

GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. CONSTRUCTION FROM THESE DRAWINGS AND THEIR ASSOCIATED CONSULTANTS DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY LOCAL AUTHORITY.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS AND WITH BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING A STABLE CONDITION OF THE SITE WITHOUT ADVERSELY EFFECTING SURROUNDING PROPERTIES INCLUDING SERVICES. THIS INCLUDES ALL THE NECESSARY APPROVALS FOR SHORING AND ANCHORING SYSTEMS.
- ALL DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE BUILDER ON-SITE. ENGINEERS DRAWING SHALL NOT BE SCALED FOR DIMENSIONS.
- UNLESS NOTED OTHERWISE ALL MEASUREMENT ARE IN MILLIMETERS (mm) AND ALL LEVELS ARE IN METERS (m).
- ALL LOADING TAKEN INTO ACCOUNT IS IN ACCORDANCE WITH AS1170.1

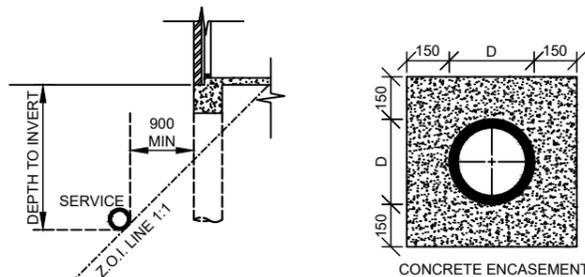
DESIGN LOADING IN ACCORDANCE WITH AS1170.1	
DEAD LOAD (kPa)	
RESIDENTIAL FLOOR	1.5
SUSPENDED SLAB	2.5
ROOF	1.0
LIVE LOAD (kPa)	
RESIDENTIAL FLOOR	1.5
BALCONY	2.0
ROOF	0.25

ABBREVIATIONS:

A.J	ARTICULATION JOINT		
BTM	BOTTOM		
CTS	CENTRES	CTC	CENTRE TO CENTRE
DIA	DIAMETER		
FFL	FINISHED FLOOR LEVEL	FGL	FINISHED GARAGE LEVEL
MAX	MAXIMUM	MIN	MINIMUM
NSOP	NOT SHOWN ON PLAN		
U.N.O	UNLESS NOTED OTHERWISE		

EXCAVATION

- ALL EXCAVATION SHALL BE PERFORMED NEATLY TO THE LINES, LEVELS AND GRADES SPECIFIED IN THE ARCHITECT DRAWINGS.
- ALL TOPSOIL AND VEGETATION SHALL BE STRIPPED FROM THE BUILDING PLATFORM PRIOR TO COMMENCEMENT OF EARTHWORKS.
- VERTICAL OR NEAR-VERTICAL PERMANENT EXCAVATION WITHIN 2m OF BUILDING AND DEEPER THAN 0.6m IN MATERIAL OTHER THAN ROCK SHALL BE ADEQUATELY RETAINED OR BATTERED. THE EFFECTS OF EXCAVATION ON DRAINAGE OR FOUNDATION DRYING SHALL BE CONSIDERED.
- TEMPORARY EXCAVATION IN THE AREA OF THE FOOTING SHALL BE CARRIED OUT ONLY WHERE ADEQUATE SUPPORT FOR THE FOOTING SYSTEM IS MAINTAINED.
- WHERE THERE EXISTS AN UNDERGROUND SERVICE TRENCH OR PIPE RUNNING PARALLEL TO THE FOOTING EDGE, THE FOOTING SHALL BE SUPPORTED ON MASS CONCRETE PIERS TAKEN BELOW THE ZONE OF INFLUENCE (Z.O.I.) LINE.
- IN THE EVENT WHERE THE FOOTING EDGE IS LESS THAN 900mm AWAY FROM THE SERVICE, THE SERVICE SHALL BE CONCRETE ENCASED AS SHOWN.



- THE LOCATION AND DEPTH TO THE INVERT OF THE UNDERGROUND SERVICE IS TAKEN FROM SEWER PEG OUT. THE FINAL EXTENT IS TO BE VERIFIED ON-SITE.
- ALL PIERS TO BE CLEANED AND DE-WATERED PRIOR TO POURING OF CONCRETE.
- IT IS THE RESPONSIBILITY OF THE BUILDER/SUBCONTRACTOR TO ENSURE CORRECT PIER SETOUT.

FOUNDATIONS

- FOUNDATION HAVE BEEN DESIGNED IN ACCORDANCE WITH AS2870 FOR THE FOLLOWING BEARING PRESSURE.

ELEMENT	MIN CAPACITY (kPa)	TYPICAL STRATA
PAD & FOOTING	150	CONTROLLED FILL
PIERS	600	SHALE/ROCK

- FOUNDATION SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER FOR THIS BEARING PRESSURE BEFORE PLACING ANY MEMBRANE, REINFORCEMENT AND CONCRETE.
- FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS U.N.O.
- WHERE FOOTING ARE OVER-EXCAVATED FILL OVER-EXCAVATED AREAS WITH BLENDED CONCRETE GRADE SAME AS THE FOOTING TO A MINIMUM THICKNESS OF 50mm.
- KEEP FOOTING CLEAN AND FREE OF LOOSE MATERIAL BEFORE INSPECTION, IMMEDIATELY PRIOR TO AND DURING POURING OF CONCRETE.
- DO NOT EXCEED A RISE OF 100mm IN A RUN OF 300mm FOR THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS.
- DO NOT BACKFILL RETAINING WALLS (OTHER THEN CANTILEVER WALLS) UNTIL FLOOR CONSTRUCTION AT THE TOP AND BOTTOM IS COMPLETE. ENSURE FREE DRAINING BACKFILL AND DRAINAGE IS IN PLACE.
- FOOTINGS ARE TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT FROM EXPOSURE.
- TERMITE BARRIERS (CHEMICAL AND OTHER BARRIERS) MUST BE INSTALLED IN ACCORDANCE WITH BCA REQUIREMENTS.

CONTROLLED FILL

- FILLING USED FOR THE SUPPORT OF A SLAB SHALL BE CONTROLLED FILL OR ROLLED FILL.
- SAND FILL UP TO 0.8m DEEP THAT IS WELL COMPACTED BY VIBRATING PLATE OR VIBRATING ROLLER INLAYERS NO MORE THEN 0.3m THICK IS DEEMED TO BE CONTROLLED FILL.
- FOR SAND FILL NOT CONTAINING GRAVEL-SIZED MATERIAL A BLOW COUNT OF 7 OR MORE PER 0.3m USING THE PENETROMETER TEST DESCRIBED IN AS1289.6.3.3 IS DEEMED TO SATISFY THIS REQUIREMENT.
- NON-SAND FILL UP TO 0.4m DEEP THAT IS WELL COMPACTED BY A MECHANICAL ROLLER IN LAYERS NOT MORE THAN 0.15m THICK IS DEEMED TO BE CONTROLLED FILL. CLAY FILL SHALL BE MOIST DURING COMPACTION.
- ROLLER FILL CONSISTS OF MATERIAL COMPACTED IN LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR OR SIMILAR EQUIPMENT. THE DEPTH OF ROLLER FILL SHALL NOT EXCEED 0.6m COMPACTED IN LAYERS NOT MORE THAN 0.3m THICK FOR SAND MATERIAL OR 0.3m COMPACTED IN LAYERS MORE THAN 0.15m THICK FOR OTHER MATERIAL.

MASONRY

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3700 WITH AMENDMENTS AND OTHER RELEVANT CODES.
- WALLS OF MASONRY EXTENSIONS, OR MASONRY VENEER EXTENSIONS, SHALL BE ARTICULATED AT THE JUNCTION WITH THE EXISTING BUILDING.
- STRENGTHS OF BRICKS, CLASS OF BLOCKS AND TYPE OF MORTAR SHALL BE AS FOLLOWS:

TYPE	MORTAR COMPOSITION (C:L:S)	CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH (MPa)
BLOCKWORK	1 : 1 : 0.5 + WATER THICKENER	15
BRICKWORK	1 : 1 : 0.6 + WATER THICKENER	20

- TWO LAYERS OF APPROVED METAL BASED SLIP MATERIAL SHALL BE USED OVER ALL LOAD-BEARING WALLS THAT SUPPORT CONCRETE SLABS. NON LOAD-BEARING WALLS SHALL HAVE 10mm COMPRESSIBLE MATERIAL AND TIES TO THE SLAB SOFFIT.
- GROUT FOR CORE FILLING SHALL HAVE MAX STRENGTH $P_c = 25\text{MPa}$ WITH A SLUMP OF 230mm, MAX AGGREGATION OF 10mm AND MIN CEMENT CONTENT OF 300 kg/m^3 U.N.O, TESTING SHALL COMPLY WITH AS3600 FOR PROJECT ASSESSMENT.
- MORTAR ADMIXTURE SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANIZED STEEL SLIP JOINT BETWEEN CONCRETE SOFFIT AND THE TOP OF THE MASONRY ELEMENT U.N.O.
- NO CHASES OR RECESSES ARE PERMITTED IN THE LOAD BEARING MASONRY WITHOUT APPROVAL OF THE ENGINEER.
- NO BRICKWORK OR BLOCKWORK SHALL BE CONSTRUCTED ON SUSPENDED SLABS UNTIL ALL PROPPING HAS BEEN REMOVED FROM THE UNDERSIDE OF THE SLAB AND THE CONCRETE HAS THE SPECIFIED 28 DAY CYLINDER STRENGTH VERIFIED BY TEST.
- 10mm WIDE ARTICULATION JOINTS TO BE PROVIDED AT MAX 6m CTS AS PER AS3700 AND AS4773 REQUIREMENTS U.N.O. PROVISIONS TO BE CO-ORDINATED WITH ARCHITECT.

CONCRETE

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600.
- CONCRETE SHALL BE SUPPLIED IN ACCORDANCE WITH AS1379.

CONCRETE QUALITY				
ELEMENT	SLUMP (mm)	MAX AGGREGATE SIZE (mm)	CEMENT TYPE	f_c (MPa)
FOOTING & PIER ¹	80	20	A	25
SLAB ON GROUND ¹	80	20	A	25
SUSPENDED SLAB & COLUMN	80	20	A	32
CONCRETE BLOCKWALL	200	6	A	20
RETAINING WALL	200	6	A	20

¹ 32MPa CONCRETE STRENGTH MUST BE USED IN SALINE ENVIRONMENTS.

- CLEAR CONCRETE COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOWS U.N.O.

CONCRETE CLEAR COVER (mm)			
ELEMENT	CAST AGAINST FORMS COMPLYING WITH AS1509		CAST AGAINST FORMWORK/GROUND
	SHELTERED	EXPOSED TO WEATHER/WATER	
COLUMN & PEDESTAL	40	50	75
BEAM	25	40	65
FOOTING		50	75
SLAB & WALL	30	50	75

- SIZES OF CONCRETE DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- NO HOLES OR CHASES OTHER THAN THOSE ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT APPROVAL OF THE ENGINEER.
- CONCRETE CURING AND STRIPPING TO BE IN ACCORDANCE WITH RELEVANT SAI CODES. CONCRETE TO BE CURED A MINIMUM OF 7 DAYS.
- CONCRETE SLABS TO BE VIBRATED.
- FORMWORK TO BEAMS AND SLABS SPANNING GREATER THAN 5m SHALL BE PRECAMBERED UPWARDS BY 1/500 OF THE CLEAR SPAN IN EACH, U.N.O.
- MIN. THREE-MONTHS DRYING OF THE CONCRETE IS REQUIRED BEFORE PLACEMENT OF BRITTLE SURFACES, OTHERWISE SL92 MESH OR EQUIVALENT MUST BE USED.

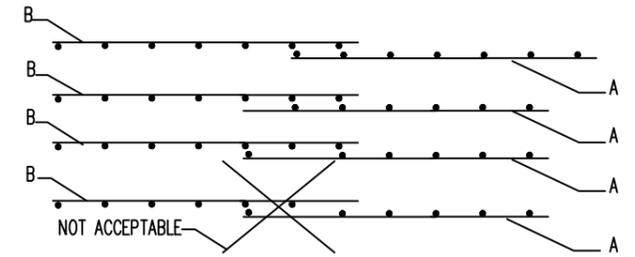
REINFORCEMENT

- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY, IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITION SHOWN. THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICES WHERE LAP LENGTHS ARE NOT SHOWN AND SHALL SATISFY THE REQUIREMENT OF AS3600.
- WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
- PIPES OR CONDUITS SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWING.
- REINFORCEMENT SYMBOLS (AS PER AS1302):

N	500N GRADE DEFORMED BAR
S	250S GRADE DEFORMED BAR
R	250R GRADE ROUND BAR
SL	500L GRADE WIRE MESH

 THE NUMBER FOLLOWING THESE SYMBOLS IS THE BAR DIAMETER IN mm
- ALL WELDED MESH FABRIC SHALL BE SUPPLIED IN FLAT SHEETS AND SHALL COMPLY WITH CURRENT AS1304 AND AMENDMENTS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS BEFORE REINFORCEMENT IS COMPLETED. THE CONTRACTOR SHALL ALLOW TWO HOURS FOR THE ENGINEER'S INSPECTION AFTER THE COMPLETION OF THE REINFORCEMENT.
- CONCRETE SHALL NOT BE ORDERED UNTIL REINFORCEMENT IS APPROVED BY ENGINEER.

LAPPING OF MESH



TIMBER

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS1684 AND AS1720.
- THE MIN. SOFTWOOD GRADE SHALL BE F7 & MIN. HARDWOOD GRADE SHALL BE F11, U.N.O.
- EXTERNAL TIMBER TO BE EITHER DURABILITY CLASS I OR II. SUPPLEMENTARY TREATMENT TO MANUFACTURER'S SPECIFICATION SHALL BE PROVIDED TO ALL CUT SURFACES TO ACHIEVE REQUIRED HAZARD LEVEL EXPOSURE CLASSIFICATION.
- ALL BOLTS IN TIMBER CONSTRUCTION TO BE M16 4.6/S, U.N.O. WASHERS UNDER HEAD AND NUTS TO BE 2.5 TIMES BOLT DIA.
- NO TIMBER BEAMS OR JOISTS TO BE NOTCHED UNLESS SPECIFIED BY ENGINEER.
- ALL TIMBER JOINTS SHALL BE 100mm FROM LOOSE KNOTS, SEVERE SLOPING GRAIN, GUM VEINS OR OTHER MINOR DEFECTS.
- BLOCKING SHALL BE PROVIDED FOR JOISTS DEPENDING ON THE SPAN. FOR JOISTS WITH DEPTH GREATER THAN 150mm WHERE A CONTINUOUS TRIMMING JOIST IS NOT PROVIDED AT END, BLOCKING IS REQUIRED AT MAX 1.8m CTS.

JOIST BLOCKING		
SPAN RANGE (m)	QUANTITY	SPACING
< 3	0	
3 < 4.2	1	MID-SPAN
4.2 < 6	2	1/3 SPAN
- HOT-DIPPED GALVANIZED NAILS/SCREWS SHALL BE USED FOR ALL TIMBER CONNECTIONS.

STRUCTURAL STEEL

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4100, AS1538, AS1554 AND THE PRODUCT SPECIFICATION.
- ALL STEEL SHALL BE GRADE 300 IN ACCORDANCE WITH AS3679. ALL HOLLOW SECTIONS SHALL BE GRADE 350 IN ACCORDANCE WITH AS1163, U.N.O.
- ALL HIGH STRENGTH BOLTS ARE TO BE IN ACCORDANCE WITH AS1252. ALL COMMERCIAL BOLTS ARE TO BE IN ACCORDANCE WITH AS1511.
- THE BOLT DESIGNATION SHALL BE AS FOLLOWS U.N.O.

BOLT DESIGNATION	
BOLT NAME	DESCRIPTION
4.6S	GRADE 4.6, SNUG TIGHTENED
8.8S	GRADE 8.8, SNUG TIGHTENED
8.8TB	GRADE 8.8, FULLY TIGHTENED ACTING AS A BEARING JOINT ¹
8.8TF	GRADE 8.8, FULLY TENSIONED ACTING AS A FRICTION JOINT ¹

¹ ALL FULLY TIGHTENED JOINTS ARE TO BE IN ACCORDANCE WITH AS1511

- THE MIN. CONNECTION SHALL BE 2M20 8.8/S, 10mm GUSSET PLATES AND 8mm CONTINUOUS FILLET WELD, U.N.O.
- ALL WELDING SHALL BE CATEGORY SP USING CLASS E41XX ELECTRODES. ALL BUTT WELDS SHALL BE CATEGORY SP COMPLETE PENETRATION.
- ALL STRUCTURAL STEEL BEARING ON MASONRY TO BE BEDDED ON 20mm THICK AND FULL WIDTH NON-SHRINKABLE CEMENT MORTAR GROUT PAD, U.N.O.
- GROUTING OF ANCHOR BOLT SLEEVES AND BASE PLATES SHALL BE COMPLETED USING HIGH STRENGTH NON-SHRINKABLE GROUT.
- ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED, EXCEPT WHEN CONCRETE ENCASED, USED INTERNALLY OR NOTED OTHERWISE. IF WELDING IN-SITU IS REQUIRED ON GALVANIZED MATERIAL, THE AFFECTED AREA MUST BE PAINTED/COATED IN ACCORDANCE WITH AS4680.
- ALL PURLIN BOLTS SHALL BE M12 4.6/S AND HAVE MINIMUM OF 2 BOLTS PER PURLIN END.
- SUBSTITUTIONS FOR STEEL SECTIONS SHOWN ON DRAWINGS SHALL NOT BE MADE WITHOUT CONSENT OF THE ENGINEER.

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A	ISSUED FOR COMMENT	H.N. 04/12/20
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		184-S20	B	A3	1
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LEGEND AND DETAILS

- Ø450 MASS CONCRETE BORED PIER
PIERS TO BE SOCKET INTO ROCK
- Ø300 MASS CONCRETE PIER
PIERS TO BE SOCKET INTO ROCK
- PIER ENCASEMENT
- SCREW PILE
- MASS CONCRETE FOOTING
- REINFORCED CONCRETE FOOT (REFER TO SCHEDULE)
- COMPLETE WAFFLE POD
1090 x 1090 STANDARD POD, 110 STEMS AROUND POD
300 DEPTH FOR RESIDENTIAL FLOOR
225 DEPTH FOR GARAGE/ALFRESCO/PATIO
- SET DOWN POD (REFER TO SET DOWN TYPICAL DETAILS)
- STARTING WAFFLE POD
- 600 M² CUT-OUT FOR MASS CONCRETE PAD
UNDER LOAD BEARING POINT
- SP/B STEEL POST BELOW (REFER TO SCHEDULE)
- SP/A STEEL POST ABOVE (REFER TO SCHEDULE)
- DOUBLE BRICK WALL BELOW
- BRICK VENEER WALL BELOW
- 110mm BRICK WALL BELOW
- TIMBER WALL BELOW
- DOUBLE BRICK WALL ABOVE
- BRICK VENEER WALL ABOVE
- SINGLE BRICK WALL ABOVE

- TIMBER WALL ABOVE
- TIMBER HEBEL WALL BELOW
- TIMBER HEBEL WALL ABOVE
- NON-LOAD BEARING WALL (BELOW / ABOVE)
- WALL TO BE DEMOLISH (BELOW / ABOVE)
- REINFORCED CONCRETE COLUMN / BLADE WALL BELOW
(REFER TO SCHEDULE)
- REINFORCED CONCRETE COLUMN / BLADE WALL ABOVE
(REFER TO SCHEDULE)
- BLOCK WORK ABOVE
- BLOCK WORK BELOW
- ENGAGE PIER
- REINFORCED DINCEL WALL BELOW (WIDTH OF DCL)
(REFER TO DETAIL)
- REINFORCED DINCEL WALL ABOVE (WIDTH OF DCL)
(REFER TO DETAIL)
- TIMBER POST BELOW (100X100)
- TIMBER POST ABOVE (100X100)
- PFC STEEL BEAM (REFER TO SCHEDULE)
- STEEL BEAM (REFER TO SCHEDULE)
- STEEL LINTEL ANGLE (REFER TO TABLE)
- T-SECTION STEEL LINTEL (REFER TO SCHEDULE)
- TIMBER BEAM (REFER TO SCHEDULE)
- REINFORCED CONCRETE BEAM (REFER TO SCHEDULE)
- STEP DOWN
- GRADED DRAIN
- KEY CONSTRUCTION JOINT (REFER TO DETAIL)

- ISOLATION JOINT - 10mm POLYETHYLENE (LOCATED
BETWEEN WALLS/COLUMNS AND NEW SLAB)
- SAWN CONTROL JOINT (REFER TO DETAIL)
- VOID
- 40mm SET-DOWN IN SLAB IN WET AREAS (REFER
TO SCHEDULE)
- DRIVEWAY SLAB 'S1'
- PAVEMENT SLAB 'S2'
- REINFORCED CONCRETE SLAB THICKNESS
- 2N12 TRIMMER BARS 1200 LONG EACH WAY
- 2N12 1200 LONG TRIMMER BARS
- JOIST HyJOIST, DIRECTION ALONG RED LINE
(REFER TO SCHEDULE)
- JOIST HySPAN, DIRECTION ALONG RED LINE
(REFER TO SCHEDULE)
- RAFTER, DIRECTION ALONG RED LINE
(REFER TO SCHEDULE)
- FILLET WELD - SEE NOTE 4
- STEEL RODS BRACING (RODS DIAMETER)
- STEEL BRACING (BRACING REFERRING)
(REFER TO SCHEDULE)
- SINGLE METAL AS PER THE AS1684.2
(REFER TO DETAIL)
- DOUBLE METAL AS PER THE AS1684.2
(REFER TO DETAIL)
- PLYWOOD BRACE (REFER TO DETAIL)

- UNIPIER BRACE (REFER TO DETAIL)
- NATURAL GROUND LEVEL
- ROAD LEVEL
- BONDEK DIRECTION AND THICKENS

DRIVEWAY SLAB SLAB 'S1': 120 THICK SLAB, SL82 FABRIC TOP
POUR DRIVEWAY SLABS ON 100 COMPACTED CRUSHED ROCK ALL CONCRETE TO BE PLACED BY PUMPING AND COMPACTED WITH A VIBRATOR NOTE: 1. MAX 6m SAWN CONTROL JOINT 2. MAX 15m KEYED CONSTRUCTION JOINT 3. MAX 30m EXPANSION JOINT
PAVING SLAB 'S2' 100 THICK SLAB, SL72 FABRIC TOP
ALL SLABS LAID ON MIN. 50 THICKNESS OF CONSOLIDATED SAND COVERED WITH A 0.3 THICK POLYTHENE MEMBRANE WITH ALL JOINTS PROPERLY LAPPED AND TAPED. ALL CONCRETE IS TO BE PLACED BY PUMPING & COMPACTED WITH A VIBRATOR NOTE: 1. MAX 4m SAWN CONTROL JOINT 2. MAX 10m KEYED CONSTRUCTION JOINT 3. MAX 20m EXPANSION JOINT

NON LOAD BEARING STEEL LINTEL SCHEDULE			
SPAN	MAXIMUM HEIGHT OF BRICK OF LINTEL	LINTEL SIZES	MINIMUM END BEARING
0-3000	430	100X100X6.0 GALINTEL SOLID BASE ANGLE	110
3001-3600	430	150X100X6.0 GALINTEL SOLID BASE ANGLE	150
0-2400	1200	100X100X6.0 GALINTEL SOLID BASE ANGLE	110
2401-3000	1200	150X100X6.0 GALINTEL SOLID BASE ANGLE	150
3001-3600	1200	150X100X10 TRADITIONAL ANGLE	150
0-1800	3000	100X100X6.0 GALINTEL SOLID BASE ANGLE	150
1801-3000	3000	150X100X10 TRADITIONAL ANGLE	150

NOTE:

- MINIMUM THREE COURSES OF BRICK ABOVE THE LINTEL.
- ALL STEEL LINTELS TO BE HOT DIPPED GALVANIZED.
- ABOVE ALL LINTELS, PROVIDE M.E.T MASONRY REINFORCEMENT FOR 2 COURSES AND CONTINUE 1000mm PAST OPENING.

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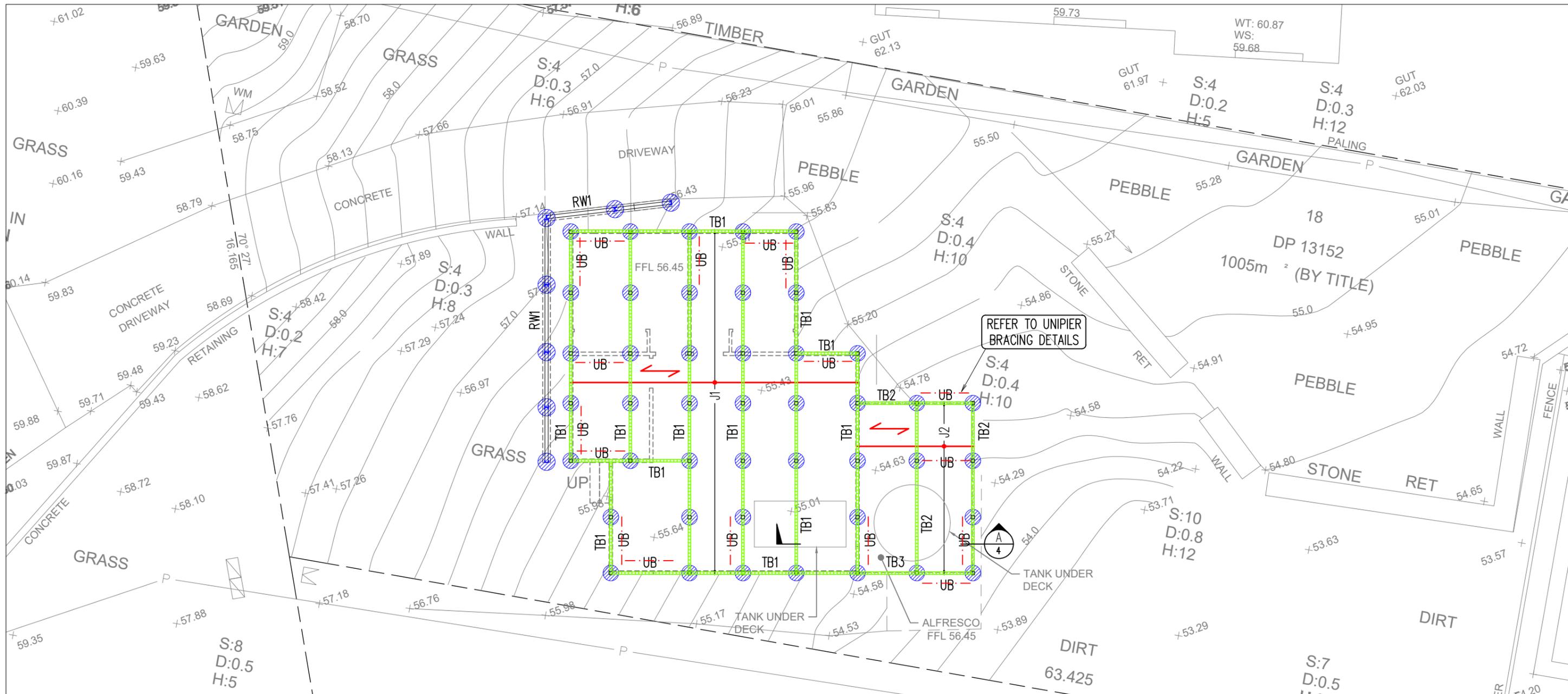
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THE DRAWING IS CONFIDENTIAL AND SHALL ONLY BE USED FOR THE PURPOSE OF THE NOMINATED PROJECT



GROUND FLOOR TIMBER JOIST AND BEARER SLAB PLAN

SCALE 1:100

NOTES

- REFER TO SHEET 1 FOR GENERAL NOTES.
- REFER TO ARCHITECTURAL PLANS FOR LEVELS, STEPS AND FOLDS
- DO NOT SCALE DRAWINGS.
- EXTENT AND LOCATION OF DROP EDGE BEAMS TO BE VERIFIED ON-SITE AFTER CUT AND FILL BENCHING LEVELS.
- CUT AND FILL LINE IS INDICATIVE, TO BE VERIFIED ON-SITE BY BUILDER.
- BUILDER TO ENSURE CORRECT PIER SETOUT.
- BUILDER RESPONSIBLE TO ENSURE NO DAMAGE OCCURS TO EXISTING SERVICES
- ALL TIMBER DESIGN AND CONSTRUCTION TO BE AS1720 U.N.O.
- AS 1684 IS RELEVANT TO DOMESTIC CONSTRUCTION IN SHELTERED LOCATIONS.
- SOFTWOOD MINIMUM GRADE F7 U.N.O. HARDWOOD MINIMUM GRADE F11 U.N.O.
- EXTERNAL TIMBER TO BE EITHER HARDWOOD DURABILITY CLASS I OR II OR IMPREGNATED GRADE F7. PRESSURE TREATED TO AS1684 AND RE-DRILLED PRIOR TO USE. SUPPLEMENTARY TREATMENT SHALL BE APPLIED TO ALL CUT SURFACES. PROVIDE DOCUMENTATION.
- ALL BOLTS IN TIMBER CONSTRUCTION TO BE MIN. M16 U.N.O. BOLT HOLES TO BE DRILLED EXACT SIZE. WASHERS UNDER HEADS AND NUTS TO BE AT LEAST 2.5 TIMES BOLT DIAMETER.

- FINISHED TIMBER SIZES:
 SEASONED SOFTWOOD +5,-0mm
 UNSEASONED SOFTWOOD F7+3,-3mm
 SEASONED HARDWOOD +2,-0mm
 UNSEASONED HARDWOOD -3,-3mm
 (SEE ALSO CLAUSE 1.6.2 IN AS 2082)
- ALL TIMBER JOINTS AND NOTCHES TO BE 100mm MINIMUM FROM LOOSE KNOTS. SEVERE SLOPING GRAIN, GUM VEINS OR OTHER MINOR DEFECTS.
- BLOCKING IS NOT REQUIRED
 - FOR JOISTS SPANNING LESS THAN 3m. FOR JOISTS SPANNING GREATER THAN 3m AND LESS THAN 4.2m PROVIDE ONE ROW OF BLOCKING MID-SPAN.
 - FOR JOISTS SPANNING GREATER THAN 4.2m AND UP TO 6.0m PROVIDE TWO ROWS OF BLOCKING AT 1/3 POINTS.
 - FOR DEEP JOISTED FLOORS WHERE A CONTINUOUS TRIMMING JOIST IS NOT PROVIDED AT END OF JOISTS.
 - BLOCKING IS REQUIRED AT 1800 MAXIMUM CENTERS. (REFER TO AS 1684)

TIMBER BEAM/ JOIST SCHEDULE

BEAM	SIZE	SPACING (mm)
TB1	2/ 150 X 45 Hy SPAN LVL TO AS/NZS 4357	N/A
TB2	2/ 190 X 45 F7 PINE (H3 TREATED)	N/A
J1	90 X 63 Hy SPAN LVL TO AS/NZS 4357	450
J2	140 X 45 F7 PINE (H3 TREATED)	450

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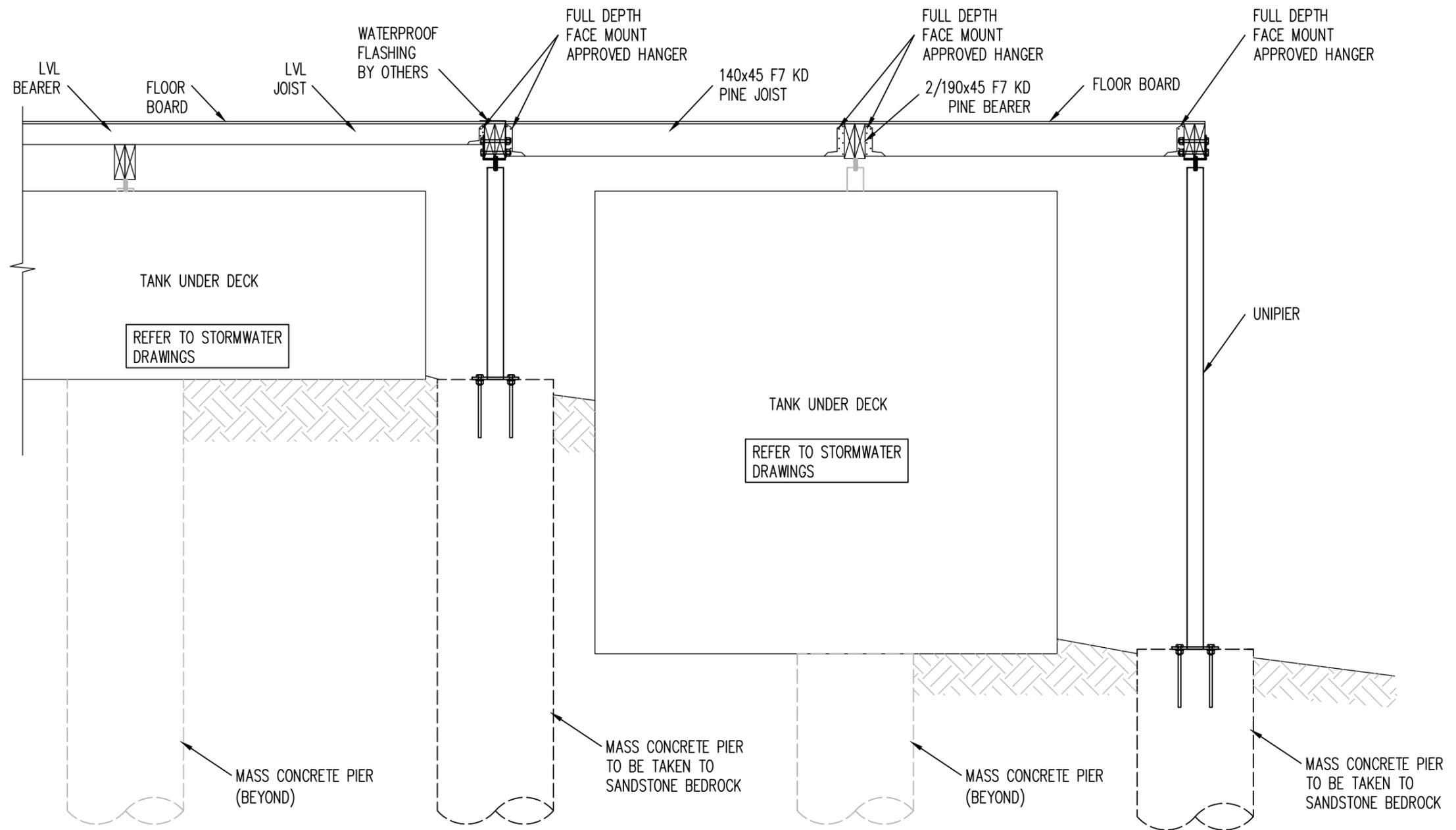
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		SIZE	SHEET
		A3	3

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SECTION A
SCALE 1:20

No.	DESCRIPTION	APPROVED & DATE
A	ISSUED FOR COMMENT	H.N. 04/12/20
B	REVISED JOIST AND BEARER AND ADDED SECTION AS PER RF1.1	H.N. 16/12/20

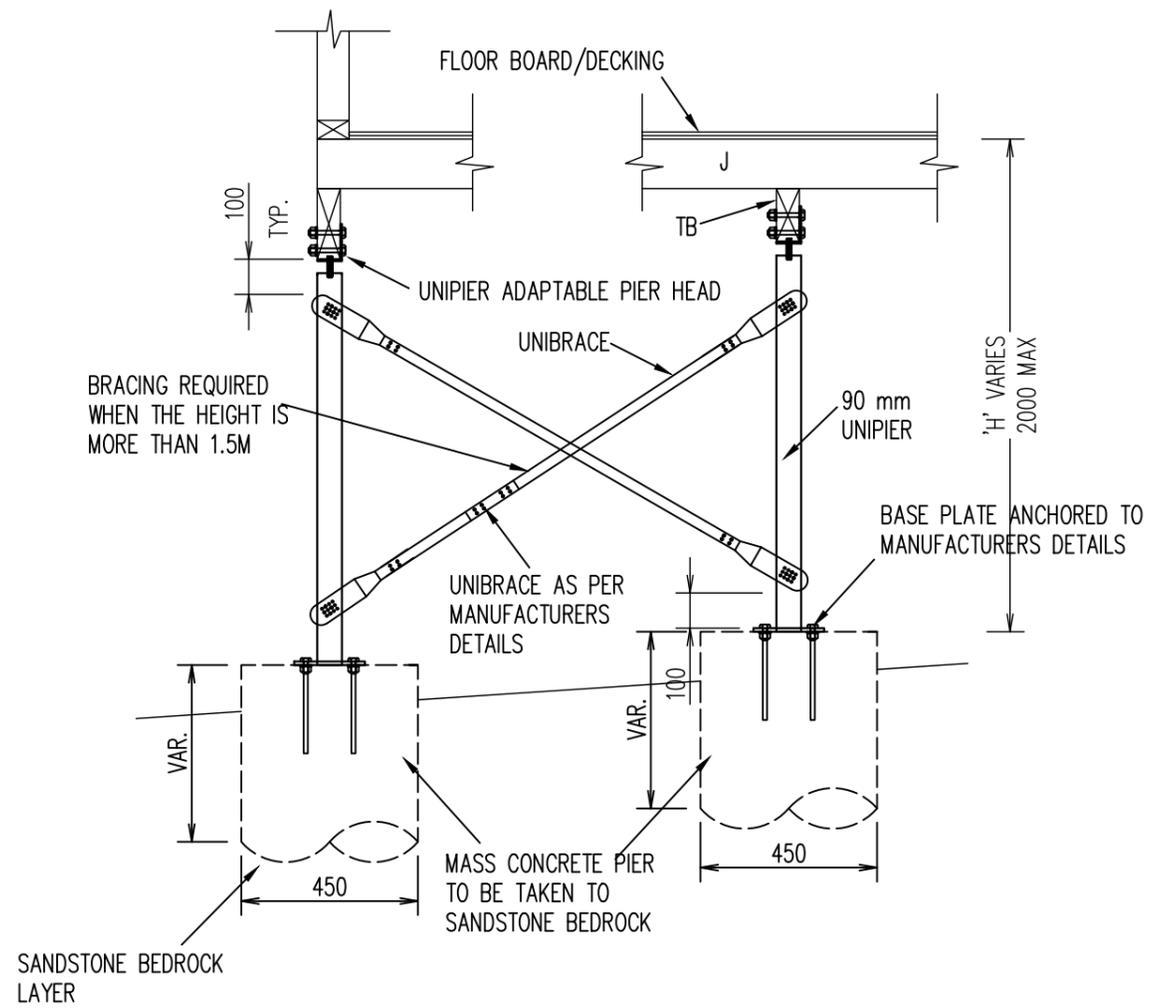
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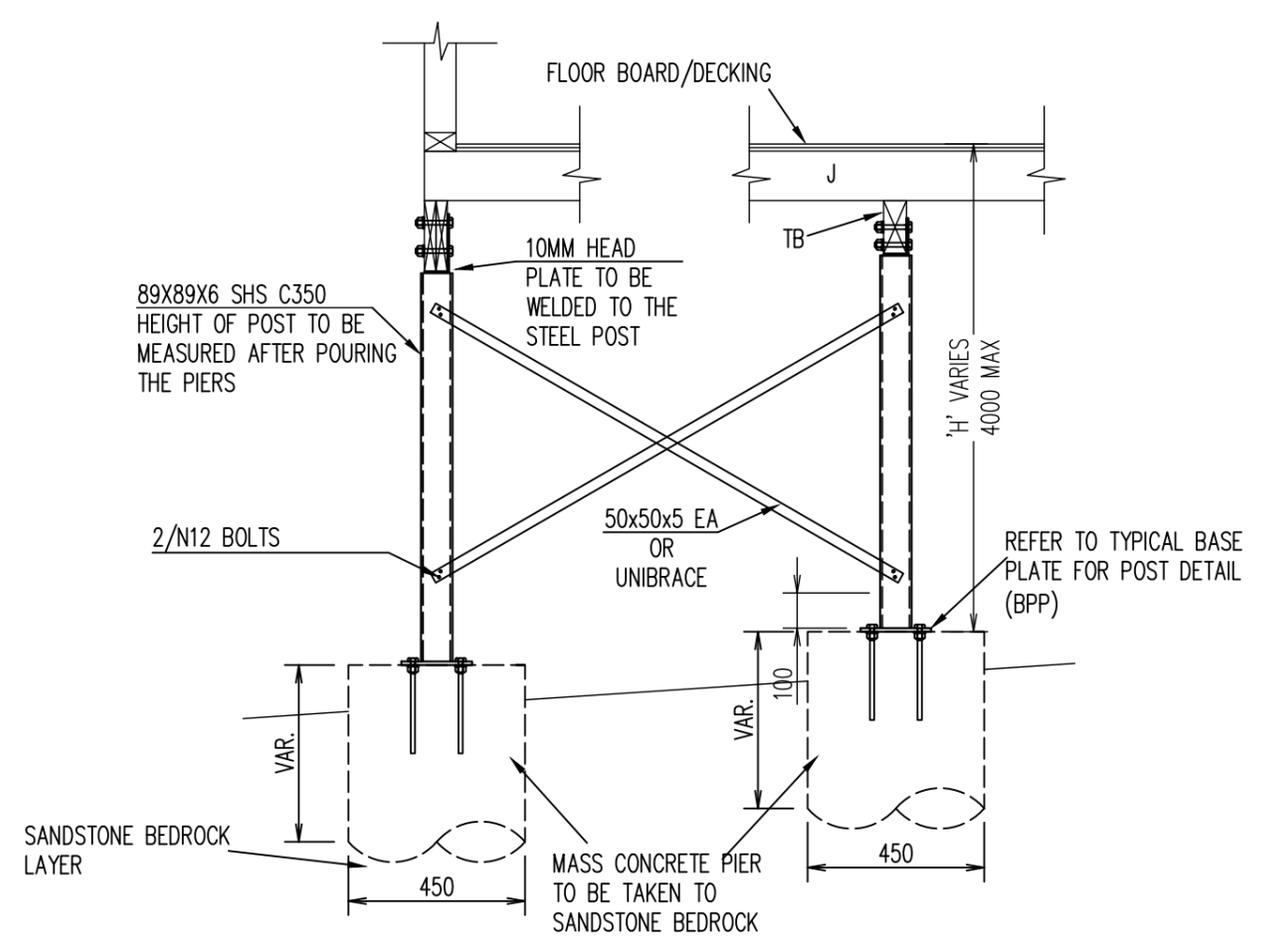
P 9635 9890
E info@horizonengineers.com.au
A Suite 6, 7 Parkes Street,
Parramatta, NSW, 2150

PROJECT LOCATION		36 WEEROONA AVE, ELANORA HEIGHTS			
CHECKED	H.N.	SECTIONS			
DESIGNED	H.L.	JOB NUMBER	REVISION	SIZE	SHEET
DATE OF ISSUE	04/12/2020	184-S20	B	A3	4

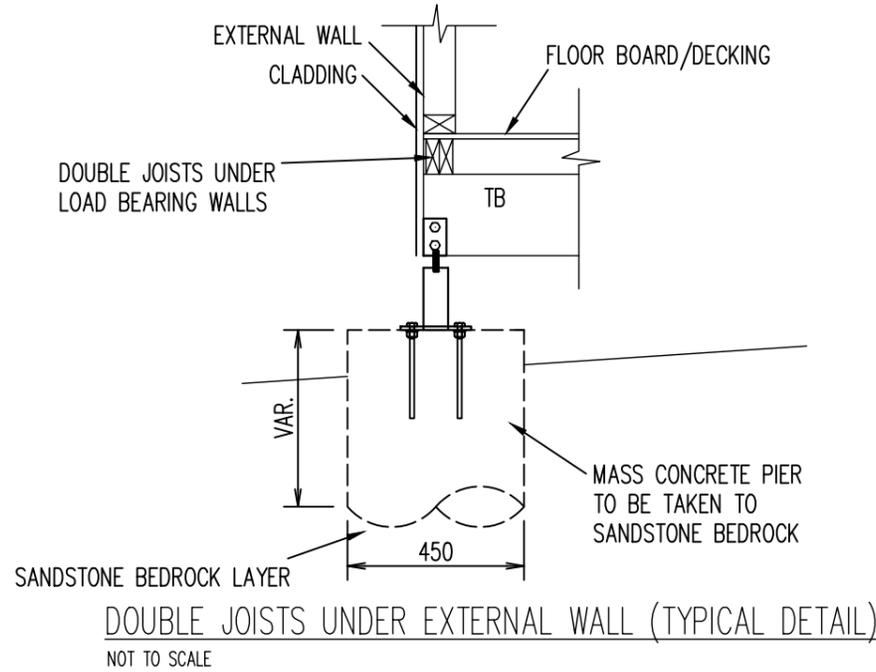
THE DRAWING IS CONFIDENTIAL AND SHALL ONLY BE USED FOR THE PURPOSE OF THE NOMINATED PROJECT



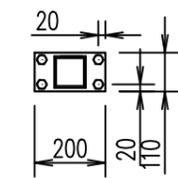
UNIPER BRACING (UB) TYPICAL DETAIL
NOT TO SCALE



TYPICAL BRACING DETAIL (UB)
NOT TO SCALE



DOUBLE JOISTS UNDER EXTERNAL WALL (TYPICAL DETAIL)
NOT TO SCALE



BASE PLATES ARE 10mm THICK
4M16 8.8GRADE HIGH STRENGTH
ANCHOR BOLTS AND NUTS
REFER TO MANUFACTURERS
SPECIFICATION

TYPICAL BASE PLATE FOR POST DETAIL (BPP)
NOT TO SCALE

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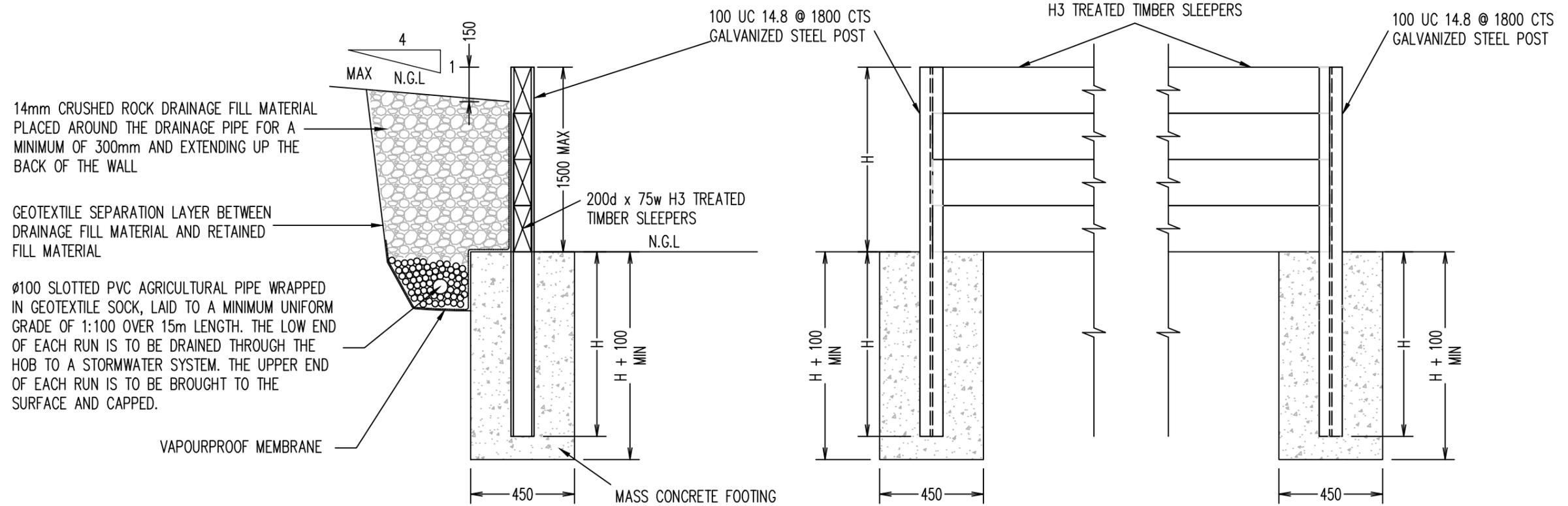
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PROJECT LOCATION		36 WEEROONA AVE, ELANORA HEIGHTS			
CHECKED	H.N.	FOUNDATION DETAILS			
DESIGNED	H.L.				
DATE OF ISSUE	04/12/2020	JOB NUMBER	REVISION	SIZE	SHEET
		184-S20	B	A3	5

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TYPICAL TIMBER RETAINING WALL SECTION (RW1)
NOT TO SCALE

RW1 FRONT ELEVATION
NOT TO SCALE

NOTES:

1. DESIGNED FOR 5 KPa SURCHARGE
2. TIMBER TO BE:
 - 2.1. DURABILITY CLASS 2
 - 2.2. SUSTAINABILITY CLASS 18
 - 2.3. STRESS GRADE F8 (U.N.O.)
3. USE GRADE N25 CONCRETE WITH 20mm MAX. AGGREGATE (U.N.O.)
4. DISCHARGE SUBSOIL DRAIN TO AN APPROVED OUTLET

No.	DESCRIPTION	APPROVED & DATE
A	ISSUED FOR COMMENT	H.N. 04/12/20
B	REVISED JOIST AND BEARER AND ADDED SECTION AS PER RF1.1	H.N. 16/12/20

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PROJECT LOCATION 36 WEEROONA AVE, ELANORA HEIGHTS

CHECKED	H.N.	RETAINING WALL DETAILS			
DESIGNED	H.L.	JOB NUMBER	REVISION	SIZE	SHEET
DATE OF ISSUE	04/12/2020	184-S20	B	A3	6