DESIGN DATA

WIND ACTIONS (MIN): AS/NZS 1170.2 TERRAIN CATEGORY (TO AS/NZS 1170.2) REGIONAL WIND SPEED - V20: 37m/s EARTHQUAKE LOADING: AS/NZS1170.0 & AS1170.4 – SITE FACTOR: ACCELERATION COFFEICIENT – IMPORTANCE LEVEL: - PROBABILITY FACTOR Kn. - EARTHQUAKE DESIGN CATEGORY: IMPOSED ACTIONS: AS/NZS1170.1 (U.N.O) - ROOF AREAS (NON-TRAFFICABLE): (18/A + 0.12) OR 0.25kPa - ROOF AREAS (TRAFFICABLE): AS/NZS 1170.01 - FLOOR AREAS (GENERAL): 3 kPa - STAIRS & LANDINGS: 4.0 kPa - STORAGE: AS/NZS 1170.01 PERMANENT ACTIONS AS/NZS1170.1 (U.N.O) - SUPERIMPOSED LOADS (OFFICE) 0.5 kPa

GEOTECHNICAL REPORT:

THE ENGINEERING DESIGN IS BASED ON THE GEOTECHNICAL REPORT..... ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATION & ADVICE CONTAINED IN THE REPORT, WITH SPECIFIC CONSIDERATION OF THE ADVICE REGARDING EXISTING TREES. PLANTING OF TREES AND TREE/BUILDING REMOVAL

GENERAL

- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE LATEST EDITIONS OF CURRENT STANDARDS, SPECIFICATIONS AND DRAWINGS AS SPECIFIED
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION. ARCHITECTURAL DRAWINGS. LANDSCAPE DRAWINGS. GEOTECHNICAL REPORT AND OTHER ENGINEERING DRAWINGS WHERE
- AVAILABLE CONTRACTOR SHALL BE FAMILIAR WITH, AND UNDERSTAND THE
- REQUIREMENTS OF THE GEOTECHNICAL REPORT WHERE AVAILABLE. ALL DISCREPANCIES BETWEEN DOCUMENTS SHALL BE REPORTED BY THE
- CONTRACTOR TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS.
- 6. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE RELEVANT SAA CODES AND THE BUILDING CODE OF AUSTRALIA.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. 8. THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE PRIOR TO
- INSPECTION OF ALL STRUCTURAL WORKS CONTRACTOR SHALL ALLOW FOR ALL ADDITIONAL COST ASSOCIATED
- WITH THE PROPOSED LOCATION OF CRANE(S) AND RELATED SUPPORT AND TEMPORARY STRUCTURES. 10. SUBSTITUTION SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF
- THE ENGINEER. THE APPROVAL OF A SUBSTITUTION BY THE ENGINEER IS NOT AN AUTHORISATION FOR AN EXTRA. ANY EXTRAS INVOLVED MUST BE APPROVED BY THE ENGINEER BEFORE WORK COMMENCES.

STEELWORK GENERAL

- SG.1. STEELWORK SHALL COMPLY WITH THE SPECIFICATION UNLESS OTHERWISE SHOWN ON THE DRAWINGS. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4100.
- SG.2 THE STEEL WORK SHOWN ON THESE DRAWINGS DOES NOT INCLUDE THE TOTAL EXTENT OF STEELWORK. NON-STRUCTURAL STEELWORK SHOWN ON ARCHITECTURAL DRAWINGS AND SERVICES DRAWING IS NOT PART OF THE STRUCTURAL STEEL PACKAGE
- SG.3. ALL STRUCTURAL STEELWORK SHALL BE ONESTEEL GRADE 300PLUS UNLESS OTHERWISE NOTED. - ALL HOT ROLLED STEELWORK SHALL BE IN ACCORDANCE WITH AS3678 AND AS3679 PART 1 GRADE 250 OR 300 (BHP BASE GRADE FOR EACH MEMBER SHALL BE USED U.N.O.).
- WELDED WB AND WC SECTIONS SHALL BE IN ACCORDANCE WITH AS3679 PART 2 GRADE 300 U.N.O. - COLD FORMED SECTIONS SHALL BE IN ACCORDANCE WITH AS4600.
- ALL RECTANGULAR AND SQUARE HOLLOW SECTIONS SHALL BE MADE BY COLD FORMING AND COMPLY WITH AS1163 GRADE 350
- UNO - ALL CIRCULAR HOLLOW SECTIONS SHALL COMPLY WITH AS1163
- GRADE 350 U.N.O – ALL PLATES GRADE 250 MIN TO AS3678
- SG.4. 14 DAYS PRIOR TO THE FABRICATION OF STEELWORK THE CONTRACTOR SHALL SUBMIT A COPY OF THE SHOP DRAWINGS TO THE ENGINEER. ACCEPTANCE OF THESE DRAWINGS DOES NOT INCLUDE CHECKING OF DIMENSIONS, NOR PRECLUDE THE CONTRACTOR FROM THE RESPONSIBILITY FOR THE CORRECTNESS OF THE WORK
- SG.5. PLATE THICKNESS SHOWN ON DRAWINGS ARE MINIMUM PLATE THICKNESS AFTER ANY MILLING HAS BEEN CARRIED OUT TO REMOVE DISTORTION
- SG.6. ALL RAFTERS AND BEAMS OVER 4000MM IN LENGTH SHALL BE CAMBERED 5MM FOR EVERY 2000MM OF LENGTH UNLESS NOTED
- OTHERWISE ON THE DRAWINGS. SG.7. ALL STEEL COLUMNS AND STEEL BEAMS WITHIN OR ADJACENT TO STUD WALLS TO BE FIXED TO THESE WALLS WITH NO.14 TEK SCREWS OR SIMILAR AT 300MM CTS. ALL AROUND. TYPICAL THROUGHOUT FOR NEW AND RENOVATED WORKS.
- SG.8. ALL Z PURLINS TO BE LAPPED AT RAFTER LOCATIONS AS PER LYSAGHT RECOMMENDATIONS
- SG.9. ROOF BRACING TO BE TIED TO PURLINS AT EVERY 2ND PURLIN.
- SG.10. WHERE ROOF SHEETING RUNS DIAGONAL TO PURLINS PROVIDE 75x75x6.0 EA TO SUPPORT ROOF SHEETING EDGE.
- SG.11. ALL STEEL MEMBERS SHALL BE MADE FROM SINGLE LENGTHS. SPLICES IN MEMBERS SHALL BE PROVIDED ONLY WHERE SHOWN ON THE DESIGN DRAWINGS. SHOULD ADDITIONAL SPLICES BE REQUIRED THE CONTRACTOR SHALL APPLY FOR APPROVAL TO THE ENGINEER FOR EACH SPLICE NOT SHOWN ON THE DRAWINGS.
- SG.12. THE CONTRACTOR SHALL PROVIDE ALL CLEATS, FIXINGS AND HOLES WHETHER OR NOT SHOWN ON THE DRAWINGS INCLUDING ALL FIXINGS OF NON-STRUCTURAL ELEMENTS TO THE STEELWORK.
- SG.13. STEELWORK BELOW GROUND LEVEL SHALL BE ENCASED IN CONCRETE WITH A MINIMUM COVER OF 75mm ALL AROUND AND STEELWORK TO BE GALVANISED WITHIN ENCASEMENT TO 150mm ABOVE GROUND.
- SG.14. STEEL SURFACES MUST NOT BE PAINTED/GALVANISED IF MEMBER IS TO BE FIRE SPRAYED OR FRICTION GRIP BOLTED. SG.15. DAMAGE TO STEELWORK ON SITE TO BE MECHANICALLY WIRE
- BRUSHED AND PRIMED WITH ZINC RICH EPOXY PRIMER. SG.16. ALL STEEL BEAMS AND LINTELS TO HAVE 110mm MIN. END BEARING
- U.N.O.
- SG.17. STEEL BEAMS TO BE FORMED WITH NATURAL CAMBER UP.

GENERAL

- 11. PROVIDE 10mm ABLEFLEX OR APPROVED EQUIVALENT AROUND COLUMNS, SF.1. FOUNDATIONS AND EARTHWORKS FOR BUILDINGS AND EDGE THICKENINGS & EXTERNAL PAVEMENTS. PROVIDE CAULKING AS REQUIRED.
- 12. DURING CONSTRUCTION, ALL PARTS OF THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART OF THE STRUCTURE SHALL BE OVERSTRESSED AS A RESULT OF THE CONSTRUCTION PROCEDURES OR THE APPLIED CONSTRUCTION LOADS THE CONTRACTOR SHALL PROVIDE COMPUTATIONS TO JUSTIFY THE ADEQUACY OF THE STRUCTURE TO SAFELY WITHSTAND ANY IMPOSED LOADS AND/OR CONSTRUCTION PROCEDURES AND ALLOW FOR COSTS ASSOCIATED WITH ANY TEMPORARY WORKS REQUIRED. IN PARTICULAR ALL PANELS SHALL BE CLAMPED AND PROPPED DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER.
- 13. THE DESIGN IS BASED ON THE FOLLOWING DESIGN STANDARDS:-AS 1170 (Pt 0 TO 2) STRUCTURAL DESIGN ACTION (DEAD AND LIVE
- AS 1170 (Pt 1 TO 4) MINIMUM DESIGN LOADS ON STRUCTURES (KNOWN AS SAA LOADING CODE) AS 1554.1 – 2011 SAA WELDING OF STEEL STRUCTURES CODE
- AS 1657 2013 FIXED PLATFORMS, WALKWAYS, STAIRWAYS & LADDERS CODE AS 1684 - 2010 (Pt 2-4) RESIDENTIAL TIMBER FRAMING CONSTRUCTION
- CODE
- AS 1720 (Pt 1 2010 & Pt 4 2006) SAA TIMBER STRUCTURES CODE AS 3600 - 2009 SAA CONCRETE STRUCTURES CODE
- AS 3700 2011 SAA MASONRY STRUCTURES CODE
- AS 4100 1998 SAA STEEL STRUCTURES CODE AS 4600 - 2005 COLD FORMED STEEL STRUCTURES CODE

TO COMMENCEMENT OF WORKS OR FABRICATION.

- DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR PRIOR TO FABRICATION. SF.7. ANY VARIATION TO THE DESIGN DETAILS SHOWN ON THE DRAWINGS MUST BE AUTHORISED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 15. CONSTRUCTION OF WORK TO BE CARRIED OUT STRICTLY IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT AND REGULATIONS (2007) TOGETHER WITH ALL SUBSEQUENT AMENDMENTS AND ALL OTHER RELEVANT STATUTORY REQUIREMENTS AND LEGISLATION. 16 VARIATIONS TO THE DRAWINGS OR CONSTRUCTION PROCEDURES MUST
- HAVE THE PRIOR APPROVAL OF THE ENGINEER. 17. DIMENSIONS AND LEVELS SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS AND SHALL BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR
- BUILDING MAINTENENCE BM1. CONTRACTOR SHALL MAKE DUE ALLOWANCE FOR ALL CAST-IN INSERTS. STEEL CONNECTION PLATES, ACCESS HOOKS, SAFETY HARNESS PLATES, STATIC LINE SUPPORTS ETC. REQUIRED AS ABSEILING FIXING POINTS TO
- THE PERIMETER OF THE ROOF, EXTERNAL WALLS AND GROUND SLABS BM2. WHERE IT IS PROPOSED TO ALSO USE A SWING-STAGE THE CONTRACTOR SHALL MAKE ADDITIONAL ALLOWANCE FOR DAVIT ARMS, NEEDLES AND ASSOCIATED RESTRAINT SYSTEMS ETC. TO THE PERIMETER OF THE ROOF AND ALSO ANY FIXING POINTS REQUIRED
- ALONG THE EXTERNAL WALLS AND GROUND SLAB. BM3. ALL STRUCTURAL FIXING REQUIREMENTS ASSOCIATED WITH BUILDING MAINTENANCE ARE TO BE DESIGNED AND DOCUMENTED BY A SPECIALIST ENGINEER ENGAGED BY THE CONTRACTOR. CONTRACTOR SHALL ALLOW FOR ALL COSTS AND FEES ASSOCIATED WITH THIS ENGINEERING WORK. CONTRACTOR SHALL MAKE THE ABOVE ALLOWANCES FOR ALL BUILDINGS.

STEELWORK STANDARD CONNECTIONS

- SC.1. UNLESS NOTED OTHERWISE, THE FOLLOWING CONNECTION DETAILS SB.1. UNLESS OTHERWISE SHOWN: SHALL BE ALLOWED FOR: - 6MM CFW, THICKNESS OF PLATES, NUMBER & SIZE OF BOLTS AS PER TABLE 1.4.
- SC.2. THE MINIMUM CONNECTION SHALL BE (U.N.O. IN TABLE 1.4) – 12MM PLATE, 6CFW, 2–M24 (8.8/S) BOLTS. - ALL CLEATS, GUSSETS, END AND STIFFENER PLATES SHALL BE
- 10mm PLATE (U.N.O) - PURLIN AND GIRT CLEATS SHALL BE 8mm PLATE (U.N.O) - FOR HANDRAILS USE M16 (4.6/S) COMMERCIAL BOLTS (U.N.O)
- FOR PURLINS AND GIRTS USE M16 (4.6/S) COMMERCIAL BOLTS (U N O) SC.3. REMOVABLE BEAM CONNECTIONS SHALL HAVE 8.8/S BOLTS. ALL
- STEELWORK CONNECTIONS (INCLUDING REMOVABLE BEAMS) WITH 8.8/S BOLTS SHALL HAVE LOCKNUTS. SC.4. CONNECTIONS BETWEEN STEEL BEAMS TO TIMBER COLUMNS SHALL
- BE (U.N.O): -125x75x6 UA, 2-M16 COACH BOLTS TO COLUMN, 2-M20 (8.8/S) BOLTS TO STEEL BEAM (STEEL BEAMS TO SIT ON TOP OF COLUMNS).
- SC.5. ALL BEAM TO BEAM CONNECTIONS SHALL BE (U.N.O): A) END PLATE FOR ALL MEMBERS WITH FLOOR BRACING CONNECTED BOTH SIDES OF THE END OF A BEAM. B) WEB SIDE PLATE FOR ALL OTHER MEMBERS
- SC.6. ALL BEAM TO COLUMN CONNECTIONS SHALL BE FULL DEPTH END PLATES.
- SC.7.. CONNECTIONS SHALL BE CONCENTRIC USING CENTRE OF AREA, EXCEPT FOR:
- A) BOLTED CHANNELS USE BACK OF CHANNEL,
- B) BOLTED BRACING USE GAUGE LINE
- SC.8. ALL COLUMNS SHALL BE IN FULL BEARING CONTACT WITH BASEPLATES. THE ENDS OF THE COLUMN SHALL BE COLD SAWN OR MACHINE CUT IN ACCORDANCE WITH AS 4100.

STEELWORK WELDING

- SW.1. ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1554 "STRUCTURAL STEEL WELDING". THE DESIGN DRAWINGS AND THE FOLLOWING NOTES: SB.8. ALL BOLT HOLES SHALL BE PUNCHED OR DRILLED. HOLE PUNCHIN - WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS1554.
 - ALL CUTTING, WELDING PROCEDURES AND SEQUENCE, SHALL BE TO THE APPROVAL OF THE ENGINEER AND SHALL BE IN ACCORDANCE SS.1. UNLESS NOTED OTHERWISE, CORROSION PROTECTION OF STEEL W WITH AS 1554
 - ALL MATING SURFACES AND UNDESIGNATED WELDS SHALL BE 6mm
 - CONTINUOUS FILLET WELDS UNLESS NOTED OTHERWISE. - WELDING ELECTRODE SHALL BE "E 41 XX".
 - ALL WELDS SHALL BE 'SP' CATEGORY WELDS.
 - WELDING CONSUMABLES SHALL BE OF THE "LOW HYDROGEN" TYPE. - ALL BUTT WELDS TO BE QUALIFIED FULL PENETRATION BUTT WELDS.
 - ALL FILLET WELDS TO BE 6MM CONTINUOUS.
 - ALL WELDS SHALL BE MADE USING QUALIFIED WELD PROCEDURES IN ACCORDANCE WITH AS 1554 - ABUTTING EDGES OF BOXED MEMBERS SHALL BE CONNECTED AND
 - SEALED WITH A CONTINUOUS WELD. - ALL WELDS SHALL BE FULLY VISUALLY INSPECTED IN ACCORDANCE
 - WITH AS 1554. - PADEYES AND LIFTING POINTS SHALL BE INSPECTED WITH 100 % UT AND 100 % MPI TO AS 1554.
 - SS.2. IN CASE OF COMPOSITE BEAMS WHERE THE SHEAR CONNECTORS - OTHER STRUCTURAL WELDS SHALL BE TESTED WITH 10 % UT AND 10 % MPI TO AS 1554 UNLESS NOTED OTHERWISE
- SW.2. UNLESS SHOWN AS A BOLTED CONNECTION, ALL PLATES AND SECTIONS INDICATED IN CONTACT SHALL BE WELDED ALL ROUND.
- SW.3. ALL TUBULAR SECTIONS SHALL BE FULLY SEALED. SEAL PLATES SHALL BE 5mm THICK. WHERE TUBULAR SECTIONS ARE TO BE HOT DIPPED GALVANISED PROVIDE ADEQUATE VENT & DRAINAGE HOLES. SS.3. ALL STEELWORK SHALL BE BROUGHT WITHIN FABRICATION

FOUNDATIONS & EARTHWORKS

- FOUNDATIONS & EARTHWORKS SE 10 LOOSE FILL JE REQUIRED FOR SUSPENDED SLABS SHALL BE STRUCTURES SHALL COMPLY WITH THE SPECIFICATION, LATEST SUFFICIENT TO SUPPORT CONSTRUCTION OF SLABS IN A EDITIONS OF THE RELEVANT SAA CODES AND THE BCA. STABLE CONDITION AND TO ENSURE THAT NO MOVEMENT WILL OCCUR DURING THE CURING PROCESS. SF.2. CONTRACTOR SHALL MAKE REFERENCE TO THE GEOTECHNICAL INVESTIGATION REPORT FOR RECOMMENDATIONS AND GUIDANCE ALL RETENTION WORKS ARE TO BE CARRIED OUT IN STRICT INCLUDING BELOW THE EXISTING GROUND SURFACE. REFER ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GENTECHNICAL INVESTIGATION REPORT FOR SITE PREPARATION GEOTECHNICAL INVESTIGATION REPORT. ARCHITECTURAL AND TEMPORARY WORKS, DESIGN REQUIREMENTS, ETC. STRUCTURAL DRAWINGS. ANY VARIATION IS TO BE REFERRED TO THE ENGINEER FOR APPROVAL AT THE EXPENSE OF THE SF.3. ALL EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY CONTRACTOR. THE ENGINEER PRIOR TO PLACEMENT OF REINFORCEMENT OR BUINDING THE CONTRACTOR SHALL CERTIEY TO THE ENGINEER SE 12 TESTING THAT THEY HAVE ACHIEVED THE APPROVED BEARING TEST EACH LAYER OF FILLING FOR DRY DENSITY RATIO CAPACITY BEFORE INSPECTIONS. A MINIMUM OF 48 HOURS' EXCEPT WHEN FILL DEPTH IS LESS THAN 600MM. THE CONTRACTOR SHALL EMPLOY A NATA REGISTERED NOTICE IS REQUIRED FOR AN INSPECTION. LABORATORY TO CARRY OUT ALL TESTING AT THE SF.4. ANY OVER EXCAVATION UNDER FOOTINGS SHALL BE FILLED UP TO LEVEL WITH BLINDING CONCRETE AT THE CONTRACTOR'S CONTRACTORS EXPENSE. TESTING FREQUENCY SHALL BE AS FOLLOWS:-EXPENSE. THE CONTRACTOR SHALL ALLOW FOR ALL OVER - MINIMUM 3 TESTS PER LAYER OR, EXCAVATIONS TO FOUNDATIONS DUE TO CONSTRUCTION - MINIMUM 1 TEST PER 250 SQUARE METRES OR, TECHNIQUES AND FROM ACCESS TO SITE AND WEATHER – 3 TESTS PER VISIT. CONDITIONS WHICHEVER REQUIRES THE MOST TESTS. SF.5. EXCAVATIONS SHALL BE CARRIED OUT IN THE DRY. WATER SF.13. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ENTERING AN EXCAVATION SHALL BE REMOVED AND ANY STRUCTURES IN A STABLE AND STRUCTURALLY SOUND RESULTING SLUDGE SCRAPPED FROM THE BASE IN ORDER TO CONDITION DURING ERECTION/CONSTRUCTION AND EXCAVATIONS RESTORE A FIRM BEARING SURFACE SF.14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL SF.6. ALL FOOTINGS, INCLUDING GROUND AND EDGE BEAMS, PAD AND NECESSARY SITE CLEARANCES AND PERMITS PRIOR TO STRIP FOOTINGS, RETAINING WALLS, ETC. SHALL HAVE A MINIMUM OF 50mm BLINDING CONCRETE UNLESS NOTED COMMENCEMENT OF ANY WORKS OTHERWISE SF.15. BACKFILLING SHALL NOT COMMENCE AGAINST WALLS UNTIL 14 ALL WALLS AND COLUMNS SHALL BE CONCENTRIC WITH DAYS HAVE ELAPSED SINCE COMPLETING THE CONCRETE POUR. SUPPORTING FOUNDATIONS UNLESS OTHERWISE NOTED ON STRUCTURAL TIMBER DRAWINGS. ST.1. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE SE 8 SUBGRADE PREPARATION AND BACKFILLING OF TRENCHES SPECIFICATION, ARCHITECTURAL DRAWINGS AND THE CURRENT EDITIONS UNDER CONCRETE SLABS ON GROUND AND STIFFENED RAFTS OF THE FOLLOWING AUSTRALIAN STANDARD CODES AS APPLICABLE: SHALL BE IN ACCORDANCE WITH THE SPECIFICATION. ALL AS 1720 – TIMBER STRUCTURES CODE PIPEWORK TRENCHES UNDER GROUND SLABS SHALL BE

- BACKFILLED WITH 5% STABILISER SANDS UNLESS APPROVED OTHERWISE BY THE ENGINEER. CONTRACTOR TO ALLOW FOR ADDITIONAL REINFORCEMENT TO GROUND SLABS OVER ALL SERVICES TRENCHES (I.E. HYDRAULIC, DRAINAGE, MECHANICAL,
- ELECTRICAL ETC.). SF.9. GROUND SLABS SHALL BE POURED ON A 0.2MM THICK CONTINUOUS POLYTHENE MEMBRANE U.N.O. ALL JOINTS SHALL BE LAPPED AND FULLY TAPED. THE MEMBRANE SHALL BE PLACED ON A 50mm LAYER OF COMPACTED SAND (U.N.O.) OVERLYING SUBGRADE MATERIAL WITH A MINIMUM SAFE BEARING PRESSURE OF 30KPA. THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% OF STANDARD COMPACTION DETERMINED IN ACCORDANCE WITH AS1289 E4.1. ANY OVER EXCAVATION OR FILL AREA SHALL BE BROUGHT UP TO LEVELS IN LAYERS WITH A MAXIMUM LOOSE THICKNESS OF 150mm WITH APPROVED (BY THE ENGINEER) GRANULAR MATERIAL COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% OF STANDARD COMPACTION DETERMINED IN ACCORDANCE WITH AS 1289 E4.1.

STEELWORK BOLTING.

- ALL BOLTS (INCLUDING ANCHOR BOLTS), NUTS AND WASHERS BE HOT DIP GALVANISED TO AS 1214. - ALL GUSSETS AND CLEATS SHALL BE 10MM THICK
- BOLT HOLE TOLERANCE 2MM.
- HOLDING-DOWN BOLT TOLERANCE 6MM. BASE PLATES SHALL NOT BE SLOTTED
- ALL HOLDING DOWN BOLTS SHALL BE HOT DIP GALVANISED.
- ALL BOLTS TO BE 8.8/S (U.N.O.).
- SB 2 THE BOLTING PROCEDURE IS DESIGNATED AS FOLLOWS: SB.2.A. 4.6/S REFERS TO COMMERCIAL BOLTS OF STRENGTH GRADE 4.6 AS1111, TIGHTENED USING A STANDARD WRENCH TO A SNUG TIGH
- CONDITION TO SECTION 15.2.3 OF AS 4100 UNO SB.2.B. 8.8/S REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE AS1252, TIGHTENED USING A STANDARD WRENCH TO A SNUG-TH
- CONDITION TO SECTION 15.2.3 OF AS 4100 UNO SB.2.C. 8.8/TF REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE AS1252, FULLY TENSIONED TO AS1511 "PART TURN METHOD" &

GALVANIZING.

SS.4. FIELD REPAIR OF PAINTING AND GALVANIZING SHALL BE IN

ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

BY JOTUN) TO MANUFACTURER'S SPECIFICATIONS.

SS.5. GALVANISED STEELWORK THAT IS SITE WELDED OR SUSTAINS ANY OTHER KIND OF SURFACE DAMAGE IS TO BE PREPARED TO AS1627.2

CLASS 3 AND PRIMED WITH 2 COATS OF GALVINITE (MANUFACTURED

TOLERANCE SPECIFIED IN AS 4100 AFTER WELDING AND/OR HOT DIP

MARIBYRNONG RIVER CHILDREN'S CENTRE 6 WESTS RD, MARIBYRNONG

- AS 1684 LIGHT TIMBER FRAMING CODE ST.2. HOLES FOR BOLTS, UNLESS OTHERWISE DETAILED, SHALL BE MADE OVERSIZE AS FOLLOWS
- BOLT DIAMETER 16mm OR LESS 2mm OVERSIZE BOLT DIAMETER GREATER THAN 16mm - 3mm OVERSIZE
- ST.3. SHANK AND THREAD OF BOLTS SHALL BE THOROUGHLY COATED WITH
- A HEAVY WATERPROOF GREASE BEFORE INSERTION INTO THE TIMBER. ST.4. SPECIALISED METAL FASTENERS SUCH AS "GANG-NAIL PLATES", "TRIP-L-GRIP", ETC., SHALL BE OF A PROVEN TYPE AND SHALL HAVE HAD WORKING LOADS DETERMINED IN ACCORDANCE WITH THE
- PROCEDURE SPECIFIED IN AS 1649. FIX CONNECTORS TO THE MANUFACTURER'S INSTRUCTIONS ST.5. AT THE PRACTICAL COMPLETION OF THE CONTRACT AND AGAIN AT THE END OF THE MAINTENANCE PERIOD AND IF NECESSARY DURING
- THAT PERIOD, TIGHTEN ALL BOLTS TO APPROVAL. BOLTS THAT WILL BE INACCESSIBLE AFTER COMPLETION OF THE PROJECT SHALL BE TIGHTENED IMMEDIATELY PRIOR TO BEING BUILT-IN. ST.6. EDGE DISTANCES FOR FASTENERS IN TIMBER (FROM ENDS AND SIDES)
- SHALL BE IN ACCORDANCE WITH AS1720. ST.7. TIMBER TRUSSES TO BE TIED DOWN AT SUPPORTS.
- ST.8. ALL TIMBER FRAMING TO BE CONSTRUCTED TO AS 1684 (U.N.O.)
- ST.9. CONNECTIONS BETWEEN TIMBER BEAMS TO STEEL COLUMNS SHALL BE: 2/10mm CLEAT PLATE, 6 CFW TO CAP PLATE, 2-M16 COACH BOLTS TYPICAL (U.N.O.)

	STEELWORK BOLTING.						
SB.1.	UNLESS OTHERWISE SHOWN:		Г ТЗ Г	T2 / T1			
00.1.	- ALL BOLTS (INCLUDING ANCHOR BOLTS), NUTS AND WASHERS SHALL			/ .	Т	TOP	
	BE HOT DIP GALVANISED TO AS 1214.				В	BOTTO	
	- ALL GUSSETS AND CLEATS SHALL BE 10MM THICK.		<u> </u>		NF	NEAR	
	– BOLT HOLE TOLERANCE 2MM.			• •	FF	FAR F	
	– HOLDING-DOWN BOLT TOLERANCE 6MM.				EW EF	EACH EACH	
	- BASE PLATES SHALL NOT BE SLOTTED.	DIAGRAM	<u>1</u> B1	B2 B3		LACII	TACL
	– ALL HOLDING DOWN BOLTS SHALL BE HOT DIP GALVANISED.						
	- ALL BOLTS TO BE 8.8/S (U.N.O.).	[
SB.2.	THE BOLTING PROCEDURE IS DESIGNATED AS FOLLOWS:			ABLE 1.1			
SB.2.4	. 4.6/S REFERS TO COMMERCIAL BOLTS OF STRENGTH GRADE 4.6 TO	BAR			EMBEDI	MENT	COGS
	AS1111, TIGHTENED USING A STANDARD WRENCH TO A SNUG TIGHT	N12	N (HORIZONTAL BARS	400	ر 50	0	200
	CONDITION TO SECTION 15.2.3 OF AS 4100 UNO.	N16	700	600	70		250
SB.2.E	8. 8.8/S REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO	N20	1000	700	100	00	300
	AS1252, TIGHTENED USING A STANDARD WRENCH TO A SNUG-TIGHT	N24	1100	900	110	00	350
	CONDITION TO SECTION 15.2.3 OF AS 4100 UNO.	N28	1300	1100	130		400
SB.2.0	. 8.8/TF REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO	N32 N36	1600 1950	1300 1500	160 195		450 500
	AS1252, FULLY TENSIONED TO AS1511 "PART TURN METHOD" &	001	1920	1200	17.	50	000
	DESIGNED AS A FRICTION TYPE JOINT AND SHALL NOT BE RE-TORQUED.					_	
SB.2.0	. 8.8/TB REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO			<u> </u>		_	
	AS1252, FULLY TENSIONED TO AS1511 "PART TURN METHOD" &		MENT/LOCATION DTINGS		COVER 75mm	_	
	DESIGNED AS A BEARING TYPE JOINT AND SHALL NOT BE RE-TORQUED.		OUND BEAMS		75mm 40mm		
SB.3.	THE PREFIX TO THE BOLTING PROCEDURE DESIGNATED DENOTES THE		AB ON GROUND		401111		
	NUMBER AND DIAMETER OF BOLTS. E.G. 2-M20 4.6/S.		- TOP		25mm		
SB.4.	ALL BOLTS SHALL BE OF SUCH LENGTH THAT AT LEAST ONE FULL		- BOTTOM		25mm		
	THREAD IS EXPOSED BEYOND THE NUT AFTER THE NUT HAS BEEN	SUS	SPENDED SLABS				
	TIGHTENED.		– EXPOSED – PROTECTED		40mm 25mm		
SB.5.	MINIMUM ONE WASHER SHALL BE USED UNDER THE NUT IN ALL	BEA	AMS		231111		
	SITUATIONS. IF TIGHTENING IS CARRIED OUT AT THE HEAD, AN		- EXPOSED		40mm		
	ADDITIONAL WASHER SHALL BE USED UNDER THE HEAD. FOR SLOTTED		- PROTECTED		25mm		
	HOLES USE A HARDENED WASHER UNDER THE NUT AND BOLT HEAD.		ES CAST IN-SITU	-	50mm		
SB.6.	ALL HIGH STRENGTH BOLTS IN AREAS OF VIBRATING, RECIPROCATING	INFI	LL RETENTION WALLS – EXPOSED	5	45mm		
	OR ROTATING EQUIPMENT SHALL BE TENSIONED TO GRADE 8.8/TB		- PROTECTED		30mm		
	WHEN NOTED ON DRAWINGS.	RET	AINING WALLS 25mm				
SB.7.	REFER MECHANICAL AND VENDOR DRAWINGS FOR EQUIPMENT BOLTING		- EXPOSED		40mm		
۹L	DETAILS.		- PROTECTED		30mm		
S: SB.8.	ALL BOLT HOLES SHALL BE PUNCHED OR DRILLED. HOLE PUNCHING AND)ESTAL/COLUMN IN T)UND (UNPROTECTED)		40mm		
N	SLOTTED HOLES SHALL BE IN ACCORDANCE WITH AS 4100.		UMNS		401111		
-	STEELWORK SURFACE TREATMENT		- EXPOSED		50mm		
0			- PROTECTED		40mm		
SS.1.	UNLESS NOTED OTHERWISE, CORROSION PROTECTION OF STEEL WORK SHALL BE AS FOLLOWS:	WA	LLS				
m	- ALL STEELWORK SHALL BE PAINTED WITH ONE COAT OF		– EXPOSED – PROTECTED		40mm 30mm		
Π	APPROVED ZINC PHOSPHATE PRIMER.		- PROILCILD		5011111		
	- ALL PLATFORM FLOORING, LADDERS, CAGES, STAIR TREADS,		THE ABOVE VALUES OF AND MAY NEED TO BE A				
	PURLINS, GIRTS AND GUARD RAILING SHALL BE HOT DIP GALVANIZED	REQUIR	RED FIRE RESISTANCE PER	RIODS REFER (TABLE	1.3) & TO		
E.	TO AS 4680.	RELEV	ANT BUILDING SURVEYOR	S FIRE RATING REQUI	REMENTS.		
	- ALL EXPOSED STEELWORK INCLUDING BOLTS AND FIXING SHALL BE						
	HOT DIP GALVANISED TO AS 4680.						
	- ALL STRUCTURAL STEELWORK BELOW GROUND TO BE ENCASED BY	TAE	3LE 1.4	TABL	E 1.4 (CONT	.)
	CONCRETE 75MM THICK.	BEAM SIZE	NO OF M24		_	NO C	DF M20
	- ALL ROUND AND STEELWORK TO BE GALVANISED WITHIN	DEATT SIZE	8.8/S BOLTS	BEAM SIZE	-	8.8/S	BOLTS
	ENCASEMENT TO 150MM ABOVE GROUND.	700WB	8	310UB, 310U	С,		2
	- STEEL SURFACES MUST NOT BE PAINTED/GALVANISED IF MEMBER	610UB	7	300PFC			3
CE	IS TO BE FIRE SPRAYED OR FRICTION GRIP BOLTED.	530UB 460UB	6 5	250UB,250U	с,		
	 DAMAGE TO STEELWORK ON SITE TO BE MECHANICALLY WIRE BRUSHED AND PRIMED WITH ZINC RICH EPOXY PRIMER. 	4000B 410UB	4	200UB,200U			2
CC 2		360UB	3	250PFC, 230P	FC,		-
SS.2. D	IN CASE OF COMPOSITE BEAMS WHERE THE SHEAR CONNECTORS ARE INTENDED TO BE AUTOMATICALLY WELDED TO THE BEAMS ON SITE	USE 12mm	THICK PLATES	200PFC			
5	THROUGH METAL FORMWORK, THE EXTERNAL SURFACE OF THE BEAM			USE 10m	nm THICK	PLATE	S
	IN CONTACT WITH THE SHEAR CONNECTORS SHALL NOT BE HOT DIP						
	GALVANISED TO AVOID DIFFICULTIES WITH THE AUTOMATIC WELDING.		TABLE	1.4 (CONT.)			
	CONTRACTOR TO SEEK FURTHER ADVICE FROM RELEVANT			NO OF M10	<u>б</u>		
	MANUFACTURER AND/OR SPECIALIST.		BEAM SIZE	8.8/S BOLT			

Y	R	N	U	N	U	

CONCRETE GENERAL C1. CONCRETE SHALL COMPLY WITH THE SPECIFICATION UNLESS OTHERWISE NOTED BELOW. CONCRETE SHALL BE ASSESSED FOR COMPLIANCE BY THE "PROJECT ASSESSMENT" METHOD. C2. UNLESS NOTED OTHERWISE ON DRAWINGS, CONCRETE PROPERTIES

SHALL BE AS FOLLOWS:-

GRADE	ELEMENT/LOCATION
N32*	PAD FOOTINGS & PEDESTALS
N50*	PRECAST PILES
N40*	BORED PIERS
N25*	STRIP FOOTINGS
N32*	GROUND BEAMS
N32	SLABS ON GROUND
N32	EXTERNAL PAVING SLABS
N40	INSITU COLUMNS
N50	INSITU WALLS
N32	SHOTCRETE WALLS
N40	PRECAST COLUMNS
N32	PRECAST WALLS
N32	SUSPENDED BEAMS
N32	SUSPENDED SLABS
N15	BLINDING CONCRETE

* SPECIAL CONCRETE GRADE MAY BE REQUIRED WITH RESPECT TO SOIL AND GROUND WATER AGGRESSIVENESS TOWARDS CONCRETE. CONTRACTOR SHALL MAKE REFERENCE TO RELEVANT SECTIONS OF GEOTECHNICAL REPORT AND MAKE OWN ASSESSMENT WITH REGARD TO THE ABOVE REQUIREMENTS.

- TOLERANCES TO FORMWORK AND CONCRETE SHALL BE IN СЗ. ACCORDANCE WITH CLAUSE 4.4.2 OF AS 1509–1974, UNLESS NOTED
- OTHERWISE C4. THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE TO
- INSPECT REINFORCEMENT PRIOR TO PLACEMENT OF CONCRETE. C5. CONCRETE SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH SECTION 19 OF AS3600.
- C6. CONCRETE SIZES SHOWN ON DRAWINGS ARE STRUCTURAL SIZES AND DO NOT INCLUDE APPLIED FINISHES.
- C7. THE FOLLOWING CONCRETE EXPOSURE CLASSIFICATIONS FOR
- DURABILITY WERE USED IN THE DESIGN:-A2 - IN CONTACT WITH THE GROUND
- B1 EXTERIOR
- A1 INTERIOR CONCRETE SLUMP AT AN AGREED POINT ON THE CONSTRUCTION C8. SITE SHALL BE BETWEEN 60mm AND 80mm UNLESS NOTED
- OTHERWISE C9. CONCRETE SURFACES SHALL BE PROPERLY CURED BY COVERING WITH AN IMPERMEABLE MEMBRANE SECURED FIRMLY AT THE EDGE FOR AT LEAST 7 DAYS OR AS DETAILED IN THE SPECIFICATION.
- C10. CONTRACTOR SHALL ALLOW FOR ADDITIONAL COSTS ASSOCIATED WITH SLAB SET-DOWNS. REFERENCE SHALL BE MADE TO ARCHITECTURAL AND OTHER DRAWINGS FOR EXTENT AND DETAILS OF SLAB SET-DOWNS.
- ٢11 CONSTRUCTION JOINTS SHALL NOT BE CONSTRUCTED IN POSITIONS OTHER THAN THOSE INDICATED ON THE DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER
- C12. ALL EXPOSED CORNERS IN CONCRETE (eq. PEDESTAL AND FOOTING EDGES) SHALL BE PROVIDED WITH A 20mm X 20mm CHAMFER UNO.
- C13. ALL VERTICAL FACES (INCL FOOTINGS) SHALL BE FORMED USING METHODS AND MATERIALS APPROVED BY THE ENGINEER

CONCRETE ELEMENT			REQUIRED CONCRETE COVER (MM)					
FIRE RESIST	ANCE PERIOD	60MIN.	90MIN.	120MIN.	180MIN			
	150mm	-	-	-	-			
	180mm	-	-	-	-			
	200mm	20	-	-	-			
WALLS	250mm	15	35	-	-			
(THICKNESS)	300mm	15	25	45	-			
(11112111233)	400mm	15	25	35	60			
	500mm	15	25	35	50			
SLABS	SIMPLY SUPPORTED	20	25	30	45			
SLADS	CONTINUOUS SPAN	15	15	15	25			
COLUMNS	450mm	15	25	35	55			
(MIN. CROSS	500mm	15	25	35	50			
SECTIONAL AREA)	600mm & GREATER	15	25	35	50			
	300mm	20	30	45	60			
SIMPLY SUPPORTED	400mm	20	30	40	60			
BEAMS	500mm	20	30	40	55			
(WIDTH)	600mm	20	30	45	50			
	700mm & GREATER	20	25	30	45			
CONTINUOUS SPAN	300mm	20	20	25	30			
BEAMS	400mm	20	20	20	30			
(WIDTH)	500mm & GREATER	15	15	15	25			
EMENTS TO ACHIEVE T	VE FOR MINIMUM COVERS F HE REQUIRED FIRE RESISTA E RATING REQUIREMENTS.				ANT			

TABLE 1.5 – MASONRY SCHEDULE SUMMARY								
LOCATION DESCRIPTION	UNIT TYPE	f'uc (MPa)	MORTAR C:L:S	EXPANSION (MAX)	f'm (MPa)	f'mt (MPa)		
ALL BRICKS	CLAY	40	1:1:6	1.0mm/m	7.70	0.20		
ALL BLOCKS	CONCRETE	15	1:1:6	_	8.06	0.20		

(PER BRICK SKIN) (U.N.O)				
SPAN (mm)	SUPPORTING ONE STOREY ABOVE (UP TO 5M HIGH B'WORK)	SUPPORTING TWO STOREY ABOVE (UP TO 8M HIGH B'WORK)		
UP TO 900	90x90x10 EA	100×100×8 EA		
1200	100×100×8 EA.	100×100×10 EA.		
1500	100×100×10 EA	150x90x8 UA		
1800	150x90x8 UA	150x90x10 UA.		
2100	150x90x10 UA.	150x90x12 UA.		
2400	150x90X12 UA.	150×100×10 UA.		
2700	150x100x10 UA.	150x100x12 UA.		
3000	150x100x12 UA.	_		

LOADBE	ARING WALL STEEL					
	(PER BRICK SKIN)	(U.N.U)				
SPAN (mm)	SUPPORTING ONE STOREY ABOVE (UP TO 5M HIGH B'WORK)	SUPPORTING TWO STOREY ABOVE (UP TO 8M HIGH B'WORK)				
UP TO 900	100×100×10 EA	100x100x12 EA.				
1200	100x100x12 EA.	150x100x10 UA.				
1500	150x100x10 UA.	150x100x12 UA.				
1800	150x100x12 UA.	150 PFC				
2400	150 PFC	180 PFC				

WWW.VERTENGINEERING.COM

CONCRETE GENERAL

- C14. MAXIMUM FREE FALL OF CONCRETE DURING PLACMENT SHALL NOT R4. BA EXCEED 1.5m. BEYOND THIS, SUITABLE CHUTES SHALL BE USED. C15. UNFORMED HORIZONTAL SURFACES BELOW GROUND LEVEL SHALL BE FLOATED. ALL OTHER SURFACE FINISHES SHALL BE IN ACCORDANCE WITH THE RELEVANT PROJECT SPECIFICATION FOR CONCRETE
- CONSTRUCTION. C16. SCABBLE CLEAN & DAMPEN ALL CONSTRUCTION JOINTS IMMEDIATELY PRIOR TO POURING CONCRETE
- C17. ISOLATION JOINTS (I.J.) ARE TO BE USED AT SLAB
- WALL/KERB/PEDESTAL INTERFACES U.N.O. ON DESIGN DRAWINGS C18. ALL SLABS ON GROUND SHALL BE POURED ONTO A 0.2mm THICK POLYETHYLENE MEMBRANE (VAPOUR BARRIER) OVER A MINIMUM THICKNESS OF 100mm OF SELECT FILL
- C19. ALL FOOTINGS AND STIFFENED RAFTS TO BE POURED ON 0.2mm POLYETHYLENE MEMBRANE VAPOUR BARRIER OVER 50mm BLINDING CONCRETE
- C20. ALL CONCRETE THROUGHOUT THE PROJECT SHALL BE THOROUGHLY COMPACTED USING MECHANICAL, HIGH FREQUENCY VIBRATORS. C21. ALL CONCRETE TO BE CURED FOR NOT LESS THAN 7 DAYS.
- IMMEDIATELY FOLLOWING PLACING AND AFTER INITAL SET, THOROUGHLY WET DOWN, THEN COVER THE CONCRETE WITH PVC SHEETING FOR THE FULL CURING PERIOD. ALTERNATIVELY APPLY CURING MEMBRANE TO THE EXPOSED SURFACES ONLY WITH PRIOR APPROVAL FROM THE ENGINEER.

C23

- C22. THE MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 20mm. ADDITIVES ARE NOT TO BE USED WITHOUT THE PRIOR APPROVAL
- OF THE ENGINEER. C24. FOR SLAB FOUNDATIONS TO BE CAST AT SURFACE LEVEL TO A DEPTH UP TO 300mm FROM THE NATURAL SURFACE LEVEL, THE SURFACE SOIL SHALL BE STRIPPED AS REQUIRED AND THE EXPOSED SURFACE SHALL BE WATERED AND PROOF COMPACTED. THE EXCAVATED SOIL SHALL BE MOISTURE CONDITIONED REPLACED AND COMPACTED IN LAYERS NOT EXCEEDING 150MM THICK UP TO THE REQUIRED DEPTH.
- FOR SLAB FOUNDATIONS TO BE CAST WHERE THE GROUND SURFACE C25. IS REQUIRED TO BE RAISED CONTROLLED FILL SHALL BE USED TO PREPARE A PLATFORM ON WHICH THE SLAB IS TO BE PLACED.
- IF FOOTING EXCAVATIONS ARE LOWER THAN THOSE SHOWN ON THE Γ26 DRAWING, THE FOOTING THICKNESS SHALL BE INCREASED, OR THE OVER EXCAVATION BENEATH THE FOOTING BACKFILLED WITH 10MPa CONCRETE

- CONCRETE REINFORCEMENT
- R1. REINFORCEMENT SHALL COMPLY WITH AS 4671. R2. REINFORCEMENT GRADE AND TYPE IS DENOTED THUS:-R - PLAIN ROUND BARS (GRADE 250R) TO AS 1302.
- N DEFORMED BARS (GRADE D500N) TO AS 4671. RF/SL/RL/TM - WELDED WIRE FABRIC TO AS 4671. R3. ALL REINFORCEMENT BARS SHALL BE HANDLED ON SITE INCLUDING STORAGE, FIXING AND WELDING STRICTLY IN ACCORDANCE WITH
- RELEVANT MANUFACTURERS REQUIREMENTS AND RECOMMENDATIONS CONTRACTOR SHALL OBTAIN ALL RELEVANT INFORMATION FROM MANUFACTURERS AND BE FAMILIAR WITH SUCH REQUIREMENTS.

CAST-IN ITEMS AND PENETRATIONS

- P1. PENETRATIONS FOR MECHANICAL, ELECTRICAL, HYDRAULICS AND OTHER SERVICES WHICH ARE NOT SHOWN ON THESE DRAWINGS SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. P2. ALL FLOOR PENETRATIONS THROUGH SLABS (INCLUDING EXACT
- LOCATION AND SIZES) TO BE SUBMITTED BY CONTRACTOR TO THE ENGINEER FOR APPROVAL INCLUDING ADDITIONAL SUPPOR STEELWORK REQUIRED. CONTRACTOR SHALL ALLOW IN HIS TENDER FOR COST ASSOCIATED WITH ADDITIONAL SUPPORT STEELWORK TO FLOOR PENETRATIONS THROUGH SLABS.
- P3. ALL RELEVANT SERVICES, EMBEDDED ITEMS, BOLTS, HOLES etc. SHALL BE VERIFIED PRIOR TO PLACING CONCRETE BY CONTRACTOR. TEMPLATES ARE TO BE USED FOR LOCATION OF HD BOLTS.
- P4. ALL EMBEDDED STEELWORK OTHER THAN REINFORCEMENT SHALL BE GRADE 250 OR 300 AND SHALL BE HOT DIP GALVANISED IN ACCORDANCE WITH AS4791 AND PASSIVATED UNLESS NOTED OTHERWISE.
- P5. BEFORE PLACING CONCRETE THE CONTRACTOR SHALL VERIFY REQUIREMENTS FOR ALL RELEVANT SERVICES EMBEDDED ITEMS BOLTS, HOLES ETC.
- P6. NO HOLES, CHASES OR EMBEDMENTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE MADE IN THE CONCRETE WITHOUT APPROVAL OF THE ENGINEER.
- P7. ALL SLABS SHALL HAVE FULLY ANCHORED RE-ENTRANT BARS AT ALL RE-ENTRANT CORNERS.
- P8. GALVANISED CAST-IN ITEMS SHALL BE ISOLATED FROM REINFORCING.

STEELWORK HOLDING DOWN BOLTS SH.1. HOLDING DOWN BOLT ROUND BAR MATERIAL SHALL BE TO AS 3679.1 GRADE 300.

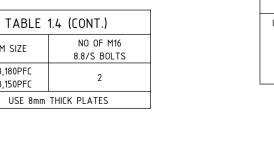
- ANCHOR PLATES SHALL BE TO AS 3678 OR AS 3679 GRADE 300. SH.2. THREADS FOR HOLDING DOWN BOLTS SHALL COMPLY WITH AS 1275.
- SH.3. HOLDING DOWN BOLTS SHALL BE HOT DIPPED GALVANISED AFTER FABRICATION TO AS 1214.
- SH.4. NUTS SHALL COMPLY WITH AS 1112 AND SHALL BE CLASS 5. SH.5. ALL HOLDING DOWN BOLTS SHALL HAVE ONE FLAT WASHER AND TWO NUTS. WASHERS TO COMPLY TO AS 4100 CLAUSE 14.3.5.2. FOR OVERSIZE HOLES.
- SH.6. ALL CHEMICAL ANCHOR BOLTS WHERE INDICATED ON THE DRAWINGS SHALL BE HILTI TYPE HIT-RE 500 INJECTION ADHESIVE WITH TYPE "HAS-E-F" (HOT DIPPED GALVANISED) ROD OR APPROVED EQUIVALENT BY APA REPRESENTATIVE. INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S
- INSTRUCTIONS. SH.7. ALL HOLDING DOWN BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION.
- SH.8. BONDED-IN HOLDING DOWN BOLTS AND/OR DOWEL BARS INTO PREFORMED/DRILLED HOLES SHALL BE CARRIED OUT USING HILTI HIT-RE 500 ADHESIVE INJECTION SYSTEM OR APPROVED EQUIVALENT BY THE ENGINEER INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

PO BOX 271BC		REVISION	N SCHEDULE			
HAWTHORN VIC 3122		DESCRIPTIC	NC	DATE	APP'D	
PHONE: +61 (0)3 8803 4366	TENDER ISSUE			23.06.2015		
FAX: +61 (0)3 9882 7633						
ABN: 1815 482 0390						
						THIS DRAWIN
						THIS DRAWI
						FOR ANY C
					1 1	WITHOUT TH

)mm								
mm			٦	ABLE	E 1.5 -	MASO	NRY SI	CHE
)mm Smm	-		ATION RIPTION	UNIT	TYPE	f'uc (MPa)	MORT A C:L:S	
mm		ALL I	BRICKS	CL	AY.	40	1:1:6	
)mm)mm		ALL E	BLOCKS	CONC	RETE	15	1:1:6	
)mm						TA	BLE 1.0	5
)mm)mm			<u>NON-</u>	LOAD		<u>ng Wa</u> R Bric		
)mm)mm			SPAN	(mm)	STO	PPORTING REY ABOV M HIGH B'	E (UP	SU 4
NIMUM E & TO 1ENTS.				D 900 00	10	0x90x10 E 00x100x8 E	EA.	

180UB,180PFC

150UB,150PFC



	CONCRETE REINFORCEMENT
57.0.0	ARE DETAILED ON THE DRAWING IN THE FOLLOWING MANNER:- PLE: 16N24-300B1
16	NUMBER OF REINFORCING BARS.
N24	BAR GRADE AND DIAMETER.

300 DISTANCE BETWEEN BAR CENTRES.

B1 DESIGNATION OF REINFORCEMENT LAYER. NOT GENERALLY SPECIFIED (REFER DIAGRAM 1)

R5. ALL FABRIC SHALL HAVE A MINIMUM LAP OF 300mm, UNLESS NOTED OTHERWISE. R6. SPLICES IN REINFORCING SHALL BE IN THOSE POSITIONS SHOWN ON THE DRAWINGS, IN SLABS AND BEAMS, WITH LONG CONTINUOUS BARS SPLICES SHALL BE STAGGERED IN ADJACENT BARS BY 48 DIAMETERS MINIMUM

R7. ANY LAP LENGTH OR EMBEDMENT NOT NOTATED SHALL BE AS TABLE 1.1 AND IN ACCORDANCE WITH AS3600. WHEN LAPPING BARS OF DIFFERENT SIZE THE LAP LENGTH FOR THE SMALLER BAR SHALL APPI Y

R8. WHERE COGS ARE SHOWN ON THE DRAWINGS, THE COG LENGTH SHALL BE AS TABLE 1.1 U.N.O. R9 ALL REINFORCING BARS SHALL BE STRAIGHT UNLESS SHOWN

OTHERWISE ON THE DRAWINGS.

R10. TOP REINFORCEMENT IN EDGE OF SLABS OR BEAMS SHALL HAVE STANDARD COGS IN ACCORDANCE WITH SECTION 13.1.2.6 OF AS3600. R11. BOTTOM REINFORCEMENT IN SLABS OR BEAMS SHALL ANCHOR INTO THE SUPPORT IN ACCORDANCE WITH SECTION 13.1.2.6 OF AS3600. R12. PROVIDE 3N16 PER-ENTRANT CORNER BARS x 2000mm LONG TYPICAL

AROUND COLUMNS & CORNERS. R13. DEFORMING OF BARS SHALL BE COLD ROLLED AND ANY HEATING OF BARS IS NOT ALLOWED.

R14. TOP REINFORCEMENT IN SLABS SHALL BE PLACED CENTRALLY OVER BEAMS OR WALLS UNLESS SHOWN OTHERWISE. LENGTH OF REINFORCEMENT SHALL COMPLY WITH CLAUSE 8.1.8.5 OF AS3600. R15. DISTRIBUTION REINFORCEMENT SHALL BE N16 BARS AT 300 CENTRES UNLESS NOTED OTHERWISE

R16. REINFORCEMENT IN THE DIRECTION OF THE SPAN SHALL BE NEARER TO THE ADJACENT SURFACE, UNLESS NOTED OTHERWISE

R17. TABLE OF MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT SHALL A1. BE AS PER TABLE 1.2. UNLESS NOTED OTHERWISE

R18. WHERE PENETRATIONS OR CAST-IN ITEMS DISPLACE REINFORCEMENT, THE ARRANGEMENT OF THE REINFORCEMENT SHALL BE APPROVED BY THE ENGINEER. UNDER NO CIRCUMSTANCES IS THE REINFORCEMENT TO A3.

BE DISPLACED INTO THE COVER ZONE. R19. FOR MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT TO ACHIEVE REQUIRED FIRE RATING REFER TABLE 1.3.

R20. ALL REINFORCEMENT SHALL BE SUPPORTED IN POSITION BY APPROVED CHAIRS, SPACERS OR TIES. IN SLABS THE BAR CHAIRS SHALL BE AT 800 x 800mm MAXIMUM CENTRES. BAR CHAIRS SHALL BE PROVIDED ALONG EDGES OF ALL CONSTRUCTION JOINTS. STOP ENDS SHALL NOT BE USED TO MAINTAIN COVERS. METAL CHAIRS SHALL NOT BE USED. R21. FOR ALL EXTERNAL SURFACES PROVIDE FULLY PLASTIC BAR CHAIRS TIE WIRE SHALL NOT BE NAILED TO THE FORMS, REINFORCING BARS SHALL NOT BE USED TO KEEP FORMS APART AND A THROUGH TIE SYSTEM SHALL BE USED TO TIE FORMS. R22. REBENDING OF REINFORCING BARS SHALL BE PERFORMED ACCORDING TO

CLAUSE 17.2.3 OF AS 3600.

STEELWORK GROUTING BASE PLATES

SG.1. A SPACE OF 25MM BETWEEN ALL BEAMS/COLUMNS BEARING ON CONCRETE OR BRICK SHALL BE LEFT FOR GROUTING. THE SPACE SHALL BE THOROUGHLY CLEANED AND DAMPENED PRIOR TO GROUTING. GROUTING SHALL BE USED WITHIN 30 MINUTES OF THE ADDITION OF WATER. GROUTING SHALL NOT COMMENCE UNTIL ALL STEELWORK HAS BEEN PLUMBED AND IS WITHIN THE SPECIFIED TOLERANCES SG.2. THE GROUTING OF ALL STRUCTURAL BASE PLATES, HOLDING DOWN BOLTS AND EQUIPMENT BASE PLATES SHALL COMPLY

WITH THE RELEVANT PROJECT SPECIFICATION FOR CONCRETE CONSTRUCTION FOR GROUTING OF EQUIPMENT AND BASE PLATES SG.3. MINIMUM GROUT THICKNESS UNLESS NOTED OTHERWISE:

30mm - ALL BASEPLATES (U.N.O) 25mm - FOR EMBEDDED ANCHOR BOLTS (U.N.O)

20mm - FOR MASONRY ANCHORS (U.N.O)

SG.4. ALL GROUT SHALL BE 'CONBEXTRA HF' HIGH PERFORMANCE NON SHRINK GROUT BY 'PARBURY' OR APPROVED EQUIVALENT BY ENGINEER, APPLIED UNDER THE FULL SURFACE AREA OF BASEPLATE (U.N.O.)

SG.5. ALL GROUT SHALL BE PLACED AND CURED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

SG.6. BASEPLATES SHALL BE SUPPORTED BEFORE GROUTING BY GALVANIZED STEEL PACKERS COVERING NOT LESS THAN 10% OF THE BEARING AREA. ACCESS FOR GROUT MUST NOT BE BLOCKED BY PACKERS. THE CONTRACTOR SHALL PROVIDE ALL FASTENINGS, SITE CLEATS, PACKERS, SHIMS, WEDGES AND LANDING STOOLS ETC. NECESSARY FOR THE EFFICIENT AND SAFE ERECTION OF ALL STEELWORK. SG.7. STEEL PACKERS UNDER BASEPLATES SHALL BE FULLY ENCASED IN GROUT

SG.8. ALL BLOCK OUTS, SHEAR KEY RECESS AND ANCHOR BOLTS WITH SLEEVES SHALL HAVE TEMPORARY FORMERS REMOVED AND THE ANNULAR SPACE BETWEEN BOLT SHANK AND SLEEVE FILLED WITH POURABLE GROUT AFTER BASE PLATES ARE ALIGNED, PLUMBED AND LEVELLED, BEFORE BASE PLATES ARE GROUTED.

CONCRETE FORMWORK

F1. ALL FORMWORK AND FALSEWORK SHALL COMPLY WITH AS3600 AND AS3610.

- FORMWORK FOR EXPOSED CONCRETE SHALL BE CLASS 3C FINISH. F2. F3. FOR STRIPPING TIMES REFER TO AS 3600.
- F4.a. SLABS:

F6.

F8

A6.

SOFFIT FORMS MAY BE STRIPPED AFTER 3 DAYS IF CONTROL SAMPLES ARE TAKEN. TESTED AND HAVE STRENGTHS OF 13MPa AND SLABS ARE BACK PROPPED IMMEDIATELY AT 2.5m CENTRES (MAX). HORIZONTAL SPACING SHALL SUIT PROP CAPACITY BUT SHALL NOT EXCEED 1.4m CENTRES.

F4.b. SLABS: REMOVAL OF FORMWORK PROPS SHALL BE GOVERNED BY THE NUMBER OF LEVELS OF PROPS. FOR 32MPa CONCRETE A MINIMUM OF 4 LEVELS OF PROPS AT MIDSPAN OF SLAB SHALL REMAIN AT ANY POINT IN TIME. THIS MAY BE REDUCED TO THREE LEVELS OF PROPS IF THE CONCRETE GRADE IS INCREASED TO 40MPa.

F5.a. BAND AND TRANSFER BEAMS: SOFFIT FORMS MAY BE REMOVED AFTER THREE DAYS IF CONTROL SAMPLES ARE TAKEN, TESTED HAVE A STRENGTH OF 13MPa AND BEAMS ARE BACK PROPPED AT 3.0m MAX CENTRES.

F5.b. BAND AND TRANSFER BEAMS: FORMWORK SUPPORTS SHALL BE MAINTAINED TO SUIT REQUIREMENTS OF SLAB SUPPORT BUT SHALL BE RETAINED FOR A MINIMUM OF 21 DAYS FOR 32MPa CONCRETE OR 14 DAYS FOR 40MPa CONCRETE.

TRANSFER ALL PROPPING FORCES INTO THE GROUND AND PROVIDE ADEQUATE SOLEPLATES OR FOOTINGS TO SAFELY SUPPORT THESE FORCES WITHOUT EXCESSIVE SETTLEMENT. LOWER FLOORS SHALL BE ASSUMED TO BE INCAPABLE OF SUPPORTING THE WEIGHT OF THE UPPER FLOORS UNLESS IT CAN BE SHOWN THAT THE PROVISIONS OF AS3600, CLAUSE 19.6 ARE MET

SLAB MUST BE BACKPROPPED AT THE SAME TIME AS STRIPPING F7. SOFFIT FORM.

'BONDEK' OR EQUIVALENT FORMWORK DECKING SHALL BE FIXED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS ALL 'BONDEK' OR EQUIVALENT FORMWORK DECKING SLABS SHALL BE BACKPROPPED AT LEAST OVER TWO LEVELS WITH MINIMUM TWO ROWS OF PROPS.

CONCRETE ANCHOR BOLTS

ANCHOR BOLT ROUND BAR MATERIAL SHALL BE MINIMUM GRADE 250 STEEL TO AS 3679.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT DIP A2. GALVANISED.

- PROPRIETARY CHEMICAL ANCHORS SHALL BE HILTI HVU CAPSULE WITH M20 HAS-E-F (OR APPROVED EQUIVALENT GALVANISED ROD) FOR FIXING TO CONCRETE AND HILTI HIT-HY70 FOIL PACK WITH M20 HIT-V-F (OR APPROVED EQUIVALENT GALVANISED ROD) FOR FIXING TO BRICK/BLOCKWORK. ANCHORS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL ANCHOR BOLTS SHALL HAVE A MINIMUM OF ONE WASHER AND A4. ONE NUT
- DRILLED THREADED ANCHORS AND STARTER BARS IN CONCRETE A5.
- SHALL BE FIXED WITH HILTI "HIT RE500" ADHESIVE. ALL FABRICATED ANCHOR BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION.

STEELWORK SURFACE TREATMENT

SS.1. UNLESS NOTED OTHERWISE, CORROSION PROTECTION OF STEEL WORK SHALL BE AS FOLLOWS

- ALL STEELWORK SHALL BE PAINTED WITH ONE COAT OF APPROVED ZINC PHOSPHATE PRIMER.

- ALL PLATFORM FLOORING, LADDERS, CAGES, STAIR TREADS, PURLINS, GIRTS AND GUARD RAILING SHALL BE HOT DIP GALVANIZED TO AS 4680

- ALL EXPOSED STEELWORK INCLUDING BOLTS AND FIXING SHALL BE HOT DIP GALVANISED TO AS 4680. - ALL STRUCTURAL STEELWORK BELOW GROUND TO BE ENCASED BY

CONCRETE 75MM THICK. - ALL ROUND AND STEELWORK TO BE GALVANISED WITHIN

ENCASEMENT TO 150MM ABOVE GROUND.

- STEEL SURFACES MUST NOT BE PAINTED/GALVANISED IF MEMBER IS TO BE FIRE SPRAYED OR FRICTION GRIP BOLTED.

- DAMAGE TO STEELWORK ON SITE TO BE MECHANICALLY WIRE BRUSHED AND PRIMED WITH ZINC RICH EPOXY PRIMER.

SS.2. IN CASE OF COMPOSITE BEAMS WHERE THE SHEAR CONNECTORS ARE INTENDED TO BE AUTOMATICALLY WELDED TO THE BEAMS ON SITE THROUGH METAL FORMWORK, THE EXTERNAL SURFACE OF THE BEAM IN CONTACT WITH THE SHEAR CONNECTORS SHALL NOT BE HOT DIP GALVANISED TO AVOID DIFFICULTIES WITH THE AUTOMATIC WELDING. CONTRACTOR TO SEEK FURTHER ADVICE FROM RELEVANT MANUFACTURER AND/OR SPECIALIST.

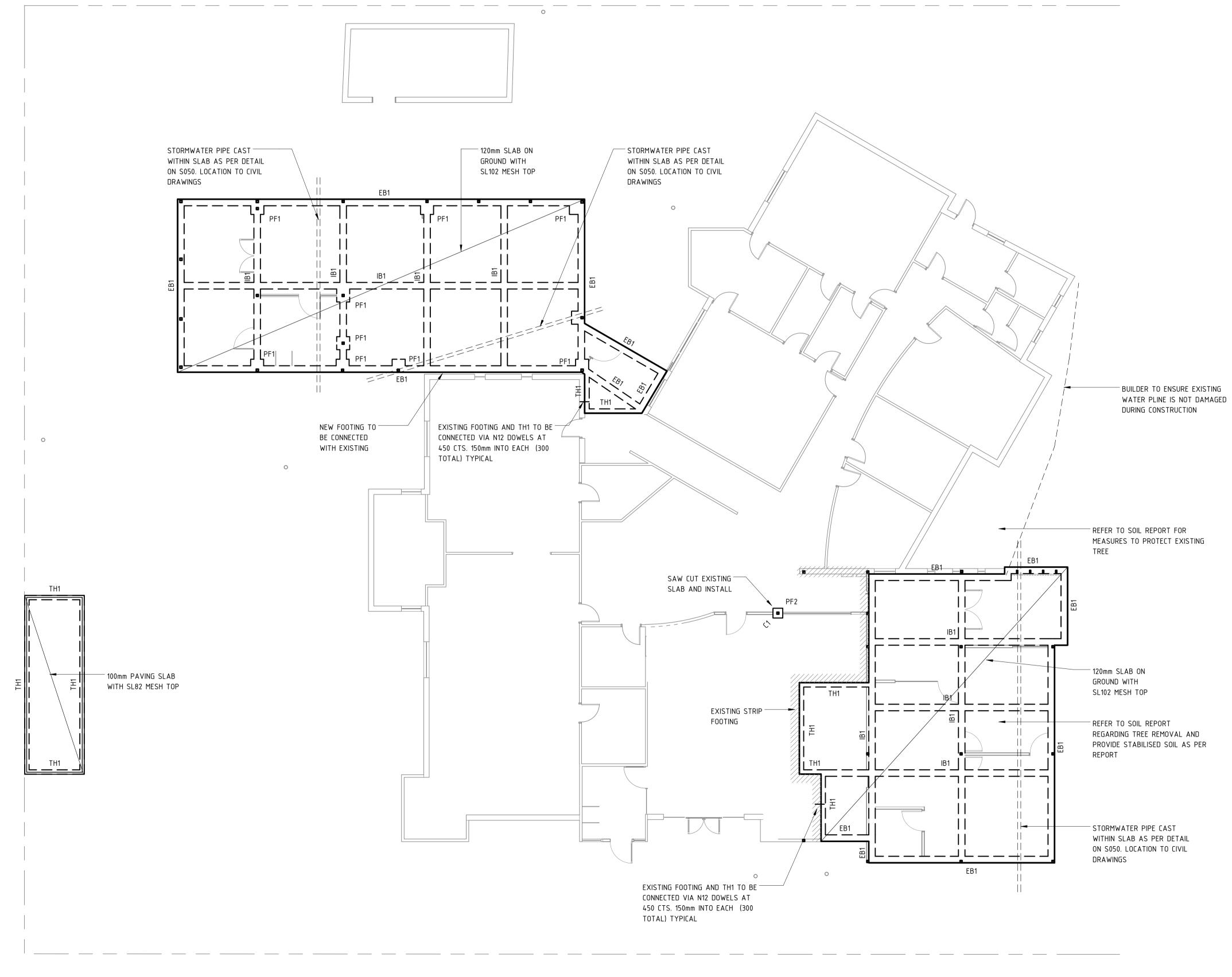
SS.3. ALL STEELWORK SHALL BE BROUGHT WITHIN FABRICATION TOLERANCE SPECIFIED IN AS 4100 AFTER WELDING AND/OR HOT DIP GALVANIZING.

SS.4. FIELD REPAIR OF PAINTING AND GALVANIZING SHALL BE IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS.

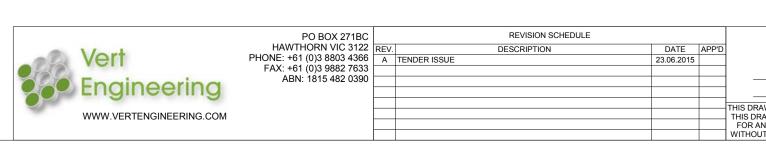
SS.5. GALVANISED STEELWORK THAT IS SITE WELDED OR SUSTAINS ANY OTHER KIND OF SURFACE DAMAGE IS TO BE PREPARED TO AS1627.2 CLASS 3 AND PRIMED WITH 2 COATS OF GALVINITE (MANUFACTURED BY JOTUN) TO MANUFACTURER'S SPECIFICATIONS.

	DRAWING INDEX						
DWG No.	TITLE	REV.					
S001	GENERAL NOTES	А					
S010	GROUND FLOOR FOOTING PLAN	А					
S025	ROOF FRAMING PLAN	А					
S050	FOOTING DETAILS	А					
S051	FRAMING DETAILS	А					

TENDER	PROJECT: MARIBYRNONG RIVER CHILDREN'S CENTRE	TITLE: GENERAL NOTES					
	CLIENT: K20 ARCHITECTURE	\frown	DESIGN: SU	P.I.D.:	5.06.2015		
NOT FOR CONSTRUCTION			DRAWN: AO	SCALE@A1:	1 : 10		
WING IS COPYRIGHT TO VERT ENGINEERING. NO PART OF AWING, INCLUDING THE WHOLE OF SAME SHALL BE USED	ADDRESS: 6 WESTS RD, MARIBYRNONG	NORTH	CERT.:	JOB NO.:	VE15085		
IY OTHER PURPOSE, NOR BY ANY OTHER THIRD PARTY, I THE PRIOR WRITTEN CONSENT OF VERT ENGINEERING.		DWG N	D.: S001		REV: A		



GROUND FLOOR FOOTING PLAN



LEGEND

<u> </u>	DENOTES SAW CUT JOINT. REFER DETAIL ON DRAWING S030.
C.J.	DENOTES CONSTRUCTION JOINT. REFER DETAIL ON DRAWING S030.
T.J	DENOTES TOOLED JOINT. REFER DETAIL ON DRAWING S030.

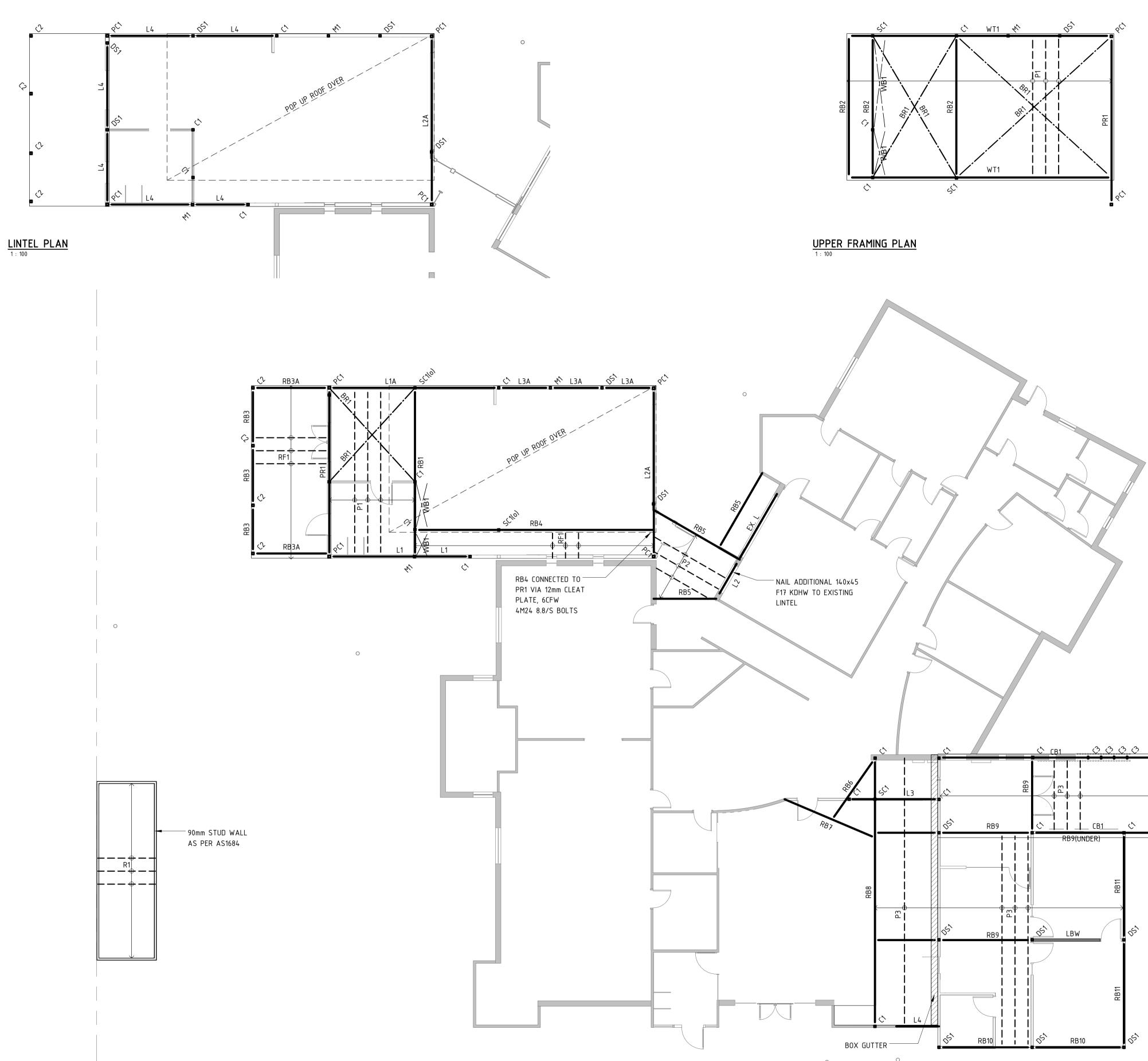
	MEMBER SCHEDULE – FOOTING								
ID	SIZE	REINFORCEMENT	COMMENTS						
EB1	700D x 300W	3L12TM BOT & 2N12TM TOP	EDGE BEAM						
IB1	700D x 300W	3L12TM BOT & 2N12TM TOP	INTERNAL BEAM						
PF1	700D x 600 x 600	SL82 MESH BOTTOM	PAD FOOTING						
PF2	700D x 450 x 450	SL82 MESH BOTTOM							
TH1	300D x 200W	2L11TM BOT	THICKENING						

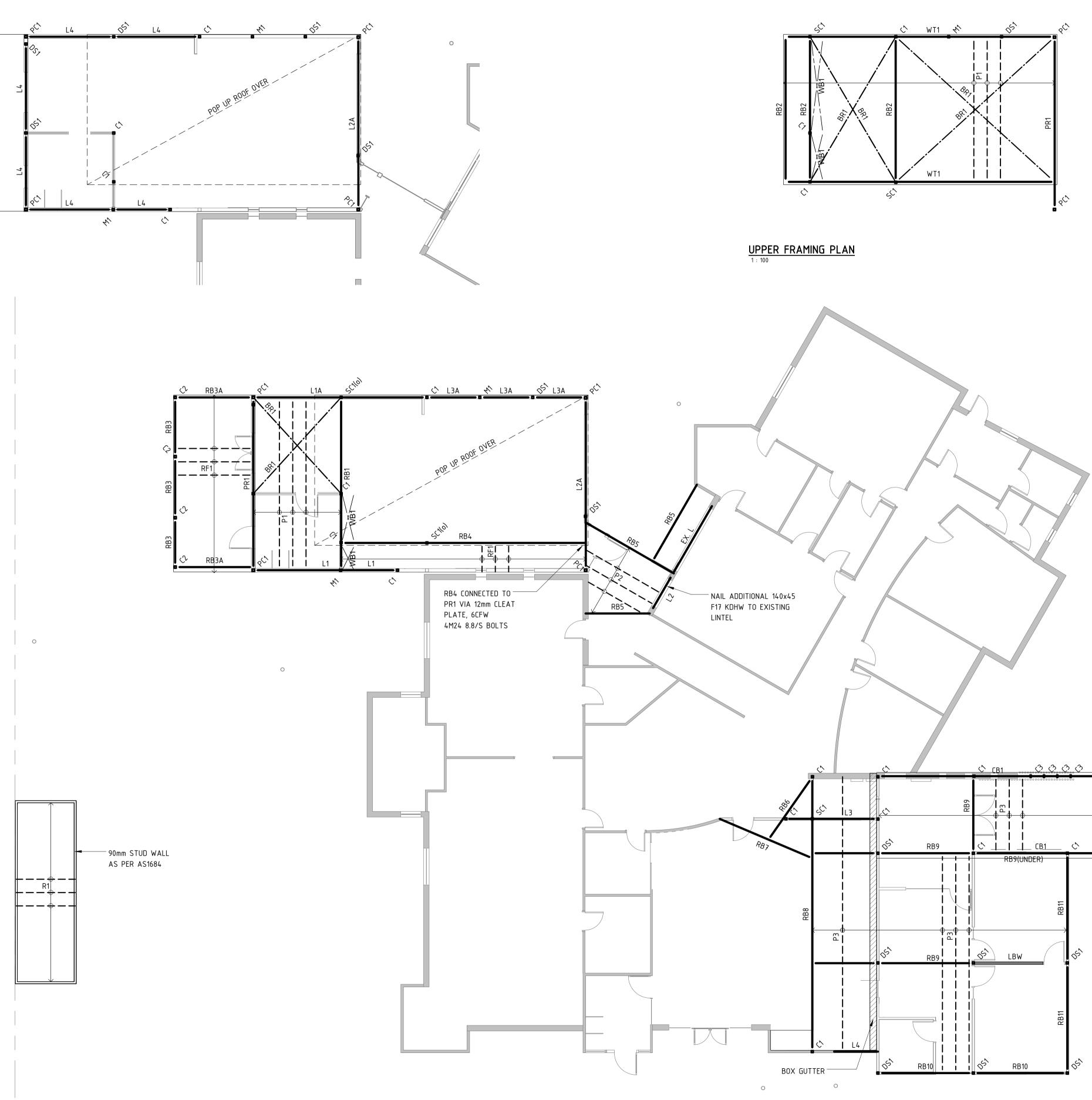
ALL FOOTINGS TO BE FOUNDED TO A DEPTH MATCHING EXISTING FOOTINGS

A١	١D	
S	PER	

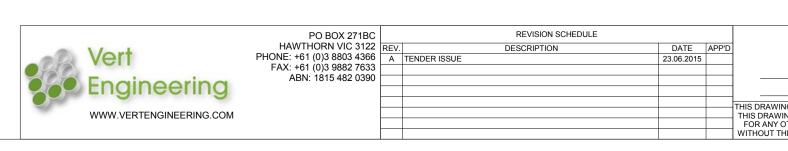
	CES. THE BUILDER IS TO DETERMINE INDERGROUND SERVICES PRIOR ANY
NOTE: INFORMATION REGARDING THE PIP EASEMENT WERE NOT SUPPLIED T STRUCTURAL DESIGN. ALL PROPE PRIOR TO CONSTRUCTION. THIS OF FURTHER ADVICE.	TO THIS OFFICE AT THE TIME OF RTY ASSETS ARE TO BE CONFIRMED
NOTE: FOOTINGS ARE NOT TO BE UNDER BUILDER TO CONFIRM THAT ALL F PROPOSED) ARE NOT UNDERMINED	OOTINGS (NEIGHBOURING AND
STEPS & SETDOWNS REFER TO THE ARCHITECT'S DRAV AND SIZE AND EXACT LOCATIONS	WINGS FOR FINISHED FLOOR LEVELS OF STEPS AND SETDOWNS.
ALL FOOTINGS TO BE FOUNDED IN REPORT. REFER SOIL REPORT FOR	
AT JUNCTION OF PAVING SLAB AN 200D THICKENING WITH N12-600 D	ND BUILDING LINE, PROVIDE 200W × IOWELS
MARIBYRNONG RIVER CHILDREN'S CENTRE	TITLE: GROUND FLOOR FOOTING PLAN
K20 ARCHITECTURE	DESIGN: SU P.I.D.: 5.06

TENDER	C	CHILDREN'S CENTRE	F	PLAN		
	CLIENT: 🕨	(20 ARCHITECTURE	\frown	DESIGN: SU	P.I.D.:	5.06.2015
NOT FOR CONSTRUCTION			\sim \sim	DRAWN: AO	SCALE@A1:	1 : 100
RAWING IS COPYRIGHT TO VERT ENGINEERING. NO PART OF DRAWING, INCLUDING THE WHOLE OF SAME SHALL BE USED	ADDRESS: 6	WESTS RD, MARIBYRNONG	NORTH	CERT.:	JOB NO.:	VE15085
ANY OTHER PURPOSE, NOR BY ANY OTHER THIRD PARTY, DUT THE PRIOR WRITTEN CONSENT OF VERT ENGINEERING.			DWG N	o.: S010)	REV: A





ROOF FRAMING PLAN



	MEMBER SCHEDUL	LE – ROOF
ID	MEMBER	COMMENTS
BR1	12 DIA ROD	ROOF BRACING
C1	89x6 SHS	
C2	100x100 HARDWOOD POST	
С3	100x50 RHS	
CB1	150 PFC	
CB2	89x6 SHS	
DS1	2/90x45 F17 KDHW	
EX. L	EX. LINTEL	
L1	2/290x45 F17 KDHW	
L1A	230PFC	
L2	2/140x45 F17 KDHW	
L2A	2/290x45 F17 KDHW	
L3	180PFC	
L3A	2/90x45 F17 KDHW	
L4	2/140x45 MGP10	
M1	89x4 SHS	
P1	C15019 PURLINGS AT 1200 CTS.	
P2	140x35 F17 KDHW AT 600 CTS	
Р3	140x45 F17 KDHW AT 450 CTS.	or C15015 AT 1200 CTS.
PC1	100x9 SHS	
PR1	100x9 SHS	
R1	90x35 RAFTERS AT 600 CTS.	
RB1	150PFC	
RB2	150PFC or 100x6 SHS	
RB3	140x45 F17 KDHW	
RB3A	140x45 MGP10	
RB4	310UB40	
RB5	190x45 F17 KDHW	
RB6	2/190x45 F17 KDHW	
RB7	2/240x45 F17 KDHW	
RB8	310UB32	25mm CAMBER
RB9	2/240x45 F17 KDHW	
RB10	2/240x45 F17 KDHW	
RB11	2/190x45 F17 KDHW	
RF1	90x45 MGP10 AT 600 CTS.	
SC1	89X6 SHS	
WB1	50x5 EA	WALL BRACING
WT1	230PFC or 150UC37	

TABLE 1.6							
NON-LOADBEARING WALL STEEL LINTEL SCHEDULE							
	(PER BRICK SKIN	I) (U.N.O)					
SPAN (mm) SUPPORTING ONE STOREY ABOVE (UP TO 5M HIGH B'WORK) SUPPORTING TWO STOREY ABOVE (UP TO 8M HIGH B'WORK)							
UP TO 900	90x90x10 EA	100×100×8 EA					
1200	100×100×8 EA.	100×100×10 EA.					
1500	100×100×10 EA	150x90x8 UA					
1800	150x90x8 UA	150x90x10 UA.					
2100	150x90x10 UA.	150x90x12 UA.					
2400	150x90X12 UA.	150x100x10 UA.					
2700	150x100x10 UA.	150x100x12 UA.					
3000 150×100×12 UA. –							

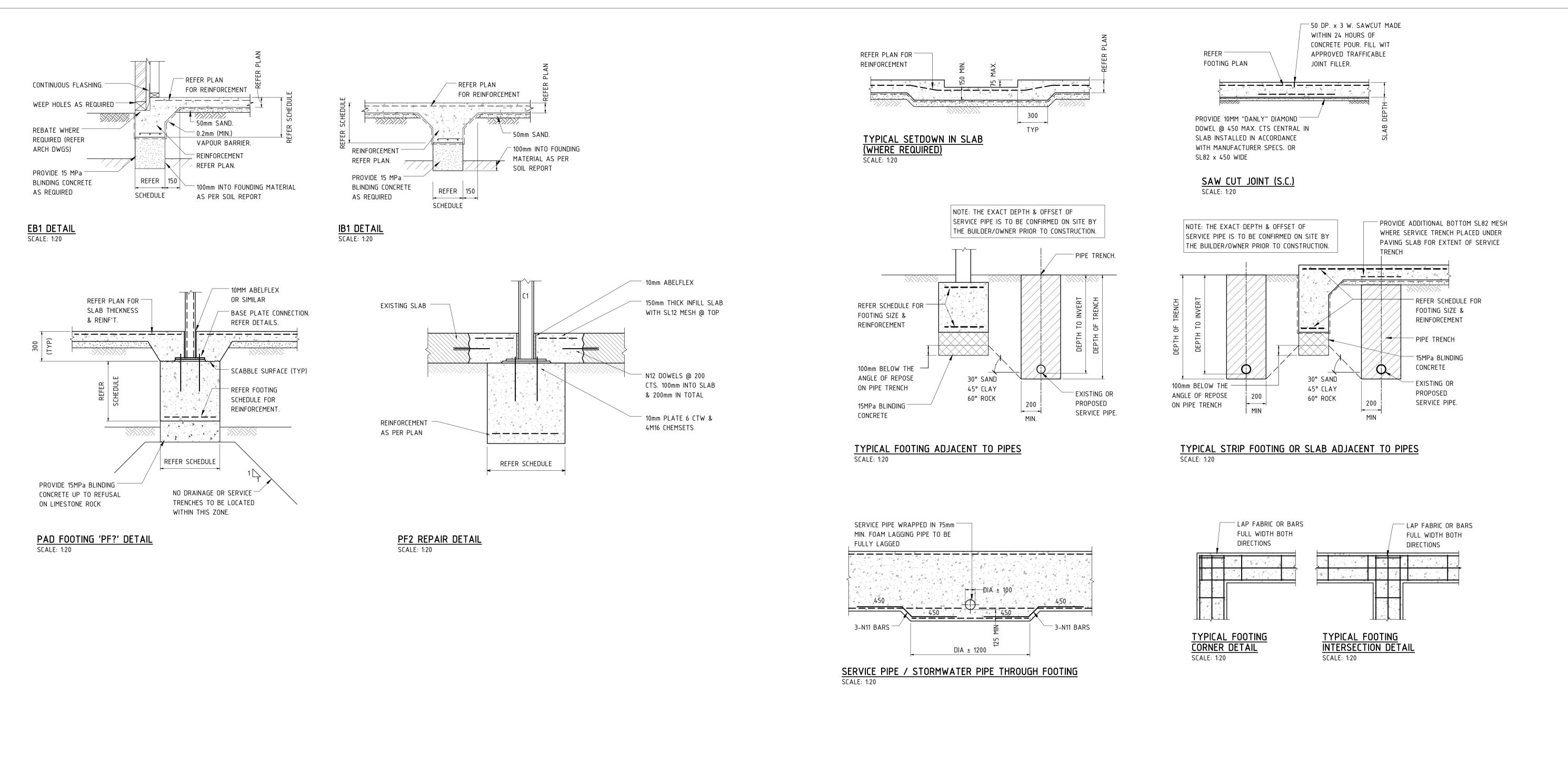
U.N.O. ALL LINTEL/BEAMS TO BE SUPPORTED BY 2/90x45 MGP10 DOUBLE STUD.

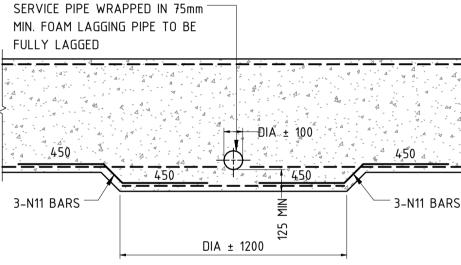
FRAMING NOTES:

REFER TO THE ARCHITECTURAL & AS.1684 'RESIDENTIAL TIMBER FRAMED CONSTRUCTION' FOR SIZES OF COMMON FRAMING MEMBERS NOT SPECIFIED BY VERT ENGINEERING.

BUILDER TO PROVIDE ROOF BRACING IN ACCORDANCE WITH AS.4440 & TIE DOWNS IN ACCORDANCE WITH AS.1684 'RESIDENTIAL TIMBER FRAMED CONSTRUCTION'.

TENDER	PROJECT: MARIBYRNONG RIVER CHILDREN'S CENTRE	TITLE: ROOF FRAMING PLAN			AN
	CLIENT: K20 ARCHITECTURE		DESIGN: SU	P.I.D.:	5.06.2015
NOT FOR CONSTRUCTION			-	SCALE@A1:,	AS INDICATED
IG IS COPYRIGHT TO VERT ENGINEERING. NO PART OF NG, INCLUDING THE WHOLE OF SAME SHALL BE USED	ADDRESS: 6 WESTS RD, MARIBYRNONG	NORTH	CERT.:	JOB NO.:	VE15085
THER PURPOSE, NOR BY ANY OTHER THIRD PARTY, IE PRIOR WRITTEN CONSENT OF VERT ENGINEERING.		DWG N	o.: S025	5	REV: A







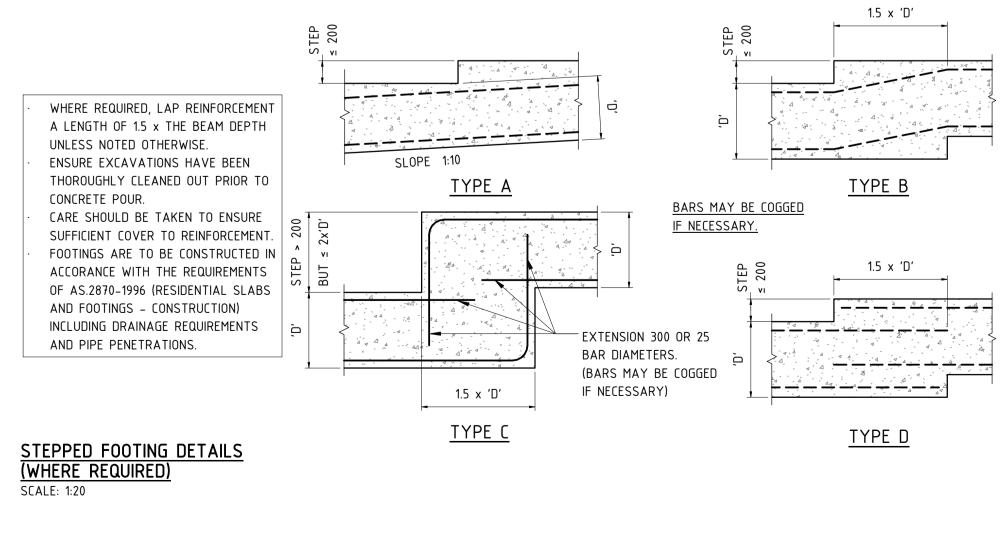
PO BOX 271BC HAWTHORN VIC 3122 PHONE: +61 (0)3 8803 4366 A TENDER ISSUE

FAX: +61 (0)3 9882 7633 ABN: 1815 482 0390

Vert

Engineering

WWW.VERTENGINEERING.COM

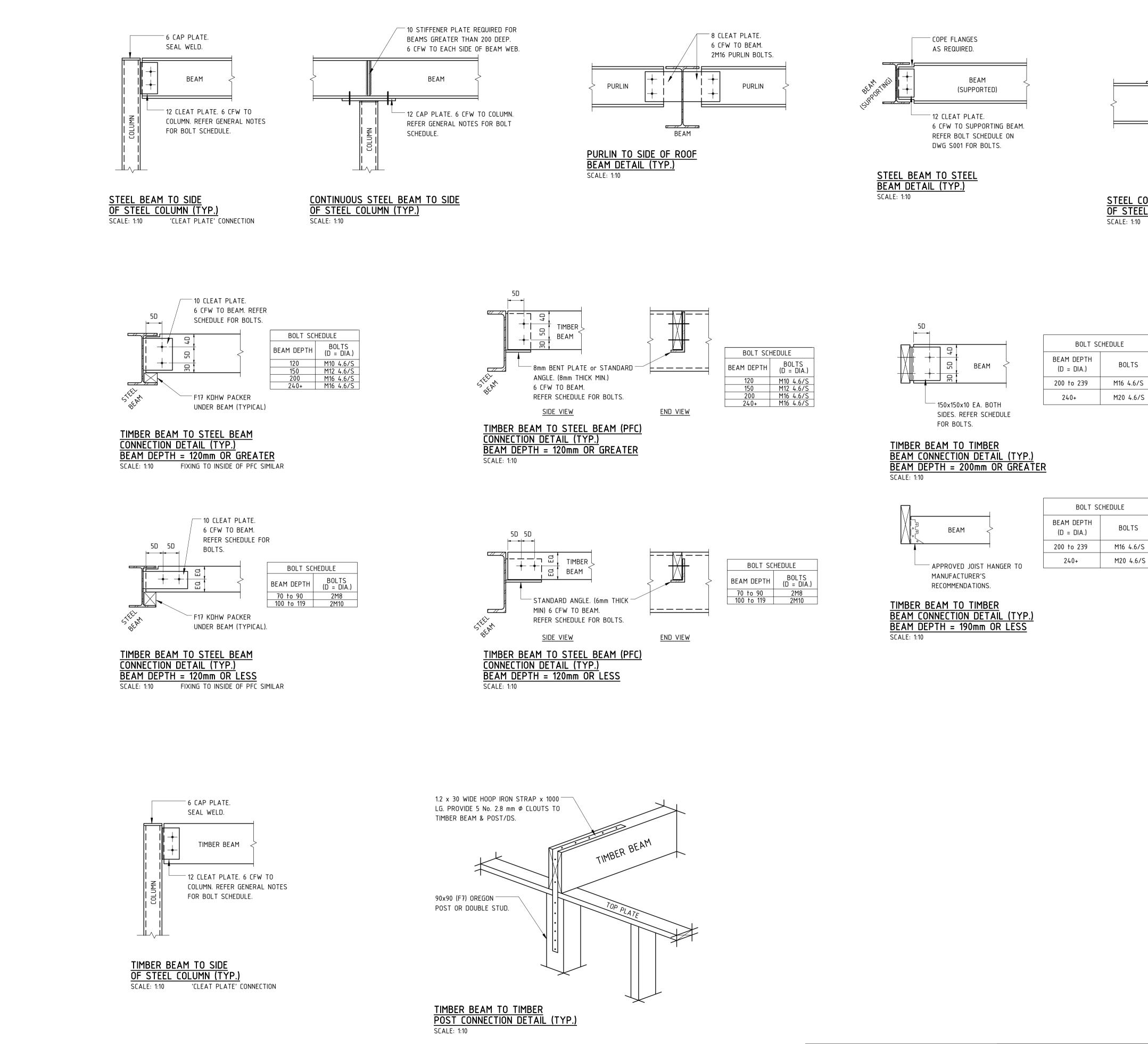


REVISION SCHEDULE

23.06.2015

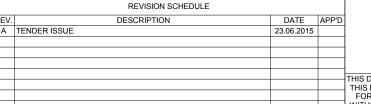
DESCRIPTION

		PROJECT:		TITLE:	FOOTING [DETAILS	
'P'D	TENDER		CHILDREN'S CENTRE				
		CLIENT:	K20 ARCHITECTURE	$\langle \rangle$	DESIGN: SU	P.I.D.:	5.06.2015
	NOT FOR CONSTRUCTION				DRAWN: AO	SCALE@A1:	1 : 20
	THIS DRAWING IS COPYRIGHT TO VERT ENGINEERING. NO PART OF THIS DRAWING, INCLUDING THE WHOLE OF SAME SHALL BE USED	ADDRESS	6 WESTS RD, MARIBYRNONG	NORTH	CERT.:	JOB NO.:	VE15085
	FOR ANY OTHER PURPOSE, NOR BY ANY OTHER THIRD PARTY, WITHOUT THE PRIOR WRITTEN CONSENT OF VERT ENGINEERING.			DWG N	10.: S05()	REV: A





PO BOX 271BC		RE
	REV.	DESC
HONE: +61 (0)3 8803 4366	Α	TENDER ISSUE
FAX: +61 (0)3 9882 7633		
ABN: 1815 482 0390		



10 BASE PLATE.
6 CFW TO COLUMN.
4M16 8.8/S BOLTS.

BEAM	<

- 8 STIFFENER PLATE REQUIRED FOR BEAMS GREATER THAN 200 DEEP. 6 CFW TO EACH SIDE OF BEAM WEB.

<u>STEEL COLUMN TO TO</u>P OF STEEL BEAM (TYP.)

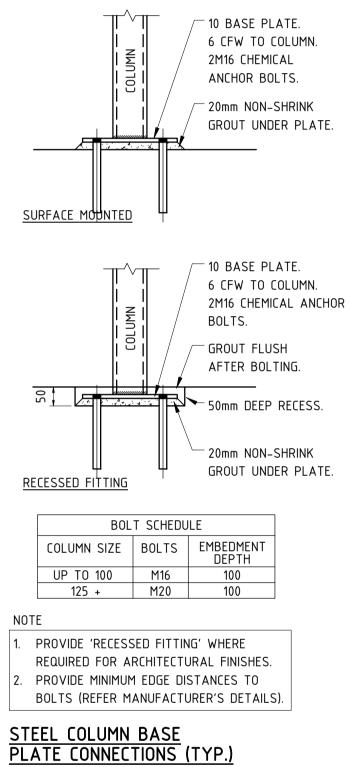
BOLTS

M20 4.6/S

BOLTS

M16 4.6/S

M20 4.6/S



SCALE: 1:10

TENDER

NOT FOR CONSTRUCTION

PROJECT: MARIBYRNONG RIVER CHILDREN'S CENTRE CLIENT: K20 ARCHITECTURE

TITLE: FRAMING DETAILS

DESIGN: SU P.I.D.: 5.06.2015 DRAWN: AO SCALE@A1: 1:10 NORTH CERT .: JOB NO .: VE15085 DWG NO.: 8051 REV: A

THIS DRAWING IS COPYRIGHT TO VERT ENGINEERING. NO PART OF THIS DRAWING, INCLUDING THE WHOLE OF SAME SHALL BE USED FOR ANY OTHER PURPOSE, NOR BY ANY OTHER THIRD PARTY, WITHOUT THE PRIOR WRITTEN CONSENT OF VERT ENGINEERING.

MARIBYRNONG RIVER CHILDREN'S CENTRE **6 WESTS ROAD, MARIBYRNONG LOCALITY PLAN & GENERAL NOTES - CIVIL**

STANDARD NOTES

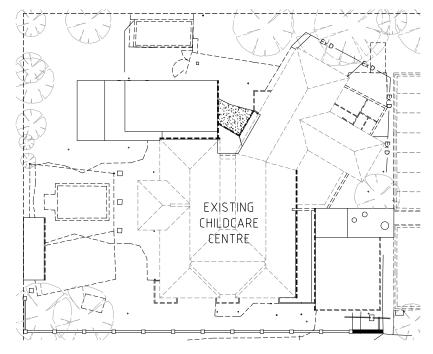
- 1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL STRUCTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT, ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING
- 2. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT STANDARDS AUSTRALIA CODES AND AUTHORIT
- 3. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTON OVER THE WORKS.
- 4. THESE DRAWINGS MUST NOT BE SCALED.
- ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.
- 6. SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
- 7. ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.
- 8. SERVICE INFORMATION SHOWN IS BASED ON PLANS SUPPLIED BY AUTHORITIES AND IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF DUPOR DUPUNDING OF THOSE AUTHORITIES
- 9. EXISTING SURFACE CONTOURS. WHERE SHOWN ARE INTERPOLATED AND MAY NOT BE ACCURATE
- 10. UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.
- 11. PRIOR TO THE PLACEMENT OF ANY PAVEMENTS, BUILDINGS OR DRAINS THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E11' OF A.S 1289 FOR THE TOP 300m... MAY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL TO THE ENGINEERS APPROVAL AND COMPACTED IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS SET OUT BELOW. ON HIGHLY REACTIVE CLAY AREAS SITE EXCAVATED MATERIAL MAY BE USED WITH THE PRIOR AUTHORISATION OF THE ENGINEER. ALL SUBGRADE PREPARATION MUST BE IN STRICT ACCORDANCE WITH THAT OUTLINED BY THE GEOTECHNICAL ENGINEER.
- 12. ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN 200mm MAXIMUM LODSE THICKNESS LAYERS TO THE DENSITIES SPECIFIED BELOW: 009/ 010

LANDSCAPED AREAS	70% STD.
FILL UNDER ANY FOOTINGS AND FLOOR SLABS	
FOR ANY STRUCTURE – FINE CRUSHED ROCK	95% MOD.
- OTHER FILL	95% SMDD
FILL UNDER ROAD PAVEMENTS	
– FINE CRUSHED ROCK	95% MOD.
- OTHER FILL	100% SMDD
ROAD PAVEMENT MATERIALS	
- SUB BASE	95% MOD.
- BASE COURSE	98% MOD.

- 13. GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY, WHERE FINISHED SURFACE LEVELS ARE NO SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.
- 14. UNLESS NOTED OTHERWISE ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH UPVC OR EARTHENWARE PIPES OF THE FOLLOWING SIZES LAID AT A MINIMUM GRADE OF 1 IN 100:
- A. 100 DIA. FOR DOMESTIC CONSTRUCTION B. 150 DIA. FOR COMMERCIAL/INDUSTRIAL CONSTRUCTION C. 100 DIA. FOR BASEMENT GRATED INLETS

- FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS.
- 15. ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING TYPES OF PIPES WITH RUBBER RING JOINTS:
- CLASS 2 RCP IN ACCORDANCE WITH A.S. 4058 B. SEWER CLASS SEH U.P.V.C. IN ACCORDANCE WITH A.S. 1260 C. CLASS 2 F.R.C. TO A.S. 4139 ANY OTHER TYPES OF PIPE MUST BE REFERRED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
- IF U P V C OR OTHER PIPES ARE TO BE USED APPROVAL MUST BE GIVEN BY THE ENGINEER FOR CLASS, BEDDING AND BACKELL REQUIREMENTS
- 16. GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
- A. COMPLY WITH THE GENERAL PROVISIONS OF SECTION 21 OF THE 'OCCUPATIONAL HEALTH AND SAFETY ACT B. COMPLY WITH WITH THE 'OCCUPATIONAL HEALTH AND SAFETY CODE OF PRACTISE FOR SAFETY PRECAUTIONS IN TRENCHING OPERATIONS

- 17. PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 1.5 METRES THE CONTRACTOR MUST:
- NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE
- APPROPRIATE FORM. B. NONINATE THE MINE MANAGER FOR THE PROJECT. C. CARRY OUT ALL EXCAVATION WORKS IN ACCORDANCE WITH THE REQUIREMENTS OF THE 'MINES ACT 1958 REGULATIONS AND STATUTORY RULES'
- 18. ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTRE OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- 19. ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER
- 20 REFER TO STRUCTURAL DRAWINGS FOR FOOTING AND FOUNDATION DETAILS.
- 21. ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER
- 22. CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS
- 23. EXISTING SERVICES COVERS AFFECTED BY NEW WORKS TO BE ADJUSTED OR MODIFIED TO SUIT NEW SURFACE LEVELS.



WESTS ROAD

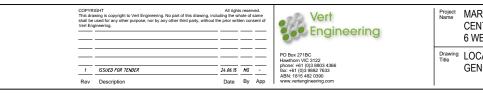
LOCALITY PLAN SCALE 1:250A1) HOR 1:250 SCALE 2.5 5.0 7.5 10

IMPORTANT NOTES

- PRIOR TO THE COMMENCEMENT OF BUILDING WORKS ON SITE, THE CONTRACTOR MUST VERIFY THE FEASIBILITY OF THE OUTFALL STORMWATER DRAINAGE SYSTEM/S TO THE LEGAL POINT OF
- DISCHARGE AS DOCUMENTED BY:
- VERIFICATION OF THE INVERT LEVEL OF THE DRAIN FORMING THE LEGAL POINT OF DISCHARGE VERIFICATION THAT THE ROUTE FROM THE SITE TO THE LEGAL POINT/S OF DISCHARGE IS CLEAR OF ALL
- OTHER AUTHORITY SERVICES IF EITHER OF THE ABOVE CANNOT BE VERIFIED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT MANAGER OR CONSULTING CIVIL ENGINEER.
- PRIOR TO THE COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES. NOTIFY THE AUTHORITIES RESPONSIBLE FOR THOSE SERVICES AND COMPLY WITH ALL OF THE REQUIREMENTS OF THOSE AUTHORITIES.

HEALTH AND SAFETY

- H1. THE OBLIGATION OF VERT ENINEERING PTY LTD [OR OTHER RELEVANT VERT ENGINEERING ENTI (VERT ENGINEERING) AS THE DESIGN ENGINEER IS LIMITED TO ENSURING THAT THOSE PART. OF THE BUILDING OR STRUCTURE THAT ARE TO BE USED AS A WORKPLACE ARE, AS FAR AS REASONABLY PRACTICABLE, DESIGNED TO BE SAFE AND WITHOUT RISKS TO THE HEALTH OF THOSE PERSONS USING THE BUILDING OR STRUCTURE AS A WORKPLACE FOR THE PURPOSE FOR WHICH IT WAS DESIGNED IN ACCORDANCE WITH SECT. 28 OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004 (VIC).
- H2. VERT ENGINEERING IS NOT RESPONSIBLE FOR THE OCCUPATIONAL HEALTH & SAFETY OF PERSI AT THE SITE AS THOSE OBLIGATIONS RESIDE WITH THE CONTRACTORS AND/OR SUB-CONTRACTORS WHO OCCUPY OR HAVE CONTROL OF THE SITE IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL HEALTH AND SAFETY LEGISLATION, CODES OR PRACTICE, GUIDANCE NOTES, AUSTRALIAN STANDARDS AND OTHER RELEVANT DOCUMENTATION.
- H3. ANY ADVICE OR GUIDANCE CONCERNING OCCUPATIONAL HEALTH AND SAFETY ISSUES ARISING AT THE SITE SHOULD BE DIRECTED TO THE HEALTH AND SAFETY EXECUTIVE OR OFFICER NOMINATED FOR THE PROJECT.



THE CONTRACTOR SHALL BE

THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR AND AT ALL TIMES PROVIDE A SAFE WORKING ENVIRONMENT IN THE VICINITY OF THE SITE OF WORKS IN FULL COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY

HEALTH AND SAFETY

REGULATIONS

DRAWING	DRAWING INDEX		
NUMBER	DESCRIPTION		
C001	LOCALITY PLAN AND GENERAL NOTES		
C002	SITE PLAN - STORMWATER DESIGN & PAVEMENT DETAILS		
C003	CIVIL DETAILS AND PIT SCHEDULE		



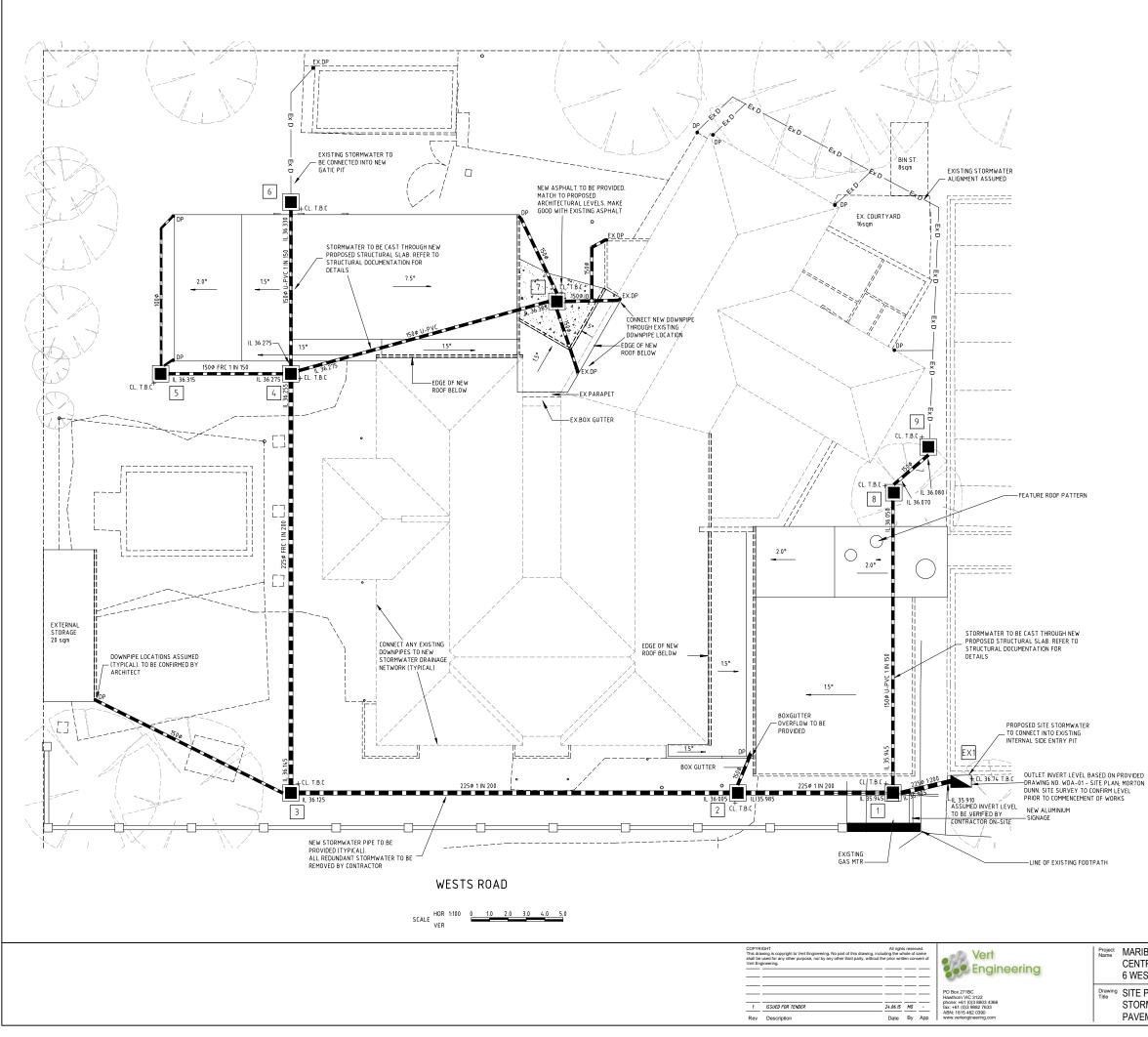
NO DRAINAGE WORKS SHALL COMMENCE UNTIL THE CONTRACTOR CONFIRMS THE I.L. OF ALL EXISTING DRAINS, AND CONFIRMS IN WRITING WITH THE ENGINEERING SUPERVISER.

ALL EXISTING PROPERTY SERVICES' LOCATIONS AND DEPTHS ARE APPROXIMATE AND MUST BE VERIFIED ON SITE. THE CONTRACTOR SHOULD SUPPLY PRECISE LOCATIONS AND DEPTHS TO THE ENGINEER FOR REVIEW PRIOR TO ANY WORKS THAT MAY AFFECT THESE SERVICES.

ATTENTION TO CONTRACTOR

- IN ACCORDANCE WITH CLAUSE 15 OF AS2124-1992, THE CONTRACTOR MUST ENSURE THE SAFETY OF THE CONTRACTOR'S EMPLOYEES AND ALL OTHER PEOPLE WHO ARE ON OR ADJACENT TO THE SITE. THE CONTRACTOR MUST COMPLY WITH THE VICTORIAN OCCUPATIONAL HEALTH AND SAFETY ACT.
- THE CONTRACTOR MUST ENSURE THAT ALL PEOPLE EMPLOYED ON THE SITE WEAR APPROVED SAFETY APPAREL. THIS INCLUDES SAFETY HELMETS, SAFETY BOOTS, EAR AND EYE PROTECTION, WHERE APPROPRIATE.
- THE CONTRACTOR IS NOT PERMITTED TO BREAK-IN TO AN EXISTING LIVE PIPELINE, ENTER A LIVE ACCESS CHAMBER OR REMOVE THE COVER TO A LIVE ACCESS CHAMBER.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EX. SERVICES IN WORKS AFFECTED AREAS PRIOR TO COMMENCING ANY WORKS.

MARIBYRNONG RIVER CHILDREN'S CENTRE	TENDER				
6 WESTS ROAD, MARIBYRNONG	Designed MG Drawn MG	Project Director Approved	Date N	lorth	
^{ing} LOCALITY PLAN AND GENERAL NOTES	Scale AS NOTED	Project Ref	Drawing No R	ev	
GENERAL NOTES	Date JUNE 2015 Sheet 1 OF 2	VE 15085	C001	1	



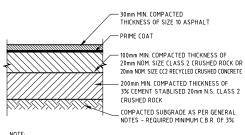
LEGEND					
ITEM	DESCRIPTION				
	EXISTING SURFACE CONTOURS				
156.6	NEW SURFACE CONTOURS				
+ 156.60	EXISTING SURFACE SPOT LEVELS				
+ 156.600	FINISHED SURFACE SPOT LEVELS				
КК	PROPOSED CONCRETE KERB				
SD SD	PROPOSED CONCRETE 600mm WIDE SPOON DRAIN				
—— Ex D ——	EXISTING STORMWATER DRAIN				
	PROPOSED STORMWATER DRAIN				
AG AG	90 DIAMETER UPVC AGRICULTURAL DRAIN				
	EXISTING STORMWATER PIT				
	PROPOSED STORMWATER PIT				
	EXISTING STORMWATER PIT TO BE MODIFIED				
—— Ex S ——	EXISTING SEWER				
—— E× G ——	EXISTING UNDERGROUND GAS PIPE				
—— Ex W ——	EXISTING WATER PIPE				
—— Ex E ——	EXISTING ELECTRICITY SUPPLY				
Ex OH	EXISTING OVERHEAD ELECTRICITY SUPPLY				
—— Ex T ——	EXISTING UNDERGROUND TELEGRAPH CABLE				
Ex OF	EXISTING OPTIC CABLE				
DP	DOWNPIPE (PLAN LOCATION)				
0 0	INSPECTION OPENING				
🖨 ତା	100¢ GRATED INLET UNLESS NOTED OTHERWISE				
	GRATED TRENCH				

IMPORTANT NOTE

PIT COVER LEVELS AND DEPTHS HAVE NOT BEEN PROVIDED AS PART OF THIS DOCUMENTATION ISSUE. THESE LEVELS WILL BE DEPENDANT ON THE PROPOSED ARCHITECTURAL SITE LEVELS FOR THE DEVELOPMENT IN CONJUNCTION TO A RECEIVED SITE SURVEY. THIS IS TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

IMPORTANT NOTE EXISTING REDUNDANT SITE STORMWATER TO BE DEMOLISHED BY CONTRACTOR ON-SITE. ANY EXISTING DOWNPIPES TO REMAIN MUST BE DIRECTED TO THE PROPOSED STORMWATER NETWORK

IMPORTANT NOTE SURROUNDING PAVEMENTS AND LANDSCAPE TO BE MADE GOOD TO PROPOSED ARCHITECTURAL LEVELS



NOTE: ALL ASPHALT AND CRUSHED ROCK MATERIALS AND CONSTRUCTION PROCEDURES SHALL COMPLY IN ALL RESPECTS WITH THE RELEVANT 'VICROADS' SPECIFICATIONS

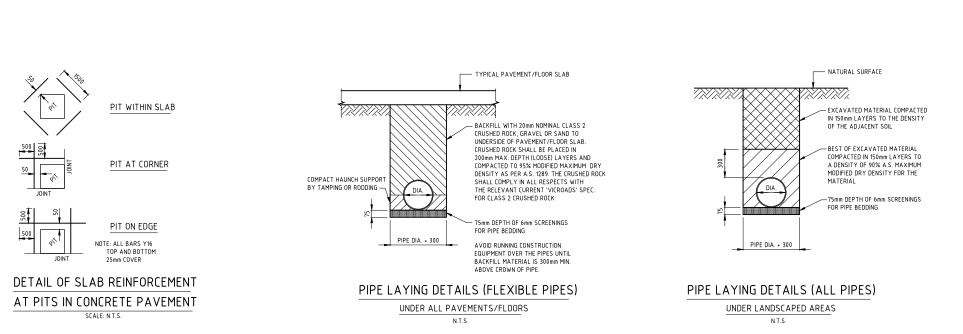
ASPHALT INFILL PAVEMENT N.T.S.



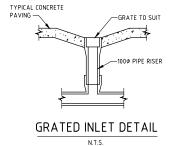
SHOWN THUS ON PLAN

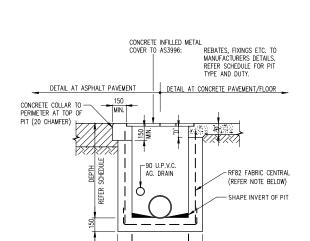
MARIBYRNONG RIVER CHILDREN'S	TENDER				
6 WESTS ROAD, MARIBYRNONG	Designed MU	Director Approved Date North			
^{ing} SITE PLAN		\bigcirc			
STORMWATER DESIGN AND	Scale 1:100 @ A1 Project	Ref Drawing No Rev			
PAVEMENT DETAILS	Date JUNE 2015 Sheet 1 DF 2	15085 C002 1			

COPVRIGHT the used for any other shall be used for any other	All rights reserved. Vert Engineering. No part of this drawing, including the whole of same purpose, nor by any other third party, without the prior written consent of	• Vert	Project Name MARIBYRNONG RIVER CHILDREN'S CENTRE	TENDER	
			6 WESTS ROAD, MARIBYRNONG	Designed MG Project Director Approved	Date Nor
		phone: +61 (0)3 8803 4366	Drawing Title CIVIL DETAILS AND PIT SCHEDULE	Scale AS NOTED Project Ref	Drawing No Rev
1 ISSUED FOR TEX Rev Description		fax: +61 (0)3 9882 7633 ABN: 1815 482 0390 www.vertengineering.com		Date JUNE 2015 Sheet 1 DF 2 VE 15085	C003 1









W(xI)

1. PROVIDE 600mm LENGTH OF 90mm DIA. AGRICULTURAL PIPE

JUNCTION PIT (CONCRETE INFILLED)

N.T.S.

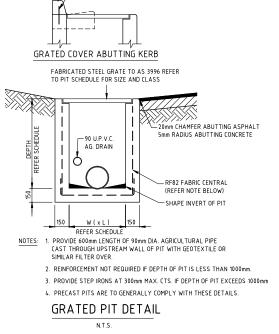
NOTES:

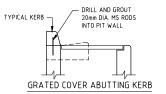
REFER SCHEDULI

CAST THROUGH UPSTREAM WALL OF PIT WITH GEOTEXTILE OR SIMILAR FILTER OVER.

2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm. 3. PROVIDE STEP IRONS AT 300mm MAX. CTS. IF DEPTH OF PIT EXCEEDS 1000mm

4. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS.





IMPORTANT NOTE PIT COVER LEVELS AND DEPTHS HAVE NOT BEEN PROVIDED AS PART OF THIS DOCUMENTATION ISSUE. THESE LEVELS WILL BE DEPENDANT ON THE PROPOSED ARCHITECTURAL SITE LEVELS FOR THE DEVELOPMENT IN CONJUNCTION TO A RECEIVED SITE SURVEY. THIS IS TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS

NOTE: PITS TO HAVE BOLT DOWN LIDS OR EQUIVALENT.

STORMWATER PIT SCHEDULE						
	INTERNAL DIM'NS W×L	R.L TOP	DEPTH	COVER TYPE		REMARKS
	-	36.74 (TBC)	0.83	-	-	CONNECT PROPOSED STORMWATER TO EXISTING PIT
	600 x 600	твс	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 × 600	TBC	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 x 600	твс	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 x 600	твс	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 x 600	твс	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 × 600	ТВС	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 x 600	TBC	TBC	GRATE	В	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 x 600	TBC	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS
	600 x 600	твс	TBC	CONCRETE INFILL STEEL COVER	C	MATCH TO PROPOSED ARCHITECTURAL LEVELS