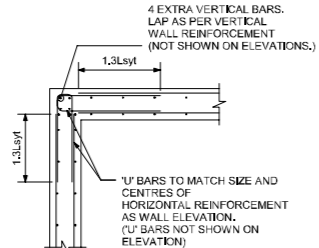
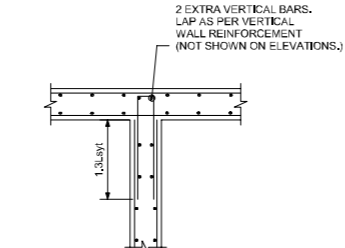


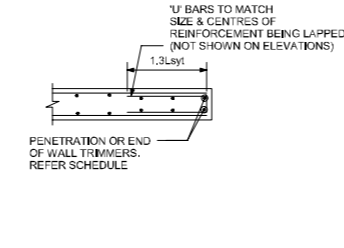
TYPICAL TOP OF WALL REINFORCEMENT (>200 THICK WALLS)



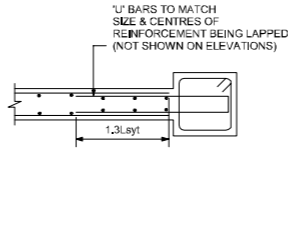
TYPICAL CORNER DETAIL (>200 THICK WALLS)



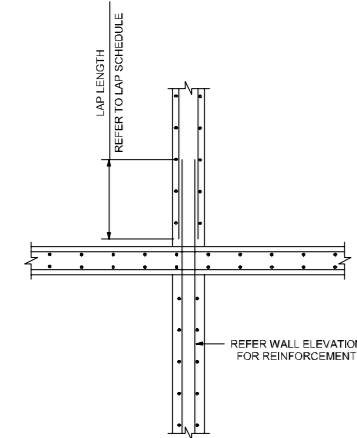
TYPICAL 'T' INTERSECTION DETAIL (>200 THICK WALLS)



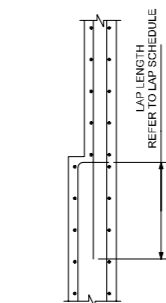
END OF WALL, EDGE OF PENETRATION OR TOP OF WALL DETAIL (>200 THICK WALLS)



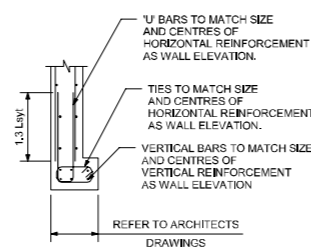
TYPICAL WALL TO COLUMN (>200 THICK WALLS)



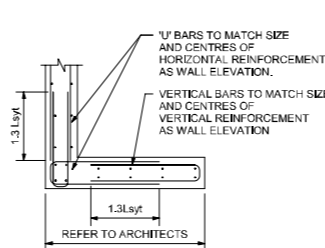
TYPICAL WALL REINFORCEMENT SPLICE DETAIL (>200 THICK WALLS)



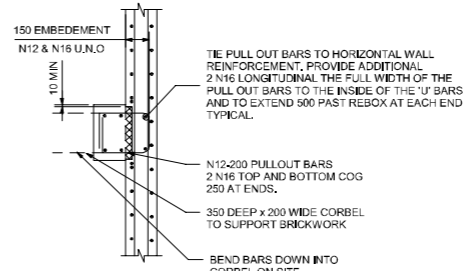
REDUCTION IN WALL THICKNESS



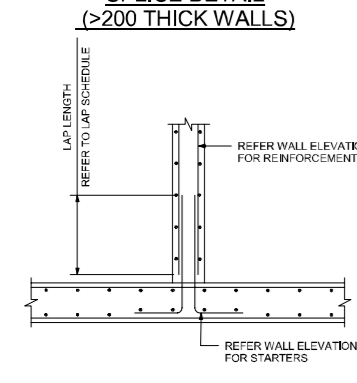
RETURN WHERE 1.3Lsyt LAP CANNOT BE ACHIEVED



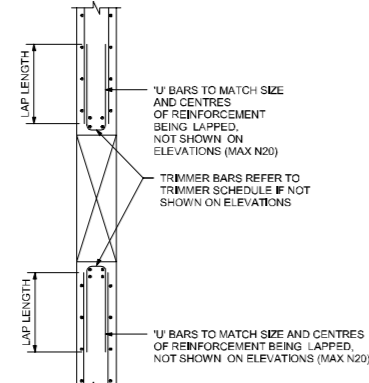
RETURN WHERE 1.3Lsyt LAP CAN BE ACHIEVED



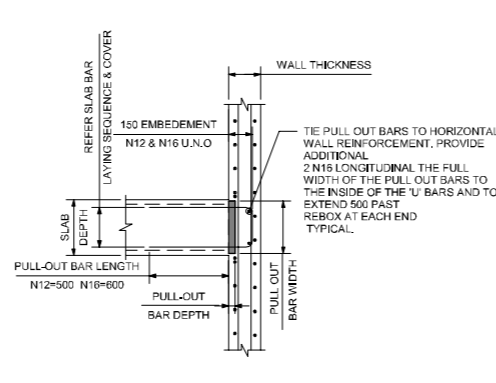
TYPICAL CORBEL DETAIL TO SUPPORT BRICKWORK



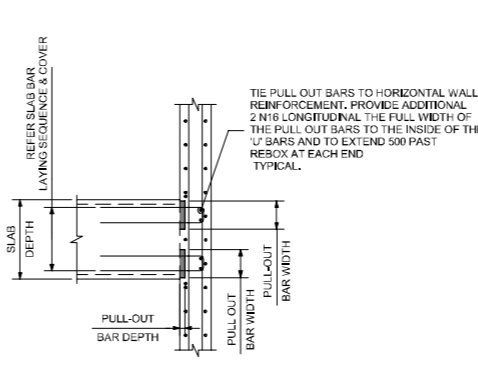
TYPICAL WALL REINFORCEMENT STARTER DETAIL (>200 THICK WALLS)



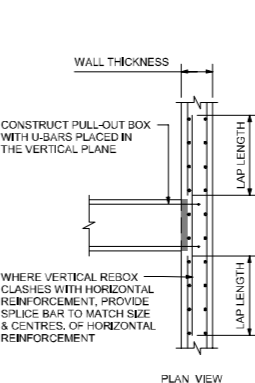
PENETRATION SECTION DETAIL (>200 THICK WALL)



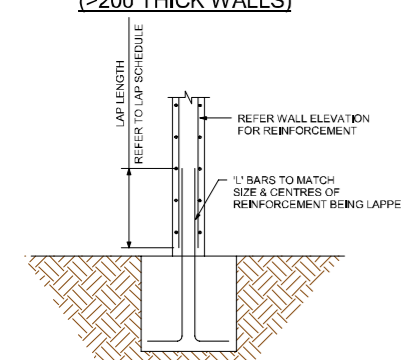
PULL-OUT BAR TYPE 1 DETAIL



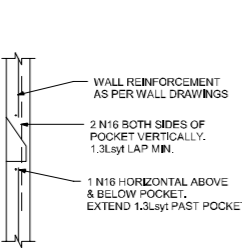
PULL-OUT BAR TYPE 2 DETAIL



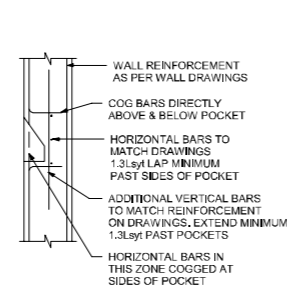
VERTICAL PULL-OUT BAR DETAIL



TYPICAL WALL REINFORCEMENT STARTER DETAIL AT GROUND (>200 THICK WALLS)



INDICATIVE SECTION AT JUMPFORM POCKET 150 THICK WALL



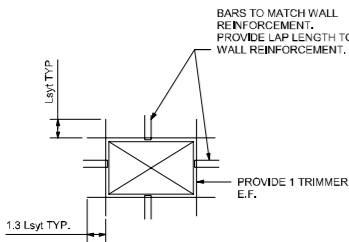
INDICATIVE SECTION AT JUMPFORM POCKET 300 THICK WALL

PULL OUT BAR SCHEDULE			
SLAB DEPTH (mm)	PULL OUT TYPE (mm)	PULL OUT DIMENSIONS	
		WIDTH	DEPTH
130		110	35
130	1	125	35
150	1	125	35
200	1	175	40
250	1	235	40
300	2	2x110	35
325	2	2x110	35
350	1	330	40
400	2	2x110	35
500	2	2x175	40
540	2	2x175	40
700	2	2x175	40

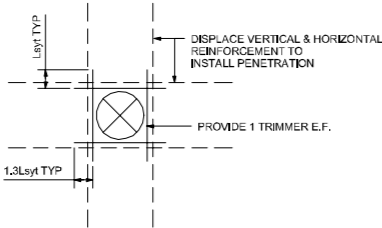
NOTES:
1. REFER GENERAL ARRANGEMENT DRAWINGS FOR SLAB THICKNESSES.
2. REFER REINFORCEMENT PLANS FOR BAR LAYING SEQUENCE AND COVER.
3. REFER PULL-OUT BAR PLANS FOR PULL-OUT BAR LOCATION AND EXTENT AS WELL AS PULL-OUT BAR SIZE AND SPACING.

30mm COVER TO WALL REINFORCEMENT LAP SCHEDULE												
	f _c =32MPa		f _c =40MPa		f _c =50MPa		f _c =65MPa		f _c =80MPa		f _c =100MPa	
SIZE	Lsyt	1.3Lsyt	Lsyt	1.3Lsyt	Lsyt	1.3Lsyt	Lsyt	1.3Lsyt	Lsyt	1.3Lsyt	Lsyt	1.3Lsyt
N10	350	450	300	400	300	400	300	400	300	400	300	400
N12	450	600	400	500	350	500	350	500	350	500	350	500
N16	700	900	600	800	550	700	500	650	500	650	500	650
N20	950	1200	850	1100	750	950	650	850	650	850	650	850
N24	1200	1550	1100	1400	950	1250	850	1100	850	1100	850	1100
N28	1500	1950	1350	1750	1200	1550	1050	1350	1050	1350	1050	1350
N32	1800	2300	1600	2100	1450	1850	1250	1650	1250	1650	1250	1650
N36	2100	2700	1900	2450	1700	2200	1500	1900	1500	1900	1500	1900
N40	2450	3150	2150	2800	1950	2500	1700	2200	1700	2200	1700	2200

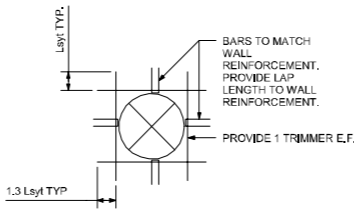
* USE 1.3Lsyt FOR ALL HORIZONTAL REINFORCEMENT WHEN MORE THAN 300mm OF CONCRETE IS CAST BELOW THE BAR



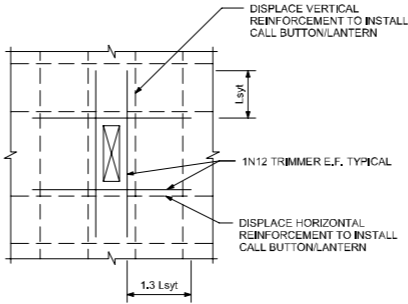
**TYPICAL REINFORCEMENT
FOR WALL OPENINGS
AND FREE EDGES**



**TYPICAL REINFORCEMENT
FOR PENETRATION ≤300mm**

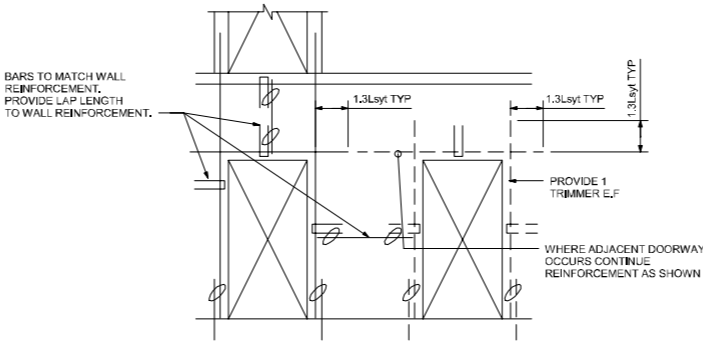


**TYPICAL REINFORCEMENT
FOR PENETRATION >300mm**

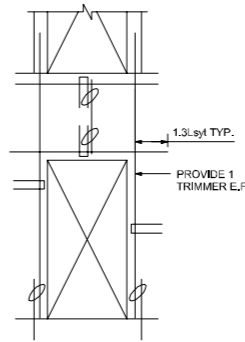


**TYPICAL CALL BUTTON AND
LANTERN TRIMMER DETAIL**

- REFER TO LIFT ENGINEERS DRAWINGS FOR LOCATIONS (NOT SHOWN ON STRUCTURAL ELEVATIONS)



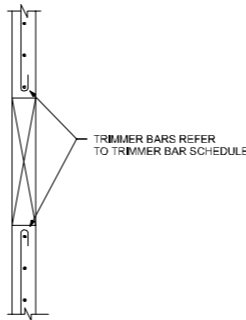
TYPICAL DOOR OPENING



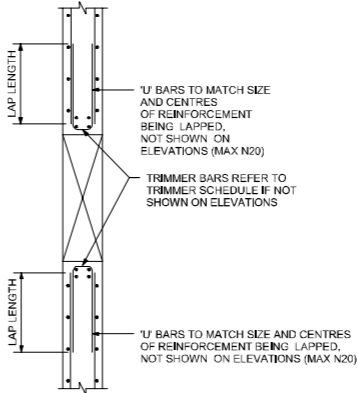
TYPICAL DOOR OPENING

TYPICAL PENETRATION DETAILS

- ALL STARTERS AND TRIMMERS DETAILED ABOVE ARE ADDITIONAL TO THOSE DETAILED ON WALL SCHEDULE UNLESS
- ALL TRIMMER BARS INDICATED TO MATCH ADJACENT REINFORCEMENT. N16 MINIMUM.



**PENETRATION SECTION DETAIL
(150 THICK WALL)**



**PENETRATION SECTION DETAIL
(>200 THICK WALL)**

AMENDMENTS	REVISION	DATE	DESCRIPTION
1	01/10/17	01/10/17	PROVISIONARY NOT EXISTING PERSONS BLUE
2	01/10/17	01/10/17	REVISION C. REVISIONS

STRUCTURAL ENGINEER
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NSW Health Infrastructure

PROJECT MANAGER
TSA MANAGEMENT

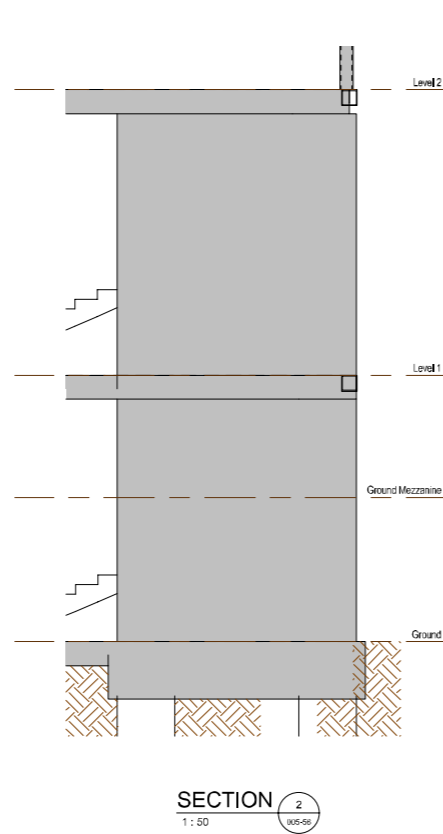
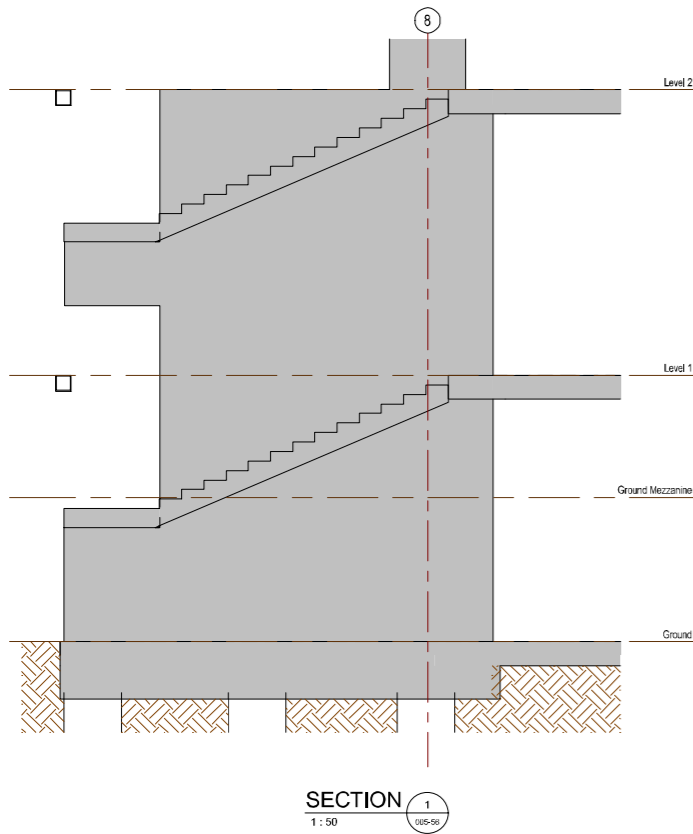
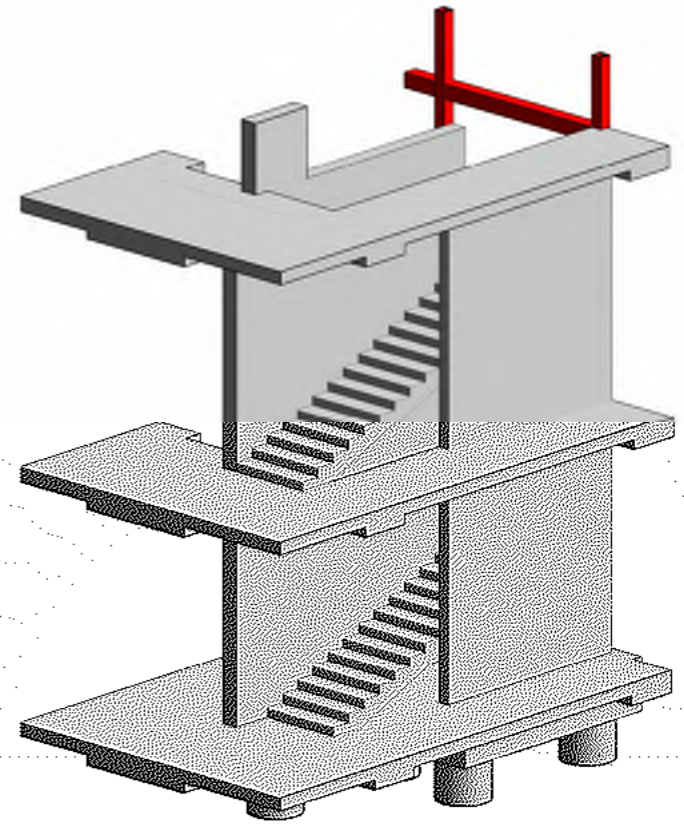
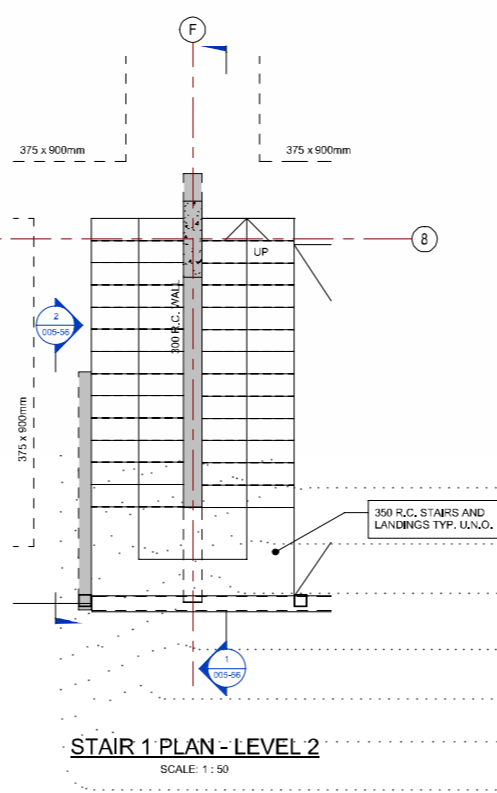
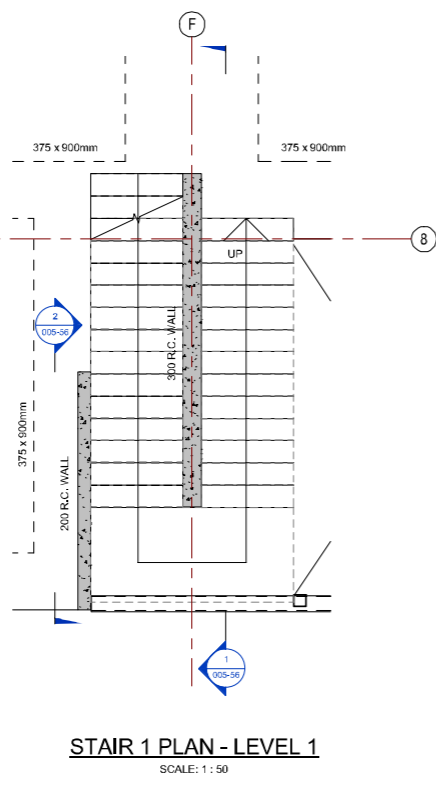
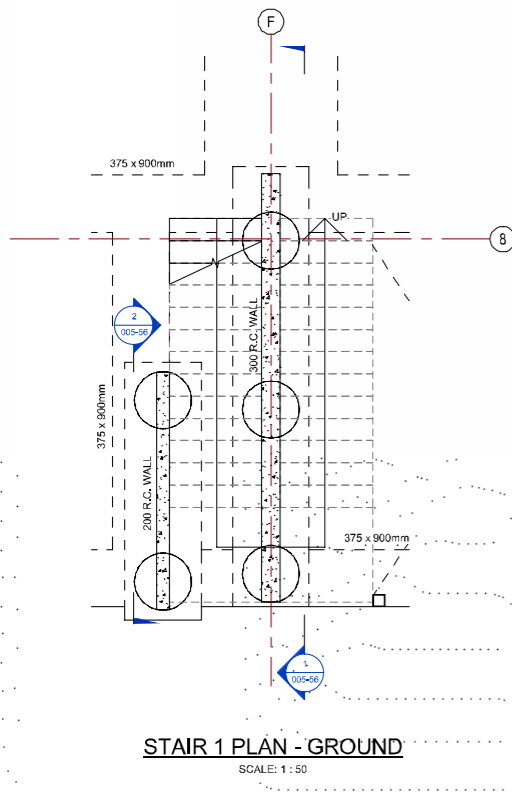
PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-005-53
DRAWING NAME
TYPICAL R.C. WALL DETAILS (PENETRATIONS)

REV
2

SCALE 1:100 @ B1
0m 2m 4m 6m 8m 10m
N

ISSUE DATE
06.12.17



- R.C. WALL NOTES:**
- REFER TO PART PLANS FOR WALL THICKNESS
 - WALL THICKNESS = 200mm THICK U.N.O.
 - CONCRETE STRENGTH $f_c = 50$ MPa U.N.O. REFER TO ELEVATION
 - DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICE ENGINEERS DRAWINGS FOR PENETRATIONS.
 - 100mm AND BELOW PENETRATIONS NOT SHOWN BY THE STRUCTURAL ENGINEER.
 - 125mm AND ABOVE OR ANY GROUPED PENETRATIONS TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
 - NO PENETRATIONS THROUGH LINK BEAMS WITHOUT SPECIFIC APPROVAL OF STRUCTURAL ENGINEER.
 - REFER TO DRAWINGS ST-005-51 TO ST-005-53 FOR R.C. WALL DETAILS.
 - REFER TO GENERAL NOTES FOR CONCRETE COVER TO REINFORCEMENT

AMENDMENTS	REVISION	DATE	BY	CHKD
1	01	10/10/2017	005-56	005-56
2	02	10/10/2017	005-56	005-56
3	03	10/10/2017	005-56	005-56

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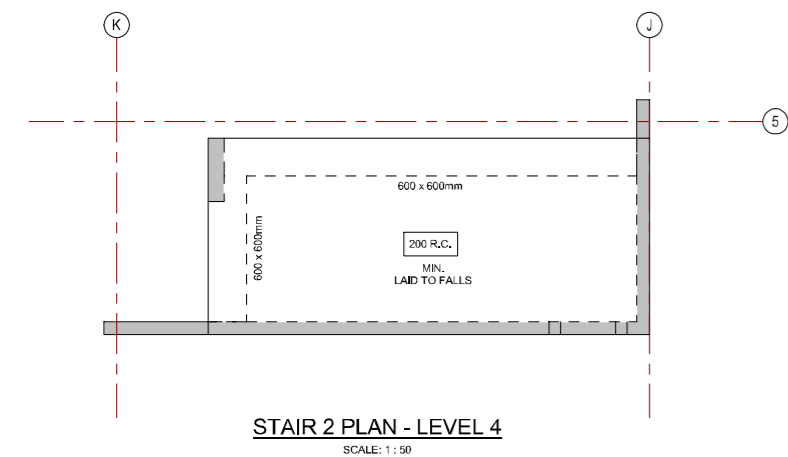
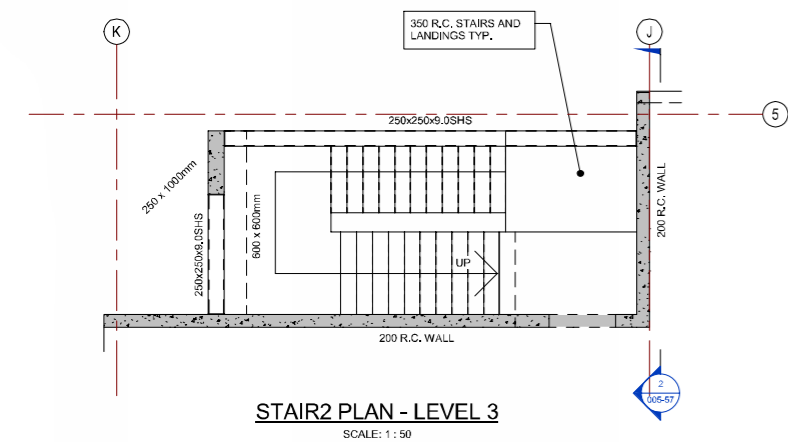
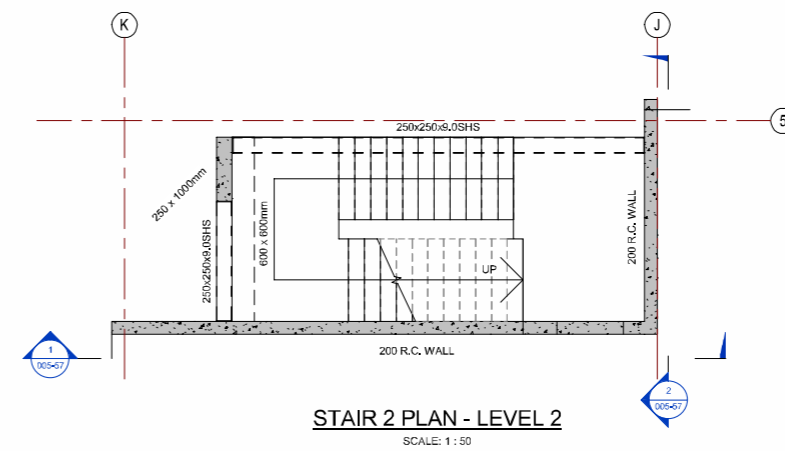
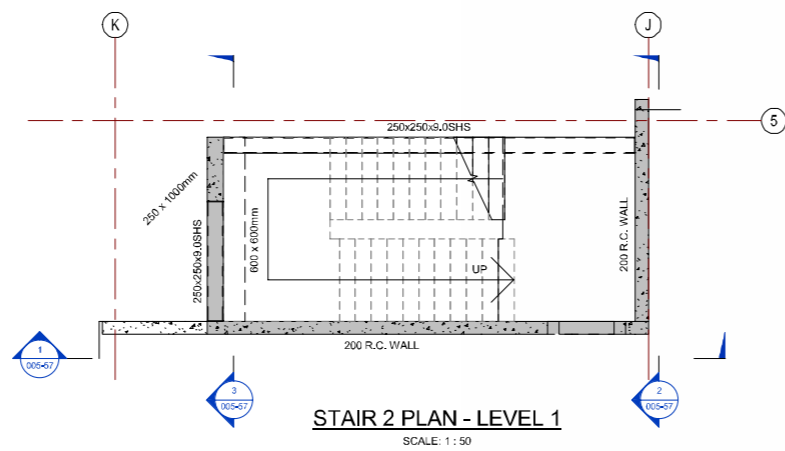
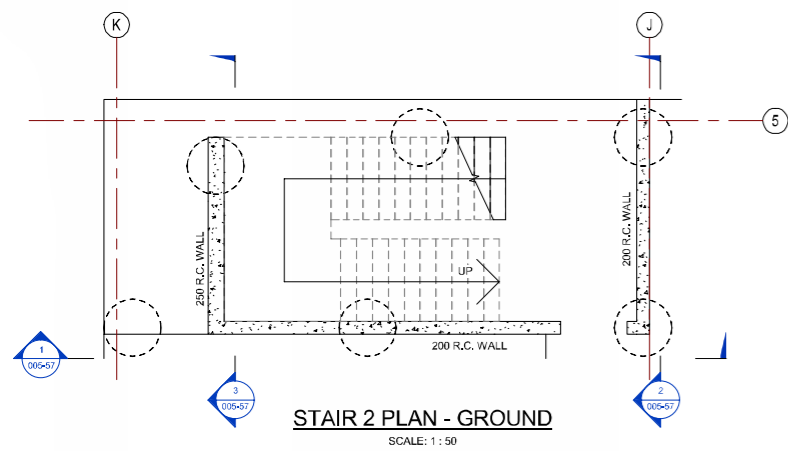
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NSW Health Infrastructure

PROJECT MANAGER
TSA MANAGEMENT

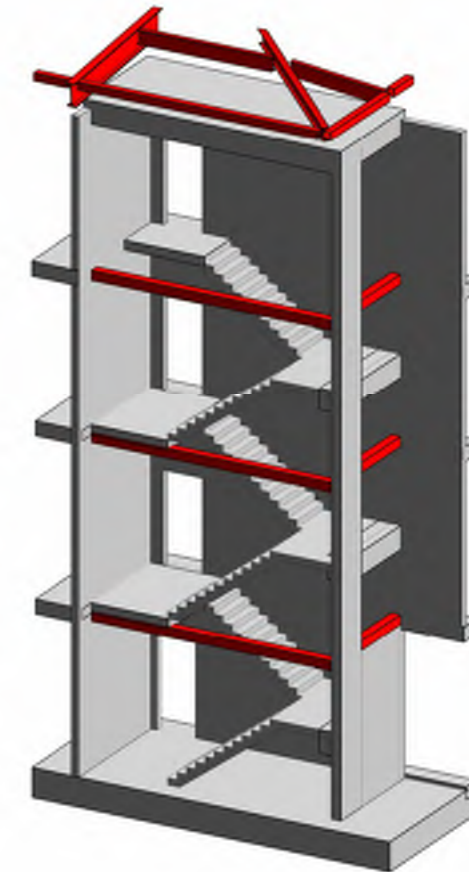
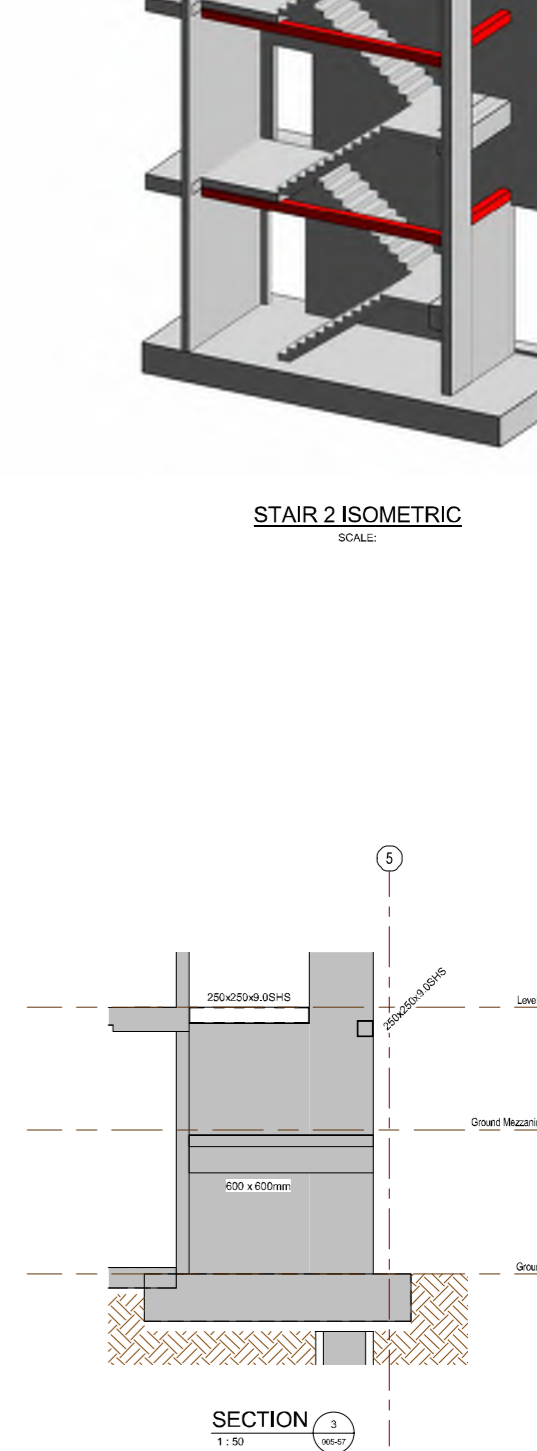
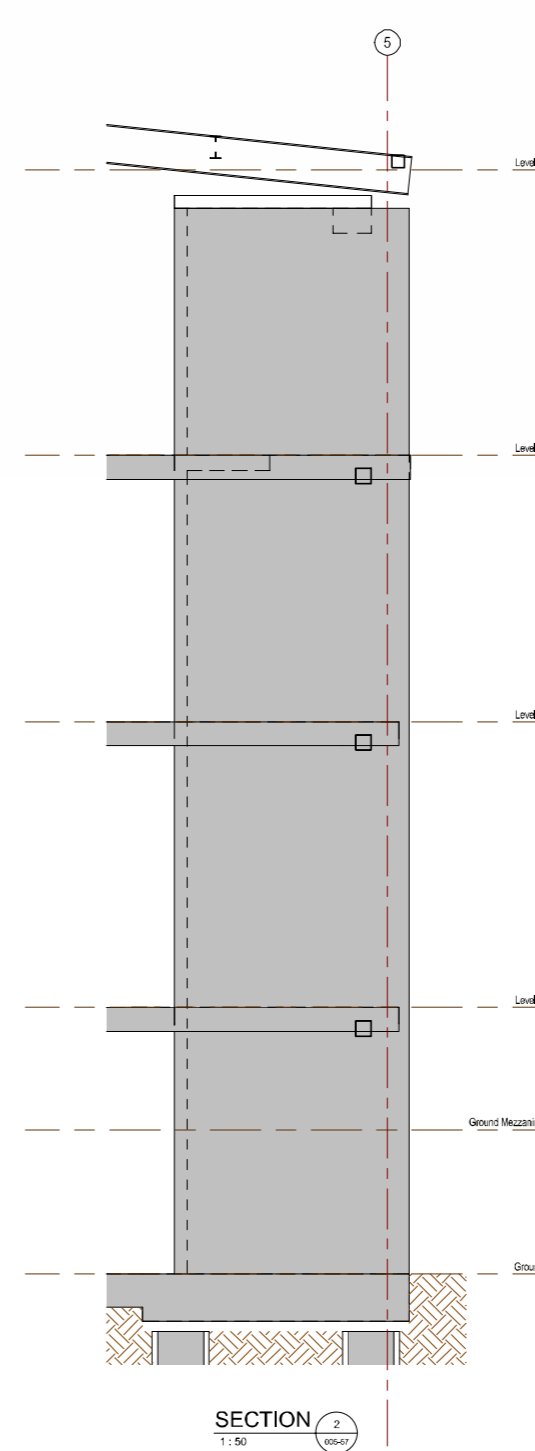
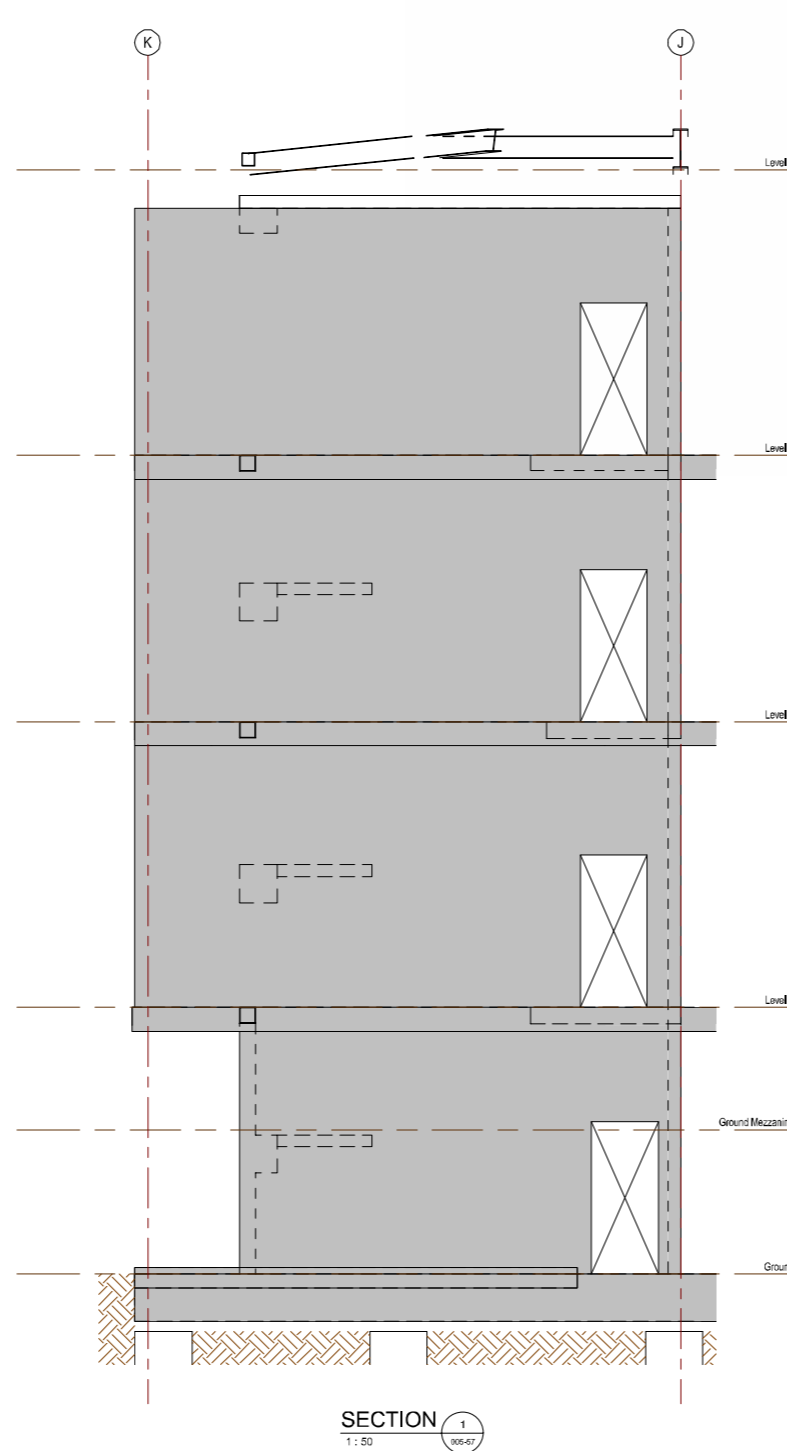
PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-005-56
DRAWING NAME
R.C. WALL ELEVATIONS - STAIR 1

REV
3
SCALE 1:100 @ B1
ISSUE DATE
19.12.17



- R.C. WALL NOTES:**
- REFER TO PART PLANS FOR WALL THICKNESS
 - WALL THICKNESS = 200mm THICK U.N.O.
 - CONCRETE STRENGTH $f_{cc} = 50$ MPa U.N.O. REFER TO ELEVATION
 - DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICE ENGINEERS DRAWINGS FOR PENETRATIONS.
 - 100mm AND BELOW PENETRATIONS NOT SHOWN BY THE STRUCTURAL ENGINEER.
 - 125mm AND ABOVE OR ANY GROUPED PENETRATIONS TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
 - NO PENETRATIONS THROUGH LINK BEAMS WITHOUT SPECIFIC APPROVAL OF STRUCTURAL ENGINEER.
 - REFER TO DRAWINGS ST-005-51 TO ST-005-53 FOR R.C. WALL DETAILS.
 - REFER TO GENERAL NOTES FOR CONCRETE COVER TO REINFORCEMENT



AMENDMENTS	DATE	BY	REASON
1	06/05/2017	PROJENET	PROJENET
2	06/05/2017	PROJENET	PROJENET
3	06/05/2017	PROJENET	PROJENET

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NSW Health Infrastructure

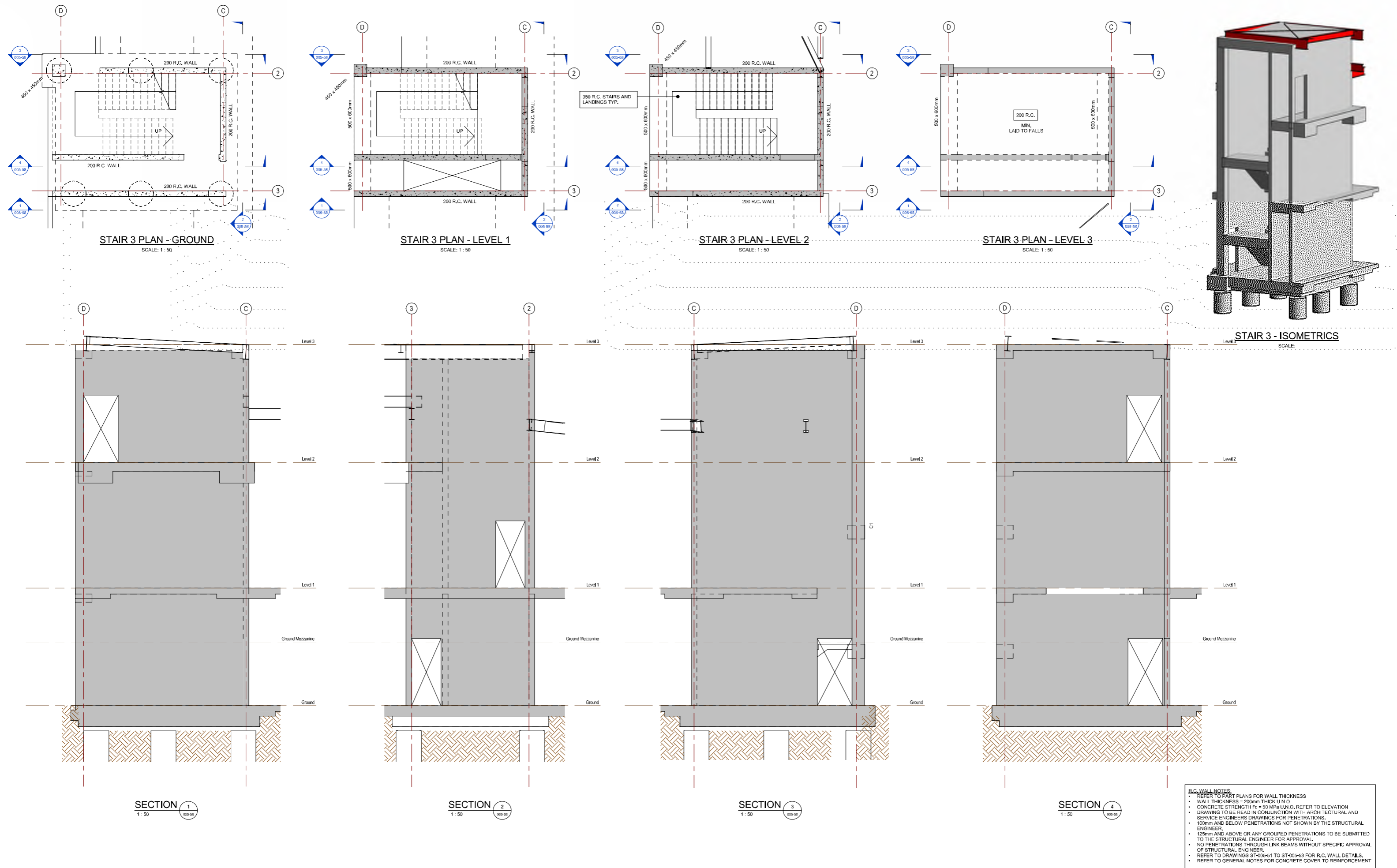
PROJECT MANAGER
TSA MANAGEMENT

PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-005-57
DRAWING NAME
R.C. WALL ELEVATIONS - STAIR 2

REV
3
SCALE 1:100 @ B1

ISSUE DATE
19.12.17



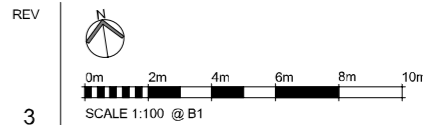
AMENDMENTS		
NO.	DATE	DESCRIPTION
1	05-05-08	PROVISIONAL DESIGN FOR SUBMITTAL
2	05-05-08	REVISION C - REVISION
3	05-05-08	REVISION C - REVISION

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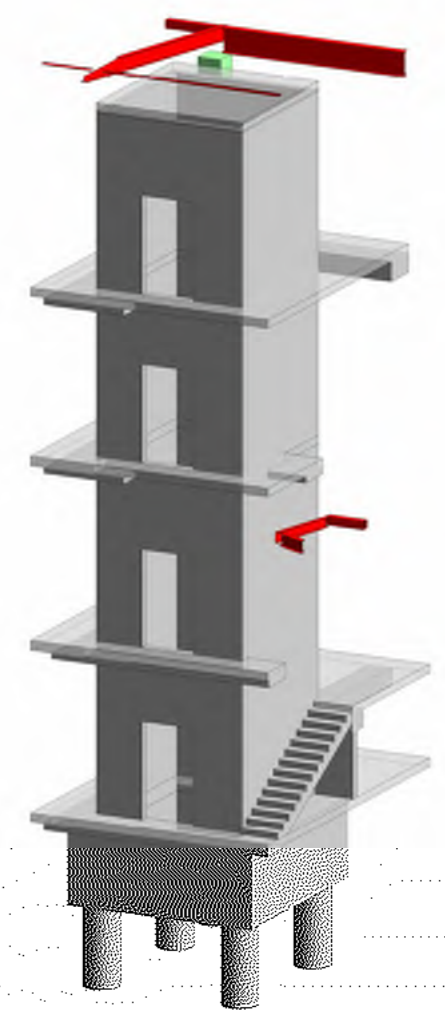
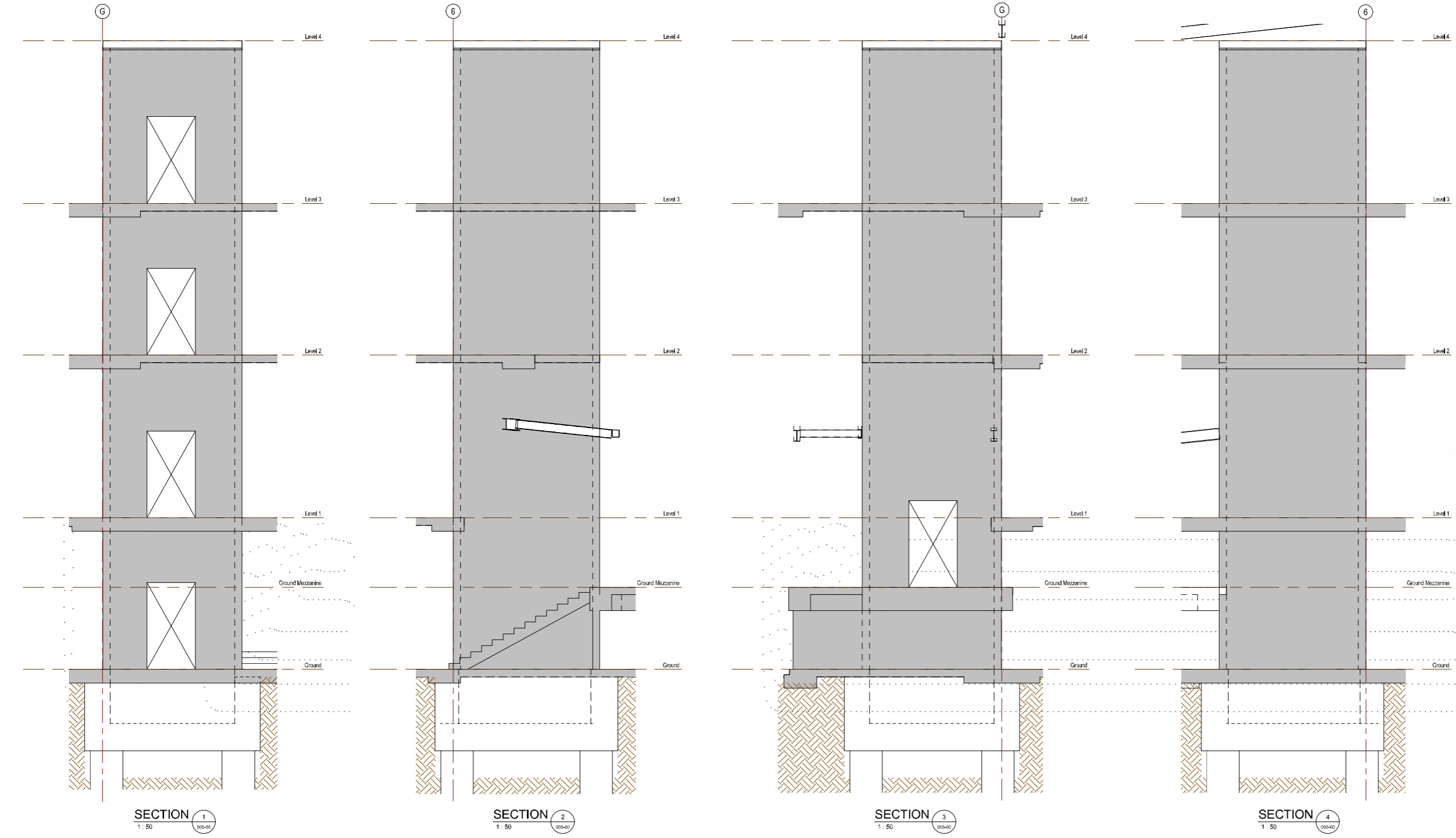
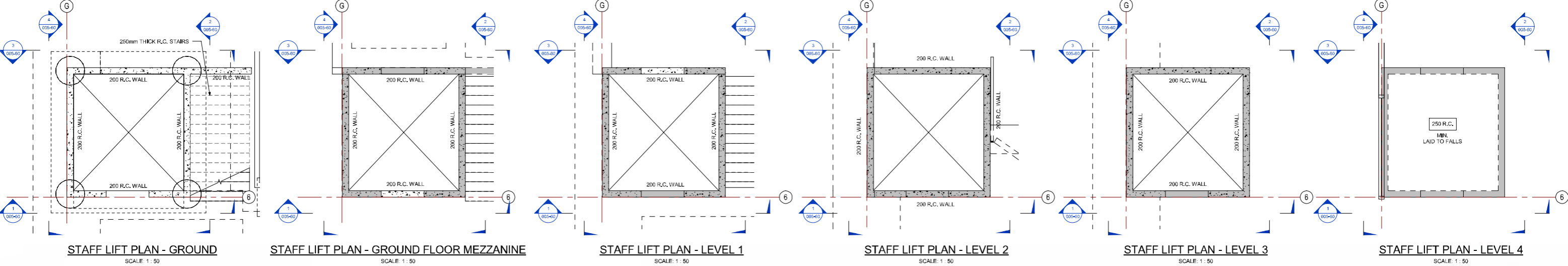


PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-005-58
DRAWING NAME
R.C. WALL ELEVATIONS - STAIR 3

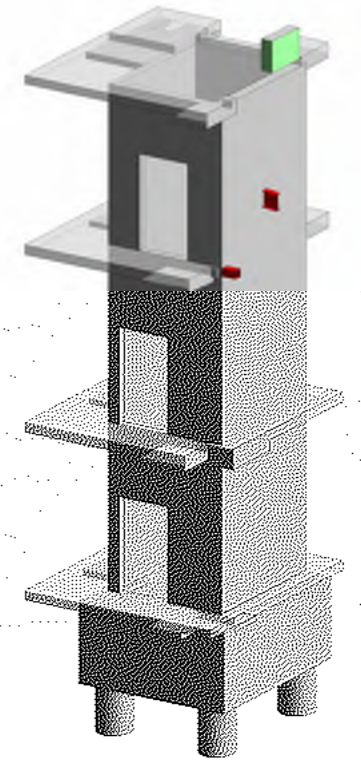
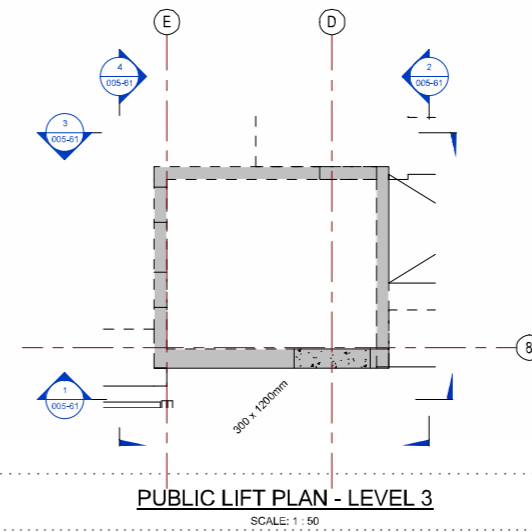
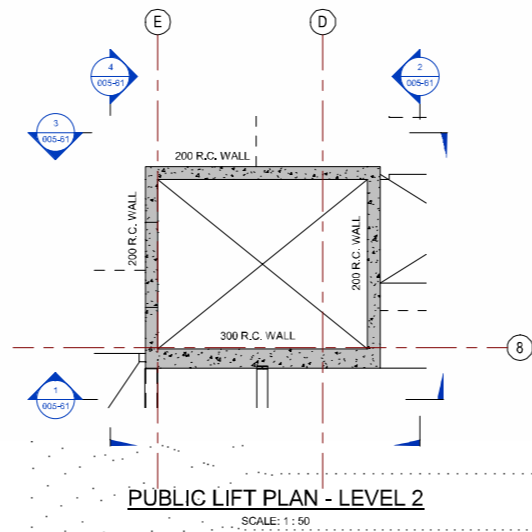
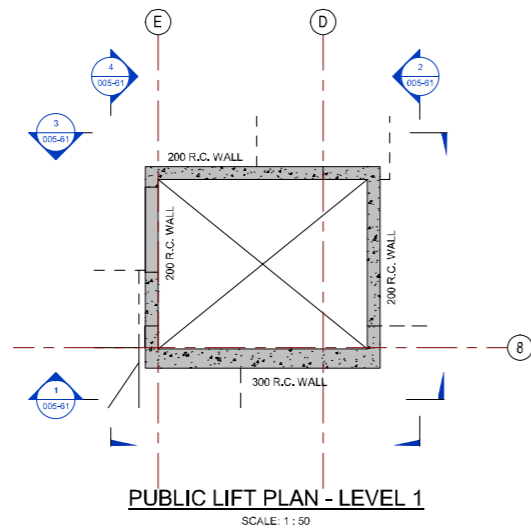
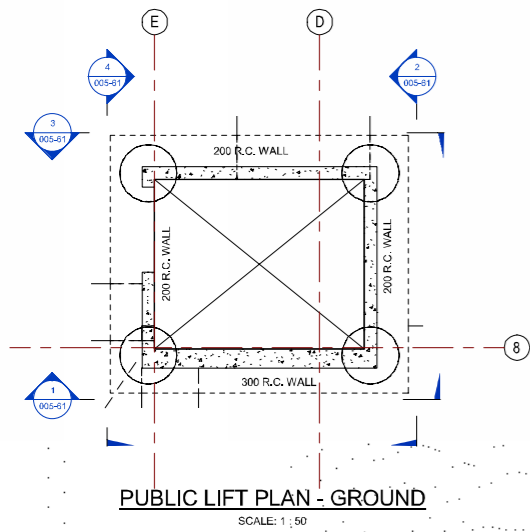


ISSUE DATE
19.12.17



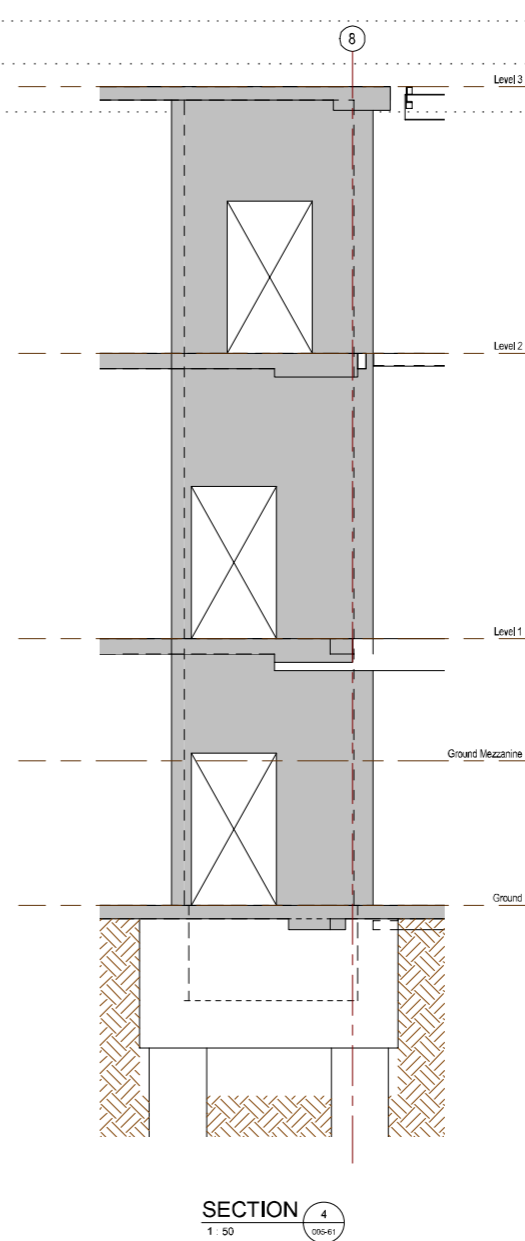
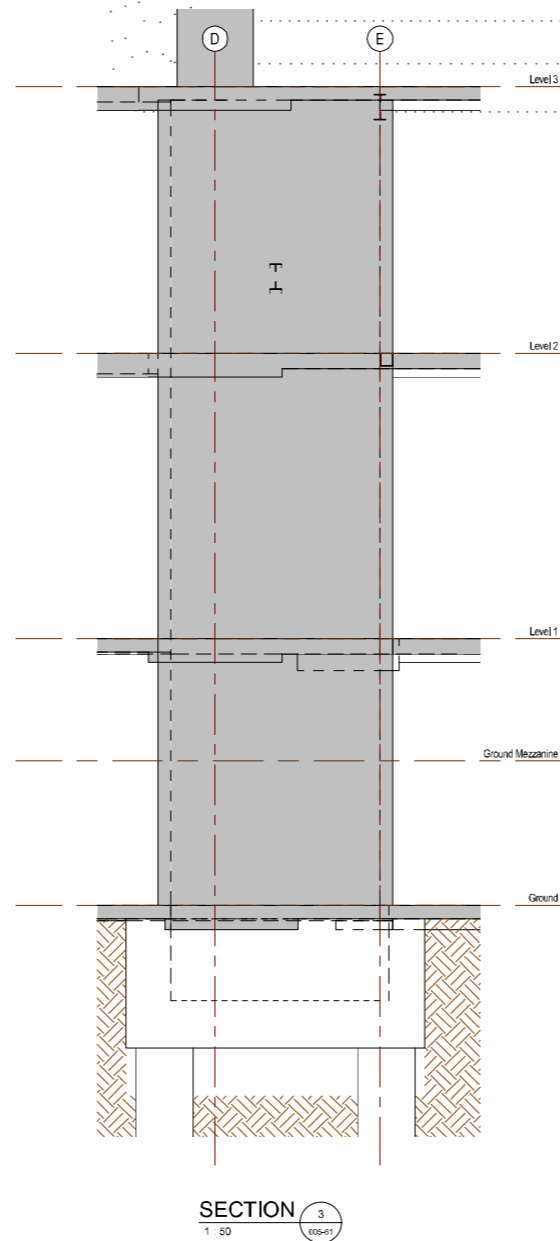
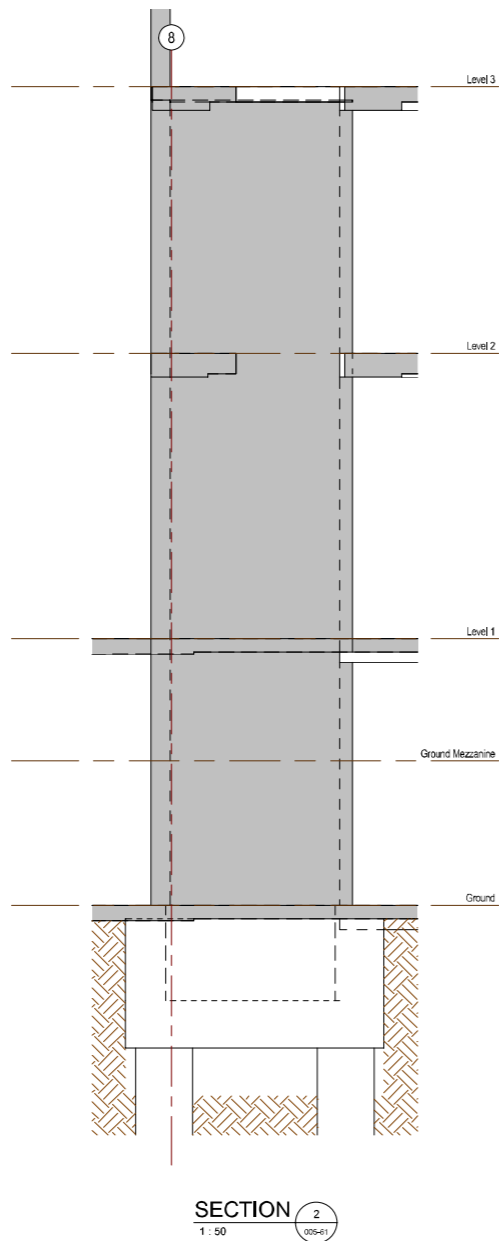
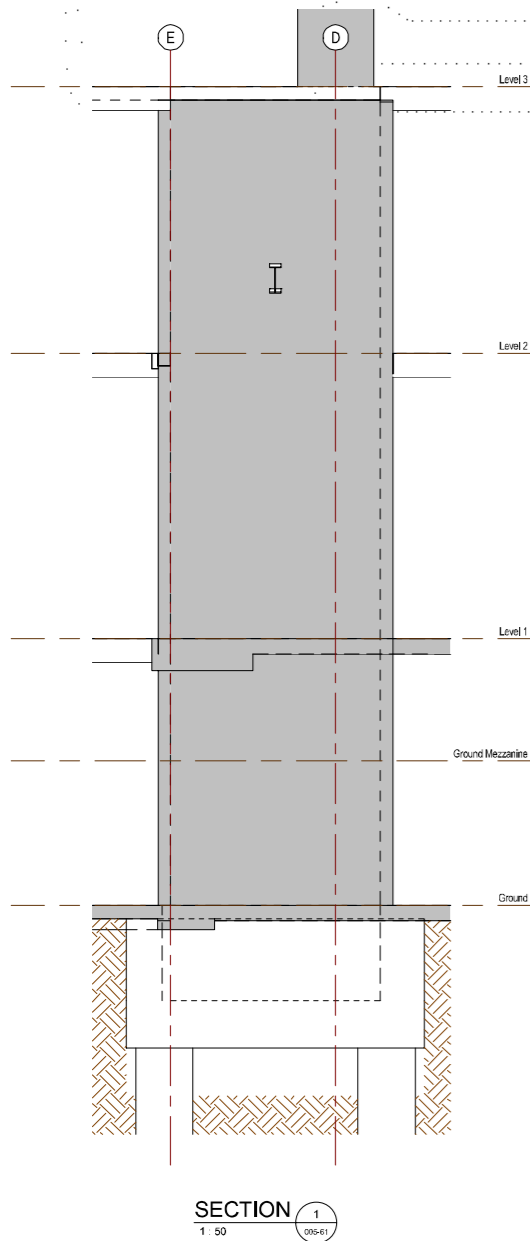
R.C. WALL NOTES:

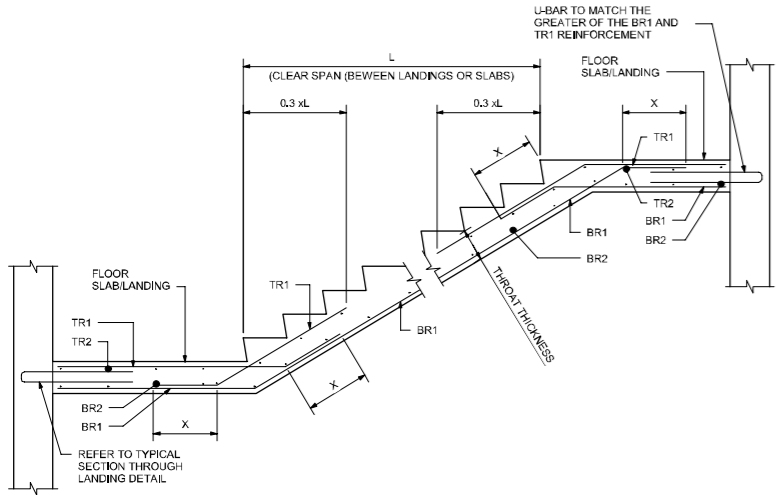
- REFER TO PART PLANS FOR WALL THICKNESS
- WALL THICKNESS = 200mm THICK U.N.O.
- CONCRETE STRENGTH $f_c = 50$ MPa U.N.O. REFER TO ELEVATION
- DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICE ENGINEERS DRAWINGS FOR PENETRATIONS.
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- 125mm AND ABOVE OR ANY GROUPED PENETRATIONS TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL
- NO PENETRATIONS THROUGH LINK BEAMS WITHOUT SPECIFIC APPROVAL OF STRUCTURAL ENGINEER
- REFER TO DRAWINGS ST-005-S1 TO ST-005-S3 FOR R.C. WALL DETAILS.
- REFER TO GENERAL NOTES FOR CONCRETE COVER TO REINFORCEMENT



PUBLIC LIFT - ISOMETRIC
SCALE:

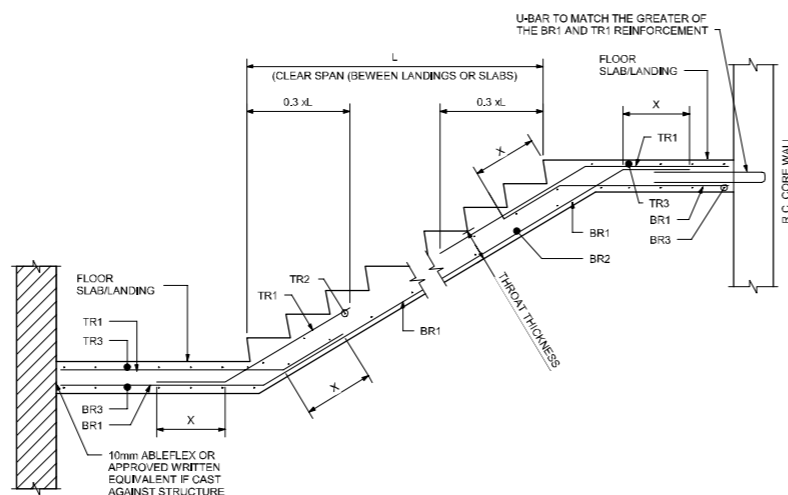
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 - REFER TO DRAWINGS ST-005-61 TO ST-005-63 FOR R.C. WALL DETAILS.
 - REFER TO GENERAL NOTES FOR CONCRETE COVER TO REINFORCEMENT





STAIR TYPE 'A'
STAIR FLIGHT SPANNING BETWEEN WALLS / STRUCTURE

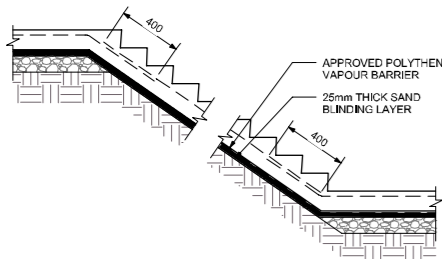
- STAIR THROAT THICKNESS TO BE 180mm UNLESS OTHERWISE NOTED ON THE STAIR ELEVATIONS
- ALL LANDINGS TO BE 200mm MINIMUM OR THE GREATER OF THE TWO ADJACENT FLIGHTS (U.N.O.)
- MAIN REINFORCEMENT BARS TO BE N16-200 TOP & BOTTOM (U.N.O.), PROVIDE N12-250 DISTRIBUTION REINFORCEMENT BARS TOP AND BOTTOM (U.N.O.)
- COVER TO REINFORCEMENT TO BE 25mm TOP & BOTTOM
- CONCRETE STRENGTH (f'c) = 40 MPa
- FOR REINFORCEMENT BAR DESIGNATIONS REFER TO STAIR ELEVATIONS DRAWINGS FOR REINFORCEMENT SCHEDULE



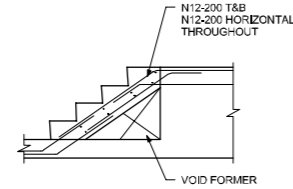
STAIR TYPE 'B'
STAIR FLIGHT SPANNING BETWEEN LANDINGS

- STAIR THROAT THICKNESS TO BE 180mm UNLESS OTHERWISE NOTED ON THE STAIR ELEVATIONS
- ALL LANDINGS TO BE 200mm MINIMUM OR THE GREATER OF THE TWO ADJACENT FLIGHTS (U.N.O.)
- MAIN REINFORCEMENT BARS TO BE N16-200 TOP & BOTTOM (U.N.O.), PROVIDE N12-250 DISTRIBUTION REINFORCEMENT BARS TOP AND BOTTOM (U.N.O.)
- COVER TO REINFORCEMENT TO BE 25mm TOP & BOTTOM
- CONCRETE STRENGTH (f'c) = 40 MPa
- FOR REINFORCEMENT BAR DESIGNATIONS REFER TO STAIR ELEVATIONS DRAWINGS FOR REINFORCEMENT SCHEDULE

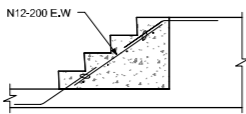
REINFORCEMENT LAP SCHEDULE	
BAR	LAP LENGTH 'X' (mm)
N12	500
N16	650
N20	800



TYPICAL STAIR ON GRADE SECTION
SCALE= 1:20

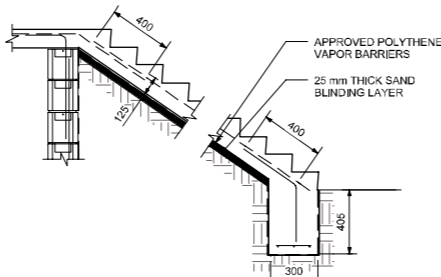


VOID FORMER STAIR
SCALE= 1:20

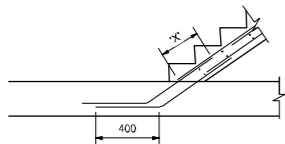


MASS CONCRETE STAIR
SCALE= 1:20

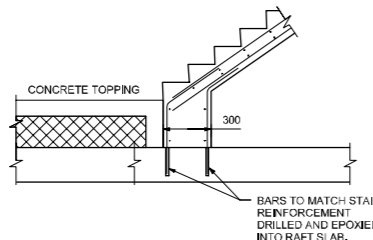
REINFORCEMENT LAP SCHEDULE	
BAR	LAP LENGTH 'X' (mm)
N12	500
N16	650
N20	800



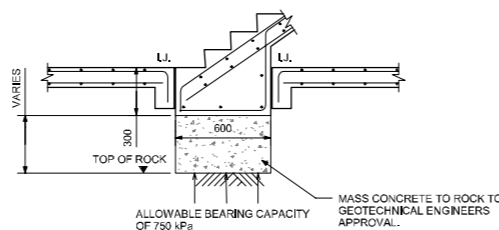
TYPICAL STAIR ON GRADE SECTION
SCALE= 1:20



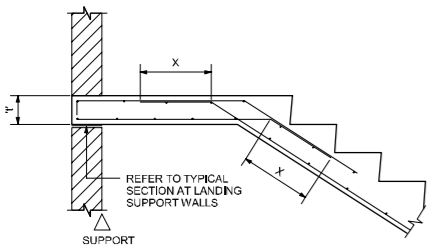
TYPICAL DETAIL AT STAIR BASE
TYPICAL STAIR BASE DETAILS



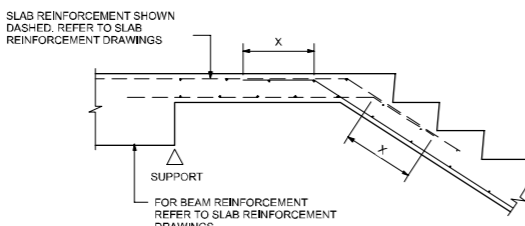
**TYPICAL STAIR TURNDOWN
AT CONCRETE TOPPING**



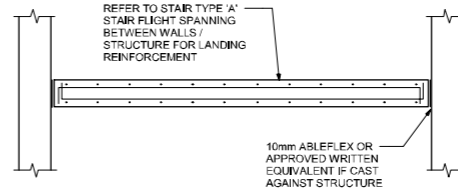
STAIRS POURED ONTO ROCK BASE



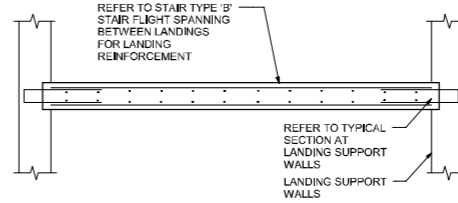
TYPICAL STAIR SUPPORT DETAILS
BLOCKWORK ALL



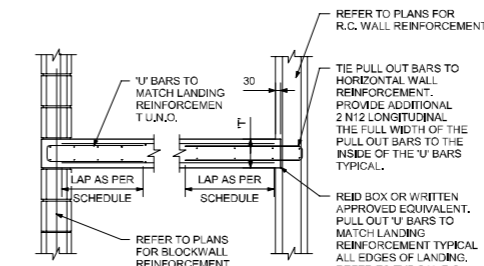
R.C. BEAM



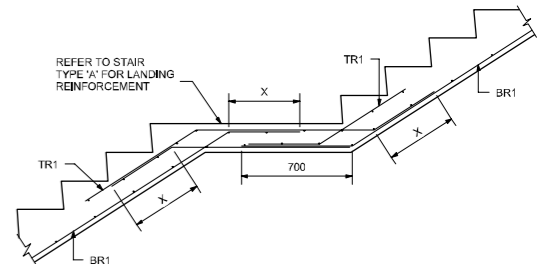
STAIR TYPE 'A'
SECTION THROUGH LANDING



STAIR TYPE 'B'
SECTION THROUGH LANDING



TYPICAL SECTION AT LANDING SUPPORT WALLS
TYPICAL AT BLOCK WALL **TYPICAL AT R.C. WALL**



TYPICAL SECTION THROUGH MID-LANDING

REV	DATE	BY	CHKD	DESCRIPTION
1	10/12/17	ENSTRUCT		ISSUED FOR TENDER

STRUCTURAL ENGINEER
enstruct
enstrut group pty ltd
Level 4, 2 Glen Street
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Australia
Telephone (02) 8504 1444
Facsimile (02) 9924 1555
http://www.enstrut.com.au

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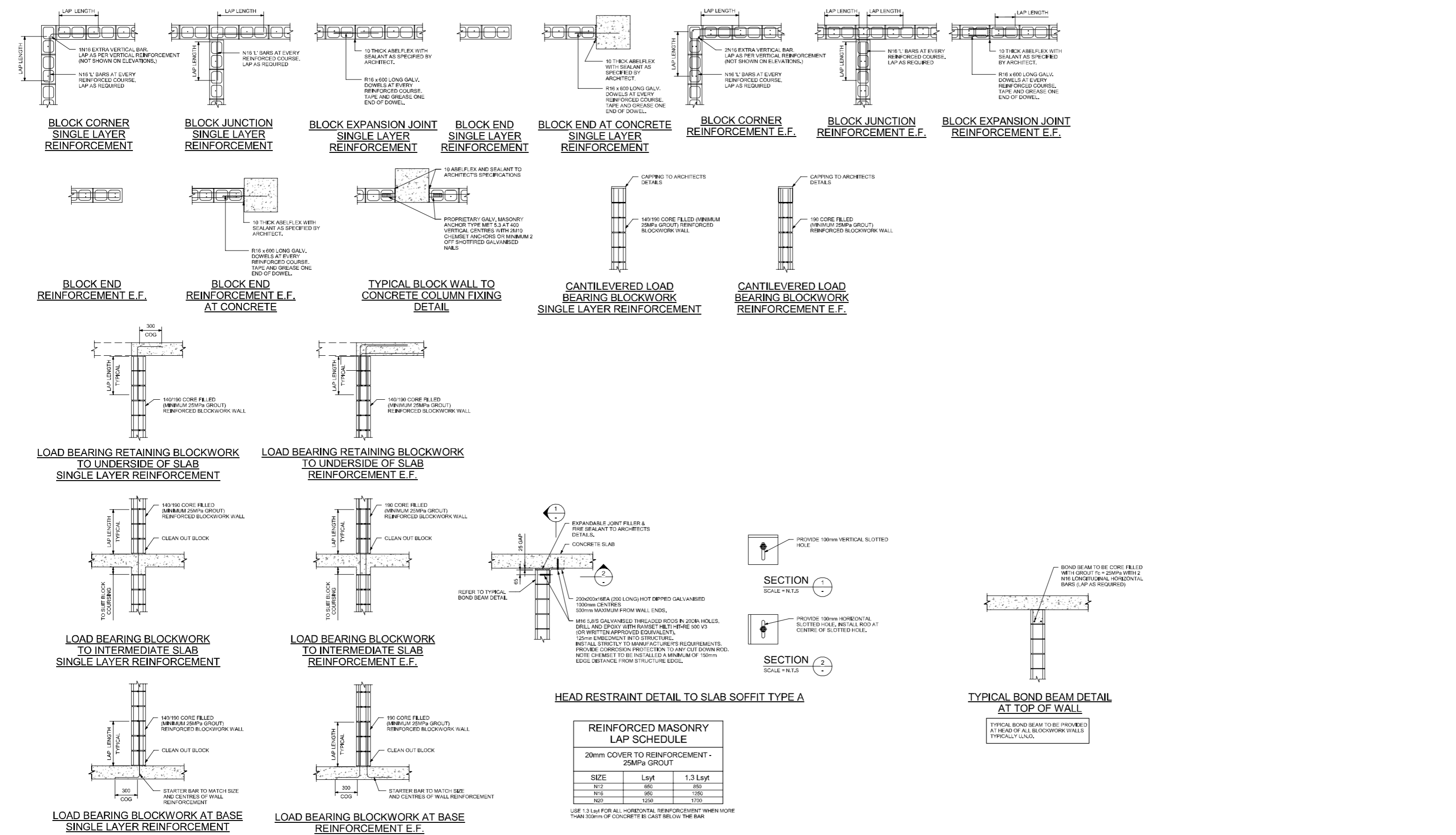
PROJECT MANAGER
TSA
MANAGEMENT

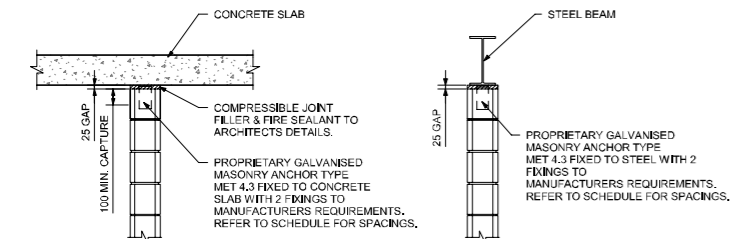
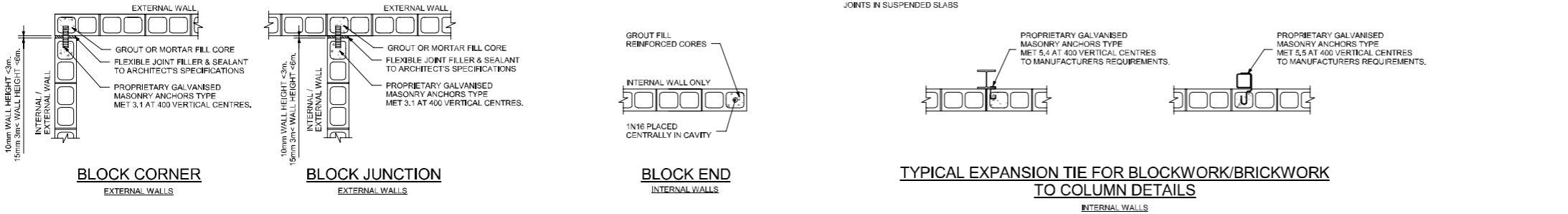
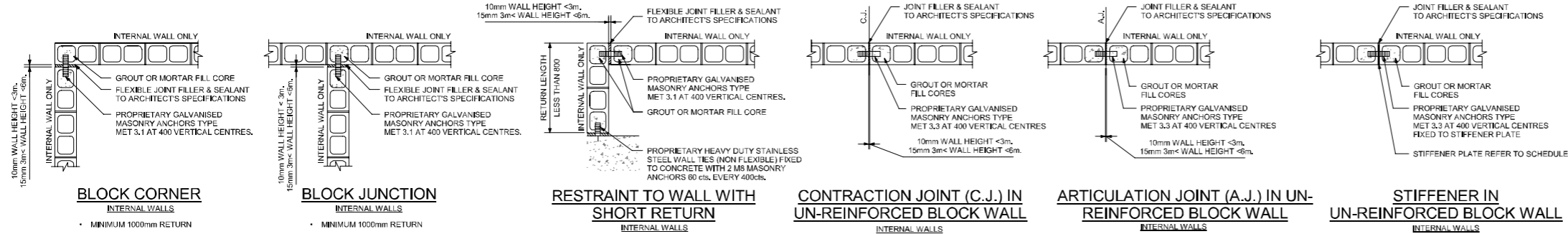
PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-009-31
DRAWING NAME
TYPICAL STAIR DETAILS

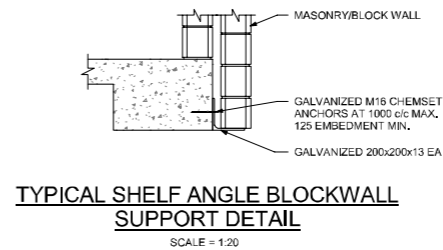
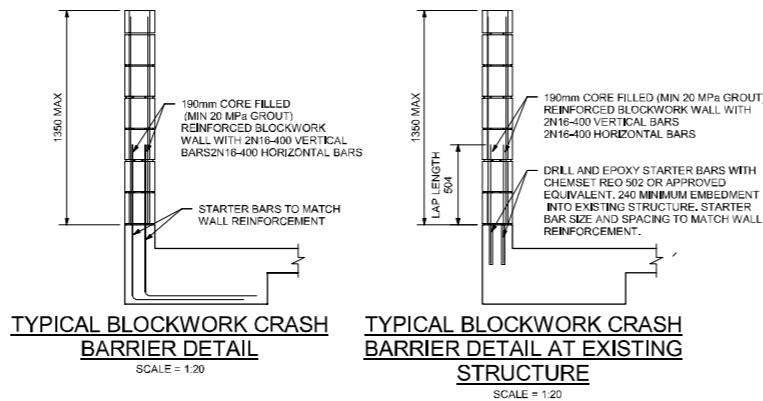
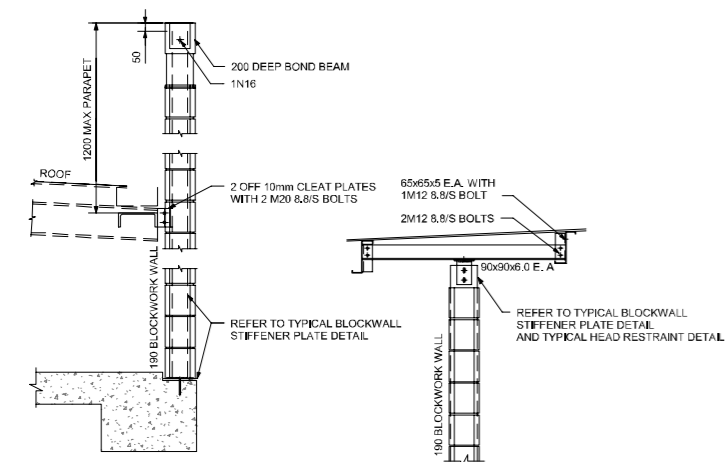
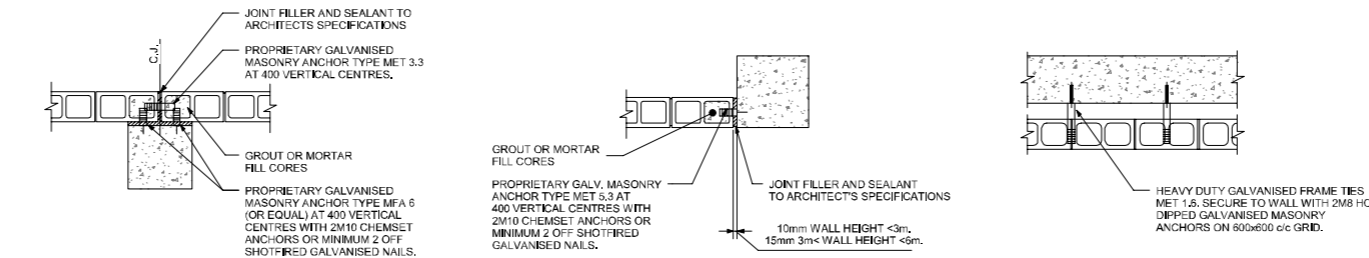
REV
1
N
0m 2m 4m 6m 8m 10m
SCALE 1:100 @ B1

ISSUE DATE
19.12.17

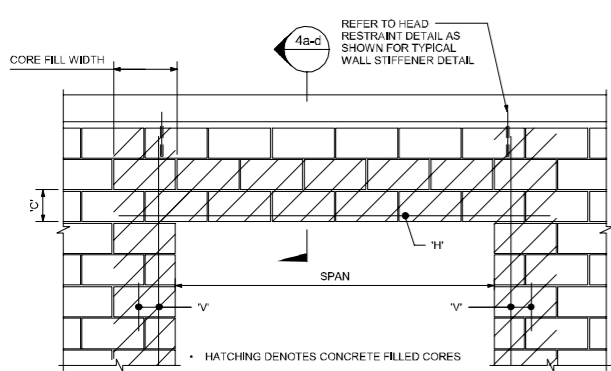




HEAD RESTRAINT FIXING SCHEDULE	
WALL HEIGHT (m)	FIXING SPACING (mm)
INTERNAL NON-PRESSURISED WALLS	
0-5.5	600
5.5-6.0	200

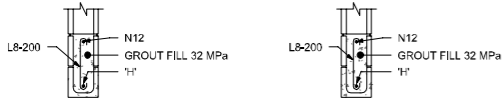


- NOTES:**
- CONTRACTION JOINTS (C.J.) TO BE AT 6.0m SPACING MAXIMUM
 - CONTRACTION JOINTS (C.J.) TO ALIGN WITH SLAB JOINTS IN SLAB ON GRADE AND MOVEMENT JOINTS IN SUSPENDED SLABS.
 - CONTRACTION JOINTS TO BE AT LOCATIONS NOMINATED ON ARCHITECTURAL DRAWINGS.
 - ALL PROPRIETARY MASONRY ANCHORS TO BE M.E.T. PL OR APPROVED EQUIVALENT
 - ALL BLOCKWORK TO COMPLY WITH AS 3700
 - ALL MASONRY FIXINGS, BOLTS, PLATES, ECT TO BE HOT DIPPED GALVANISED
 - MASONRY UNITS TO HAVE MINIMUM UNCONFINED COMPRESSIVE STRENGTH $f_{uc} \geq 15 \text{ MPa}$
 - MORTAR CLASSIFICATION - M3 Min - REFER TO PROJECT SPECIFICATION.
 - ALL WALL TIES TO BE HEAVY DUTY GALVANISED
 - ALL MASONRY UNITS SHALL BE LAID IN STRETCHER BOND
 - JOINTS TO BE RODDED TO A MAX. DEPTH OF 3mm
 - ALL GROUT AND MORTAR USED TO FILL CORES TO HAVE 300 kg/m³ OF GB OR GP CEMENT CONTENT MINIMUM.

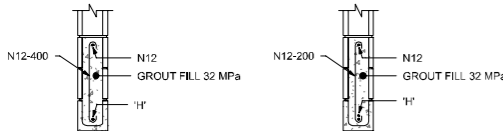


**TYPICAL LINTEL DETAIL
(NON LOAD BEARING BLOCKWORK)**

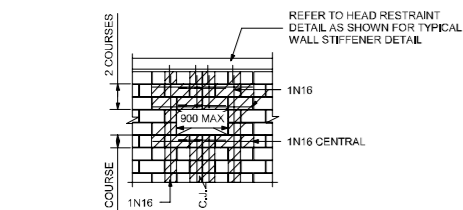
NON LOAD BEARING BLOCKWORK						
WALL	SPAN	BAR 1 st	BAR 2 nd	CORE FILL DEPTH	'C' COURSES	REF. SECTIONS
140	1.2 m	1N12	N16-200 CENTRAL	400	2	4a
140	2.4 m	1N16	N16-200 CENTRAL	400	2	4b
190	4.5 m	1N20	N16-400 EACH FACE	600	3	4c
190	4.8 m	2N20	N16-200 EACH FACE	600	3	4d



SECTION 4a
SCALE = 1:20

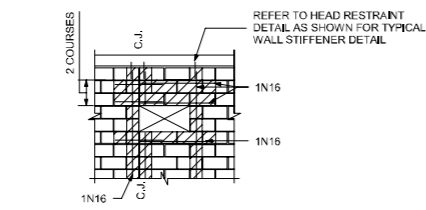


SECTION 4c
SCALE = 1:20

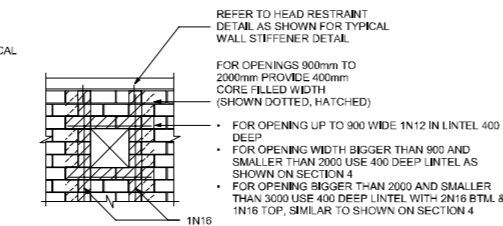


**TYPICAL BLOCKWORK PENETRATION
AT CONTRACTION JOINTS (C.J.)**

SCALE = 1:50

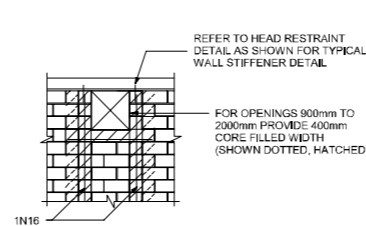


**TYPICAL BLOCKWORK PENETRATION ADJACENT TO
CONTRACTION JOINTS (C.J.)**



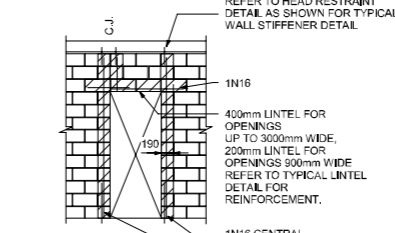
**TYPICAL BOND BEAM ARRANGEMENT
AT PENETRATION**

SCALE = 1:50



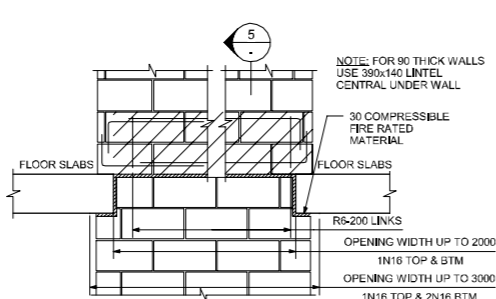
**TYPICAL ALTERNATE BOND BEAM
ARRANGEMENT AT PENETRATION**

SCALE = 1:50



**WALL STIFFENER WITH C.J.
AT DOOR OPENING**

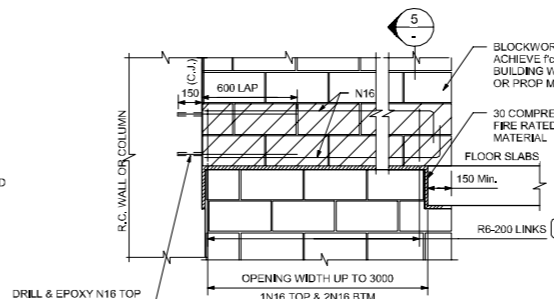
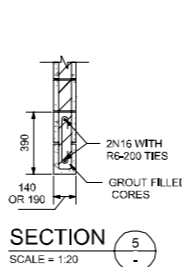
SCALE 1:50



RISER LINTEL DETAIL

SCALE 1:20

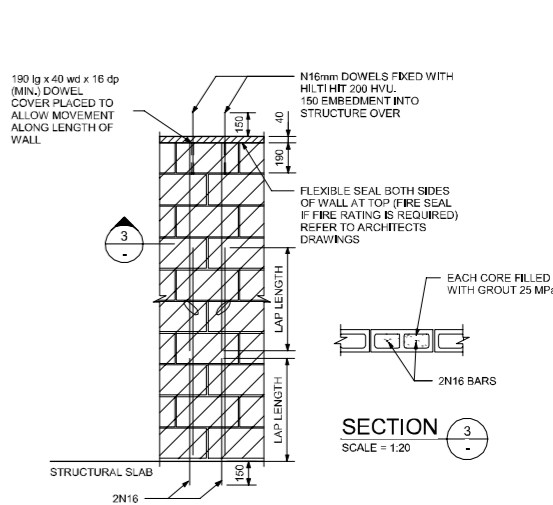
HATCHING DENOTES GROUT FILLED CORES



RISER LINTEL DETAIL TO WALL OR COLUMN

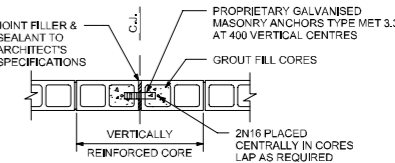
SCALE 1:20

HATCHING DENOTES GROUT FILLED CORES



TYPICAL WALL STIFFENER - DETAIL

HATCHING DENOTES GROUT FILLED CORES
REFER ST-001-01 MASONRY NOTE 15



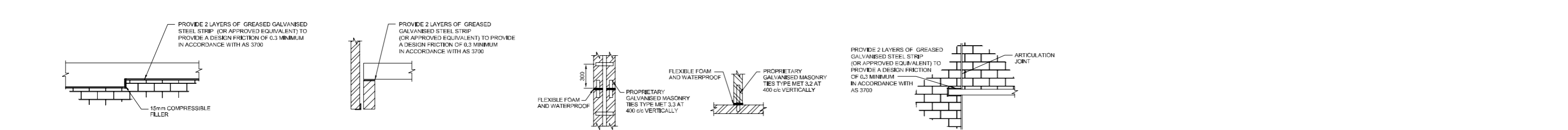
NOTE:

- FOR WALLS WHICH ARE NOT FULL HEIGHT, THE CORE FILLED & REINFORCED CORE BLOCKS ARE TO EXTEND TO UNDERSIDE OF SLAB.
- THIS IS TO BE CONSIDERED A STIFFENER AS PER THE REQUIREMENTS OF THE MASONRY WALL SCHEDULE
- MAXIMUM HEIGHT OF WALLS NOT TO EXCEED 4500mm
- PROVIDE WALL STIFFENERS AT MAXIMUM CENTRES OF 3000mm TYPICALLY U.N.O.

**OPTION 1- CONTRACTION JOINT
(C.J.) IN BLOCK WALL**

NOTES

- HATCHING DENOTES GROUT FILLED CORES
- FOR PENETRATIONS LESS THAN 600 x 600 ONLY BOND BEAM OVER PENETRATION REQUIRED, NO OTHER STIFFENING TO BE PROVIDED (EXCEPT DETAILS WHERE C.J. IS LOCATED)
- VERTICAL STIFFENER IS NOT REQUIRED AT THE EDGE OF OPENING WITHIN 2.5m FOR 140 BLOCK (OR 4.0m FOR 190 BLOCK) OF A WALL STIFFENER, RETURN WALL CONCRETE COLUMN OR ELEMENT THAT PROVIDES LATERAL RESTRAINT.



TYPICAL BRICK ISOLATION AT SLAB STEP

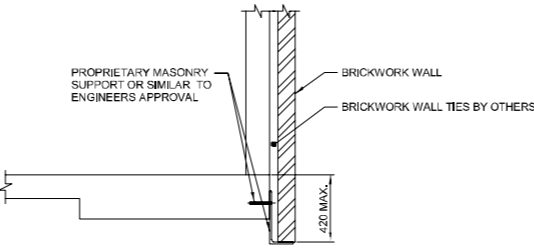
TYPICAL BRICKWORK LINTEL DETAIL

- LINTELS SHALL BE GALVANISED TO CLASS Z600
- MAINTAIN 6mm CLEARANCE FROM HEADS AND FRAMES
- AT LOCATIONS WHERE LINTELS CROSS ARTICULATION JOINTS, END OF LINTEL MUST BE WRAPPED IN 2 LAYERS OF GREASED GALVANISED STEEL STRIP (OR APPROVED EQUIVALENT)
- PROP LINTELS AT MID SPAN FOR OPENING 1800mm WIDE AND OVER UNTIL MORTAR SETS

LINTEL SCHEDULE		
MAX. SPAN (mm)	LINTEL DIMENSIONS (mm)	MIN. BEARING LENGTH (mm)
450	75 x 8 PLATE	100
600	75 x 10 PLATE	100
1200	75 x 75 x 8 EA	150
1500	90 x 90 x 8 EA	150
1650	125 x 75 x 8 UA	150
1900	125 x 75 x 10 UA	150
2100	125 x 75 x 10 UA	230
2400	125 x 75 x 10 UA	230
3000	150 x 90 x 12 UA	230

TYPICAL BRICK JOINT DETAILS

- JOINTS TO BE LOCATED AT 7 METRE CENTRES MAXIMUM TYPICAL
- ALL MASONRY TO BE ARTICULATED
- REFER TO ARCHITECTURAL DRAWINGS FOR JOINT LOCATIONS



TYPICAL BRICKWORK SUPPORT DETAIL

- NOTE:**
- BRICKWORK SUPPORT TO BE PROVIDED AT EACH SUSPENDED LEVEL
 - ALL STUDS SUPPORTING MASONRY VENEER TO CONTRACTOR'S DESIGN AND DETAIL.

AMENDMENTS			
NO.	DATE	DESCRIPTION	BY

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enstruct
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Telephone (02) 8504 1444
Facsimile (02) 8504 1555 <http://www.enstruct.com.au>

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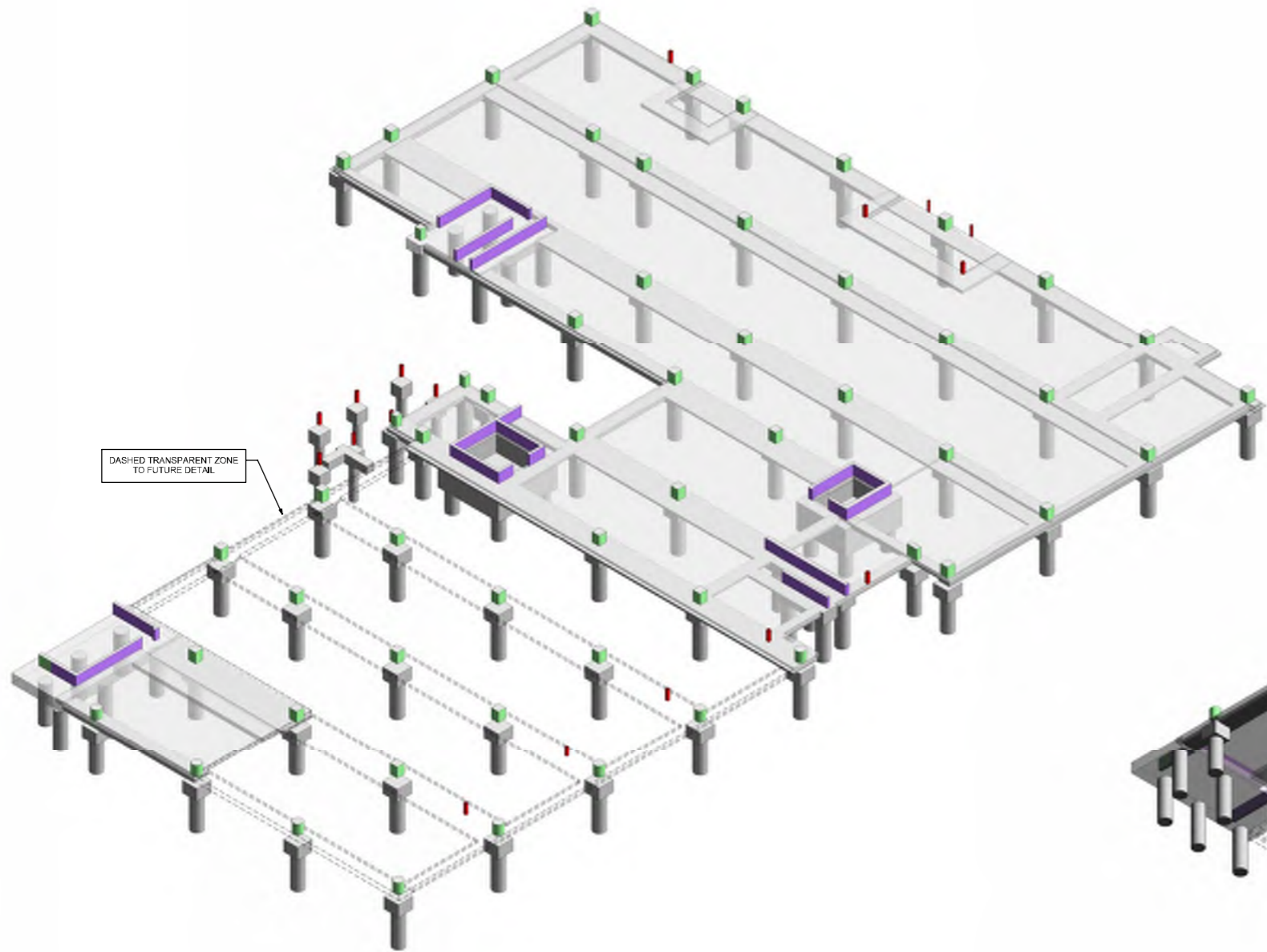
PROJECT MANAGER
TSA
MANAGEMENT

PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

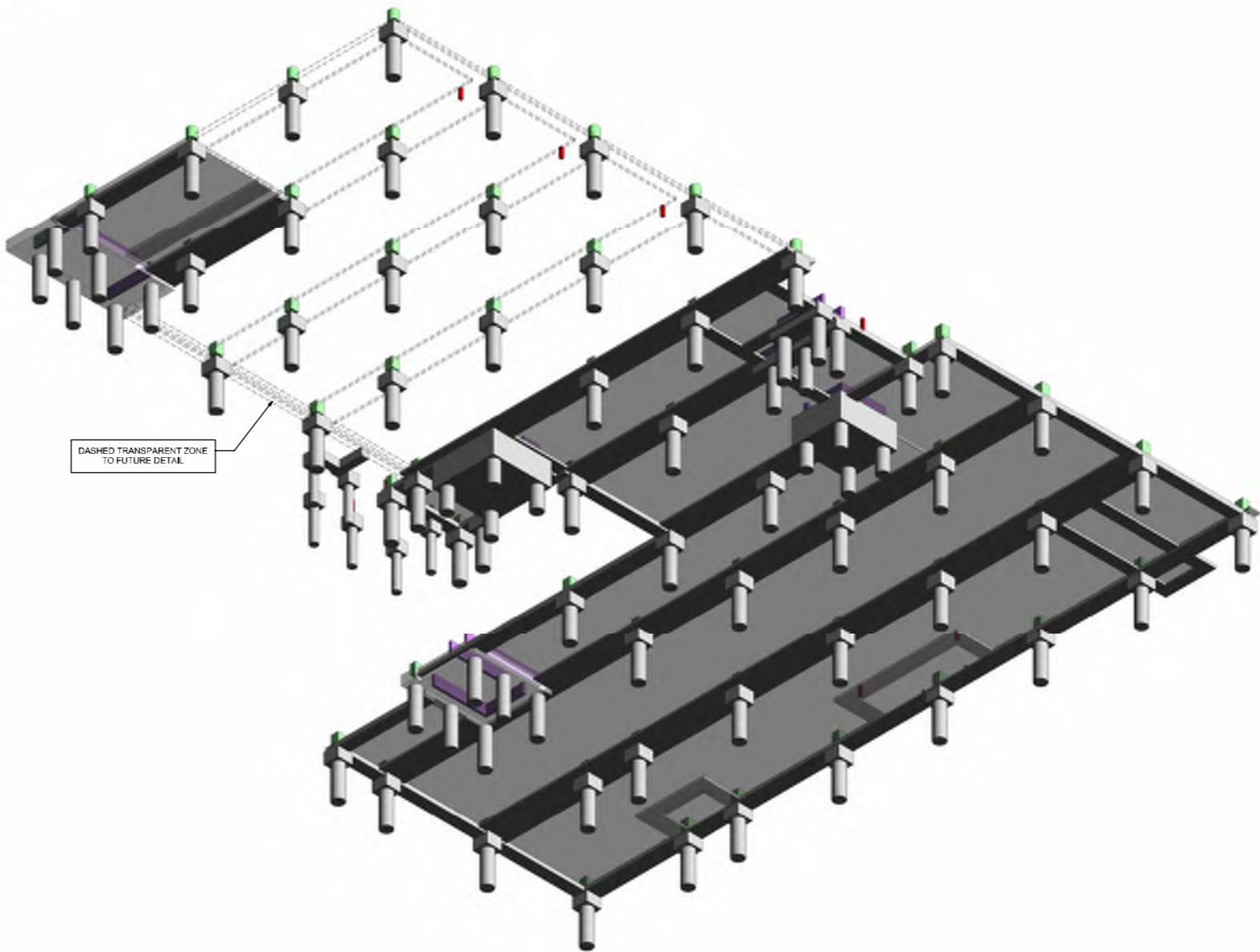
DRAWING NUMBER
ENS-ST-DWG-011-31
DRAWING NAME
TYPICAL BRICKWORK DETAILS

REV
1
N
0m 2m 4m 6m 8m 10m
SCALE 1:100 @ B1

ISSUE DATE
19.12.17



GROUND FLOOR 3D VIEW OVER
SCALE:



GROUND FLOOR 3D VIEW UNDER
SCALE:

AMENDMENTS			
NO.	DATE	DESCRIPTION	BY
1	04.11.17	PROVISIONAL SET OUTING FOR NEW BUILD	EN
2	26.11.17	REVISION C. BEAM POSITION	EN
3	02.12.17	REVISION C. BEAM POSITION	EN

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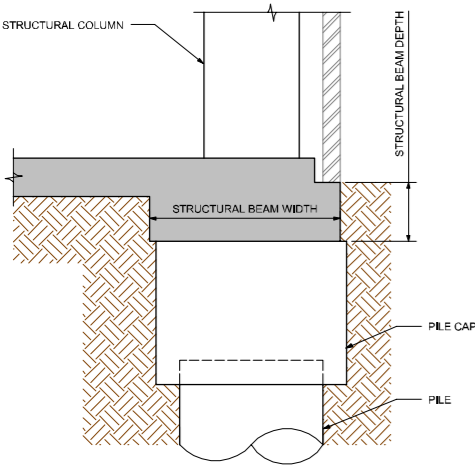
PROJECT MANAGER
TSA
MANAGEMENT

PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-100-07
DRAWING NAME
GROUND FLOOR 3D VIEWS

REV
3
N
0m 2m 4m 6m 8m 10m
SCALE 1:100 @ B1

ISSUE DATE
19.12.17



TYPICAL SECTION THROUGH PERIMETER OF GROUND FLOOR SLAB

SECTION 1
1:20 190.00

AMENDMENTS				
NO.	DATE	BY	REASON	APPROVED

STRUCTURAL ENGINEER
enstruct
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Level 4, 2 Glen Street
Millsboro Point NSW 2561
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Facsimile: (02) 8504 1555 <http://www.enstruct.com.au>



PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-100-31
DRAWING NAME
GROUND FLOOR SECTIONS AND DETAILS

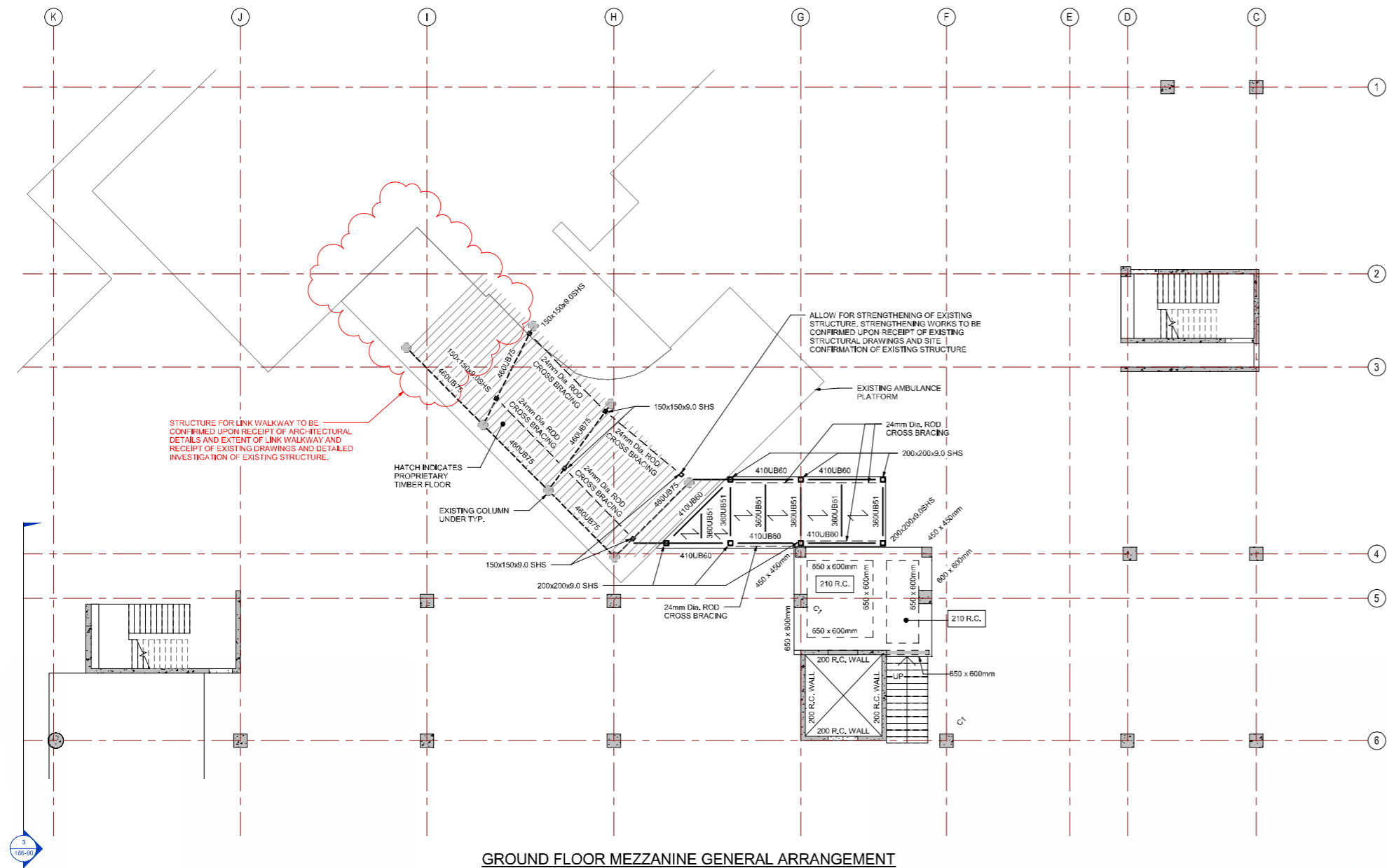
REV
1

N

0m 2m 4m 6m 8m 10m

SCALE 1:100 @ B1

ISSUE DATE
19.12.17



GROUND FLOOR MEZZANINE GENERAL ARRANGEMENT

SCALE: 1 : 100

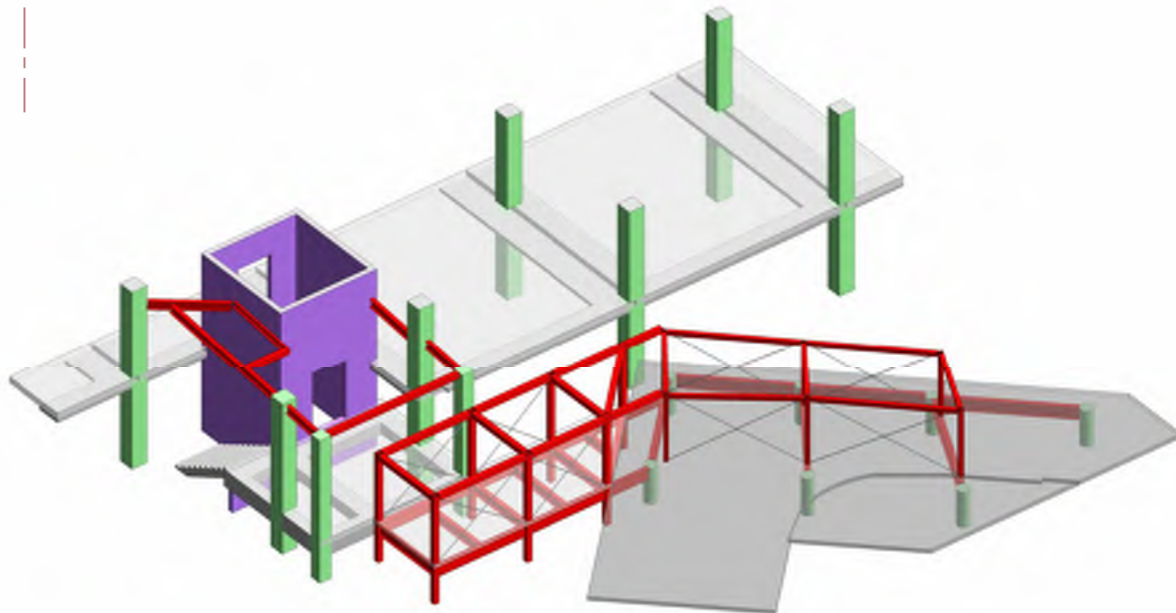
- NOTES:
- DENOTES 150mm THICK COMPOSITE SLAB WITH 1.0mm BMT BONDEK + 50mm THICK LAYER OF NON-STRUCTURAL SCREED.
 - ALLOW FOR REINFORCEMENT RATE OF 120 kg/m³
 - 19 DIA. SHEAR STUDS TO ALL BEAMS AT 200 c/c
 - ALL STEELWORK TO BE FIRE RATED BY APPROVED SPRAY OR BOARD TO ARCHITECT'S DETAIL.

NOTES:

- UNLESS NOTED OTHERWISE ON PLAN, SLAB AND BEAM SIZES SHOWN INCLUDE 50mm NON-STRUCTURAL TOPPING ZONE WHICH MUST BE A REINFORCEMENT AND POST-TENSIONING FREE ZONE.
- 50mm NON-STRUCTURAL TOPPING TO BE POURED INTEGRAL WITH STRUCTURAL ELEMENTS.
- REFER TO ARCHITECTS DRAWINGS FOR SETDOWNS IN NON-STRUCTURAL ZONE. PLINTH AND HOB SETOUT, SIZES AND LOCATIONS. ALL HOBBS AND PLINTHS TO BE POURED INTEGRAL WITH PRIMARY STRUCTURAL SLAB.
- FLOOR PLATE TO SPECIALIST PT CONTRACTORS DESIGN AND DETAIL. BUILDING DESIGNED AS AN ORDINARY MOMENT RESISTING FRAME.
- THE PT CONTRACTOR MUST TAKE ACCOUNT OF THE PRESENCE OF THE 50mm NON-STRUCTURAL ZONE AND THE ADDITIONAL COVER TO REINFORCEMENT AND ENSURE THAT CODE MINIMUM STRENGTH, CRACK CONTROL AND SERVICEABILITY REQUIREMENTS ARE SATISFIED FOR THE COMBINED SECTION WHEN THE TOPPING IS INSTALLED AND FOR THE MINIMUM SECTION IF THE SCREED IS REMOVED IN THE FUTURE.
- PT CONTRACTOR TO ADVISE ON ALL TEMPORARY PROPPING REQUIREMENTS.
- SLAB, BEAM AND DROP PANEL DEPTHS NOMINATED ARE THE MINIMUM DEPTHS REQUIRED TO SATISFY FOOTFALL VIBRATION REQUIREMENTS. REDUCTION OF THESE DEPTHS IS NOT PERMITTED.
- SOFT ZONES MUST BE PROVIDED ADJACENT ALL INTERNAL COLUMNS TO PROVIDE FOR FUTURE FLEXIBILITY. THESE ZONES MUST BE FREE OF REINFORCEMENT AND POST TENSIONING. REFER TO TYPICAL DETAILS.
- REFER TO ARCHITECTS DRAWINGS FOR SETDOWNS, PLINTH AND HOB SETOUT, SIZES AND LOCATIONS. ALL HOBBS AND PLINTHS TO BE POURED INTEGRAL WITH PRIMARY STRUCTURAL SLAB. HOBBS & PLINTHS ARE NOT SHOWN ON STRUCTURAL DRAWINGS FOR CLARITY.
- THE USE OF LIVE LOAD REDUCTION IS NOT PERMITTED.
- ALL SUSPENDED STRUCTURES TO BE DESIGNED IN ACCORDANCE WITH THE HI STRUCTURAL DESIGN GUIDANCE NOTE NO.1 DATED 22/10/12.
- PROVIDE A MINIMUM RESIDUAL PRE-STRESS OF 2 MPa TO ALL EXTERNAL SLAB AREAS. THE CONTRACTOR SHALL LIMIT CONSTRUCTION JOINTS IN THESE AREAS. ALL CONSTRUCTION JOINTS TO BE PROVIDED WITH WATERSTOPS IN ACCORDANCE WITH THE RECOMMENDATIONS OF HFS WATERPROOFING SPECIALIST.

C1 - R.C. COLUMNS

GROUND - 600 x 600mm
LEVEL 1 - 500 x 500mm
LEVEL 2 - 500 x 500mm
LEVEL 3 - 450 x 450mm



GROUND FLOOR MEZZANINE 3D VIEW

SCALE:

AMENDMENTS	DATE	BY	REASON	NOTES
1	08/10/17	ENSTRUT	REVISION C - SCREEDING	20
2	07/11/17	ENSTRUT	REVISION C - SCREEDING	20

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PROJECT
BOWRAL & DISTRICT HOSPITAL REDEVELOPMENT
97-103 BOWRAL ST,
BOWRAL NSW 2576

DRAWING NUMBER
ENS-ST-DWG-100-50
DRAWING NAME
GROUND FLOOR MEZZANINE PART PLAN

REV

2



0m 2m 4m 6m 8m 10m
SCALE 1:100 @ B1

ISSUE DATE

19.12.17