



CONTENTS

LANDSCAPE VISION	3
LANDSCAPE PLAN KEY PLACES	4
LANDSCAPE DESIGN STATEMENT	6
BUSH FIRE PROTECTION AREAS	7
NORTHWEST DETAIL PLAN	8
ELEVATION AA COMMUNAL SPACE	9
SECTION BB ARRIVAL AREA	10
NORTHEAST DETAIL PLAN	11
SECTION CC LOWER CAR PARK AND INFORMAL LAWN	12
SECTION DD INFORMAL LAWN TO LEVEL 3 COURTS	13
SOUTHEAST DETAIL PLAN	14
SECTION EE LEVEL 3 GRASS COURTS	15
SOUTHWEST DETAIL PLAN	16
SECTION FF LEVEL 1 COURTS AND TERRACED LANDSCAPE	17
PLANTING STRATEGY PLAN	18
PLANTING PALETTES	19
PLANTING SCHEDULES	23

LANDSCAPE VISION

An open landscape for formal and informal play terracing with the natural topography. Edges and spaces provide places to gather, watch and cheer.

Remnant Blue Gum Forest is protected and sitewide **native planting** create shade, character and softness.



LANDSCAPE MASTERPLAN | KEY PLACES **REMNANT BLUE** ENDANGERED **GUM FOREST ECOLOGICAL** COMMUNITY **COMMUNAL SPACE** LOWER MIDDLE CAR PARK CAR PARK **INFORMAL LAWN ARRIVAL AREA AND OUTDOOR GYM INDOOR SPORTS FACILITY OPEN LAWN INFORMAL LAWN** Ш MIXED USE 04 COURTS S LEVEL 2 COURTS Ш **TERRACED** LEVEL 1 COURTS **LANDSCAPE** 0 \mathbf{m} LEVEL 3 COURTS **SOUTHERN SWALE ERMINGTON PUBLIC SCHOOL** Proposed street trees to be approved by council

EXTENT OF WORKS | WINBOURNE STREET & BRUSH ROAD **←** - - - Additional 12 street trees at Brush Road. Additional 6 street trees ----> at Winbourne Street. Tree species refer to L-DA-22 Tree species refer to L-DA-22 **LEGEND** Site Boundary Retained existing trees Proposed trees

Proposed street trees to be approved by council

LANDSCAPE DESIGN STATEMENT

PROJECT OVERVIEW

West Ryde Multi-Sports Facility will provide a valuable sporting and open space asset for the broader community. Sensitive to existing landform, the terraced landscape accommodates 29 outdoor netball courts, an indoor sports facility, on-site car parking, a community gathering space and lawn areas for informal play. Between the court levels are planted areas with seating walls providing places to sit and watch the games. Within the site bounds is a protected area of Blue Gum High Forest marked as an Endangered Ecological Community (EEC) with a first order creek flowing through.

Opportunities for indigenous collaboration and expression abound, for example through the landscape and way-finding designs.

The mature trees on and around site create a pleasant bushland character which has informed the planting design and use of natural materials. A 2:1 tree replacement strategy has been adopted resulting in 238 proposed trees. Water Sensitive Urban Design is integrated through planted swales and bioretention basins.

The site has an extensive Asset Protection Zone around the Indoor Sports Facility and protected EEC. Planting in these areas adheres to APZ requirements with adequate tree spacing and use of low groundcovers.

The sports facility caters for netball players and spectators, whilst also providing open space for the community to use at their leisure.

MATERIALITY & URBAN ELEMENTS

Proposed materiality for the landscape connects to the naturalistic character drawn upon from the Blue Gum High Forest and surrounding locale.

Paved circulation paths provide a simple groundplane to frame the netball court surfaces which are proposed to have vibrant colours and design.

Spectator seating around the courts is provided through large rough cut sandstone blocks and walls. These create robust edges and complement the native planting.

Timber furniture and play elements are used in the Communal space and informal lawn areas.

Finishes of other urban elements including fencing, balustrades, rubbish and recycling bins, bicycle

racks and lighting would be selected as a suite of complementary items.

PROTECTION FROM THE ELEMENTS

The expanse of netball courts is mitigated where possible through landscape features. Battered edges between the court levels mitigate wind, whilst tree planting with minimal leaf drop provides some shade and shelter for spectators on the sidelines. This is balanced with the APZ requirements.

VIEWS/PRIVACY

The perimeter of the site is mostly lined by trees and street trees which create privacy for surrounding residents.

Users can experience long views across the site from the upper level courts and the building terrace as the land steps down toward the southeast.

AMENITY

The landscape design incorporates a variety of amenities such as seating to watch games, and a communal gathering area with a sloped lawn, generous seating elements and some play elements for young children

Informal lawn areas to the west and south of the EEC can be used for kicking a ball or play.

An existing outdoor gym with a shade structure and storage container are retained for community use.

The courts themselves can also be used for other sports activities when not being used for netball games.

ACCESSIBILITY

The site has multiple access points from Winbourne Street and Brush Road. Steps, walkways and DDA compliant ramps allow access between the car park and court levels.

Universal access is also provided via an outdoor lift from the upper level courts down to the middle level car park and basement car park level below.

DDA compliant routes are emphasised and have clear wayfinding for inclusivity and ease of movement.

LIGHTING

Designed by a lighting engineer, the illumination of external spaces addresses CPTED and netball facility requirements ensuring safe game play and movement at night.

The main path of travel across the site is well lit, as well as key access points, building interfaces and the car park. Uplights to trees and under bench lighting in the Communal Space provide visual interest and safety.

DRAINAGE & IRRIGATION

Working closely with the civil engineers and architectural team, drainage is integrated into the design to minimise drainage infrastructure to the courts, their runoff zones, and main paths of travel.

Irrigation will be included for plant establishment and to maintain tree and plant health.

Consideration has been given to the incorporation of low water demand and low maintenance plant species in all areas to reduce mains consumption.

Water Sensitive Urban Design is integrated through swale designs along the southern boundary, northern boundary and in the car park. Bioretention basins to the south are planted to slow and filter stormwater.

DEEP SOIL

The entire site is on deep soil, allowing for generous soil volumes for proposed trees to thrive, and existing retained trees to be protected.

SOIL

The planting comprises of primarily indigenous and native species. Therefore, appropriate soil profiles will be provided with modest nutrient levels, particularly phosphorus. Suggested material would equal Australian Native Landscapes 'Low P' mixture. Consideration will be given to the planting arrangement to ensure that species that are sensitive to nutrient will be grouped together.

PLANT ESTABLISHMENT & MAINTENANCE

A landscape maintenance contractor will be engaged to keep all plant material in a state of health and vigour after practical completion.

Particular care must be taken to maintain planting to the Asset Protection Zone requirements.

The appointed contractor must provide the Superintendent with a proposed maintenance works program for approval. The landscape contractor must keep a logbook of all maintenance works undertaken and include 'works to date' information with all progress payment invoices. Works will include, but not be limited to:

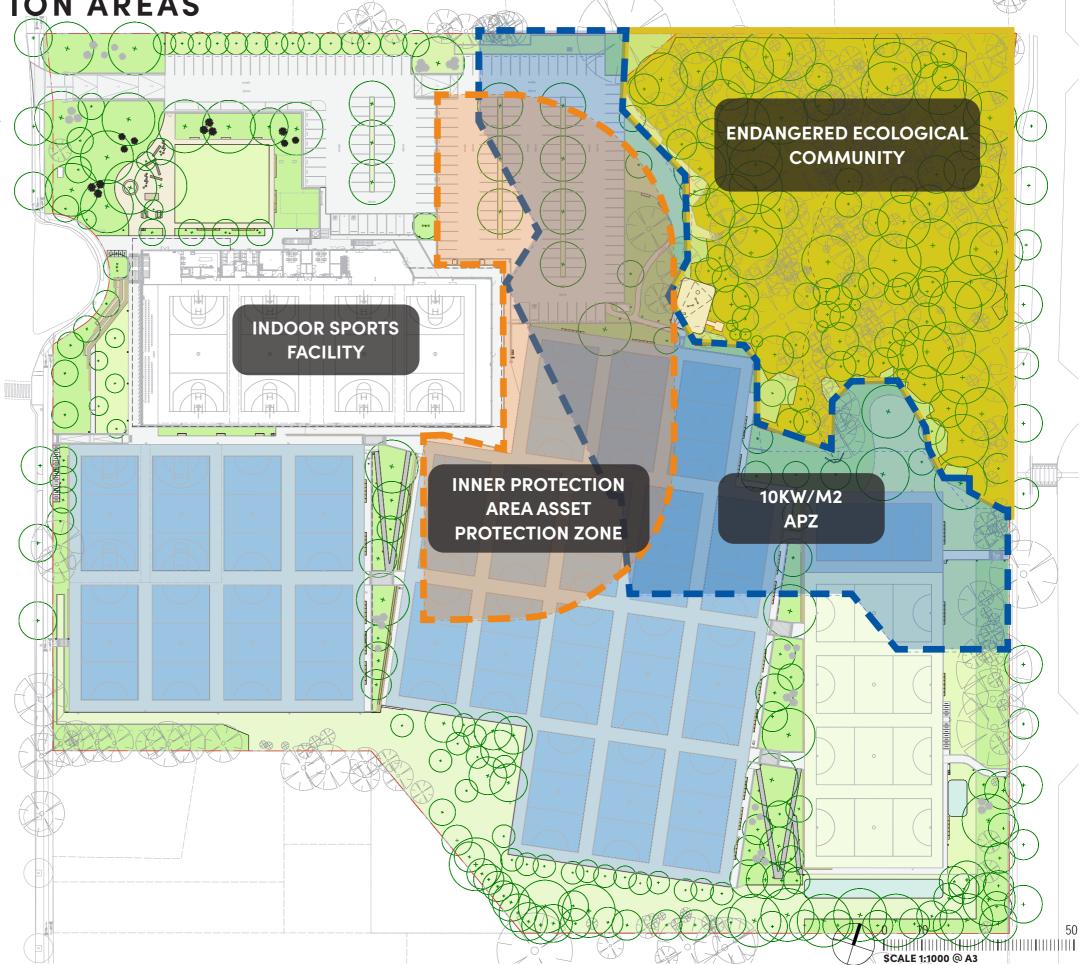
Monitoring the irrigation system on a weekly basis to ensure plants are not under or over irrigated, replacing dead plant material to achieve a complete cover of planting without obvious gaps in planting at final completion, replenishment of mulch as required to provide cover to the soil surface minimising weed encroachment, suppression of weed growth, low phosphorus nutrient will be provided to indigenous plant groupings, selective pruning / crown lifting / canopy shaping of trees to remove potential future structural defects, establish branching above head height, etc.

BUSH FIRE PROTECTION AREAS

Much of the site is a designated 'Inner Protection Area' Asset Protection Zone (APZ). The area marked orange on the adjacent plan shows the APZ protecting the Indoor Sports Facility, and the blue area shows the 10kW/m2 Asset Protection Zone, which is a 38 metre buffer zone around the Endangered Ecological Community.

Within these areas strict guidance on planting is adhered to such as minimal shrub planting, low groundcovers, smooth barked trees, spaced canopies and less than 15% overall canopy cover.

Refer to the Ecologist's report for further information.



Note

1. Proposed street trees to be approved by council

2. Ground covers in C2 zone to be coordinated in line with VMP requirements.

NORTHWEST DETAIL PLAN | UPPER COURTS AND COMMUNAL AREA

- 1. Vehicular entry to car parking area off Winbourne Street with mature retained Liquidambar tree to the south.
- 2. Asphalt car parking area framed by native planting and trees to provide shade.
- 3. Ramp and retaining walls between middle and lower car
- 4. Swale and tree planting providing cooling and Water Sensitive Urban Design.
- 5. Entry to Basement level car park.
- 6. Access lift between Basement level, Middle car park and Communal Space.
- 7. Arrival Area with some trees and planting to soften the threshold and retain clear sight lines to the sports facility
- 8. Sloped lawn from Winbourne Street with sandstone seating terraces.
- 9. Planted embankment with tall trees and low understorey to create a buffer which frames the communal space.
- 10. Communal Space with open lawn to create a place for gathering and informal activity, including timber furniture and play elements for young children. The paved area is cement stabilised compacted gravel to create a natural feel. Tree planting provides shade amenity.W
- 11. Accessible ramp entry from Winbourne Street leading to paved circulation paths..
- 12. Steps and 1:21 walkway between Level 1 and Level 2 courts.
- 13. Terrace around the building with balustrade to the edge. Opportunities for outoor seating.
- 14. Access between lower car park and Level 2 courts.
- 15. Northern swale

Note:

Proposed street trees to be approved by council

LEGEND

Site Boundary

Retained existing trees

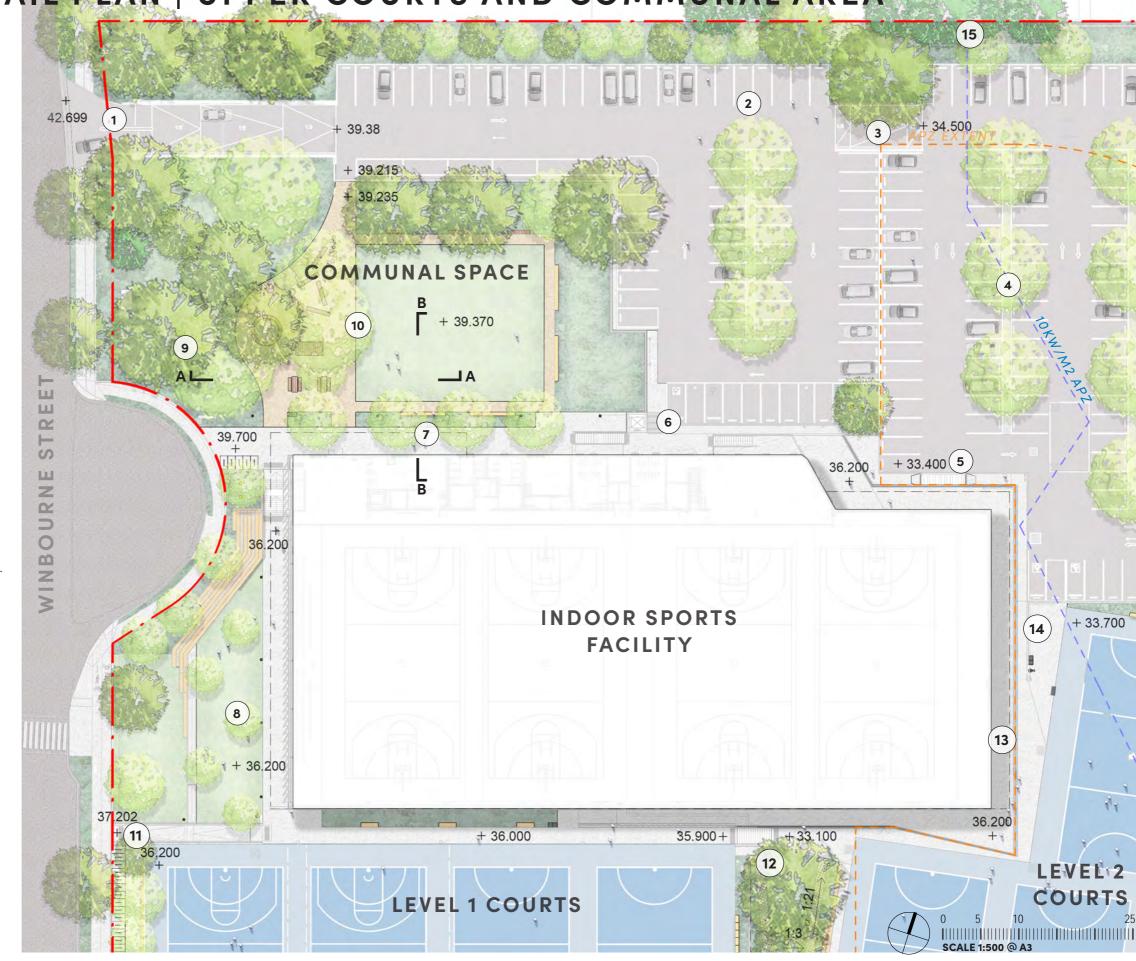
Proposed trees

Sandstone seating/walls

Paved pathways

Compacted gravel surface

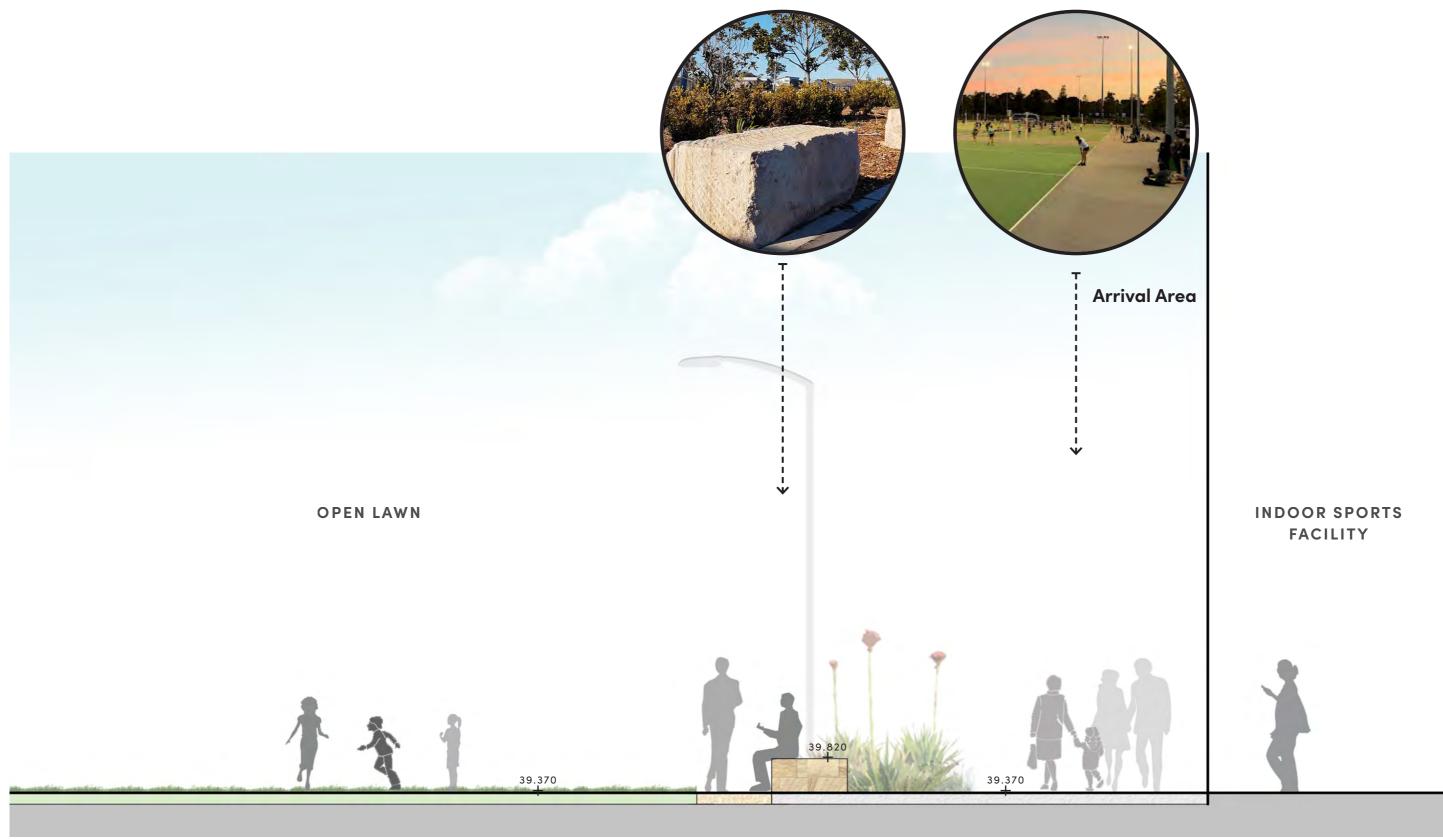
Planting



ELEVATION AA | COMMUNAL SPACE



SECTION BB | ARRIVAL AREA



NORTHEAST DETAIL PLAN | INTERFACES TO THE BLUE GUM FOREST

- 1. Lower car park area with swale and tree planting within the APZ.
- 2. Protected Endangered Ecological Community of Blue Gum High Forest with a first order stream flowing south and beneath the Level 3 Courts.
- 3. Informal lawn area following existing topography sloping toward the forest. Park benches provide places to sit, rest and watch.
- 4. Informal lawn pathway through lower groundcover planting beneath existing Blue Gum trees.
- Retained existing outdoor gym, shade structure and storage unit.
- 6. Low native planting and sandstone log seating.
- 7. Paved circulation paths.
- 8. Rubbish and recycling bins.
- 9. Informal lawn area.

Note

- 1. Proposed street trees to be approved by council
- 2. Ground covers in C2 zone to be coordinated in line with VMP requirements.

LEGEND

Planting

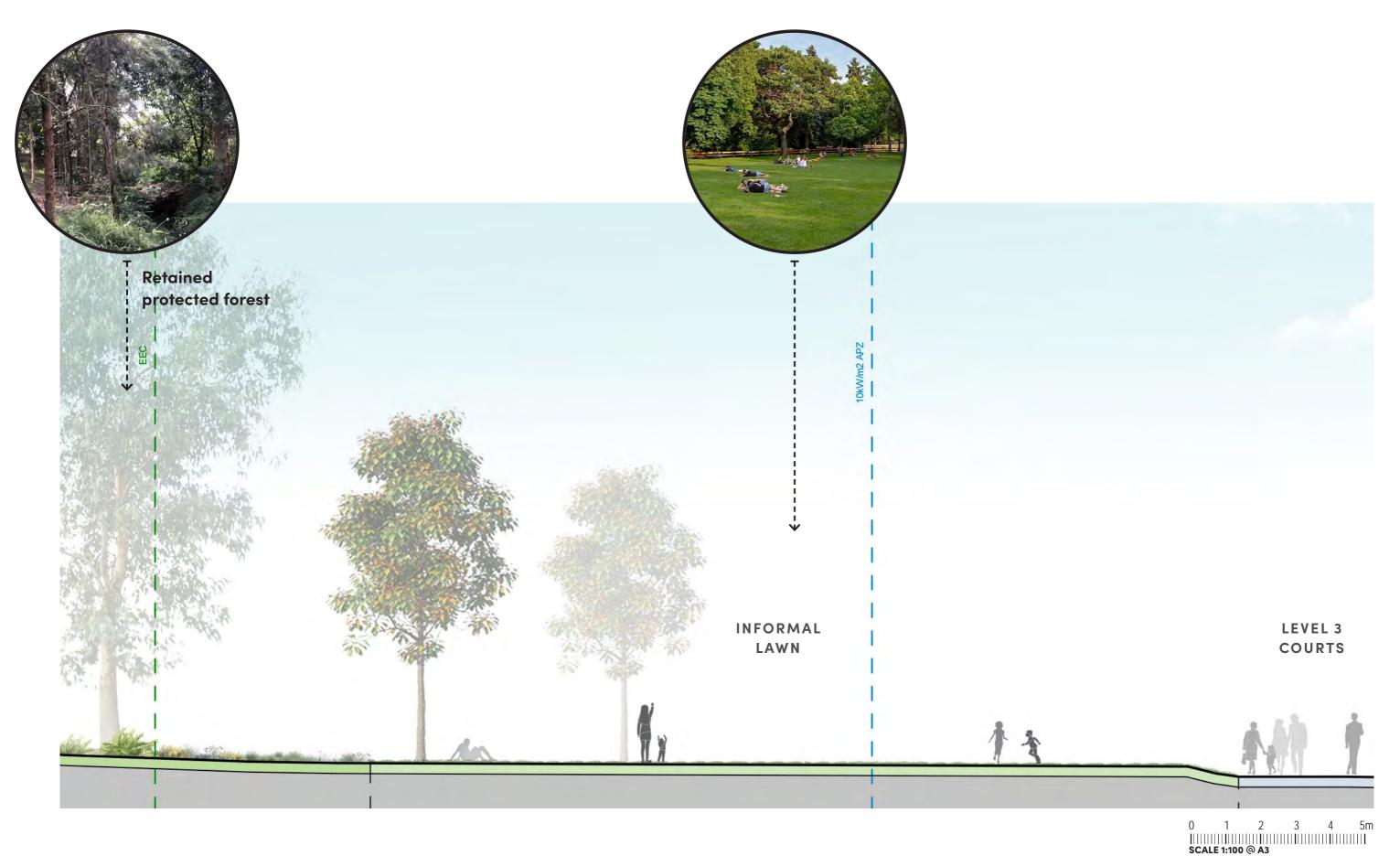
Site Boundary
Retained existing trees
Proposed trees
Sandstone seating/walls
Paved pathways
Compacted gravel surface
Lawn



SECTION CC | LOWER CAR PARK AND INFORMAL LAWN TO THE BLUE GUM FOREST



SECTION DD | BLUE GUM FOREST AND INFORMAL LAWN TO LEVEL 3 COURTS



1. Landscaped batters between the Court levels with native planting and sandstone seating edges. Trees provide

2. Accessible 1:21 floating mesh walkway amongst native textured planting.

3. Stepped access paths between court levels provide maximum permeability.

4. Grass courts.

5. Retained trees along Brush Road.

6. Retained access point with DDA compliant steps.

7. New accessible entry pathway.

8. Bicycle parking (10 spaces) and rubbish and recycling

9. Sandstone retaining walls act also as tiered seating to the lower courts.

10. Planted swale capturing, filtering and directing stormwater to the bioretention basins.

11. Bioretention basins planted with native grasses.

12. Understorey planting beneath the existing trees and lawn areas adjacent to the playing courts soften the edges, follow the natural topography sloping down from Brush Road, and are a permeable surface to slow stormwater.

13. 3m high proposed wire mesh fence to stop balls from rolling down into the southern swale and protect players from the slope beyond the court. Unlocked gates can provide access for maintenance and ball retrieval.

14. 1.2m fence to aid plant establishment.

15. Ermington Public School

Proposed street trees to be approved by council

LEGEND

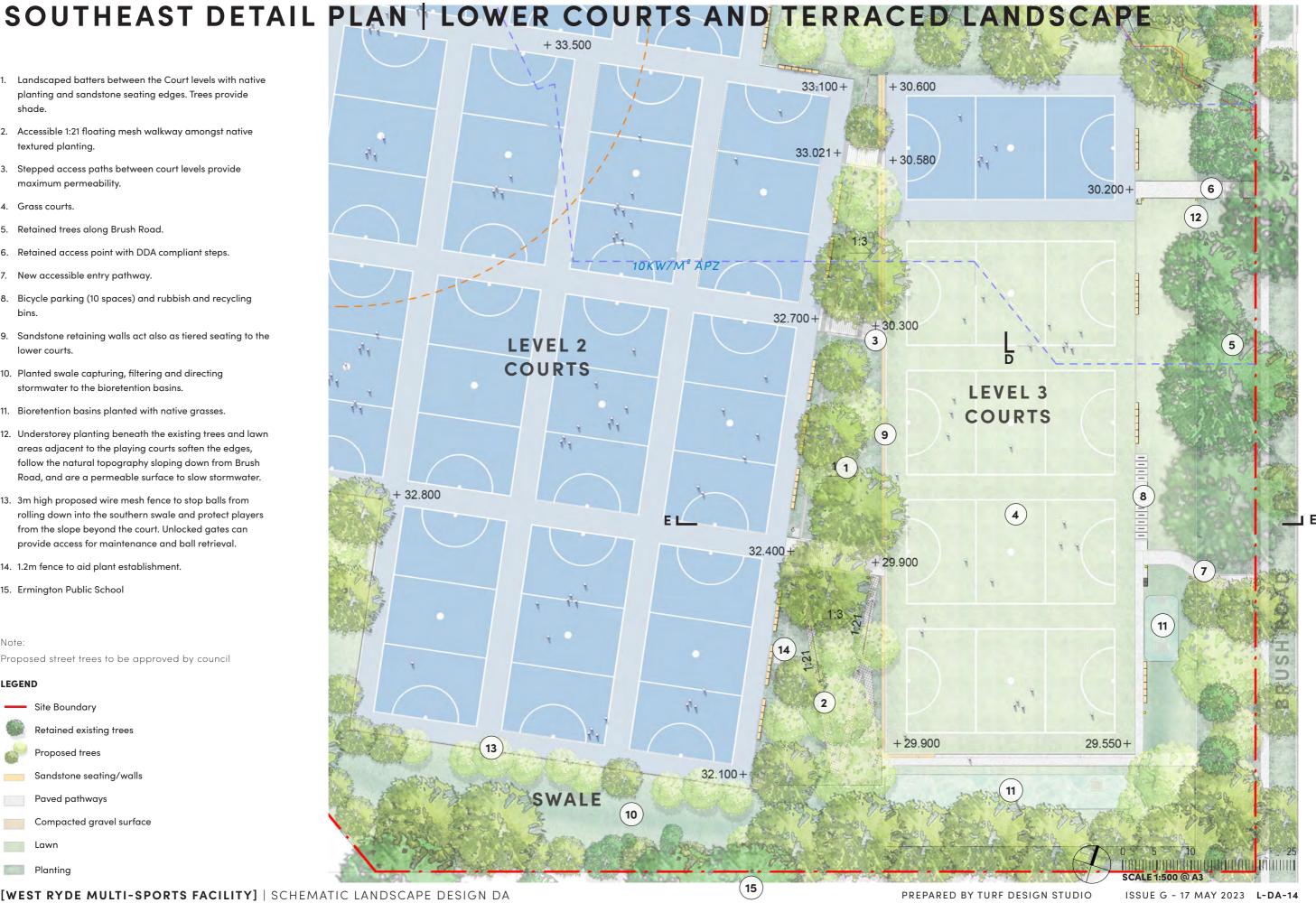
Site Boundary

Retained existing trees Proposed trees

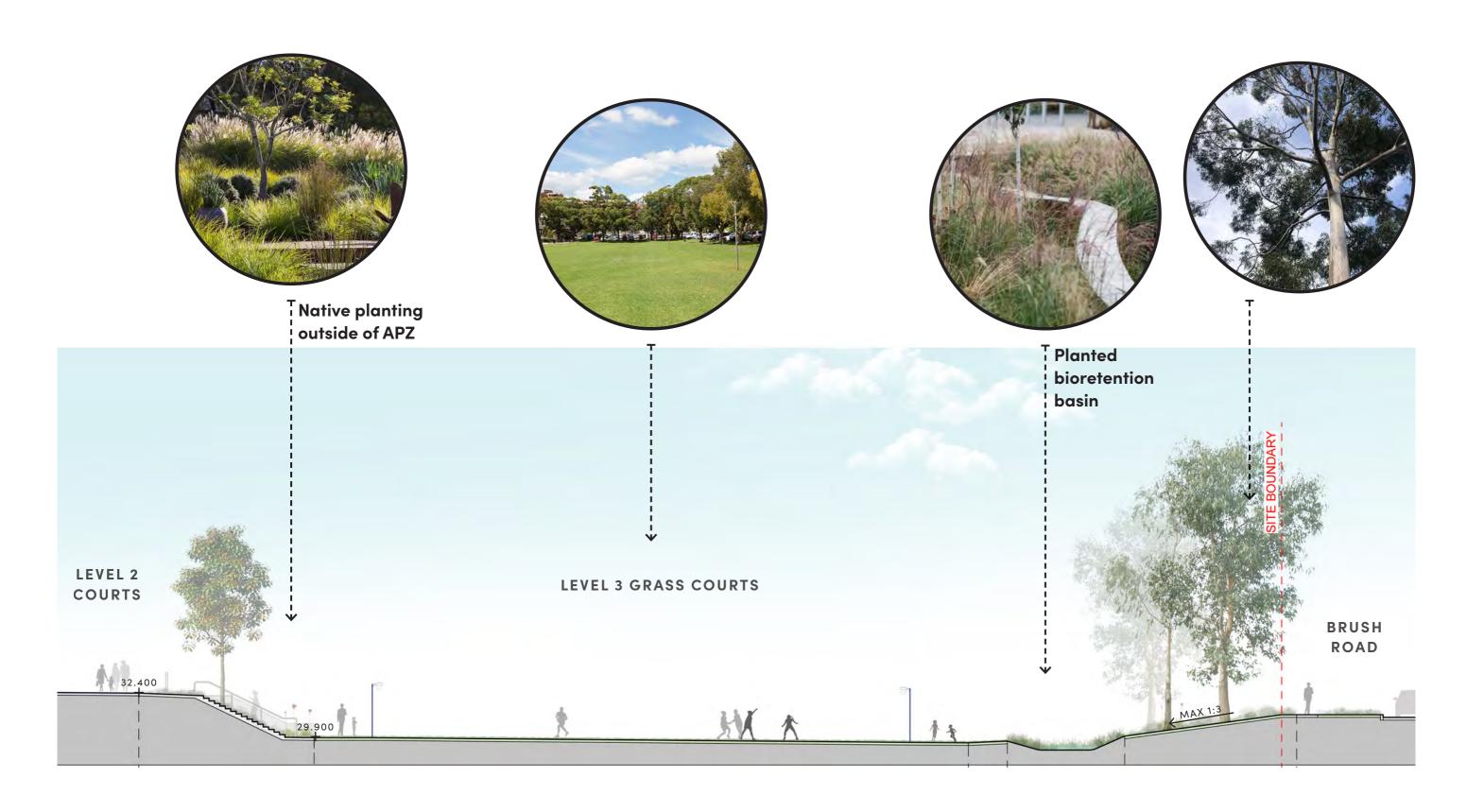
Sandstone seating/walls

Paved pathways

Compacted gravel surface

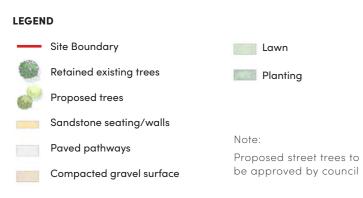


SECTION EE | LEVEL 3 GRASS COURTS AT BRUSH ROAD



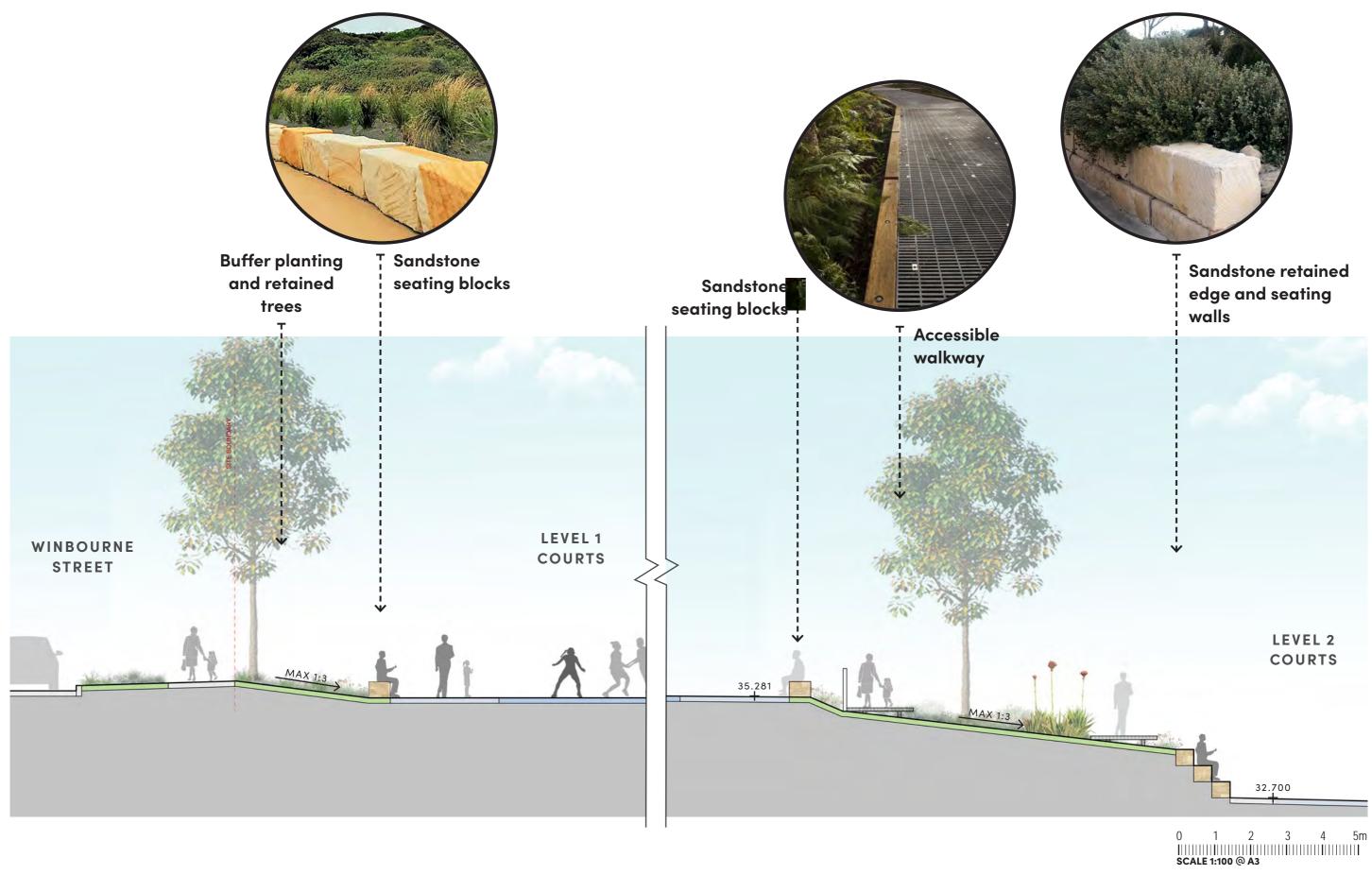
SOUTHWEST DETAIL PLAN | LEVEL 1 COURTS AND SOUTHERN SWALE

- 1. Accessible ramped entry from Winbourne Street.
- 2. Bicycle parking (20 spaces).
- 3. Wayfinding and water refill station at the Communal
- 4. Planting and bench seats by the Indoor Sports Facility.
- 5. Low native planting with retained and proposed trees along the western edge. A sandstone seating wall runs the length of the courts providing seating for spectators and players.
- 6. Southern access point for increased site permeability. The path and steps are proposed as a minimesh structure bridging over the beginning of the southern swale that continues down and east along the southern edge of the
- 7. Retained row of Lemon-scented gums to the southern site boundary.
- 8. Adjacent residential houses.
- 9. Water tolerant native grasses and trees along the swale.
- 10. 3m high proposed wire mesh sports fence to stop balls from rolling down into the swale and protect players from the slope beyond the courts. Unlocked gates provide access for maintenance and ball retrieval.
- 11. Landscaped batters at a maximum slope of 1:3 traverse the levels between the court levels. Trees, native ground covers and feature planting softens the expanse of the courts and provide visual and shade amenity.
- 12. Sandstone seating blocks line the edges of the court in a 1.5m wide flush zone with planting and a linear drain capturing excess water runoff. A 1200mm high wire mesh fence is set 1500mm back from the upper courts within the planting. It acts to prevent stray balls from rolling down to the lower levels and protects planting during its establishment.
- 13. 1:21 floating minimesh walkway for universal access.
- 14. Edges to the lower courts are retained with large linear sandstone blocks that act as spectator and team seating.





SECTION FF | LEVEL 1 COURTS



PLANTING STRATEGY PLAN Planting has been inspired by the Blue Gum Forest on site which is the protected Endangered Ecological Community. In consultation with the project Ecologist, native species have been carefully selected for their suitability within the Asset Protection Zones. In particular lawn and low groundcovers dominate the APZ mixes, as well as smooth ENDANGERED ECOLOGICAL barked native trees. COMMUNITY A mix of grasses are proposed for the swale and bioretention basins for biodiversity, visual aesthetic and suitability during inundation. A 2:1 Tree Replacement Strategy has been adopted. INDOOR SPORTS **FACILITY** Additional 6 street trees at Winbourne Street. Tree species refer to PLANTING MIX LEGEND APZ / IPA Mix - 2409m² Swale Mix - 4596m² Outside APZ Mix - 4135m² Lawn - 2118m² Existing Endangered Ecological Community - Blue Gum Forest - Additional 12 street trees at Brush Total proposed trees = 298 Road. Inside site Boundary = 280 Tree species refer to L-DA-22 Street trees = 18 1. All trees location has been checked against lighting except revised upper communal open space (No lighting design at this stage). 2. All tree species and tree locations close to the courts have been reviewd by Arborist. 3. Proposed street trees to be approved by council 4. Ground covers in C2 zone to be coordinated in line with VMP

requirements.

ASSET PROTECTION ZONE - INNER PROTECTION AREA

TREES



Hymenosporum flavum Native Frangipani Tree size: H 6-8m; W 5-6m Pot size: 100L



Toona ciliata Red Cedar (deciduous) H 40m; W 10-15m



Rapanea variabilis Muttonwood H 10-15m; W 5-7m **75L**

CAR PARK TREE



Ulmus parvifolia Chinese Elm (deciduous) H 8-15m; W 9-15m 100L

GROUND COVERS



Banksia serrata 'Pygmy Possum'* Banksia Pygmy Possum

Plant size: 0.1–0.3m high Spacing: 500mm centres Pot size: 150mm

Carpobrotus alaucescens

Carpobrotus glaucescens Pigface

0.1-0.3m high

500mm centres



Hibbertia scandens Snake Vine

0.1-0.3m high

500mm centres



Grevillea obtusifolia Obstuse Leaved Grevillea

0.1-0.3m high

500mm centres



Grevillea x 'Gold Fever Grevillea Gold Fever



Fever' Cas



Cousin It

0.1-0.3m high

500mm centres

SWALE AND BIORETENTION PLANTING



Zoysia macrantha Native grass cover Plant size: 0.1–0.25m high

Spacing: (40% of area as seed planted

Pot size: throughout swale). 1142m²



Twig Rush

0.5-1m high

500mm centres



Juncus usitatus Common Rush 0.5-1m high 500mm centres 150mm



Dianella caerulea Blue Flax Lily 0.5–1m high 500mm centres 150mm



Lomandra fluviatilis Mat Rush 0.5–1m high 500mm centres 150mm



Ficinia nodosa Nobby Club Rush 0.5–1m high 500mm centres 150mm



Lepironia articulata Grey Sedge 0.5–1m high 500mm centres 150mm



Persicaria decipiens Slender Knotweed 0.5-1m high 500mm centres 150mm

Note:

- 1. Tree species at carpark is suggested by Arborist.
- 2. Ground covers in C2 zone to be coordinated in line with VMP requirements.
- * Ensure all banksias are located offset at least 2m from garden edges, to prevent flower heads from dropping onto paths and creating slip hazard.

OUTSIDE THE ASSET PROTECTION ZONE SWALE TREES



Lemon Scented Gum **Tree size:** H 20-35m; W 5-8m Pot size: 200L



Melaleuca linariifolia Snow in Summer H 8m; W 5-7m 100L



Blueberry Ash H 3-15m; W 3-5m 100L



Tristaniopsis laurina Water Gum H 5-15m; W 3-6m 100L



Eucalyptus pilularis Blackbutt H 15-30m; W 8-10m



Eucalyptus saligna Svdnev Blue Gum H 30-50m; W 20m

FEATURE PLANTS, SHRUBS AND GROUNDCOVERS



Angophora costata Sydney Red Gum H 15-25m; W 15-20m



Syzygium floribundum Weeping Lilli Pilli H 10 – 20 m; W 8-12m 200L



Tuckeroo H 5-8m; W 5-7m 100L



Cuppaniopsis anacardioides Hymenosporum flavum Native Frangipani H 6-8m; W 5-6m 100L

TREES



Brachychiton discolo Lacebark (deciduous) H 20m; W 4-5m Plant size: 200L

Spacing:

Pot size:



Ulmus parvifolia Chinese Elm (deciduous) H 8-15m; W 9-15m 1001



Red Cedar (deciduous) H 40m; W 10-15m



Elaeocarpus reticulatus Blueberry Ash H 3-15m; W 3-5m 100L

Note: Used also within APZ outside of tree canopies and in small groupings compliant with APZ regulations.



Doryanthes excelsa Gymea Lily





Xanthorrhoea australis Grass Tree

1-1.5m high 1m centres 75L



Wild Iris

0.6-1m high 500mm centres 150mm



Westringia fruticosa Coastal Rosemary

1-1.5m high 500mm centres 150mm



Callistemon viminalis 'Better Callistemon 'Better John'

1m high 500mm centres 150mm



Anigozanthos flavidus Kangaroo Paws

0.6-1m high 500mm centres 150mm

BLUE GUM HIGH FOREST SPECIES



Lomandra longifolia Spiny-Head Mat Rush Plant size: 1m high



Dianella caerulea Blue Flax Lily 1m high 500mm centres



Pseuderanthemum variabile* Adiantum aethiopicum* Pastel Flower 0.25m high 500mm centres

150mm



Common Maidenhair Fern 0.4m high 500mm centres

150mm



Calochlaena dubia* Common Ground Fern 1.5m high 500mm centres 150mm



Clematis aristata Australian Clematis Climber 500mm centres 150mm



Pandorea pandorana Wonga Wonga Vine Climber 500mm centres 150mm

LAWN



Zoysia macrantha Native grass cover

2118m²

Spacing: 500mm centres

Pot size: 150mm

- 1. *To be planted in shaded areas.
- 2. All tree species close to the courts have been reviewd by Arborist.

150mm

3. Ground covers in C2 zone to be coordinated in line with VMP

ENDANGERED ECOLOGICAL COMMUNITY - BLUE GUM HIGH FOREST TREES

TALL TREES:



Eucalyptus pilularis Blackbutt Tree size: H 15–30m; W 8–10m Pot size: 75L



Eucalyptus saligna Sydney Blue Gum H 30-50m; W 20m



Angophora costata Sydney Red Gum H 15-25m; W 15-20m



Syncarpia glomulifera Turpentine H 30-60m; W 10m

SMALL TREES



Elaeocarpus reticulatus Blueberry Ash Tree size: H 3-15m; W 3-5m Pot size: 75L



Allocasuarina torulosa Forest Oak H 12-18m; W 4.5-7.5m **75L**



Pittosporum undulatum Sweet Pittosporum H 10-12m; W 7m **75L**



Glochidion ferdinandii Cheese Tree H 8-30m; W5-10m **75L**



Acacia parramattensis Sydney Green Wattle H 2-16m; W 5-8m **45L**



Notelaea longifolia Mock Olive H 3-9m; W 6-12m **45L**



Acmena smithii Lilly Pilly H 1.5–3m; W 1–2m

STREET TREE PLANTING - WINBOURNE STREET & BRUSH ROAD

WINBOURNE STREET:



Lophostemon confert Brush Box

Tree size: H 10-25m; W 5-20m Pot size: **75**L

BRUSH ROAD



Elaeocarpus reticulatus Blueberry Ash Tree size: H 3-15m; W 3-5m Pot size: 75L



Water Gum H 5-15m; W 3-6m **75L**

Note

1. Street tree species selected from City of Ryde tree planting lists.

2. Proposed street trees to be approved by council

PLANTING SCHEDULES

BOTANICAL NAME	COMMON NAME	EVERGREEN / DECIDUOUS	MATURE HEIGHT	MATURE SPREAD	POT SIZE	CENTRES	QUANTITY
Hymenosporum flavum	Native Frangipani	Е	6-8m	5-6m	100L	as shown	2
Ulmus parvifolia	Chinese Elm	D	8-15m	9-15m	100L	as shown	7
Toona ciliata	Red Cedar	D	40m	10-15m	100L	as shown	1
Rapanea variabilis	Muttonwood	E	10-15m	5-7m	75L	as shown	1

BOTANICAL NAME	COMMON NAME	EVERGREEN / DECIDUOUS	MATURE HEIGHT	MATURE SPREAD	POT SIZE	CENTRES	QUANTITY
Corymbia citriodora	Lemon Scented Gum	Е	20-35m	5-8m	200L	as shown	2
Melaleuca linariifolia	Snow in Summer	Е	8m	5-7m	100L	as shown	33
Elaeocarpus reticulatus	Blueberry Ash	E	3-15m	3-5m	100L	as shown	4

Elaeocarpus reliculatus	Blueberry Ash	E	3-15M	3-5m	IUUL	as snown	4
OUTSIDE APZ - TRE	ES						
Angophora costata	Sydney Red Gum	E	15-25m	15-20m	400L	as shown	5
Brachychiton discolor	Lacebark	D	20m	4-5m	200L	as shown	8
Cuppaniopsis anacardioides	Tuckeroo	E	5-8m	5-7m	100L	as shown	7
Tristaniopsis laurina	Water Gum	E	5-15m	3-6m	100L	as shown	24
Eucalyptus pilularis	Blackbutt	E	15-30m	8-10m	200L	as shown	10
Eucalyptus saligna	Sydney Blue Gum	E	30-50m	20m	200L	as shown	8
Elaeocarpus reticulatus	Blueberry Ash	E	3-15m	3-5m	100L	as shown	30
Syzygium floribundum	Weeping Lilly Pilly	E	10-20m	8-12m	100L	as shown	9
Toona ciliata	Red Cedar	D	40m	10-15m	100L	as shown	7
Ulmus parvifolia	Chinese Elm	D	8-15m	9-15m	100L	as shown	3
Hymenosporum flavum	Native Frangipani	E	6-8m	5-6m	100L	as shown	23

ENDANGERED ECOLOGICAL COMMUNITY - BLUE GUM HIGH FOREST TREES									
BOTANICAL NAME	COMMON NAME	EVERGREEN / DECIDUOUS	MATURE HEIGHT	MATURE SPREAD	POT SIZE	CENTRES	QUANTITY		
Eucalyptus pilularis	Blackbutt	Е	15-30m	8-10m	75L	as shown	12		
Eucalyptus saligna	Sydney Blue Gum	E	30-50m	20m	75L	as shown	12		
Angophora costata	Sydney Red Gum	E	15-25m	15-20m	75L	as shown	11		
Syncarpia glomulifera	Turpentine	Е	30-60m	10m	75L	as shown	12		
Allocasuarina torulosa	Forest Oak	E	12-18m	4.5-7.5m	75L	as shown	7		
Elaeocarpus reticulatus	Blueberry Ash	E	3-15m	3-5m	75L	as shown	7		
Glochidion ferdinandii	Cheese Tree	Е	8-30m	5-10m	75L	as shown	7		
Pittosporum undulatum	Sweet Pittosporum	Е	10-12m	7m	75L	as shown	7		
Notelaea longifolia	Mock Olive	E	3-9m	6-12m	45L	as shown	7		
Acacia parramattensis	Sydney Green Wattle	E	2-16m	5-8m	45L	as shown	7		
Acmena smithii	Lilly Pilly	E	1.5-3m	1-2m	45L	as shown	7		

Note:

WINBOURNE STREET & BRUSH ROAD - STREET TREES							
BOTANICAL NAME	E COMMON NAME HEIGHT POT SIZE CENTRES				QUANTITY		
Elaeocarpus reticulatus	Blueberry Ash	3-15m	75L	as shown	6		
Lophostemon confertus	Brush Box	10-25m	75L	as shown	6		
Tristaniopsis laurina	Water Gum	5-15m	75L	as shown	6		

APZ (IPA) - LOW GROUNDCOVERS								
BOTANICAL NAME	COMMON NAME	HEIGHT	POT SIZE	CENTRES	QUANTITY			
Banksia serrata 'Pygmy Possum'*	Banksia Pygmy Possum	0.1-0.3m	150mm	500mm	1605			
Carpobrotus glaucescens	Pigface	0.1-0.3m	150mm	500mm	1605			
Hibbertia scandens	Snake Vine	0.1-0.3m	150mm	500mm	1605			
Grevillea obtusifolia	Obstuse Leaved Grevillea	0.1-0.3m	150mm	500mm	1605			
Grevillea x 'Gold Fever'	Grevillea Gold Fever	0.1-0.3m	150mm	500mm	1605			
Casuarina 'Cousin It'	Cousin It	0.1-0.3m	150mm	500mm	1605			

BOTANICAL NAME	COMMON NAME	HEIGHT	POT SIZE	CENTRES	QUANTITY
Zoysia macrantha	Native grass cover	0.1-0.25m	1838m2 (40% seed)	of total area pla	inted with native
Baumea juncea	Twig Rush	0.5-1m	150mm	500mm	2626
Juncus usitatus	Common Rush	0.5-1m	150mm	500mm	2626
Dianella caerulea	Blue Flax Lily	0.5-1m	150mm	500mm	2626
Lomandra fluviatilis	Mat Rush	0.5-1m	150mm	500mm	2626
Ficinia nodosa	Nobby Club Rush	0.5-1m	150mm	500mm	2626
Lepironia articulata	Grey Sedge	0.5-1m	150mm	500mm	2626
Persicaria decipiens	Slender Knotweed	0.5-1m	150mm	500mm	2626

OUTSIDE APZ - FEATURE PLANTS, SHRUBS AND GROUNDCOVERS							
BOTANICAL NAME	COMMON NAME	HEIGHT	POT SIZE	CENTRES	QUANTITY		
Doryanthes excelsa	Gymea Lily	1-1.5m	45L	1m	30		
Xanthorrhoea australis	Grass Tree	1-1.5m	75L	1m	15		
Dietes iriodes	Wild Iris	0.6-1m	150mm	500mm	1503		
Westringia fruticosa	Coastal Rosemary	1-1.5m	150mm	500mm	1503		
Callistemon viminalis 'Better John'	Callistemon 'Better John'	1m	150mm	500mm	1503		
Anigozanthos flavidus	Kangaroo Paws	0.6-1m	150mm	500mm	1503		

^{1.} Proposed street trees to be approved by council

^{2.} Ground covers in C2 zone to be coordinated in line with VMP requirements

^{*} Ensure all banksias are located offset at least 2m from garden edges, to prevent flower heads from dropping onto paths and creating slip hazard.

PLANTING SCHEDULES

BLUE GUM HIGH FOREST GROUNDCOVER SPECIES								
BOTANICAL NAME	COMMON NAME	HEIGHT	POT SIZE	CENTRES	QUANTITY			
Lomandra longifolia	Spiny-Head Mat Rush	1m	150mm	500mm	1503			
Dianella caerulea	Blue Flax Lily	1m	150mm	500mm	1503			
Pseuderanthemum variabile	Pastel Flower	0.25m	150mm	500mm	1503			
Adiantum aethiopicum	Common Maidenhair Fern	0.4m	150mm	500mm	1503			
Calochlaena dubia	Common Ground Fern	1.5m	150mm	500mm	1503			
Clematis aristata	Australian Clematis	Climber	150mm	500mm	1503			
Pandorea pandorana	Wonga Wonga Vine	Climer	150mm	500mm	1503			

LAWN		
BOTANICAL NAME	COMMON NAME	AREA
Zoysia macrantha	Native grass cover	2118m2 (turf)

Note

WEST RYDE MULTI SPORT FACILITY SPORTS LIGHTING SERVICES

PREPARED BY



DRAWING INDEX:

E002 SPORTS LIGHTING SERVICES - COVER SHEET AND DRAWING INDEX
E002 SPORTS LIGHTING SERVICES - LEGEND OF SYMBOLS, GENERAL NOTES AND SPECIFICATION
E051 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - SITE PLAN
E053 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - AIMING DIAGRAM
E060 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - LIGHTING DETAILS SHEET 1
E061 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - LIGHTING DETAILS SHEET 2
E062 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - AIMING DETAILS SHEET 3
E070 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - AIMING DETAILS SHEET 1
E071 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - AIMING DETAILS SHEET 2
E072 SPORTS LIGHTING SERVICES - EXTERIOR SPORTS LIGHTING LAYOUT - AIMING DETAILS SHEET 3

3 2 1	20.03.2023 18.01.2022 02.12.2021	CAD CAD CAD		UE ED 100% SCHEMATIC DESIGN SCHEMATIC DESIGN	N	CVZ FV AL	FV AL SK
REV	DATE	ВҮ		DESCRIPTION		CHK	APD
DRAWII	NG STATUS:		F	PRELIMINARY			
		RE	FEREN	CE COORDINATION DR	AWINGS		
	DESCRIPTI	ON		DRAWING	NO.	REV	CHK
DESC				DRAWING	NO	REV	CHK
CLIENT:			1-2-927	eorge Street, Sydney, '2-5100 Fax: +61-2-9 tp://www.wsp.com			
ARCHITE	201:		COX	ARCHITECTURE	<u>:</u>		
PROJE	CT:			WEST RYDE I SPORT FACILIT	Υ		
TITLE:	CC		_	LIGHTING SERV ET AND DRAWIN	_		
SCALE @	N.T.S.		CHECK	FV	APPROVED:	V	
PROJEC	T No: PS123182		DRAW	n: BIM	DATE: MARCI	H 2023	
DRAWIN	NG No:		Е	000		REV:	
	() V	VSP	Australia P	ty Ltd		

LEGEND OF SYMBOLS

<u>LUMINAIRES</u>

1200W SPORTS FLOOD LIGHT, AO DISTRIBUTION

FL1BS ()-1200W SPORTS FLOOD LIGHT, A0 DISTRIBUTION, BACK SHIELD

1200W SPORTS FLOOD LIGHT, AO DISTRIBUTION, BACK SHIELD & LEFT SHIELD FL1BS LS (O-

FL1BS RS (O-1200W SPORTS FLOOD LIGHT, AO DISTRIBUTION, BACK SHIELD & RIGHT SHIELD

1200W SPORTS FLOOD LIGHT, A1 DISTRIBUTION

FL3 (O-1200W SPORTS FLOOD LIGHT, A2 DISTRIBUTION

FL3 BS (O-1200W SPORTS FLOOD LIGHT, A2 DISTRIBUTION, BACK SHIELD

1200W SPORTS FLOOD LIGHT, A3 DISTRIBUTION

600W SPORTS FLOOD LIGHT, A0 DISTRIBUTION 600W SPORTS FLOOD LIGHT, AO DISTRIBUTION, BACK SHIELD & RIGHT SHIELD FL5 BS RS (O-

600W SPORTS FLOOD LIGHT, AA DISTRIBUTION

600W SPORTS FLOOD LIGHT, A1 DISTRIBUTION, BACK SHIELD & RIGHT SHIELD FL6 BS RS ()-

FL7 (O-600W SPORTS FLOOD LIGHT, A2 DISTRIBUTION

FL7 BS 600W SPORTS FLOOD LIGHT, A2 DISTRIBUTION, BACK SHIELD

600W SPORTS FLOOD LIGHT, A3 DISTRIBUTION

FL8 BS 600W SPORTS FLOOD LIGHT, A3 DISTRIBUTION, BACK SHIELD

FL8 BS LS (O-600W SPORTS FLOOD LIGHT, A3 DISTRIBUTION, BACK SHIELD & LEFT SHIELD

600W SPORTS FLOOD LIGHT, A3 DISTRIBUTION, BACK SHIELD & RIGHT SHIELD FL8 BS RS (O-

SPORTS LIGHT POLE WITH CROSS ARM SUITABLE FOR DIFFERENT QUANTITIES OF LIGHT, REFER TO DRAWING E060 AND E061

LIGHTING CIRCUIT DESIGNATION

— — — — LIGHTING CONTROL GROUP

LIGHTING AIMING DESIGNATION

AIMING DIRECTION TYPE FL1 / FL5

AIMING DIRECTION TYPE FL2 / FL3 / FL6 / FL7

AIMING DIRECTION TYPE FL4 / FL8

GENERAL NOTES

- 1. THE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE TOTAL CONTRACT PACKAGE INCLUDING THE DRAWINGS AND SPECIFICATIONS OF ALL CONSULTANTS
- 2. ALL DIMENSIONS ARE NOMINAL AND MUST BE CONFIRMED ON SITE.
- 3. ALL WORKS SHALL COMPLY WITH ALL RELEVANT AUSTRALIAN STANDARDS.
- 4. IT IS THE RESPONSIBILITY OF THE SERVICES CONTRACTOR FOR ALL SUCH WORKS AND TO PRODUCE A COMPLETE LAYOUT FULLY COORDINATED WITH ARCHITECTURE ,STRUCTURE AND OTHER SERVICES AND MEET SINSW REQUIREMENTS AND RELEVANT STANDARDS. THIS IS TO INCLUDE ALL NECESSARY BENDS, TEES, SETS (ETC). THAT MAY BE NECESSARY TO LOCATE SERVICES CORRECTLY. AVOID CLASHES & MAXIMIZE MAINTENANCE ACCESS. QUANTITIES SHOWN ON THE DRAWING ARE INDICATIVELY ONLY.
- 5. DRAWING TO BE IN READ IN CONJUNCTION WITH LEGEND OF SYMBOLS.
- REFER TO LUMINAIRE SCHEDULE FOR ALL SPECIFIED LIGHT FITTINGS. ANY CHANGES TO THE LIGHT FITTINGS WILL AFFECT LIGHTING COMPLIANCE AND IS NOT THE RESPONSIBILITY OF WSP.

LIGHTING SERVICES

SITE DESCRIPTION AND EXTENT OF WORK

WEST RYDE MULTI SPORT FACILITY IS A PROPOSED INDOOR/OUTDOOR RECREATIONAL FACILITY WITH ASSOCIATED FACILITIES CONSISTING OF A INDOOR RECREATIONAL FACILITY WITH FOUR (4) INDOOR NETBALL COURTS AND ASSOCIATED FACILITIES (INCLUDING BUT NOT LIMITED TO OFFICE SPACE, STORAGE AREAS, GYM AND AMENITIES, AND CARPARK, 29 OUTDOOR NETBALL COURTS, PATHWAYS FOR PEDESTRIAN ACCESS, NEW EXTERIOR CAR-PARK, OSD BASIN AND LANSCAPING. THIS LIGHTING PACKAGE IS ONLY APPLICABLE TO THE 29 OUTDOOR NETBALL COURTS. ALL ELECTRICAL WORKS ASSOCIATED WITH THIS PACKAGE. ARE BY THE ELECTRICAL ENGINEER.

THE SCOPE OF WORK COMPRISES THE SUPPLY, INSTALLATION, TESTING COMMISSIONING, MAINTENANCE AND DEFECTS LIABILITY SERVICE OF MATERIAL, LABOUR AND EQUIPMENT FOR THE COMPLETE LIGHTING SERVICES INSTALLATION FOR THE EXTERIOR SPORTS COURTS AT WEST RYDE MULTI SPORTS FACILITY AS DETAILED ON DRAWINGS SL-0001 TO SL-0403

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL LIGHTING DESIGN ASSOCIATED ENGINEERING (INCLUDING, BUT NOT LIMITED TO ELECTRICAL, HYDRAULIC, STRUCTURAL ENGINEERING) AND ARCHITECTURAL DESIGN AND SUPPLY SERVICES WITH THIS PACKAGE.

THE WORK SHALL INCLUDE BUT WILL NOT BE LIMITED TO THE FOLLOWING PRINCIPAL ITEMS:

- a. VISIT SITE CARRY OUT A THOROUGH SITE INSPECTION AND FAMILIARISE THEMSELVES WITH THE EXISTING LIGHTING AND RELATED ELECTRICAL SERVICES INSTALLATION PRIOR TO TENDER SUBMISSION. FAILURE TO VISIT SITE WILL NOT WARRANT ANY CLAIM FOR LOSSES INCURRED AS A RESULT OF UNKNOWN CONDITIONS WHICH AN INSPECTION WOULD HAVE DISCLOSED.
- b. FULL COORDINATION WITH THE ARCHITECTURAL AND ELECTRICAL ENGINEERING TEAMS.
- PROVISION OF TEMPORARY POWER TO CONSTRUCTION AREAS TO HEAD CONTRACTOR'S AND CLIENT'S SATISFACTION.
- d. PROVISION OF FULL 5 YEAR WARRANTY FOR ALL NEW LIGHTING EQUIPMENT (WARRANTY TO INCLUDE PARTS AND LABOUR).
- e. ALL LUMINAIRES SHALL CONTINUE TO OPERATE UNDER THESE CONDITIONS TO YIELD OPTIMUM PUBLISHED PERFORMANCE.
- f. LIGHT FITTING, LIGHTING CONTROLS, ASSOCIATED ELECTRICAL, WIRING AND LIGHTING ACCESSORIES.
- g. GENERAL POWER AND SUB CIRCUIT WIRING, ACCESSORIES AND CONNECTIONS TO EQUIPMENT RESIDUAL CURRENT DEVICE PROTECTION REQUIREMENTS.
- h. CO-ORDINATION OF LIGHTING AND ELECTRICAL INSTALLATION WITH OTHER TRADES.
- INSTALLATION TEST AND REPORT FOR AS3000
- SUBMISSION OF ALL REQUESTED SAMPLES FOR APPROVAL.
- k. TESTING, COMMISSIONING, WARRANTY AND PREVENTIVE MAINTENANCE (12 MONTHS OF THE COMPLETE LIGHTING AND ASSOCIATED ELECTRICAL SYSTEM).
- I. ALLOW FOR 3 (THREE) OFF COMMISSIONING AND AIMING SESSIONS. ONE FOR SYSTEM PROOFING, ONE FOR AIMING OF LUMINAIRES AND SCENE SETTING WITH THE LIGHTING DESIGNER, ONE FOR AIMING OF LUMINAIRES AND SCENE SETTING WITH THE LIGHTING DESIGNER AND THE END-USERS AT PRACTICAL
- m. AS INSTALLED DOCUMENTATION IN HARD COPY FORMAT.
- n. SUBMISSION OF ALL FORMS AND PAYMENT OF ALL FEES.

AUSTRALIAN STANDARDS AND CODES CURRENT AT THE DATE OF TENDERING ARE APPLICABLE IN RESPECT OF ALL MATERIALS AND WORKMANSHIP THE LAYOUT OF EQUIPMENT SHOWN ON THE DRAWINGS IS DIAGRAMMATIC ONLY AND EXACT POSITIONS SHALL BE AS PER ARCHITECTURAL DETAILS OR

ALL LIGHTING EQUIPMENT SHALL BE COMPREHENSIVELY LABELLED TO INDICATE THEIR FUNCTION LABELS SHALL BE OF SANDWICH IVORINE OR TRAFFOLYTE MATERIAL, WHITE WITH BLACK LETTERING.

LIGHTING LUMINAIRES AND DRIVERS

SUPPLY AND INSTALL NEW LIGHTING FITTINGS WHERE REQUIRED COMPLETE WITH CONNECTING LEADS, AUXILIARIES, LIGHT SOURCES, AND DIFFUSERS ALL AS DETAILED ON DRAWINGS AND AS SPECIFIED BELOW.

LIGHTING CIRCUITS SHALL BE LOADED TO A MAXIMUM 70% RATED CAPACITY WITH NO MORE THAN 20 DRIVERS PER CIRCUIT. PROVIDE SIGN-OFF SHEETS OF EXTRUSIONS

ALL LEDS SHALL BE EMC COMPLIANT AND AUSTRALIAN STANDARDS APPROVED, CCT AND CTI AS INDICATED AS A MINIMUM PERFORMANCE REQUIREMENT.

DIMMABLE DRIVERS SHALL BE PROVIDED FOR ALL LED LUMINAIRES TO YIELD SMOOTH DIMMING WITHOUT PERCEPTIBLE FLICKER.

COLOUR OF ALL LUMINAIRES SHALL BE ADVISED / CONFIRMED BY ARCHITECT/CLIENT PRIOR TO ORDER. DRIVERS SHALL COMPLY WITH THE LATEST AUSTRALIAN STANDARDS MEPS REQUIREMENTS.

ALL EXTERIOR SPORTS LIGHTING LUMINAIRES SHALL BE 4000K, CRI 70, IP66 AND IK06.

- LAMP CHARACTERISTICS SHALL BE DEMONSTRATED BY PROVISION OF THE FOLLOWING: LM-79 REPORT
- LM-80 REPORT
- THERMAL PARAMETER TEST REPORT (ALSO KNOWN AS A IN SITU TEMPERATURE MEASUREMENT TEST ISTMT). THIS
- DATA SHALL BE CROSS REFERENCED TO THE SUBMITTED LM-80 REPORT AND LIFETIME INTERPOLATION OF THE TM-21
- LED SHALL HAVE A RATED LIFE OF 120,000 L90 OR BETTER.

ALL LUMINAIRES SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS60598.2.1 AND AS/NZS CISPR 15

LUMINAIRES SHALL BE SUPPLIED COMPLETE WITH ALL REQUIRED FIXINGS, MOUNTING HARDWARE, FOOTINGS (IN CASE OF EXTERNAL POLES) UNLESS EXPLICITLY NOTED OTHERWISE.

PROVIDE SAMPLE/PROTOTYPE FOR ALL FITTINGS REQUESTED BY THE DESIGN TEAM, FITTED WITH FLEX AND PLUG AND RETAIN THE SAMPLE ON SITE FOR REFERENCE DURING CONSTRUCTION.

ALL EXTERIOR SPORTS LIGHTING EQUIPMENT SHALL BE PROVIDED WITH A LABEL WITH THE REQUIRED REGULATOR COMPLIANCE MARKS, I.E. RCM, CE, C-TICK.

ALL LUMINAIRES TO BE PROVIDED WITH A LABEL TO INDICATE MANUFACTURERS NAME AND PRODUCT NUMBER.

ALL EXTERIOR LUMINAIRES TO BE MANUFACTURED FROM ALUMINIUM, STAINLESS STEEL OR OTHER APPROVED NON-CORRODIBLE MATERIAL. USE UV STABILISED MATERIAL FOR EXTERIOR MOULDED PLASTIC LUMINAIRES/COMPONENTS.

ALL EXTERIOR LUMINAIRES TO BE ADEQUATELY SHIELDED FROM INGRESS OF INSECTS FROM ALL OPENINGS.

ACCESSOIRIES SHALL ALLOW FOR EASY REPLACEMENT.

LED DRIVERS: SHALL MATCH OPTIMUM AND MAXIMUM CURRENT TO SUIT THE LED OVER THE WHOLE RANGE OF INPUT VOLTAGES. DRIVERS SHALL BE PROVIDED WITH THE FOLLOWING FEATURES AS A MINIMUM:

- REMOVABLE TO ALLOW REPLACEMENT/UPGRADEABILITY
- AUTOMATIC RESET IN THE EVENT OF A FAULT - ISOLATION BETWEEN THE PRIMARY AND SECONDARY SIDES
- DIMMING WITH LINEAR CHARACTERISTICS
- OEPRATION IN AMBIENT TEMPERATURES: -40C TO +70C FOR OUTDOOR.
- LOW POWER LOSS (MINIMUM EFFICIENCY OF 85% AT FULL LOAD) LOW STANDBY POWER: < 0.2W
- LEAKAGE CURRENT: <700mA
- INTEGRAL ELECTRONIC OVERLOAD PROTECTION CIRCUITRY - INTEGRAL ELECTRONIC OVER TEMPEARTURE PROTECTION CIRCUITRY AS PER EN 61347-2-13 C5e
- INTEGRAL ELECTRONIC SHORT CIRCUIT PROTECTION CIRCUITRY. - TOTAL HARMONIC DISTORTION: < 10% AT FULL LOAD
- RATED LIFE: >60,000 hrs
- TURN OF TIME: , 20ms POWER FACTOR: 1>PF>0.90 LAGGING AT ANY LEVEL OF DIMMING.

INSTALLATION

FIX LUMINAIRES BY MEANS OF A MINIMUM OF TWO SCREWS OR STUDS WITH NUTS.

EXTERNAL POLES: PROVIDE A COMPLETE ASSEMBLY INCLUDING LUMINAIRE, POLE AND FOOTING (INCLUDING CONCRETE AND STEEL REINFORCEMENT) OBTAIN AN INDEPENDENT STRUCTURAL ENGINEERING FOR ALL FOOTING BASED ON THE ACTUAL SITE SOIL CONDITIONS AND SPECIFIC LUMINAIRE INSTALLATION REQUIREMENTS. ELECTRICAL CONSIDERATIONS: DO NOT INSTALL LUMINAIRE OR TRANSFORMER IN THERMAL INSULATION.

LIGHTING CONTROLS

THE ELECTRICAL ENGINEER IS RESPONSIBLE FOR THE DOCUMENTATION OF THE LIGHTING CONTROL. WSP LIGHTING PACKAGE PROVIDES INDICATIVE LIGHTING CONTROL GROUPS ONLY. REFER TO ELECTRICAL ENGINEER PACKAGE FOR FURTHER INFORMATION.

THE ELECTRICAL CONTRACTOR IS TO SUPPLY AND INSTALL THE LIGHTING CONTROL AS PER THE LIGHTING LAYOUT DRAWINGS.

ALL EXTERNAL SPORTS LIGHTING SHALL BE DALI DIMMABLE. THE INSTALLATION SHALL ALLOW FOR LIGHTING CONTROL GROUPS AS SHOWN ON DRAWING SL-0100. THE INSTALLATION SHALL ALLOW FOR A MINIMUM OF TWO (2) LIGHTING CONTROL SETTINGS; 100% AND 50%. DIMMING LEVELS TO BE CONFIRMED BY OPERATOR, AND TO BE CONFIRMED ON SITE DURING COMMISSION.

PROVIDE ALL NECESSARY TRAINING TO WRMSF OPERATOR / FACILITIES TEAM FOR EFFECTIVE AND SAFE OPERATION OF ALL NEW AND MODIFIED LIGHTING REQUIREMENTS

TESTING, COMMISSIONING AND MAINTENANCE

THE INSTALLATION SHALL BE TESTED TO THE SATISFACTION OF THE LIGHTING DESIGNER, THE CLIENT AND THE STATUTORY AUTHORITIES PRIOR TO THE ACCEPTANCE OF THE INSTALLATION AND THE COMMENCEMENT OF THE DEFECTS LIABILITY PERIOD, WHICH IS 12 MONTHS.

THE TESTS SHALL COMPRISE A THOROUGH INSPECTION OF THE ENTIRE INSTALLATION AND THE OPERATIONAL AND PERFORMANCE TEST TO CONFIRM COMPLIANCE WITH THE SPECIFICATION AND THE AUSTRALIAN STANDARDS.

CARRY OUT ALL COMMISSIONING TESTS NECESSARY TO PUT THE SYSTEMS INTO COMMERCIAL USE AND TO APPROVAL BEFORE PRACTICAL COMPLETION IS GRANTED. EACH ITEM OF EQUIPMENT INDIVIDUALLY AND EACH COMPLETE SYSTEM AS A WHOLE SHALL BE CHECKED AND ADJUSTED TO ACHIEVE SATISFACTORY PERFORMANCE.

CONTRACTOR TO ALLOW FOR 3 MAINTENANCE AND SERVICE CALL OUTS DURING THE FIRST YEAR FROM DATE OF PRACTICAL COMPLETION TO THE END OF THE MAINTENANCE AND DEFECTS LIABILITY PERIOD. A LOG BOOK SHALL BE KEPT ON SITE FOR RECORDING THE VISITS AND WORK EXECUTED.

THIS SHALL INCLUDE AND NOT BE LIMITED TO:

- INSPECTION AND MAINTENANCE
- RECTIFYING FAULTS EQUIPMENT ADJUSTMENTS
- REPLACEMENT OF CONSUMABLES

A FORMAL LETTER SHALL BE PROVIDED TO THE CLIENT DETAILING THE TESTING AND COMMISSIONING IS COMPLETE TO ENABLE PRACTICAL COMPLETION TO BE

AS INSTALLED DOCUMENTATION

AN 'AS INSTALLED' MANUAL IS TO BE PROVIDED WHICH DETAILS ALL THE EQUIPMENT USED AND THE ROUTINE MAINTENANCE THE EQUIPMENT REQUIRES. ALL DATA CABLE TEST SHEETS, TESTING REPORTS, CERTIFICATES, FORMS, WIRING DIAGRAMS AND SHOP DRAWINGS ETC ARE TO BE INCLUDED.

THE INFORMATION IS TO BE CONTAINED IN A RING BINDER WITH PRINTED LETTERING THAT DETAILS THE PROJECT, THE ELECTRICAL CONTRACTOR, APPLICABLE SUB-CONTRACTORS AND THE CONSULTING ENGINEERS ON THE COVER AND THE SPINE.

TWO COPIES OF THE MANUALS ARE REQUIRED.

A SET OF A3 SIZE 'AS INSTALLED' DRAWINGS SHALL BE INCLUDED IN THE MANUALS.

THE 'AS INSTALLED' DRAWINGS SHALL INCLUDE ALL CIRCUITS AS INSTALLED.

PROVIDE PDF COPIES OF "AS INSTALLED" DRAWINGS AND A SCHEDULE OF EQUIPMENT INSTALLED UNDER THE CONTRACT. ELECTRONIC DRAWINGS ARE TO BE IN PDF FORMAT AND PROVIDED TO THE CLIENT WITHIN TWO WEEKS OF PRACTICAL COMPLETION FOR REVIEW AND APPROVAL.

1	20.03.2023	CAD	DA ISSUE	CVZ	FV	
REV	DATE	BY	DESCRIPTION	СНК	APD	

DO NOT SCALE

PRELIMINARY

AWING STATUS:

DESCRIPTION DRAWING NO. DRAWING NO

REFERENCE COORDINATION DRAWINGS

Level 27, 680 George Street, Sydney, NSW 2000 Tel: +61-2-9272-5100 Fax: +61-2-9272-5101 http://www.wsp.com

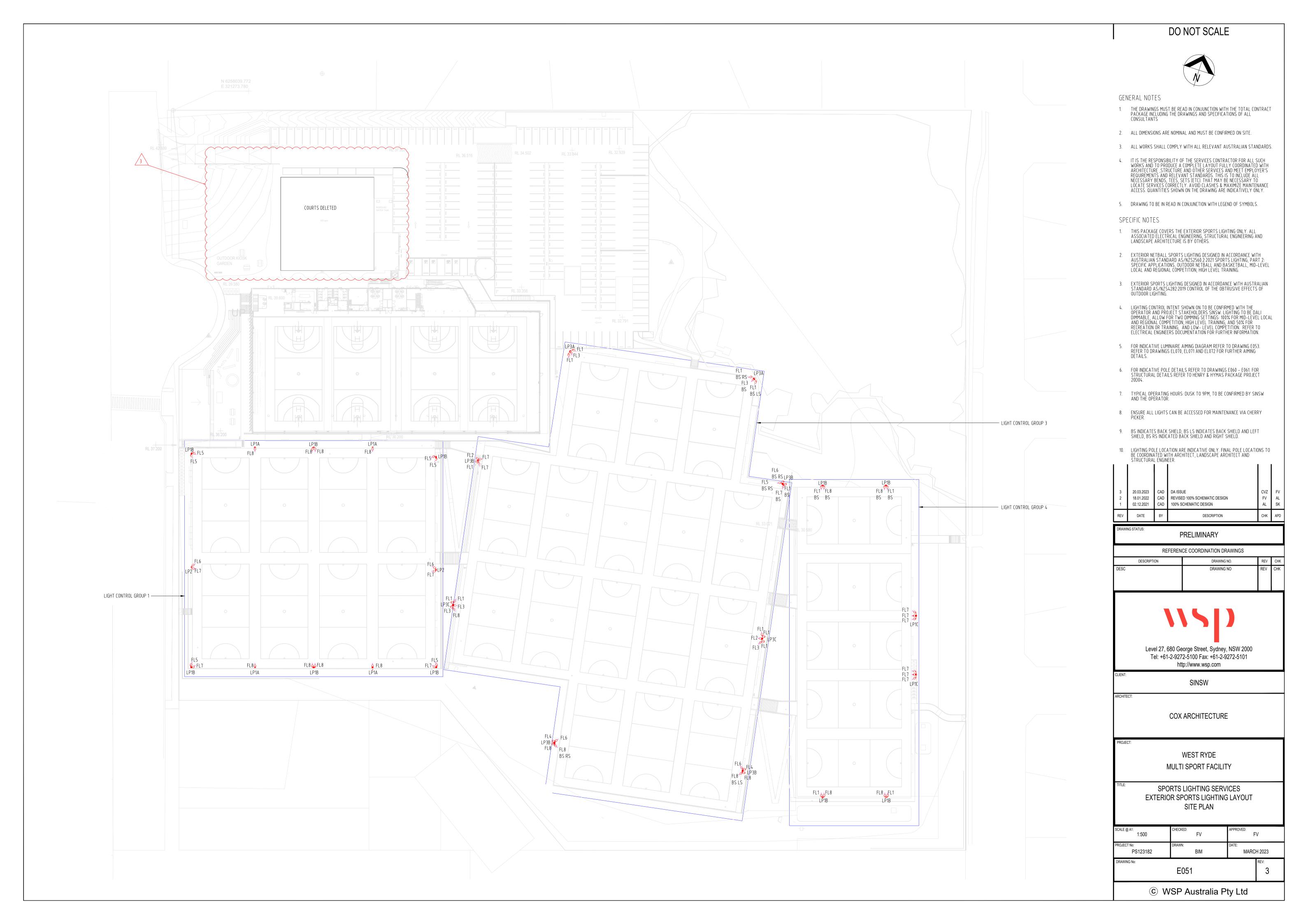
SINSW

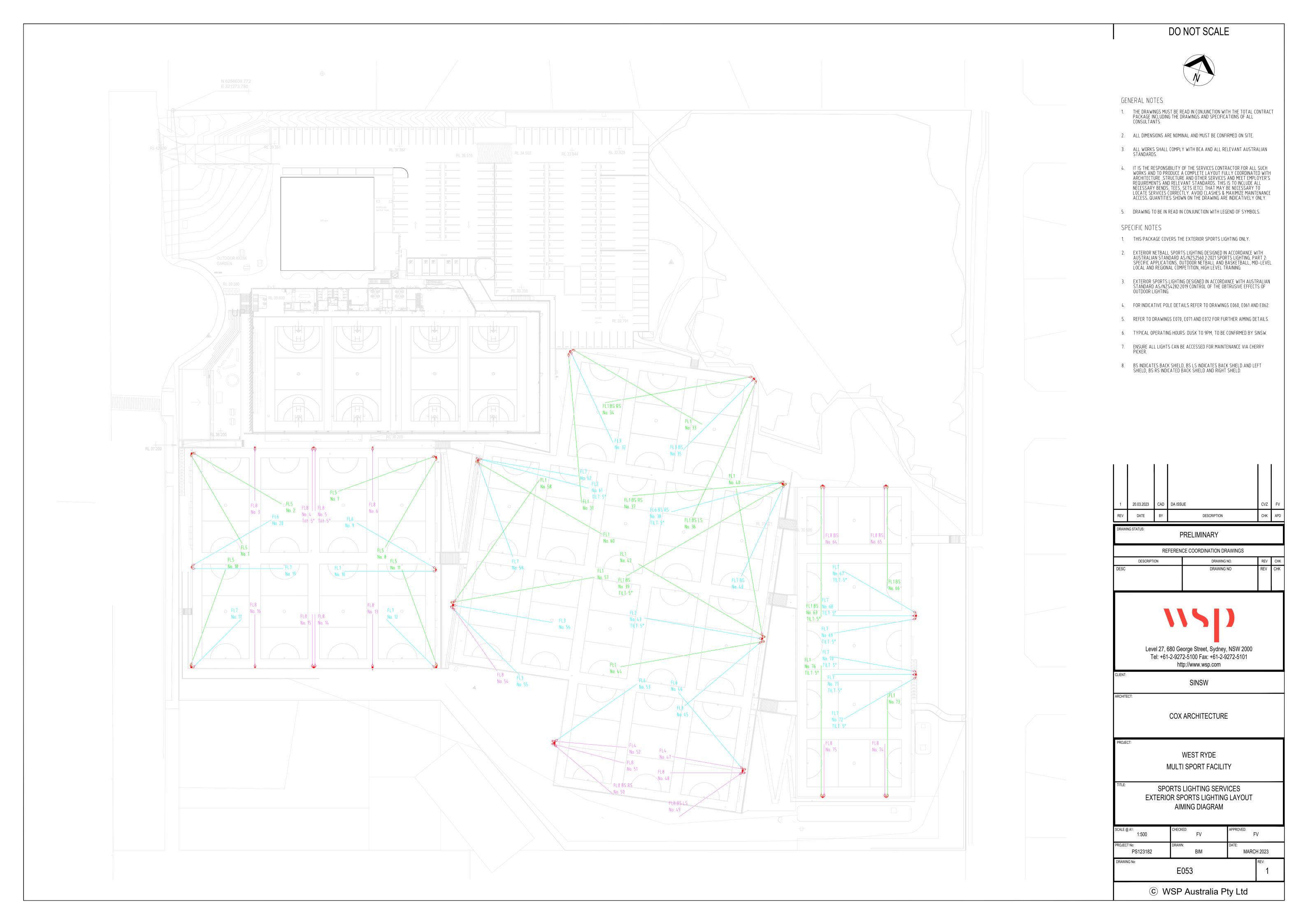
COX ARCHITECTURE

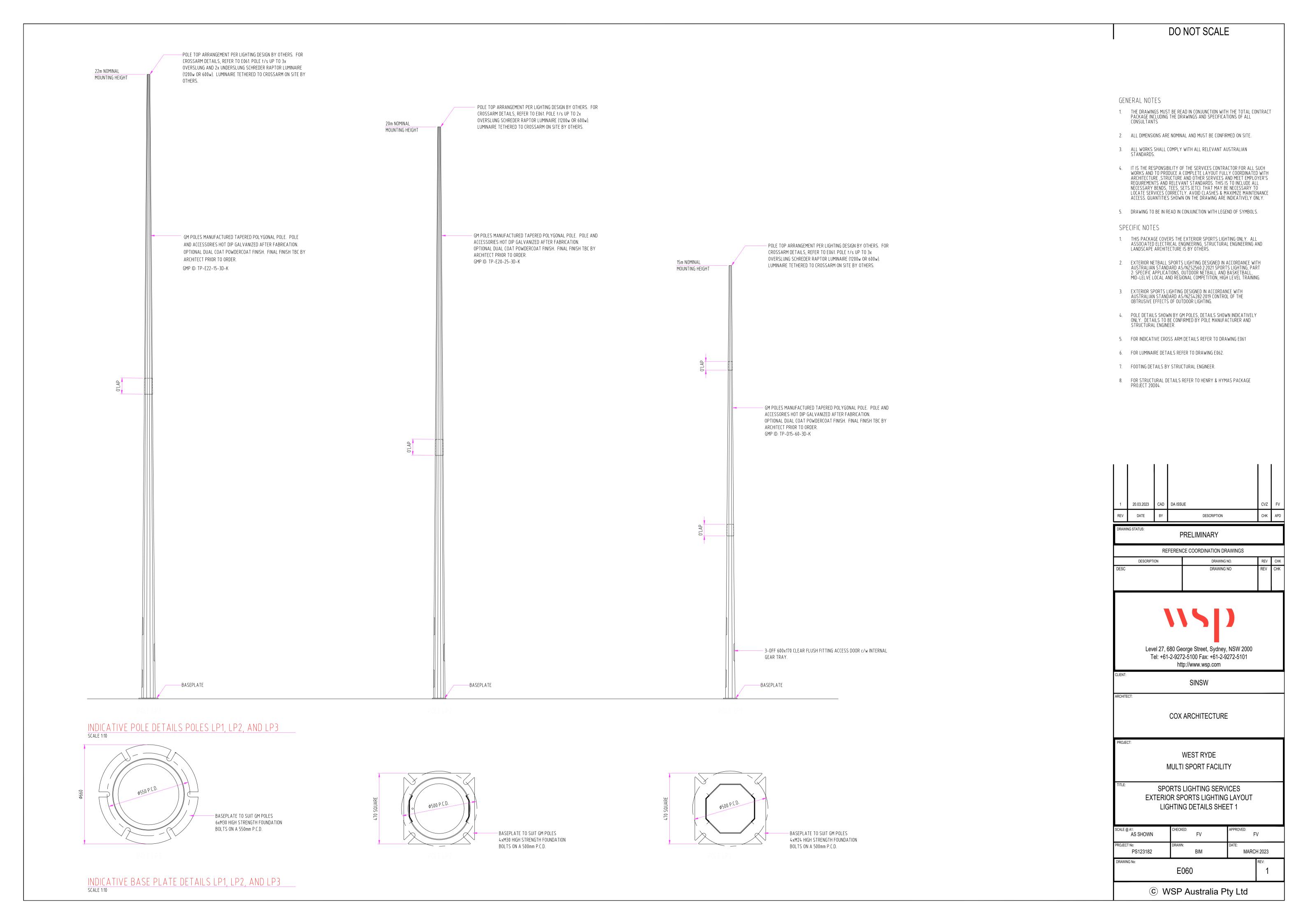
WEST RYDE MULTI SPORT FACILITY

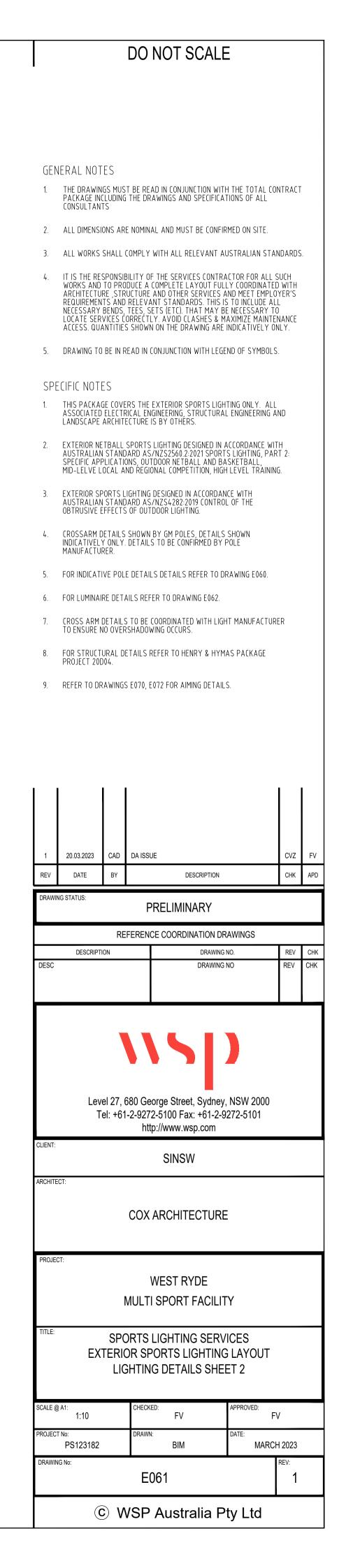
SPORTS LIGHTING SERVICES LEGEND OF SYMBOLS, GENERAL NOTES AND SPECIFICATION

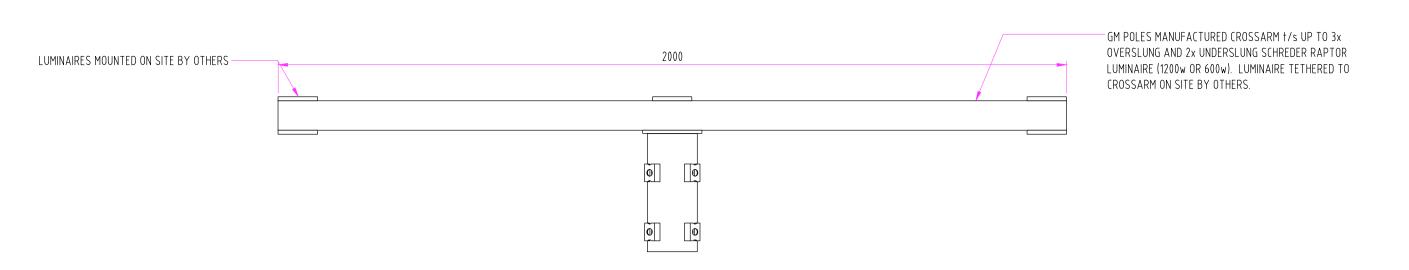
N.T.S. MARCH 2023 PS123182 E002



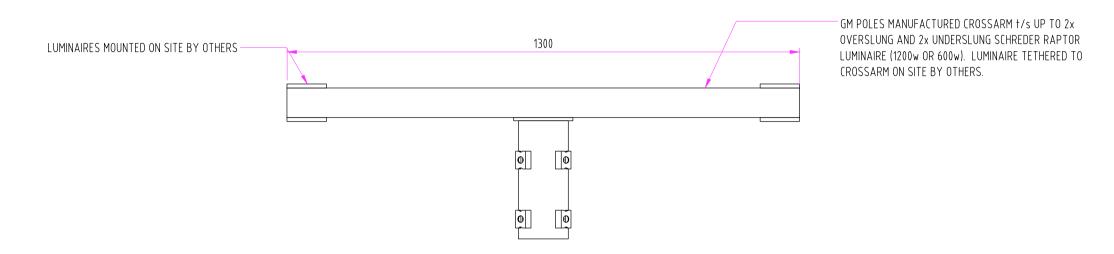




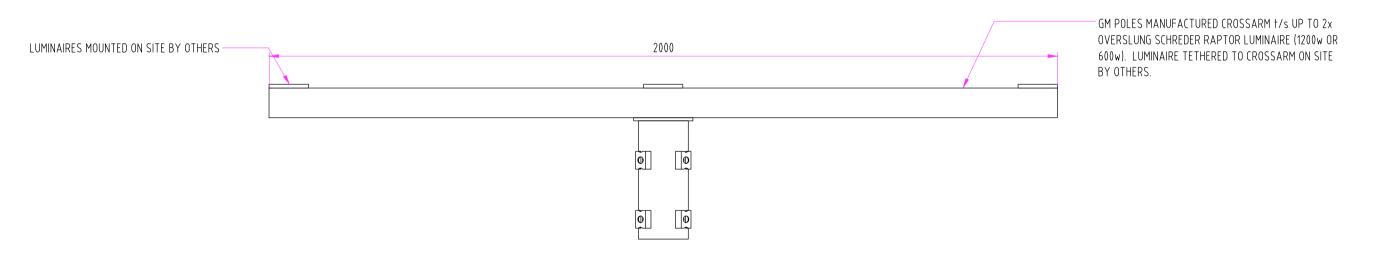




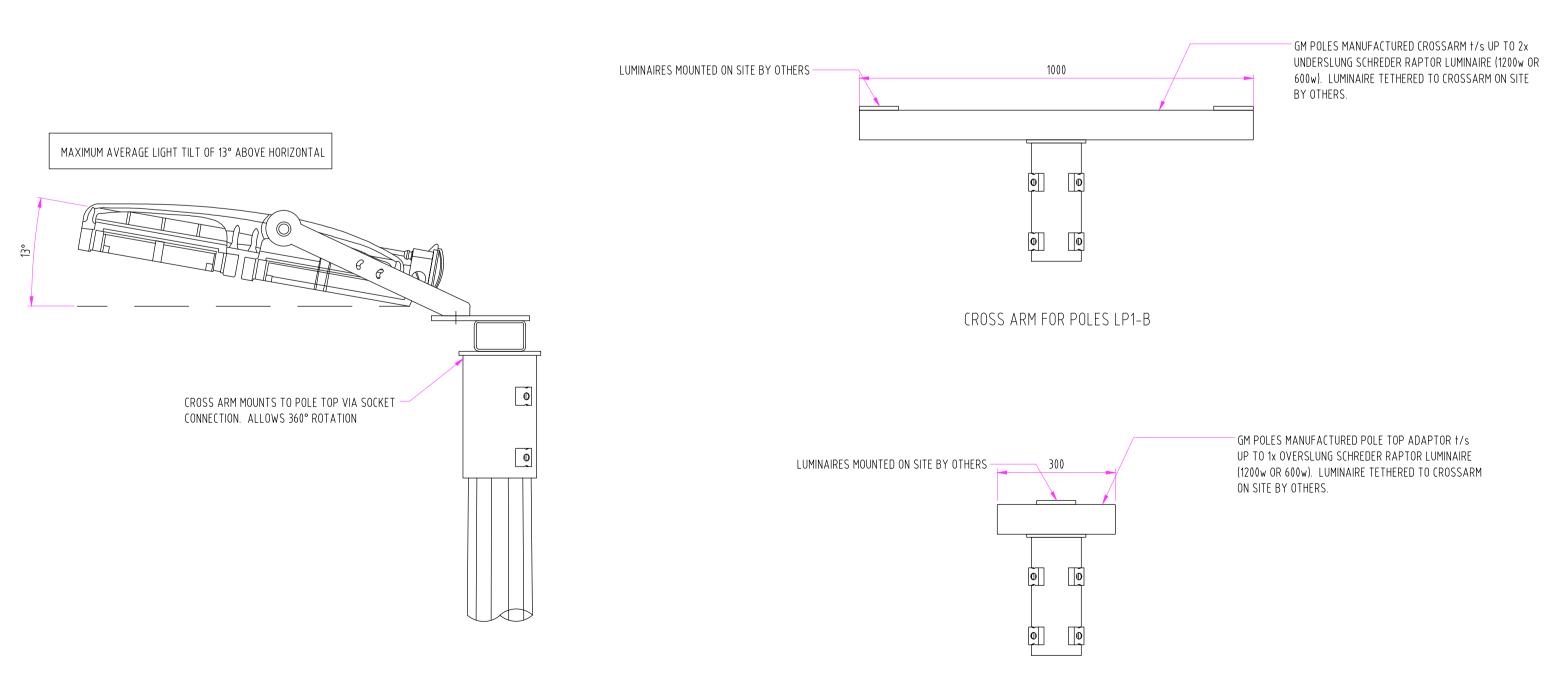
CROSS ARM FOR POLES LP3-C



CROSS ARM FOR POLES LP3-B



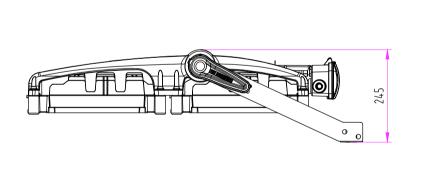
CROSS ARM FOR POLES LP3-A AND LP1-C

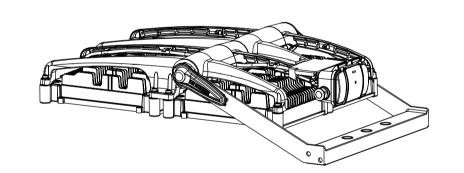


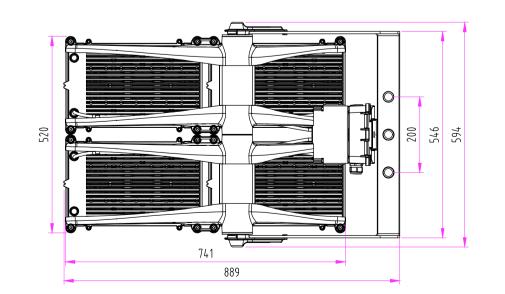
CROSSARM SIDE VIEW CROSS ARM FOR POLES LP1-A AND LP4

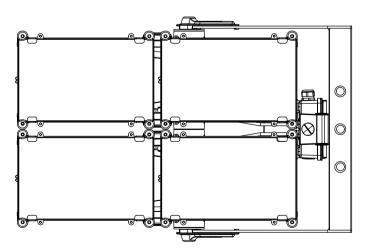
INDICATIVE CROSS ARM DETAILS
SCALE 1:10

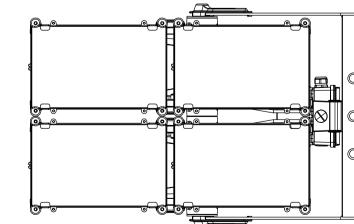






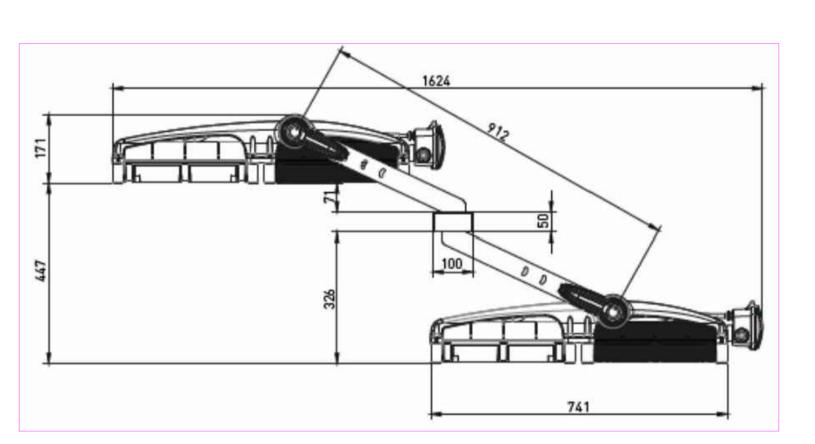






TOP VIEW

LUMINAIRE DIMENSIONS TYPE FL5-FL8



TYPE FL1-FL8 INDICATIVE OVERSLUNG/UNDERSLUNG DETAILS SCALE: NTS

DO NOT SCALE

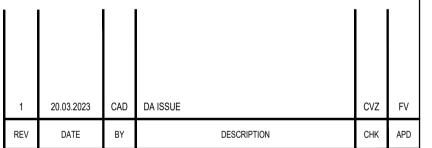


GENERAL NOTES

- THE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE TOTAL CONTRACT PACKAGE INCLUDING THE DRAWINGS AND SPECIFICATIONS OF ALL CONSULTANTS
- 2. ALL DIMENSIONS ARE NOMINAL AND MUST BE CONFIRMED ON SITE.
- 3. ALL WORKS SHALL COMPLY WITH ALL RELEVANT AUSTRALIAN STANDARDS.
- 4. IT IS THE RESPONSIBILITY OF THE SERVICES CONTRACTOR FOR ALL SUCH WORKS AND TO PRODUCE A COMPLETE LAYOUT FULLY COORDINATED WITH ARCHITECTURE, STRUCTURE AND OTHER SERVICES AND MEET EMPLOYER'S REQUIREMENTS AND RELEVANT STANDARDS. THIS IS TO INCLUDE ALL NECESSARY BENDS, TEES, SETS (ETC). THAT MAY BE NECESSARY TO LOCATE SERVICES CORRECTLY, AVOID CLASHES & MAXIMIZE MAINTENANCE ACCESS. QUANTITIES SHOWN ON THE DRAWING ARE INDICATIVELY ONLY.
- 5. DRAWING TO BE IN READ IN CONJUNCTION WITH LEGEND OF SYMBOLS.

SPECIFIC NOTES

- THIS PACKAGE COVERS THE EXTERIOR SPORTS LIGHTING ONLY. ALL ASSOCIATED ELECTRICAL ENGINEERING, STRUCTURAL ENGINEERING AND LANDSCAPE ARCHITECTURE IS BY OTHERS.
- 2. EXTERIOR NETBALL SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS2560.2:2021 SPORTS LIGHTING, PART 2: SPECIFIC APPLICATIONS, OUTDOOR NETBALL AND BASKETBALL, MID-LELVE LOCAL AND REGIONAL COMPETITION, HIGH LEVEL TRAINING.
- 3. EXTERIOR SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS4282:2019 CONTROL OF THE OBTRUSIVE EFFECTS OF OUTDOOR LIGHTING.
- 4. FOR INDICATIVE POLE DETAILS DETAILS REFER TO DRAWING E060.
- 5. FOR INDICATVIE CROSS ARM DETAILS REFER TO DRAWING E061.
- 6. FOR STRUCTURAL DETAILS REFER TO HENRY & HYMAS PACKAGE PROJECT 20D04.



PRELIMINARY

REFERENCE COORDINATION DRAWINGS									
DESCRIPTION DRAWING NO. REV C									
DESC	DRAWING NO	REV	CHK						



http://www.wsp.com

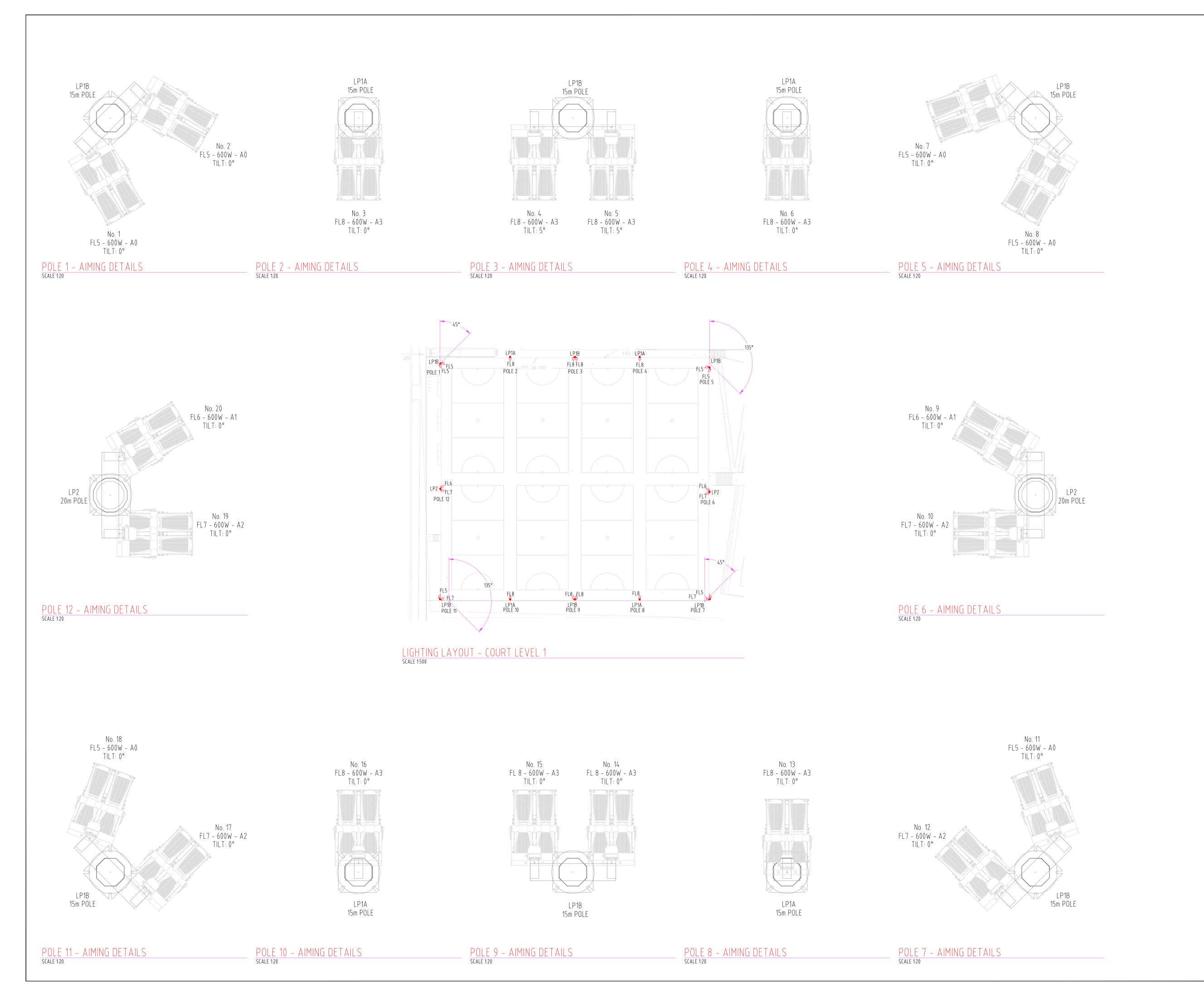
SINSW

COX ARCHITECTURE

WEST RYDE MULTI SPORT FACILITY

SPORTS LIGHTING SERVICES EXTERIOR SPORTS LIGHTING LAYOUT LIGHTING DETAILS SHEET 3

SCALE @ A1: AS SHOWN	CHECKED: FV	APPROVED: FV		
PROJECT No: PS123182	DRAWN: BIM	DATE: MARCH 2023		
DRAWING No:		REV:		
E062				



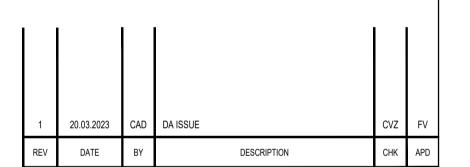
DO NOT SCALE



- 1. THE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE TOTAL CONTRACT PACKAGE INCLUDING THE DRAWINGS AND SPECIFICATIONS OF ALL CONSULTANTS
- 2. ALL DIMENSIONS ARE NOMINAL AND MUST BE CONFIRMED ON SITE.
- 3. ALL WORKS SHALL COMPLY WITH BCA AND ALL RELEVANT AUSTRALIAN
- 4. IT IS THE RESPONSIBILITY OF THE SERVICES CONTRACTOR FOR ALL SUCH WORKS AND TO PRODUCE A COMPLETE LAYOUT FULLY COORDINATED WITH ARCHITECTURE, STRUCTURE AND OTHER SERVICES AND MEET EMPLOYER'S REQUIREMENTS AND RELEVANT STANDARDS. THIS IS TO INCLUDE ALL NECESSARY BENDS, TEES, SETS (ETC). THAT MAY BE NECESSARY TO LOCATE SERVICES CORRECTLY. AVOID CLASHES & MAXIMIZE MAINTENANCE ACCESS. QUANTITIES SHOWN ON THE DRAWING ARE INDICATIVELY ONLY.
- 5. DRAWING TO BE IN READ IN CONJUNCTION WITH LEGEND OF SYMBOLS.

SPECIFIC NOTES

- 1. THIS PACKAGE COVERS THE EXTERIOR SPORTS LIGHTING ONLY.
- 2. EXTERIOR NETBALL SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS2560.2:2021 SPORTS LIGHTING, PART 2: SPECIFIC APPLICATIONS, OUTDOOR NETBALL AND BASKETBALL, MID-LELVE LOCAL AND REGIONAL COMPETITION, HIGH LEVEL TRAINING.
- 3. EXTERIOR SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS4282:2019 CONTROL OF THE OBTRUSIVE EFFECTS OF OUTDOOR LIGHTING.
- 4. FOR INDICATIVE POLE DETAILS REFER TO DRAWINGS E060, E061, AND E062.
- 5. BS INDICATES BACK SHIELD, BS LS INDICATES BACK SHIELD AND LEFT SHIELD, BS RS INDICATED BACK SHIELD AND RIGHT SHIELD.
- 6. ALL LIGHTS TO BE OVERSLUNG.



NG STATUS: PRELIMINARY

REFERENCE COORDINATION DRAWINGS

DESCRIPTION DRAWING NO.

Level 27, 680 George Street, Sydney, NSW 2000 Tel: +61-2-9272-5100 Fax: +61-2-9272-5101

http://www.wsp.com

COX ARCHITECTURE

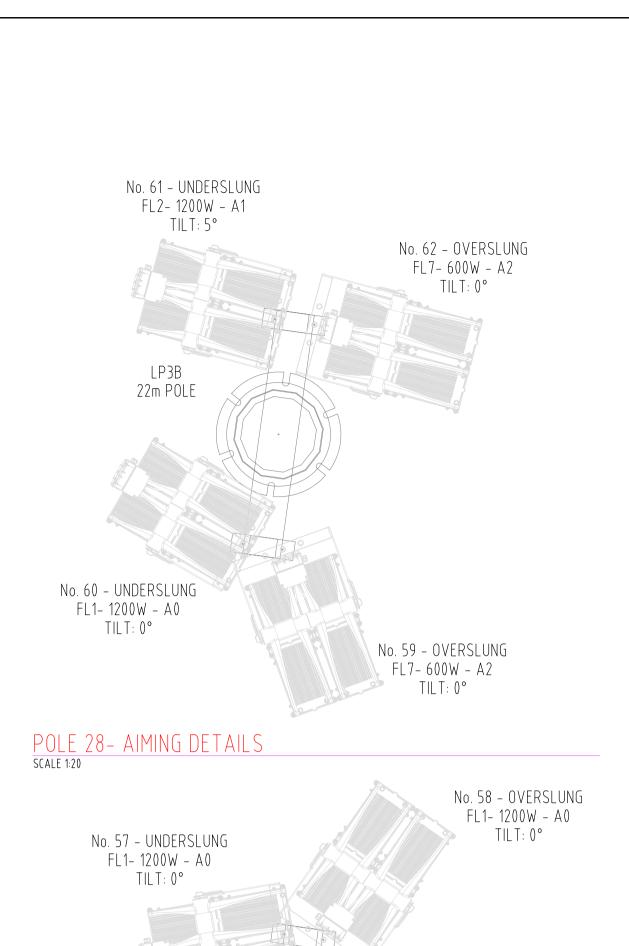
SINSW

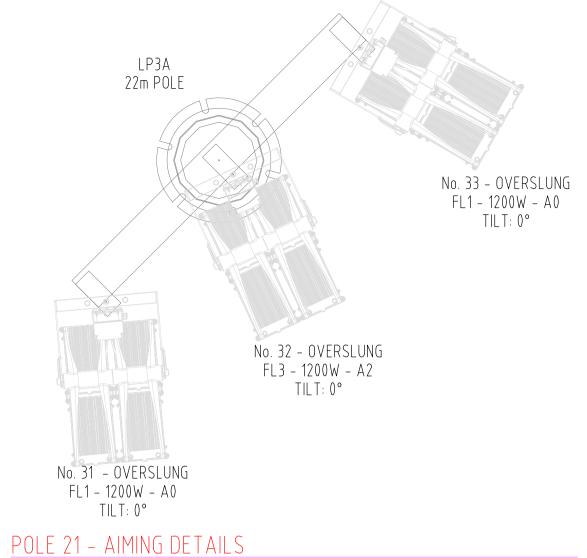
WEST RYDE

MULTI SPORT FACILITY

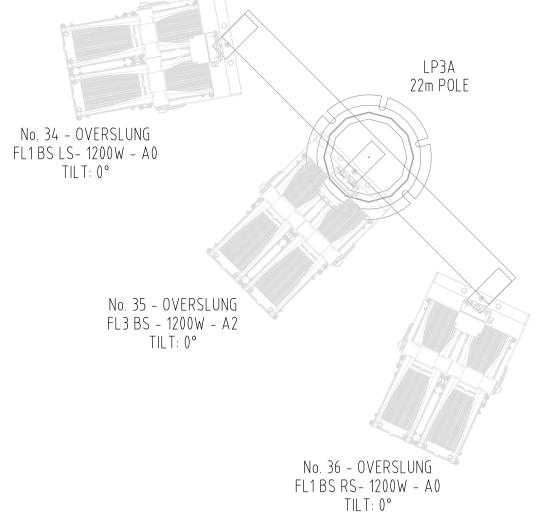
SPORTS LIGHTING SERVICES
EXTERIOR SPORTS LIGHTING LAYOUT
AIMING DETAILS SHEET 1

SCALE @ A1: AS SHOWN	CHECKED: FV	APPROVED: FV
PROJECT No: PS123182	DRAWN: BIM	DATE: MARCH 2023
DRAWING No:		REV:
	E070	1

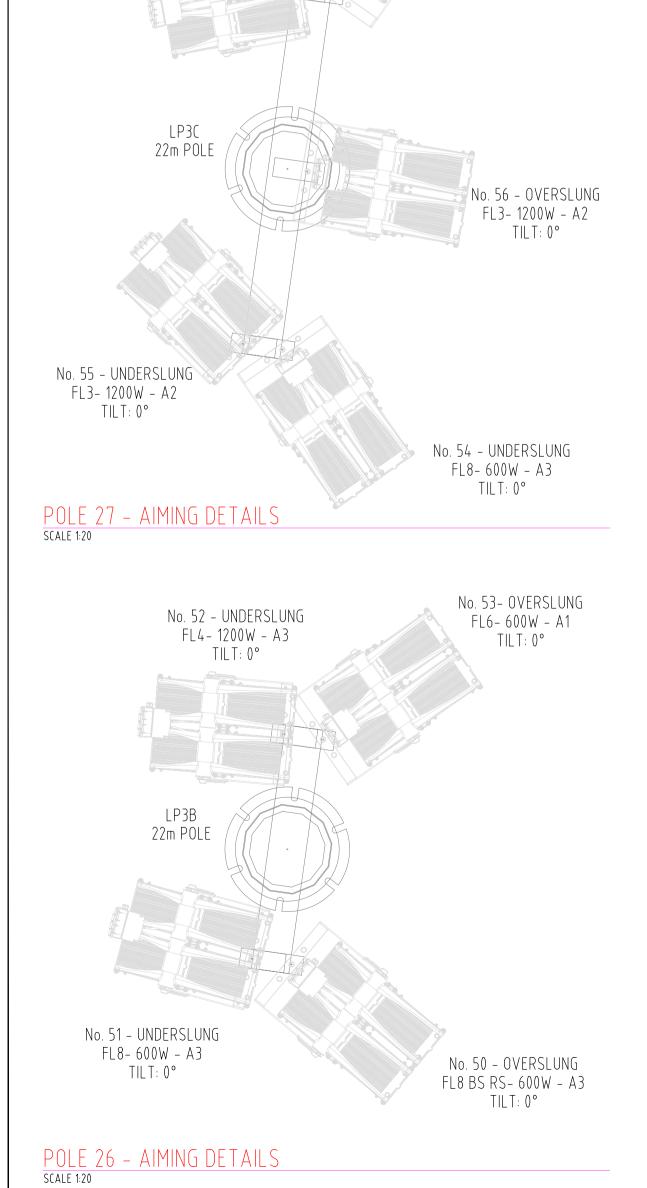




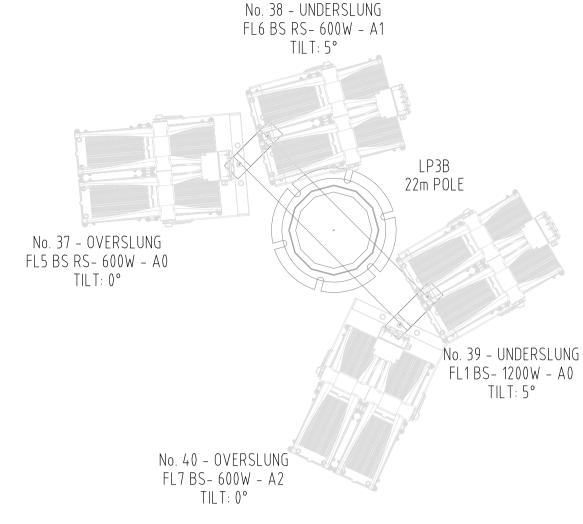
SCALE 1:20

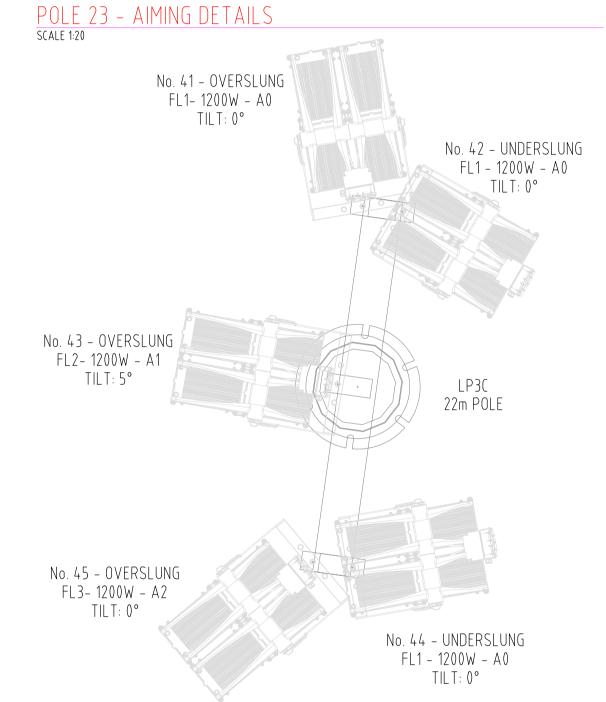


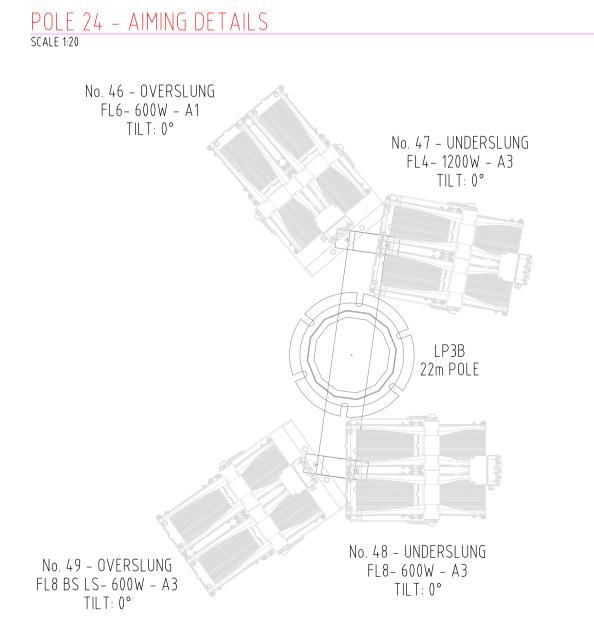
POLE 22 - AIMING DETAILS











POLE 25 - AIMING DETAILS
scale 1:20

DO NOT SCALE



- THE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE TOTAL CONTRACT PACKAGE INCLUDING THE DRAWINGS AND SPECIFICATIONS OF ALL CONSULTANTS
- 2. ALL DIMENSIONS ARE NOMINAL AND MUST BE CONFIRMED ON SITE.
- 3. ALL WORKS SHALL COMPLY WITH BCA AND ALL RELEVANT AUSTRALIAN STANDARDS.
- 4. IT IS THE RESPONSIBILITY OF THE SERVICES CONTRACTOR FOR ALL SUCH WORKS AND TO PRODUCE A COMPLETE LAYOUT FULLY COORDINATED WITH ARCHITECTURE, STRUCTURE AND OTHER SERVICES AND MEET EMPLOYER'S REQUIREMENTS AND RELEVANT STANDARDS. THIS IS TO INCLUDE ALL NECESSARY BENDS, TEES, SETS (ETC). THAT MAY BE NECESSARY TO LOCATE SERVICES CORRECTLY. AVOID CLASHES & MAXIMIZE MAINTENANCE ACCESS. QUANTITIES SHOWN ON THE DRAWING ARE INDICATIVELY ONLY.
- 5. DRAWING TO BE IN READ IN CONJUNCTION WITH LEGEND OF SYMBOLS.

SPECIFIC NOTES

- 1. THIS PACKAGE COVERS THE EXTERIOR SPORTS LIGHTING ONLY.
- 2. EXTERIOR NETBALL SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS2560.2:2021 SPORTS LIGHTING, PART 2: SPECIFIC APPLICATIONS, OUTDOOR NETBALL AND BASKETBALL, MID-LEVEL LOCAL AND REGIONAL COMPETITION, HIGH LEVEL TRAINING.
- 3. EXTERIOR SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS4282:2019 CONTROL OF THE OBTRUSIVE EFFECTS OF OUTDOOR LIGHTING.
- 4. FOR INDICATIVE POLE DETAILS REFER TO DRAWINGS E060, E061, AND E062.
- 5. BS INDICATES BACK SHIELD, BS LS INDICATES BACK SHIELD AND LEFT SHIELD, BS RS INDICATED BACK SHIELD AND RIGHT SHIELD.
- 6. LIGHTS MOUNTED OVERSLUNG OR UNDERSLUNG AS INDICATED.

	ı	1 1	•	• 1	
1	20.03.2023	CAD	DA ISSUE	CVZ	F۷
REV	DATE	BY	DESCRIPTION	СНК	API

G STATUS.	
	PRELIMINARY

REFERENCE COORDINATION DRAWINGS

DESCRIPTION DRAWING NO. REV CHK

DRAWING NO REV CHK



SINSW

RCHITECT:

COX ARCHITECTURE

WEST RYDE MULTI SPORT FACILITY

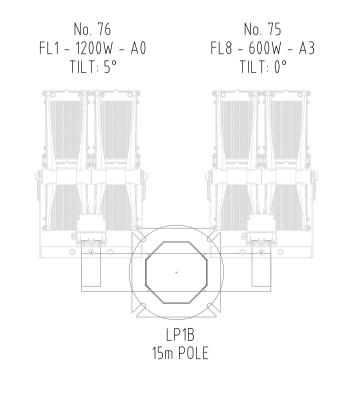
SPORTS LIGHTING SERVICES
EXTERIOR SPORTS LIGHTING LAYOUT

AIMING DETAILS SHEET 2

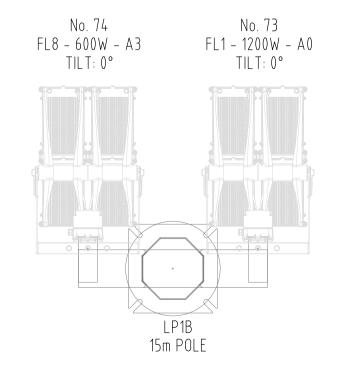
 SCALE @ A1:
 AS SHOWN
 CHECKED:
 APPROVED:
 FV

 PROJECT No:
 DRAWN:
 DATE:
 MARCH 2023

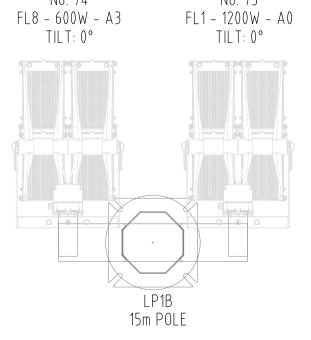
 DRAWING No:
 REV:
 1



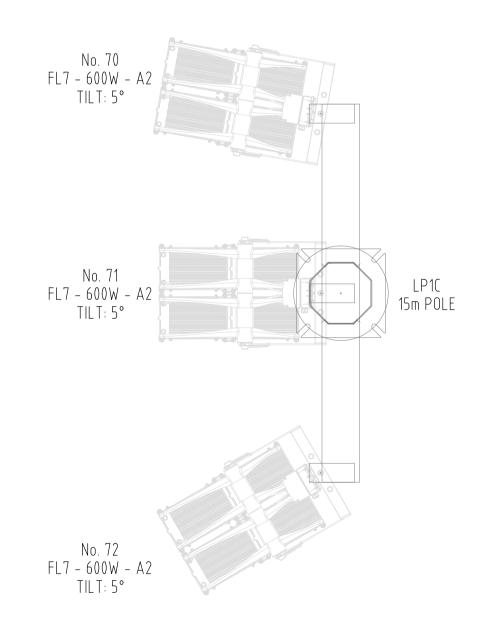
POLE 35 - AIMING DETAILS
SCALE 1:20



POLE 34 - AIMING DETAILS
SCALE 1:20



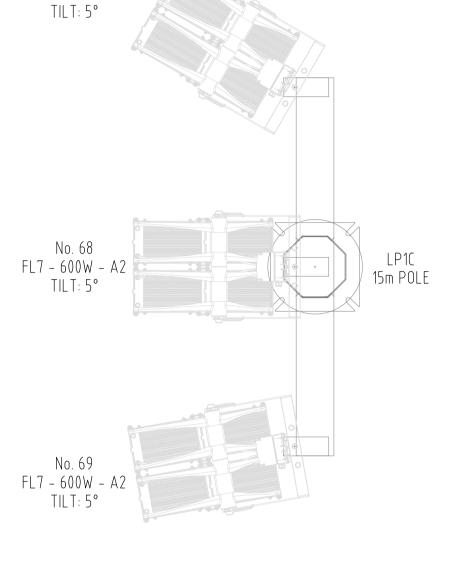
POLE 33 - AIMING DETAILS SCALE 1:20





No. 67

FL7 - 600W - A2





TILT: 5°



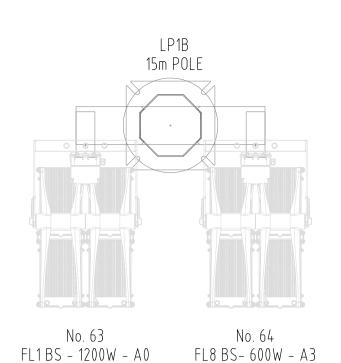
POLE 31 FL8 FL1 BS BS

No. 65

FL8 BS - 600W - A3

FL7 FL7 FL7 POLE 32

TILT: 0°



TILT: 0°

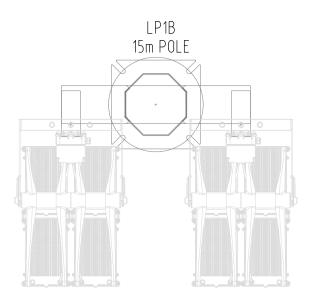
POLE 30 FL1 FL8

BS BS

FL1 FL8 LP1B POLE 35

LIGHTING LAYOUT - COURT LEVEL 1
SCALE 1:500

FL8 FL1 LP1B POLE 34



FL1BS - 1200W - A0

TILT: 0°

DO NOT SCALE



- THE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE TOTAL CONTRACT PACKAGE INCLUDING THE DRAWINGS AND SPECIFICATIONS OF ALL
- 2. ALL DIMENSIONS ARE NOMINAL AND MUST BE CONFIRMED ON SITE.
- 3. ALL WORKS SHALL COMPLY WITH BCA AND ALL RELEVANT AUSTRALIAN STANDARDS.
- 4. IT IS THE RESPONSIBILITY OF THE SERVICES CONTRACTOR FOR ALL SUCH WORKS AND TO PRODUCE A COMPLETE LAYOUT FULLY COORDINATED WITH ARCHITECTURE ,STRUCTURE AND OTHER SERVICES AND MEET EMPLOYER'S REQUIREMENTS AND RELEVANT STANDARDS. THIS IS TO INCLUDE ALL
 NECESSARY BENDS, TEES, SETS (ETC). THAT MAY BE NECESSARY TO
 LOCATE SERVICES CORRECTLY. AVOID CLASHES & MAXIMIZE MAINTENANCE
 ACCESS. QUANTITIES SHOWN ON THE DRAWING ARE INDICATIVELY ONLY.
- 5. DRAWING TO BE IN READ IN CONJUNCTION WITH LEGEND OF SYMBOLS.

SPECIFIC NOTES

CONSULTANTS

- THIS PACKAGE COVERS THE EXTERIOR SPORTS LIGHTING ONLY.
- 2. EXTERIOR NETBALL SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS2560.2:2021 SPORTS LIGHTING, PART 2: SPECIFIC APPLICATIONS, OUTDOOR NETBALL AND BASKETBALL, MID-LEVEL LOCAL AND REGIONAL COMPETITION, HIGH LEVEL TRAINING.
- 3. EXTERIOR SPORTS LIGHTING DESIGNED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS/NZS4282:2019 CONTROL OF THE OBTRUSIVE EFFECTS OF
- 4. FOR INDICATIVE POLE DETAILS REFER TO DRAWINGS E060, E061, AND E062.
- 5. BS INDICATES BACK SHIELD, BS LS INDICATES BACK SHIELD AND LEFT SHIELD, BS RS INDICATED BACK SHIELD AND RIGHT SHIELD.

DESCRIPTION

DRAWING NO.

DRAWING NO

PRELIMINARY

Level 27, 680 George Street, Sydney, NSW 2000 Tel: +61-2-9272-5100 Fax: +61-2-9272-5101

http://www.wsp.com

SINSW

COX ARCHITECTURE

WEST RYDE

MULTI SPORT FACILITY

SPORTS LIGHTING SERVICES EXTERIOR SPORTS LIGHTING LAYOUT AIMING DETAILS SHEET 3

BIM

© WSP Australia Pty Ltd

E072

FV

MARCH 2023

REFERENCE COORDINATION DRAWINGS

6. ALL LIGHTS TO BE OVERSLUNG.

20.03.2023

DATE

DESCRIPTION

SCALE @ A1: AS SHOWN

PS123182

Туре	Image	Description	Manufacturer Model	Supplier	Dimensions	Light Performance	Notes / Accessories
FL1		Pole mounted sports flood light with A0 extra narrow distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011 TBC by architect	Schréder Raptor 3 SR4H740A0LG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 153,265 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL1 BS		Pole mounted sports flood light with A0 extra narrow distribution and back shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 SR4H740A0LG3 + SR4HBACKSHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 137,993 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield.
FL1 BS LS		Pole mounted sports flood light with AO extra narrow distribution and back shield and left shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 SR4H740A0LG3 + SR4HSIDESHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 130,963 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield and left shield.
FL1 BS RS		Pole mounted sports flood light with A0 extra narrow distribution and back shield and right shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 SR4H740A0LG3 + SR4HSIDESHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 130,963 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield and right shield.



Туре	Image	Description	Manufacturer Model	Supplier	Dimensions	Light Performance	Notes / Accessories
FL2		Pole mounted sports flood light with A1 narrow distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 SR4H740A1LG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 158,326 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL3		Pole mounted sports flood light with A2 medium distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011,TBC by architect	Schréder Raptor 3 SR4H740A2LG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 156,039 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL3 BS		Pole mounted sports flood light with A2 medium distribution and back shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 SR4H740A2LG3 + SR4HBACKSHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 148,503 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield.
FL4		Pole mounted sports flood light with A3 wide distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 SR4H740A3LG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 1200W CCT: 4000K CRI: 70 Lumens: 163,375 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.



Туре	Image	Description	Manufacturer Model	Supplier	Dimensions	Light Performance	Notes / Accessories
FL5		Pole mounted sports flood light with A0 extra narrow distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011	Schréder Raptor 3 600W SR2H740A0AIG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens:76,632 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL5 BS RS		Pole mounted sports flood light with A0 extra narrow distribution and back shield and right shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A0AIG3 + SR2HSIDESHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 65,632 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield and right shield.
FL6		Pole mounted sports flood light with A1 narrow distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A1AIG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 79,163 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL6 BS RS		Pole mounted sports flood light with A1 narrow distribution and back shield and right shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A1AIG3 + SR2HSIDESHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 70,516 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield and right shield.



Туре	Image	Description	Manufacturer Model	Supplier	Dimensions	Light Performance	Notes / Accessories
FL7		Pole mounted sports flood light with A2 medium distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A2AIG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 78,019 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL7 BS		Pole mounted sports flood light with A2 medium distribution and back shield , c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011	Schréder Raptor 3 600W SR2H740A2AIG3 + SR2HBACKSHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 74,406 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield.
FL8		Pole mounted sports flood light with A3 wide distribution, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A3AIG3	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 81,688 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details.
FL8 BS		Pole mounted sports flood light with A3 wide distribution and back shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A3AIG3 + SR2HBACKSHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 76,027 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield.



Туре	Image	Description	Manufacturer Model	Supplier	Dimensions	Light Performance	Notes / Accessories
FL8 BS LS		Pole mounted sports flood light with A3 wide distribution and back shield and left shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A3AIG3 + SR2HSIDESHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 76,027 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield and left shield.
FL8 BS RS		Pole mounted sports flood light with A3 wide distribution and back shield and right shield, c/w remote DALI control gear. IP66, IK06 Luminaire finish: RAL 9011, TBC by architect	Schréder Raptor 3 600W SR2H740A3AIG3 + SR2HSIDESHIELD	Schréder	L: 741mm W: 594mm H: 171mm	Wattage: 600W CCT: 4000K CRI: 70 Lumens: 76,027 Lx / Bx: 120,000h - L90	Remote DALI gear to be mounted in pole behind access panel. Floodlight to be mounted overslung or underslung to cross arm, refer to drawings for details. Luminaire to be supplied with back shield and right shield.

