

# Public Domain DA 189/2019 - Parramatta Square

## Stage 3 Public Domain Works

Amended Clause 4.6 - Variation Request - to clause 7.4 (2)

Sun Access



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## 1.0 INTRODUCTION

### Background

- 1.1 Parramatta square is a 3-hectare urban renewal precinct in the Parramatta CBD (Central Business District). It is bordered by Darcy Street, Church Street, Macquarie Street and Smith Street.
- 1.2 Parramatta Square is to be transformed into a mixed use hub with a substantial new civic space and up to 360,000 square metres of mixed use floor space, reinforcing Parramatta's metropolitan status as the CBD of the developing "Central City" of Greater Sydney and one of the three cities of the *Greater Sydney Region Plan (A Metropolis of Three Cities)*.
- 1.3 The redevelopment of Parramatta Square is sponsored by the City of Parramatta Council. It has facilitated the redevelopment by consolidating land, project marketing, establishing rights and development sales. The masterplan for the precinct is shown in **Figure 1** and comprises:
  - The development of land parcels to deliver eight (8) buildings;
  - The construction of a new central civic space within Parramatta Square;
  - Servicing of the buildings by an underground 'super basement'.

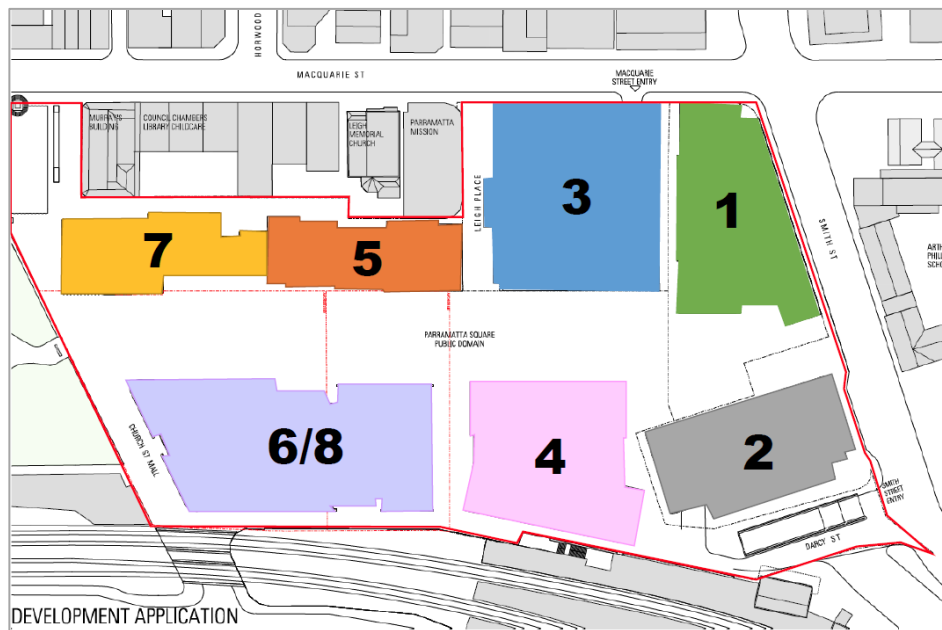


Figure 1 – Parramatta Square Masterplan

- 1.4 Works to deliver the new central civic space are the subject of two (2) development applications:
  - DA 672/2018 covers the public domain works for Stages 1 and 2 which is for the land adjoining the 3 Parramatta Square and 4 Parramatta Square buildings. This application was approved by the Sydney Central Planning Panel on 12 June 2019, noting that
  - DA 189/2019 (the subject DA) covers the public domain works for Stage 3 which is for the land adjoining the 6 and 8 Parramatta Square buildings.
- 1.5 The area of the above applications are shown below in **Figure 2**.



*Figure 2 – Stage 1, 2 and 3 public domain DA works*

- 1.6 The subject Development Application (DA 189/2019) to carry out works to deliver Stage 3 of the Parramatta Square public domain was lodged with Parramatta City Council on 29 March 2019. The subject clause 4.6 variation applies to DA 189/2019, and has been amended to reflect the updated plans and re-located fig tree and other elements.
- 1.7 Works proposed under DA 189/2019 comprise: piling, piercing and construction of a concrete slab; hard landscaping (realignment of levels and granite paving); provision of movable street furniture (tables, seats and umbrellas); provision of signage, lighting and public art; soft landscaping (tree planting, turf and mass planting of shrubs); irrigation and waterproofing; service infrastructure augmentation, diversions and re-instatement as required (electrical, communications and water); and stormwater drainage and sewer augmentation, diversions, connections and reinstatement as required.
- 1.8 DA 189/2019 is for works over land zoned *B4 Mixed Use* under Parramatta Local Environmental Plan 2011 (PLEP 2011), and is located at 0 Civic Place and 180 Church Street, Parramatta.
- 1.9 The subject Clause 4.6 Variation Request is to Clause 7.4(2) of the PLEP which restricts any overshadowing from any development to Parramatta Square between 12pm and 2pm. The Clause 4.6 variation has been requested by Council for the works that result in overshadowing.
- 1.10 The proposed development results in additional overshadowing between 12pm and 2pm, on Parramatta Square, being the land shown with blue hatching on PLEP 2011 '[Sun Access Protection Map](#)' mentioned in clause 7.4(2). The overshadowing is caused by the proposed planting of trees, particularly the planting of evergreen and deciduous trees, movable umbrellas and other minor aspects of the Public Domain works. There is no overshadowing from landscape structures or light poles.
- 1.11 The proposed development is for the delivery of part of the Public Domain within Parramatta Square, as required by Council's controls and consistent with the desired character of Parramatta Square. It is not possible to deliver the desired Public Domain with the ancillary landscape features (e.g. planter beds, vegetation, seating etc) without minor overshadowing to the Public Domain itself.
- 1.12 It is noted that DA/672/2018 which relates to Stages 1 & 2 of the Public Domain was also subject to a Clause 4.6 Variation to the same control for similar works associated with that portion of the Public



Domain and was approved by the SCPP. The works associated with Stages 1 & 2 were completed in early 2020 and is now being occupied.

- 1.13** It is also noted that Council have prepared a Planning Proposal for the Parramatta City Centre which is currently on exhibition, as required by the Gateway Determination. The Draft LEP amendment proposes to amend Clause 7.4 'Sun Access' so that overshadowing is permitted in certain circumstances. If the Draft PP is gazetted as currently proposed, a Clause 4.6 variation would not be required as the proposed elements that shade the solar access zone contribute to the amenity of the public domain.

### Overview of request for variation

- 1.14** A proposed variation to the development standard contained in Clause 7.4(2), as permitted under Clause 4.6 of PLEP 2011, is requested in the context of DA 189/2019 and the particular characteristics of the site. The principal arguments in favour of this variation are detailed in this request.
- 1.15** This request seeks flexibility in the application of clause 7.4(2) to permit additional overshadowing, between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map. JMD Design have prepared shadow diagrams that demonstrate the extent of overshadowing to the sun access protection area and is provided at **Annexure 1**. The departure from the standard is outlined at Section 2.
- 1.16** Principally, evergreen tree species and the movable umbrellas, and to a lesser extent deciduous tree species result in the majority of the additional overshadowing. There are also some minor overshadowing as a result of multi-function poles, directory boards and other ancillary aspects that are required as part of providing the Public Domain Space to the standard as expected by City of Parramatta Council and consistent with Council's Parramatta Square Public Domain Performance Specification.
- 1.17** The request is considered justified in the context of the circumstances of the project, in terms of it satisfying the established tests associated with clause 4.6 variations.
- 1.18** The location of the trees, tree species and umbrellas have been determined by Council's project brief (*Public Domain Performance Specification dated May 2017*). The location of trees and tree species is based on the desire to create a strong canopy structure that relates well to the adjacent scale of development, the desire to create a pleasant environment and hospitable microclimate with a green backdrop all year round, the need to use evergreen species for wind mitigation and prioritising native trees over exotics.
- 1.19** The umbrellas are movable structures (managed by Council) which ostensibly are provided to provide shade in the warmer months until such time as the trees have matured to their full crown spread. The directory boards and multi-function poles provide improved safety and pedestrian navigation within the Parramatta CBD, and are common public domain elements in public spaces such as this.
- 1.20** It is noted that the Central Sydney Planning Panel considered that a Clause 4.6 variation is not required for works that provide dappled sunlight within the sub-protection zone (see DA/476/2019). The majority of the shadows cast within the sun-protection zone will be dappled shadows from trees. However, some minor shadows will be from fixed structures/items. We have prepared this without prejudice Clause 4.6 report as requested by Council and for abundant caution.

- 1.21** The proposed variation is sought in a responsible manner and the assessment of the variation in terms of the control that affects and protects overshadowing within Parramatta Square between 12pm and 2pm, demonstrates the impact of the proposed variation is acceptable. The variation allows for greater amenity within the Public Domain as opposed to a compliant design without any overshadowing.

### Clause 4.6 – Exception to Development Standards

- 1.22** Clause 4.6 of Parramatta LEP 2011 enables the consent authority to grant consent to development that varies a development standard, including the standard under clause 7.4(2). The clause allows the consent authority to provide an appropriate degree of flexibility in applying certain development standards, including additional overshadowing, between 12pm and 2pm on Parramatta Square.
- 1.23** The provisions of clause 4.6 of PLEP 2011 are provided below together with a compliance summary.

	Clause Provision	Comment	
(1)	the objectives of this clause are as follows:		
(a)	to provide an appropriate degree of flexibility in applying certain development standards to particular development,	Request seeks flexibility in the application of clause 7.4(2) to permit DA 189/2019 to overshadow Parramatta Square between 12pm and 2pm in a minor manner. Justification is provided at Section 3 & 4 of this report.	✓
(b)	to achieve better outcomes for and from development by allowing flexibility in particular circumstances.	By allowing the flexibility in the application of clause 7.4(2) a better outcome for and from development is achieved. See Section 3 & 4 of subject report.	✓
(2)	Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is expressly excluded from the operation of this clause.	Clause 4.6 does not exclude the development standard imposed by PLEP 2011 for overshadowing of Parramatta Square between 12pm and 2pm from the operation of this clause.	✓
(3)	Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:	This clause 4.6 request is the written request that the consent authority is required to consider.	✓
(a)	that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and	Justification is provided at Section 3 of subject report.	✓
(b)	that there are sufficient environmental planning grounds to justify contravening the development standard.	Justification is provided at Section 3 of subject report.	✓
(4)	Development consent must not be granted for development that contravenes a development standard unless:		
(a)	the consent authority is satisfied that:		
	(i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and	This is a matter for the consent authority. However, Walker submits that this request adequately addresses the required matters.	✓
	(ii) the proposed development will be in the public interest because it is consistent with the objectives of the	This is a matter for the consent authority. However, Walker has addressed this matter in	✓

	Clause Provision	Comment	
	particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and	Section 3 of subject report. Walker submits that this request shows that the required matters will be in the public interest as per this provision	
(b)	the concurrence of the Secretary has been obtained.	<p>Circular PS 18-003 – issued 21 February 2018 by the NSW Dept. of Planning.</p> <p>The circular advises all consent authorities may assume the Secretary's concurrence under clause 4.6 of an LEP that adopts the Standard Instrument (LEPs) Order 2006 or any other provision of an EPI to the same effect.</p> <p>The assumed concurrence is subject to conditions inter alia as follows:</p> <p><b>"Regionally significant development</b></p> <p>Sydney district &amp; regional planning panels may also assume the Secretary's concurrence where development standards will be contravened. The restriction on delegates determining applications involving numerical or non-numerical standards does not apply to all regionally significant development. This is because all regionally significant development is determined by a panel and is not delegated to council staff. However, the restriction on assuming concurrence to vary lot size standards for dwellings in rural areas will continue to apply to regionally significant development. The Secretary's concurrence will need to be obtained for these proposals in the same way as it would for local development."</p> <p>The subject DA is a type of development specified in Schedule 7 of SEPP (State &amp; Regional Development) 2011 declared to be <i>Regionally Significant development</i>.</p> <p>As per Circular PS 18-003 the Sydney Central City Planning Panel can assume the concurrence of the Secretary.</p>	NA
(5)	In deciding whether to grant concurrence, the Secretary must consider:		NA
(a)	whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and	Not applicable. In any event, no matters of significance for State or regional environmental planning are raised.	NA
(b)	the public benefit of maintaining the development standard, and	Not applicable. In any event, given the matters raised by the subject report, there is no public benefit in maintaining the standard in this case.	NA
(c)	any other matters required to be taken into consideration by the Secretary before granting concurrence	Not applicable.	NA
(6)	Development consent must not be granted under this clause for a subdivision of land in Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone RU3 Forestry, Zone RU4 Primary Production Small Lots, Zone RU6 Transition, Zone R5 Large Lot Residential, Zone E2 Environmental Conservation, Zone E3 Environmental Management or Zone E4 Environmental Living if:	Not applicable. DA is not for subdivision of land within any of the nominated zones.	NA
(a)	the subdivision will result in 2 or more lots of less than the minimum area specified for such lots by a development standard, or	Not applicable. DA is not for subdivision.	NA

	Clause Provision	Comment	
(b)	the subdivision will result in at least one lot that is less than 90% of the minimum area specified for such a lot by a development standard.	Not applicable. DA is not for subdivision.	NA
(7)	After determining a development application made pursuant to this clause, the consent authority must keep a record of its assessment of the factors required to be addressed in the applicant's written request referred to in subclause (3).	This is a matter for the consent authority.	NA
(8)	This clause does not allow development consent to be granted for development that would contravene any of the following:		
(a)	a development standard for complying development,	Not applicable.	NA
(b)	a development standard that arises, under the regulations under the Act, in connection with a commitment set out in a BASIX certificate for a building, to which State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 applies or for land on which such a building is situated,	Not applicable.	NA
(c)	clause 5.4;	Not applicable. Clause 5.4 relates to 'Controls relating to miscellaneous permissible uses.'	NA
(ca)	a development standard that relates to the height of a building, or a floor space ratio, in Parramatta City Centre (as referred to in clause 7.1 (1)) by more than 5%.	Not applicable.	NA
(cb)	clause 8.1, 8.1A or 8.2.	Not applicable.	NA



## 2.0 DEVELOPMENT STANDARD TO BE VARIED

### Parramatta LEP 2011 – Clause 7.4 (2)

- 2.1** Clause 7.4(2) of PLEP 2011 contains a development standard as per the definition of *development standards* under the *Environmental Planning and Assessment Act 1979*.
- 2.2** Clause 7.4(2) of PLEP 2011 reads:

#### 7.4(2) Sun Access

- (1) The objective of this clause is to protect public open space in Parramatta Square, the Lancer Barracks site and Jubilee Park from overshadowing.
- (2) The consent authority must not grant consent to development on any land if the consent authority is satisfied that the development will result in any additional overshadowing, between 12 noon and 2pm, on Parramatta Square, being the land at Parramatta Square shown with blue hatching on the Sun Access Protection Map.

- 2.3** Please refer to **Figure 3** showing an extract of the *Sun Access Protection Map* under the PLEP.

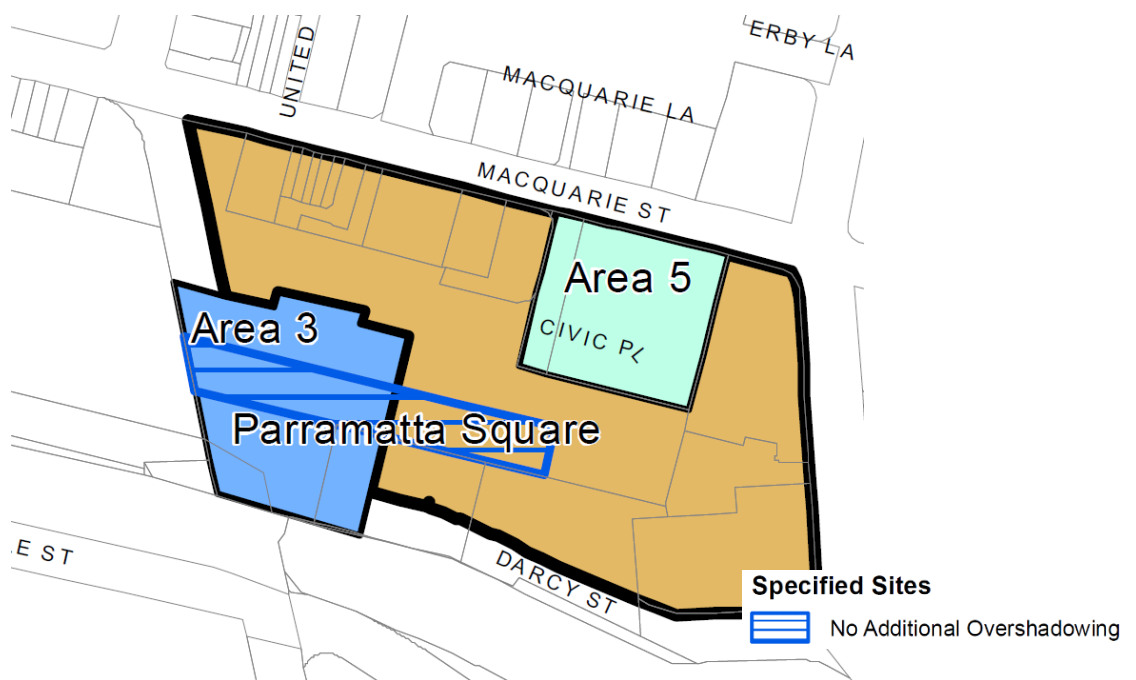


Figure 3 – Extract from Sun Access Protection Map – PLEP 2011 (Blue hatched area is subject to no additional overshadowing)

## The Land Subject to this Variation

- 2.4 This Clause 4.6 request to vary a development standard relates to land referred to as Stage 3 Public Domain works (DA 189/2019) located within the Parramatta Square precinct. The land forms part of the staged development of the Parramatta Square masterplan which proposes amongst other things, a central public square.
- 2.5 DA 189/2019 seeks approval to carry out works across 5,871 sq. metres of public space within Parramatta Square. The works comprise hardscaping and soft-scaping as per the table below:

*Table 1 – DA 189/2019 (hardscape & softscape areas)*

Location	Hardscape Area		Softscape Area		Total Area
	Area	%	Area	%	
Parramatta Sqaure	4,051m <sup>2</sup>	90%	465m <sup>2</sup>	10%	4,516m <sup>2</sup>
Church St	1,355 m <sup>2</sup>	NA	NA	NA	1,355m <sup>2</sup>
TOTAL	5,406m <sup>2</sup>		465m <sup>2</sup>	-	5,871m <sup>2</sup>

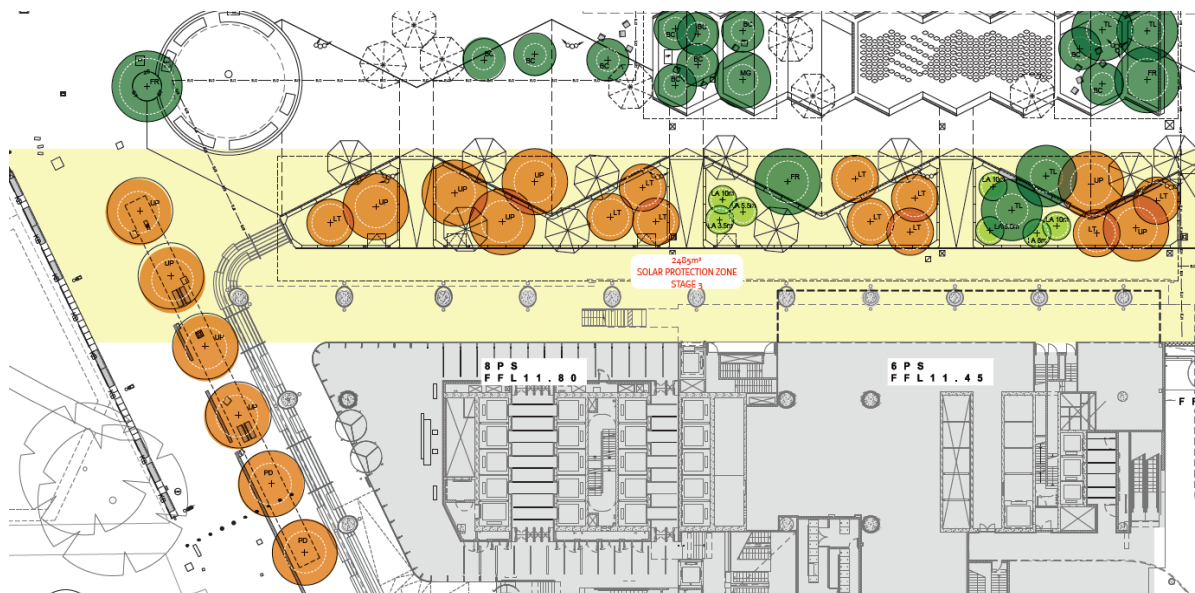
- 2.6 The Lot Description for the land is:

*Table 2 – Site Description*

Land title	Address
Lot 14 DP 1255419	0 Civic Place, Parramatta
Lot 1 DP 1185643	180 Church Street, Parramatta

*Table 2 – DA 189/2019 (Land Descriptions)*

- 2.7 More particularly, the clause 4.6 request relates to a 2,485m<sup>2</sup> portion of the 5,871m<sup>2</sup> site under DA 189/2019. The 2,485m<sup>2</sup> area is the area affected by the Sun Access Protection Area. This area is adjacent to the 6&8PS building and is indicated below in **Figure 4**.



*Figure 4 – DA 189/2019 (Location of Development Standard)*

## Vision – Parramatta Square

- 2.8 The Parramatta Square precinct is designated by Parramatta Council as a mixed use urban renewal area and is strategically significant. It represents a unique opportunity in time to influence the nature of development in the Parramatta CBD and to reinforce its position as one of the three pre-eminent centres in the greater Sydney Metropolitan Region.
- 2.9 Since the adoption of the Master Plan for a Civic Place in 2003 by Parramatta Council, now superseded by the Parramatta Square Masterplan 2015, the master planning of the precinct has been designed to revitalise the civic and business centre of Parramatta. This is proposed by reconfiguring the existing built form and spatial arrangement to create a central public square, defined by new buildings including commercial, civic and retail uses.
- 2.10 The Parramatta Square precinct will accommodate the new Parramatta Council administration and Council Chambers, the University of Western Sydney Parramatta Campus building and 'A' grade office buildings that will attract significant corporate tenants. These developments will all adjoin a new central public space. It is envisaged these developments will generate a critical mass of human activity to revitalise the civic heart of Parramatta as a destination for community and ceremonial gatherings and cultural celebration.
- 2.11 The development of Parramatta Square is intended by the Parramatta City Council to demonstrate design excellence and environmental sustainability as well as achieving targets for future employment growth by encouraging development that will generate employment opportunities.
- 2.12 To support the projected 35,000 new residents by 2036 and 83,000 new workers envisaged by 2041, a large public domain transformation is planned with three differently sized squares envisaged for Parramatta City.
- 2.13 Centenary Square in the order of 3,000m<sup>2</sup> is the smallest and oldest. It was refurbished in 2015 and acts as the city's Town Square and a focus for outdoor dining.
- 2.14 River Square is approximately 4,000m<sup>2</sup> and will act as the Recreation Square, creating a meeting place alongside the river and is also in the heart of the city's night-time entertainment zone. River Square will enjoy a different character during weekdays, when it may be a quieter retreat near the river than on weekends and nights when it will be a vibrant destination for relaxation and entertainment.
- 2.15 Parramatta Square will be the centrepiece. At potentially 8,000m<sup>2</sup> Parramatta Square will be the largest and most urban of the three. It will be a dynamic and a bustling space, and will house the city's largest gatherings and will have strong focus on students and workers during the weekdays, and markets and community events on the weekends.
- 2.16 The protection of Parramatta Square from overshadowing has been a long held planning principle by Council. The purpose of the principle is to provide good amenity, with public areas free from shadows cast by buildings seen as a desirable quality. A number of planning proposals and planned developments to the north of Parramatta Square sought to challenge this protection by introducing the concept of fast moving shadows between the hours of 12 noon and 2pm in midwinter.
- 2.17 Amendment No.29 to PLEP 2011 sought to remove any ambiguity regarding overshadowing of Parramatta Square. The purpose of the new provision is protection of Parramatta Square from overshadowing from buildings to the north as they had the greatest potential to excessively

overshadow the public domain. It was never intended that overshadowing by vegetation or umbrellas be taken into consideration, other than in a qualitative way.

## Design Controls – Parramatta Square

**2.18** The design of the Parramatta Square public domain is informed by:

- Parramatta DCP 2011.
- Public Domain guidelines 2017.
- City of Parramatta Civic Link Framework Plan.
- Civic Improvement Plan – Amendment No.4.
- Community consultation.
- Parramatta Square Performance Specification by Design Team ‘Four Squared’ (4<sup>2</sup>).

**2.19** Of the above documents, two, set the design framework for Parramatta Square.

**2.20** The first document is *Parramatta DCP 2011*. It sets out the public space principles for Parramatta Square and establishes a progression of spaces crossing the site from east to west, each with their own character.

**2.21** The spaces are identified as:

1. **Main square** – *Main civic space, minimum 3,000m<sup>2</sup> with minimum dimension 40m with consistent edge alignment; ceremonial public area designed to be symbolic centre of Parramatta, accommodate a rich program of events, limited vehicle access.*
2. **Leigh Place** – *Main northern entrance to Parramatta Square from the River Link and Macquarie Street, accommodate vehicle and service access, align Leigh Place to facilitate visual connection along a new linear axis between Parramatta Square and the riverfront.*
3. **Eastern Square** – *Provides address to Smith Street, 169 Macquarie Street and the Sydney Water building, must integrate with raised forecourt of Sydney Water.*
4. **Pedestrian Lanes** – *activated lanes between the railway station, Station Square and Macquarie Street, direct connection to station concourse, no vehicles.*
5. **Station Square** – *The hub where the railway station meets the square; a front door to Parramatta city, an activated space that facilitates easy pedestrian access, orientation and seamless choice of desired routes and destinations, no vehicles.*
6. **Church Street Mall and Centenary Square** – *retain as Parramatta’s most enduring public space, including landscaping and heritage buildings and monuments, ensure access for potential future light rail along the Church street*

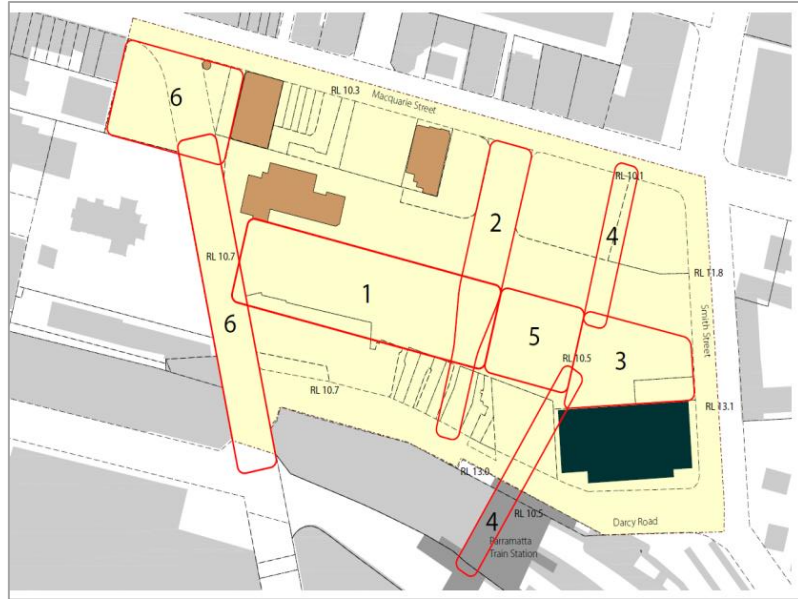


Figure 5 – Parramatta DCP – Public spaces (1 to 6) – Parramatta Square

- 2.22** The public spaces affected by overshadowing are the Church Street Mall (6) and Main Square (1). This area will be busy with pedestrians traversing to/from the area connecting with transport, employment, study, etc., and, also busy with people taking advantage of the casual seating available on the edge of the landscape structures.
- 2.23** The second document is *Parramatta Square Performance Specification*. The purpose of the *Performance Specification* is to provide in general terms a guiding framework for the design development and documentation of Parramatta Square Public Domain.
- 2.24** The solar protection area is noted on the spatial design layout (see **Figure 6** below) with the following annotation: *Shade consideration through tree planting to allow maximum winter sun permeability and should provide shade between October – March to the public domain seating on the eastern wing of the bowtie planters. Tree planting to also provide shade to the western end of the bow tie planters.*
- 2.25** It is evident that shading elements have always been envisaged to providing amenity within the Public Domain for Parramatta Square.

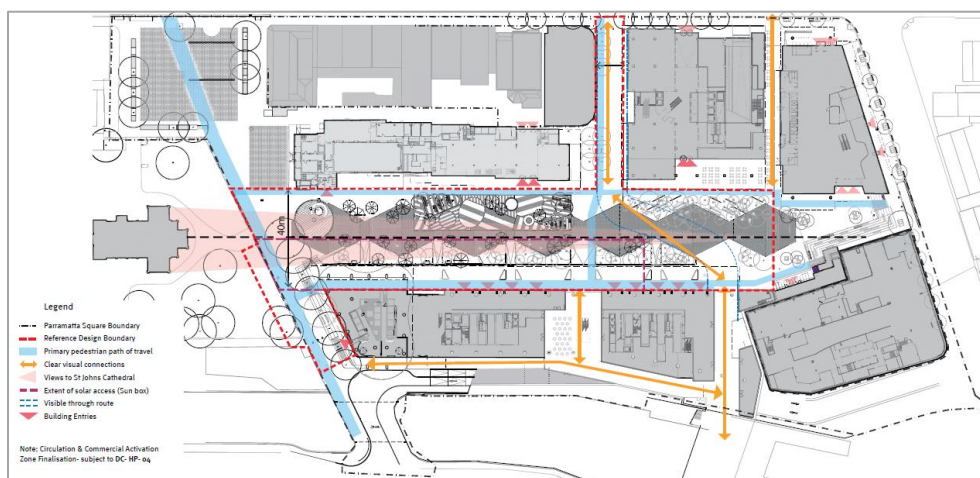


Figure 6 – Parramatta Square – Performance Specification – Spatial layout & circulation



## Nature of Variation Sought

- 2.26 The proposed development results in shadows being cast onto the solar protection zone between 12pm and 2pm. The majority of the overshadowing that results in the variation to the standard are the proposed plantings, both evergreen and deciduous, and umbrellas.
- 2.27 This request seeks flexibility in the application of clause 7.4(2) to permit minor overshadowing as noted.
- 2.28 The evergreen tree species planted within the protection zone are Port Jackson Figs, Water Gums, Cabbage Tree Palms, and Lemon Myrtle. The deciduous trees planted within the protection zone are Tulip Trees and Chinese Elms as shown below in **Figure 7**.

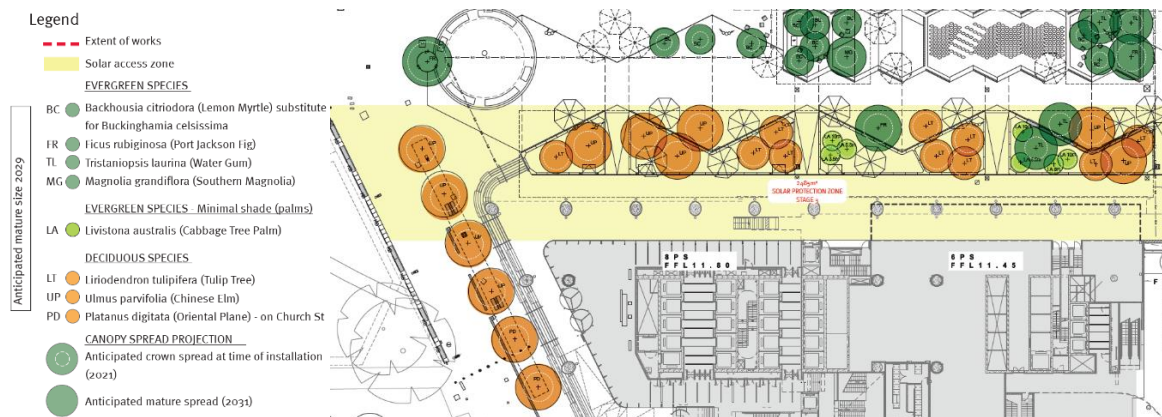


Figure 7 – Tree planting – Solar Protection Zone Update

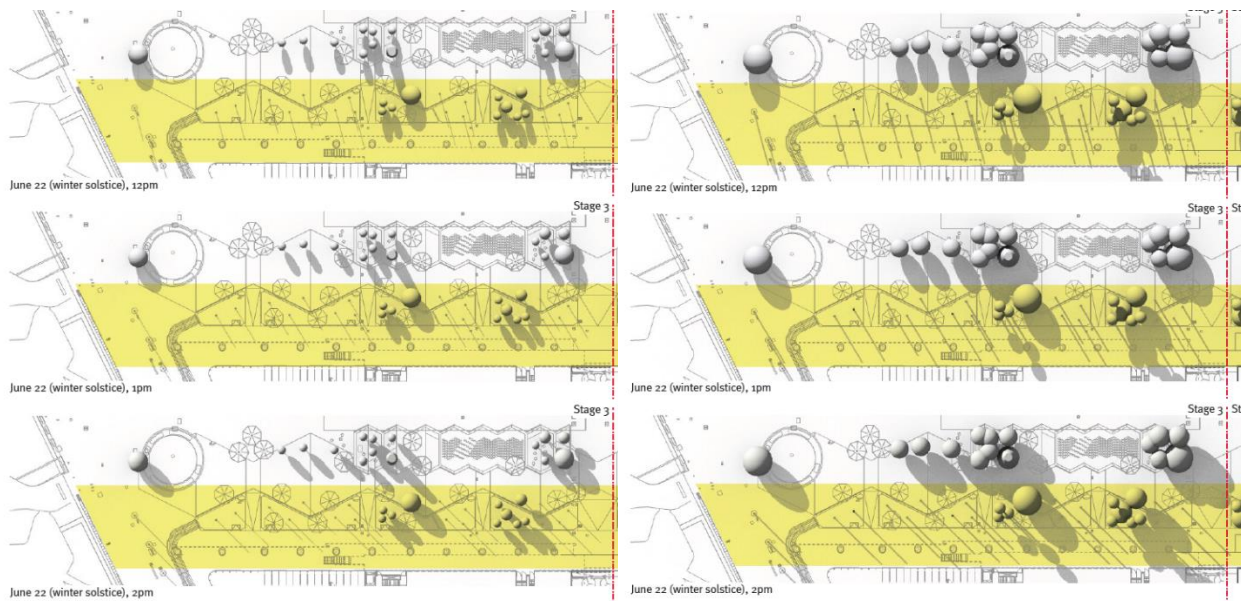
- 2.29 The umbrellas are movable furniture managed by Council. It is acknowledged that there are other elements within the Public Domain that will cast minor shadows, however, due to their minimal nature their shadows are not discernible on the shadow diagrams. The figure below shows the placement of the trees and umbrellas within the solar protection zone. The anticipated crown spread of the trees is shown at 2 years and at maturity at 10 years as shown on the attached Shadow Diagrams prepared by JMD Design at **Appendix 1**.
- 2.30 In quantitative terms, the extent of shadow is too difficult to analyse. However, the qualitative shadow impact can be observed from the shadow diagrams prepared for June 22 at 12 pm, 1pm and 2pm for two scenarios: (i) 2 years post tree installation and (ii) 10 years post tree installation. The shadow diagrams are presented below and are attached to this submission.
- 2.31 There are a few things to note:
- the standard is not limited to the months of June, but is applicable all year round. The submitted shadow diagrams show the indicative June, March, September and December shadows which demonstrates that there are more shadows in the warmer months (for shade protection) and minimal shadows in colder months (maximising sun access).
  - Umbrellas are shown in the sun protection zone, however, shadows are not presented for these elements because, the shade umbrellas are introduced as an interim measure prior to the trees reaching their mature size to provide sufficient shade during the hot summer months. Until there is sufficient tree canopy coverage umbrellas will be essential from late spring – early autumn (November – March).

- The proposed landscape structures are of such a height (between 30cm to 40cm) that overshadowing is not a consideration.
- The majority of the shadows are cast from trees. The trees allow dappled sunlight through the shadows, and is not a complete obstruction of the sun to the sun-protection zone.

**2.32** The flexibility would allow the proposed development to occur as desired and anticipated by Council, including the planting of evergreen and deciduous trees and moveable umbrellas within the sun access protection zone. This would have the benefit of meeting the challenging environmental and technical conditions that are anticipated at Parramatta Square that will require mitigation of the microclimate effect of reflectivity, heat and wind caused by surrounding buildings. The overshadowing caused by vegetation and the moveable umbrellas is both desirable and appropriate, and improves the overall amenity within the Square than if compliance were to be achieved (i.e. no shadows). In fact, if no shadows were to be achieved within the Sun Access Protection zone, the Public Domain would require the removal of any structures and plantings within this area, making the Public Domain limited to paving. This would be a less desirable and poor urban design outcome.

**2.33** The proposed elements that cause overshadowing to the sun protection area are a result of providing the high quality public domain space as anticipated by Council, with the majority of the shadows (from trees) providing dappled sunlight.

**2.34** Refer to **Figure 8** which demonstrate the shadows at Mid-Winter for the 2 years and 10 year post installation.



*Figure 8 – June 22 Shade study 2 years (left) and 10 years post installation (right)*

## 3.0 JUSTIFICATION FOR PROPOSED VARIATION

### Clause 4.6(3)(a): Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

**3.1** As per clause 7.4(1), the stated objective of the standard *'is to protect public open space in Parramatta Square, the Lancer Barracks site and Jubilee Park from overshadowing'*. The protection of public open space from overshadowing is a fundamental and long established principle enshrined in planning legislation and planning controls throughout NSW. However, protection from overshadowing is a means to the ultimate end purpose. It is submitted that the ultimate end purpose – the underlying objective – is, to create a public space of high amenity by ensuring:

- activity in Parramatta Square is encouraged by the presence of sunlight;
- the user experience of the public realm within Parramatta Square is of a high quality;
- Parramatta Square is comfortable to use;
- Parramatta Square works well as a public space;
- To promote the success of Parramatta Square as open space within the city.

**3.2** Compliance with the development standard is unnecessary and unreasonable because:

- Overshadowing by vegetation is desirable. Tree planting is purposely installed in the Sun Protection Area to enhance the amenity of the public domain (the underlying objective of the standard) by mitigating the microclimate effect of reflectivity, heat and wind caused by surrounding buildings. Not planting trees would have the opposite effect.
- The microclimate report previously prepared for the land and submitted with a separate DA (DA/47/2018) indicates that shade in summer is essential and a desirable option on some autumn and winter days.
- The mixture of evergreen and deciduous trees creates a strong canopy structure for scale, a pleasant environment and hospitable microclimate with a green backdrop all year around. An evergreen and deciduous mix of tree planting also provides options for sitting in shade or sun all year round. This in itself is a desirable outcome. Low Level Planting has been provided within the Public Domain to provide year round greenery to the Public Domain.
- Trees with dense canopies (evergreen species) are required to be planted in the Sun Protection Area (**Figure 3**) in order to positively contribute to mitigate wind discomfort issues and improve pedestrian comfort. The wind reports for 3PS, 4PS and 6 & 8PS advise a number of areas within the Parramatta Square Public Domain will be exposed to the prevailing winds being the western and NE winds, down wash wind effects off the building façades and accelerating flows around the corners of the buildings. Within the solar access protection zone, selected tree species are predominantly deciduous (tulip trees), complimented by evergreen (Fig, Magnolia, Water Gums & Lemon Myrtles) to keep the canopy structure all year round and therefore perform as a necessary wind mitigation measure.
- The umbrellas are moveable structures (managed by Council) which are ostensibly provided to shade the public domain in the warmer months until such time as the trees have matured to their full crown spread. Thus, shading from the umbrellas is both desirable and appropriate.

- The material threat to solar access in the designated area arises from the building form of development to the north. These developments because of their location and orientation have shadows that fall to the south and to the southeast, potentially overshadowing Parramatta Square in a material way. The shadows that are the subject of this application are not of the kind that the standard is intended to address. Overshadowing by vegetation and the moveable umbrellas should be ignored.
- The proposed minor overshadowing enhances the amenity of the public domain by providing relief from direct sunlight to seating areas during warmer months, and improves the visual quality of the Public Domain Space. The proposal does not affect consistency with the objective of the standard, in as much as it relates to overshadowing from building forms.
- In order to satisfy the standard all the trees and the moveable umbrellas within the solar protection area would need to be removed. From an urban design and design excellence perspective, the impact of satisfying the standard by removing the trees and umbrellas would be overwhelmingly detrimental to the quality of the public realm.

**3.3** Accordingly, strict compliance with the standard would thwart or undermine the underlying objective of the standard set out in clause 7.4(1). That is, a strictly compliant development, when compared with the proposed development, would:

- encourage less activity in Parramatta Square;
- dampen the user experience of the public realm within Parramatta Square;
- mean that Parramatta Square is less comfortable to use;
- reduce the effectiveness of Parramatta Square as a public space; and
- do less to promote the success of Parramatta Square an open space within the city.

**3.4** For the same reasons, strict compliance with the standard would also thwart or undermine:

- The aim of the Parramatta LEP set out in clause 1.2(2)(b) — which is *to foster environmental, economic, social and physical wellbeing so that Parramatta develops as integrated, balanced and sustainable city,*
- The aim of the Parramatta LEP set out in clause 1.2(2)(m) — which is *to protect and enhance the viability, identity and diversity of the Parramatta City Centre and recognise it as the pre-eminent centre in the Greater Metropolitan Region.*
- The third objective of the B4 zone set out in Parramatta LEP — which is *[t]o encourage development that contributes to an active, vibrant and sustainable neighbourhood.*
- The fourth objective of the B4 zone set out in Parramatta LEP — which is *[t]o create opportunities to improve the public domain and pedestrian links.*
- The sixth objective of the B4 zone set out in Parramatta LEP — which is *[t]o protect and enhance the unique qualities and character of special areas within the Parramatta City Centre.*
- The object of the Environmental Planning and Assessment Act 1979 set out in section 1.3(g) of that Act *to promote good design and amenity of the built environment.*

**3.5** It is also noted that Stages 1 and 2 of the Public Domain have been approved (DA/672/2018) with variations to the standard under Clause 7.4(2) DA/672/2018. The assessment report for DA/672/2018 included the following comments in relation to the standard under Clause 7.4(2) and the previous Clause 4.6 variation:

*“Should the clause prevent installation of trees, shade structures and the like it would not allow appropriate measures to provide for amenity within the space to allow its use by the public. Rather the clause is intended to limit the shadow impact of buildings and structures surrounding the Square to specifically preserve access to sunlight in the ‘sun box’ area. It was not intended to prevent landscape treatments within the Square which are required to provide for the community use and enjoyment of the space.”*

- 3.6 Thus, it could be argued that the standard has been abandoned for Parramatta Square as it relates to overshadowing caused by landscaping and ancillary landscape elements. Therefore, compliance with the standard is unreasonable and unnecessary in the circumstances.

### **Clause 4.6(3)(b): There are sufficient environmental planning grounds to justify contravening the development**

- 3.7 The spatial design layout and circulation of the public domain, including tree planting and provision of umbrellas within the solar protection area has been refined through a detailed design process and has been awarded design excellence. The transformational effect of the development of Parramatta Square Precinct will enhance the locality as one of Parramatta’s preferred locations for commerce.
- 3.8 The development will transform the precinct into a destination in itself. There is therefore a great opportunity and responsibility to support the development (of which the contravening element is a critical component) commensurate with its strategic significance, while reinforcing the desired future character of the area
- 3.9 It is apparent the proposed variation to the standard is a desirable outcome and is superior to the outcome that flows from requiring strict compliance.
- 3.10 The overshadowing does not cause any adverse impacts on the amenity of the locality. The proposed development works have been assessed for their potential impacts on the desired future character of the area, overshadowing, views, heritage and wind environment, and have been found to be acceptable in each of these cases. Importantly there are positive benefits from allowing the contravention, as:
- It will create an improved pedestrian experience in the square.
  - The trees are visually attractive and provide a strong canopy structure for scale, a pleasant environment and hospitable microclimate with a green backdrop all year round.
  - The trees will mitigate the microclimate effect of reflectivity, heat and wind caused by surrounding buildings.
  - Parramatta Square’s usability and desirability will be improved by the trees and umbrellas that cause the contravention.
- 3.11 In light of the above, there are environmental planning grounds that favour the variation of the development standard in this instance.



**Clause 4.6(4)(a)(ii): The development is in the public interest because it is consistent with the objectives of the development standard and objectives for development within the zone**

- 3.12** The proposed development is consistent with the objective of the overshadowing standard which is discussed above.
- 3.13** In particular, it should be understood that the quality of the public space within Parramatta Square will be enhanced by the elements that cause the overshadowing. This means that preventing the overshadowing — by requiring strict compliance — will not ‘protect’ the public open space at all.
- 3.14** The site is located within the B4 Mixed Use Zone. The proposed development is consistent with the zone objectives as discussed in **Table 3** below.

*Table 3: Consistency with the B4 Zone Objectives*

<b>B4 Zone Objectives</b>	<b>Comment</b>
<i>To provide a mixture of compatible land uses.</i>	<p>The proposed development is for the Public Domain within the Parramatta Square Precinct, which is surrounded by buildings containing a mixture of uses. The development is compatible with the surrounding land uses as it provides a high quality Public Realm surrounding the landmark CBD precinct.</p> <p>The variation to the standard provides greater amenity to the public domain, ensuring it is more user friendly by occupants of the surrounding buildings.</p> <p>The variation does not affect consistency with this objective.</p>
<i>To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.</i>	<p>The variation does not affect consistency with this objective. The variation will encourage people to actively use the Public Domain by a higher quality and greater amenity public space, than if compliance were to be achieved.</p>
<i>To encourage development that contributes to an active, vibrant and sustainable neighbourhood.</i>	<p>The proposed variation directly achieves this objective by providing an enhanced public space through the inclusion of landscape elements that contribute to the design, presentation, and functionality of the space. If the elements that cause the overshadowing were not included in the development, the public space would be less useable and result in a harsher environment, particularly in summer months.</p>
<i>To create opportunities to improve the public domain and pedestrian links.</i>	<p>The proposed development allows for an improved public realm than if compliance were to be achieved. The proposal is consistent with this objective.</p>
<i>To support the higher order Zone B3 Commercial Core while providing for the daily commercial needs of the locality</i>	<p>The variation does not affect consistency with this objective. In fact, the variation provides a more useable open space area that supports the</p>

	surrounding commercial buildings within Parramatta Square.
<i>To protect and enhance the unique qualities and character of special areas within the Parramatta City Centre.</i>	The variation does not affect consistency with this objective.

***Overall public interest***

- 3.15** In accordance with the requirements of Clause 4.6(4)(a)(ii), the proposed development and variation to the development standard is in the public interest because it achieves and is consistent with the objectives of both the development standard and the land use zone.

## 4.0 CONCLUSION

- 4.1** Compliance with the development standard contained in Clause 7.4(2) of the *Parramatta LEP 2011* is unreasonable and unnecessary in the circumstances of the case, and the justification to vary that standard is well founded. There are environmental planning grounds justifying the contravention, in the unique circumstances of the proposal.
- 4.2** This clause 4.6 variation request demonstrates, notwithstanding the proposed variation to the development standard, that:
- the underlying and stated objectives of the overshadowing development standard will be undermined or thwarted if there is not a variation to the control;
  - the proposed flexible application of controls better achieves the relevant planning objectives and aims (being amenity objectives / aims that are set out in the Parramatta LEP and the EP&A Act) than would be achievable by strict adherence to the controls across the development site;
  - it is in the public interest as the proposal is consistent with the applicable land use zone objectives and the development standard objective;
  - the additional overshadowing of Parramatta Square will not result in adverse amenity or environmental impacts, in fact the proposal will result provide positive amenity and environmental outcomes;
  - the non-compliance with the development standard does not raise any matters of State and regional planning significance;
  - there is no public benefit in maintaining the development standard adopted by the environmental planning instrument for this site; and
  - the development standard has been virtually abandoned in as much as it relates to shadows cast by landscaping and ancillary landscape structures through recent approvals on this site (e.g. DA/672/2018 for Stages 1 and 2 of the Public Domain).
  - the proposal satisfies Draft Clause 7.4(5) of the Parramatta CBD Planning Proposal currently on exhibition. If gazetted, this Clause 4.6 variation would not be required.
- 4.3** The clause 4.6 request demonstrates that the proposed development will deliver a better outcome for the site, and the broader community. Overall, the proposal optimises the opportunity to establish a high quality public realm that creates a revitalised precinct in the City Centre of Parramatta and provides significant public benefits, consistent with Parramatta Council's objectives.
- 4.4** For the reasons set out in this written request, the proposed development should be approved with the variation as proposed in accordance with the flexibility allowed under Clause 4.6 of the *Parramatta LEP 2011*.

◆◆◆

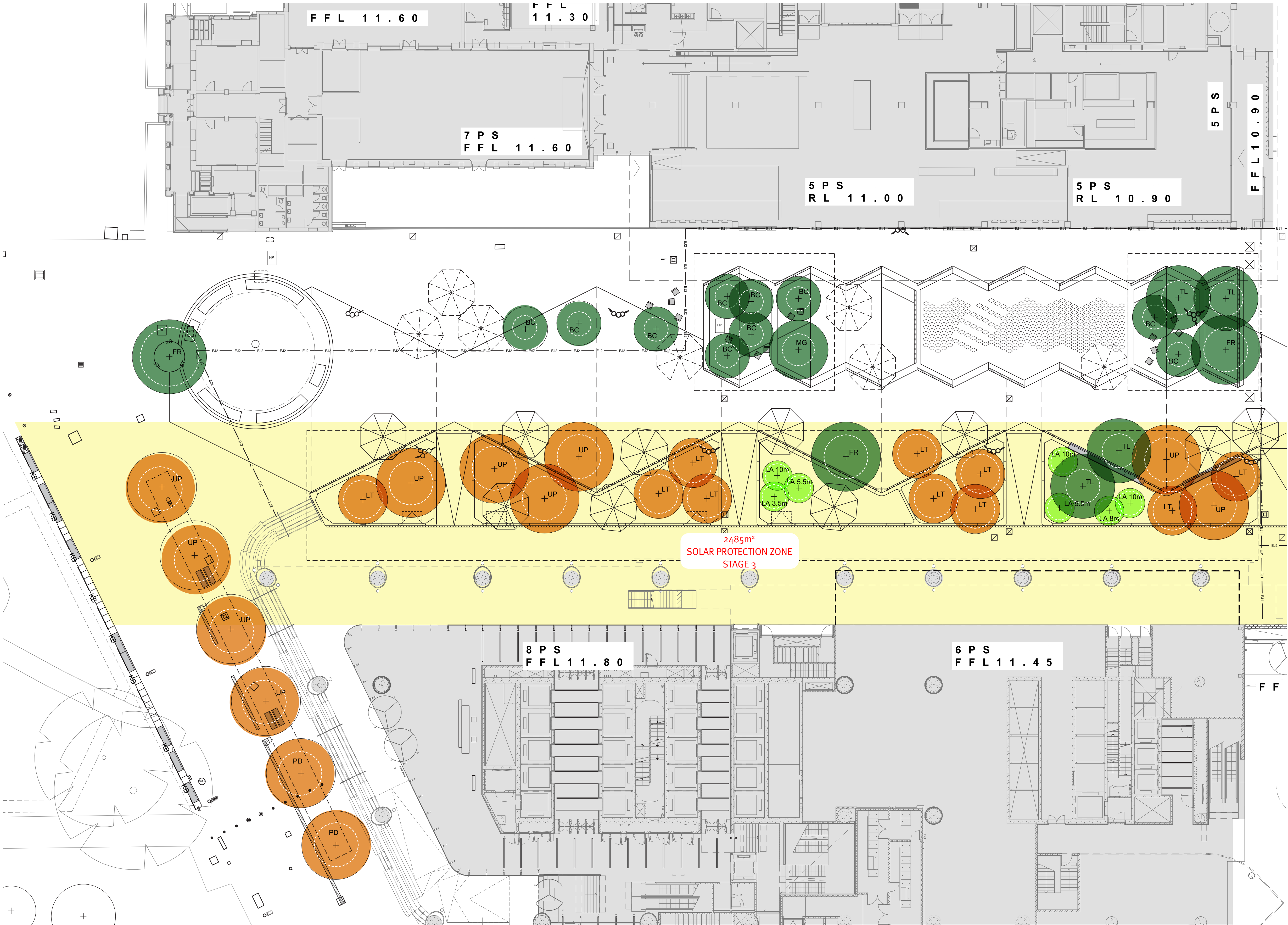
## APPENDIX 1

### Shadow Diagrams prepared by JMD Design for DA/189/2019



Legend

- Anticipated mature size 2029
- Extent of works
  - Solar access zone
  - EVERGREEN SPECIES
    - BC Backhousia citriodora (Lemon Myrtle) substitute for Buckinghamia celsissima
    - FR Ficus rubiginosa (Port Jackson Fig)
    - TL Tristaniopsis laurina (Water Gum)
    - MG Magnolia grandiflora (Southern Magnolia)
  - EVERGREEN SPECIES - Minimal shade (palms)
  - LA Livistona australis (Cabbage Tree Palm)
  - DECIDUOUS SPECIES
    - LT Liriodendron tulipifera (Tulip Tree)
    - UP Ulmus parvifolia (Chinese Elm)
    - PD Platanus digitata (Oriental Plane) - on Church St
  - CANOPY SPREAD PROJECTION
    - Anticipated crown spread at time of installation (2021)
    - Anticipated mature spread (2031)



Client

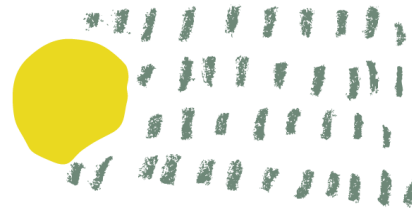


Consultant

Revisions

Issue	Date	Description	Drawn	Check
E	21.10.20	For Information	ZH	YR

JMD design



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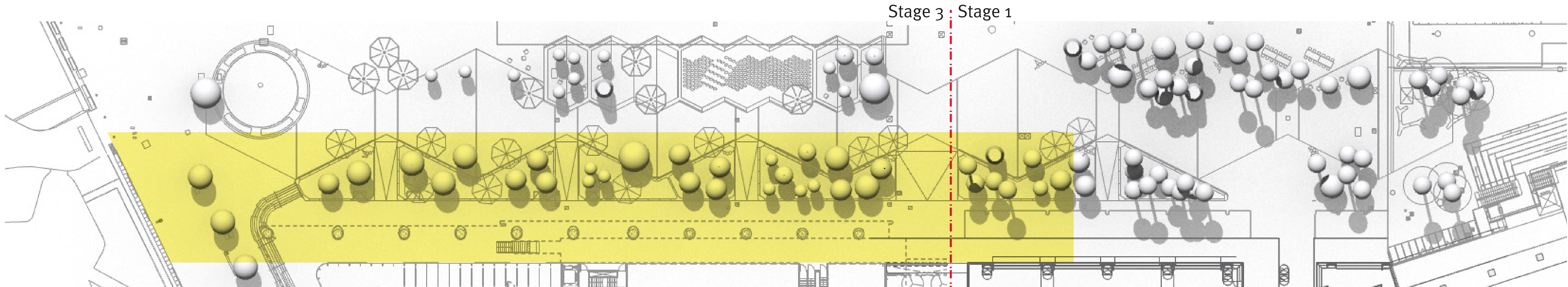
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Parramatta Square Public Domain  
Drawing title  
10 year solar access diagram 01

Date  
Oct 2020  
Scale  
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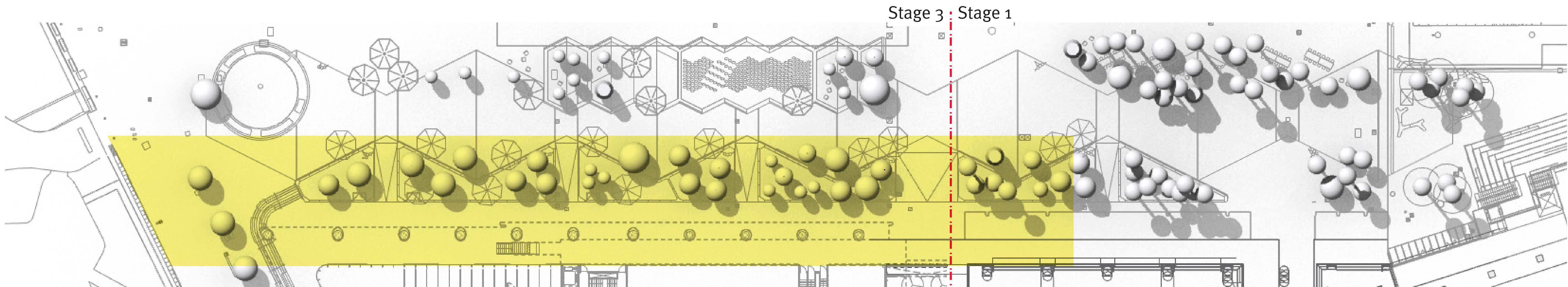
Drawing No.	Issue No.
L01	E



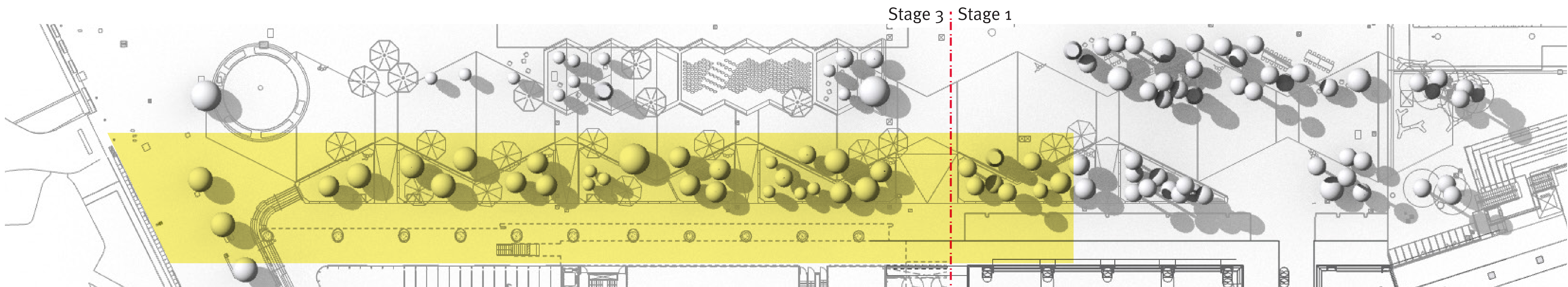
TREE SCHEDULE Stage 3 - Nov 2021 - April 2022			Size at installation - 2021 - 2022				10 years after planting - 2031	
SYM	SPECIES	COMMON NAME	POT SIZE	ROOT BALL (mm)	HEIGHT (m)	CROWN DIAMETER	HEIGHT (m)	CROWN DIAMETER
TREES								
BC	Backhousia citriodora	Lemon Myrtle	1500 Litre	1650 dia x 850mm	4.5-5.5m	2-2.5m	7-8m	4-4.5m
FR	Ficus rubiginosa	Port Jackson Fig	2000 Litre	1800 dia x 1000mm	5.5-6m	4-4.5m	8-9m	6-7m
FR	Ficus rubiginosa	Port Jackson Fig	2000 Litre	1800 dia x 1000mm	5.5-6m	5.5-6m	8-9m	7-8m
LT	Liriodendron tulipifera	Tulip Tree	1000 Litre	1350 dia x 720mm	5.5-6m	3.5-4m	7-8m	4.5-5m
MG	Magnolia grandiflora	Southern Magnolia	2000 Litre	1800 dia x 750mm	6-7m	2.5-3m	9-10m	5-6m
PD	Platanus digitata	Oriental Plane	1000 Litre	1500 dia x 850mm	5.5-6m	4-4.5m	9-10m	8-9m
TL	Tristaniopsis laurina ‘Luscious’	Water Gum	2000 Litre	1800 dia x 1000mm	5-5.5m	3-3.5m	9-10m	6-6.5m
UP	Ulmus parvifolia	Chinese Elm	1000 Litre	1500 dia x 850mm	5.5-6m	4-4.5m	9-10m	7-8m
PALMS								
LA 10m	Livistona australis	Cabbage-tree Palm	ex-ground	1200 x 1200 x 800mm	12-13m	2-2.3m	15-16m	2.5-3m
LA 8m	Livistona australis	Cabbage-tree Palm	ex-ground	1200 x 1200 x 800mm	10-11m	2-2.3m	13-14m	2.5-3m
LA 5.5m	Livistona australis	Cabbage-tree Palm	ex-ground	1200 x 1200 x 800mm	7.5-8.5m	2-2.3m	10-12m	2.5-3m
LA 3.5m	Livistona australis	Cabbage-tree Palm	ex-ground	1200 x 1200 x 800mm	5.5-6.5m	2-2.3m	8-9m	2.5-3m



March 22 (autumnal equinox), 12pm

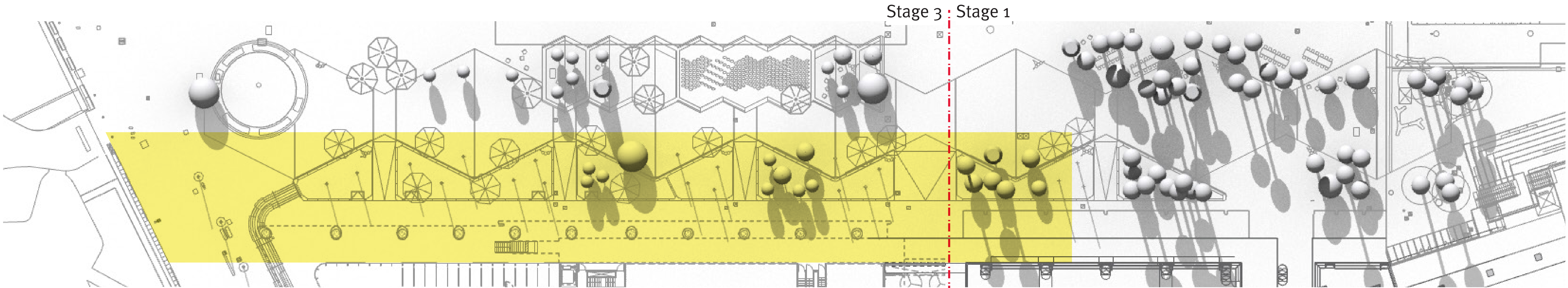


March 22 (autumnal equinox), 1pm

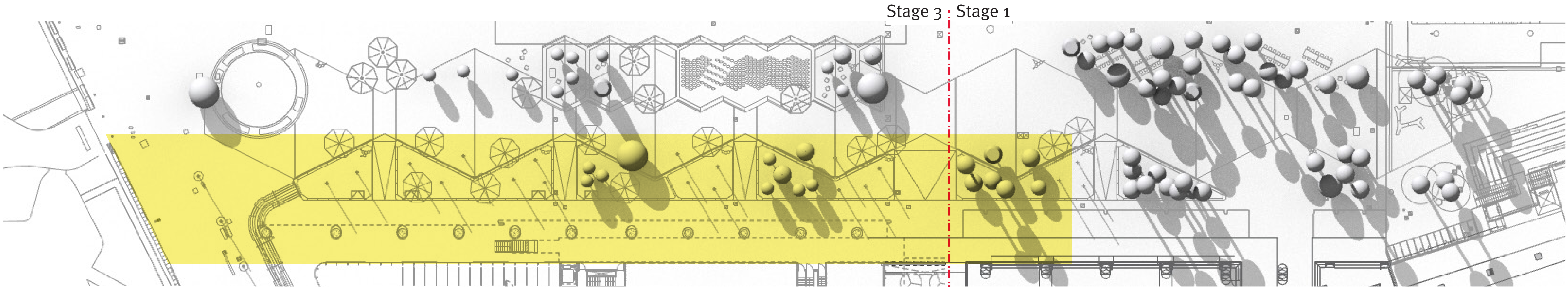


March 22 (autumnal equinox), 2pm

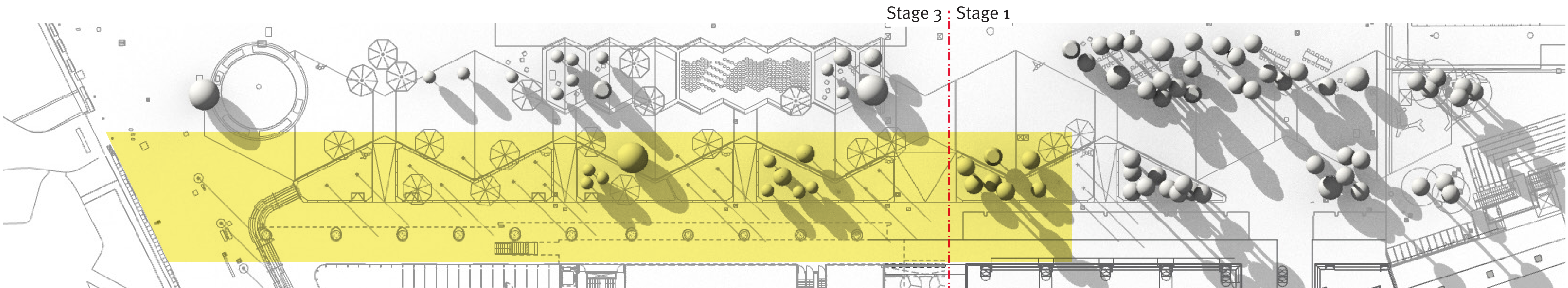




June 22 (winter solstice), 12pm

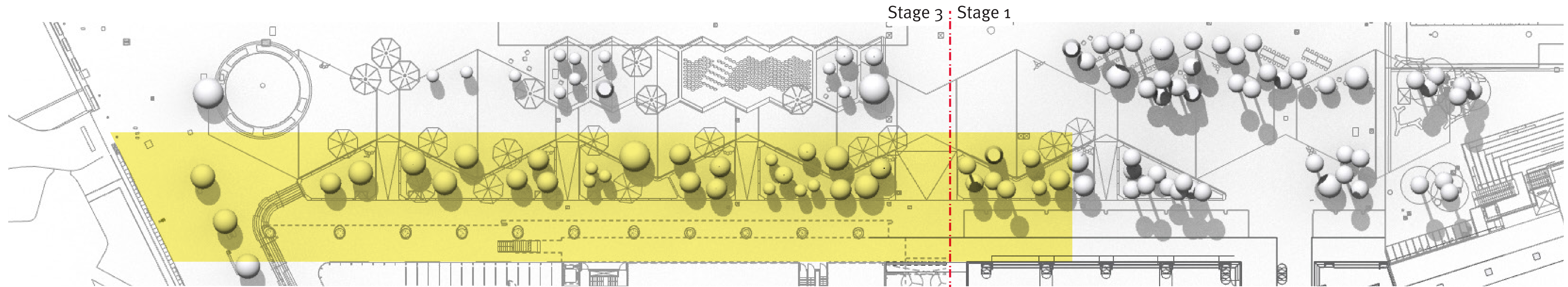


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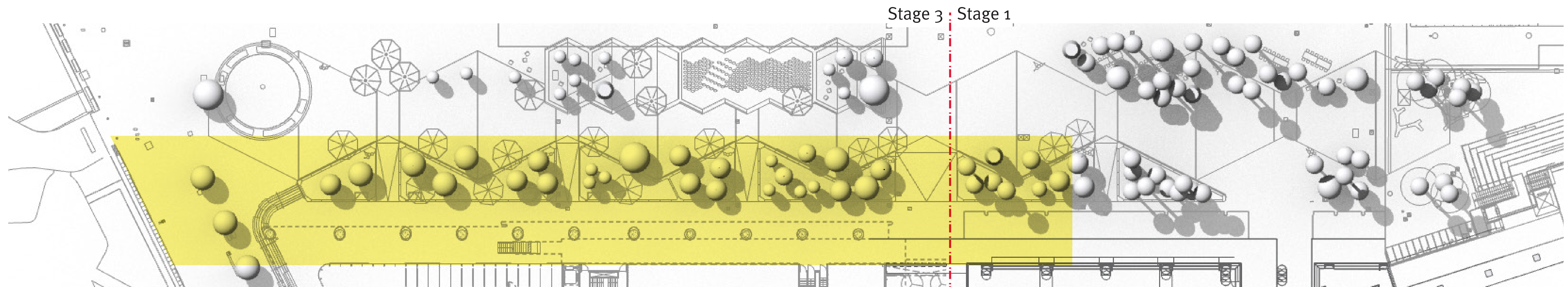


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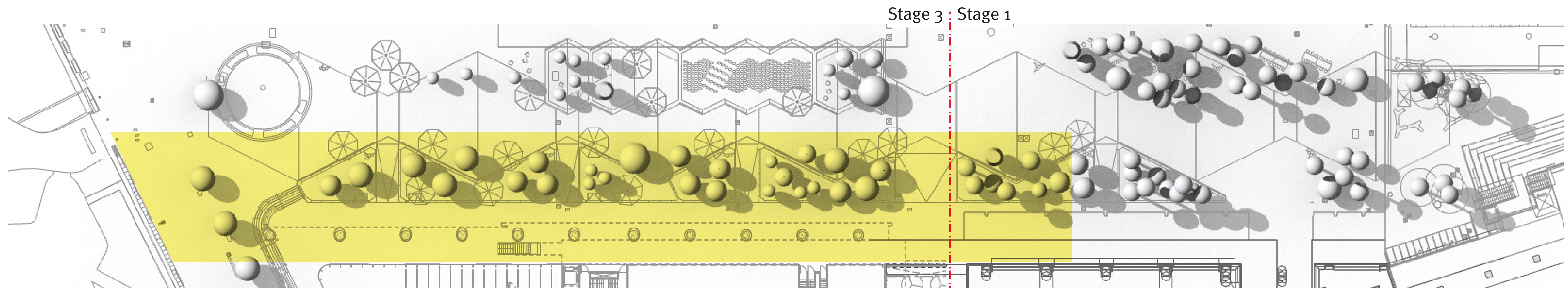




September 22 (spring equinox), 12pm



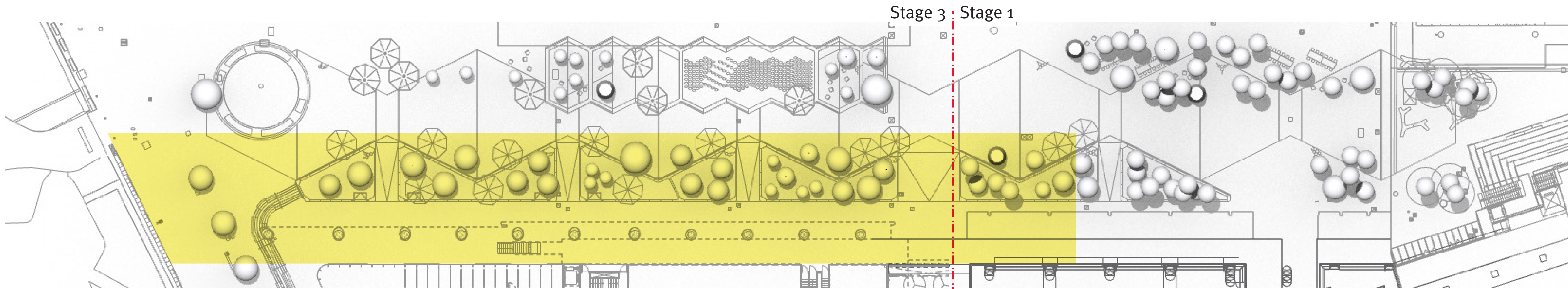
September 22 (spring equinox), 1pm



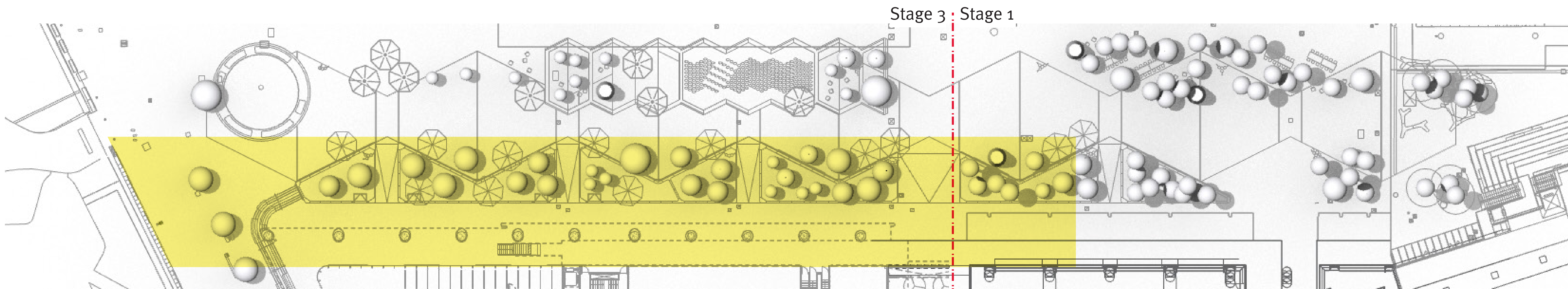
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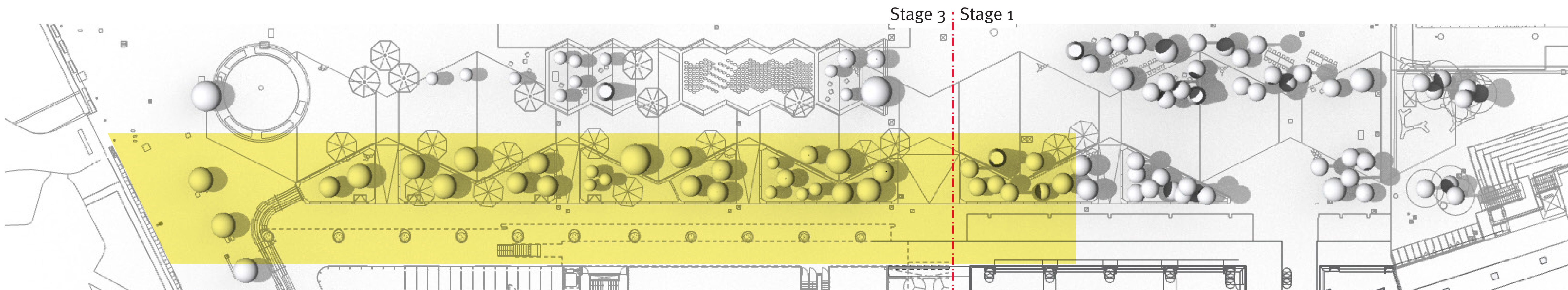




December 22 (summer solstice), 12pm



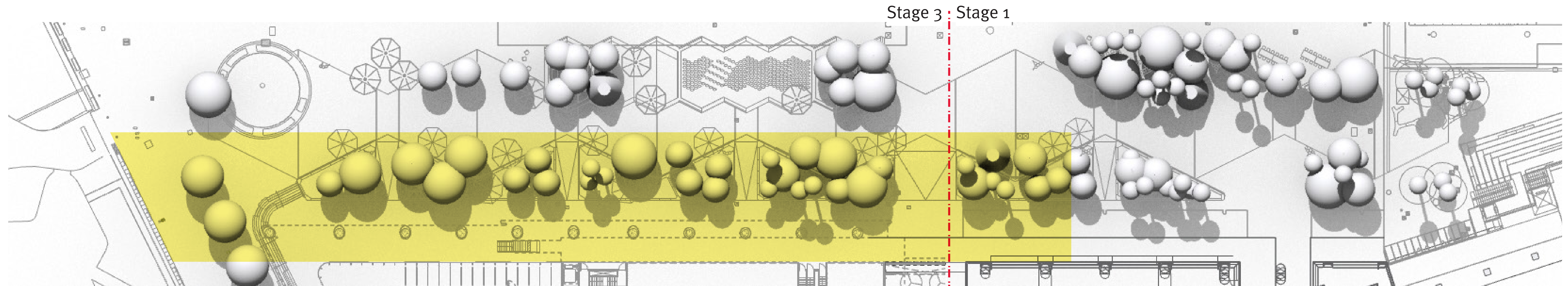
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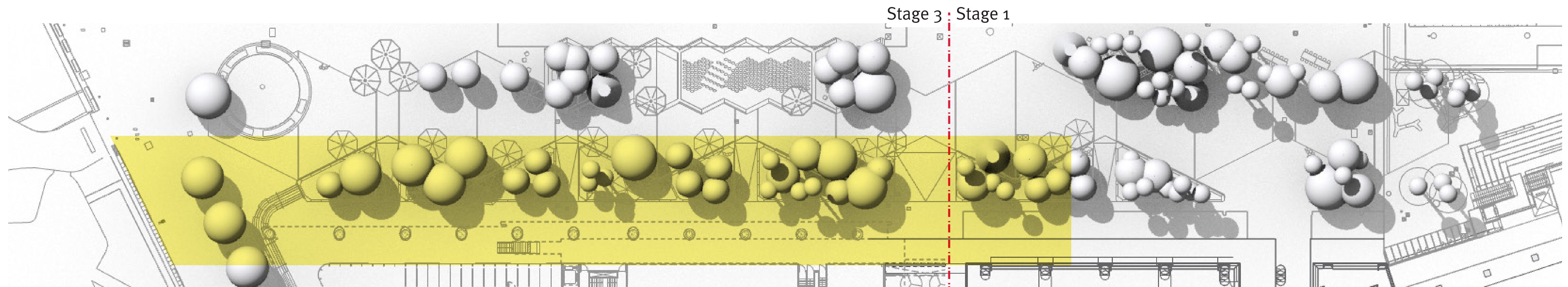
December 22 (summer solstice), 2pm



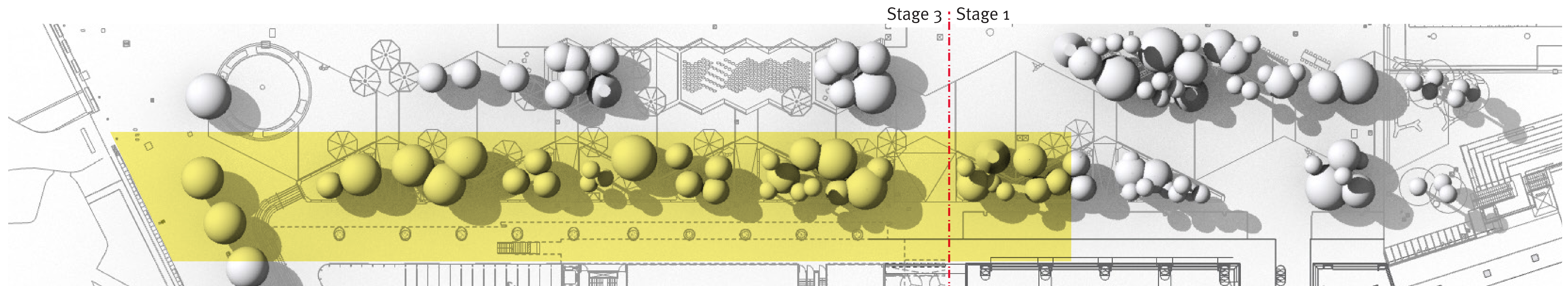




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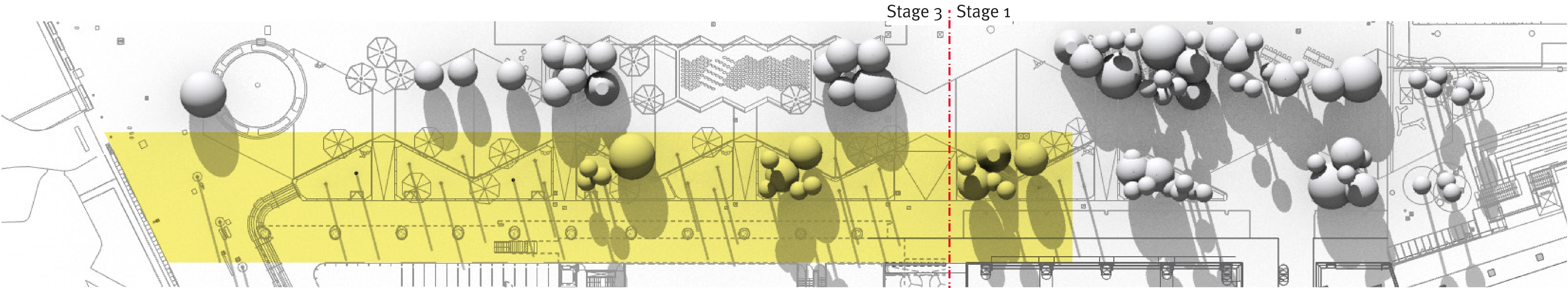


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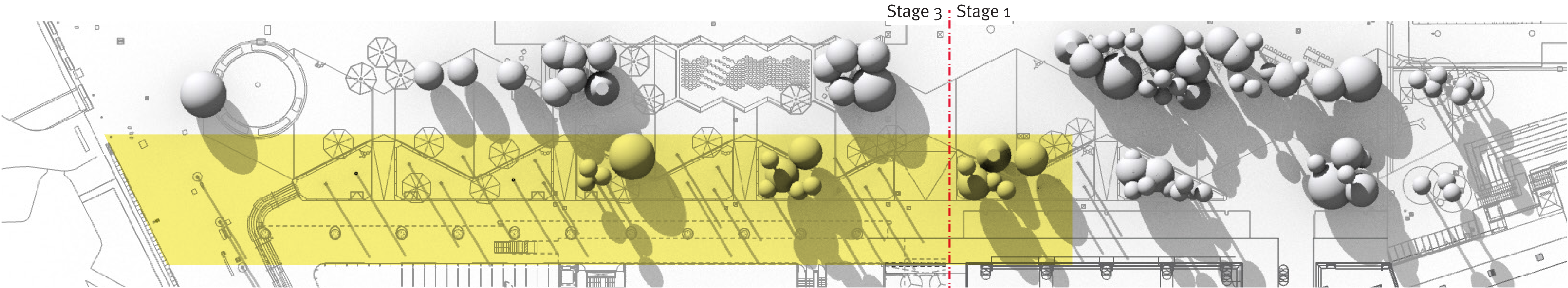


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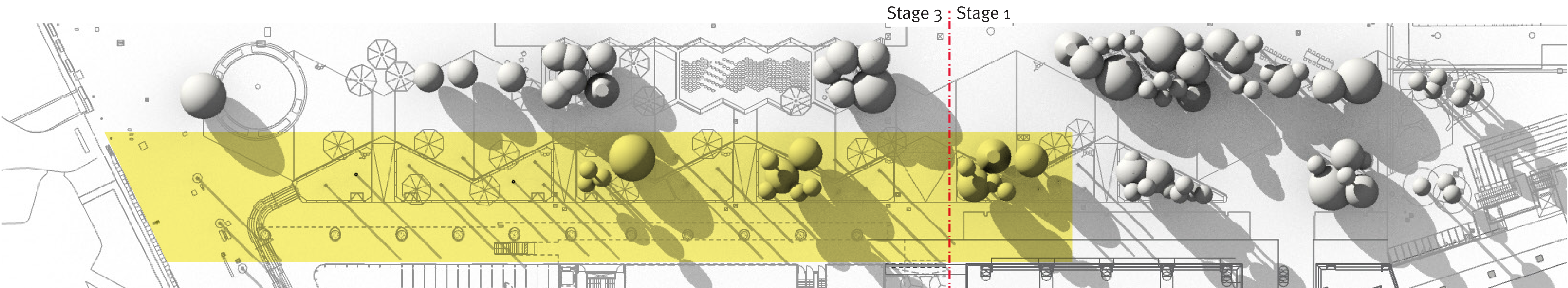




June 22 (winter solstice), 12pm

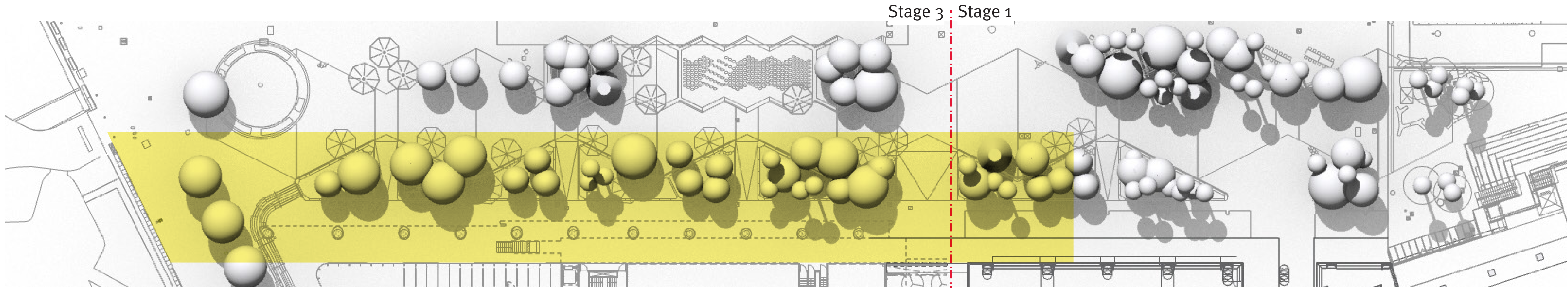


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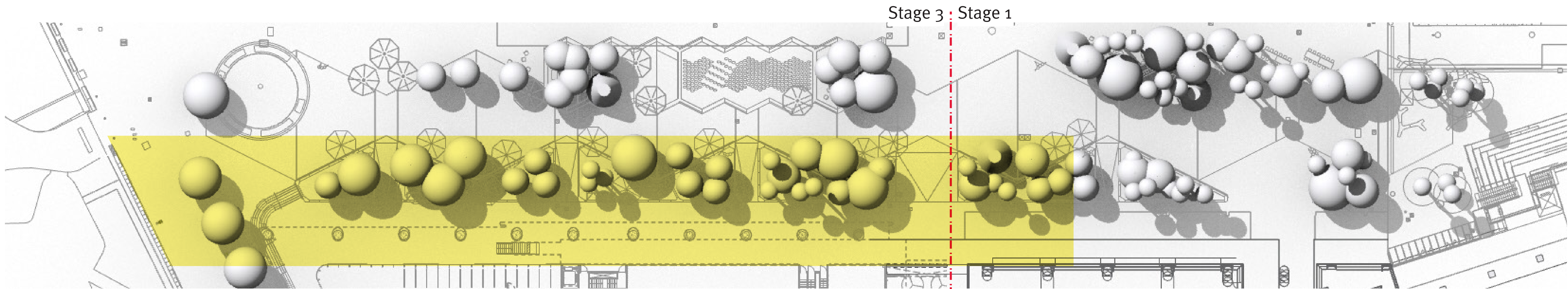


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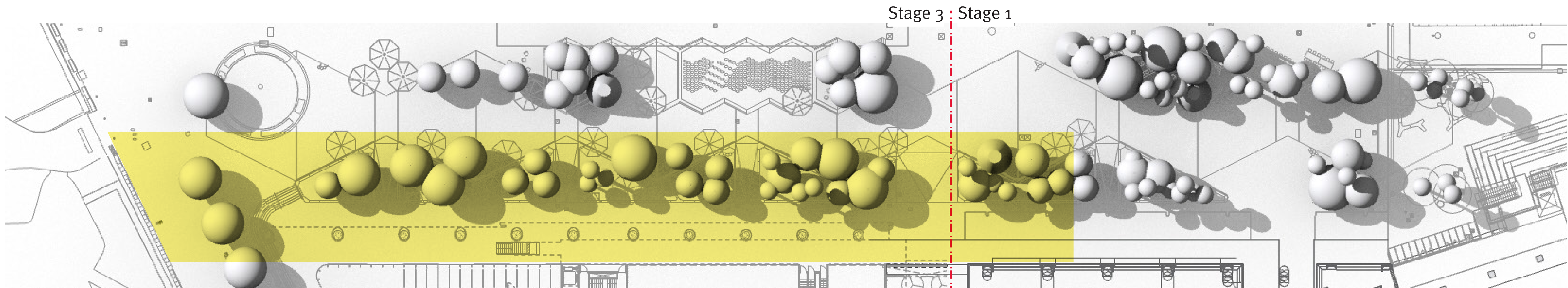




September 22 (spring equinox), 12pm

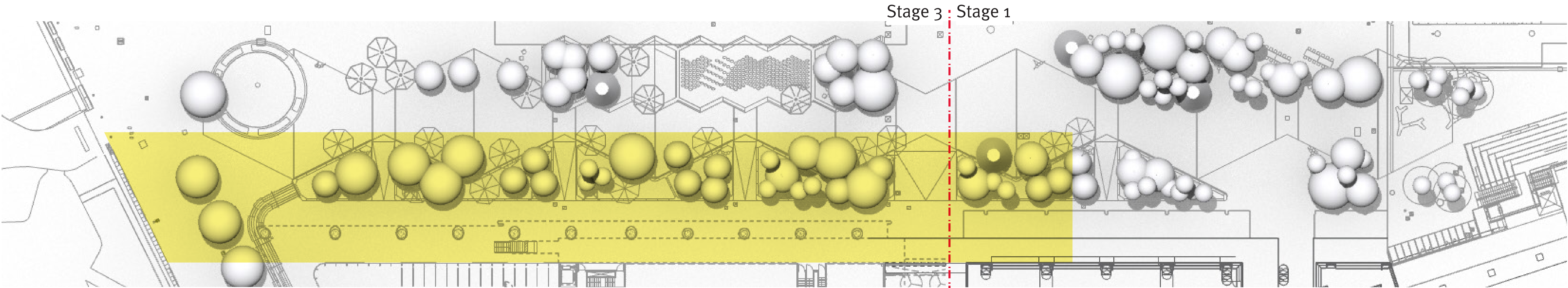


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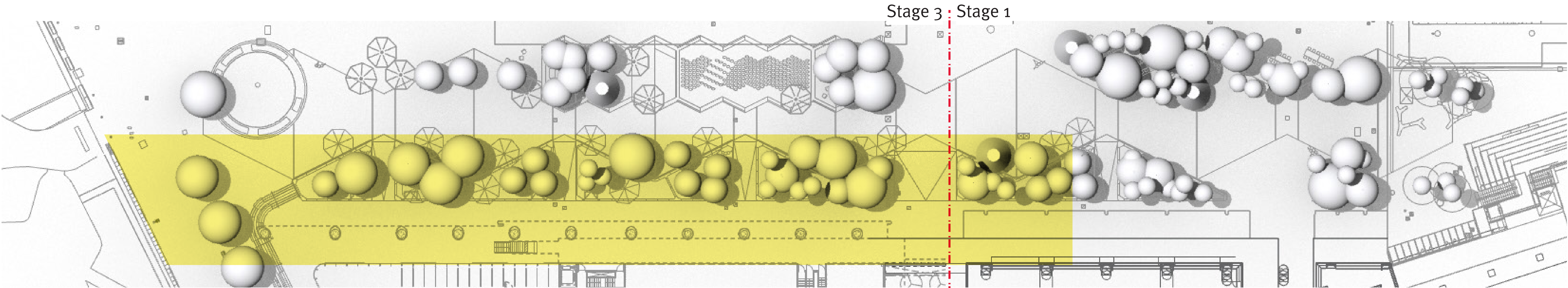


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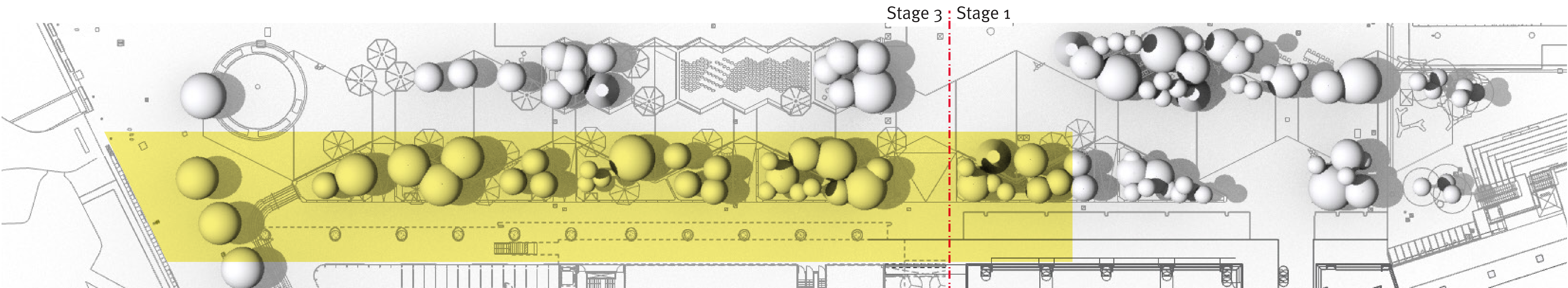




December 22 (summer solstice), 12pm



December 22 (summer solstice), 1pm



December 22 (summer solstice), 2pm