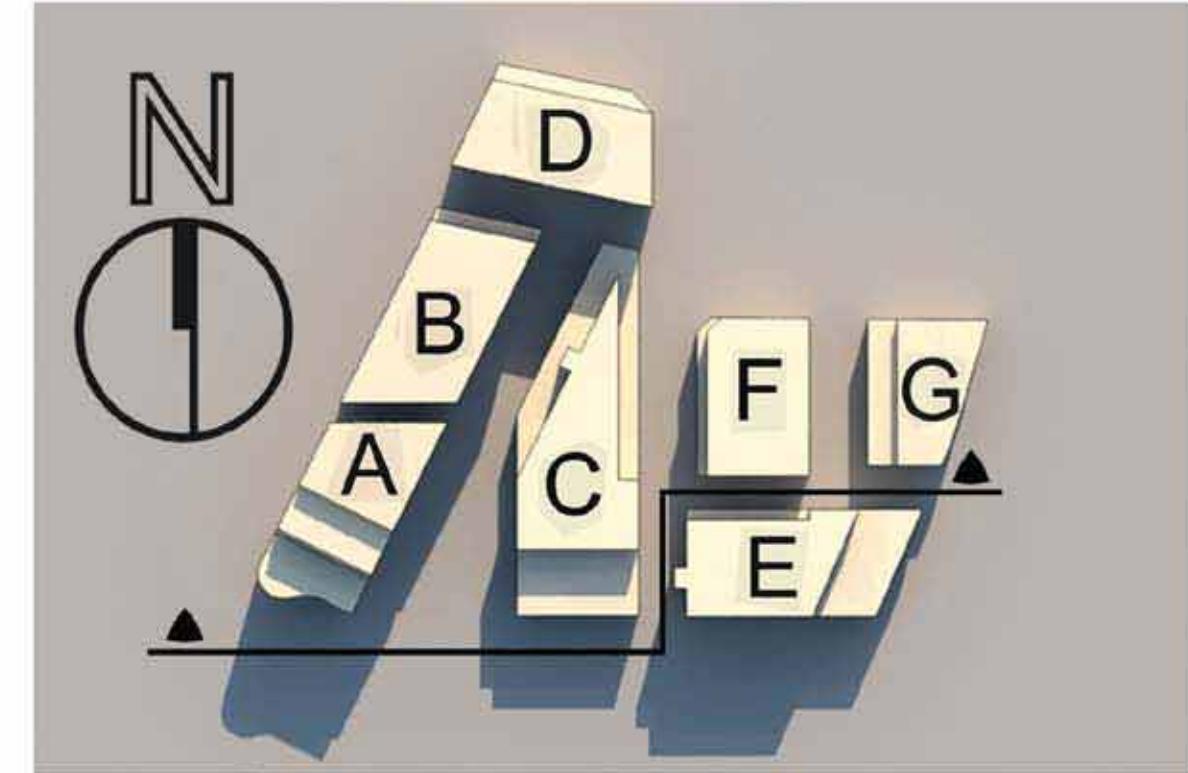
G

10:00 am - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

F

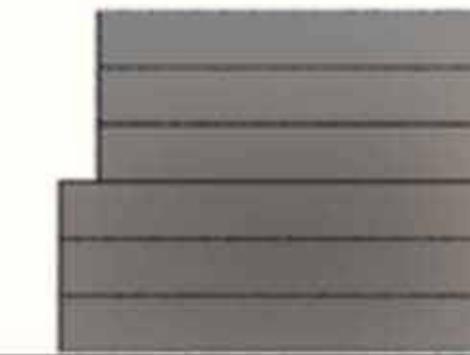
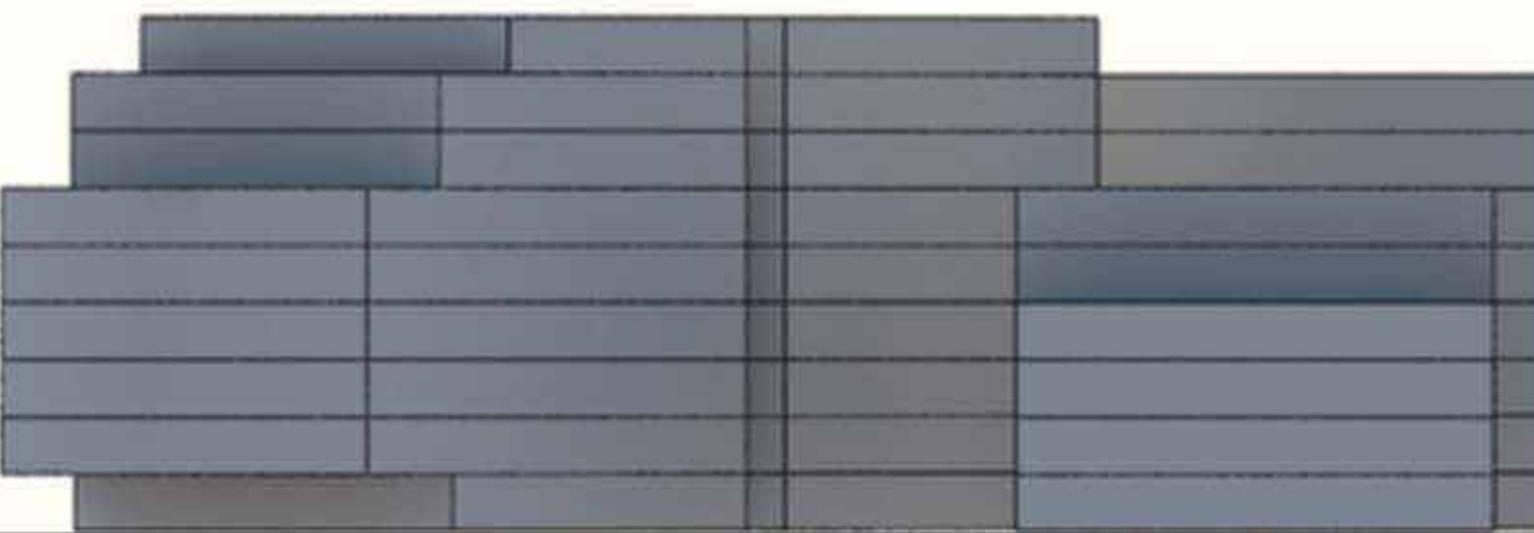
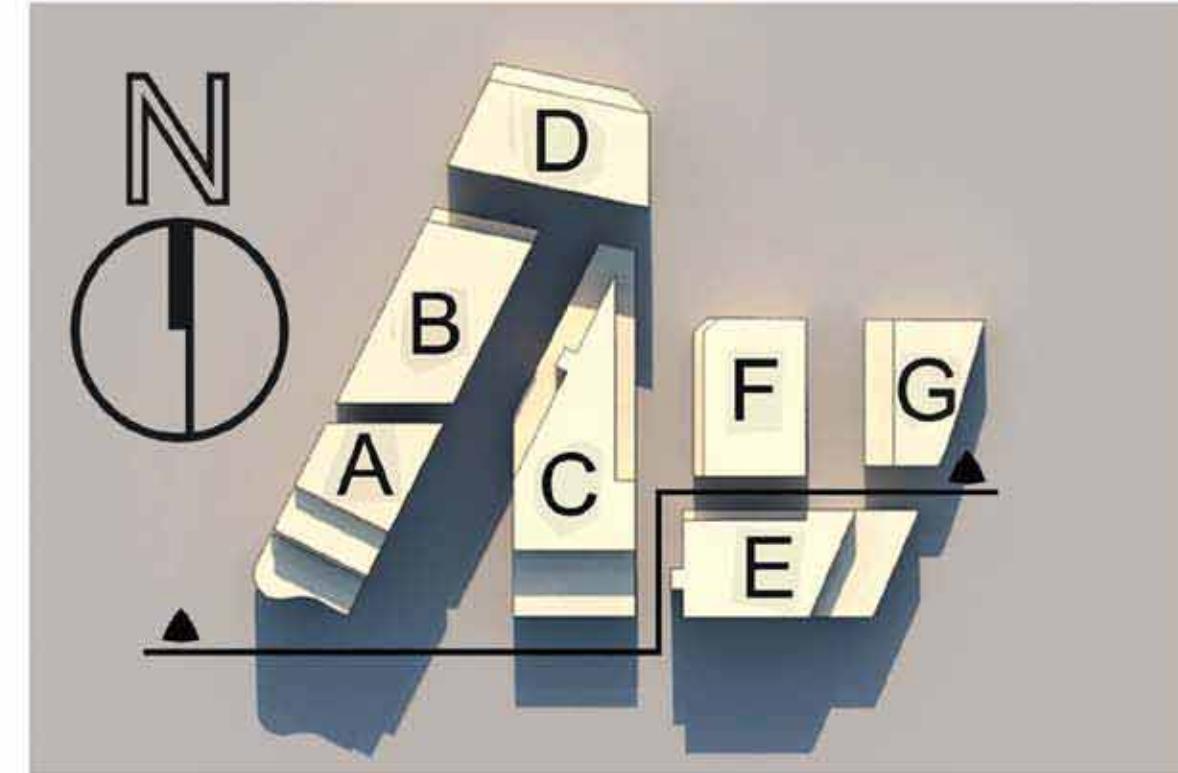
G

11:00 am - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

F

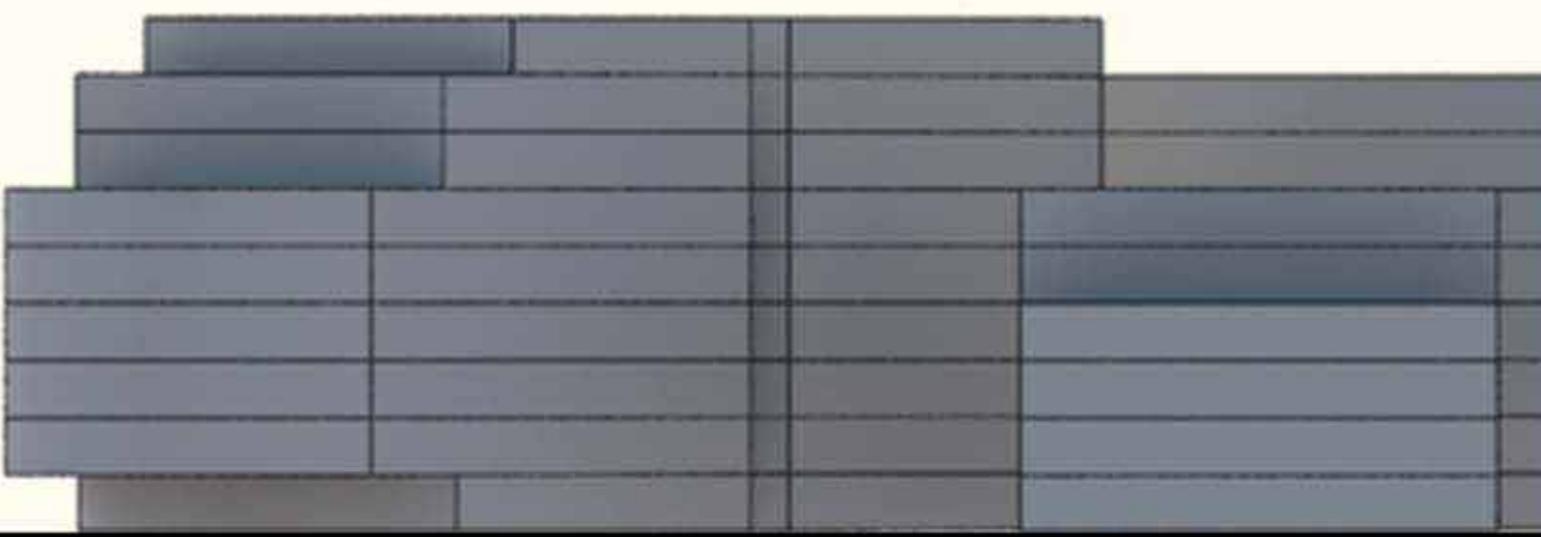
G

12:00 - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

F

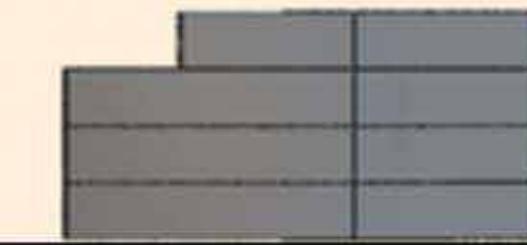
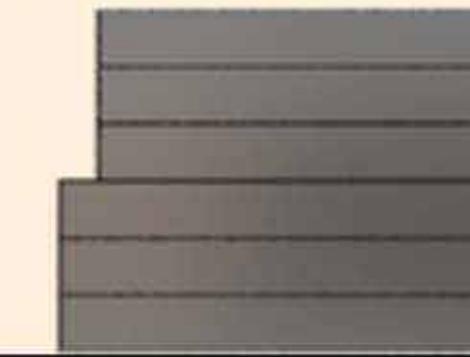
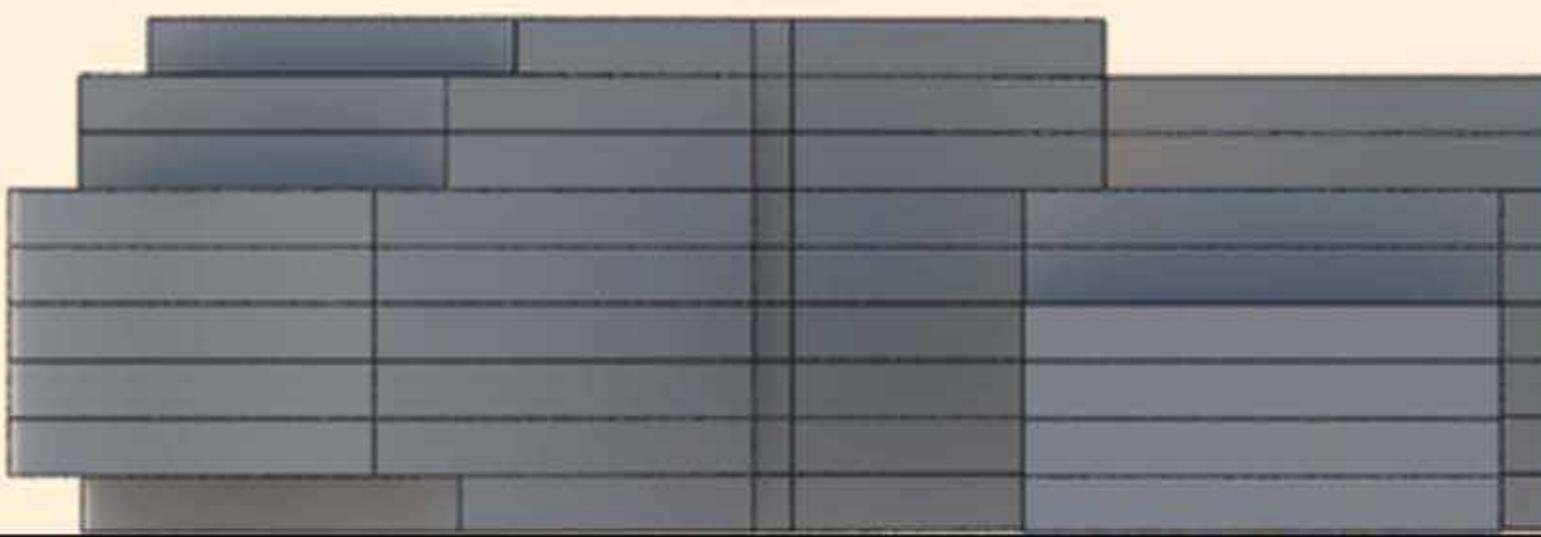
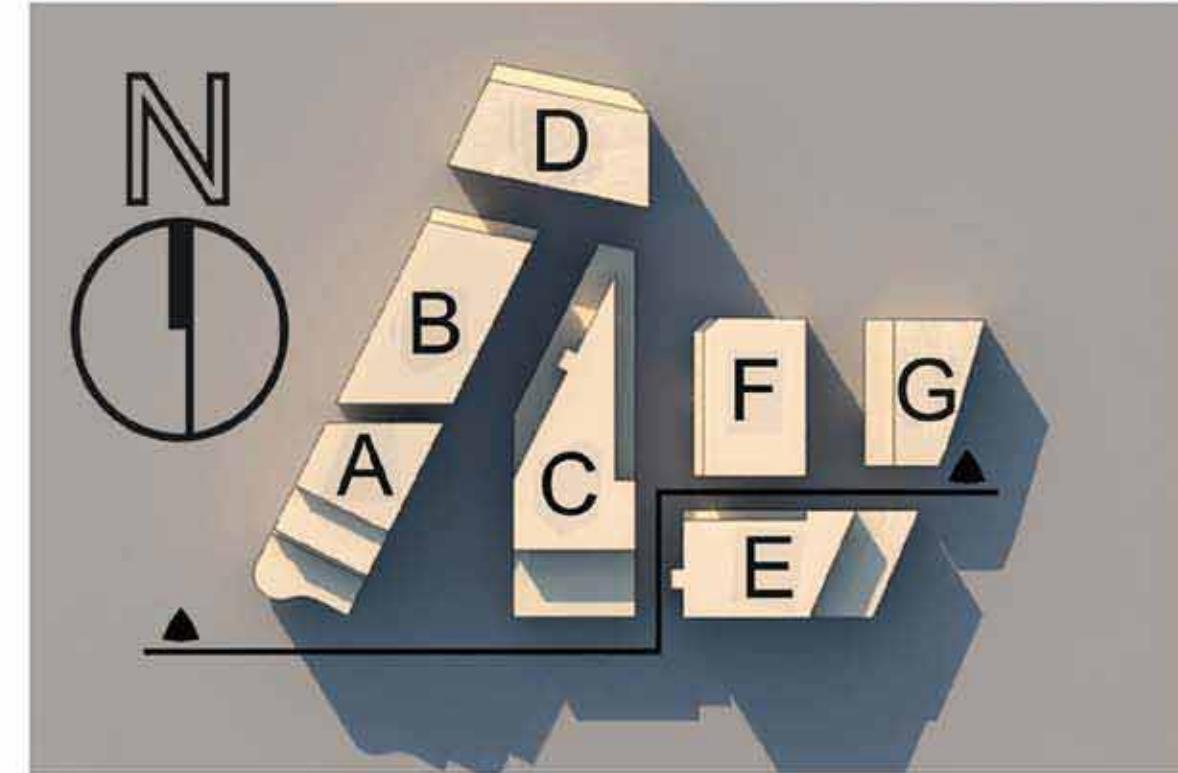
G

1:00 pm - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



A

C

F

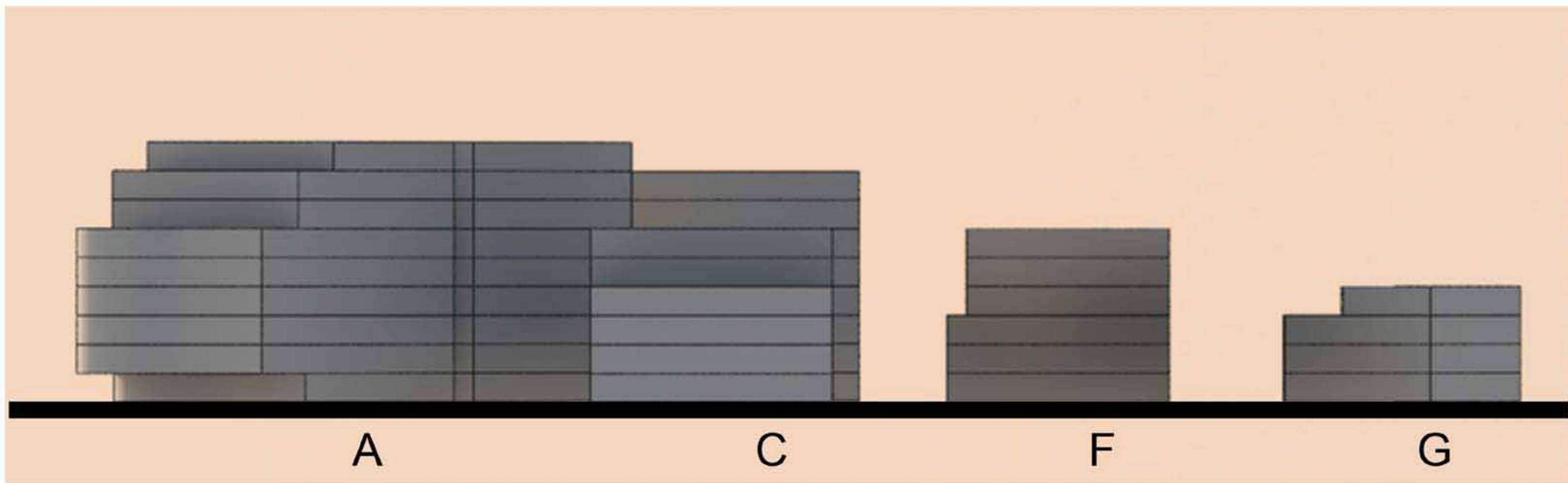
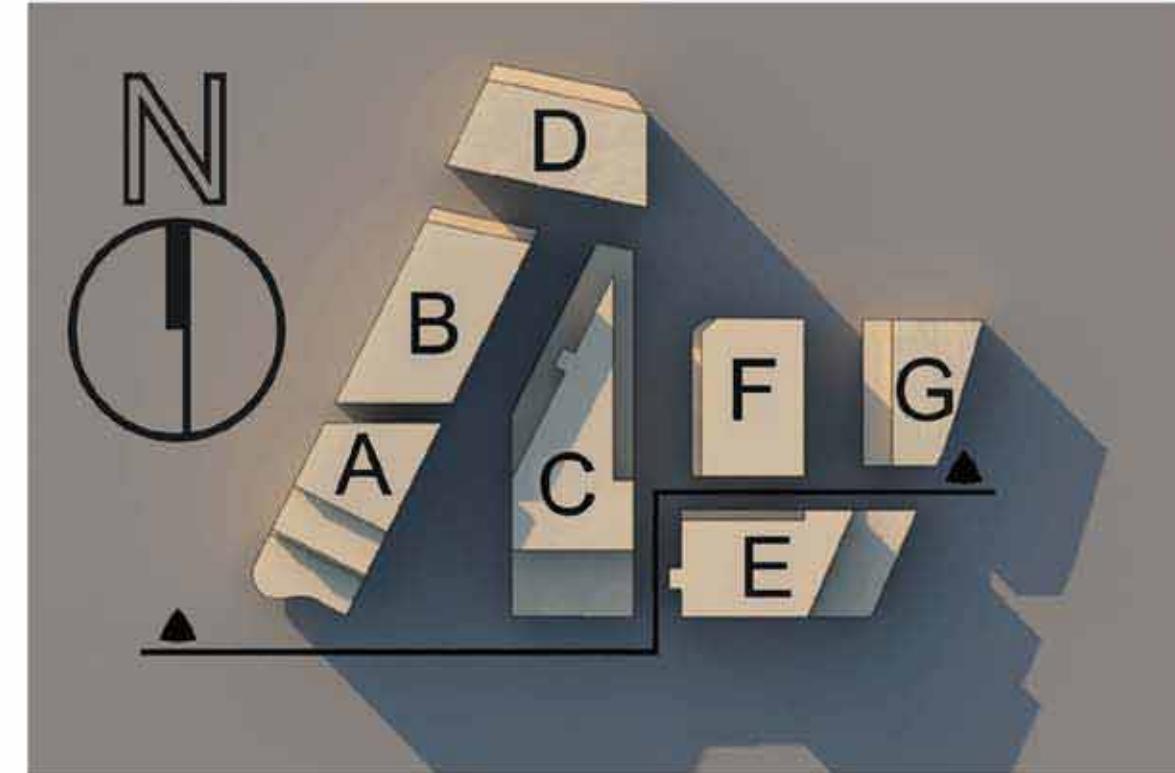
G

2:00 pm - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



3:00 pm - June 21
South Facade
Buildings A-C-F-G

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



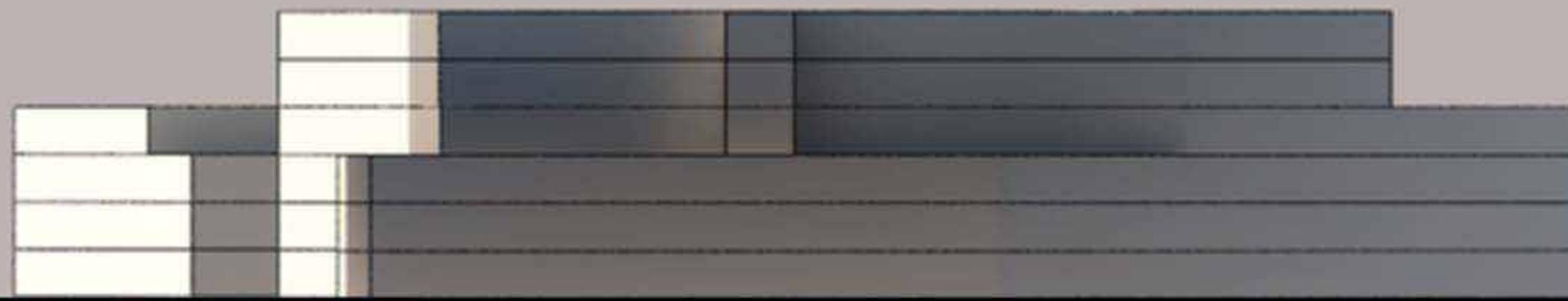
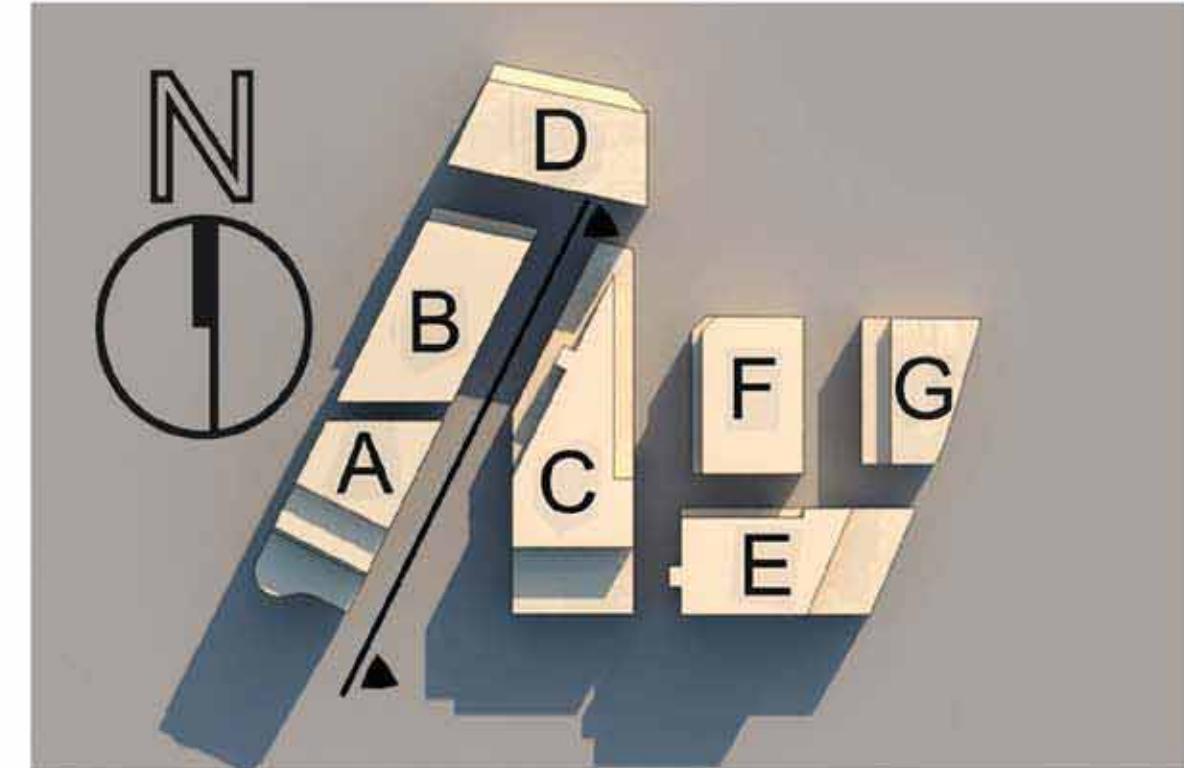
C

9:00 am - June 21
West Facade
Buildings C

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



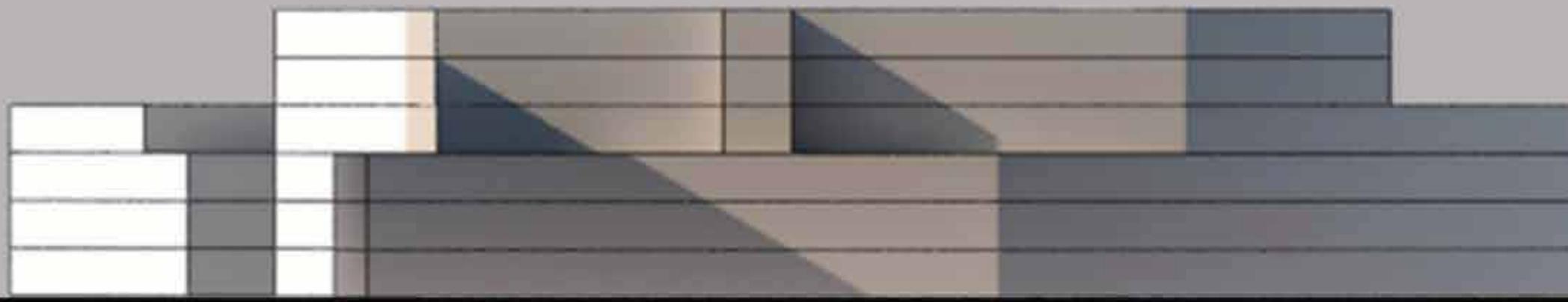
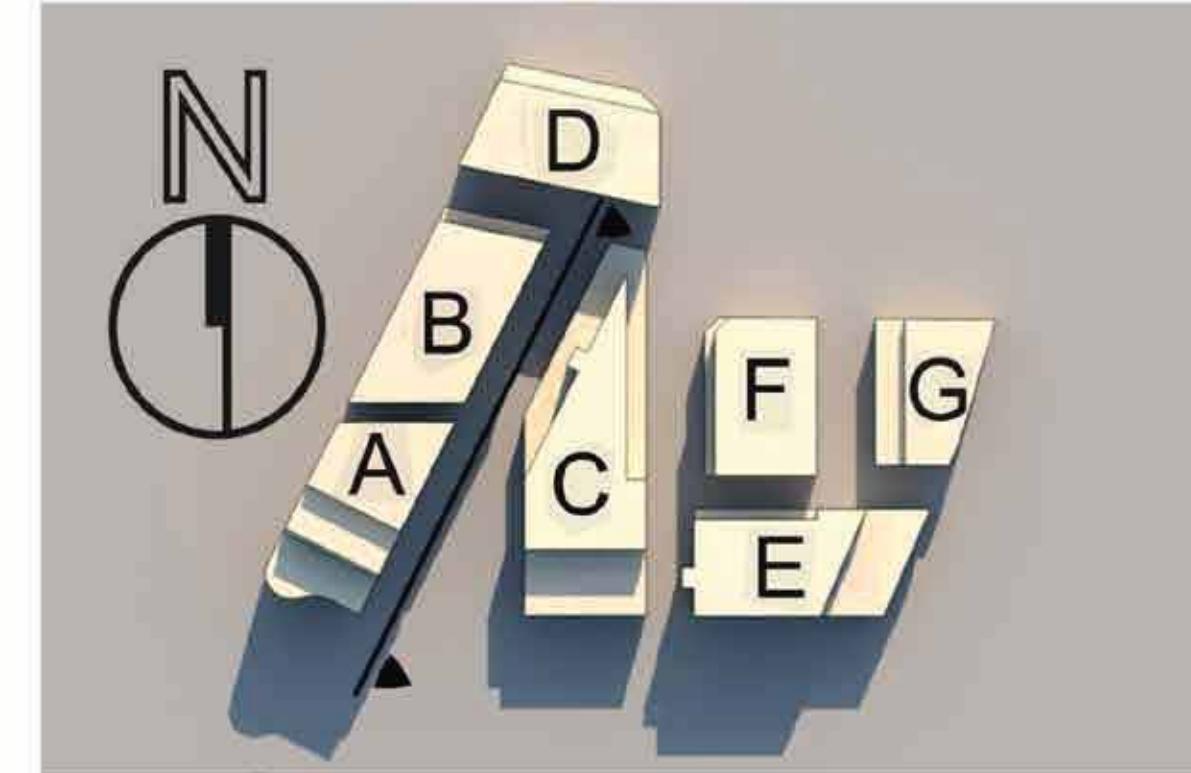
C

10:00 am - June 21
West Facade
Buildings C

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



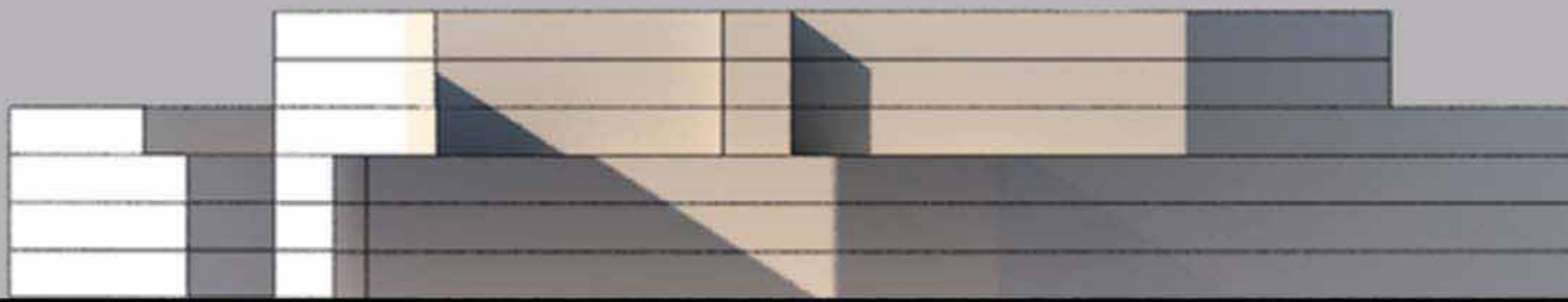
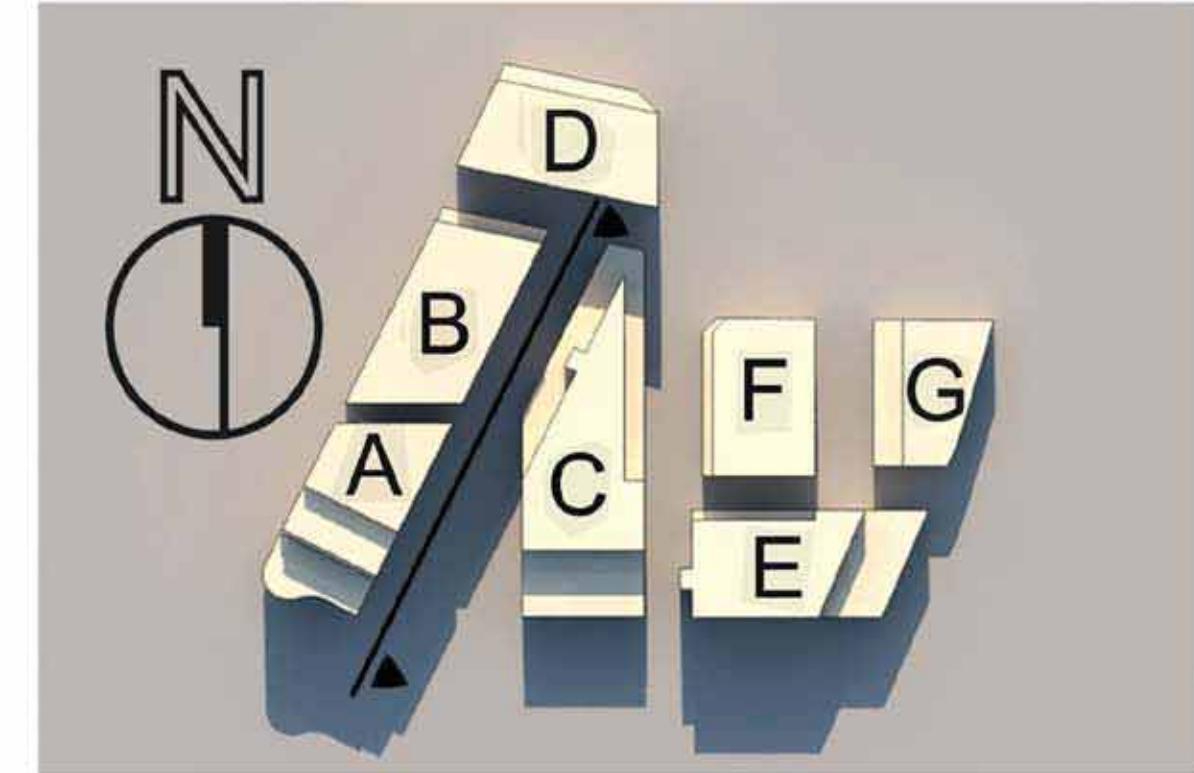
C

11:00 am - June 21
West Facade
Buildings C

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



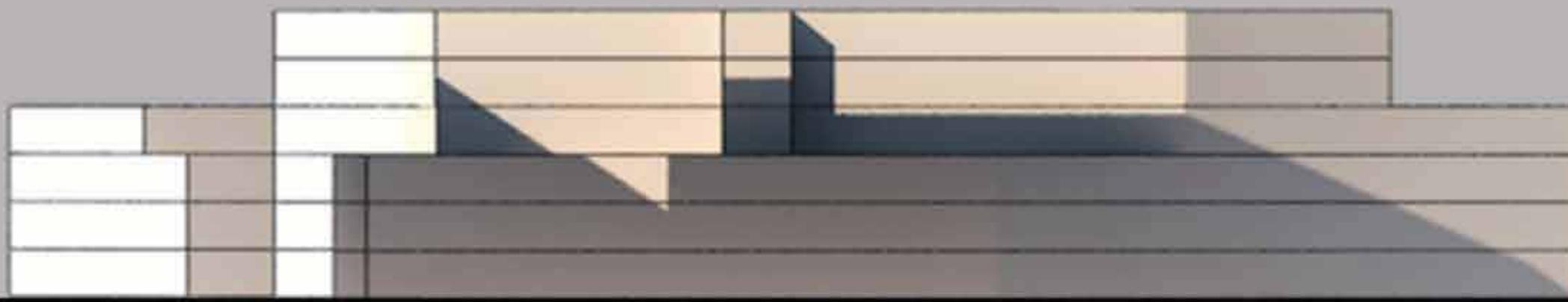
C

12:00 - June 21
West Facade
Buildings C

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



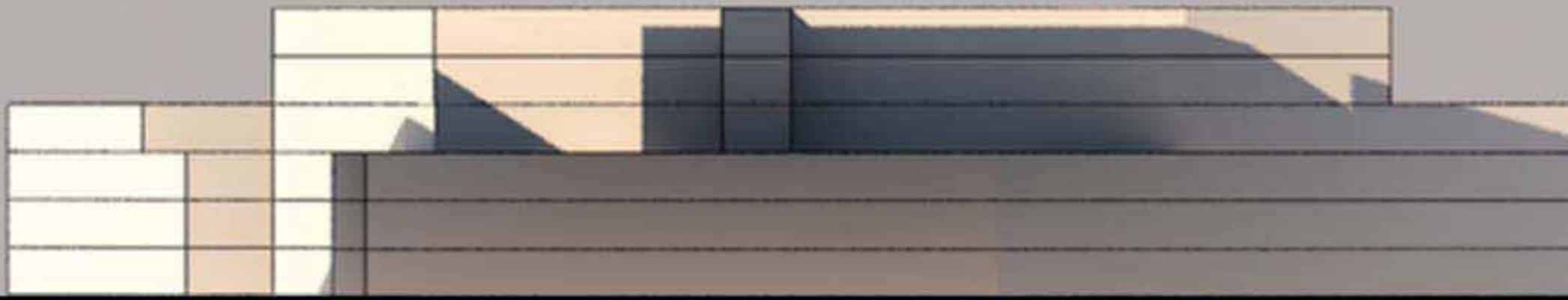
C

1:00 pm - June 21
West Facade
Buildings C

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



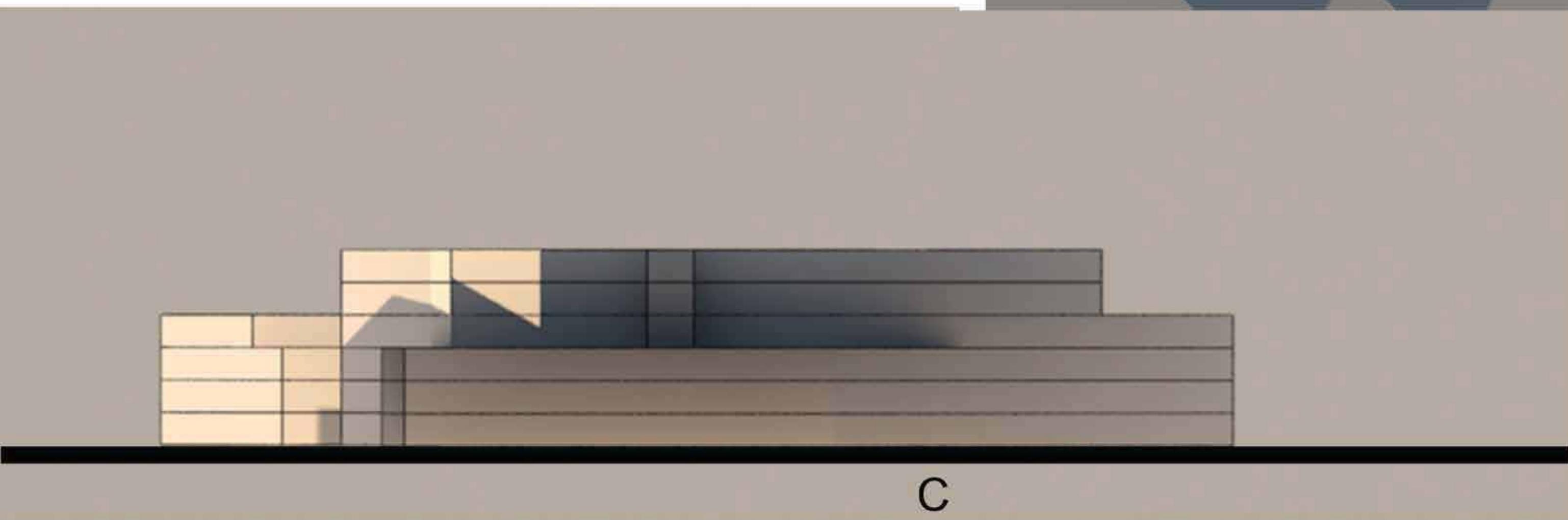
C

2:00 pm - June 21
West Facade
Buildings C

Revised Masterplan - March 2011

tony owen ptnrs

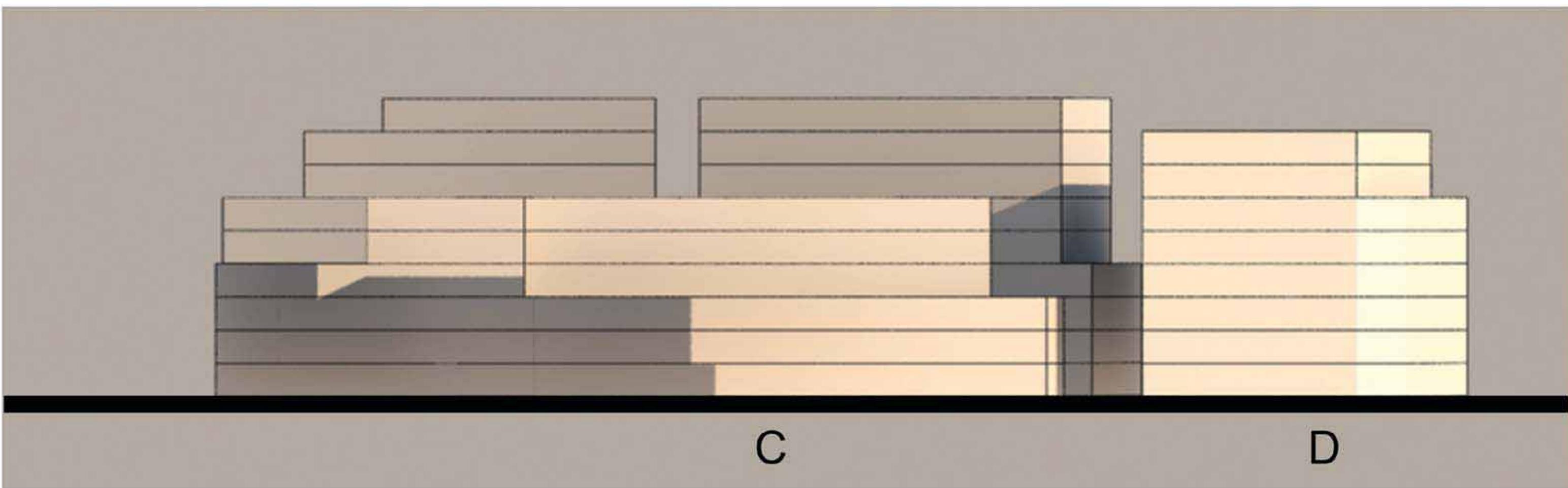
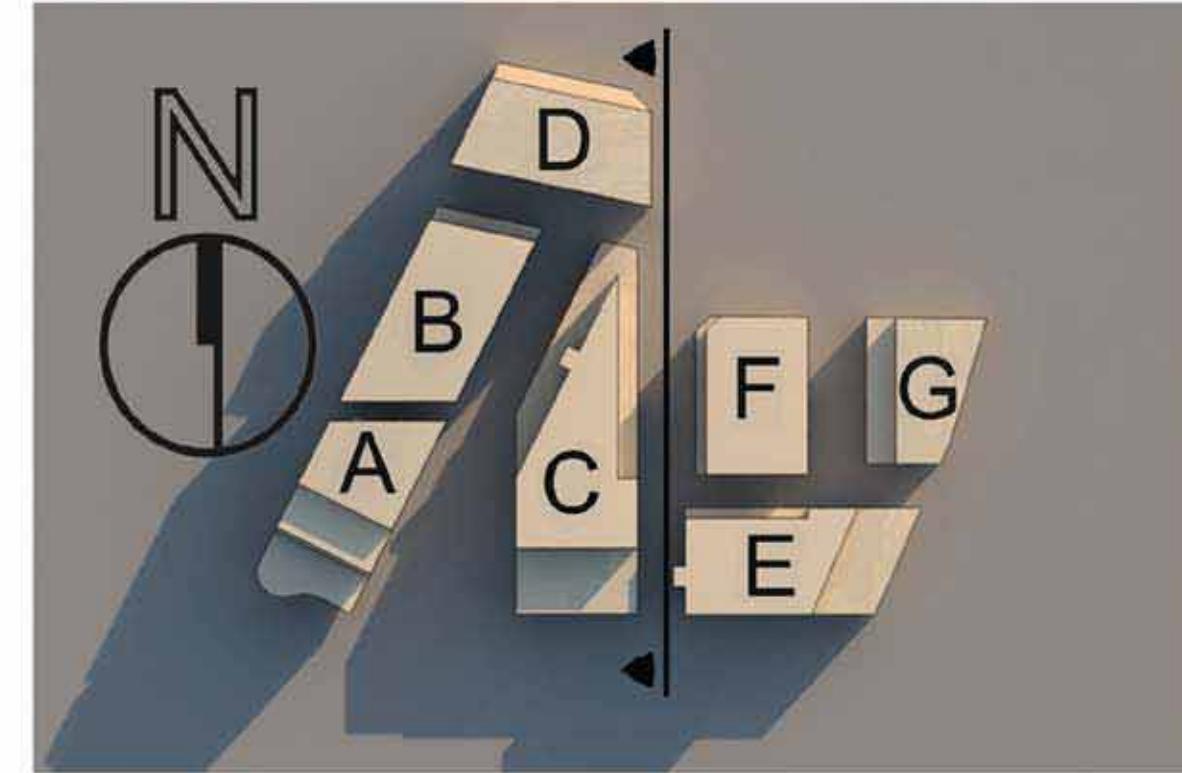
21.6_SEPP 65 - Solar Access (Elevation Study)



C

3:00 pm - June 21
West Facade
Buildings C

21.6_SEPP 65 - Solar Access (Elevation Study)

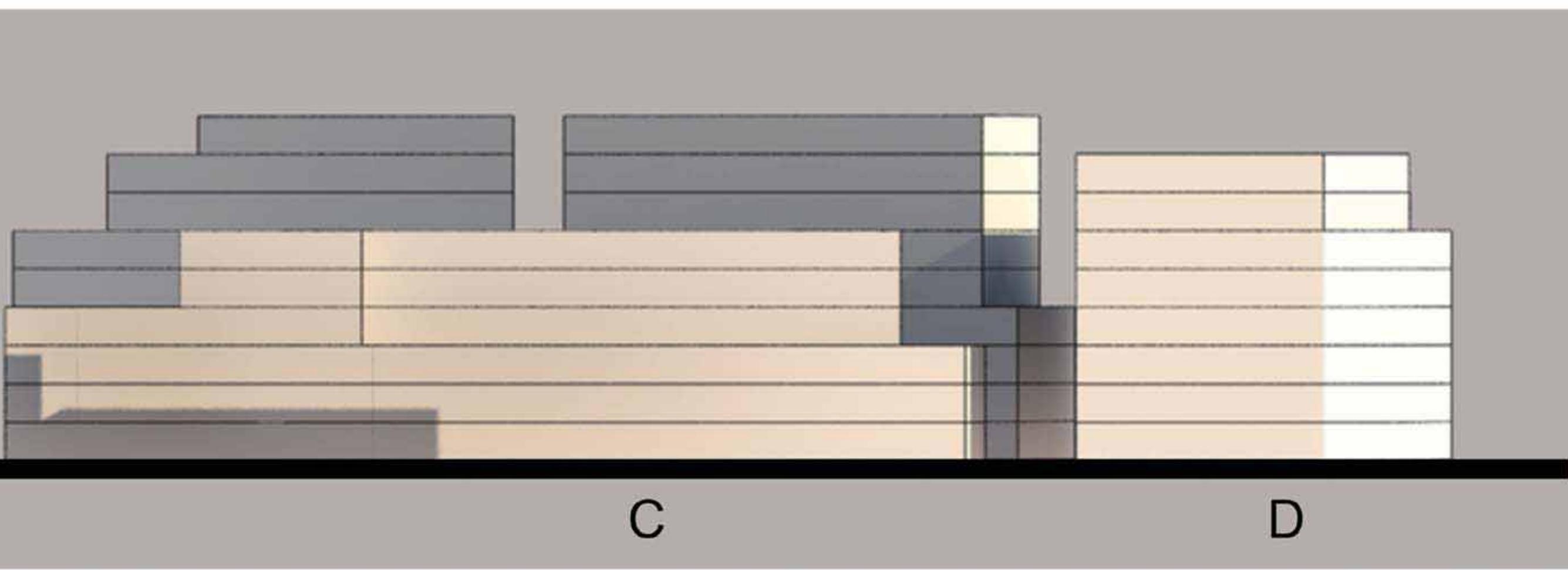
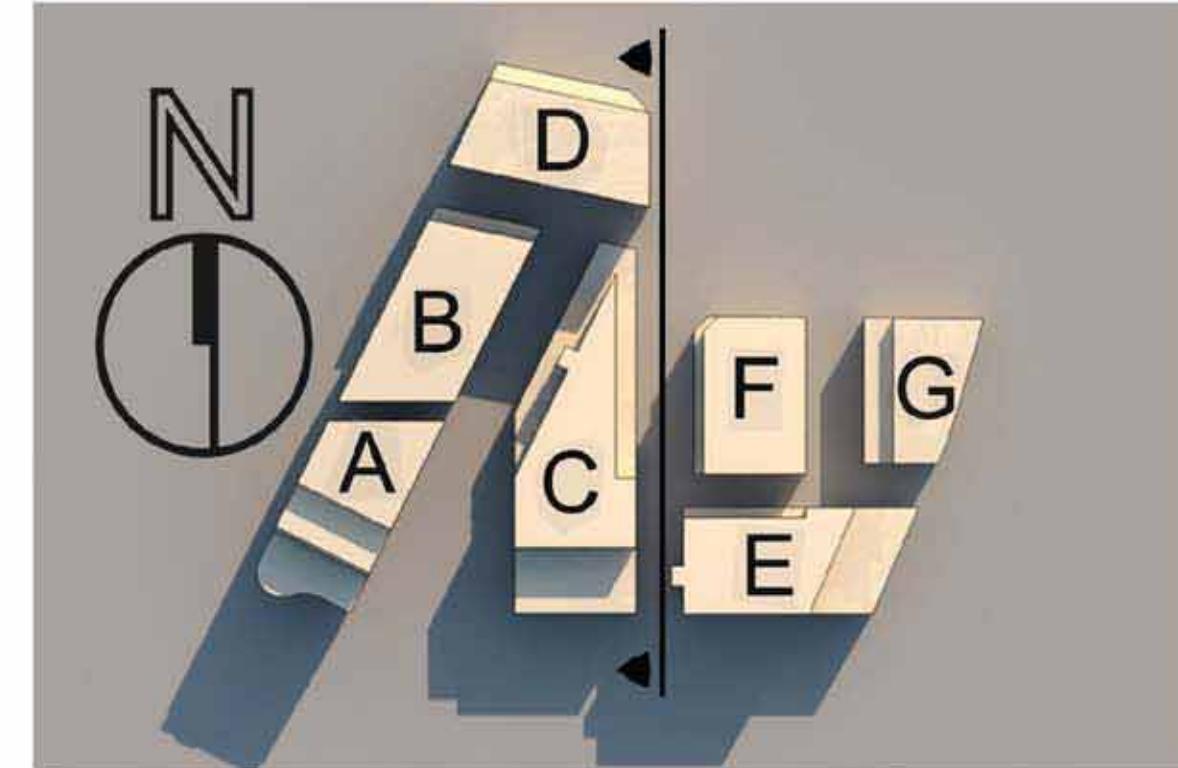


9:00 am - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

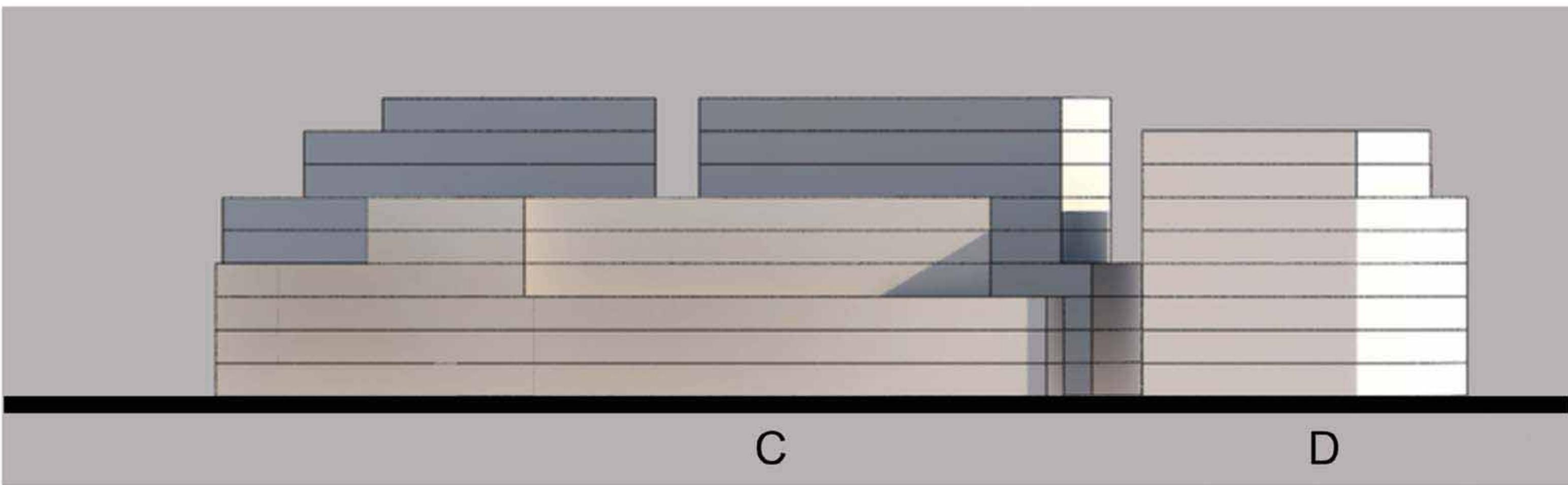
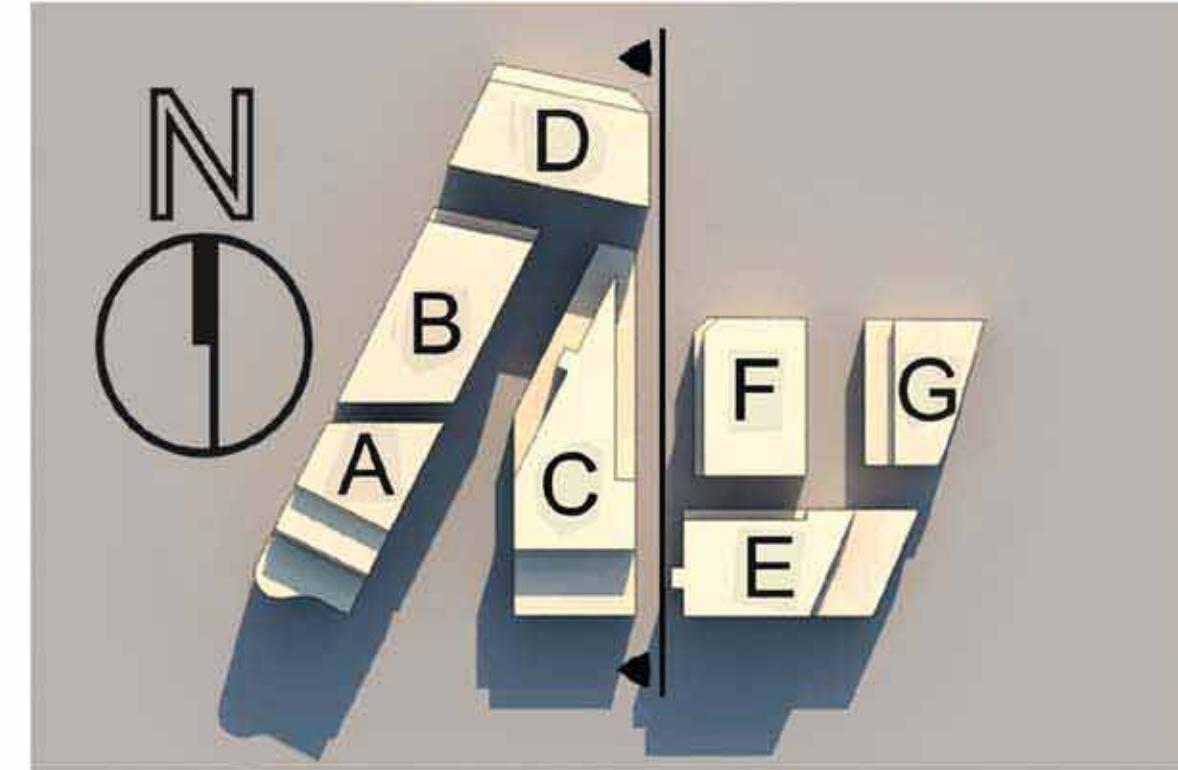


10:00 am - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

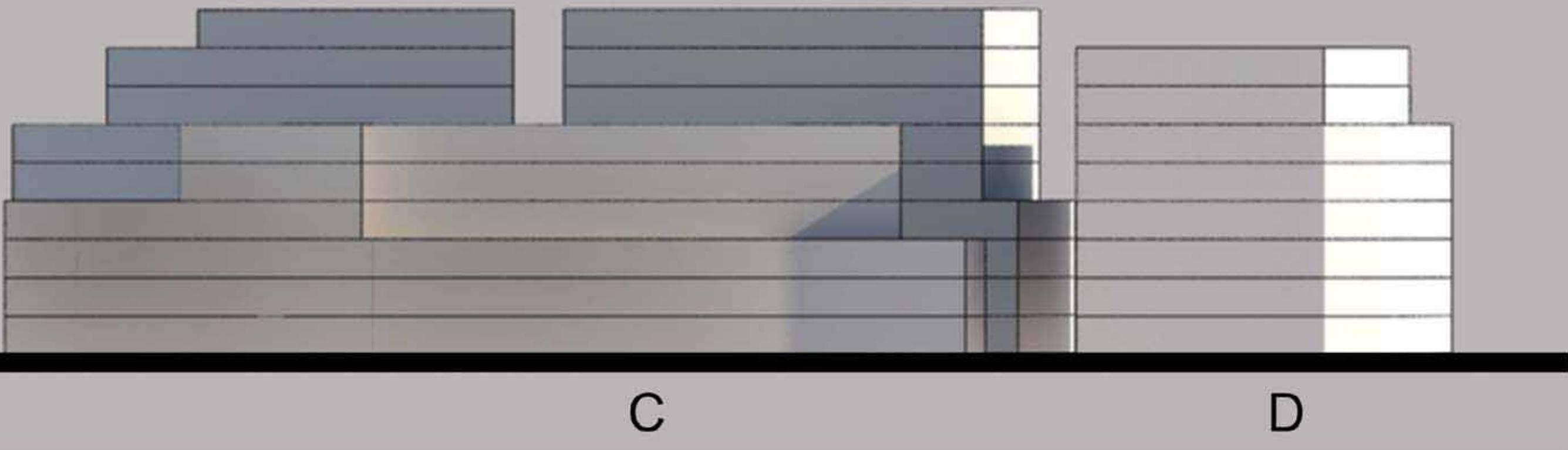
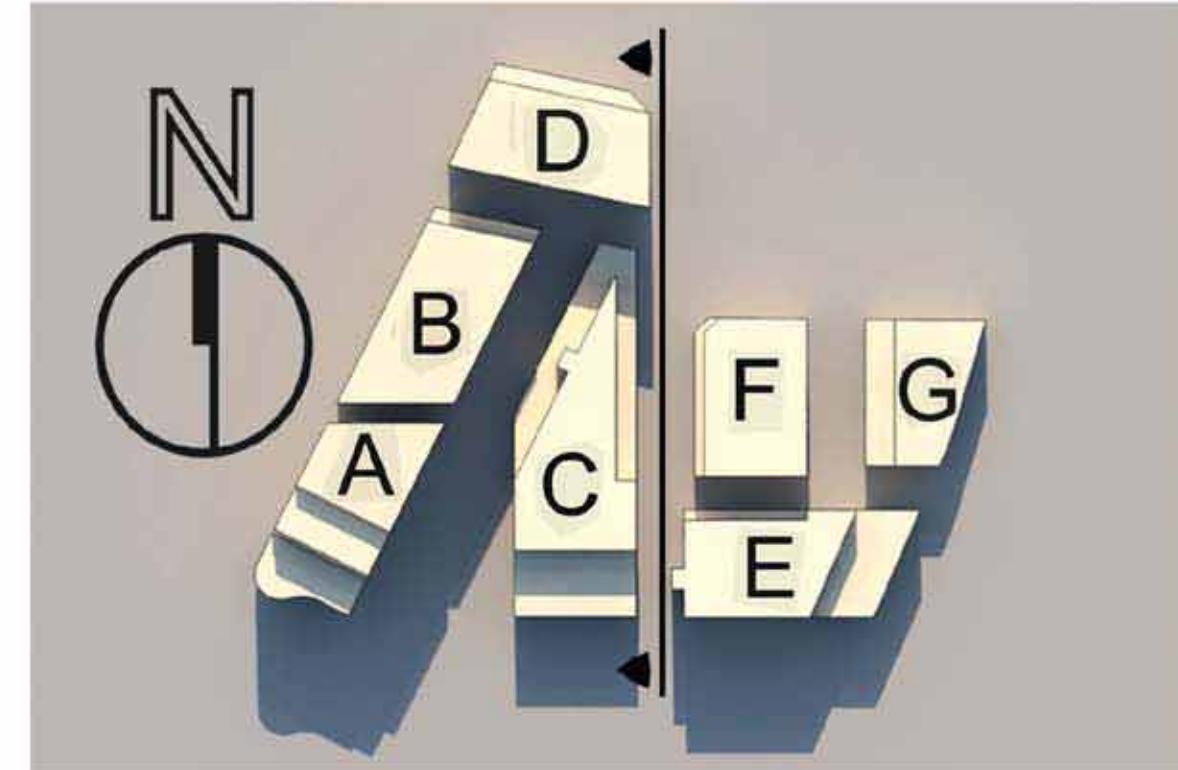


11:00 am - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

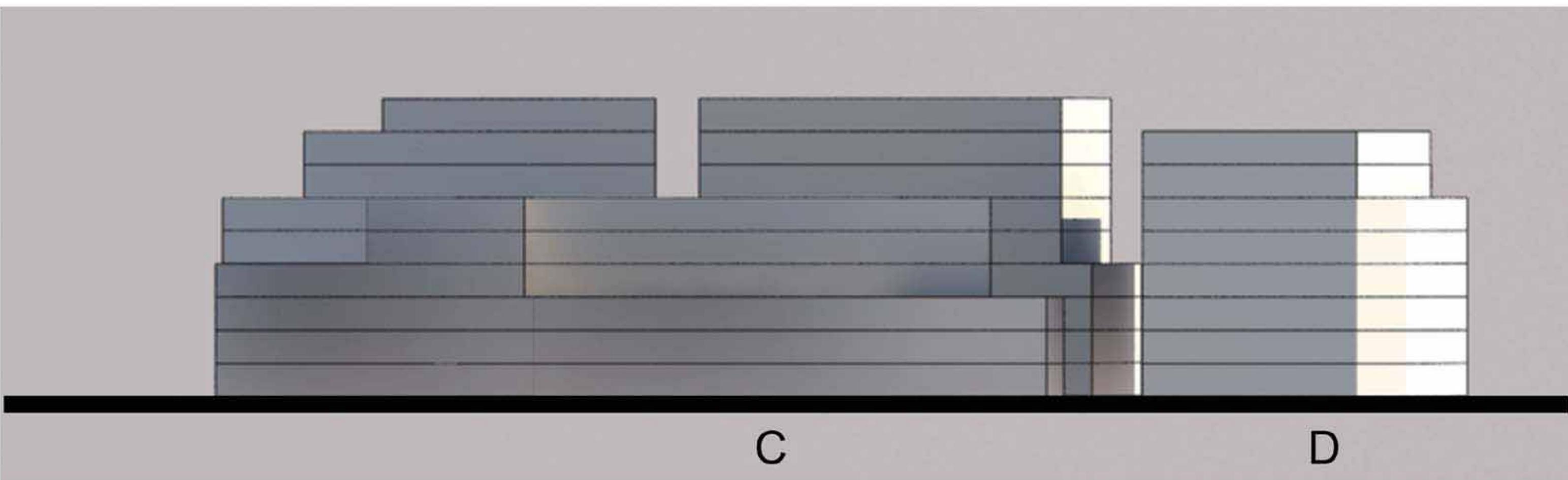
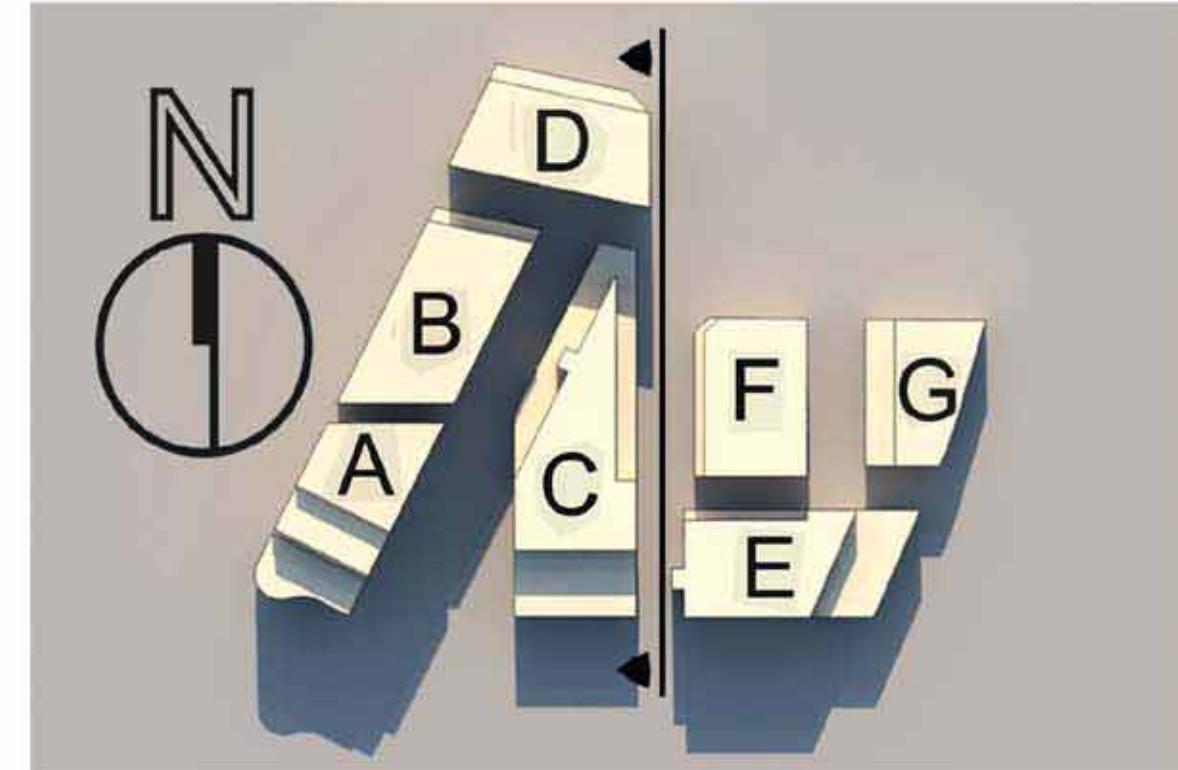


11:30 am - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)

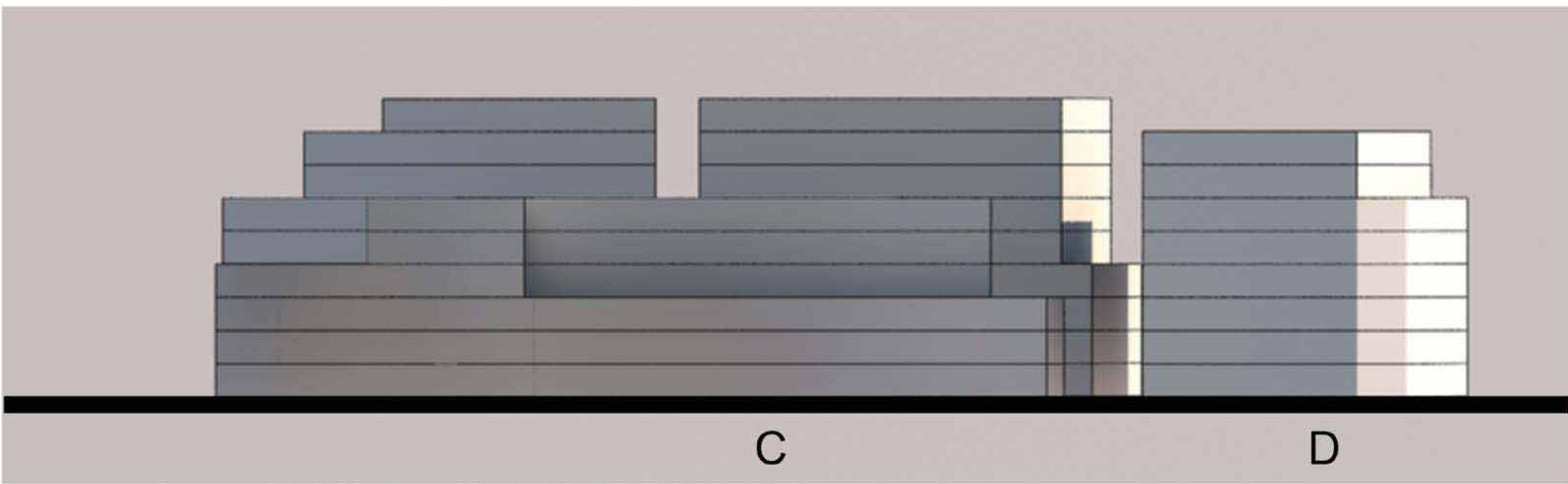


12:00 - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



1:00 pm - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



C

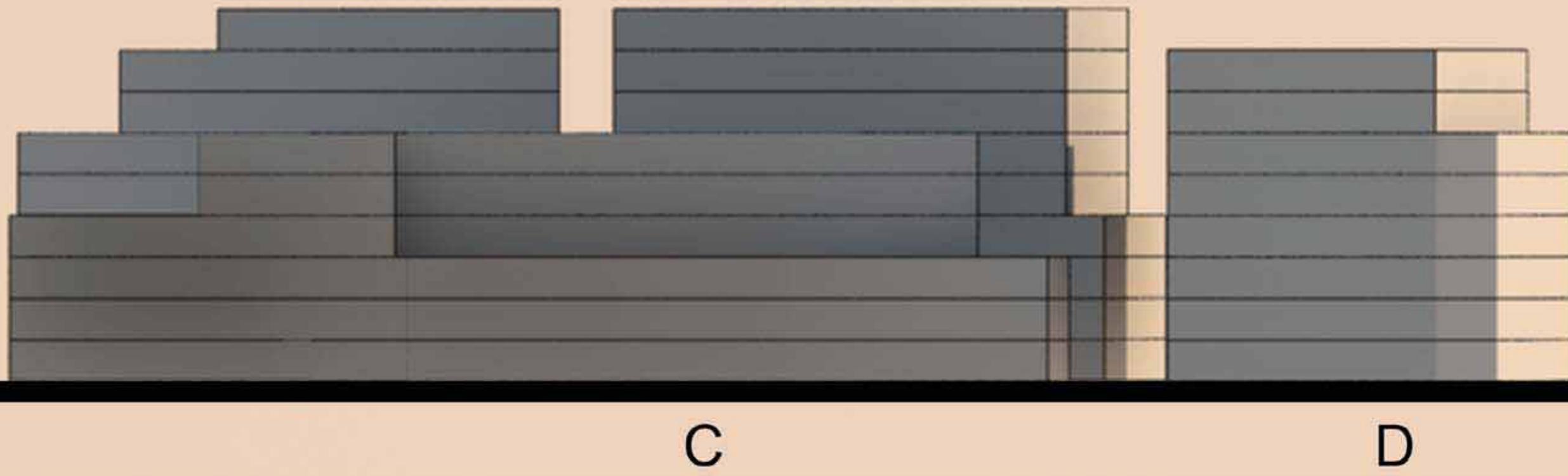
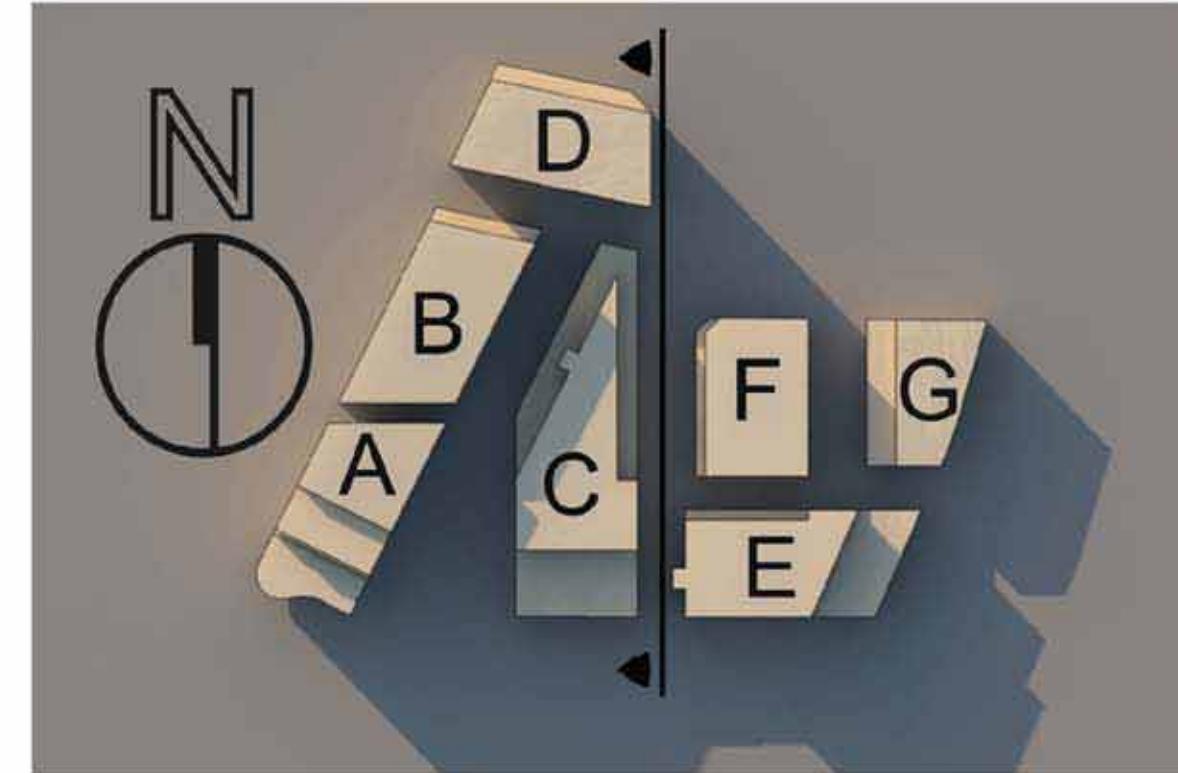
D

2:00 pm - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs

21.6_SEPP 65 - Solar Access (Elevation Study)



3:00 pm - June 21
East Facade
Buildings C-D

Revised Masterplan - March 2011

tony owen ptnrs