

YARDTOPIA ELMONT ALUMINIUM PERGOLA

(3m x 3m & 3m x 4m)

CLIENT:

GLOBAL FITNESS AND LEISURE PTY LTD

23-25 MAYGAR BOULEVARD
BROADMEADOWS, VIC 3047



STRUCTURAL DRAWINGS

DRAWING INDEX

S00	COVER SHEET AND GENERAL NOTES
S01	PERGOLA PLANS, ELEVATIONS, AND DETAILS

DESIGN LOADINGS:	
SUPERIMPOSED DEAD LOAD	0.20 kPa
LIVE LOAD	0.25 kPa
WIND LOAD (DESIGN WIND SPEED)	41 m/s (NON-CYCLONIC)

GENERAL NOTES:

1. THE BUILDER SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE, AND RESOLVE ALL DISCREPANCIES WITH THE ARCHITECT OR ENGINEER PRIOR TO COMMENCEMENT OF WORK.
2. DRAWING INDICATES GENERAL & TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE OF SIMILAR CHARACTER TO DETAILS SHOWN AND ALTHOUGH NOT SPECIFICALLY INDICATED, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. PRIOR TO COMMENCEMENT OF WORKS, THE BUILDER SHALL VERIFY ALL DIMENSIONS AND LEVELS IN THE CONTRACT DRAWINGS. DISCREPANCIES IN DRAWINGS ARISING FROM SUCH VERIFICATION WORKS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
3. THE BUILDER SHALL BE SOLELY RESPONSIBLE FOR ENSURING TOTAL COORDINATION OF ALL WORKS AND SHALL TAKE SITE MEASUREMENTS PRIOR TO THE PREPARATION OF ANY SHOP DRAWINGS OR BEFORE COMMENCING FABRICATION.
4. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
5. FOUNDATION MATERIAL SHALL BE APPROVED PRIOR TO POURING CONCRETE FOR A MINIMUM BEARING CAPACITY OF 100kPa, UNLESS NOTED OTHERWISE.
6. ALL DETAILS SHOWN ARE FOR STRUCTURAL PURPOSES ONLY. THE ARCHITECT AND BUILDER MUST ENSURE ALL CONSTRUCTION REQUIREMENTS SET BY BCA (NCC) ARE MET.

CODES OF PRACTICE:

WHERE APPLICABLE, ALL STANDARDS FOR LOADINGS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE CODES OF PRACTICE BELOW AND SPECIFIED IN THE BCA (NCC) APPROVED DOCUMENTS:

- A) LOADING TO AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2
- B) STRUCTURAL CONCRETE TO AS 3600
- C) STRUCTURAL STEEL TO AS 4100
- D) STRUCTURAL TIMBER TO AS 1720
- E) STRUCTURAL ALUMINIUM TO AS/NZS 1664.1

STRUCTURAL STEELWORK:

1. QUALITY OF STRUCTURAL STEEL AND ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS 4100.
2. ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1554 WELDING CODE AND SHALL ONLY BE PERFORMED BY AN EXPERIENCED OPERATOR.
3. ALL BOLTS SHALL BE GRADE 8.8 HIGH STRENGTH BOLTS AND TIGHTENED TO A SNUG FIT, UNLESS NOTED OTHERWISE.
4. ALL STAINLESS STEEL SHALL BE OF GRADE SS 304, UNLESS NOTED OTHERWISE.

STRUCTURAL TIMBER:

1. ALL TIMBER SHALL BE THE BEST QUALITY OF THE SPECIES AND GRADES SPECIFIED, AND SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS. STRUCTURAL TIMBER SHALL COMPLY WITH AS 1720.1.
2. TIMBER SHALL BE STRAIGHT, SOUND, WELL SEASONED, FREE FROM SIGNIFICANT DEFECTS INCLUDING WHITE ANT, BORER, SAP, LOOSE KNOTS, WARP, TWIST, FRACTURES, AND HOLES.
3. TIMBER IN CONTACT WITH GROUND TO BE DURABILITY CLASS 1 AS DEFINED IN AS 1684 APPENDIX A.
4. ALL EXPOSED TIMBERS OR MEMBERS IN POORLY VENTILATED AREAS TO BE DURABILITY CLASS 2 AS DEFINED IN AS1684 APPENDIX A.
5. ALL DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS FOR STRUCTURAL DESIGN AND SHALL BE VERIFIED WITH MANUFACTURER. MINOR MEMBERS AND MEMBER PROTRUSIONS THAT DO NOT AFFECT THE STRENGTH OF THE STRUCTURE ARE NOT SHOWN FOR CLARITY. THE ENGINEER SHALL BE INFORMED OF ANY DISCREPANCY.
6. REFER TO MANUFACTURER’S DETAILS FOR EXACT MEMBER SIZES, CONNECTION DETAILS, AND SETTING OUT REQUIREMENTS.

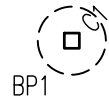
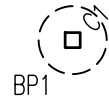
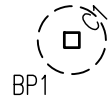
STRUCTURAL ALUMINIUM

1. QUALITY OF STRUCTURAL ALUMINIUM SHALL CONFORM TO AS 1664 AND SHALL BE OBTAINED FROM AN APPROVED MANUFACTURER.
2. ALL DIMENSIONS SHOWN ARE MINIMUM REQUIREMENTS FOR STRUCTURAL DESIGN AND SHALL BE VERIFIED WITH THE MANUFACTURER. MEMBER PROTRUSIONS THAT DO NOT AFFECT THE STRENGTH OF THE STRUCTURE ARE NOT SHOWN FOR CLARITY. THE ENGINEER SHALL BE INFORMED OF ANY DISCREPANCY.
3. ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1665 WELDING CODE RECOMMENDATIONS FOR WELDING OF ALUMINIUM STRUCTURES.
4. ALL ALUMINIUM MEMBERS SHALL BE 6063 (T5), UNLESS NOTED OTHERWISE.
 - YIELD TENSILE STRENGTH, Fty = 110 N/mm2
 - ULTIMATE TENSILE STRENGTH, Ftu = 152 N/mm2

STRUCTURAL CONCRETE

1. ALL CONCRETE WORKMANSHIP SHALL BE IN ACCORDANCE WITH SAA CONCRETE STRUCTURES CODE AS 3600.
2. MINIMUM CONCRETE GRADE FOR ALL STRUCTURES SHALL BE GRADE 25MPa, UNLESS NOTED OTHERWISE.
3. CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR MEMBERS PENETRATED IN ANY WAY WITHOUT THE ENGINEER’S APPROVAL.

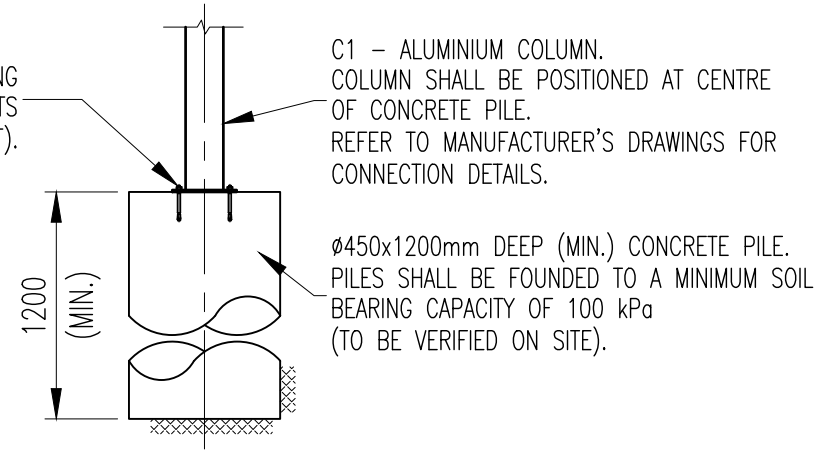
	DRAWN BY:	JN	PROJECT TITLE:			REV	DECRPTION	DATE	APP'D			
	DESIGNED BY:	AN	YARDTOPIA ELMONT ALUMINIUM PERGOLA (3m x 3m & 3m x 4m)			A	ISSUE FOR SUBMISSION	16/12/2024	AN			
	APPROVED BY:	AN										
	JOB NO.:	AJN-2024-025										
	SCALE:	AS SHOWN	DRAWING TITLE:	SHEET NO.:	REVISION:							
	SHEET SIZE:	A3	COVER SHEET AND GENERAL NOTES	S00	A							
	THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS STAMPED BY A BUILDING SURVEYOR AND BUILDING PERMIT HAS BEEN ISSUED.											



BP1 – $\phi 450 \times 1200$ mm DEEP (MIN.) CONCRETE PILE.
PILES SHALL BE FOUNDED TO A MINIMUM SOIL BEARING CAPACITY OF 100 kPa (TO BE VERIFIED ON SITE).

REFER TO MANUFACTURER'S DETAILS FOR CONNECTION DETAILS.
COLUMN SHALL BE POSITIONED AT CENTRE OF CONCRETE PILE.

FOUNDATION PLAN
SCALE: 1:50

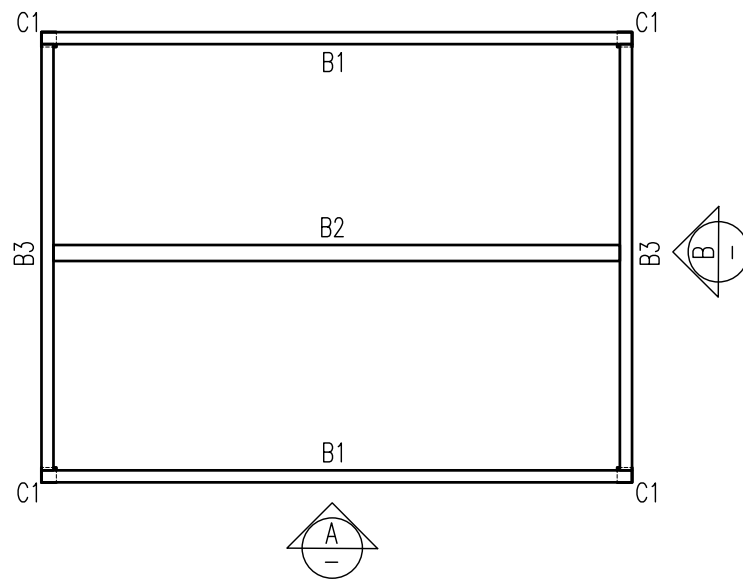


FIX COLUMN TO FOUNDATION USING MIN. 4 NOS. M10 ANCHOR BOLTS (80mm MIN. EMBEDMENT).

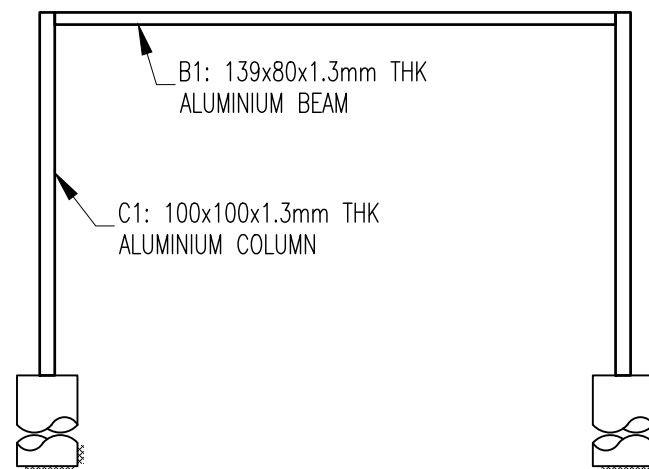
C1 – ALUMINIUM COLUMN.
COLUMN SHALL BE POSITIONED AT CENTRE OF CONCRETE PILE.
REFER TO MANUFACTURER'S DRAWINGS FOR CONNECTION DETAILS.

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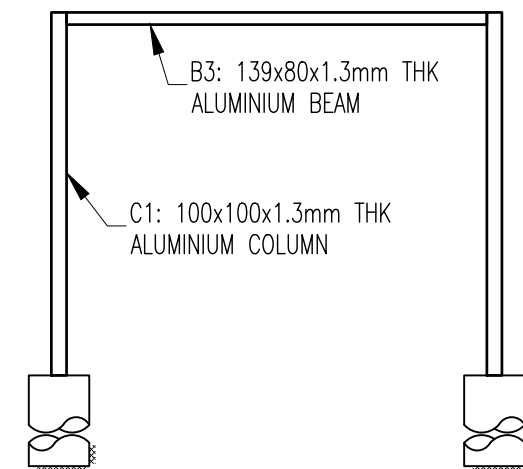
TYPICAL PILE DETAIL
SCALE: 1:20



PERGOLA PLAN
SCALE: 1:50



A
ELEVATION
SCALE: 1:50



B
ELEVATION
SCALE: 1:50

MEMBER SCHEDULE:

B1	BEAM	139x80x1.3mm THK ALUMINIUM
B2	BEAM	135x105x1.3mm THK ALUMINIUM
B3	BEAM	139x80x1.3mm THK ALUMINIUM
C1	COLUMN	100x100x1.3mm THK ALUMINIUM



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