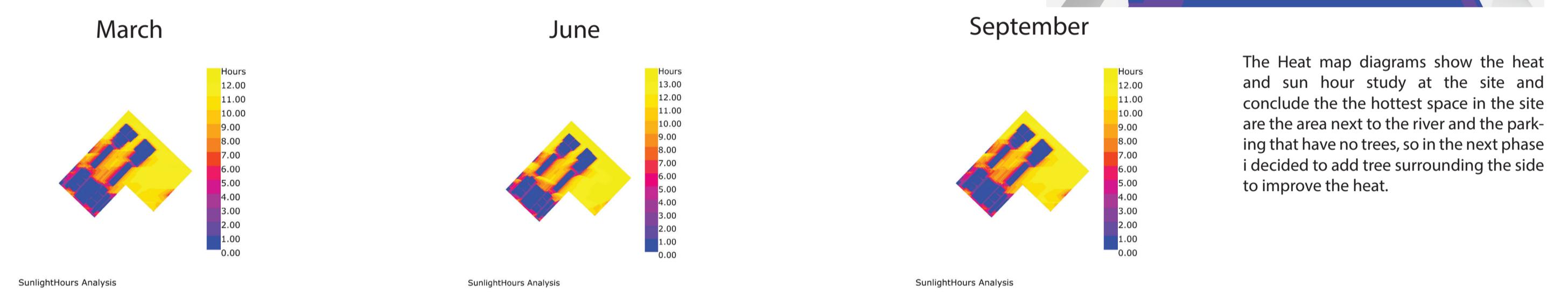
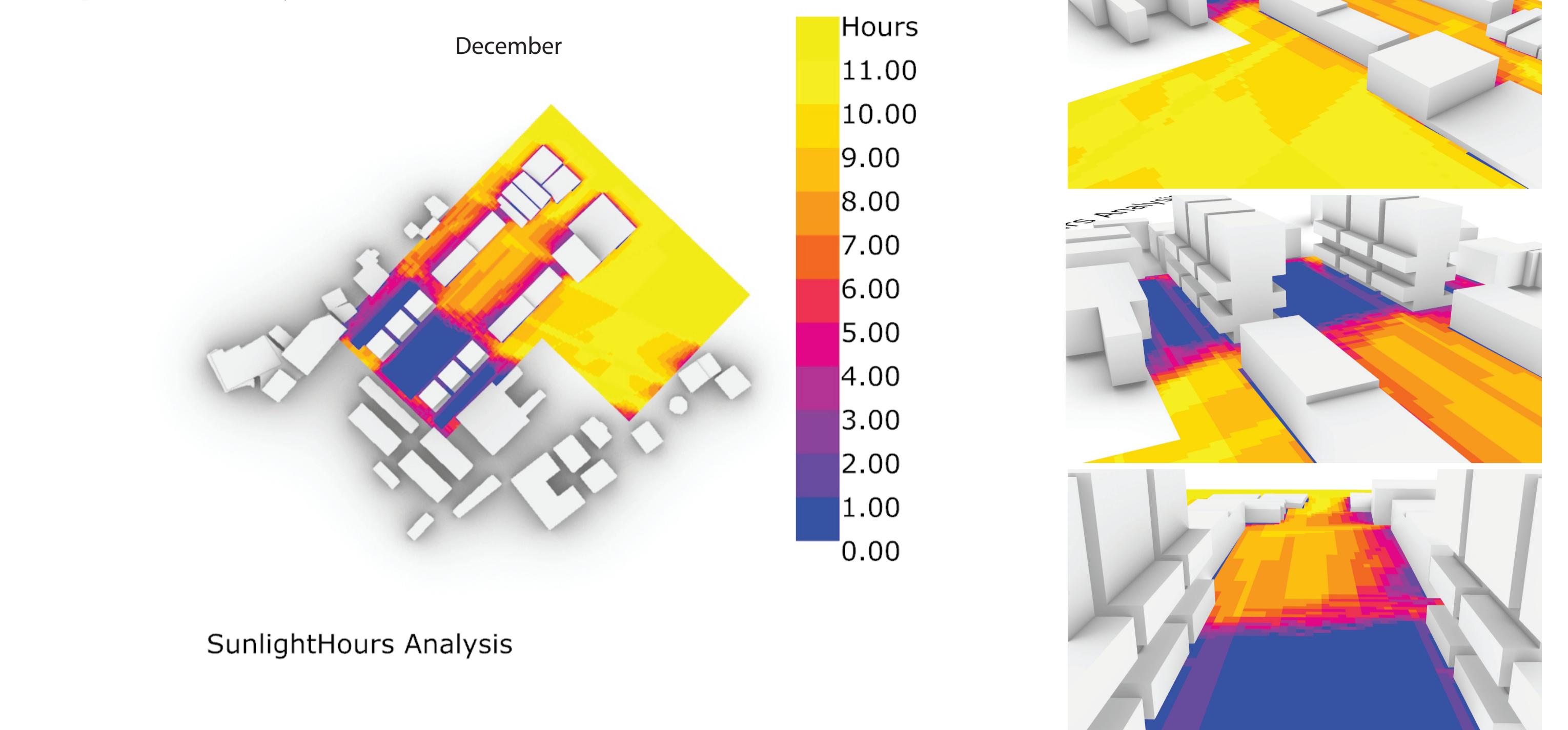
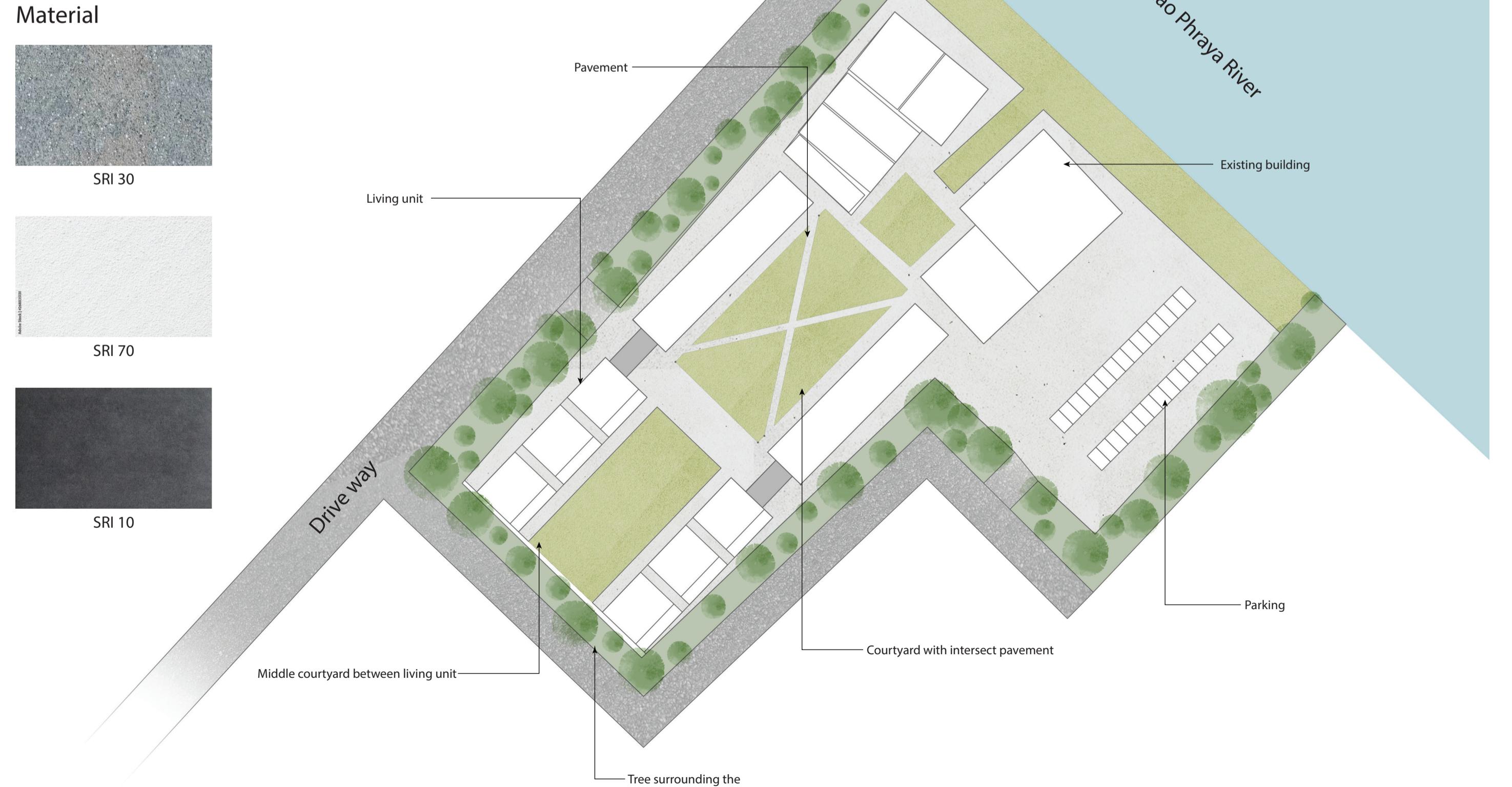


Sunlight Hours Study

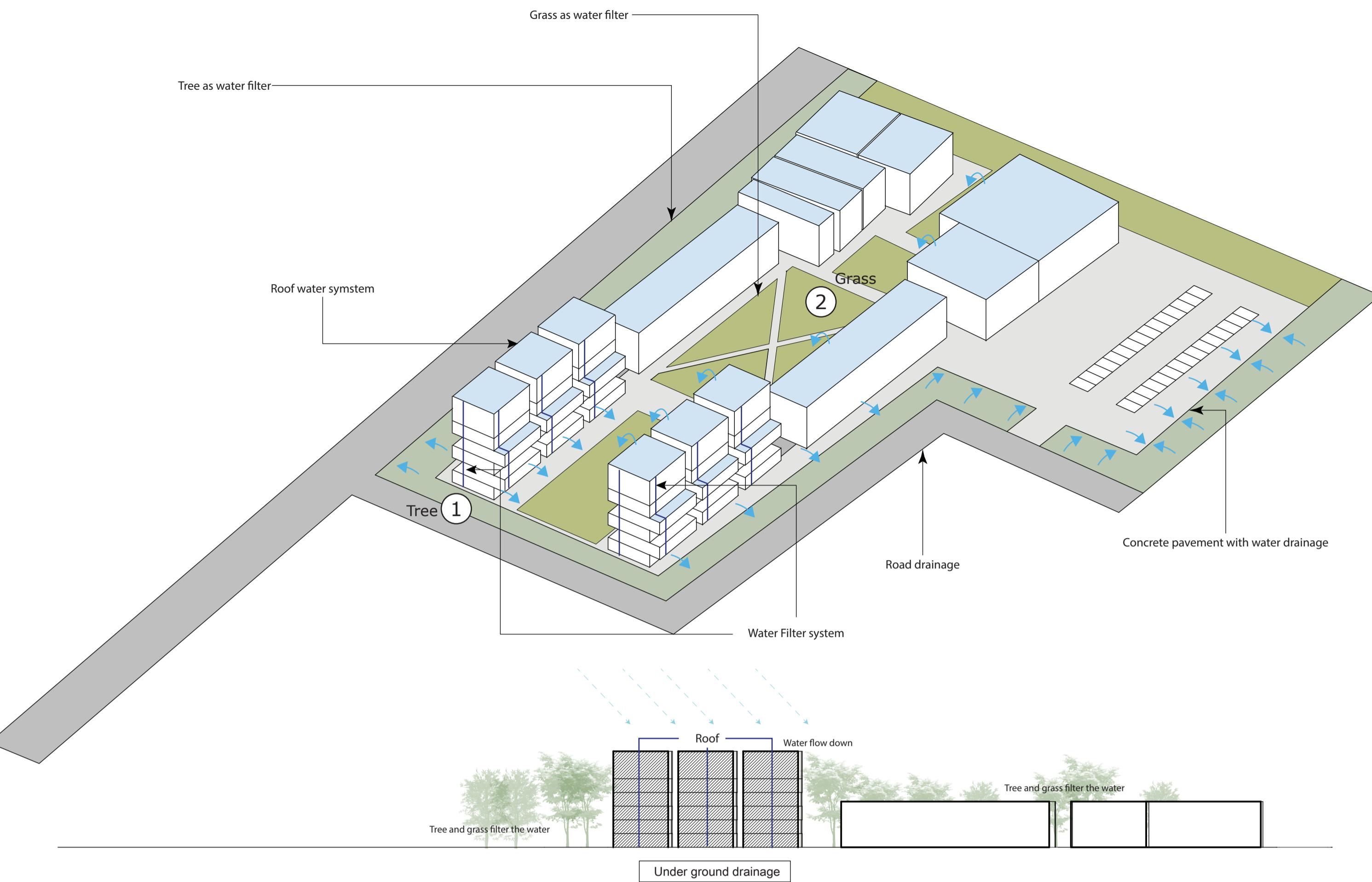


Heat island effect reduction Study



Landscape and pavement design : Designing the landscape to improve thermal comfort by adding green space like grass lawn and trees surround the site.

Rain water management



Week 12: Sustainable Sites	
Sustainable Sites	
Project Site	16303 m ²
Green Area	5847 m ²
Is the green area enough for the project site?	Yes
Open Space	8161 m ²
Vegetated area within the open space	2415 m ²
Does the open space contain enough vegetated area?	Yes

Heat Island Effect Calculation	
Method 1) Standard non-roof or roof calculation	
Total site paving area	4729 m ²
Total roof area	3664 m ²
Hardscape area on ground (SR or SRI < 0.33 or 33)	4680 m ²
Vegetated area on ground	5847 m ²
Area of high-reflectance roof measures (SRI < 82)	2761 m ²
Area of vegetated roof measures	0 m ²
Heat Island Effect by the non-roof and roof design	13041
Heat Island Effect of Total Surface	8393
Result	Successful!

Week 13: Rainwater Management			
		Klong Toei station's 98th percentile rainfall	1.77 inches
		Project site area	16,303 m ²
Category	Types of material	Area (m ²)	Area (ft ²)
Roof	Concrete roof	3,664	39,439
	Paved terrace and balcony areas	-	0.8
	Green roof area (flat)	-	0.1
	Green roof area (average slope, 2-7%)	-	0.2
	Green roof (Steep, >7%)	-	0.3
Ground	Asphalt road	-	0.9
	Concrete road	4,993	53,744
	Gravel road	-	0.6
	Brick	-	0.7
	Pavement	4,729	50,903
	Permeable pavement	-	0.35
	Fine soil	-	0.5
	Coarse soil	-	0.3
	Vegetation (green)	2,415	25,995
	Lawns (flat)	3,432	36,942
	Lawns (average slope, 2-7%)	-	0.2
	Lawns (Steep, >7%)	-	0.3
	Total site area	m ²	19,233
	Total run-off	ft ³	38,810
		m ³	1,099

Week 15: Outdoor Water Use Reduction					
Average monthly rainfall for the site's peak watering month		11.68 mm/month			
Peak watering demand		115 mm			
Peak watering month (ETo)		127 mm			
Landscaped area		9,738 m ²			
Landscape water baseline		1,236,726 l/month			
Landscape water allowance		865,708 l/month			
Plant Type or Landscape Feature		Hydrozone or Landscape Feature Area (m ²)	Water Requirement	Landscape Coefficient (K _L)	Distribution Uniformity (LWR _u (l/month))
Trees	2,415	High	0.9	Drip (press comp)	90% 298,870
Shrubs	-	Low	0.2	Drip (standard)	70% -
Groundcover	-	Low	0.2	Micro spray	70% -
Turfgrass	3733	Low	0.6	Micro spray	70% 390,792
Total hydrozone or landscape feature area (m ²)		6,148			
Landscape water requirements based on the site's peak watering month (l/month)		689,661			
Outdoor water saving (%)		20%			

