

23 February 2015
Secta Reference: SC_16764-SR3288

Firststyle Homes Pty Ltd
P.O. Box 171
HOXTON PARK NSW 2171

SECTA
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Following your request, we can confirm that the following site has been inspected and subsequently classified by Secta Consulting Engineers in accordance with the relevant standards.

SITE REPORT

Re: Proposed Residential Property
LOTS 2226 to 2239 THORNTON – PENRITH

Client:	Firststyle Homes
Slab Design Code:	SD4 -300pod (house) 225pod (garage), SL82 Referenced Code - AS 2870
Procedure's:	Bore test hole sample < 50mm diameter. Visual inspection. Identification of Soil Profile. Referenced Material
Basic Site Profile:	Deep Fill
Wind Classification:	"N2 (W33N)" in accordance with "AS 4055-2006"
Durability Classification:	"Exterior"
Concrete Quality:	20 Mpa
References:	AS 2870 – 2011 " Code for Residential Slabs and footings". Classification for N.S.W Soils for Housing. (NSW Builders Licensing Board). AS 4055-2006 Wind Loads for Housing. AS/NZS 4456.10:2003 Masonry units and segmental pavers and flags - Methods of test - Determining resistance to salt attack.

This report shall not be construed as relieving any other party of their responsibilities or contractual obligations.

Yours sincerely



Sharief Abdelfattah
MIEAUST CPENG NPER (structural/civil)
Accredited Certifier (structural/civil)

for Secta Consulting Engineers



GENERAL NOTES

THIS DRAWING IS SIGNED SUBJECT TO CERTIFICATE OF INSPECTION ISSUED BY ENGINEER.

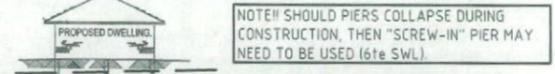
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- ANY SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE BUILDER.
- DURING CONSTRUCTION THE BUILDER SHALL MAINTAIN THE STRUCTURE IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- ALL WORK SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA AND RELEVANT AUSTRALIAN STANDARD CODES.
- SLAB & FOOTING DESIGN HAS BEEN BASED ON PRINCIPLES AS SET OUT IN AS2870 'RESIDENTIAL SLABS & FOOTINGS' - CURRENT EDITION AT TIME OF DESIGN ISSUE.
- PROVIDED THE SLAB IS CONSTRUCTED IN ACCORDANCE WITH THESE DETAILS, THE SLAB CAN BE CONSIDERED AS A MONOLITHIC TERMITE BARRIER IN ACCORDANCE WITH AS 3660 WHERE THE REQUIREMENTS OF AS 3660 CANNOT BE ACHIEVED, ADVICE FROM A LICENSED PEST CONTROL EXPERT SHALL BE OBTAINED & THE SUPERINTENDENT SHALL BE ADVISED OF ANY NECESSARY CHANGES RESULTING FROM SUCH ADVICE, PRIOR TO PROCEEDING WITH CONSTRUCTION. ADDITIONAL TERMITE TREATMENT IN ACCORDANCE WITH AS 3660 SHALL BE PROVIDED TO ALL CAVITIES, PENETRATIONS, JOINTS & CHASES AS REQUIRED.
- THE DESIGN AND DETAILS SHOWN ON THESE DRAWINGS ARE APPLICABLE TO THIS PROJECT ONLY AND MAY NOT BE REPRODUCED IN WHOLE OR PART, OR BE USED FOR ANY OTHER PROJECT OR PURPOSE, WITHOUT THE WRITTEN PERMISSION OF "SECTA CONSULTING ENGINEERS Pty Ltd" WITH WHOM THE COPYRIGHT RESIDES. WRITTEN CONSENT FROM "SECTA" FOR THE USE OF THESE PLANS MUST BE OBTAINED PRIOR TO ANY CHANGE OF PARTIES INCLUDING BUT NOT LIMITED TO OWNER, BUILDER & SUPERINTENDANT.

SITE PREPARATION & MAINTENANCE NOTES

- THE BUILDER SHALL ENSURE THAT THE OWNER'S ATTENTION IS DRAWN TO THE CSIRO'S "GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE".
- STRIP TOP SOIL AND VEGETATION BENCH SITE BY CUT & FILL TO REQUIRED LEVEL. FILL TO BE PLACED AS PER AS2870(6.4.2) AND IN LAYERS NOT EXCEEDING 150mm USING MULTIPLE PASSES OF EXCAVATOR. THE ACTUAL PREPARATION OF THE BUILDING PLATFORM IS NOT THE RESPONSIBILITY OF THE ENGINEER.
- THE SITE SHALL BE GRADED AND DRAINED SO THAT STORMWATER WILL BE DIRECTED AWAY FROM THE BUILDING PLATFORM.
- THE MINIMUM HEIGHT OF THE SLAB ABOVE FINISHED CONSTRUCTION LEVEL SHALL BE 300mm OR GREATER AS MAY BE REQUIRED BY COUNCIL.
- ALL EARTH DRAINS SHALL BE GRADED AT 1% (1 IN 100) MINIMUM. THE GROUND SHALL FALL AWAY FROM THE EARTH DRAIN AT 5% (1 IN 20) FOR THE FIRST METRE THEN AT 2.5% (1 IN 40). ANY VERTICAL OR NEAR VERTICAL PERMANENT EXCAVATION (CUT) DEEPER THAN 0.6 METRES.
- IN MATERIAL OTHER THAN ROCK SHALL BE ADEQUATELY RETAINED OR BATTERED AT A MINIMUM OF 3:1.
- WHERE CUT OR FILL BATTERS CANNOT BE PROVIDED THEY SHALL BE ADEQUATELY RETAINED.
- ALL SERVICE TRENCHES ARE TO BE LOCATED IN ACCORDANCE WITH THE DETAILS SHOWN ON HYDRAULIC CONSULTANTS DRAWINGS.
- STORMWATER MUST NOT BE CONCENTRATED ON TO ADJACENT PROPERTY.
- STORMWATER MUST BE CONNECTED TO THE NEAREST DISPOSAL POINT APPROVED BY COUNCIL. TYPICALLY THIS MAY BE DIRECTLY TO THE KERB OR TO AN INTER-ALLOTMENT DRAINAGE PIPELINE.
- THE PROVISION OF SURFACE OR SUBSOIL DRAINAGE OR PAVING WILL ALL IMPROVE SITE DRAINAGE.
- GOOD DRAINAGE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION AS WELL AS AFTER COMPLETION.
- ALL EXPOSED GROUND SHOULD BE REVEGETATED AS SOON AS PRACTICAL AFTER COMPLETION.
- SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE PROVIDED IN ACCORDANCE WITH COUNCIL REQUIREMENTS.

PIERING NOTES

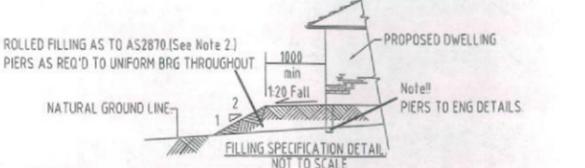
P1. PIERS TO EXTERNAL WALLS SHALL BE SPACED AT NO GREATER THAN:
 1.5m c/c FOR DOUBLE STOREY AREAS (ø400min DIA TO CLAY BRG 350kPa) - UNO ON SLAB PLAN
 1.8m c/c FOR SINGLE STOREY AREAS (ø400min DIA TO CLAY BRG 350kPa) - UNO ON SLAB PLAN
 1.8m c/c FOR SINGLE AND DOUBLE STOREY AREA (ø300min DIA TO ROCK/SHALE BRG 600kPa)
 IF PIERS EXCEED 2.5m DEEP THEN ø450min (Must Be) Adopted PIERS GREATER THAN 2.8m DEEP (Must Be) REINFORCED WITH A MINIMUM OF 4-N12 Bars + R6 Ties @400c/c



IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE PIER TOPS ARE CLEAN AND FREE OF FOREIGN MATTER PRIOR TO THE LAYING OF THE MEMBRANE AND CONCRETE SLAB. ENGINEER'S REINFORCEMENT CHECK DOES NOT RELEASE THE CONTRACTOR FROM THIS RESPONSIBILITY.

FOUNDATION NOTES

- ALL FOOTING BEAMS AND PADS ARE DESIGNED TO BEAR ON UNIFORM NATURAL GROUND WITH AN ALLOWABLE BEARING CAPACITY OF 100 kPa.
- PRIOR TO CONSTRUCTION OF THE BUILDING PLATFORM FOR THE SLAB:
 (i) AN AREA EXTENDING AT LEAST 1.0M BEYOND THE EDGE OF THE SLAB AND TO THE TOE OF ANY FILL BATTERS SHALL BE STRIPPED OF ALL ORGANIC MATTER AND ASSOCIATED TOPSOIL & NATURAL FILL AS NOTED ON BOREHOLE.
 (ii) FILL PLACED IN THE BUILDING PLATFORM SHALL BE PLACED IN ACCORDANCE WITH CL6.4.2 AS2870-2011.
 FOUNDATION MATERIAL SHALL BE APPROVED BY A SUITABLY QUALIFIED ENGINEER BEFORE COMMENCING FOOTING CONSTRUCTION.
- WHERE SOFT SPOTS (BEARING CAPACITY OF LESS THAN 100 kPa) ARE ENCOUNTERED IN NATURAL FOUNDATION MATERIAL OR BUILDING PLATFORM, OR WHERE FILL EXCEEDS 300mm THEN ADDITIONAL PIERS TO SUITABLE FOUNDING MATERIAL MAY BE REQUIRED AS DIRECTED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.
- WHERE ROCK IS ENCOUNTERED THE REMAINDER OF THE FOOTING SYSTEM SHALL BE FOUNDED ON ROCK AS DIRECTED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.
- WHERE THE INTEGRITY OF FOUNDATION MATERIAL IS LIKELY TO BE DISTURBED BY SERVICE TRENCHES ADJACENT, PIERS SHALL BE FOUNDED BELOW THE ZONE OF INFLUENCE OF SAME. (REFER TYPICAL DETAIL).



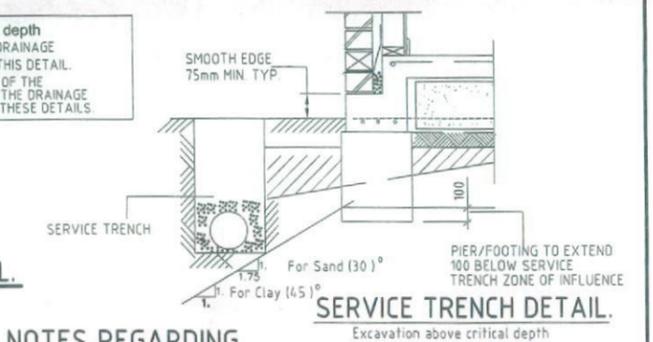
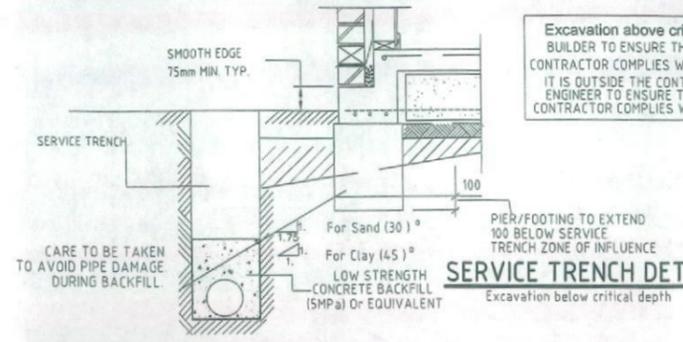
CONCRETE NOTES

- ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- CONCRETE 20 MPa AT 28 DAYS 80mm SLUMP, & TO BE CURED IMMEDIATELY FOLLOWING THE CONCRETE POUR. NO ADDITIONAL WATER TO BE ADDED TO CONCRETE ON SITE.
- KEEP CONCRETE CONTINUALLY WET FOR 7 DAYS MINIMUM AFTER PLACEMENT, PLASTIC OR WAX LIQUID SPRAYS MAY BE USED. EXTRA PRECAUTION SUCH AS THE USE OF EVAPORATIVE RETARDERS (ALPHATIC ALCOHOLS) ARE RECOMMENDED DURING HOT WEATHER. CONCRETE POURS TO HELP AVOID THERMAL RELATED SLAB CRACKING. CLEAR COVER OF REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS.
- REINFORCEMENT SHALL BE RIGIDLY SUPPORTED TO MAINTAIN SPECIFIED COVER DURING CONSTRUCTION.
- CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE SUPERINTENDENT.
- BEAM DEPTHS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITION SHOWN. OBTAIN APPROVAL FROM THE SUPERINTENDENT FOR ANY OTHER SPLICES.
- WHERE SLABS OR BEAMS BEAR UPON MASONRY, THE TOP COURSE SHALL BE LEVEL, SMOOTH & COVERED BY TWO LAYERS OF GALVANISED FLAT STEEL WITH GRAPHITE GREASE BETWEEN LAYERS.
- METHOD OF CURING CONCRETE SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL.
- NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
- ALL SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE SUPERINTENDENT.
- CONDUITS, PIPES, ETC. SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH, U.N.O.
- REINFORCEMENT SYMBOLS:
 R - GRADE 250N PLAIN BAR IN ACCORDANCE WITH AS/NZS 4671
 N - GRADE 500 DEFORMED BAR IN ACCORDANCE WITH AS/NZS 4671
 L - GRADE 500 DEFORMED WELDED WIRE MESH IN ACCORDANCE WITH AS/NZS 4671
 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY & IT IS NOT NECESSARILY IN TRUE PROJECTION.
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
- MESH SHALL BE LAPPED 1 MESH + 50mm.
- BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETERS CENTRES WITH 3 WRAPS OF THE WIRE.
- MASONRY WALLS SHALL NOT BE CONSTRUCTED ON SUSPENDED CONCRETE UNTIL ALL TEMPORARY SUPPORTS ARE REMOVED.
- STRUCTURAL STEELWORK WHERE CONCRETE ENCASED SHALL HAVE 50mm CONCRETE COVER, REINFORCED WITH GALVANISED SL41 MESH WITH 25mm COVER, LAPPED 150mm AT SPLICES.
- BRITTLE FLOOR COVERINGS TO BE LAID ON A SUITABLE FLEXIBLE TYPE BEDDING SYSTEM & SUPPLIED WITH CONTROL JOINTS @ 4000 CENTERS MAX ALTERNATIVELY FABRIC SL-92 TO BE USED, AS IF ADVISED BY BUILDER.

CONCRETE QUALITY

ELEMENT	Strength Grade	Slump mm	Max. Agg. mm	Cement Type
SLAB	20	80	20	SL
PIERS	20	80	20	SL
SALINE ENVIRONMENT Pier & Slab (High Impact Membrane) ORANGE PREMIUM	N32	80	20	SL

MINIMUM COVER IN SALINE SOILS - 55mm
 KEEP SLAB CONTINUALLY WET FOR 7 DAYS min.
 THE BUILDER TO CONFIRM & ADHERE TO RELEVANT CONDITIONS OF CONSENT IN RELATION TO CONSTRUCTION INCLUSIONS ON SITES LOCATED OR LIKELY TO BE IMPACTED BY SALINITY LEVELS.

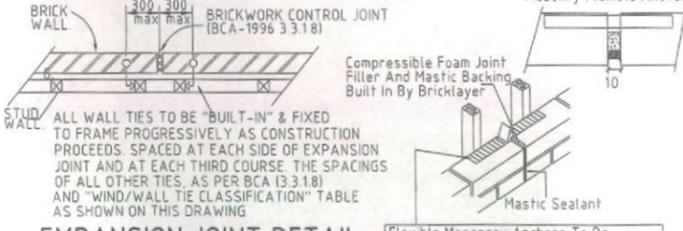


TIMBER FRAMING NOTES

- ALL DESIGN, WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH NATIONAL TIMBER FRAMING CODE AS1684 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- TIMBER SIZES, CONNECTIONS AND BRACING WALL SHALL BE TO FRAME MANUFACTURER'S DETAILS & SPECIFICATIONS & SHALL BE IN ACCORDANCE WITH AS1684. TIMBER FRAMING OUTSIDE THE SCOPE OF AS1684 SHALL BE REFERRED TO THE SUPERINTENDENT FOR A DECISION BEFORE PROCEEDING.
- ROOF BRACING & ANCHOR DETAILS WHERE NOT SHOWN ON DRAWINGS SHALL BE IN ACCORDANCE WITH AS1684.

BRICKWORK NOTES

- BRICKWORK TO BE IN ACCORDANCE WITH AS3700.
- ALL BRICKS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20MPa.
- BRICKWORK MORTAR TO BE A MIX OF 1 CEMENT : 1 LIME : 4.5 SAND (REFER TO DURABILITY CLASS).
- BRICK WALLS TO BE PROVIDED WITH VERTICAL CONTROL JOINTS AT 6 METRE MAX CTS.
- TWO BED JOINTS ABOVE AND BELOW ALL OPENINGS TO HAVE BRICK REINFORCEMENT AND TO EXTEND 600 EACH SIDE OF OPENING.
- ALL CLAY BRICKS SHALL BE EXPOSED TO AMBIENT CONDITIONS FOR A MINIMUM OF 3 MONTHS BEFORE USE.
- MAXIMUM 5 YEAR UNRESTRAINED EXPANSION OF CLAY BRICKS SHALL BE 0.8MM PER METRE.
- CLAY BRICKS SHALL NOT BE LAID OVER FLOOR SLAB FOR A MINIMUM OF 10 DAYS AFTER CONCRETING THE SLAB.
- BRICKWORK ARTICULATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF TN61 ARTICULATED WALLING (CEMENT & CONCRETE ASSOCIATION AUSTRALIA).



DURABILITY CLASSIFICATION, EXTERIOR

CATEGORY (durability)	WALL TIES AS 3700	GRADE OF BRICKS AS/NZS 4456.10	MORTAR AS 3700	STRUCTURAL STEEL (Surface finish)
severe marine	R4 Stainless or Polymer	EXPOSURE	M4 (1:4)	GALVANISED (GZLP) (600g per sq.m)
marine	R3	GENERAL PURPOSE	M3 (1:5)	AS/ANZ 2312/1994.
exterior	R2	GENERAL PURPOSE	M2 (1:2:8)	AS/ANZ 2312/1994.

WIND/WALL TIE CLASSIFICATION N2 "W33"

WIND Class (Vp)	WALL TIE	HORIZONTAL SPACING	VERTICAL SPACING
N1	W28N1 LIGHT DUTY	600	600
N2	W33N2 MEDIUM DUTY	600	600
N3	W41N3 MEDIUM DUTY	600	430 (5 COURSES)

WALL TIE SPACINGS AROUND OPENINGS 300c/c EACH WAY.
 POLYMER WALL TIES RATED "LIGHT DUTY ONLY" (W28N1).
 (Vp = PERMISSABLE STRESS METHOD)

SLAB DESIGN AS PER "AS2870:1996 CODE FOR RESIDENTIAL SLABS AND FOOTINGS" AND IN ACCORDANCE WITH ENGINEERING PRINCIPLES, AND SECTION 3 & 4 OF AS2870:1996.

NOTES REGARDING SUBTERRANEAN TERMITE PROTECTION

- ALL CONCRETE TO BE 25MPa. CONCRETE TO BE MECHANICALLY VIBRATED DURING POUR. KEEP SLAB CONTINUALLY WET FOR 7 DAYS MIN. PLASTIC OR WAX SPRAYS MAY BE USED.
- ALL WORKS TO BE IN ACCORDANCE WITH AS 3660.1 (CE).
- INSPECTIONS OF THE RESIDENCE AND IMMEDIATE SURROUNDS TO BE CARRIED OUT BY A QUALIFIED PEST EXPERT ON AN ANNUAL BASIS. BY THE HOMEOWNER.
- ANY FUTURE CRACKING OCCURRING IN THE SLAB IS TO BE ASSESSED BY A QUALIFIED PEST EXPERT AND WHERE DIRECTED BE SEALED BY EPOXY INJECTION.
- SITE MAINTENANCE IS THE RESPONSIBILITY OF THE HOME OWNER. ALL RECOMMENDATIONS OUTLINED BY THE CSIRO IN SHEET 10-91 TO BE CARRIED OUT.

STRUCTURAL STEELWORK NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4100 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- STEELWORK DESIGN AS PER "AS4100 STEEL STRUCTURES CODE CURRENT EDITION AND AS1170 DEAD AND LIVE LOADS".
- STEEL QUALITY: ALL STEELWORK SHALL BE GRADE 250 UNLESS NOTED OTHERWISE. ROLLED SECTIONS (UB, UC, PFC, EA, ETC.) SHALL BE GRADE BHP-300 PLUS RECTANGULAR HOLLOW SECTIONS SHALL BE IN ACCORDANCE WITH AS1397 AND AS1538, AND BE EQUIVALENT TO BHP GALVASPAN, COATING CLASS 2350.
- WELDING: ALL WELDING SHALL BE IN ACCORDANCE WITH AS1554. UNLESS NOTED OTHERWISE ALL CONNECTIONS BETWEEN MEMBERS SHALL BE 6mm CONTINUOUS FILLET WELD TYPE G.P. BUTT WELDS SHALL BE COMPLETE PENETRATION TYPE SP. WELDING SYMBOLS ON DRAWINGS ARE IN ACCORDANCE WITH AS1101 PART 3.
- HOLES IN MEMBERS FOR FIXINGS OF OTHER TRADES SHALL NOT EXCEED 14mm DIAMETER.
- BOLTING: BOLTS SHALL BE M20 4.6/S UNLESS NOTED OTHERWISE. MEMBERS SHALL BE CONNECTED WITH 2 BOLTS UNLESS NOTED OTHERWISE. APPROVED LOAD-INDICATING WASHERS SHALL BE USED UNDER THE BOLT HEAD OF 8.8/TF AND 8.8/TB JOINTS.
- NO PRIMING COAT SHALL BE APPLIED TO CONTACTING SURFACES UTILISING 8.8/TF BOLTS NOR TO MEMBERS TO BE SUBSEQUENTLY CONCRETE ENCASED OR FIRE RATED. MEMBERS NOTED Z SHALL BE GIVEN A CLASS 2.5 PREPARATION IN ACCORDANCE WITH AS1627.4 AND COATED WITH A MINIMUM OF 75 MICRONS OF AN APPROVED INORGANIC ZINC SILICATE. MEMBERS NOTED G SHALL BE HOT DIP GALVANISED. ALL BOLTS, NUTS AND WASHERS USED IN CONNECTION OF MEMBERS NOTED Z OR G SHALL BE HOT DIP GALVANISED. MAKE GOOD PROTECTIVE COATINGS AT SITE WELDS AND UNCOATED STEELWORK AT T.F. BOLTED JOINTS.

BOLTING PROCEDURE	BOLT NAME	AUSTRALIAN STANDARD	INSTALLATION AS6100
4.6/S	COMMERCIAL	AS1111	SNUG TIGHTENED
8.8/S	HIGH STRENGTH	AS1252	SNUG TIGHTENED
8.8/TF	HIGH STRENGTH	AS1252	TENSIONED FRICTION
8.8/TB	HIGH STRENGTH	AS1252	TENSIONED BEARING

DRAWING SCHEDULE

- E-00 GENERAL NOTES
- E-01 REINFORCED SLAB PLAN
- E-02 SLAB DETAIL SHEET
- E-03 DEEPENED EDGE BEAM SHEET
- E-04 CONC DETAIL SHEET
- E-05 STEEL MARKING PLAN
- E-06 STEEL DETAILS
- E-07 BRICK ARTICULATION PLAN
- E-08 RET WALL DETAILS
- E-09 SEWER DETAILS
- E-10

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PREPARED: S.I.D.
 CHECKED: S.A.A.
 APPROVED: S. Abdelfattah M.E. (Aust) CPENG NPER Civ/Struct BPB. Acc. Certificate 9737

FOR: X. FAN & C. ZHANG
 LOT 2230 WILLIAM HART CRESCENT
 PENRITH-THORNTON NSW

SC_16749 E-00
 Seta Ref Nbr DBG Nbr

DATE: 11/02/2015

GENERAL NOTES

DO NOT SCALE

FIRSTYLE HOMES

Rev	DATE	AMENDMENT
A	11/02/15	Issued for construction

Arch Ref: 770-14 (Rev QA1) - CHESTER 23 AUGUSTI

SITE CLASSIFICATION :

THE FOOTING SYSTEM HAS BEEN DESIGNED FOR A CLASS P SITE IN ACCORDANCE WITH AS 2870 - 2011.

CONSTRUCTION: TWO STOREY

TYPE : ARTICULATED MASONRY VENEER

DURABILITY CLASS : EXTERIOR

WIND CLASS : N2 "W33"

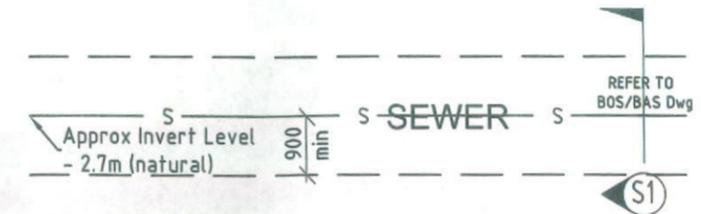
CONCRETE QUALITY

ELEMENT	Strength Grade	Slump mm	Max. Agg mm	Cement Type
SLAB	20	80	20	SL
PIERS	20	80	20	SL
SALINE ENVIRONMENT Pier & Slab (High Impact Membrane) ORANGE PREMIUM	N32	80	20	SL

MINIMUM COVER IN SALINE SOILS - 55mm
KEEP SLAB CONTINUALLY WET FOR 7 DAYS min.
THE BUILDER TO CONFIRM & ADHERE TO RELEVANT CONDITIONS OF CONSENT IN RELATION TO CONSTRUCTION INCLUSIONS ON SITES LOCATED OR LIKELY TO BE IMPACTED BY SALINITY LEVELS.

SUPERVISOR NOTE

Extend Edge Beam To Suit.
Supervisor To Ensure All Feature Nibs etc Are Incorporated As Shown On Arch Plans. REFER TO SLAB DETAILS FOR SERVICE PAD EXTENTIONS.



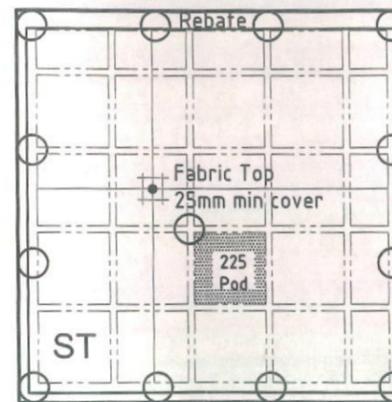
NOTES

- FOR COMPREHENSIVE GENERAL NOTES REFER TO TITLE SHEET E-00
- USE 0.2mm POLYTHENE NOMINAL THICKNESS (1) VAPOUR BARRIER, (2) DAMP PROOF MEMBRANE AND OF HIGH IMPACT RESISTANCE
 - LAP TOP & BTM BARS IN EDGE BEAMS 500 AT ; RETURNS LESS THAN 1200 (SINGLE STOREY) ALL RETURNS (DOUBLE STOREY)
 - PLACE 3-N12 TRIMMERS 2000 LONG TO ALL INTERNAL CORNERS TYPICAL
 - REINFORCEMENT LAPS: MESH 2 CROSSWIRES - 25mm
 - COVER TO REINFORCEMENT:
SLABS - TOP 20mm (INSIDE)
30mm (OUTSIDE)
- BTM 30mm
STIFFENING BEAMS - 30mm
STRIP FOOTINGS - 50mm
 - ## MINIMUM COVER IN SALINE SOILS A2-45mm, B1-50mm, B2-55mm
30/45 MESH LOCK BAR CHAIRS ARE TO BE USED ON WAFFLE PODS. ALL POD SPACERS SHOULD BE APPROVED BY ENGINEER BEFORE PLACING PODS. BAR CHAIRS TO BE AT 800 CTRS BOTH WAYS.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE PIER TOPS ARE CLEAN AND FREE OF FOREIGN MATTER PRIOR TO THE LAYING OF THE MEMBRANE AND CONCRETE SLAB. ENGINEER'S REINFORCEMENT SPOT CHECK DOES NOT RELEASE THE CONTRACTOR FROM THIS RESPONSIBILITY.
 - IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE ALL SETOUTS, DRAINAGE, CRITICAL SERVICES INCLUDING GENERAL ARRANGEMENT ARE VERIFIED PRIOR TO INITIATING CONCRETE WORKS. ENGINEER'S SPOT CHECK DOES NOT RELEASE THE CONTRACTOR FROM THIS RESPONSIBILITY.
 - THE BUILDER TO CONFIRM & ADHERE TO RELEVANT CONDITIONS OF CONSENT IN RELATION TO CONSTRUCTION INCLUSIONS ON SITES LOCATED OR LIKELY TO BE IMPACTED BY SALINITY LEVELS.
 - BRITTLE FLOOR COVERINGS TO BE LAID ON A SUITABLE FLEXIBLE TYPE BEDDING SYSTEM & SUPPLIED WITH CONTROL JOINTS @ 4000 CENTERS MAX ALTERNATIVELY FABRIC SL-92 TO BE USED, AS IF ADVISED BY BUILDER.
 - IT IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR TO ENSURE THE HOUSEHOLD DRAINAGE SYSTEM INCLUDES FLEXIBLE JOINTING AS PER RELEVANT AUSTRALIAN STANDARDS. IT IS OUTSIDE THE ENGINEER'S SCOPE/EXPERTISE TO ENSURE THIS.
 - SLAB AND FOUNDATIONS HAVE BEEN DESIGNED TAKEN INTO CONSIDERATION FINDINGS AND RECOMMENDATIONS AS NOTED IN REFERENCED DOCUMENT.

SLAB PLAN

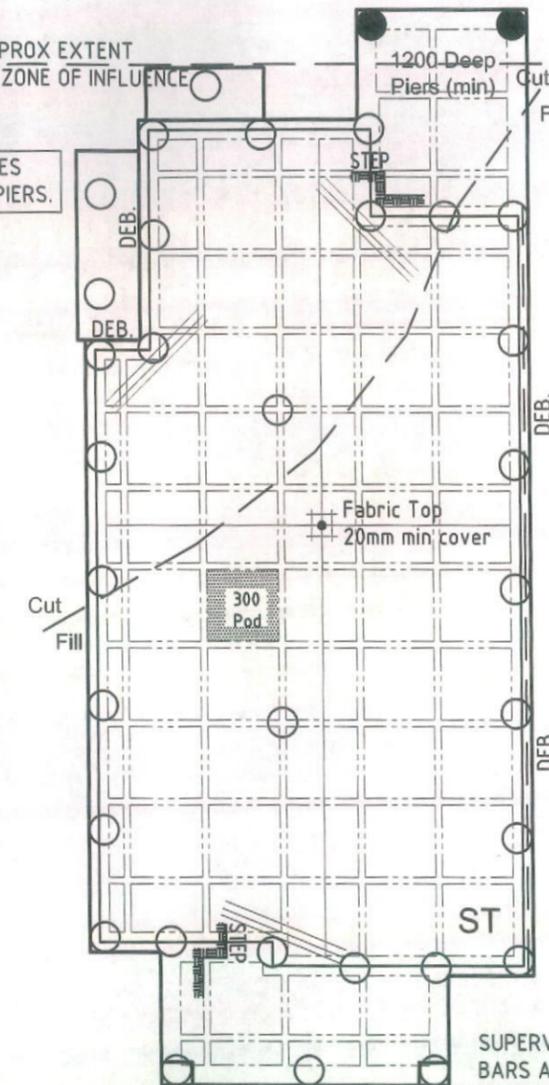
Do Not Scale

ALL STEP DOWNS, DEEP BEAMS, F.F.L, R.L, AND REBATES TO BE CONFIRMED WITH ARCHITECTURAL DOCUMENTATION. HWS & AIRCON PADS TO BE CONFIRMED WITH CONTRACT. IT IS NOT THE RESPONSIBILITY OF THE ENGINEER TO VERIFY THE ABOVE.



APPROX EXTENT OF ZONE OF INFLUENCE

● DENOTES SEWER PIERS.



SUPERVISOR TO ENSURE STARTER BARS ARE INSTALLED FOR ALL FREESTANDING B/WK PIERS.

* CARE TO BE TAKEN DURING EXCAVATION, *

ENGINEER TO BE ADVISED IF ABNORMAL SUB CONDITIONS ARE ENCOUNTERED INCLUDING EXTENT OF ANY TREE ROOTS, PIPES, DEBRIS & "SOFT SPOTS" ..

IF IN DOUBT "STOP WORK AND ASK"

SLAB REINFORCEMENT - SL82

COVER TO REINFORCEMENT:
SLABS - TOP 20mm (INSIDE)
30mm (OUTSIDE)
- BTM 30mm
STIFFENING BEAMS - 30mm

PIER NOTES

- REFER ALSO TO FOUNDATION NOTES ON SHEET No E-00
- ALL PIERS POURED SEPARATE TO NOMINATED SLAB
- CONCRETE PIERS TO BE CORRECTLY LOCATED BY CONTRACTOR AND ARE ADOPTED TO ACHEIVE AN EVEN BEARING AS REQUIRED BY ENGINEER AND SITE CONDITIONS
- DENOTES CONCRETE BEARING PIERS FOUNDED 200min BELOW ZONE OF INFLUENCE OF SEWER AND OR PROPOSED ADJACENT SERVICE TRENCHES REFER TO DETAIL ON SHEET E-00
- WHERE PIERS ARE PROVIDED PLACE ADDITIONAL STEEL TO INTERNAL BEAMS AS PER DETAILS ON PIERS TO EXTERNAL WALLS SHALL BE SPACED AT NO GREATER THAN

PIERING NOTES

P1 PIERS TO EXTERNAL WALLS SHALL BE SPACED AT NO GREATER THAN 15m c/c FOR DOUBLE STOREY AREAS (Ø400min DIA TO CLAY BRG 350kPa) - UNO ON SLAB PLAN
18m c/c FOR SINGLE STOREY AREAS (Ø400min DIA TO CLAY BRG 350kPa) - UNO ON SLAB PLAN
18m c/c FOR SINGLE AND DOUBLE STOREY AREA (Ø300min DIA TO ROCK/SHALE BRG 600kPa)
IF PIERS EXCEED 2.5m Deep THEN Ø450min (Must Be) Adopted. PIERS GREATER THAN 2.8m Deep (Must Be) REINFORCED WITH A MINIMUM OF 4-N12 Bars + R6 Ties @400c/c

- SLAB THICKNESS DENOTED ON PLAN BY
- PODS LAYED IN SEQUENCE AND STARTED WHERE SHOWN THUS ON PLAN

It is the responsibility of the Contractor/Supervisor, that any "on site" deviation/alteration to the Engineer's Drwgs/Design must be formally brought to the attention of the Engineer/Inspector, prior to any work proceeding.

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Arch Ref: 770-14 (Rev QA1) - CHESTER 23 AUGUSTI		

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Consulting Engineers Pty Ltd
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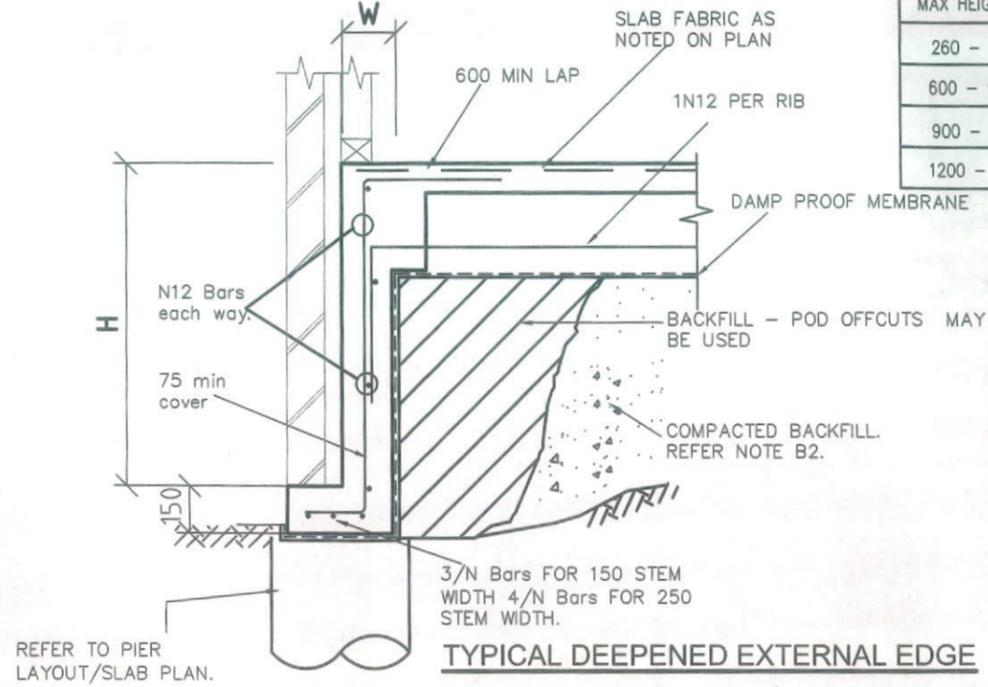
PREPARED:	S.I.D
CHECKED:	S.A.A
APPROVED:	
S Abdelfattah ME (Aus) CPENG NPER Civ/Struct BPE Acc Certifier 0737	
DATE:	11/02/2015

FOR: X. FAN & C. ZHANG
LOT 2230 WILLIAM HART CRESCENT
PENRITH-THORNTON NSW

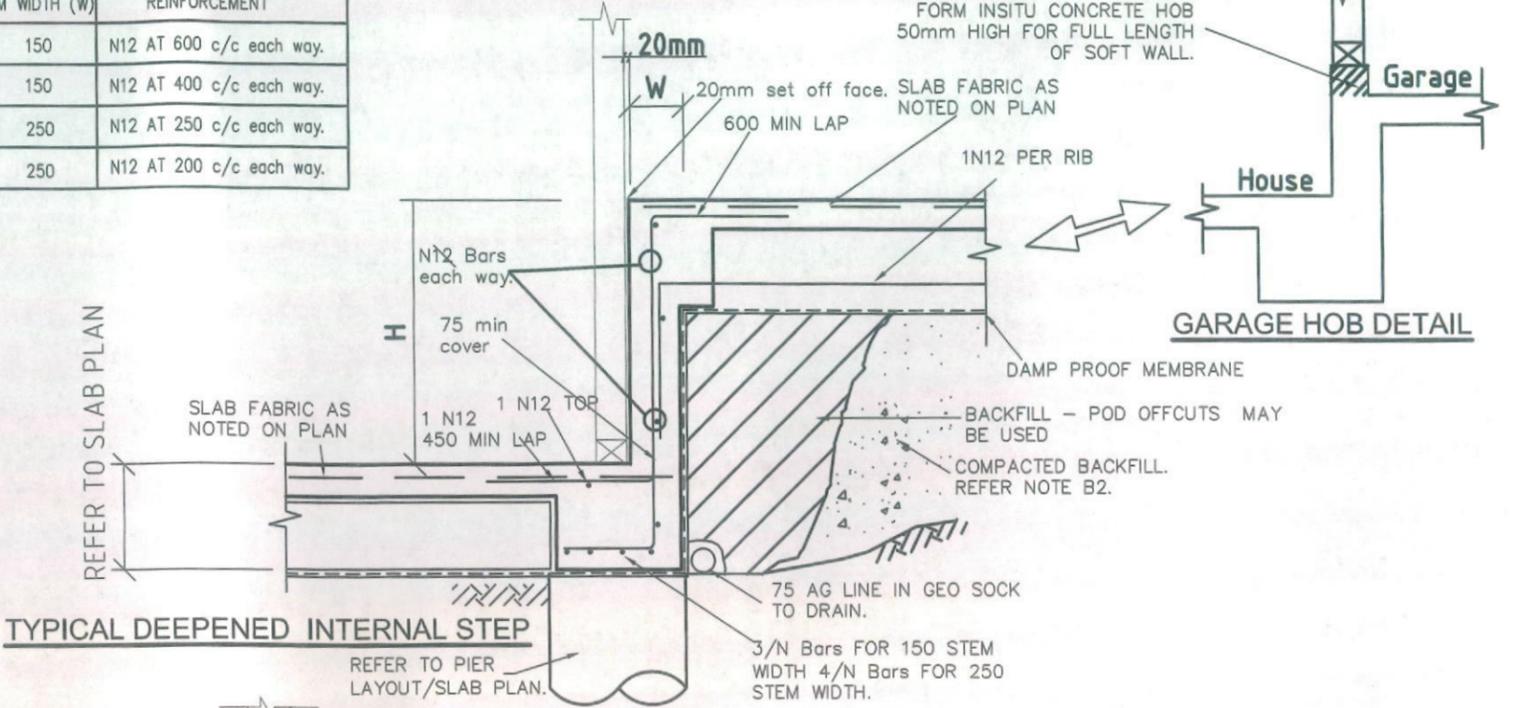
Secta Ref Nbr	SC_16749	DRG Nbr	E-01	REV	A
REINFORCED SLAB PLAN					DO NOT SCALE



MAX HEIGHT (H)	STEM WIDTH (W)	REINFORCEMENT
260 - 600	150	N12 AT 600 c/c each way.
600 - 900	150	N12 AT 400 c/c each way.
900 - 1200	250	N12 AT 250 c/c each way.
1200 - 1600	250	N12 AT 200 c/c each way.

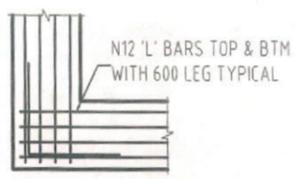


TYPICAL DEEPEINED EXTERNAL EDGE

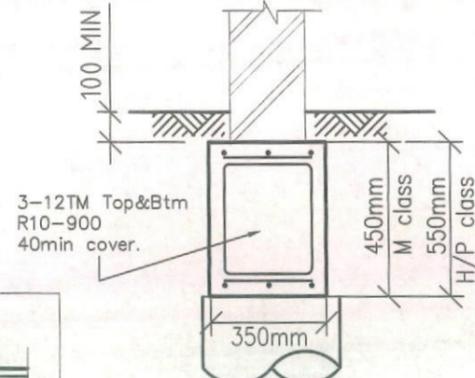


TYPICAL DEEPEINED INTERNAL STEP

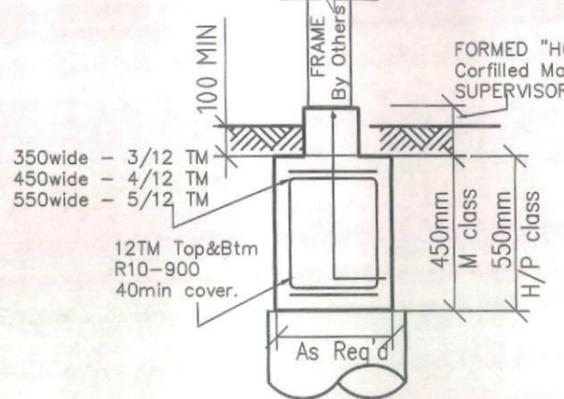
GARAGE HOB DETAIL



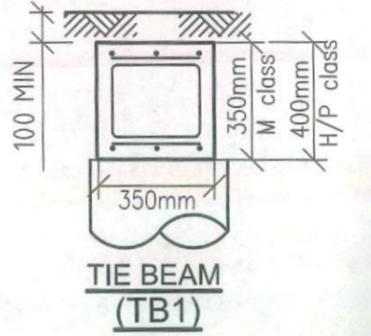
TYPICAL FOOTING CORNER DETAIL



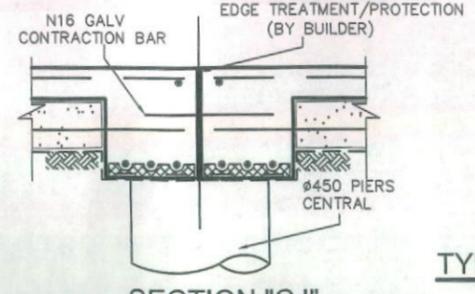
STRIP FOOTING (SF1)



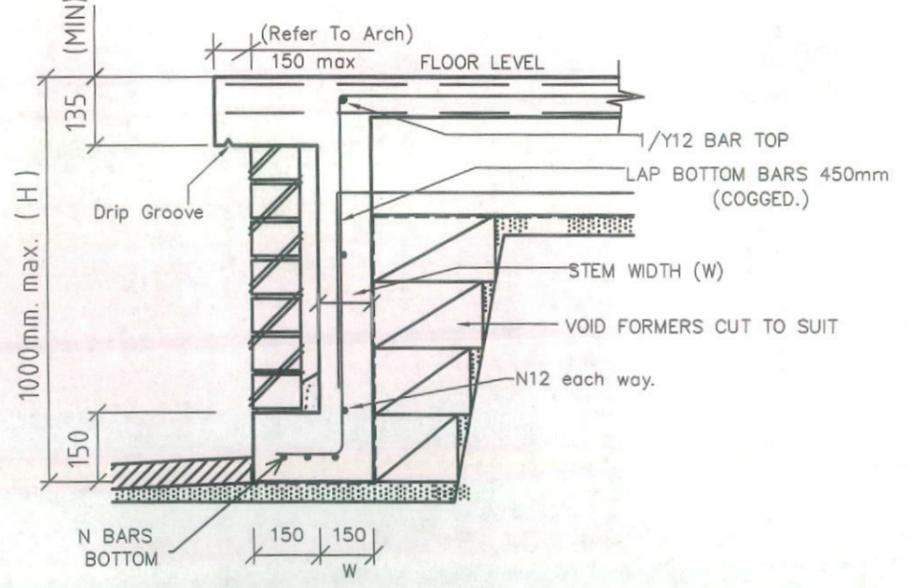
"SF2" EXTERNAL UPTURN



TIE BEAM (TB1)



SECTION "CJ" SQUARE EDGE PROFILE (supervisor to confirm)



TYPICAL PATIO / VERANDAH / ALFRESCO DEEPEINED EDGE DETAIL HEIGHT > 550mm

Where step "S" does not exceed 100mm:
 x length "L" shall be a minimum of 600mm.
 x reinforcement to be arranged as shown in method A.

Where step "S" does exceed 100mm:
 x step "S" shall not exceed 600mm.
 x length "L" shall be a minimum of 600mm.
 x reinforcement to be arranged as shown in either methods B, C, D.

65mm cover to reinforcement
 Steel spacers at 900cts

METHOD - A

METHOD - B

METHOD - C

METHOD - D

REINFORCED CONCRETE STRIP FOOTINGS STEPPINGS AND REINFORCEMENT



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PREPARED: S.I.D
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 APPROVED: S.Abdelfattah ME (Aust) CPEng NPER Civ/Struct BPB Acc Cert#19197

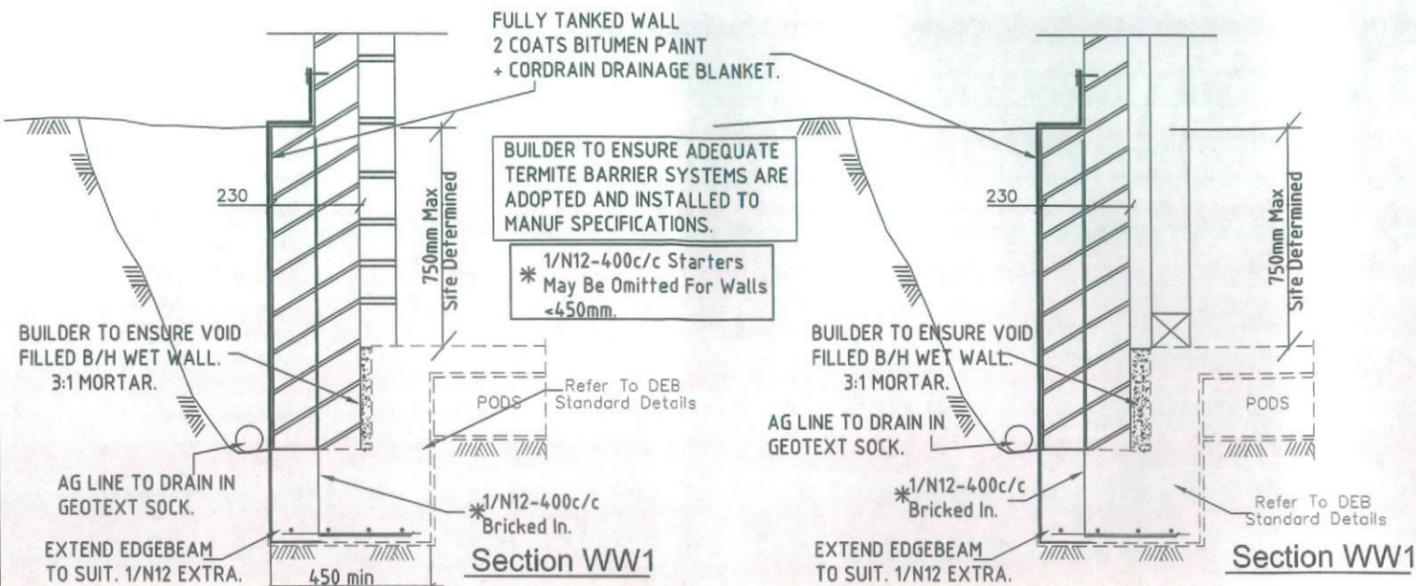
FOR: X. FAN & C. ZHANG
 LOT 2230 WILLIAM HART CRESCENT
 PENRITH-THORNTON NSW

SC_16749 E-03 A
 Secta Ref Nmbrr DRG Nmbrr REV

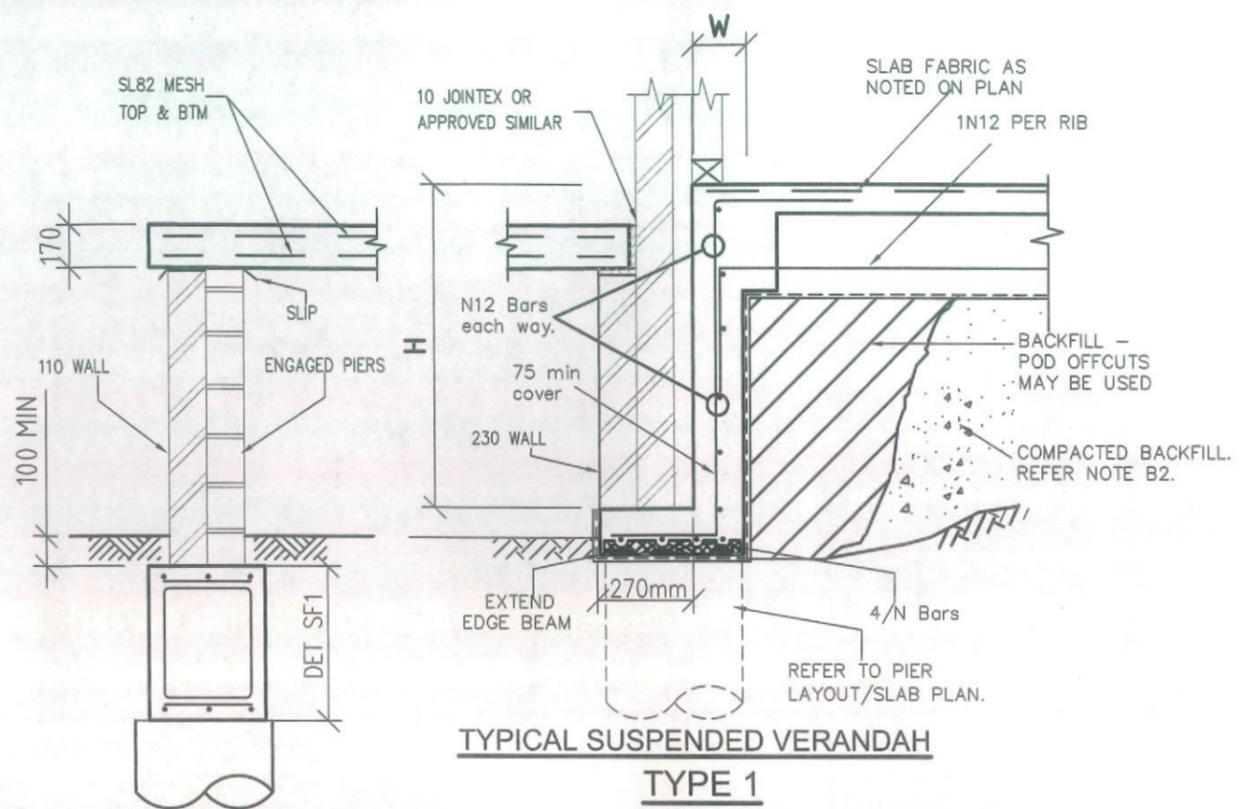
DATE: 11/02/2015

DEEPEINED EDGE BEAM SHEET

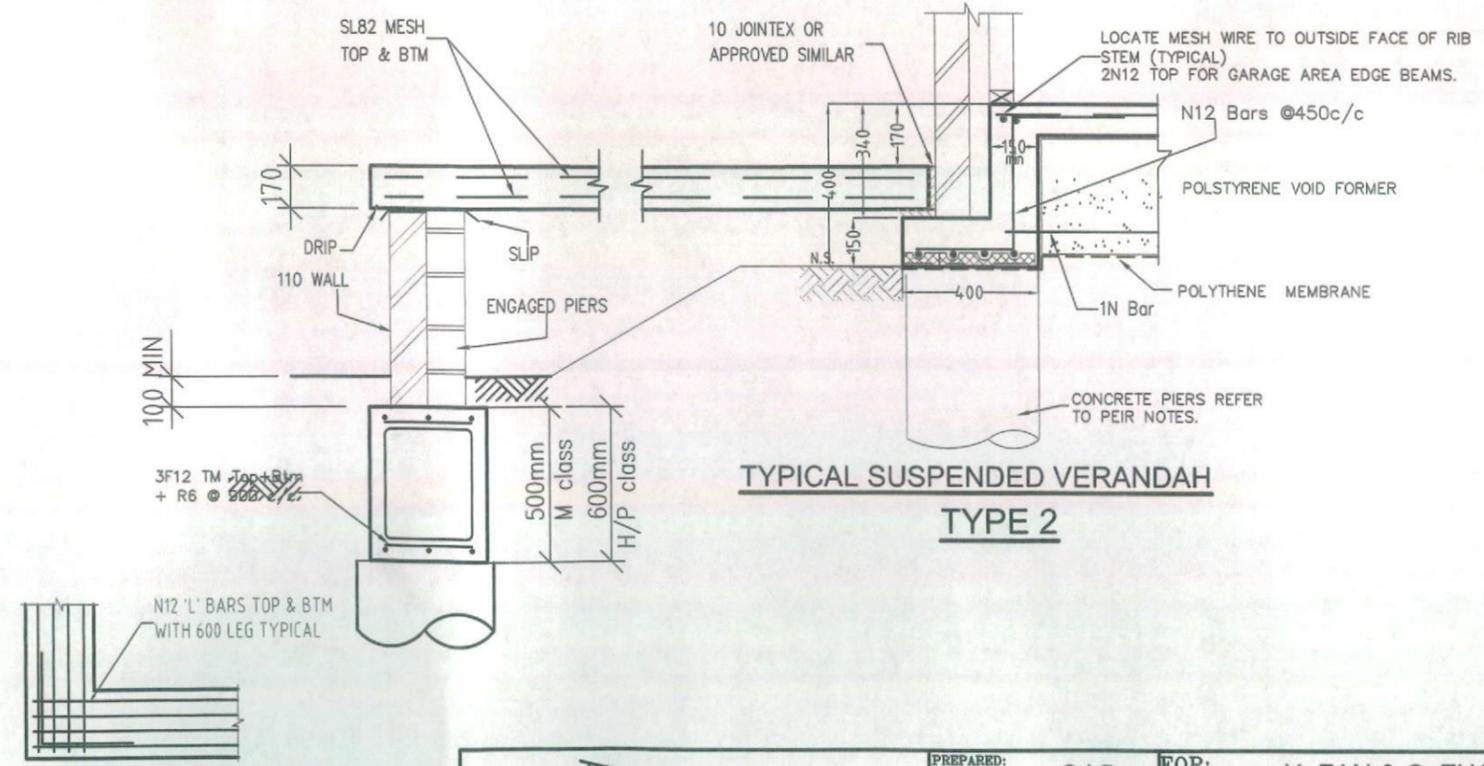
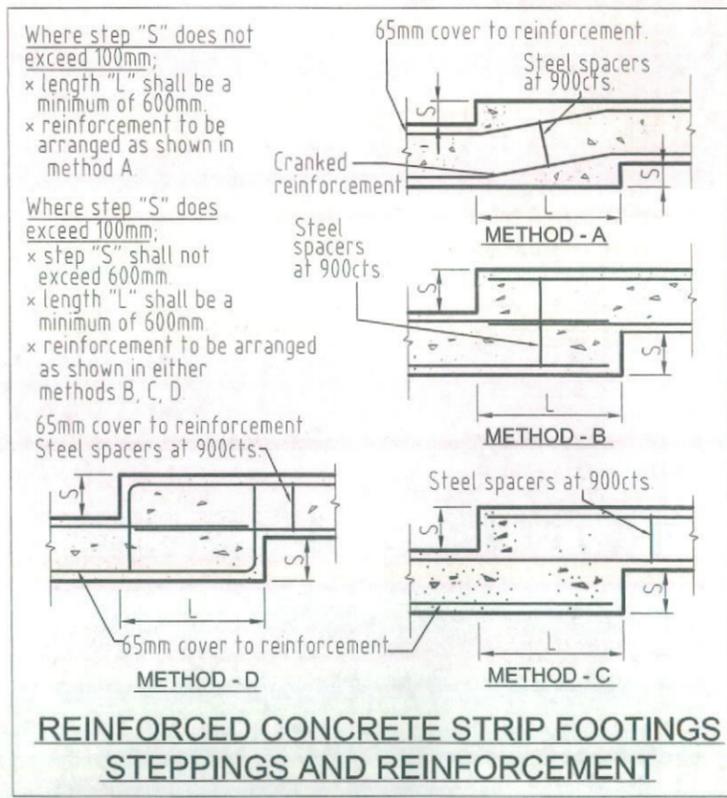
DO NOT SCALE



TYPICAL Integrated Wet Wall
SUPERVISOR TO CONFIRM DETAIL VARIANCE.
REFER TO ARCHITECTURALS



TYPICAL SUSPENDED VERANDAH TYPE 1



TYPICAL SUSPENDED VERANDAH TYPE 2

TYPICAL FOOTING CORNER DETAIL



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 A.B.N. 64 180 170 853 PO BOX 259 CONDELL PARK NSW 2200 office: (02) 9707 3414 - fax: 9707 3414 web: www.sectaengineering.com.au email: admin@sectaeng.com.au	PREPARED: S.I.D CHECKED: S.A.A APPROVED: S. Abdelfattah <small>M.E. (Aust) CP/Eng NPER Civ/Struct BPS Acc Cert/Insr 9737</small>	FOR: X. FAN & C. ZHANG LOT 2230 WILLIAM HART CRESCENT PENRITH-THORNTON NSW SC_16749 DRG Nbr	E-04 REV A
	DATE: 11/02/2015		DO NOT SCALE
	CONC DETAIL SHEET		

FIRST FLOOR BEAM PLAN

FJ DENOTES ASSUMED FLOOR JOIST SPAN DIRECTION
TB DENOTES TIMBER BEAM TO FRAME MANUFACTURER'S DETAILS
 TIMBER FRAMING SPAN DIRECTIONS, SIZES & SUPPORTS (OTHER THAN STEEL BEAMS SHOWN) ARE INDICATIVE ONLY & SHALL BE CONFIRMED WITH THE FRAME MANUFACTURER'S SPECIFICATIONS
 REFER TO TIMBER FRAMING NOTES ON SHEET No. E-00

'A' UNLESS NOTED OTHERWISE ALL BEAMS AND LINTEL SUPPORTED ON BRICKWORK TO HAVE A MINIMUM BEARING LENGTH OF 150mm

LINTELS OVER DOOR & WINDOW OPENINGS, OTHER THAN THOSE SPECIFIED ABOVE, SHALL BE TO THE BUILDER'S SPECIFICATION

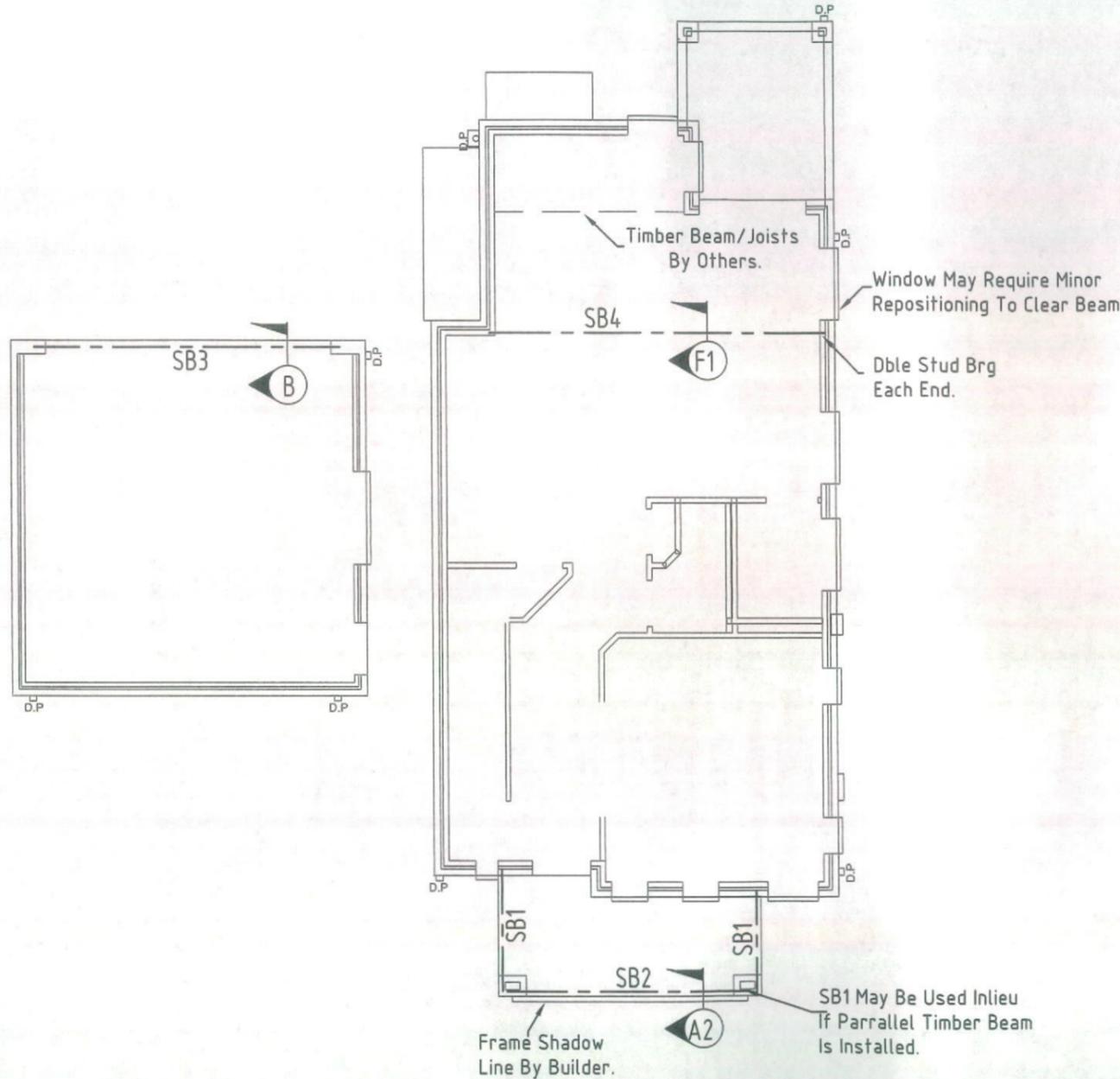
TEMPORARY BRACING OF STEEL STRUCTURE

STEEL COLUMNS SHALL BE TEMPORARILY BRACED UNTIL ALL THE TIMBER FRAMING IS POSITIVELY FIXED TO THE STEELWORK AS DETAILED & THE PERMANENT WALL BRACING IS IN PLACE.

NOTE:

-STEELWORK DESIGNED IN ACCORDANCE WITH AS4100 "STEEL STRUCTURES CODE" AND AS1170.1/AS1170.2 "DEAD AND LIVE LOADS AND WIND LOADS"
 STRUCTURAL STEEL TO BE GRADE (BHP 300 PLUS) U.N.O.
 SURFACE PREPARATION & FINISH TO COMPLY WITH AS/NZS 2312 - 1994.

NOTE: ROOF TRUSSES HAVE BEEN ASSUMED TO BE SUPPORTED ON LEVEL 1 EXTERNAL WALLS (ON STUDS) PRIOR TO COMMENCING CONSTRUCTION THE BUILDER SHALL OBTAIN FROM THE TRUSS MANUFACTURER A PLAN WHICH CLEARLY IDENTIFIES ANY INTERNAL LEVEL 1 STUD WALLS WHICH ARE TO BE USED TO SUPPORT ROOF TRUSSES & THEIR CORRESPONDING REACTIONS (WORKING DEAD, LIVE & WIND LOADS) TO ALLOW VERIFICATION OF STRUCTURAL STEELWORK SHOWN ON THIS DRAWING. IT IS NOTED THAT IF INTERNAL LEVEL 1 WALLS ARE TO BE USED AS LOAD BEARING ELEMENTS TO SUPPORT THE ROOF FRAMING, THEN ADDITIONAL STRUCTURAL STEELWORK MAY BE REQUIRED.



STEEL MARKING PLAN

Do Not Scale

MEMBER	SCHEDULE
ITEM	DESCRIPTION
SB1	200x200x10 Gal Tee
SB2	250x200x10 Gal Tee
SB3	250 PFC 36 + 200x10 MS FL
SB4	200 UB 30 + 250x10 MS FL
SB5	
SB6	
SB7	
C1	
C2	

DESIGN LIVE LOAD : GENERALLY 1.5kPa
 ROOF (NON-TRAFFICABLE) 0.25kPa



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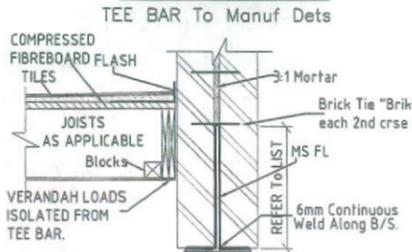
Secta Ref Nbr	SC_16749	DRG Nbr	E-05	REV	A
STEEL MARKING PLAN					DO NOT SCALE

TYPICAL TEE BAR NOTE

- NOTES, GALINTEL TEE (GARAGE DOOR OPENING)
1. TEE TO BE PROPPED @ 1.2m c/c. max.
 2. PROPS TO REMAIN IN PLACE UNTIL MORTAR ACHIEVES FULL STRENGTH (7 DAYS)
 3. MORTAR MIX 1:4 (min) AND APPLIED TO ALL FACES BETWEEN BRICK & MORTAR INCLUDING BTM FLANGE & VERTICAL WEB.
 4. MINIMUM 3 BRICK COURSES TO BOTH SIDES.

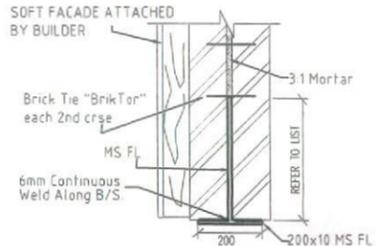
"BUILDER" TO ENSURE FULL MORTAR COVERAGE TO ALL SURFACES.

SECTION A



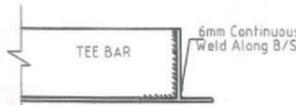
SECTION A1

ALTERNATIVE FABRICATED SECTION

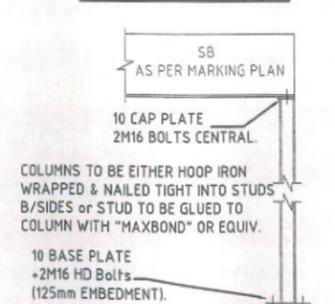


SECTION A2

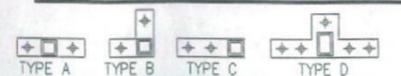
FABRICATED SECTION



SECTION A3



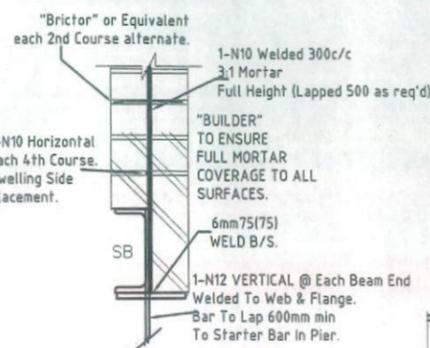
TYPICAL POST DETAIL C1 & C2



BASE PLATE PLAN DETAIL

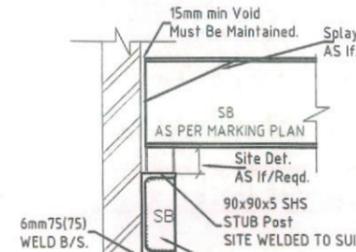
- *ALL BASE PLATES TO BE 10mm THICK
- *ORIENTATE BASE PLATE TO SUIT WALL LOCATION
- *SURFACE TREATMENT AS PER COLUMN

SECTION B

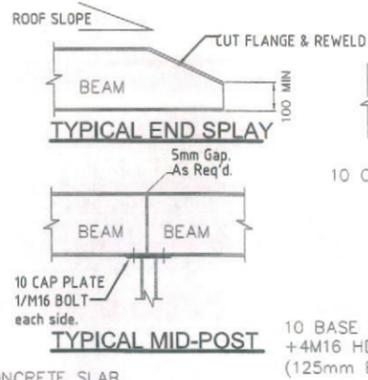


SECTION B1

MINIMUM PARAPET REINFORCEMENT T/O



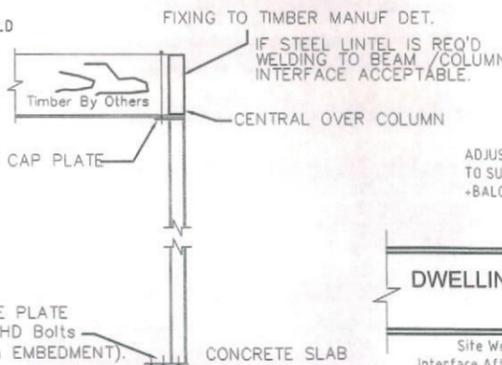
SECTION B2



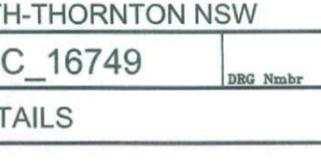
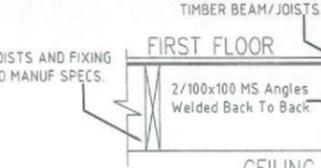
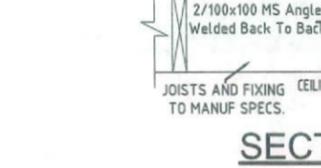
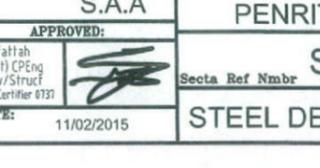
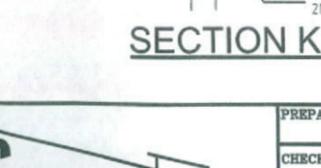
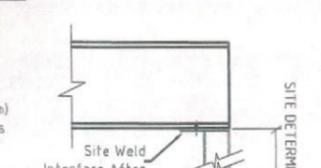
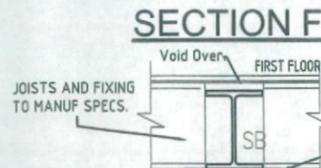
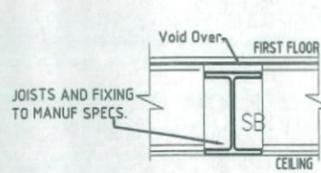
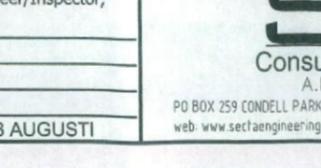
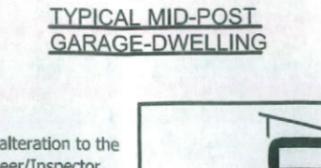
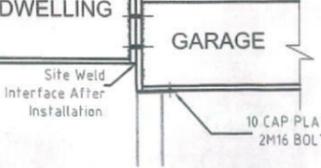
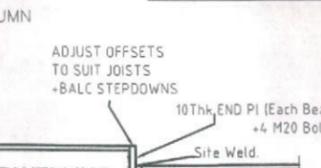
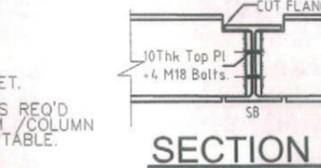
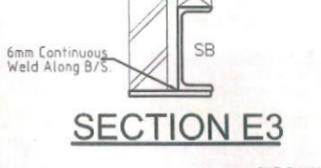
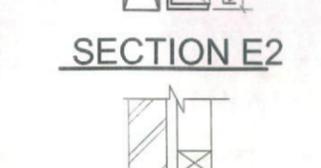
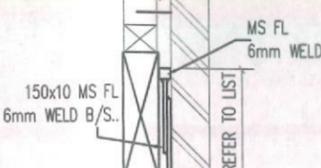
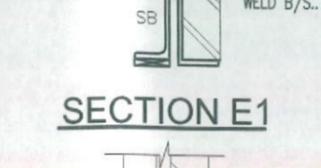
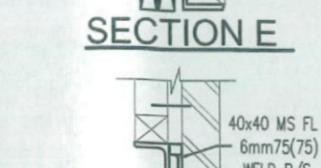
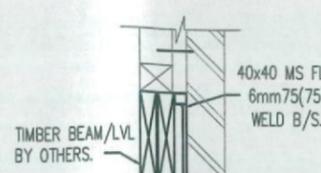
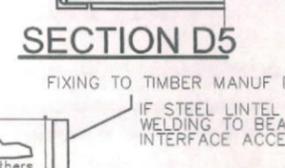
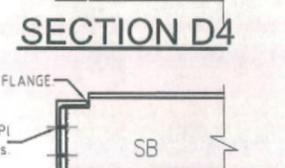
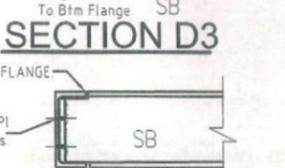
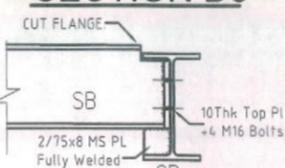
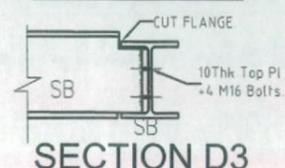
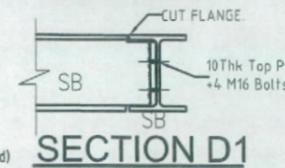
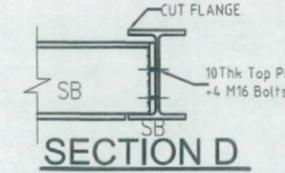
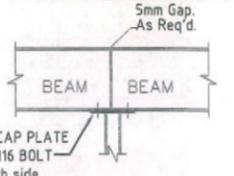
TYPICAL MID-POST



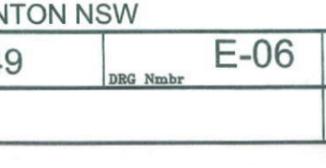
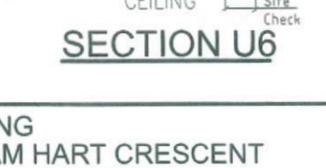
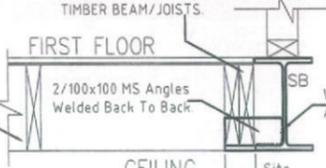
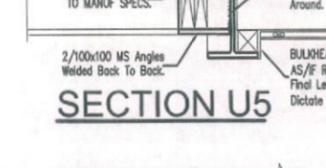
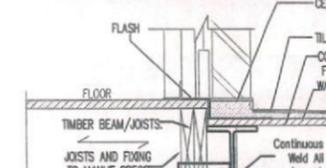
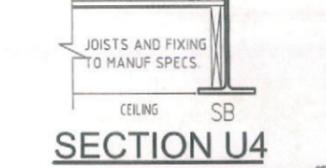
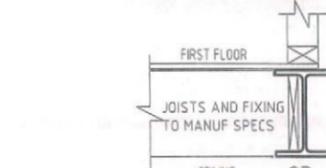
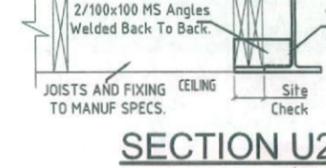
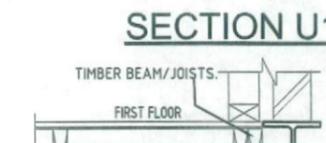
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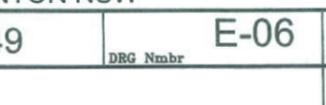
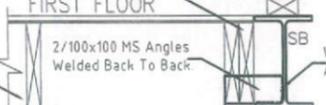
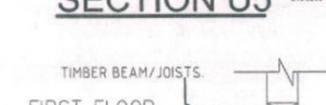
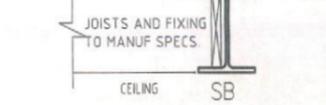
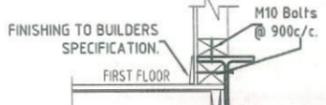
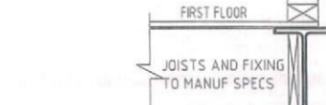
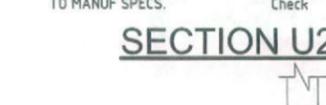
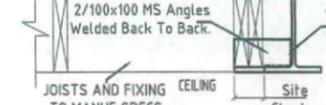
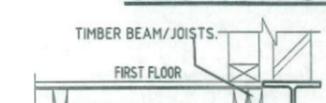
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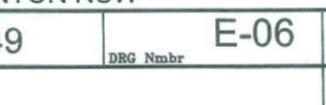
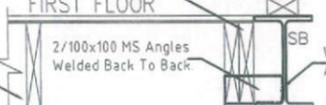
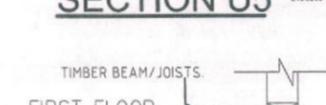
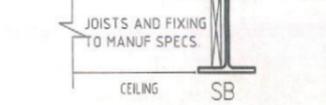
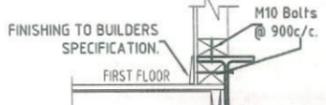
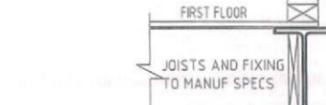
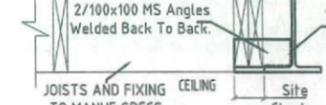
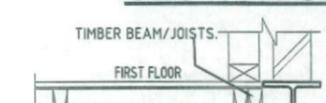
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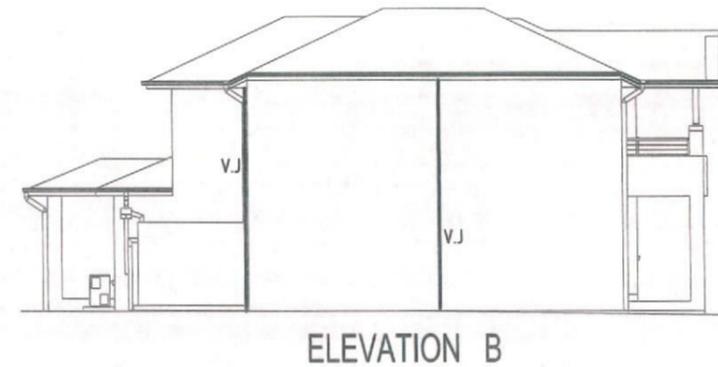
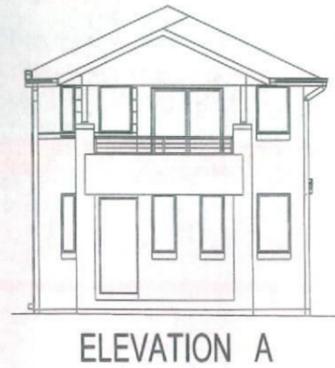
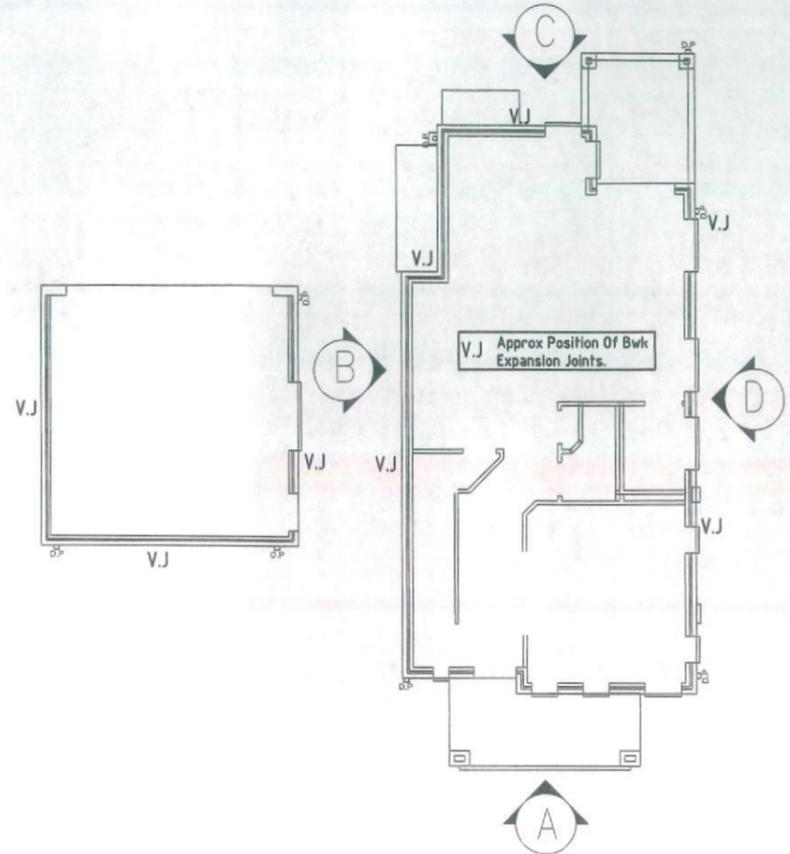


SECTION U1



SECTION U1

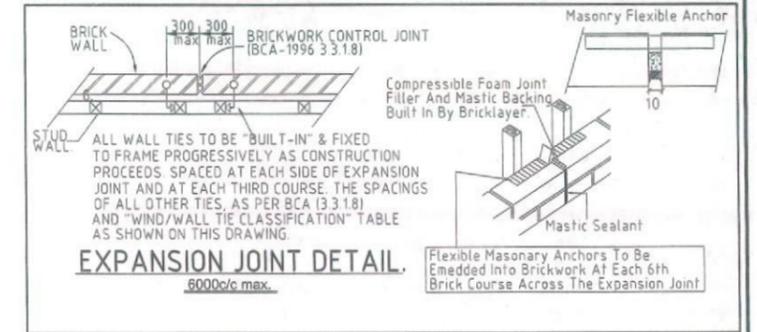




DURABILITY CLASSIFICATION, EXTERIOR				
CATEGORY (durability)	WALL TIES AS 3700	GRADE OF BRICKS AS/NZS 4456.10	MORTAR AS 3700	STRUCTURAL STEEL (Surface finish)
severe marine	R4 Stainless or Polymer	EXPOSURE	M4 (1:4)	GALVANISED (GZLP) (600g per sq.m)
marine	R3	GENERAL PURPOSE	M3 (1:5)	AS/ANZ 2312/1994.
exterior	R2	GENERAL PURPOSE	M2 (1:2:8)	AS/ANZ 2312/1994.

WIND/WALL TIE CLASSIFICATION N2 "W33"			
WIND Class (Vp)	WALL TIE	HORIZONTAL SPACING	VERTICAL SPACING
N1	W28N1 LIGHT DUTY	600	600
N2	W33N2 MEDIUM DUTY	600	600
N3	W41N3 MEDIUM DUTY	600	430 (5 COURSES)

WALL TIE SPACINGS AROUND OPENINGS 300c/c EACH WAY.
POLYMER WALL TIES RATED "LIGHT DUTY ONLY" (W28N1).
(Vp = PERMISSIBLE STRESS METHOD)



EXPANSION JOINT DETAIL.
6000c/c max.
Flexible Masonry Anchors To Be Embedded Into Brickwork At Each 6th Brick Course Across The Expansion Joint



It is the responsibility of the Contractor/Supervisor, that any "on site" deviation/alteration to the Engineer's Drwgs/Design must be formally brought to the attention of the Engineer/Inspector, prior to any work proceeding.

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A	11/02/15	Issued for construction	

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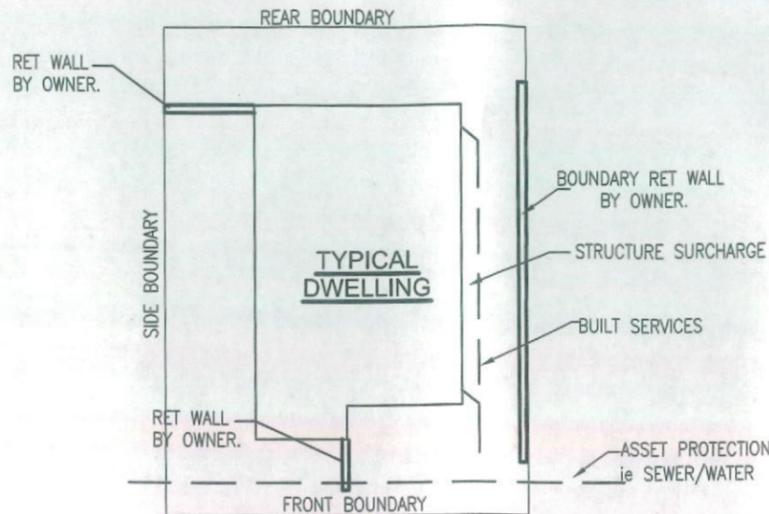
PREPARED:	S.I.D
CHECKED:	S.A.A
APPROVED:	
S. Abdelfattah MIE (Aust) CPEng NPER (Civ/Struct) BPE Acc Certifier 9137	
DATE:	11/02/2015

FOR: X. FAN & C. ZHANG
LOT 2230 WILLIAM HART CRESCENT
PENRITH-THORNTON NSW

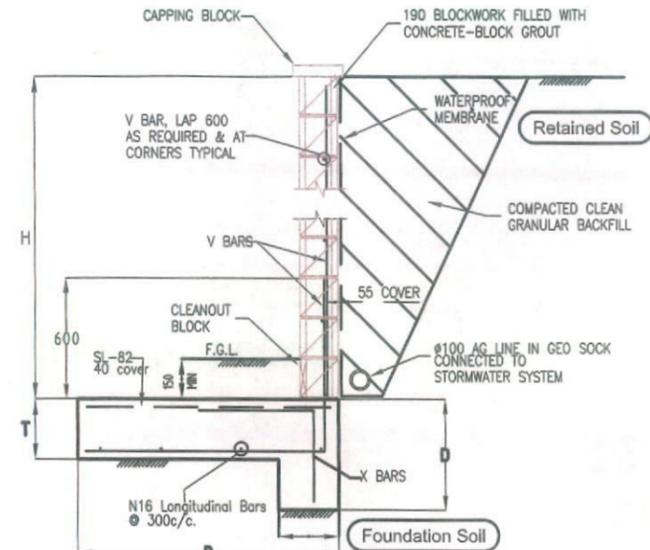
Secta Ref Nmb	SC_16749	DRG Nmb	E-07	REV	A
BRICK ARTICULATION PLAN					DO NOT SCALE

**RESPONSIBILITY OF OWNER
RETAINING STRUCTURE BY OWNER.**

- A) ENSURE RET WALL TYPE COMPLIES WITH SUBDIVISION and/or COUNCIL CONDITIONS.
- B) ALL EXISTING SERVICES/STRUCTURES WITHIN CRITICAL ZONES ARE PROTECTED.
- C) USE OF PROPRIETY WALL SYSTEMS ARE INSTALLED AND SPECIFIED AS PER MANUFACTURERS SPECS.
- D) ENSURE SITE/SOIL CONDITIONS SUIT SELECTED RET WALL TYPE.
- E) ENSURE APPROPRIATE SURFACE DRAINAGE MEASURES ARE ADOPTED INCLUDING APPROPRIATE MATERIALS ARE PLACED BEHIND WALL TO CONVEY GROUND WATER AWAY FROM THE WALL AND ITS FOUNDATIONS.



**TYPICAL SITE
NOT TO SCALE**

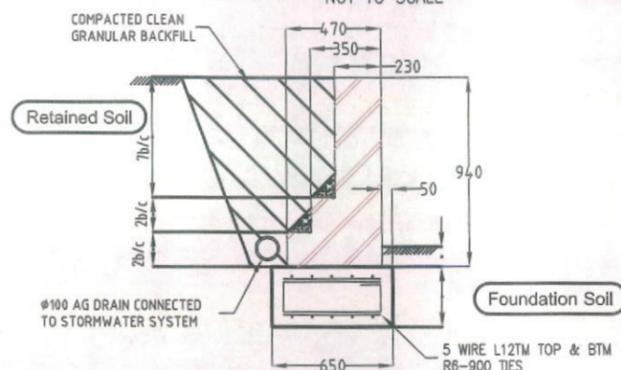
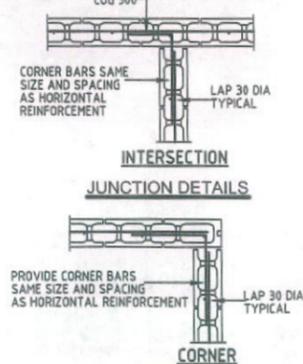
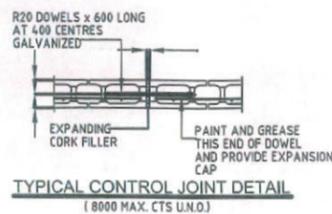


TYPE A

RETAINING WALL HEIGHT 0 - 1000

4.0kPa MAX ALLOWABLE SURCHARGE

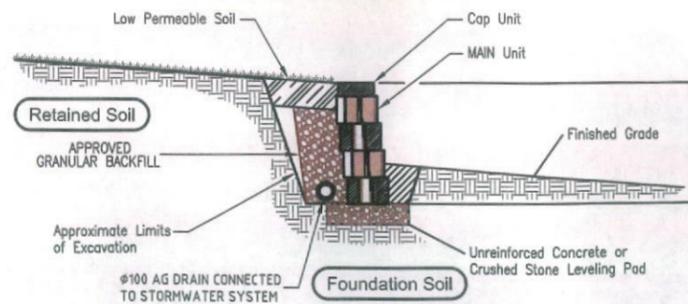
RETAINING WALL SCHEDULE					
H	B	D	T	V BARS	X BARS
0 - 800	800	400	200	N12-400	N12-400
800 - 1000	900	400	200	N12-400	N12-400



TYPE B

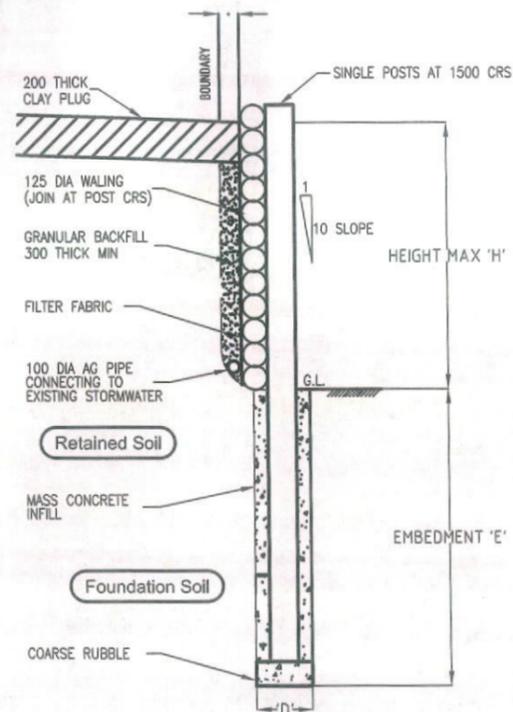
**TYPICAL GRAVITY BRICKWORK
RETAINING WALL DETAILS**

1. 4 kPa SURCHARGE ALLOWED
2. ALL BRICKWORK TO BE INTERLOCKED USING HEADER COURSES SO THAT THE WALLS ACT AS AN INTEGRAL UNIT
3. VERTICAL BRICK JOINTS AT 6000 CTRS U.N.O.



TYPE C

**Typical "PROPRIETY"
Gravity Wall Section**



TYPE D

TYPICAL LOG RETAINING WALL

TIMBER LOG RETAINING WALL				
HEIGHT MAX 'H'	EMBEDMENT 'E'	POST DIA MIN	POST Spacing MIN	WALL DIA MIN
900	1000 MIN	200	1500	125

CONSTRUCTION OF WALL TO BE IN ACCORDANCE WITH "KOPPERS LOG" RETAINING WALL SPECIFICATIONS
'D' 400 DIA FOR POST 200 DIA
'D' 2 x 400 DIA FOR DOUBLE POSTS

TYPICAL RET WALL TYPES

PRIOR TO SELECTION, OWNER MUST CONTACT EITHER MANUFACTURER and/or QUALIFIED ENGINEER TO DISCUSS SUITABILITY OF SYSTEM.

BRICKWORK AND BLOCKWORK

- B1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700, S.A.A BLOCKWORK CODE AS1475 AND ALL OTHER RELATED CODES.
- B2 STRENGTHS OF MASONRY UNITS AND TYPE OF MORTAR SHALL BE AS FOLLOWS:

ELEMENT	MATERIAL	CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH (F'c)	MORTAR (CEMENT: LIME: SAND) (F'c)	
			20 MPa	1:1:6
BRICKS	CLAY	20 MPa	1:1:6	
BLOCKS	CONC	15 MPa	1:0.25:3	

MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE SUPERINTENDENT.
ONLY LOAD BEARING MASONRY WALLS ARE SHOWN UNDER CONCRETE SLABS.

- B3 OTHER THAN REINFORCED CONCRETE BLOCKWORK, MASONRY SUPPORTING SLABS AND BEAMS SHALL BE TROWELLED SMOOTH WITH MORTAR FILLING ALL VOIDS. TWO LAYERS OF MALTHOID SHALL BE PLACED FULL WIDTH ACROSS SUCH LOAD BEARING SURFACES EXCEPT WHERE PROPRIETARY BEARING STRIP IS NOTED OR ALTERNATIVE DETAIL IS DOCUMENTED. THE HEADS OF LOAD BEARING WALLS SHALL NOT EXTEND ABOVE THE SOFFIT OF THE CONCRETE SLAB ABOVE.
- B4 ALL DOUBLE SKIN SOLID WALLS SUCH AS 230mm THICK BRICKWORK SHALL BE BONDED BY A HEADER COURSE EVERY 4th COURSE.
- B5 ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ANY CONTROL JOINTS IN THE CONCRETE.
- B6 NON LOAD BEARING WALLS BUILT PRIOR TO POURING CONCRETE SHALL BE SEPARATED FROM CONCRETE ABOVE BY 16 mm THICK CLOSED CELL POLYSTYRENE STRIP. WHERE BUILT AFTER CONCRETE IS POURED LEAVE 12 mm CLEAR OF CONCRETE SOFFIT.
- B7 NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.
- B8 PROVIDE VERTICAL CONTROL JOINTS AT 8 m MAX. CENTRES GENERALLY, AND 5 m MAX. FROM CORNERS FOR BRICKWORK AND UNREINFORCED BLOCKWORK.
- B9 REFER TO CONCRETE NOTES FOR DE-PROPPING PRIOR TO CONSTRUCTION OF MASONRY WALLS ON SUSPENDED SLABS.
- B10 ALL CAVITY CONSTRUCTION SHALL INCLUDE STAINLESS STEEL TIES INSTALLED IN ACCORDANCE WITH CLAUSE 3.8 AS 3700.
- B11 REINFORCED CONCRETE BLOCKWORK SHALL COMPLY WITH THE FOLLOWING, UNLESS NOTED

- * BLOCKS SHALL BE STRENGTH GRADE 15 CONFORMING TO AS 2733.
- * MORTAR SHALL COMPRISE 1 CEMENT:0.25 LIME:3 SAND.
- * PROVIDE CLEANOUT HOLES 100 mm SQUARE MINIMUM AT BASE OF ALL WALLS AND ROD CORE HOLES TO REMOVE PROTRUDING MORTAR FINIS PRIOR TO GROUTING.
- * CORE FILLING GROUT SHALL BE :- F'c = 20 MPa, MINIMUM CEMENT CONTENT = 300 kg/m, SLUMP = 230 ± 30 mm.
- * REINFORCEMENT PROJECTING FROM FOUNDATION OR SLABS INTO CORES, SHALL BE SET ACCURATELY IN PLACE USING TEMPLATES TO ALIGN WITH THE CENTRE OF THE LENGTH OF CORES AND WITH COVER AS NOTED. WHERE HORIZONTAL BARS ARE INDICATED, THE WEBS OF THE BLOCKS BELOW THE BARS SHALL BE CUT DOWN TO ACCOMMODATE THE BARS.
- * GROUT ALL CORES IN REINFORCED BLOCKWORK UNLESS OTHERWISE NOTED. HEIGHT OF BLOCKWORK TO BE GROUTED ON ONE DAY SHALL BE 2400mm. GROUT SHALL BE PLACED IN LIFTS OF 1200mm MAXIMUM AND COMPACTED BY POKER VIBRATOR. A SHORT TIME SHOULD ELAPSE BETWEEN SUCCESSIVE LIFTS TO ALLOW PLASTIC SETTLEMENT TO OCCUR.
- * PROVIDE 50 mm COVER FROM THE OUTSIDE OF THE BLOCKWORK UNLESS NOTED.
- B12 BACKFILL TO RETAINING WALLS SHALL BE FREE DRAINING GRANULAR MATERIAL. PROVIDE SUBSOIL DRAIN AT BASE OF WALL. DO NOT BACKFILL UNTIL 14 DAYS AFTER GROUTING, OR IF APPLICABLE, AFTER RESTRAINING SLAB OVER HAS BEEN POURED AND CURED FOR 7 DAYS. BACKFILL SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2 %.



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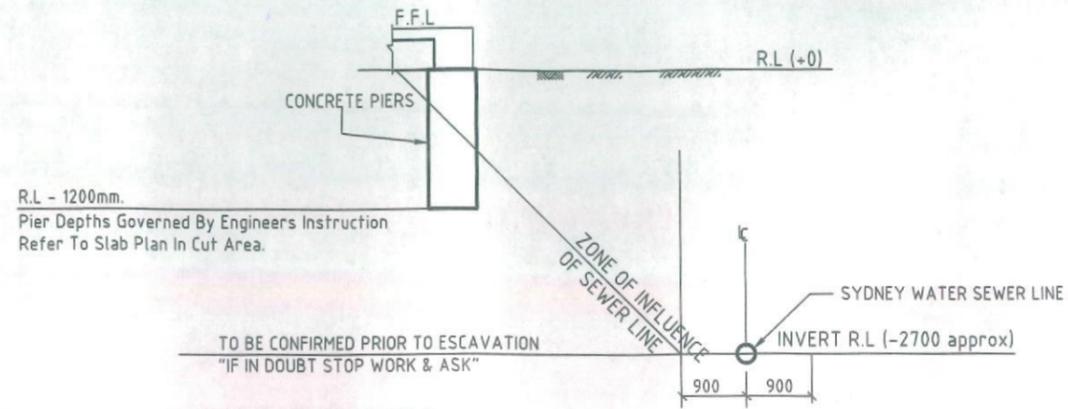
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Secta Ref Nmb	SC_16749	DRG Nmb	E-08	REV	A
RET WALL DETAILS					DO NOT SCALE

SALINITY AFFECTED
Refer To Concrete
Quality Table.



SECTION S1
Do Not Scale

(TYP) BUILDING ADJACENT/OVER TO SEWER
Do Not Scale

NOTE: PIERS TO BE FOUNDED 200 BELOW ZONE OF INFLUENCE OF SEWER. IF ROCK IS ENCOUNTERED NOTIFY ENGINEER PRIOR TO COMPLETION.

NOTE: CHECK WITH SYDNEY WATER OR LOCAL AUTHORITY ON MIN. CLEARANCES

**DEPTH GOVERNED BY ENGINEERING REQUIREMENTS
ALL PIERS EXPECTED TO STIFF NATURAL SHALE BEARING
REFER TO PIER NOTES IN CUT AREA.**

IF ROCK IS NOT ENCOUNTERED FULL DEPTH OF PIERING MUST BE ADOPTED TO SATISFY SYDNEY WATER REQUIREMENTS.

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DATE:	11/02/2015				REV A
			SEWER DETAILS		DO NOT SCALE