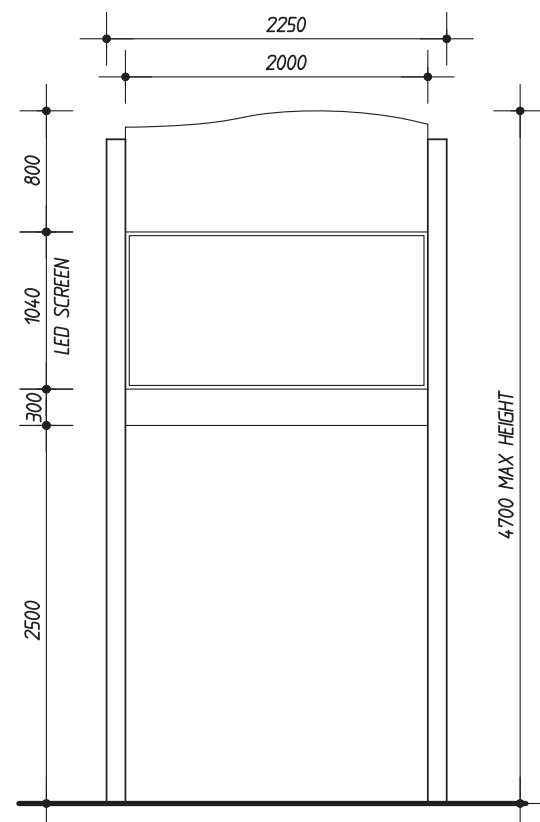
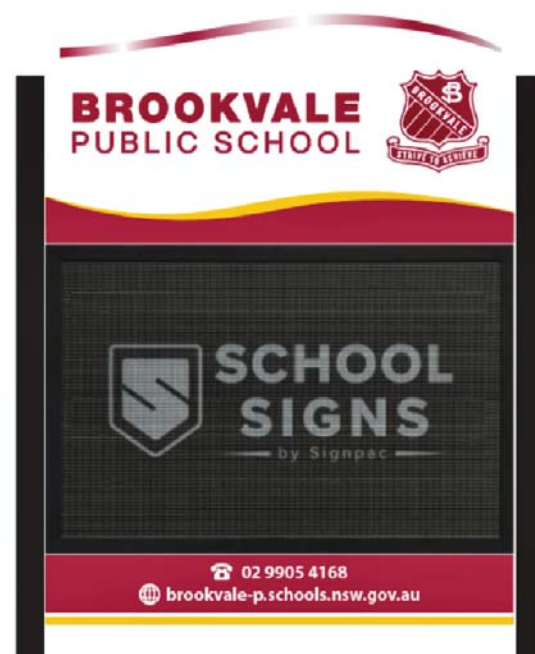


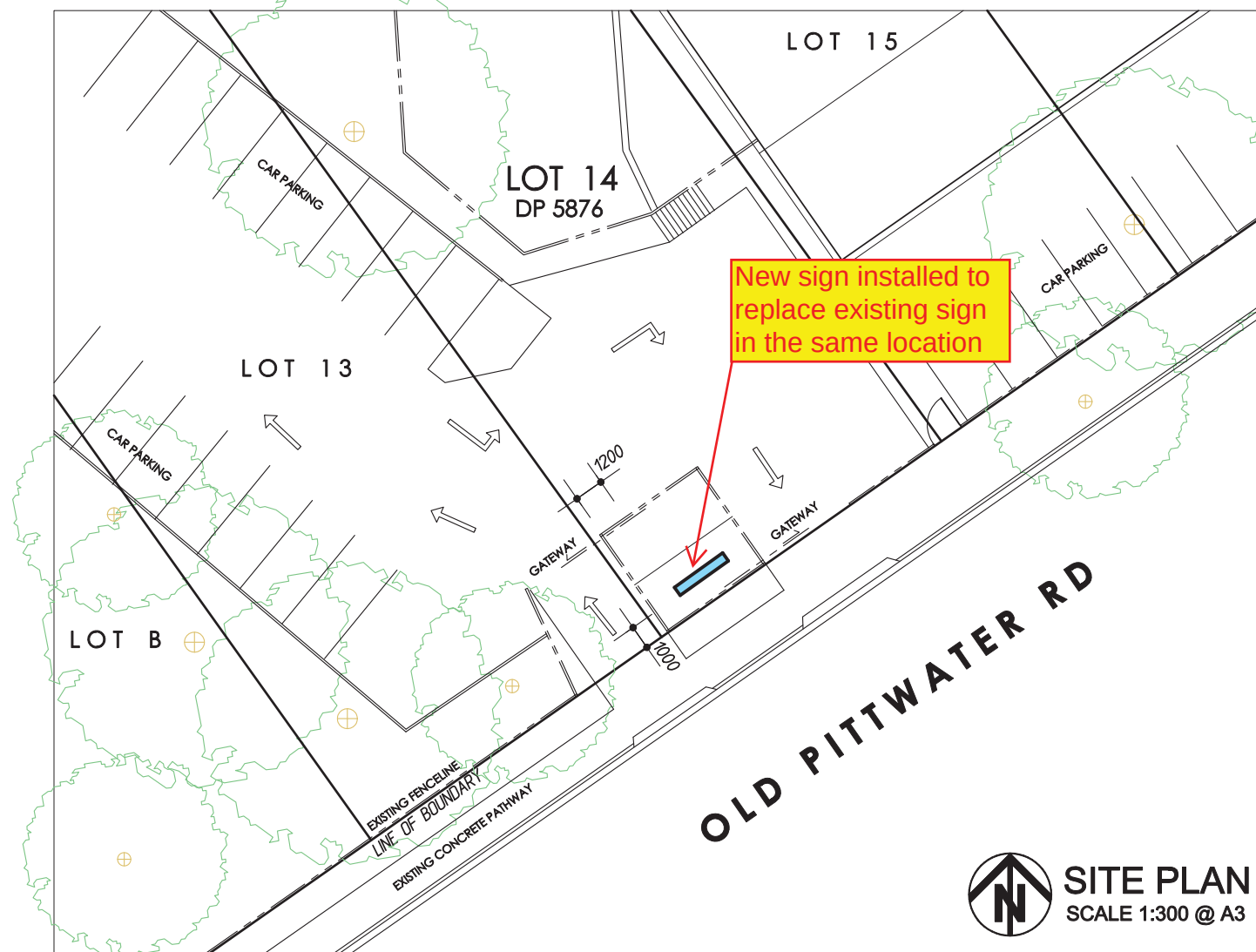
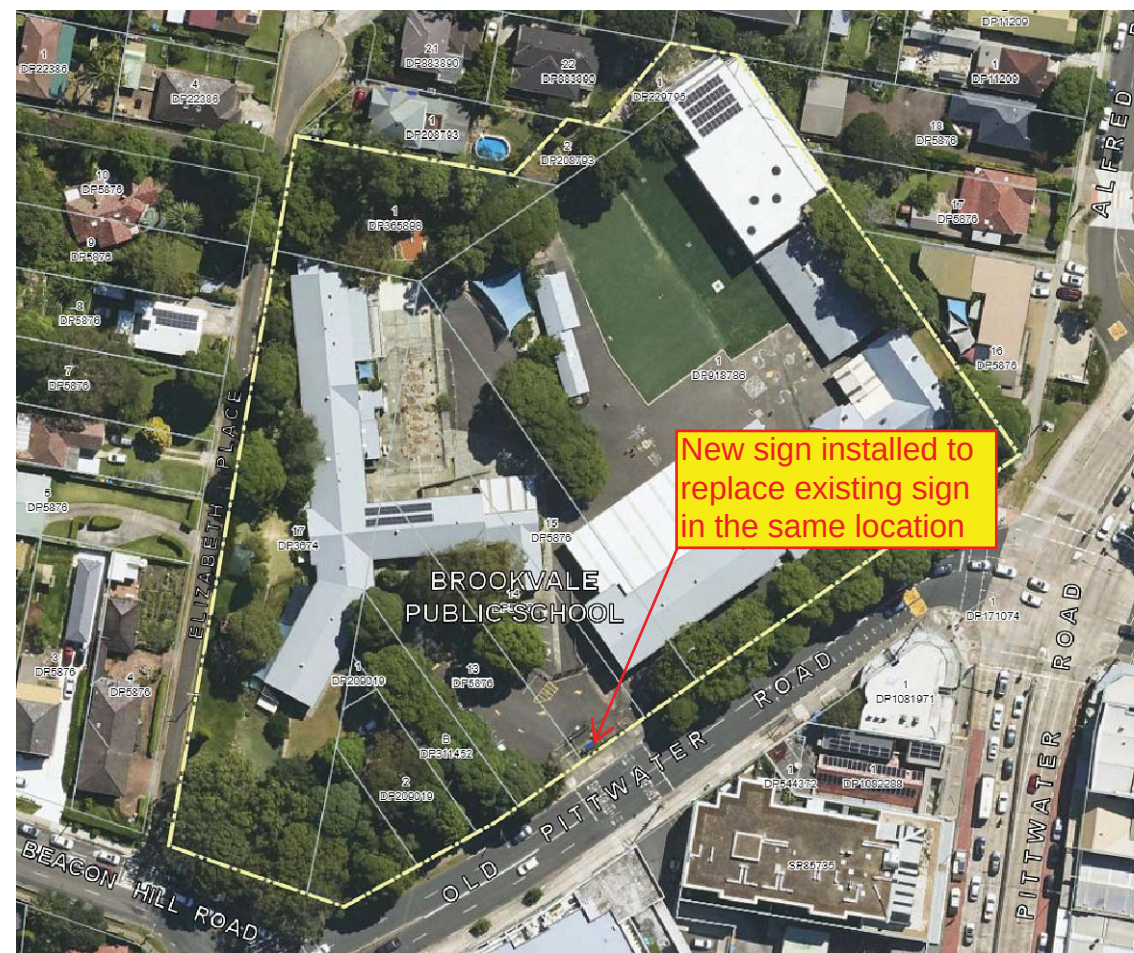


ELEVATION
SCALE 1:50 @ A3



SIGNAGE DESIGN
ARTISTIC DESIGN - SHOWN FOR VISUAL REPRESENTATION PURPOSES OF THE SIGNAGE ELEMENTS ONLY

SITE INVESTIGATION
- A COMPLETE INVESTIGATION OF SERVICES HAS NOT BEEN UNDERTAKEN FOR THIS SITE PLAN.
- SERVICES LOCATIONS, DEPTHS AND INVERTS HAVE BEEN LOCATED BY FIELD SURVEY OR TAKEN FROM DBYD OR COUNCIL DOCUMENTS.
- CONFIRMATION OF CRITICAL POSITIONS SHOULD BE OBTAINED WITH ON SITE DETECTION SERVICES.
- THIS PLAN SHOULD NOT BE USED FOR CRITICAL DESIGN DIMENSIONS IN RELATION TO EXISTING STRUCTURES AND SERVICES.
- PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE, AUTHORITIES SHOULD BE CONTACTED FOR LOCATION OF ALL SERVICES.
- NEGLECTING TO DIAL 1100 BEFORE DIGGING OR EXCAVATING CAN LEAD TO COSTLY DISRUPTION TO ESSENTIAL SERVICES, AND INJURY OR DEATH TO WORKERS AND THE GENERAL PUBLIC. IT CAN ALSO LEAD TO HEAVY FINANCIAL PENALTIES.



CLIENT
BROOKVALE PUBLIC SCHOOL

PROJECT
INSTALLATION OF DIGITAL SIGN

LOCATION
**LOT 14 DP 5876
2-8 OLD PITWATER ROAD
BROOKVALE NSW 2100**

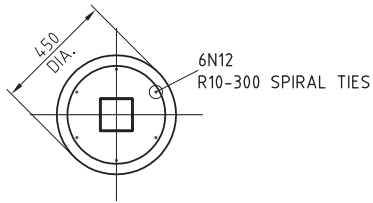
GENERAL NOTES:
Figured dimensions take preference, do not scale from plans. IF IN DOUBT, ASK. Contractors are responsible to check and verify all information prior to tendering and shall report any discrepancies or omissions.
Incorrect inclusions or omissions or typographical errors are not to be used in the interpretation of any information in these drawings. Nor can they be used to claim any additional or alternate items or services as a result of such errors. The incorrect or omitted details shall be subject to subsequent correction by CEO and the documentation re-issued.
These drawings are to be read in conjunction with the relevant client-builder contract. The contract is to take precedence over these drawings in all matters including but not limited to: finishes, inclusions, upgrades, exclusions, additional costs and works by owner/builder.
All work to be carried out in a tradesman like manner, and in accordance with local codes, the BCA, Australian Standards and any relevant authority requirements.
All concrete and structural details to engineer's specification.
Engineers details and specifications take precedence over these plans.
Finished ground levels are approximate only and should be confirmed onsite.

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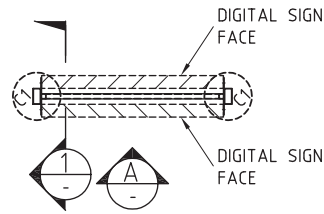
Issue	Date	Amendments
B	29.01.24	COUNCIL RF SIGN RELOCATION
A	30.10.23	INITIAL FOR CLIENT CHECK

SHEET TITLE
SITE NOTIFICATION PLAN

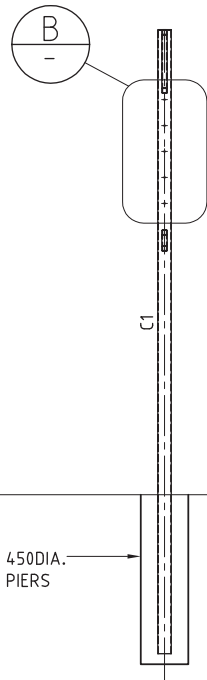
SHEET No. **A01** JOB No. **SPC223027**



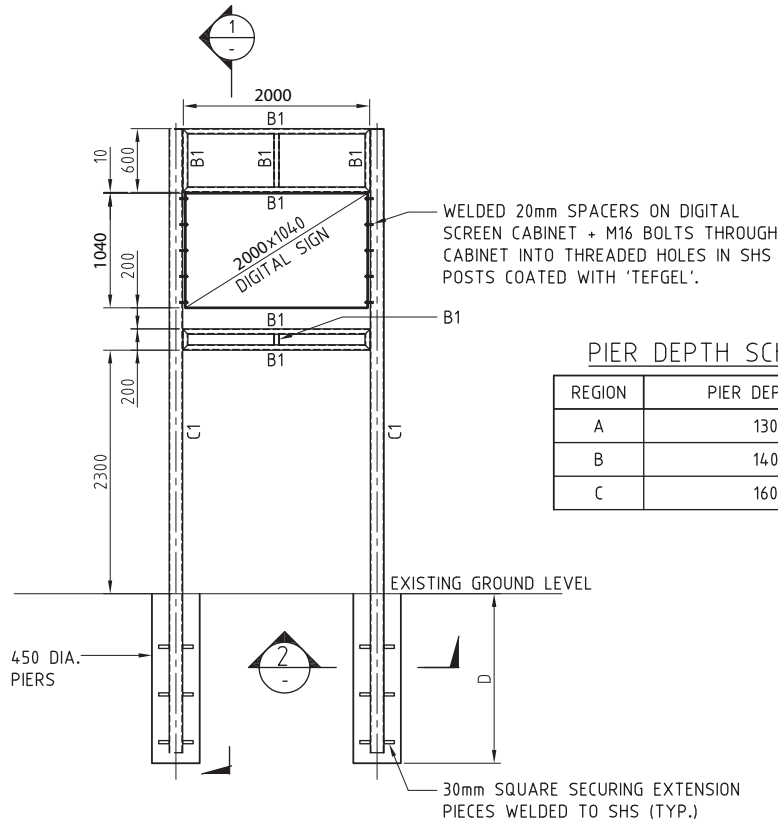
SECTION 2
SCALE 1:20



PLAN
SCALE 1:50



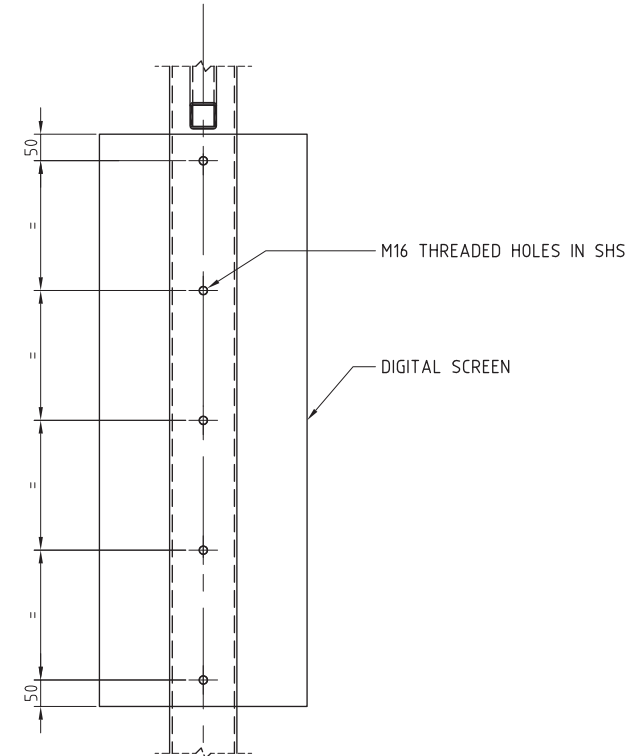
SECTION 1
SCALE 1:50



ELEVATION A
SCALE 1:50

PIER DEPTH SCHEDULE

REGION	PIER DEPTH 'D'
A	1300
B	1400
C	1600



DETAIL B
SCALE 1:10

MEMBER SCHEDULE

MEMBER	SIZE	COMMENTS
C1	127x127x6 SHS	ALU 6060 T5 (FULLY WELDED FRAME)
B1	50x50x3.0 RHS	ALU 6060 T5 (FULLY WELDED FRAME)

NOTE:
ALL ALUMINIUM & STEEL TO BE SEPARATED
WITH NEOPRENE WASHERS/PADS + 'TEFGEL'.

FOR CONSTRUCTION

ISS	DATE	COMMENT
1	23/11/16	FOR CONSTRUCTION
2	08/09/17	RE-ISSUED FOR CONSTRUCTION



Suite 1, Building 8, 49 Frenchs Forest Road East,
Frenchs Forest, NSW 2086
P.O. Box 652, Forestville, NSW 2087
Ph: 02 9451 3455 Fax: 02 9451 3466
Email: info@dbce.com.au
ABN 23 039 013 724

CLIENT:
SIGNPAC

PROJECT:
SIGNPAC DIGITAL SIGN

TITLE:
SINGLE SIDED DIGITAL SIGN

DRAWN RAS	DESIGN JL	DATE: Nov'16
JOB NO: 16335	DWG NO: S02	
SCALE @ A3: AS SHOWN	REV: 2	

GENERAL

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.
- G2. ANY QUERIES OR DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER OR PROJECT MANAGER FOR A DECISION PRIOR TO PROCEEDING WITH THE WORK.
- G3. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD AND THE BCA AS AMENDED.
- G4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- G5. ALL DIMENSIONS SHALL BE VERIFIED BY THE BUILDER ON SITE PRIOR TO ANY FABRICATION OR CONSTRUCTION.
- G6. DIMENSIONS AND SITE SETOUT SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.
- G7. TEMPORARY BRACING OR PROPPING TO ENSURE THE STRUCTURE IS KEPT IN A STABLE STATE IS THE RESPONSIBILITY OF THE BUILDER.
- G8. THE STRUCTURAL ELEMENTS SHOWN ON THESE DRAWINGS HAVE BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS:

STRUCTURAL ELEMENT	LIVE LOAD kPa
N/A	N/A

G9. WIND LOADS TO AS1170.2			
REGION	A	B	C
WIND TERRAIN CATEGORY	3	3	3
REGION WIND SPEED ULS V500	45m/s	57m/s	69.3m/s
REGION WIND SPEED SLS V1	30m/s	26m/s	23m/s

FOUNDATIONS

- F1. THE FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 150 KPa.
- F2. APPROVAL OF THE FOUNING MATERIAL SHALL BE OBTAINED FROM THE ENGINEER OR GEOTECHNICAL ENGINEER PRIOR TO PLACING THE CONCRETE.
- F3. EXCAVATION NEAR FOOTINGS SHALL NOT EXTEND BELOW THE BASE OF THE FOOTINGS WITHOUT THE APPROVAL OF THE ENGINEER.
- F4. THE BUILDER IS RESPONSIBLE FOR MAINTAINING ANY EXCAVATION IN A STABLE CONDITION WITHOUT AFFECTING SURROUNDING PROPERTY FOR SERVICES. BUILDER TO ALLOW FOR ALL SHORING REQUIRED FOR EXCAVATION OF PILE CAPS.
- F5. BUILDER TO ALLOW FOR REMOVAL OF ALL SPOIL FROM SITE FROM EXCAVATIONS, PILING AND PIERING.
- F6. ALL TOP-SOIL & LOOSE MATERIAL TO BE REMOVED FROM THE SLAB AREA. COMPACTED FILL IN ACCORDANCE WITH AS2870 SECTION 6.4 IF REQUIRED.

CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF AS3600.
- C2. 'READYMIX' CONCRETE SHALL COMPLY WITH AS1379 AND HAVE THE FOLLOWING QUALITY.

STRUCTURAL ELEMENT	AS3600, f'c (Mpa) AT 28 DAYS	SLUMP (mm)	AGG SIZE (mm)
PIERS	32	80	20

- C3. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.
- C4. THE DESIGN, CONSTRUCTION, INSPECTION AND CERTIFICATION OF THE FALSEWORK, FORMWORK, PROPPING OR LOADING OF STRUCTURES DURING CONSTRUCTION BY THE FALSEWORK OR PROPPING SHALL BE THE RESPONSIBILITY OF THE BUILDER AND SUB-CONTRACTORS.
- C5. CLEAR CONCRETE COVER TO THE REINFORCEMENT SHALL BE AS FOLLOWS:

STRUCTURAL ELEMENT	COVER INTERNAL (mm)	COVER EXTERNAL (mm)
PIERS	45 ALL AROUND	

CONCRETE (CONTINUED)

- C6. LAPPED SPLICE LENGTHS FOR HORIZONTAL BARS WITH MORE THAN 300mm CONCRETE CAST BELOW THE BAR & SPACED AT ≥ 150mm CENTRES TO COMPLY WITH THE FOLLOWING U.N.O:-

COVER	fc	N12	N16	N20	N24	N28	N32
≥25	≥20	770	1150	1570	-	-	-
≥30	≥25	630	980	1350	1740	-	-
≥40	≥32	510	770	1100	1440	1810	2230
≥50	≥40	460	630	890	1200	1530	1890

DO NOT INTERPOLATE INTERMEDIATE VALUES OF SPLICE LENGTHS.
LAPPED SPLICE LENGTHS FOR BARS IN COLUMNS REFER TO AS3600 OR SUPERINTENDENT.
EPOXY COATED BARS, BARS IN LIGHTWEIGHT CONCRETE & SLIP FORMED CONCRETE WILL REQUIRE LONGER SPLICE LENGTHS. REFER TO AS3600 OR SUPERINTENDENT.

- C7. LAPPED SPLICE LENGTHS FOR VERTICAL BARS (& HORIZONTAL BARS WITH LESS THAN 300mm CONCRETE CAST BELOW THE BAR) SPACED AT ≥150mm CENTRES TO COMPLY WITH THE FOLLOWING:-

COVER	fc	N12	N16	N20	N24	N28	N32
≥25	≥20	590	890	1210	-	-	-
≥30	≥25	490	750	1040	1340	-	-
≥40	≥32	390	600	840	1110	1400	1710
≥50	≥40	350	480	690	920	1180	1450

- NOT APPLICABLE FOR BARS IN COLUMNS.
DO NOT INTERPOLATE INTERMEDIATE VALUES OF SPLICE LENGTHS.
LAPPED SPLICE LENGTHS FOR BARS IN COLUMNS REFER TO AS3600 OR SUPERINTENDENT.
EPOXY COATED BARS, BARS IN LIGHTWEIGHT CONCRETE & SLIP FORMED CONCRETE WILL REQUIRE LONGER SPLICE LENGTHS. REFER TO AS3600 OR SUPERINTENDENT.
- C8. PROVIDE MINIMUM MESH LAPS TO CROSS WIRES OF REINFORCING MESH, SO THAT TWO OUTERMOST WIRES OF ONE SHEET OVERLAP TWO OUTERMOST WIRES OF ADJACENT SHEET BY AT LEAST 25mm, THUS:-

MESH TYPE	END LAP	SIDE LAP
RECTANGULAR MESHES	225	125
SQUARE MESHES SL102 TO SL42	225	225
SL81	125	125
TRENCH MESH	500	N/A

USE LAP LENGTHS BASED ON LARGEST WIRE SPACING. DO NOT LAP MORE THAN THREE SHEETS AT ANY ONE POINT.

- C9. REINFORCEMENT SHALL NOT BE HEATED OR WELDED ON SITE WITHOUT THE APPROVAL OF THE ENGINEER.
- C10. ALLOW FOR N12-300 SUPPORT BARS PERPENDICULAR TO ALL REINFORCEMENT WHERE NO PERPENDICULAR BARS ARE SHOWN ON PLAN.
- C11. REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS1302 AND AS4671 FOR 500 MPa REINFORCEMENT AND DUCTILITY CLASS N.
IN ACCORDANCE WITH AS1303, 1304 AND AS4671 FOR 500 MPa REINFORCEMENT DUCTILITY CLASS L.
- C12. DAMP PROOF MEMBRANE SHALL BE 'FORTECON' ORANGE POLYTHENE.
- C13. 250 INDICATES SUSPENDED SLAB THICKNESS.
- C14. 250 INDICATES SLAB ON GROUND THICKNESS.

STRUCTURAL STEEL

- S1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS4100, AS1554 AND AS4600.
- S2. STEEL MEMBERS TO HAVE THE FOLLOWING GRADES:

MEMBER	GRADE
HOT ROLLED SECTIONS UB's, UC's, PFC's AND ANGLES	300
HOLLOW SECTIONS CHS, SHS AND RHS	350
COLD FORMED PURLINS AND GIRTS	400
FLAT BARS, PLATES AND RODS	250

- S3. BOLT DESIGNATION:
- | | |
|--------|---|
| 4.6/S | GRADE 4.6 BOLTS TO AS1111 SNUG TIGHTENED |
| 8.8/S | HIGH STRENGTH GRADE 8.8 TO AS1252 SNUG TIGHTENED |
| 8.8/TB | HIGH STRENGTH GRADE 8.8 TO AS1252 FULLY TENSIONED TO AS4100 AS A BEARING JOINT |
| 8.8/TF | HIGH STRENGTH GRADE 8.8 TO AS1252 FULLY TENSIONED TO AS4100 AS A FRICTION JOINT WITH CONTACT SURFACES LEFT UNCOATED |

- S4. ALL BOLTS TO BE M20 GRADE 8.8/S U.N.O ON STRUCTURAL DRAWINGS.
NO STEEL TO STEEL CONNECTION TO HAVE LESS THAN 2 BOLTS.
- S5. ALL PLATES, GUSSETS, FINS ETC TO BE 10mm THICK MINIMUM.
ALL WELDS TO BE 6mm CONTINUOUS FILLET WELDS ALL AROUND U.N.O.
BUTT WELDS TO BE FULL PENETRATION.
ELECTRODES TO BE E48XX/W50X U.N.O.
ALL WELDS TO BE STRUCTURAL PURPOSE (SP) U.N.O.
- S6. THE BUILDER SHALL PROVIDE ALL CLEATS AND HOLES NECESSARY FOR ALL ATTACHMENTS WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
- S7. PROVIDE HOOK BOLTS FROM BRACING TO PURLINS AT BRACING MID POINT TO PREVENT SAG IN BRACING.
- S8. THE BUILDER SHALL MAINTAIN THE STRUCTURE AND STRUCTURAL STEEL IN A STABLE CONDITION DURING THE CONSTRUCTION AND SHALL PROVIDE TEMPORARY BRACING, FALSEWORK OR PROPPING AS REQUIRED TO ACHIEVE THIS. THIS BRACING ETC SHALL BE AT THE COST OF THE BUILDER.
- S9. THE BUILDER SHALL PROVIDE 4 COPIES OF STRUCTURAL STEEL SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER 14 DAYS PRIOR TO FABRICATION.
- S10. STRUCTURAL STEELWORK TO HAVE THE FOLLOWING SURFACE TREATMENT:

ELEMENT	SURFACE TREATMENT	SURFACE COATING
ALL STEEL	PICKLE TO AS1627 PART 5	HOT DIP GALVANISE TO AS4680:2006

- S11. ALL SITE WELDED GALVANIZED STEELWORK TO BE PAINTED WITH 2 COATS OF 'GALVANITE'.

FOR CONSTRUCTION

ISS	DATE	COMMENT	DBCE Dennis Bunt Consulting Engineers Pty Ltd Suite 1, Building 8, 49 Frenchs Forest Road East, Frenchs Forest, NSW 2086 P.O. Box 652, Forestville, NSW 2087 Ph: 02 9451 3455 Fax: 02 9451 3466 Email: info@dbce.com.au ABN 23 039 013 724	CLIENT: SIGNPAC		TITLE: STRUCTURAL NOTES	DRAWN RAS	DESIGN JL	DATE: Nov'16
1	23/11/16	FOR CONSTRUCTION					JOB NO: 16335		DWG NO: S01
2	25/11/16	STEELWORK NOTES ADDED							
				PROJECT: SIGNPAC DIGITAL SIGN			SCALE @ A3:AS SHOWN		REV: 2



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Contact | T: 1800 140 940 | P: 02 9987 4900 | F: 02 9987 4911 | E: Sales@signpac.com.au

Schedule of Colours & Finishes

Brookvale Public School
2-8 Old Pittwater Rd, Brookvale NSW 2100

Version A



ABN 23 039 013 724
Suite 1, Building 8
49 Frenchs Forest Road East
Frenchs Forest NSW 2086

PO Box 652
Forestville, NSW, 2087
PH: (02) 9451 3455
FX: (02) 9451 3466
Email: info@dbce.com.au

Ref: 16335

27th March 2020

Signpac
20/45 Leighton Place
Hornsby, NSW, 2077

Structural Design Certification
Signpac Digital Signs

We, Dennis Bunt Consulting Engineers Pty Ltd, certify that we have designed the structural components for the single sided and double sided digital signs, as shown on our structural engineering drawings for job number 16335:- S01 [2], S02 [4], S03 [4], S04 [1], S05 [2] & S06 [2]. We certify that the digital signs are structurally adequate for Wind Region A, B & C, Terrain Category 3 in accordance with the following structural Australian Standards and relevant structural sections of the BCA.

- AS 1664.1: 1997 Aluminium Structures
- AS 4100: 1998 Steel Structures
- AS 3600: 2018 Concrete Structures
- AS 1170 Structural Design Actions

We also certify that the footing has been designed for an allowable bearing pressure of 150 kPa in Wind Region A, B & C, Terrain Category 3.

This certificate shall not be construed as relieving any other party of their responsibilities, liabilities or obligations.

Yours Faithfully,

John Linsell BE(Hons), MIEAust, CPEng, NPER(Struct)
for Dennis Bunt Consulting Engineers Pty Ltd.



Electronic Digital Sign Electrical requirements

Please pass this information to your electrical contractor.

Power: 240v 50hz

Amps usage:

Single side sign: approx. 7amps

Double side sign: Approx. 12amps

Electrical Cable:

For short runs 2.5mm TPS twin & earth. Thicker dependant on distance.

1. The sign must be on its own circuit, sourced from the nearest electrical point/building that has a switchboard where the sign has its own isolation switch. A 15amp isolation switch for single sided sign and a 20 amp for a double-sided sign will suffice.
2. On the sign frame, a lockable waterproof on/off switch needs to be secured on the backside of the frame, either up high or near the footing.
3. The sign will come with a cable directly connected by us in the inside. This cable has approx. 5 Mtr of length. You can run this cable down the inside of the post by drilling an access hole from the inside of the screen cabinet and bring it out at the bottom of the frame and connect it to the waterproof on / off switch. The posts are made of aluminium.
4. We highly suggest that you only start your work after we have installed the sign.

Ground Search

Please include in your assessment a ground search of the area, including the location of where the sign will be going and pass that search report to your / our customer. Please ask them to send this onto us for our records. If there are any underground services where the sign is to be installed, please alert us and the customer so an alternative location can be found.

Should you need any further information, please ask the client who the Signpac contact person is for the job and call anytime.

HEAD OFFICE

20/45 Leighton Place
Hornsby NSW 2077

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Cannon Hill, Brisbane QLD 4170

VIC OFFICE

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Melbourne VIC 3000