

CONSTRUCTION CERTIFICATE

CERTIFICATE NO: CC140503-4

Date of Certificate: 15 December 2014

Description of the Proposed development: **Administration & Blower Building**
Separated into 2 Fire Compartments
Associated with Water Recycling Plant

Classification under the *Building Code of Australia:* 5 & 8

APPLICANT

Name: Mr S Merange
Address: John Holland Pty Ltd
Project Manager, Specialist Engineering
Googong WRP
PO Box 812 Queanbeyan NSW 2620

PROPERTY (The Land)

Address: Lot 4 Googong Dam Road GOOGONG
Lot/Sec/DP: lot 4 DP 1179941

DEVELOPMENT CONSENT

Development Consent Number: MP 08-0236
Date of Consent: 24/11/2011 modified 09/07/14
Consent authority: NSW Planning & Environment Director of
Infrastructure Projects as a delegate for the Minister
for Planning

CERTIFYING AUTHORITY

Name: Ros Pascoe

Signature: 

CERTIFICATION

Ros Pascoe of BCA Certifiers Australia Pty Ltd certifies

That work completed in accordance with the documentation accompanying the application for this certificate (with such modifications, if any, verified by me as may be shown on that documentation) will comply with the requirements of the *Environmental Planning & Assessment Regulation 2000* as referred to in s.81A(5) of the *Environmental Planning & Assessment Act 1979*.

The documents listed below accompanied the application for this certificate.

Note: The certificate is to be endorsed upon all relevant plans and specifications.

ATTACHMENTS

(Tick as appropriate)

- Schedule of Approved Plans and Specifications
- The conditions of the certificate
- Fire Safety Schedule

SCHEDULE OF APPROVED PLANS AND SPECIFICATIONS

	Prepared By
Architectural Plans	Site Plan MWH ref no: 83500349-01-001G102 dated 11/08/14
Structural Plans	MWH ref no: 83502156-01-001-G403 rev B 12, G404 B G405 AS400 1S401 1 S402 1S403 1S405 S4061 S407 1 SS412 1 S412 1 S413 1 S414 1 dated 11/12/14

The Conditions of Certificate

Description:	Administration & blower building
Building Classification:	5 & 8
Rise in Storeys:	1
Type of Construction:	C

Attached are the approved plans for your project at the above address. The plans have been assessed and approved subject to compliance with the Deemed-to-Satisfy Provisions of the Building Code of Australia.

To ensure compliance with the requirements of the BCA the following advice is provided.

Fire Resistance

- The fire hazard properties of materials, linings and surface finishes used are to comply with Specification C1.10.
- A fire wall (90/90/90) is required between the two uses in the building providing compartment under 500m².

Services and Equipment

- Portable fire extinguishers are to be provided in accordance with Part E1.6 of the BCA.
- Emergency lighting and exit signs are to be provided in accordance with Part E4 of the BCA.

Access and egress

- Access and egress from the building is to comply with Part D of the BCA.
- Steps, landings and balustrades are to comply with Part D of the BCA. A stairway shall not have more than 18 risers in each flight in accordance with Part D2.13 of the BCA.
- The operation of door latches, are to comply with Part D2.21 of the BCA.
- Access for people with disabilities is to be provided to and within the building by means of a continuous path of travel in accordance with AS 1428.1 and Part D3.2 of the BCA.
- Tactile ground indicators are to be in accordance with Part D3.8 of the BCA.
- **NOTE: Handrails complying with AS1428.1-2009 must be provided to all stairs.**

- Water proofing of wet areas are to comply with Part F1.7 of the BCA. *building approvals, certification and compliance*
- Lighting system is to comply with Part F4.4 of the BCA and AS1680.0.
- Ventilation system is to comply with Part F4.5 of the BCA and AS1668.2 and AS3666.1
- The construction and layout of facilities provided for people with disabilities must comply with AS1428.1.

Energy Efficiency

- Building fabric must be designed and constructed in accordance with Part J1 of the BCA.
- External glazing must be designed and installed in accordance with Part J2 of the BCA.

Note:

- Upon completion of the project, certificates as per Schedule A must be submitted prior to the release of Occupancy Certificate.
- Inspections, as per Schedule B are required.

Schedule A

Certificates Required

Note* All Certificates are required to be presented on the relevant companies letterhead (with company contact details, including ABN), signed by a suitably qualified person and dated.

1. A Survey Certificate is required (Identifying as built boundary setbacks)
2. **Structural Engineers Certification certifying that-**
The building as constructed complies with Part B of the BCA and the
3. Certification that Emergency Lighting complies with Part E4.2 and is installed in accordance with AS/NZS 2293.1.
4. Certification that Exit Signs comply with Part E4.5 & 4.6 and are installed in accordance with AS/NZS 2293.1. & Certification that the Portable Fire Extinguishers are provided in accordance with Part E1.6 and Table E1.6 of the BCA, and that have been selected, located and distributed in accordance with AS 2444.
5. Certification for waterproofing to all wet areas, identifying the product used and stating compliance with AS3740.
6. Certification that all glazing complies with AS1288 where applicable. (Note: Certification must itemize the type of glazing and the applicable section of AS1288 to which it complies).

7. Certification that the fire hazard properties of materials, lin
finishes used (ie; Carpet, Vinyl, Etc), comply with Specification C1.10.

Schedule B

Inspections

The builder is to notify BCA Certifiers upon reaching each inspection stage outlined below by telephoning 62851199. **The builder is not to proceed beyond an inspection stage until written approval to proceed has been given by BCA Certifiers.**

The stages are:

- After excavation for, and prior to the placement of any footings.
- Prior to the pouring of any in-situ reinforced concrete building element. .
- Prior to the covering of any framework for any floor, wall, roof or other building element.
- Prior to covering waterproofing in any wet areas.
- Prior to the covering of any stormwater drainage connections.
- After the building work has been completed and prior to any occupation certificate being issued in relation to the building.

FIRE SAFETY SCHEDULE

CLAUSE 168 EP & A REG. 2000

DA No.:	MP08-0236	CC No.:	CC140503-4		
Lot:	4	Section:		Deposited Plan:	1179941
Address:	Googong Water Recycling Plant lot 4 Googong Dam Rd Googong ADMIN & BLOWER BUILDING				
Applicant's Name:	Mr S Merange John Holland Pty Ltd				
Applicant's Address:	Googong WRP PO Box 812 Queanbeyan NSW 2620				

REQUIRED FIRE SAFETY MEASURES (PROPOSED)

CRITICAL FIRE SAFETY MEASURE (Y/N)

INTERVAL FOR SUPPLEMENTARY FIRE SAFETY STATEMENTS

MINIMUM STANDARD OF PERFORMANCE

Statutory

BCA 2014/Referenced Standards

Emergency lighting	N	12 months	BCA E4.2 & AS2293.1-2005
Exit signs	N	12 months	BCA E4.5, E4.6, E4.8 & AS2293.1-2005
Portable fire extinguishers	N	12 months	BCA E1.6 & AS2444-2001

Other

EXISTING FIRE SAFETY MEASURES

MWH Ref. 83502156-LT-DM-005

4th December 2014

John Holland Pty Ltd
Level 3, 65 Pirrama Road,
Pyrmont NSW 2009

Steve Merange
Project Manager

Dear Sir,

**Googong WRP Project – Admin/MCC Building Structural Design
Certificate of Compliance**

This is to certify that the Admin/MCC Building Structural Design has been carried out in accordance with the current editions of the following Australian Standards and other relevant standards, referred to therein, BCA: Building Code of Australia, where applicable, and in accordance with good engineering practice and principles.

- AS 4100 – Steel Structures
- AS 3600 – Concrete structures
- AS/NZS 1170.0 – Structural design actions – General Principles
- AS/NZS 1170.1- Structural design actions – Permanent Imposed and Other Actions
- AS/NZS 1170.1- Structural design actions – Wind Actions

I also confirm that that the design calculations and drawings have been checked and reviewed in accordance with our ISO 9001 certified Quality Assurance System.

Yours Sincerely,



MWH

BUILDING A BETTER WORLD

Satyajit Datar
BEng, FIEAust, CPEng, NPER & RPEQ
Head of Engineering Delivery - Asia Pacific Design

MWH Ref. 83502156-LT-DM-006

4th December 2014

John Holland Pty Ltd
Level 3, 65 Pirrama Road,
Pyrmont NSW 2009

Steve Merange
Project Manager

Dear Sir,

**Googong WRP Project – Blower Building Structural Design
Certificate of Compliance**

This is to certify that the Blower Building Structural Design has been carried out in accordance with the current editions of the following Australian Standards and other relevant standards, referred to therein, BCA: Building Code of Australia, where applicable, and in accordance with good engineering practice and principles.

- AS 4100 – Steel Structures
- AS1418.18 – Cranes, hoists, winches – Crane runways and monorails
- AS 3600 – Concrete structures
- AS/NZS 1170.0 – Structural design actions – General principles
- AS/NZS 1170.1- Structural design actions – Permanent Imposed and Other Actions
- AS/NZS 1170.1- Structural design actions – Wind Actions

I also confirm that that the design calculations and drawings have been checked and reviewed in accordance with our ISO 9001 certified Quality Assurance System.

Yours Sincerely,



BUILDING A BETTER WORLD

Satyajit Datar
BEng, FIEAust, CPEng, NPER & RPEQ
Head of Engineering Delivery - Asia Pacific Design

MWH Ref. 83502156-LT-DM-004

4th December 2014

John Holland Pty Ltd
Level 3, 65 Pirrama Road,
Pyrmont NSW 2009

Steve Merange
Project Manager

Dear Sir,

**Googong WRP Project – Tertiary Treatment Area Structural Design
Certificate of Compliance**

This is to certify that the Tertiary Treatment Area Structural Design has been carried out in accordance with the current editions of the following Australian Standards and other relevant standards, referred to therein, BCA: Building Code of Australia, where applicable, and in accordance with good engineering practice and principles.

- AS 4100 – Steel Structures
- AS 3600 – Concrete structures
- AS/NZS 1170.0 – Structural design actions – General principles
- AS/NZS 1170.1- Structural design actions – Permanent Imposed and Other Actions
- AS/NZS 1170.1- Structural design actions – Wind Actions

I also confirm that that the design calculations and drawings have been checked and reviewed in accordance with our ISO 9001 certified Quality Assurance System.

Yours Sincerely,

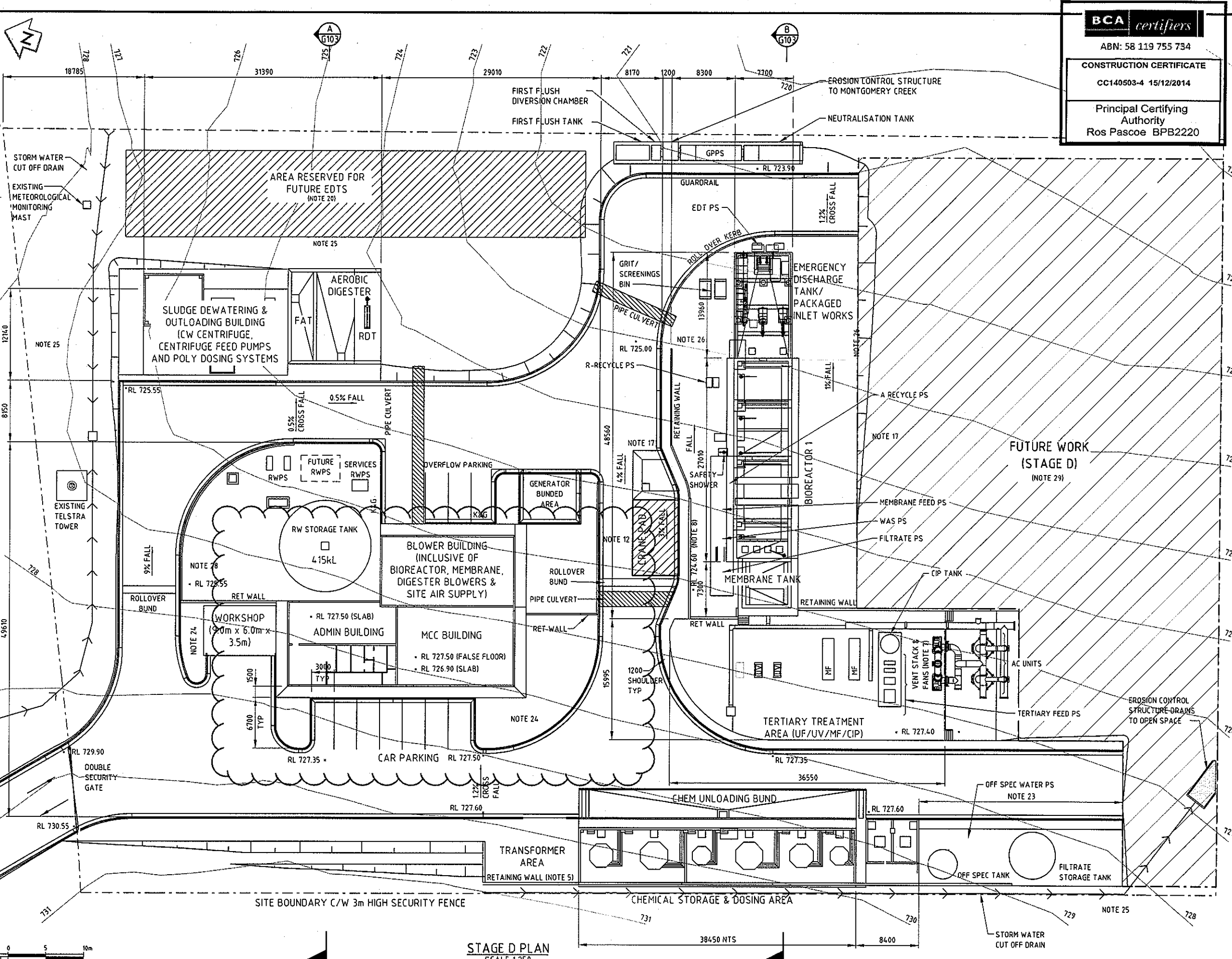


BUILDING A BETTER WORLD

Satyajit Datar
BEng, FIEAust, CPEng, NPER & RPEQ
Head of Engineering Delivery - Asia Pacific Design

NOTES

- REFER TO 8350034-01-001-G003 FOR CRITICAL YARD PIPING.
- CONTOURS SHOWN ARE FOR EXISTING GROUND LEVELS.
- DIMENSIONS ARE INDICATIVE ONLY
- NOT USED
- RETAINING WALL TO VARY IN HEIGHT TO MATCH EXISTING GROUND LEVEL
- NOT USED
- LOCATION AND HEIGHT OF VENT STACK TO BE CONFIRMED
- GL GOVERNED BY PERMEATE PUMP AND MEMBRANE RECIRC PUMP SUCTION HYDRAULICS
- ALL LEVELS ARE INDICATIVE ONLY
- AREA & LOCATION LIGHTING TO BE ORIENTATED AWAY FROM SURROUNDING DEVELOPMENT & LOCATED AS CLOSE TO GROUND AS POSSIBLE TO MINIMISE LIGHT POLLUTION.
- NOT ALL AREA PROCESS UNITS HAVE BEEN SHOWN FOR CLARITY. REFER TO REFERENCE GENERAL ARRANGEMENT DRAWINGS.
- REFER DRG 83500349-01-001-G003.
- CRANE PADS DESIGNED FOR TADANO GT-550E 55 TON CAPACITY HYDRAULIC TRUCK CRANE.
- ALL ROADS ARE SEALED AT STAGE AB C/W STANDARD KERB & GUTTER WITH DRAINAGE TO STORMWATER SYSTEM. AUSTRROADS TURNING CIRCLE BASED ON S ARTICULATED 19M SEMITRAILER C83
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWINGS: 83500349-01-001-G102 & G103 AND 83500349-01-001-G001 TO G017
- NOT USED
- MEMBRANE CASSETTE LAYDOWN AREA WATER RETAINING CONCRETE SLAB DRAINS TO FIRST FLUSH
- NOT USED
- NOT USED
- WASTEWATER MODELLING OF ULTIMATE DEVELOPMENT INDICATE A POTENTIAL NEED FOR A TOTAL OF 2800kL OF STORAGE.
- NOT USED.
- EXPOSED FACE TO BE STABILISED BEHIND SHOTCRETE PROVIDE LAYBACK KERB
- LANDSCAPE WITH NATIVE SHRUBBERY
- LANDSCAPE AS LAWN
- PROVIDE BUNDED CONCRETE SLAB DRAINING TO FIRST FLUSH TANK
- NOT USED
- FINISH OFF WITH CRUSHED AGGREGATE OVER COMPACTED ROADBASE
- ALL TEMPORARY BATTERS CREATED AS PART OF STAGE AB WORKS SHALL BE STABILISED WITH STABILISATION MEASURES WITH A DESIGN LIFE OF 20 YEARS
- FOR SITE SECURITY AND CCTV REQUIREMENTS REFER TO SPECIFICATION.
- ACCESS TO ALL ELEVATED STRUCTURES SHALL BE RESTRICTED BY LOCKABLE SWING GATE COMPLETE WITH SIGNAGE
- 1200x600x1200H SERVICE MAIN PROTECTION KIOSK (LV SIDE)
- SECURITY LIGHTING TO BE PROVIDED AT AGREED LOCATIONS COMPLETE WITH INFRA RED DETECTION.
- FOR PERSONNEL ACCESS GATES REFER DRAWING 83500349-01-001-C002



BCA certifiers
 ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
 CC140503-4 15/12/2014
 Principal Certifying Authority
 Ros Pascoe BPB2220

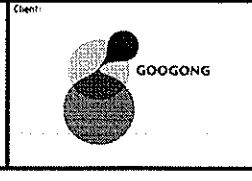
ORIGINAL SIZE A1

STAGE D PLAN
SCALE 1:250

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHK	APP	DATE
DA	ISSUED FOR DETAILED DESIGN REPORT	11.08.14	AG	SC	SC	11.08.14
Q	ISSUED FOR TENDER	17.02.14	TS	RV	TB	17.02.14
C	DRAFT ISSUE FOR TENDER	14.10.13	PS	CS	CS	14.10.13
B	DRAFT ISSUE FOR TENDER	30.09.13	PS	PC	PC	30.09.13
A	ISSUED FOR REVIEW	12.08.13	PS	PC	CS	12.08.13

DESIGNED	DATE
Paul Smith	19.02.14
Alan Gilbert	19.02.14
John McAndrew	19.02.14
Ran Viridi	19.02.14
Stephen Chapman	11.08.14

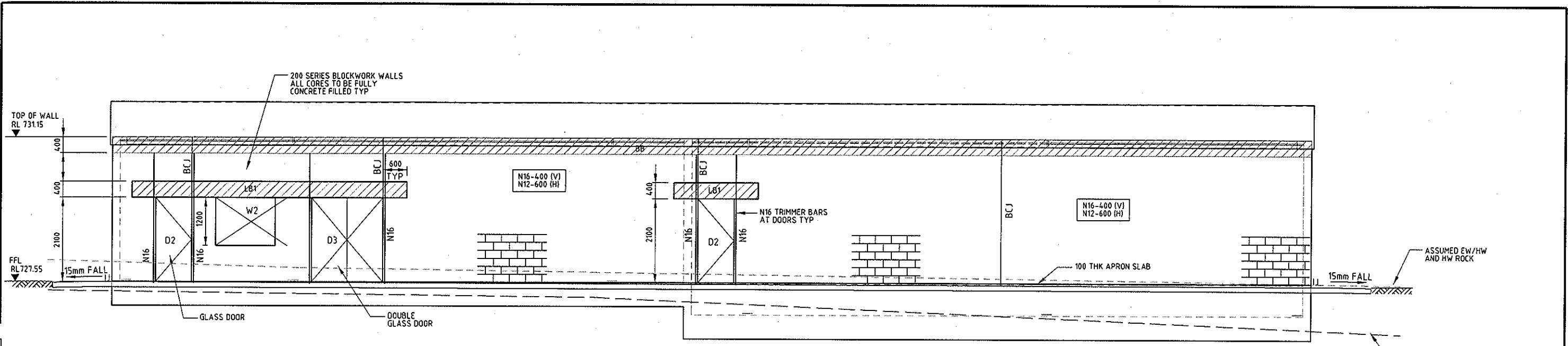


WATER RECYCLING PLANT
GOOGONG TOWNSHIP
STAGE AB LAYOUT PLAN

Status Stamp	FOR TENDER
Date Stamp	11.08.14
Scales AS SHOWN	
Drawing No	83500349-01-001-G102
Rev	0A

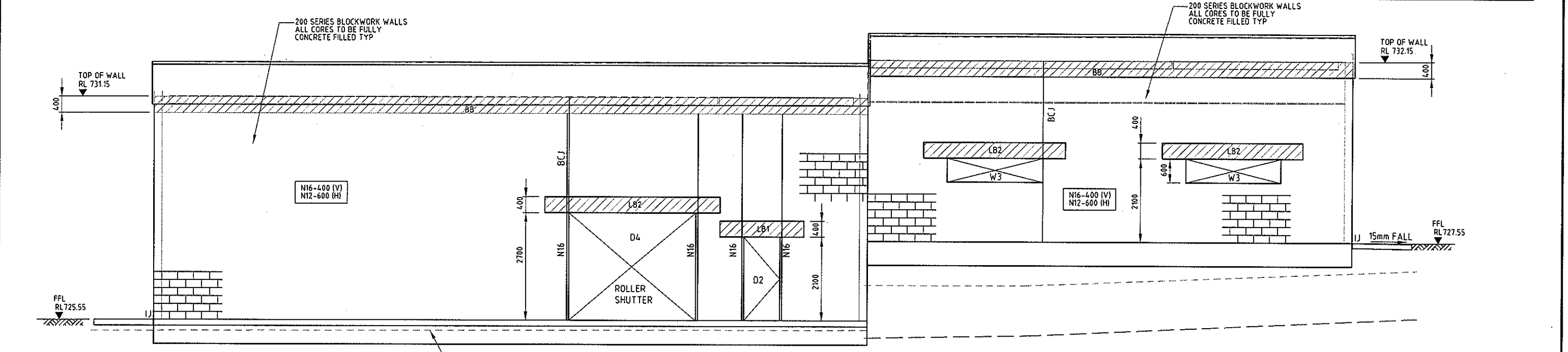
DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1



WEST ELEVATION
SCALE 1:50

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 CC140503-4 15/12/2014
 Principal Certifying Authority
 Ros Pascoe BPB2220



EAST ELEVATION
SCALE 1:50

NOTES
 1. FOR NOTES AND REFERENCE DRAWINGS REFER DRAWING S400.

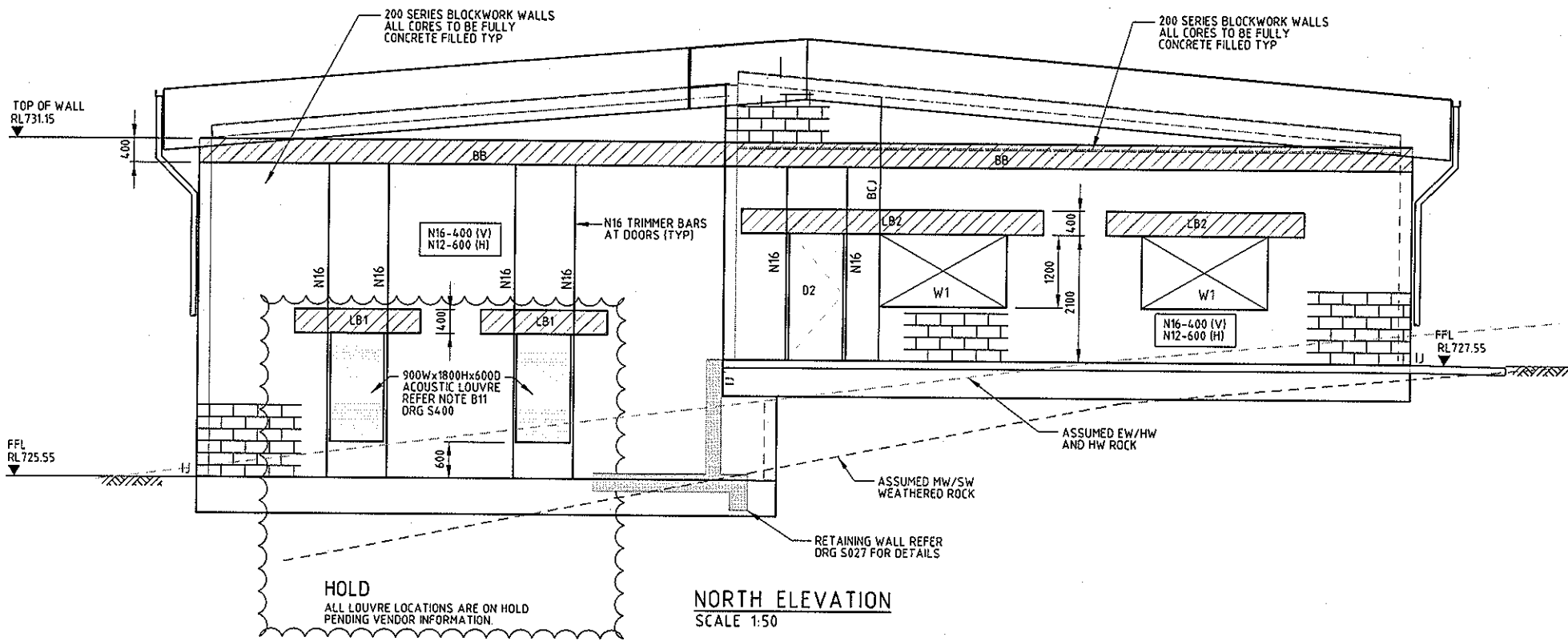
LEGEND
 BCJ - BLOCKWORK CONTRACTION JOINT
 LB - LINTEL BEAM
 BB - BOND BEAM



<table border="1"> <tr><td>DESIGNED</td><td>Shreya Phadnis</td><td>25.09.14</td></tr> <tr><td>DRAWN</td><td>Nitesh Kadam</td><td>25.09.14</td></tr> <tr><td>CAD REVIEW</td><td>Alan Gilbert</td><td>11.12.14</td></tr> <tr><td>DESIGN CHECK</td><td>Adam Chan-Sew</td><td>11.12.14</td></tr> <tr><td>DESIGN REVIEW</td><td>Adam Chan-Sew</td><td>11.12.14</td></tr> <tr><td>APPROVED</td><td>Stephen Chapman</td><td>11.12.14</td></tr> </table>		DESIGNED	Shreya Phadnis	25.09.14	DRAWN	Nitesh Kadam	25.09.14	CAD REVIEW	Alan Gilbert	11.12.14	DESIGN CHECK	Adam Chan-Sew	11.12.14	DESIGN REVIEW	Adam Chan-Sew	11.12.14	APPROVED	Stephen Chapman	11.12.14			GOOGONG WATER RECYCLING PLANT STAGE AB ADMIN MCC BLOWER BUILDING WALL ELEVATIONS - SHEET 1	Status Stamp FOR CONSTRUCTION
DESIGNED	Shreya Phadnis	25.09.14																					
DRAWN	Nitesh Kadam	25.09.14																					
CAD REVIEW	Alan Gilbert	11.12.14																					
DESIGN CHECK	Adam Chan-Sew	11.12.14																					
DESIGN REVIEW	Adam Chan-Sew	11.12.14																					
APPROVED	Stephen Chapman	11.12.14																					
1 APPROVED FOR CONSTRUCTION REVISIONS	Date Stamp 11.12.14																						
SURVEYED DESIGNED DRAWN CAD REVIEW DESIGN CHECK DESIGN REVIEW APPROVED						83502156-01-001-S401	Rev 1																

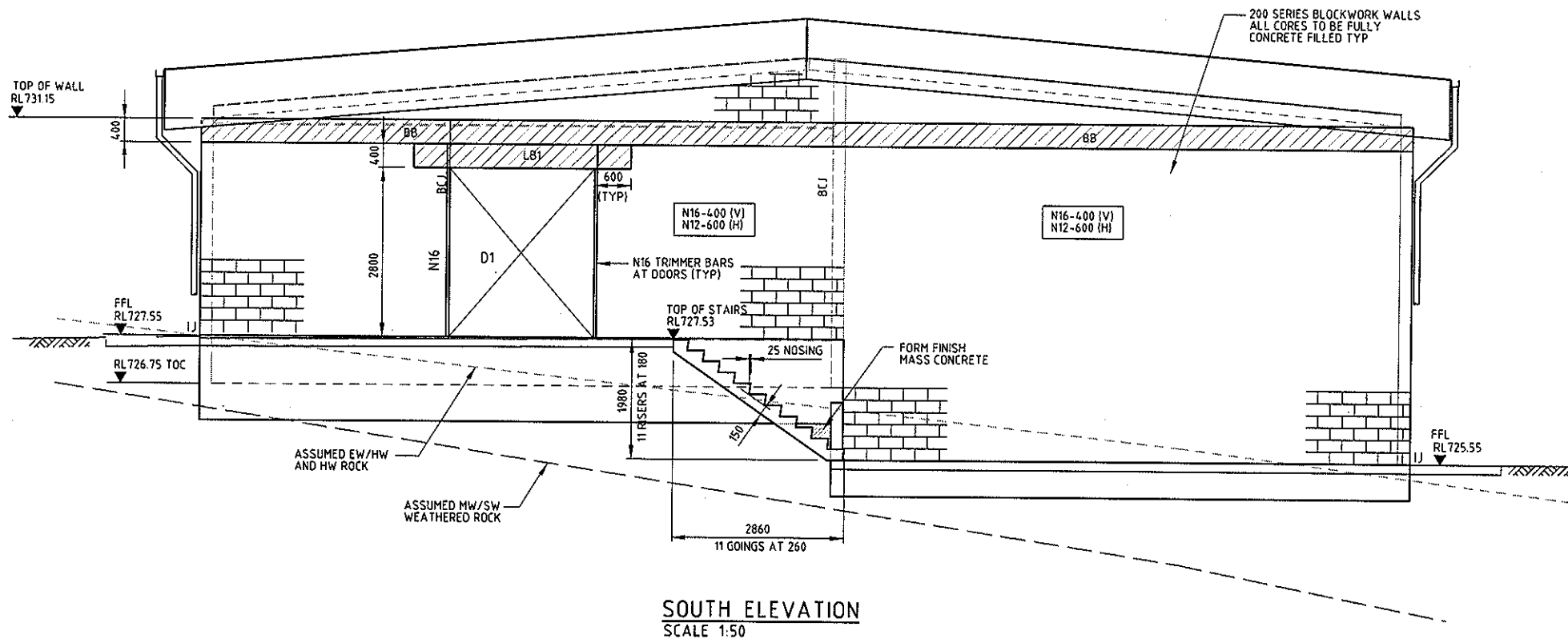
ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK

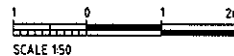


HOLD
ALL LOUVRE LOCATIONS ARE ON HOLD
PENDING VENDOR INFORMATION.

NORTH ELEVATION
SCALE 1:50



SOUTH ELEVATION
SCALE 1:50



BCA certifiers
AB V.56 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-4 15/12/2014
Principal Certifying Authority Ros Pascoe BPB2220

NOTES
1. FOR NOTES AND REFERENCE DRAWINGS REFER DRAWING S400.

LEGEND
IJ - ISOLATION JOINT
BCJ - BLOCKWORK CONTRACTION JOINT.
LB - LINTEL BEAM
BB - BOND BEAM

REV	APPROVED FOR CONSTRUCTION	REVISIONS	NK	AES	SC	11.12.14	DRN	CHK	APP	DATE	PROF REGISTRATION:
1											

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	Shreya Phadnis 25.09.14	Nilesh Kadam 25.09.14	Alan Gilbert 11.12.14	Adam Chan-Sew 11.12.14	Adam Chan-Sew 11.12.14	Stephen Chapman 11.12.14

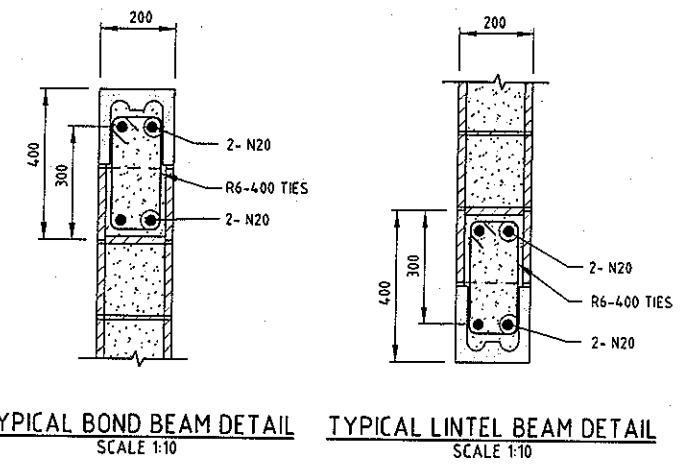
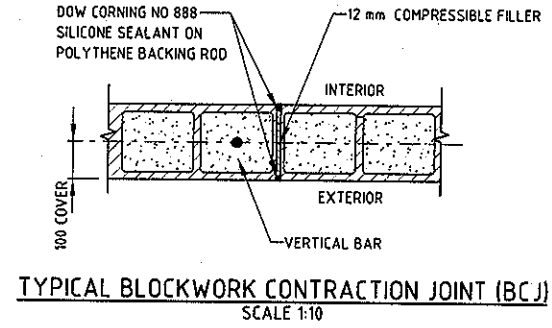
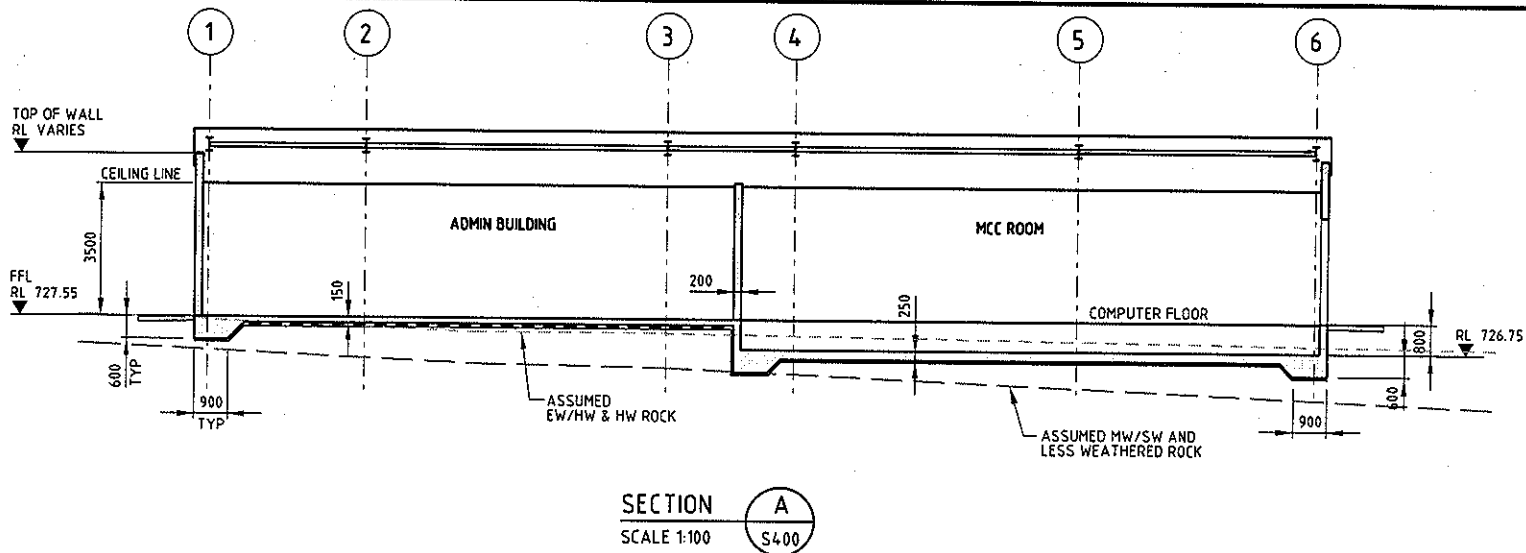
GOOGONG WATER RECYCLING PLANT STAGE AB

ADMIN MCC BLOWER BUILDING

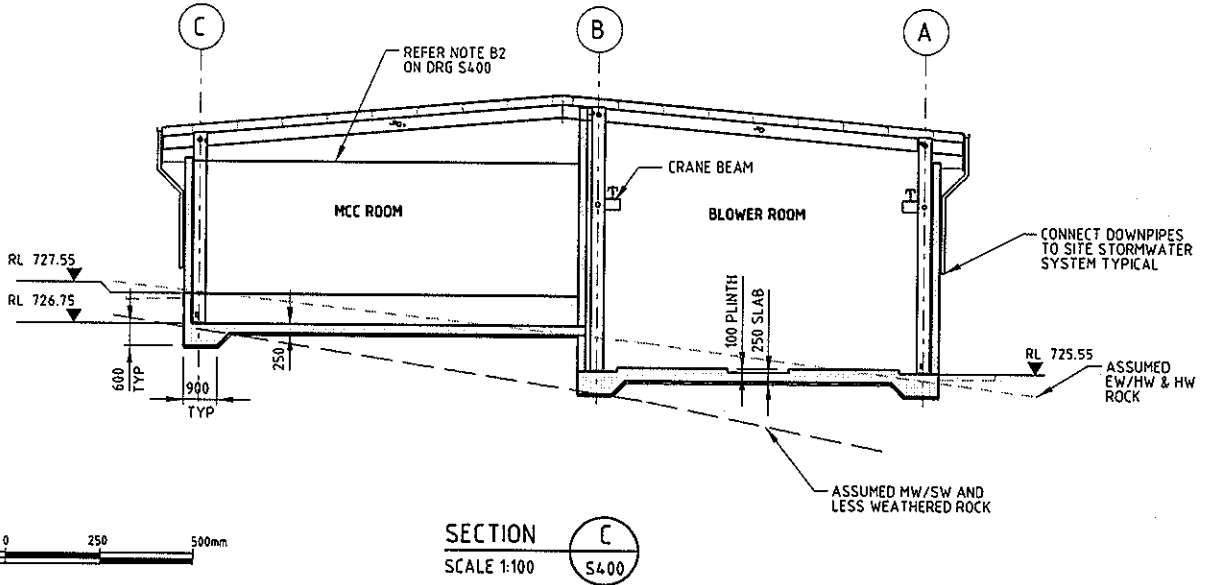
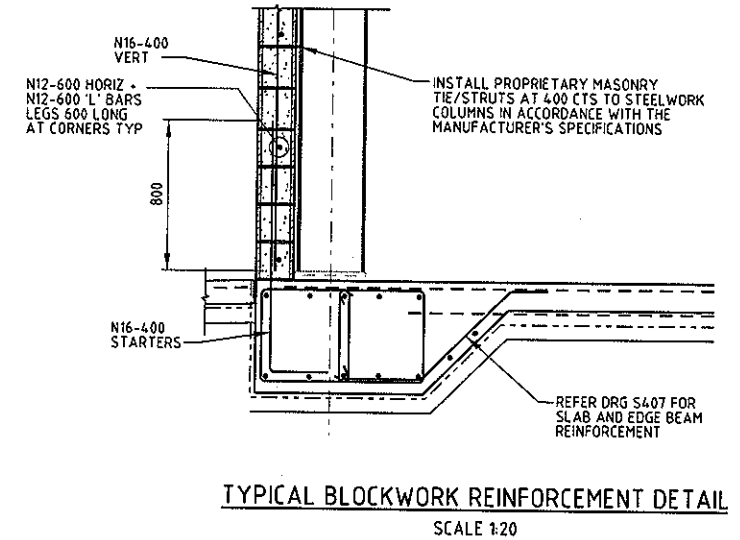
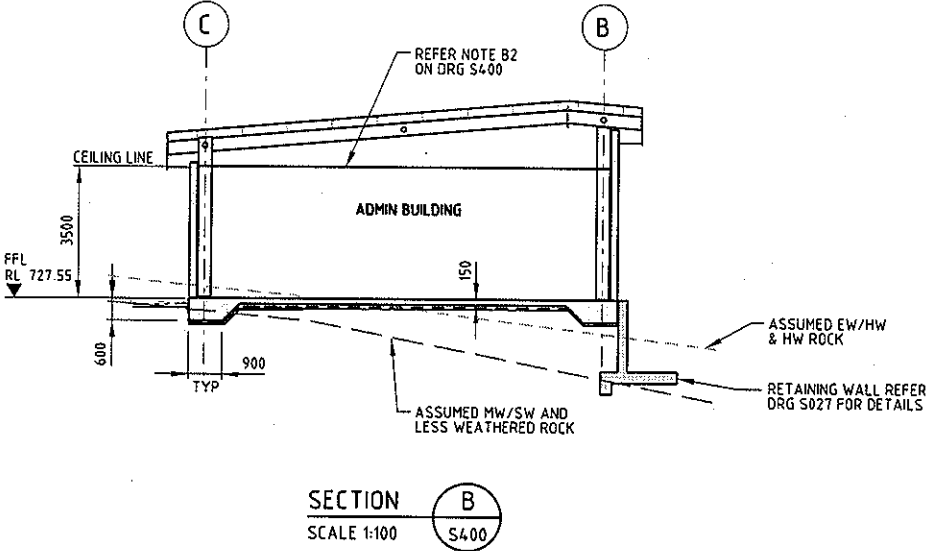
WALL ELEVATIONS - SHEET 2

Status Stamp	FOR CONSTRUCTION
Date Stamp	11.12.14
Scales	AS SHOWN
Drawing No	83502156-01-001-S402
Rev	1

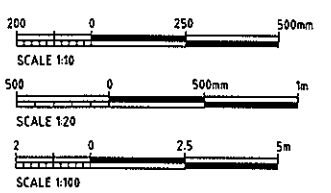
ORIGINAL SIZE A1



BCA certifiers
ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-4 15/12/2014
Principal Certifying Authority
Ros Pascoe BPB2220



- NOTES**
- FOR GENERAL NOTES REFER DRG G003 AND G004
 - THE ROCK PROFILE SHOWN ARE BASED ON LINEAR INTERPOLATION BETWEEN AVAILABLE BORELOGS. ACTUAL ROCK PROFILE MAY VARY. ANY VARIATION SHALL BE NOTIFIED TO THE ENGINEER FOR DESIGN VERIFICATION PRIOR TO CONSTRUCTION.



REV	APPROVED FOR CONSTRUCTION	AN	ACS	SC	11.12.14	DRN	CHK	APP	DATE	PROF REGISTRATION:

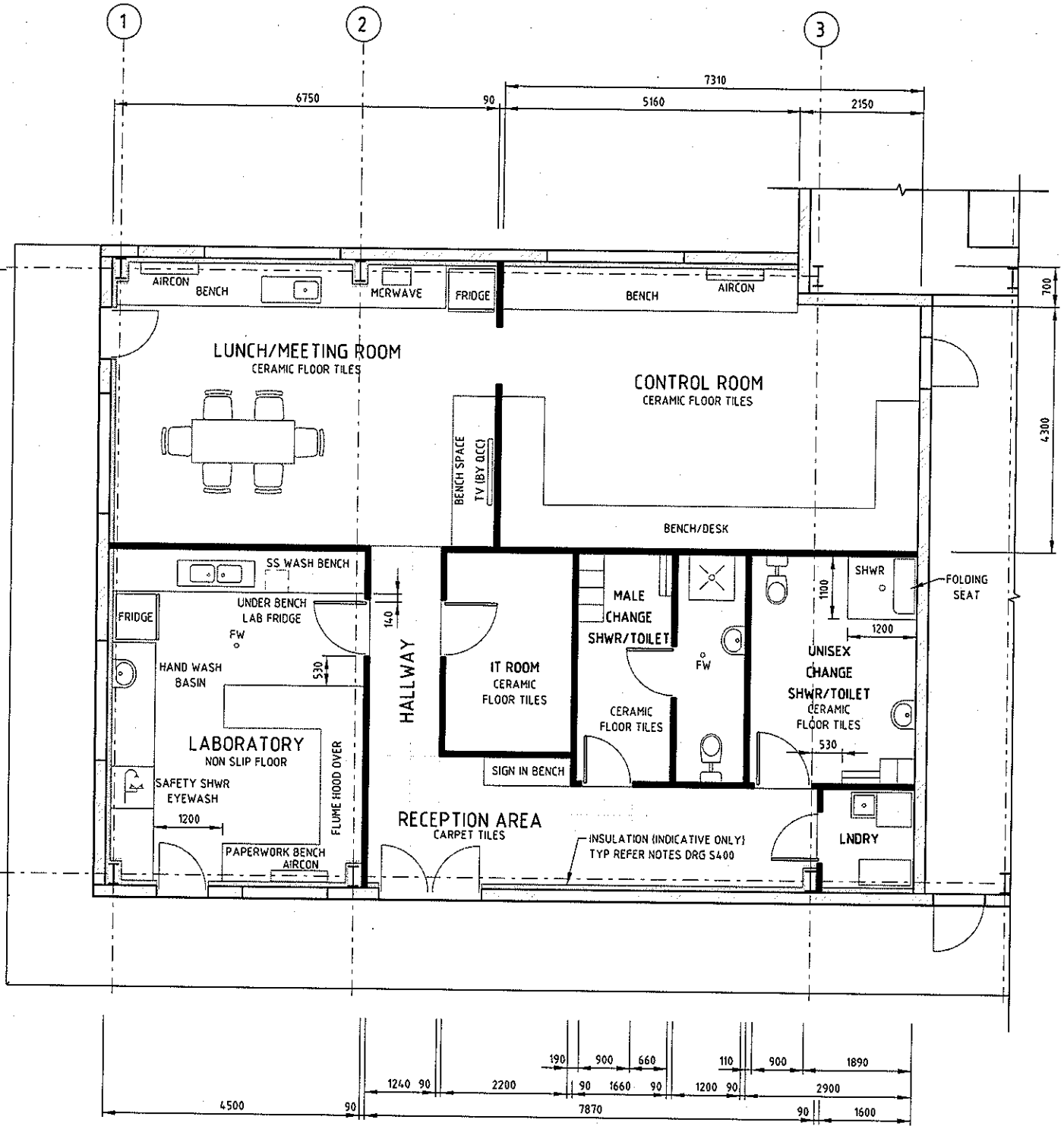
		GOOGONG WATER RECYCLING PLANT STAGE AB	Status Stamp FOR CONSTRUCTION
		ADMIN MCC BLOWER BUILDING SECTIONS AND DETAILS	Date Stamp 11.12.14 Scale: AS SHOWN Drawing No: 83502156-01-001-S403 Rev 1



DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

SCALE 1:50



FLOOR PLAN
SCALE 1:50

BCA certifiers
 ABV: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-4 15/12/2014
 Principal Certifying Authority
 Ros Pascoe BPB2220

NOTES

- FOR NOTES AND BUILDING DIMENSIONS NOT SHOWN REFER DRAWING 83502156-01-001-S400
- REQUIREMENTS FOR AND SETOUT OF SANITARY COMPARTMENTS FOR PEOPLE WITH AMBULANT DISABILITIES SHALL BE IN ACCORDANCE WITH AS 1428.1
- MATERIALS, FLOOR AND WALL LININGS AND COVERINGS AND SURFACE FINISHES USED IN THE WORKS SHALL COMPLY WITH THE FIRE HAZARD PROPERTIES IN ACCORDANCE WITH SPECIFICATION C 1.10 BCA 2014 AND AS 2982.
- FOR LIGHTING, POWER, AND HVAC REQUIREMENTS REFER TO ELECTRICAL SUBCONTRACTORS DRAWINGS.



REV	DESCRIPTION	AN	ACS	SC	DATE
1	APPROVED FOR CONSTRUCTION				11.12.14
	REVISIONS	DRN	CHK	APP	DATE

STATUS	NAME	DATE
SURVEYED		
DESIGNED	A Chan-Sew	09.10.14
DRAWN	Alan Gilbert	09.10.14
CAD REVIEW	Alan Gilbert	11.12.14
DESIGN CHECK	Adam Chan-Sew	11.12.14
DESIGN REVIEW	Adam Chan-Sew	11.12.14
APPROVED	Stephen Chapman	11.12.14



GOOGONG WATER RECYCLING PLANT STAGE AB

ADMIN BUILDING
INTERNAL LAYOUT

Status Stamp
FOR CONSTRUCTION

Date Stamp
11.12.14

Scale AS SHOWN

Drawing No: 83502156-01-001-S405 Rev 1



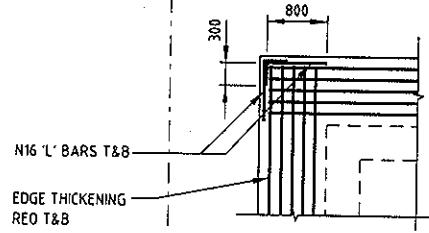
REFERENCE DRAWINGS

- 83502156-01-001-G003 GENERAL NOTES SHT 1
- 83502156-01-001-G004 GENERAL NOTES SHT 2
- 83502156-01-001-S001 CONCRETE DETAILS SHT 1
- 83502156-01-001-S002 CONCRETE DETAILS SHT 2

NOTES

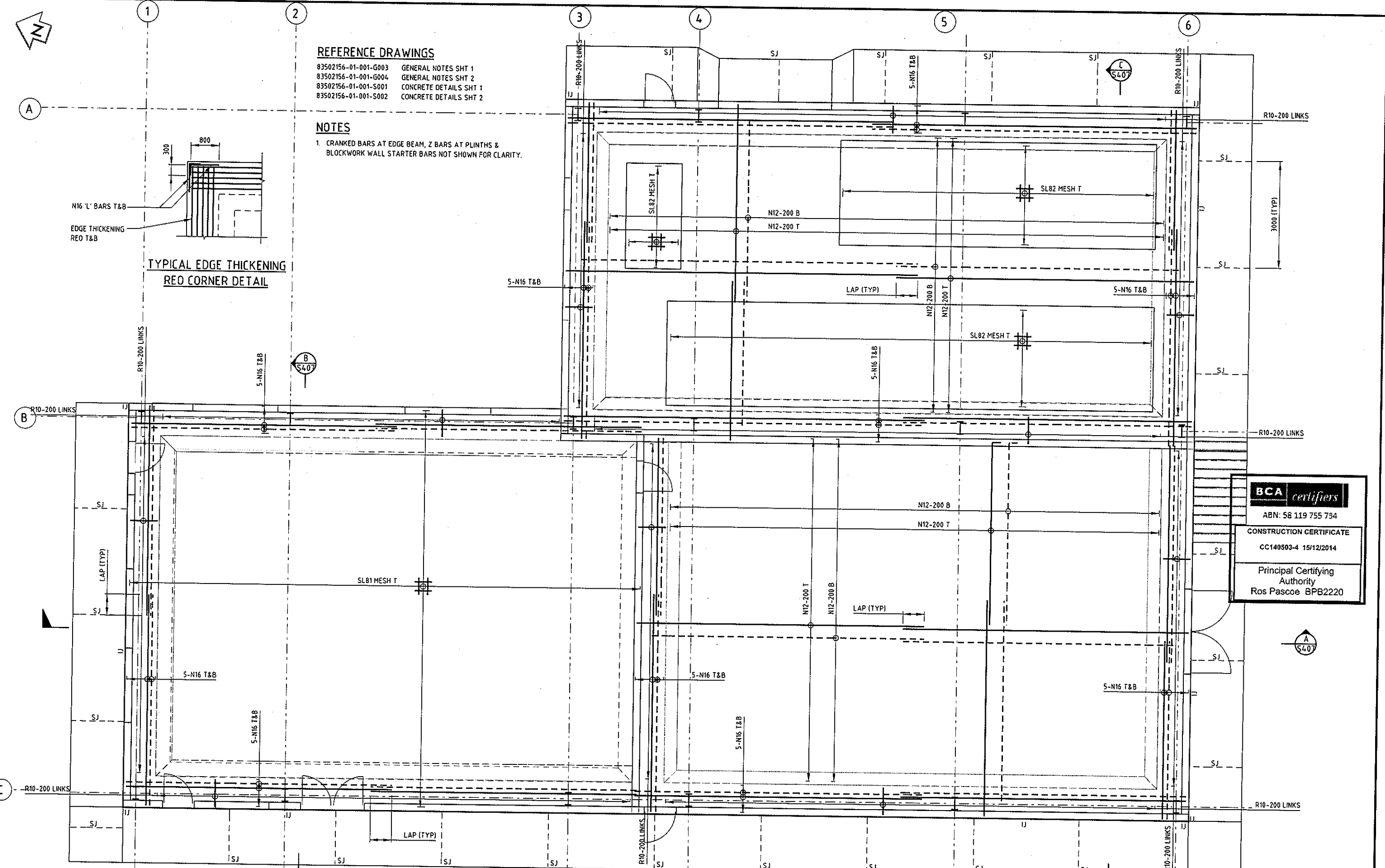
1. CRANKED BARS AT EDGE BEAM, Z BARS AT PLINTHS & BLOCKWORK WALL STARTER BARS NOT SHOWN FOR CLARITY.

TYPICAL EDGE THICKENING REO CORNER DETAIL



ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



REINFORCEMENT PLAN
SCALE 1:50



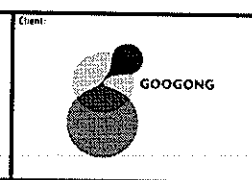
BCA certifiers
ABN: 58 119 755 734

CONSTRUCTION CERTIFICATE
CC140503-4 15/12/2014

Principal Certifying Authority
Ros Pascoe BPB2220

REV	DESCRIPTION	AN	ACS	SC	DATE
DRN	CHK	APP			
1	APPROVED FOR CONSTRUCTION				11.12.14

DESIGNED	DATE
Shreya Phadnis	15.09.14
Akshay Naik	15.09.14
Alan Gilbert	11.12.14
Adam Chan-Sew	11.12.14
Adam Chan-Sew	11.12.14
Stephen Chapman	11.12.14



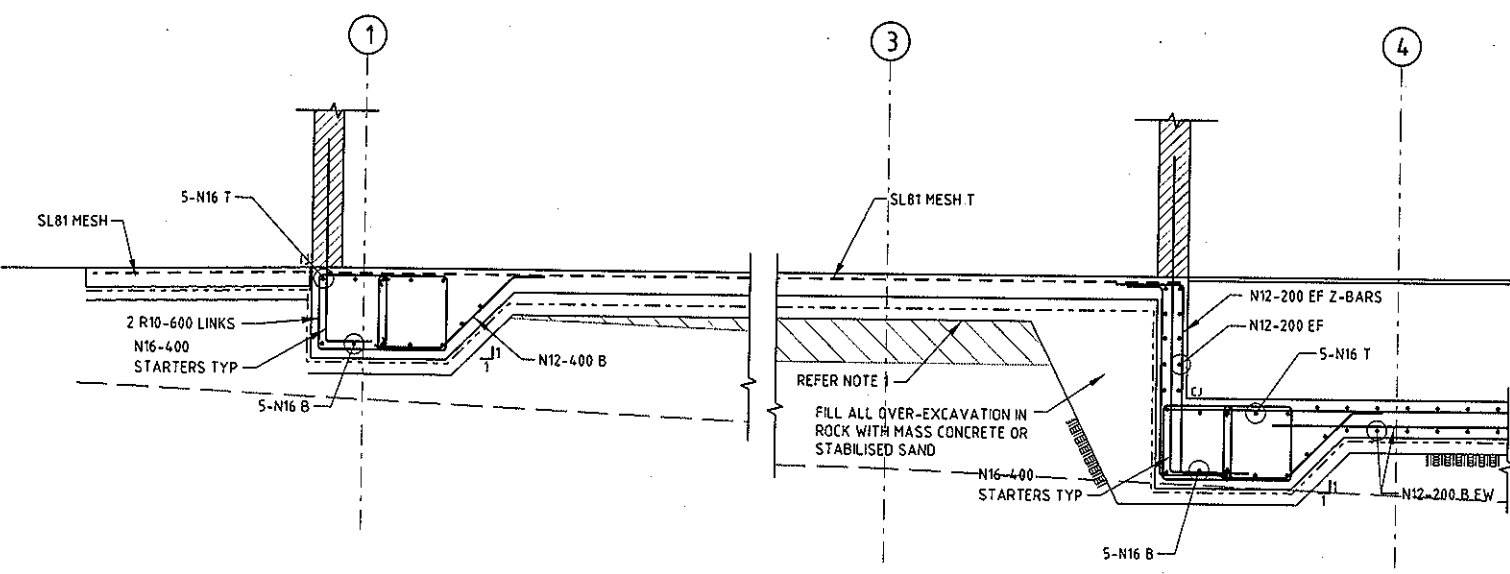
GOOGONG WATER RECYCLING PLANT STAGE AB

ADMIN MCC BLOWER BUILDING
REINFORCEMENT - PLANS

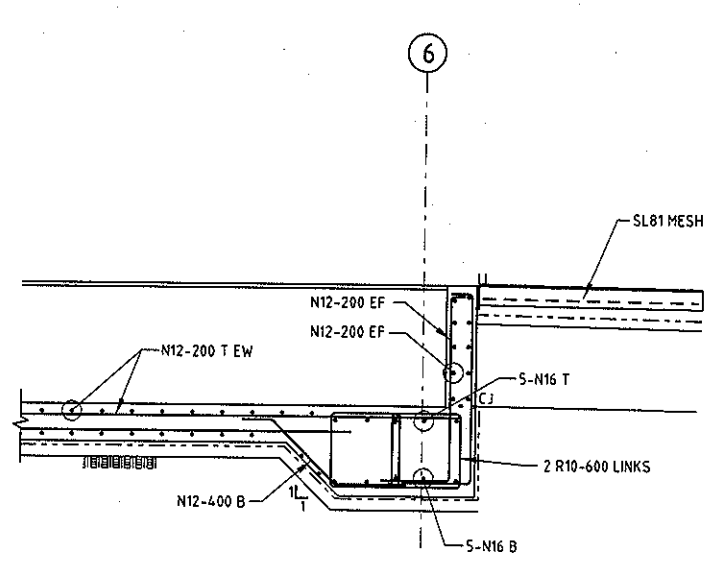
Status Stamp	FOR CONSTRUCTION
Date Stamp	11.12.14
Scale	AS SHOWN
Drawing No.	83502156-01-001-S406
Rev	1

ORIGINAL SIZE A1

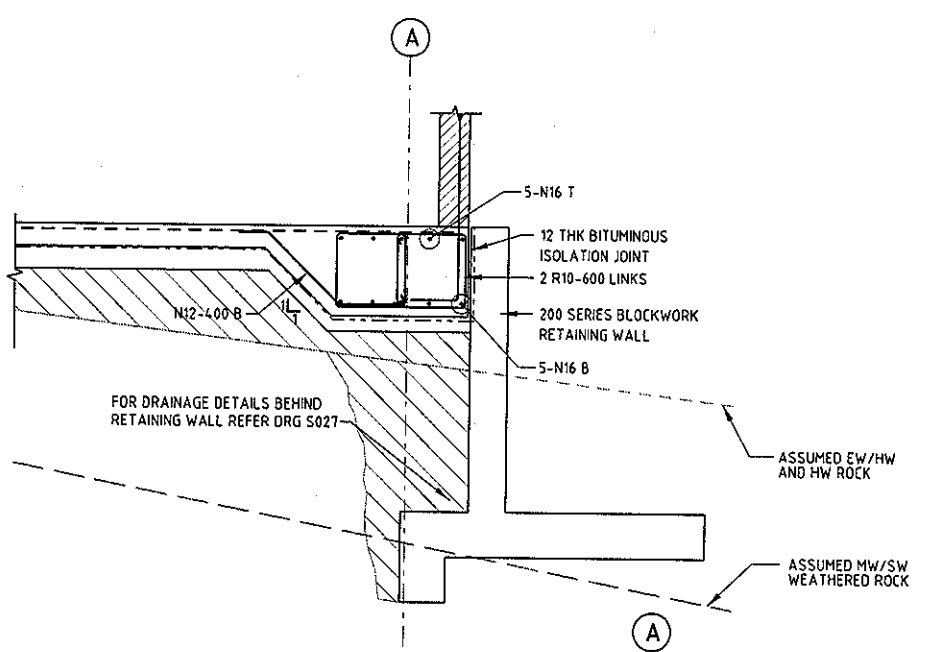
500 0 500mm 1m
SCALE 1:25



SECTION A
SCALE 1:25
S406



SECTION B
SCALE 1:25
S406



SECTION C
SCALE 1:25
S406

NOTES

1. PROVIDE MASS CONCRETE FILL ABOVE THE "EW/HW & HW DACITE" ROCK LAYER TO THE UNDERSIDE OF THE SLAB FOUNDATION TO ENSURE A UNIFORM SUBGRADE. WHEN PREPARING THE FOUNDATION, THE CONTRACTOR SHALL ENGAGE A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE "EW/HW & HW DACITE" ROCK LAYER PRIOR TO FILLING WITH MASS CONCRETE.
2. REFER TO GEOTECHNICAL REPORT BY DOUGLAS PARTNERS PROJECT 46285.05 DATED JULY 2013 FOR GEOTECHNICAL PARAMETERS.
3. COVER TO REINFORCEMENT SHALL BE 50mm ALL ROUND.
4. BACKFILL OVER EXCAVATION WITH MASS CONCRETE OR STABILISED SAND.
5. FOR CONCRETE JOINT DETAILS REFER DRG S002.
6. SUBGRADE FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE BEARING CAPACITY OF 200kPa.
8. REINFORCED CONCRETE GRADE SHALL BE N32

BCA certifiers
 AB N: 56 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-4 15/12/2014
 Principal Certifying Authority
 Ros Pascoe BPB2220

REV	APPROVED FOR CONSTRUCTION	REVISIONS	AN	ACS	SC	11.12.14	DRN	CHK	APP	DATE
1										

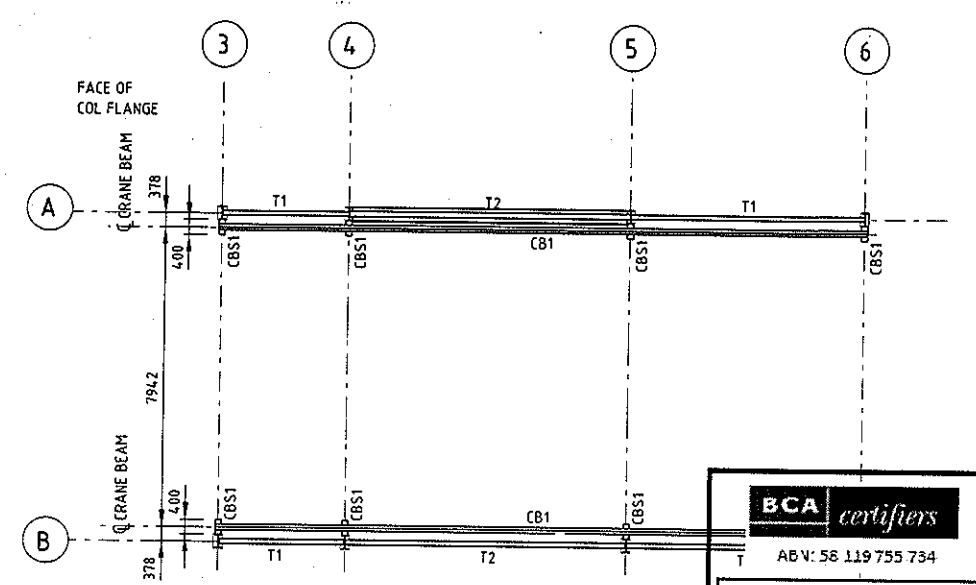
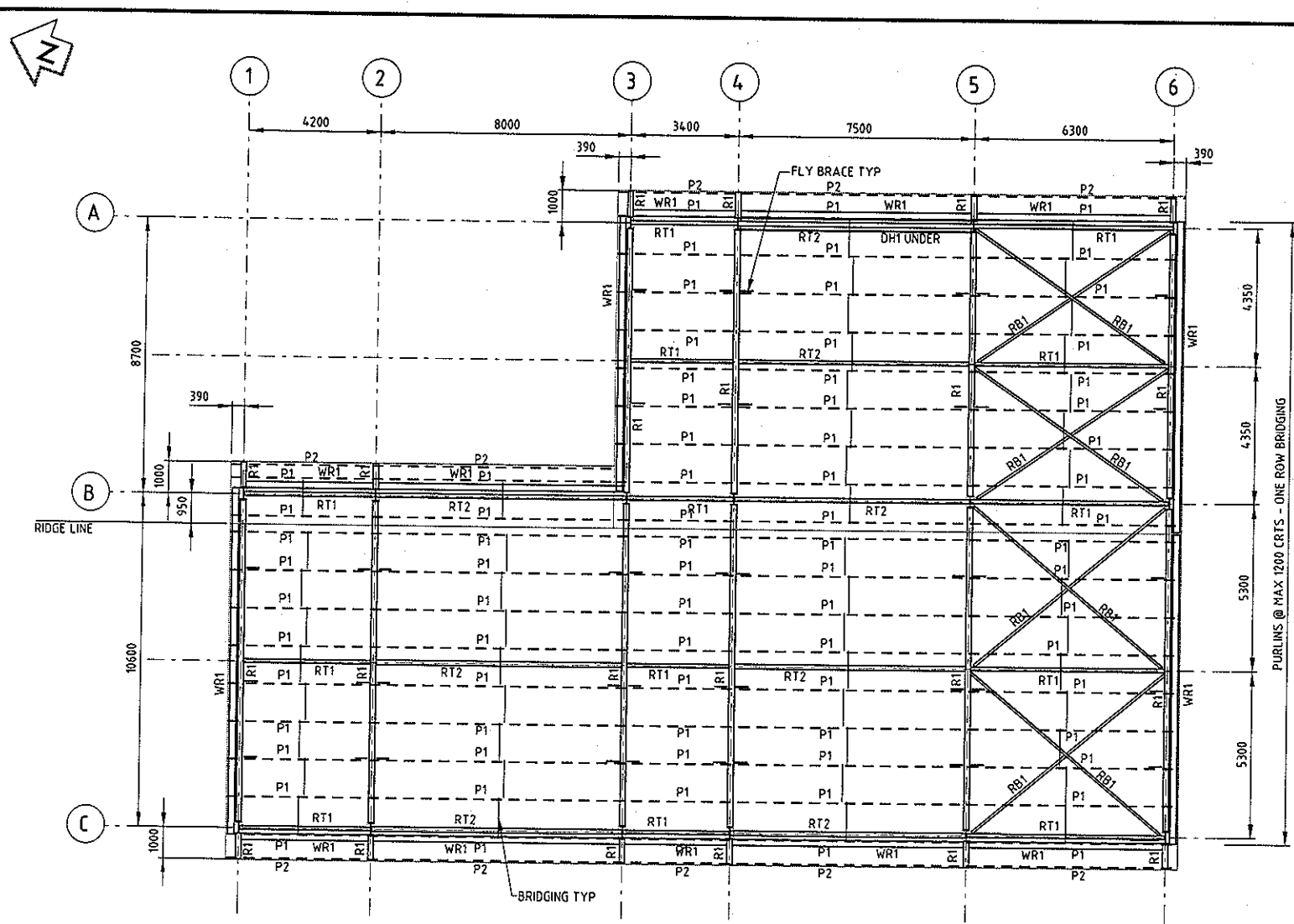
SURVEYED	Shreya Phadnis	15.09.14
DESIGNED	Akshay Nair	15.09.14
DRAWN	Alan Gilbert	11.12.14
CAD REVIEW	Adam Chan-Sew	11.12.14
DESIGN CHECK	Adam Chan-Sew	11.12.14
DESIGN REVIEW	Adam Chan-Sew	11.12.14
APPROVED	Stephen Chapman	11.12.14



GOOGONG WATER RECYCLING PLANT STAGE AB

ADMIN MCC BLOWER BUILDING
REINFORCEMENT - SECTIONS

Status Stamp	FOR CONSTRUCTION
Date Stamp	11.12.14
Scales	AS SHOWN
Drawing No	83502156-01-001-S407
Rev	1

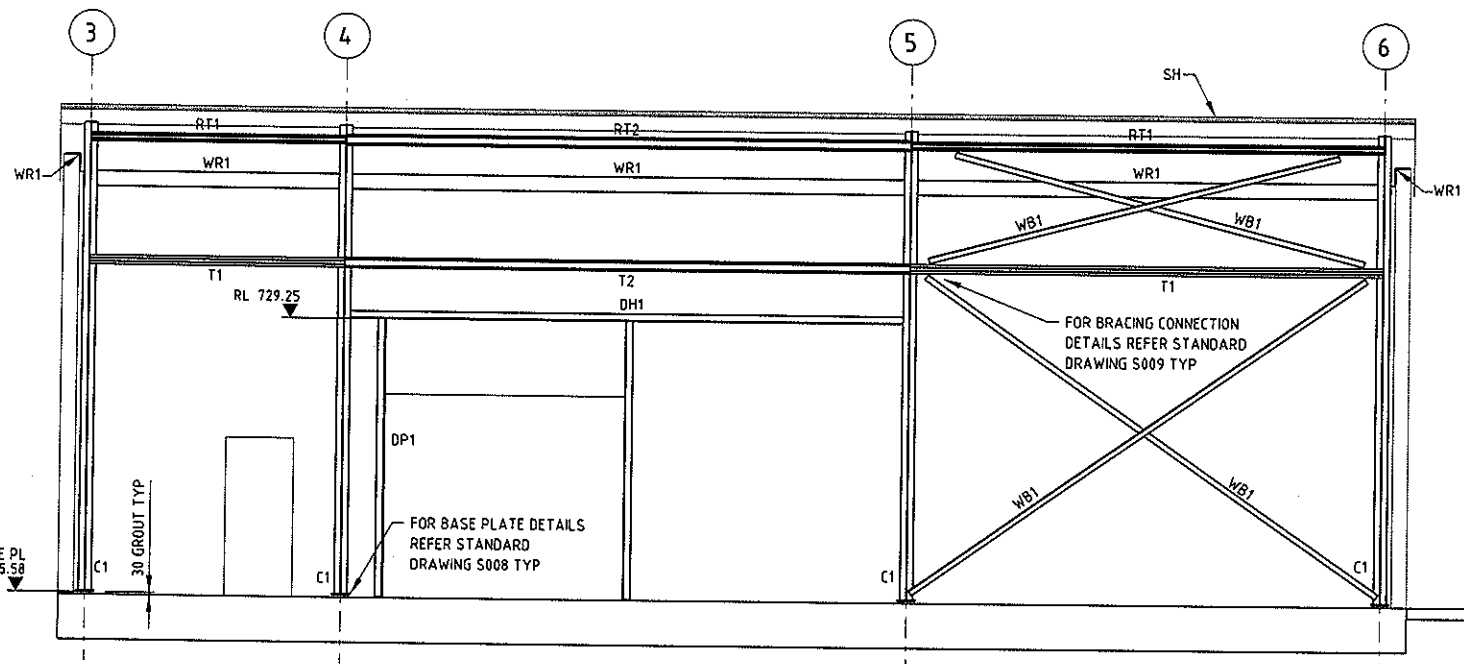


PLAN - CRANE BEAM
SCALE 1:100

BCA certifiers
 AB V: 56 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-4 15/12/2014
 Principal Certifying Authority
 Ros Pascoe BPB2220

CRANE LOAD DATA			
WHEEL LOADS (kN) WITHOUT VIBRATION COEFFICIENT	CRANE AXIS GRID A	3.2	12.2
	CRANE AXIS GRID B	3.2	12.4
LATERAL LOADS (kN)	MASS FORCES CRANE TRAVEL (MIN/MAX)	0.4	1.3
	SKIEWING FORCE ON GUIDE SIDE (COEFFICIENT OF FRICTIONAL CONTACT = 0.3)	4.2	-
HORIZONTAL LOADS FROM SKIEWING (GUIDE SIDE/OPPOSITE SIDE)	FRONT CRANE AXIS IN DRIVING DIRECTION	0.9	3.3
	BACK CRANE AXIS IN DRIVING DIRECTION	0.0	0.0
LONGITUDINAL LOADS (kN) (PER CRANE RUNWAY BEAM)	MASS FORCES CRANE TRAVEL (MAX)	0.6	
	COLLISION FORCES (MAX)	4.5	

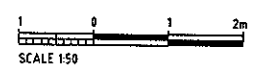
STEELWORK SCHEDULE		
MARK	MEMBER	REMARK
C1	360 UB 50.7	PORTAL COLUMN
R1	360 UB 50.7	PORTAL RAFTER
RB1	75x8EA	ROOF BRACING
WB1	75x8EA	WALL BRACING
CB1	310UB 46 + 250 PFC	CRANE BEAM
CBS1	310UB 46	CRANE BEAM SUPPORT
RT1	114x4.5 CHS	ROOF TIE
RT2	139x5.0 CHS	ROOF TIE
P1	S220019	LYSAGHT PURLINS LAPPED @ 1200 CTRS MAX ONE ROW BRIDGING
P2	SC20019	LYSAGHT PURLINS LAPPED @ 1200 CTRS MAX ONE ROW BRIDGING
SH	0.48mm BMT	LYSAGHT SPANDEK SHEETING
T1	114x4.5 CHS	TIE BEAM
T2	139x5.0 CHS	TIE BEAM
WR1	200x13 EA	WALL RESTRAINT
DH1	250 PFC	DOOR HEADER
DP1	250 PFC	DOOR POST



ELEVATION ON GRID LINE A
SCALE 1:50

- NOTES**
- FOR GENERAL NOTES REFER DRG G003 AND G004
 - THE CONTRACTOR SHALL PROVIDE ENOUGH TEMPORARY SUPPORTS AND BRACING TO MAINTAIN THE STABILITY OF STEEL WORKS DURING ERECTION.
 - FOR STRUCTURAL STEEL CONNECTION DETAILS REFER STANDARD DRAWINGS S008, S009 AND S010
 - SAFE WORKING LOAD OF OVERHEAD GANTRY CRANE = 2000kg.

ORIGINAL SIZE A1



REV	DESCRIPTION	AN	ACS	SC	11.12.14	DATE
1	APPROVED FOR CONSTRUCTION					
	REVISIONS	DRN	CHK	APP		

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	Shreya Phadnis	Akshay Naik	Alan Gilbert	Adam Chan-Sew	Adam Chan-Sew	Stephen Chapman
	03.10.14	03.10.14	11.12.14	11.12.14	11.12.14	11.12.14



GOOGONG WATER RECYCLING PLANT STAGE AB

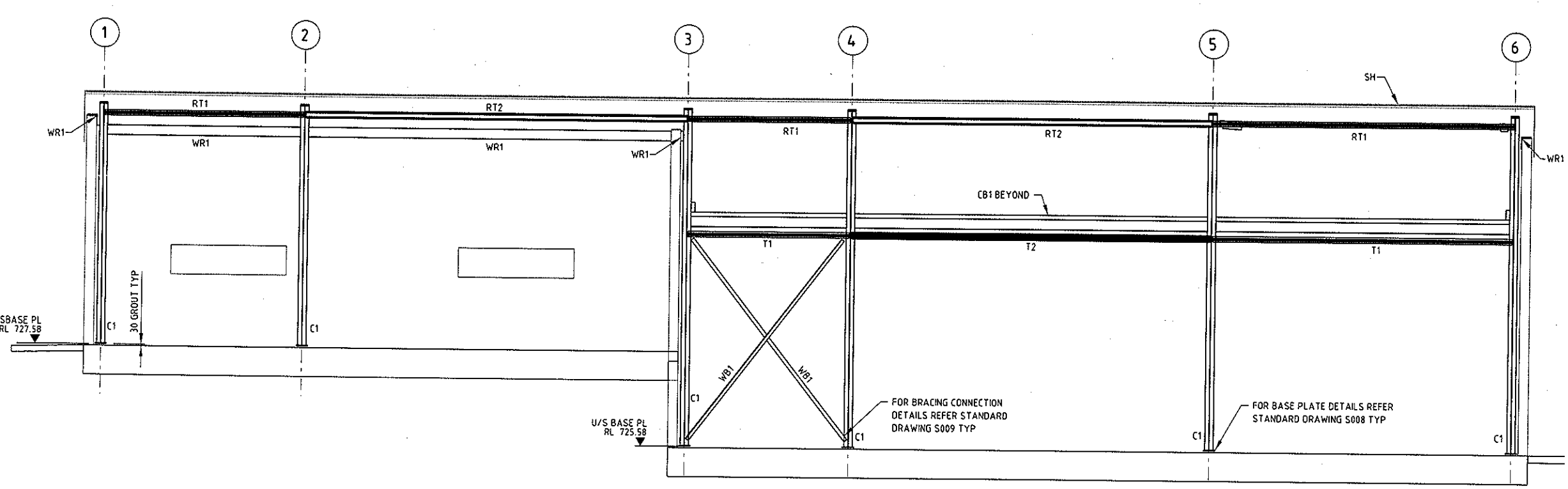
ADMIN MCC BLOWER BUILDING
STEELWORK - ROOF PLAN AND ELEVATION

Status Stamp
FOR CONSTRUCTION
 Date Stamp
 11.12.14
 Scale AS SHOWN
 Drawing No
 83502156-01-001-S 412
 Rev
 1

NOTES
1. FOR NOTES REFER DRG S412

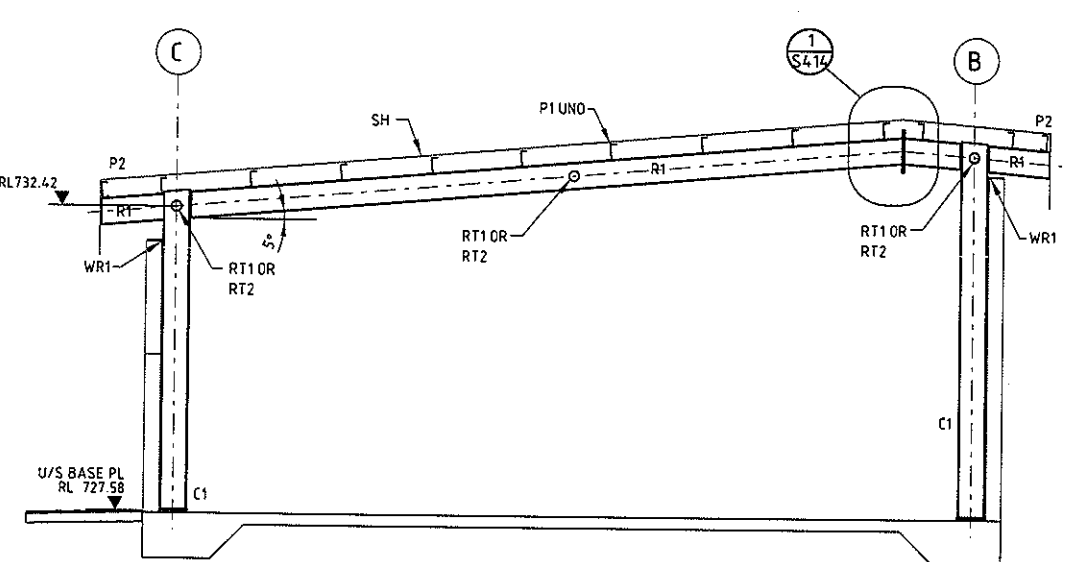
DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

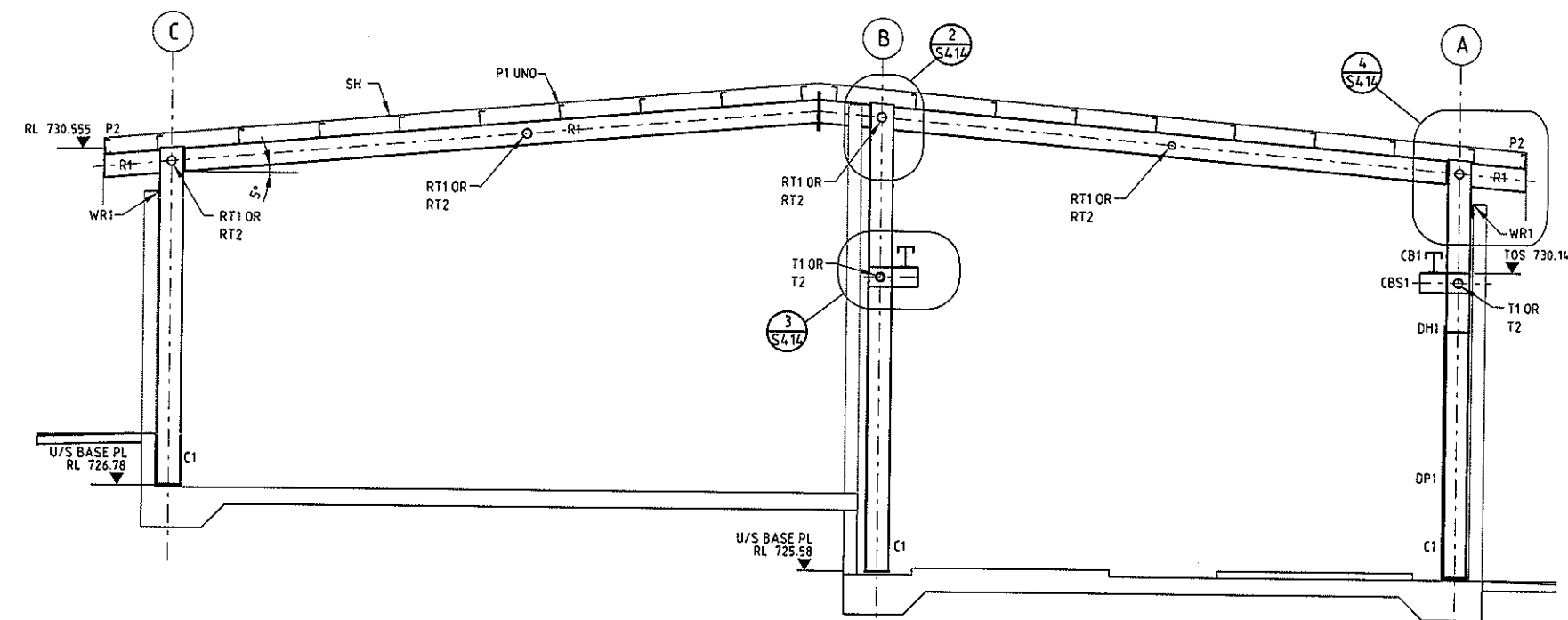


ELEVATION ON GRID LINE B
SCALE 1:50

BCA certifiers
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CONSTRUCTION CERTIFICATE
CC140503-4 15/12/2014
Principal Certifying Authority
Ros Pascoe BPB2220



ELEVATION ON GRID LINE 1 & 2
SCALE 1:50



ELEVATION ON GRID LINE 3 - 6
SCALE 1:50



REV	DESCRIPTION	AN	AKS	SC	DATE
1	APPROVED FOR CONSTRUCTION	AN	AKS	SC	11.12.14
	REVISIONS	DRN	CHK	APP	DATE

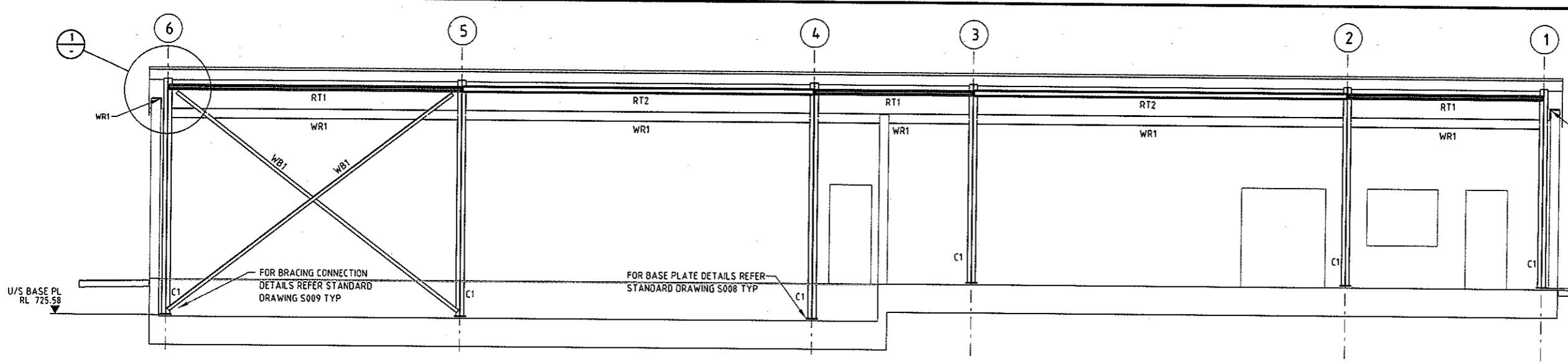
SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	Shreya Phadnis 03.10.14	Akshay Naik 03.10.14	Alan Gilbert 11.12.14	Adam Chan-Sew 11.12.14	Adam Chan-Sew 11.12.14	Stephen Chapman 11.12.14



GOOGONG WATER RECYCLING PLANT STAGE AB

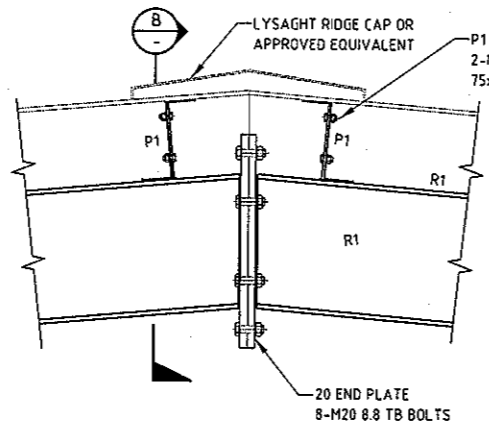
ADMIN MCC BLOWER BUILDING
STEELWORK - SECTIONS AND DETAILS

Status Stamp	FOR CONSTRUCTION
Date Stamp	11.12.14
Scale	AS SHOWN
Drawing No	83502156-01-001-S413
Rev	1

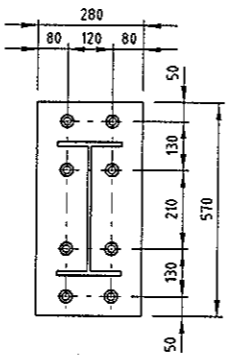


NOTES
1. FOR NOTES REFER DRG S412

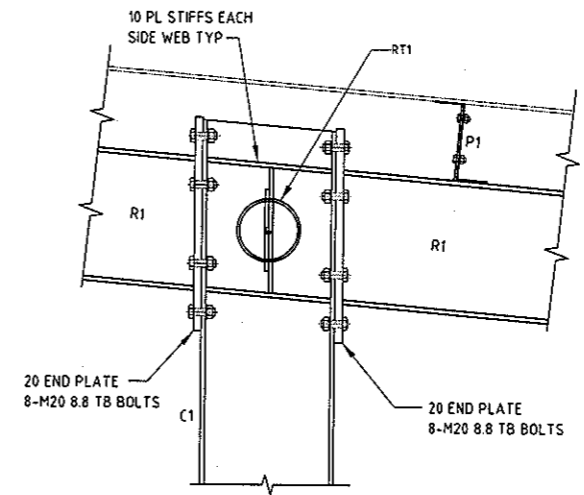
ELEVATION ON GRID LINE C
SCALE 1:50



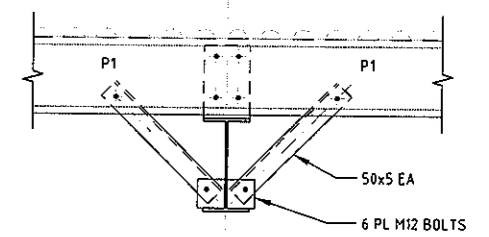
DETAIL 1
SCALE 1:10 S-413



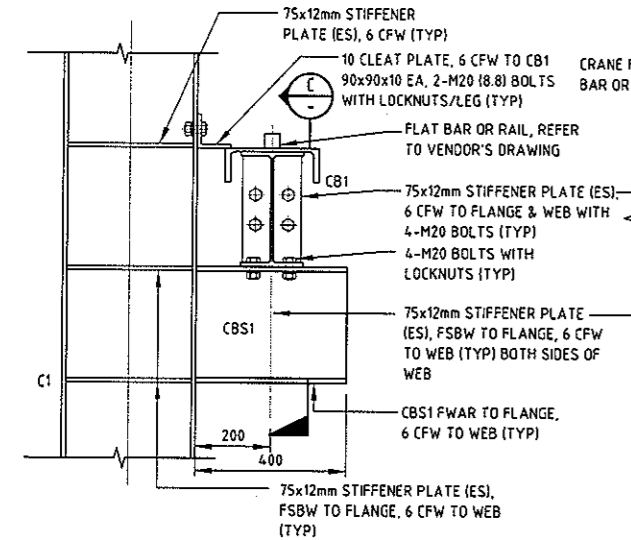
SECTION B
SCALE 1:10



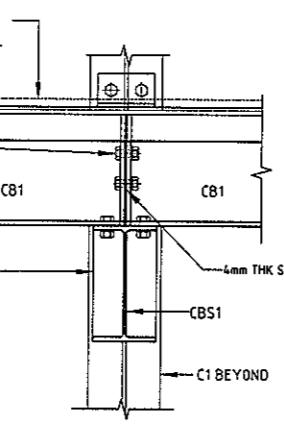
DETAIL 2
SCALE 1:10 S-413



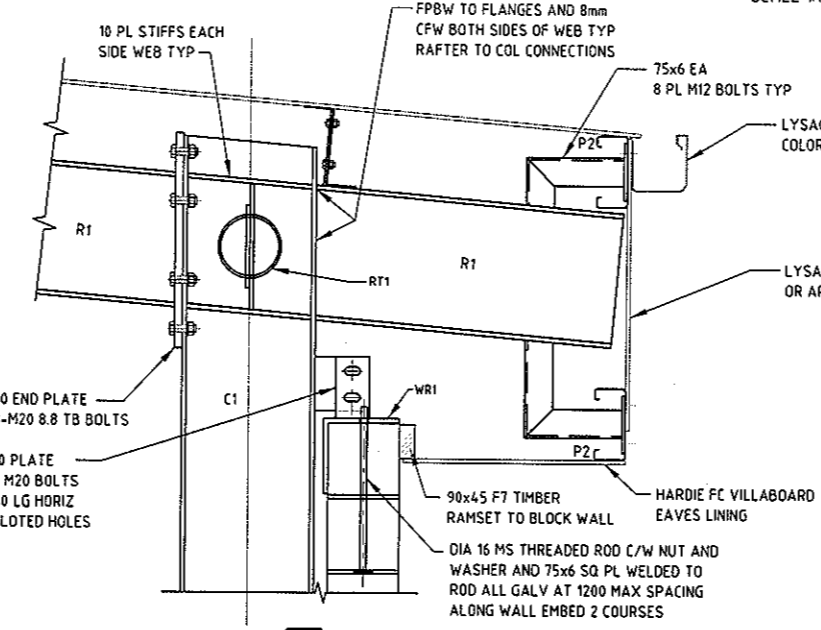
TYPICAL FLY BRACE DETAIL
SCALE 1:10



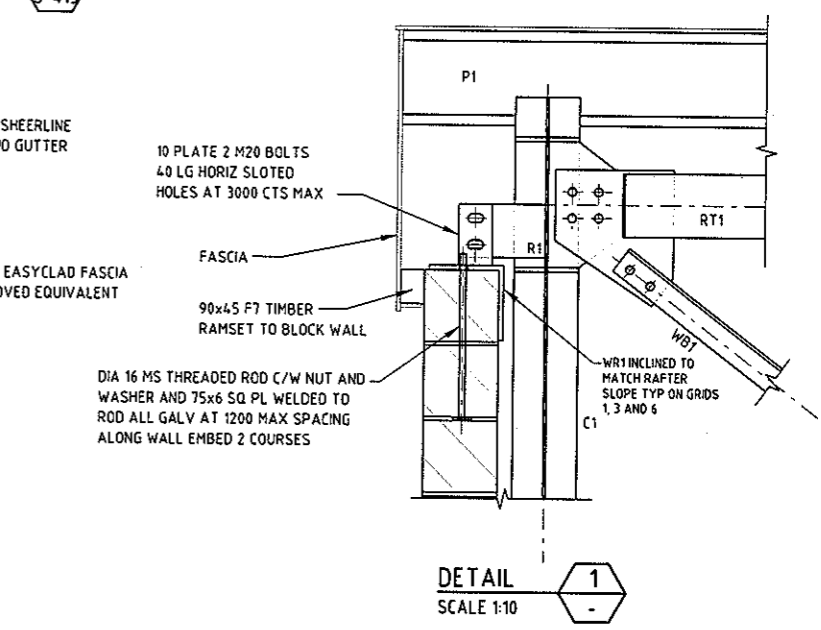
DETAIL 3
SCALE 1:10 S-413



SECTION C
SCALE 1:10

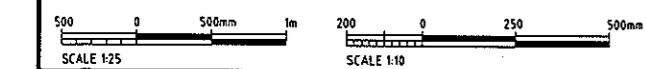


DETAIL 4
SCALE 1:10 S-413



DETAIL 1
SCALE 1:10

ORIGINAL SIZE A1



BCA certifiers
ABN: 56 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-4 15/12/2014
Principal Certifying Authority
Ros Pascoe BPB2220

REV	DESCRIPTION	AN	ACS	SC	DATE
1	APPROVED FOR CONSTRUCTION	AN	ACS	SC	11.12.14

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	Shreya Phadnis	Akshay Naik	Alan Gilbert	Adam Chan-Sew	Adam Chan-Sew	Stephen Chapman

MWH **GOOGONG**

GOOGONG WATER RECYCLING PLANT STAGE AB
ADMIN MCC BLOWER BUILDING
STEELWORK - SECTIONS AND DETAILS

Status Stamp
FOR CONSTRUCTION
Date Stamp: 11.12.14
Scales: AS SHOWN
Drawing No: 83502156-01-001-S414
Rev: 1

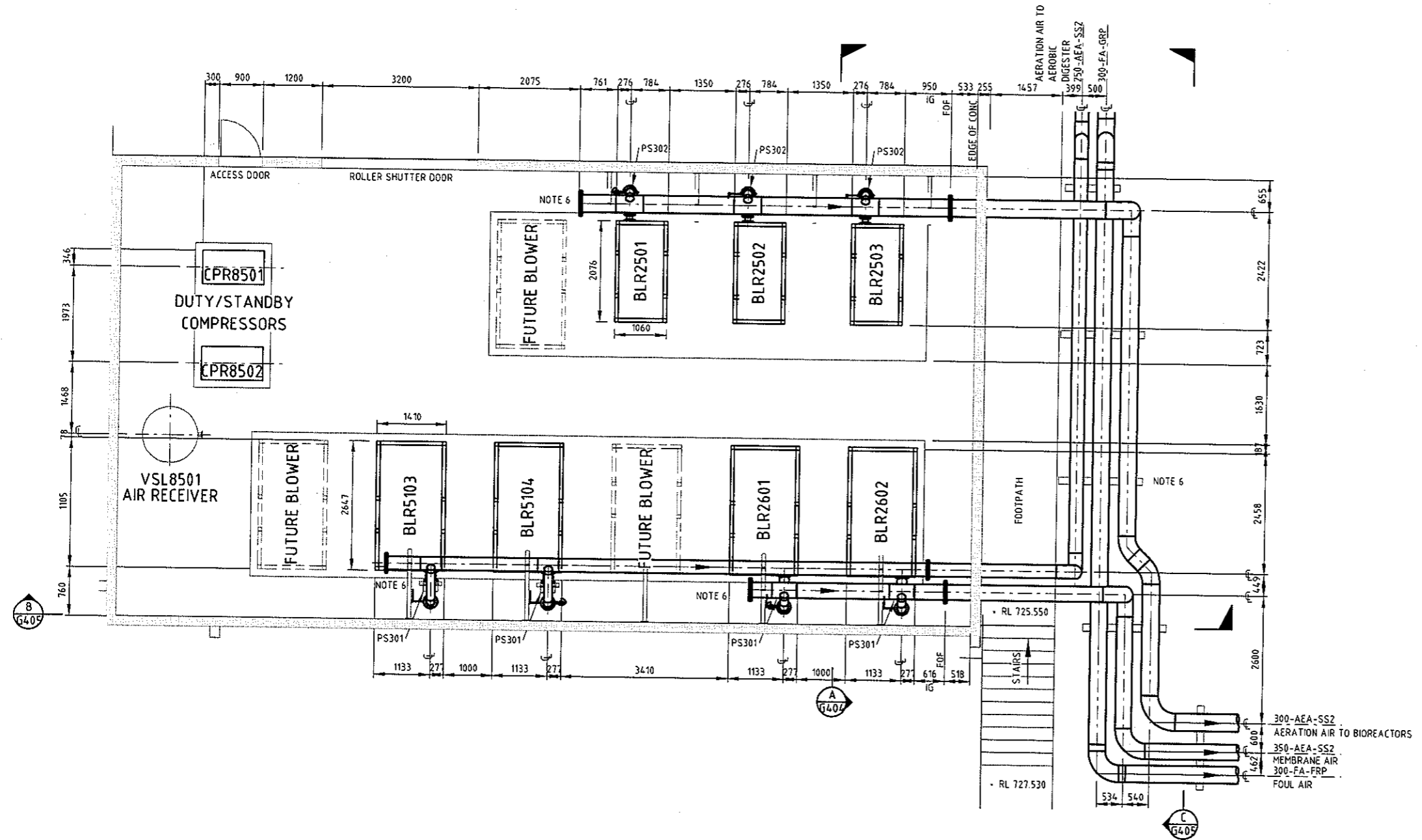


NOTES:

1. ROOF REMOVED FOR CLARITY.
2. GANTRY CRANE SWL 2 TONNES.
3. GANTRY CRANE NOT SHOWN IN PLAN VIEW FOR CLARITY.
4. COMPRESSOR AIR PIPEWORK SHALL BE SITE RUN.
5. ALL FLANGES SHALL BE AS4087 PN16 UNLESS OTHERWISE SPECIFIED.
6. BLANKED FLANGE ON MANIFOLD FOR CONNECTION OF FUTURE STAGES.
7. LAGGING REQUIREMENTS WILL BE DETERMINED ON SITE.
8. AERATION PIPEWORK AND SUPPORTS BY OTHERS

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ORIGINAL SIZE A1 DO NOT SCALE - F W/DUBT, ASK

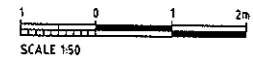


PLAN SCALE 1:50

REFERENCE DRAWINGS:

- 83502156-01-001-G001 COVER SHEET & DRAWING INDEX
- 83502156-01-001-G404 SECTION SHEET 1
- 83502156-01-001-G405 SECTION SHEET 2

- BLR2501 - AERATION BLOWER (DUTY)
- BLR2502 - AERATION BLOWER (ASSIST)
- BLR2503 - AERATION BLOWER (STANDBY)
- BLR5103 - AEROBIC DIGESTER AERATION BLOWER No.1 (DUTY)
- BLR5104 - AEROBIC DIGESTER AERATION BLOWER No.2 (STANDBY)
- BLR2601 - MEMBRANE BLOWER (DUTY)
- BLR2602 - MEMBRANE BLOWER (STANDBY)



REV	DESCRIPTION	DATE	APP	CHK	DRN
B	IFC FOR REVIEW				
A	ISSUED FOR 30% REVIEW				
REVISIONS					
	AK	RV	SC	11.12.14	
	HS	RV	SC	21.10.14	
	DRN	CHK	APP	DATE	

SURVEYED		
DESIGNED		
DRAWN	Harpreet Singh	21.10.14
CAD REVIEW	Terry Sowden	21.10.14
DESIGN CHECK	Ran Viridi	21.10.14
APPROVED	Ran Viridi	21.10.14
	Stephen Chapman	11.12.14



GOOGONG WATER RECYCLING PLANT STAGE AB

BLOWER BUILDING - GENERAL ARRANGEMENT PLAN

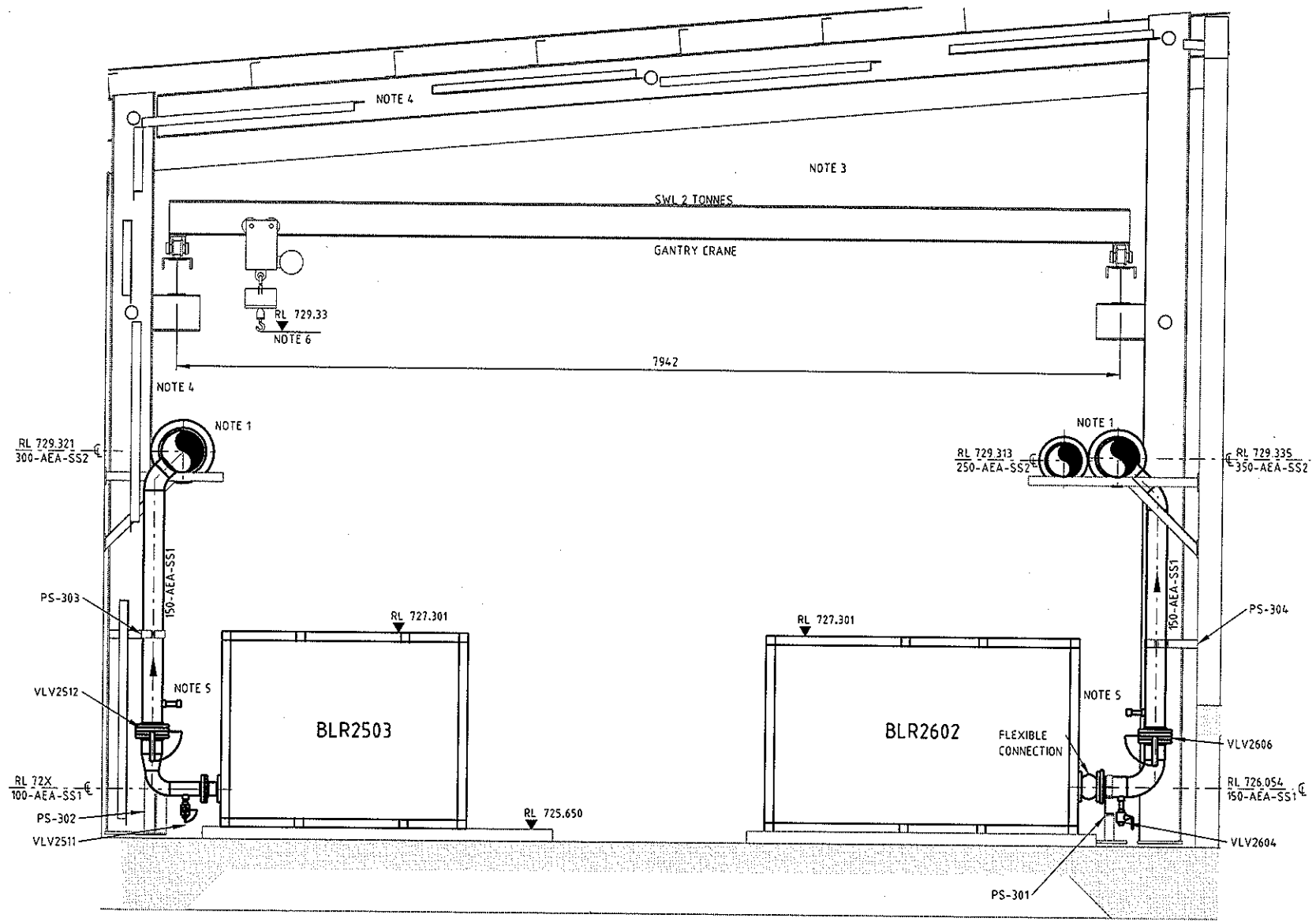
NOT FOR CONSTRUCTION

Status Stamp	FOR REVIEW
Date Stamp	11.12.14
Scale	AS SHOWN
Drawing No.	83502156-01-001-G403
Rev.	B

DO NOT SCALE - IF IN DOUBT, ASK

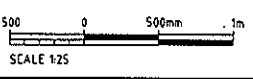
200 mm
150
100
50
0

ORIGINAL SIZE A1



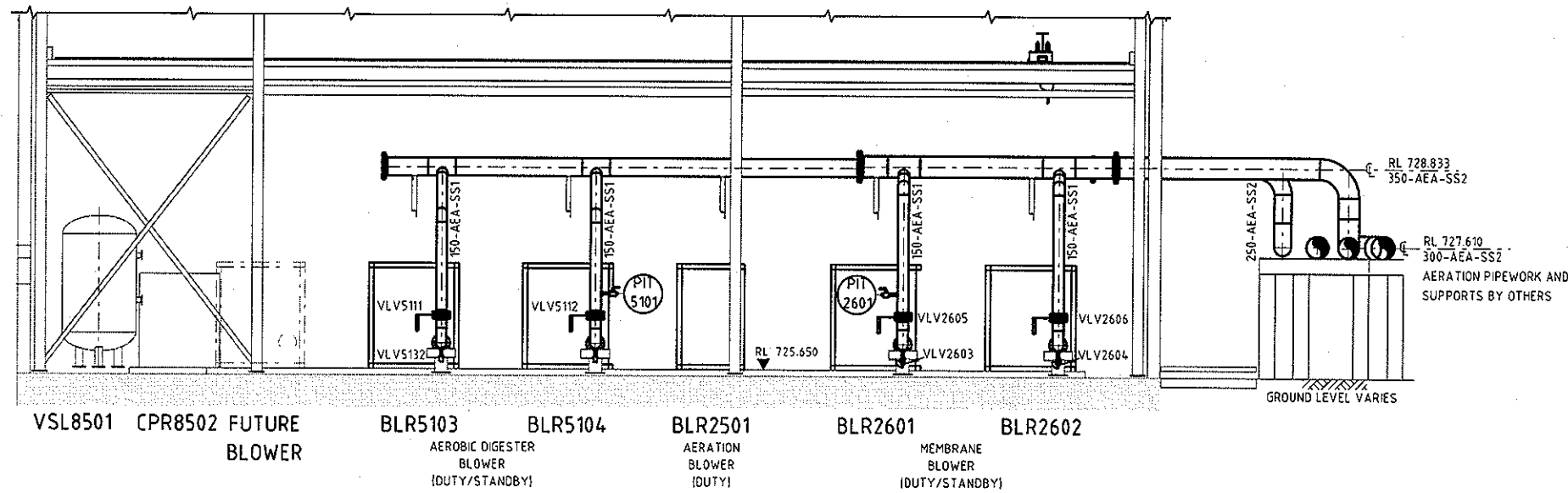
SECTION A
SCALE 1:25

BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-4 15/12/2014
 Principal Certifying Authority
 Ros Pascoe BPB2220

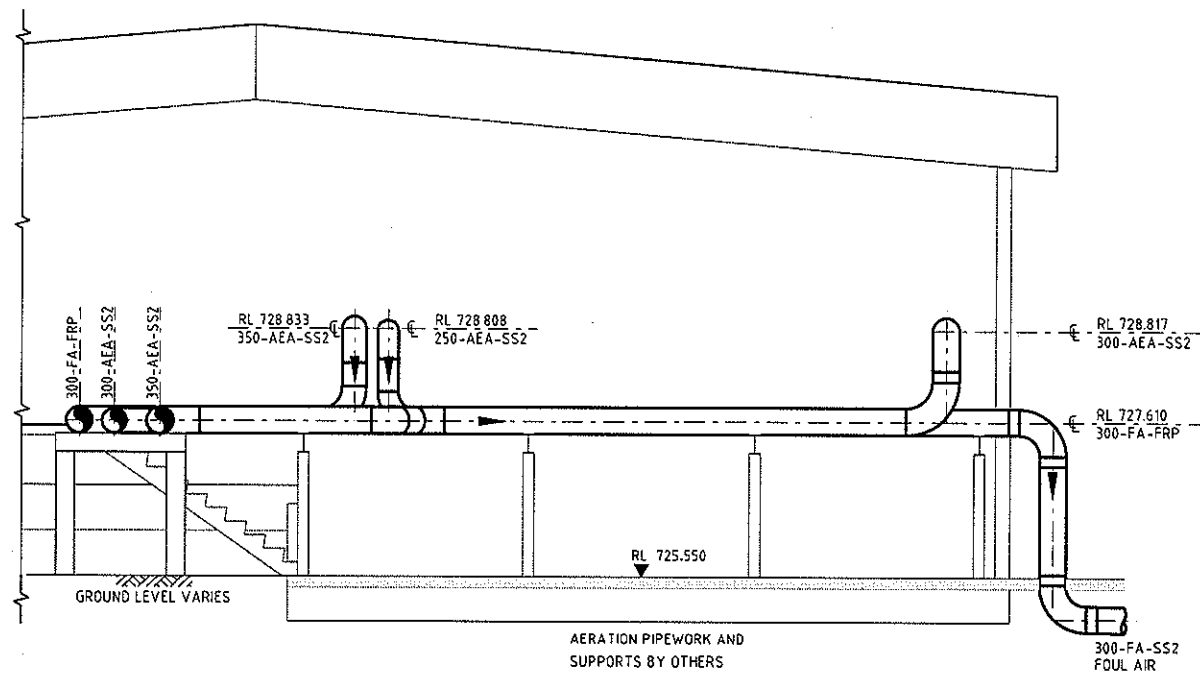


- NOTES:**
- AERATION PIPWORK AND SUPPORTS BY OTHERS.
 - ALL FLEXIBLE COUPLINGS SHALL BE SUPPLIED C/W TIE RODS.
 - GANTRY CRANE SHOWN INDICATIVELY. FOR DETAILS REFER TO VENDOR DRAWINGS.
 - REFER TO STRUCTURAL DRAWINGS FOR DETAILS.
 - 1" BSP WELDED SOCKET BLANKED WITH THREADED PLUG.
 - INCLUDES MINIMUM SAFETY DISTANCE IN ACCORDANCE WITH VENDOR REQUIREMENTS.

NOT FOR CONSTRUCTION FOR REVIEW																																					
GOOGONG WATER RECYCLING PLANT STAGE AB BLOWER BUILDING - GENERAL ARRANGEMENT SECTION SHEET 1	Status Stamp 11.12.14 Date Stamp AS SHOWN Drawing No. 83502156-01-001-G404 Rev. B																																				
<table border="1"> <tr><td>REV</td><td>AK</td><td>RV</td><td>SC</td><td>11.12.14</td></tr> <tr><td></td><td>HS</td><td>RV</td><td>SC</td><td>21.10.14</td></tr> <tr><td></td><td>DRN</td><td>CHK</td><td>APP</td><td>DATE</td></tr> </table>	REV	AK	RV	SC	11.12.14		HS	RV	SC	21.10.14		DRN	CHK	APP	DATE	<table border="1"> <tr><td>SURVEYED</td><td></td><td></td></tr> <tr><td>DESIGNED</td><td></td><td></td></tr> <tr><td>DRAWN</td><td>Hargreel Singh</td><td>21.10.14</td></tr> <tr><td>CAD REVIEW</td><td>Terry Sowden</td><td>21.10.14</td></tr> <tr><td>DESIGN CHECK</td><td>Ran Viridi</td><td>21.10.14</td></tr> <tr><td>DESIGN REVIEW</td><td>Ran Viridi</td><td>21.10.14</td></tr> <tr><td>APPROVED</td><td>Stephen Chapman</td><td>11.12.14</td></tr> </table>	SURVEYED			DESIGNED			DRAWN	Hargreel Singh	21.10.14	CAD REVIEW	Terry Sowden	21.10.14	DESIGN CHECK	Ran Viridi	21.10.14	DESIGN REVIEW	Ran Viridi	21.10.14	APPROVED	Stephen Chapman	11.12.14
REV	AK	RV	SC	11.12.14																																	
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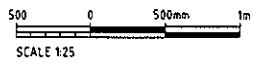
SECTION B
SCALE 1:50
G4.03



SECTION C
SCALE 1:50
G4.03

BCA certifiers
 ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
 CC140503-4 15/12/2014
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ORIGINAL SITE A1
260 mm
150
100
90
80
70
60
50
40
30
20
10
0



NOT FOR CONSTRUCTION

REV	NO	DESCRIPTION	DATE
A	1	FOR REVIEW	11.12.14

NO	DATE	BY	CHECKED	APP'D	DATE
1	11.12.14	AK	RV	SC	11.12.14

SURVEYED		
DESIGNED		
DRAWN	Arash Keshavarzian	10.12.14
CAD REVIEW	Terry Sowden	11.12.14
DESIGN CHECK	Ran Virdi	11.12.14
DESIGN REVIEW	Stephen Chapman	11.12.14
APPROVED	Stephen Chapman	11.12.14



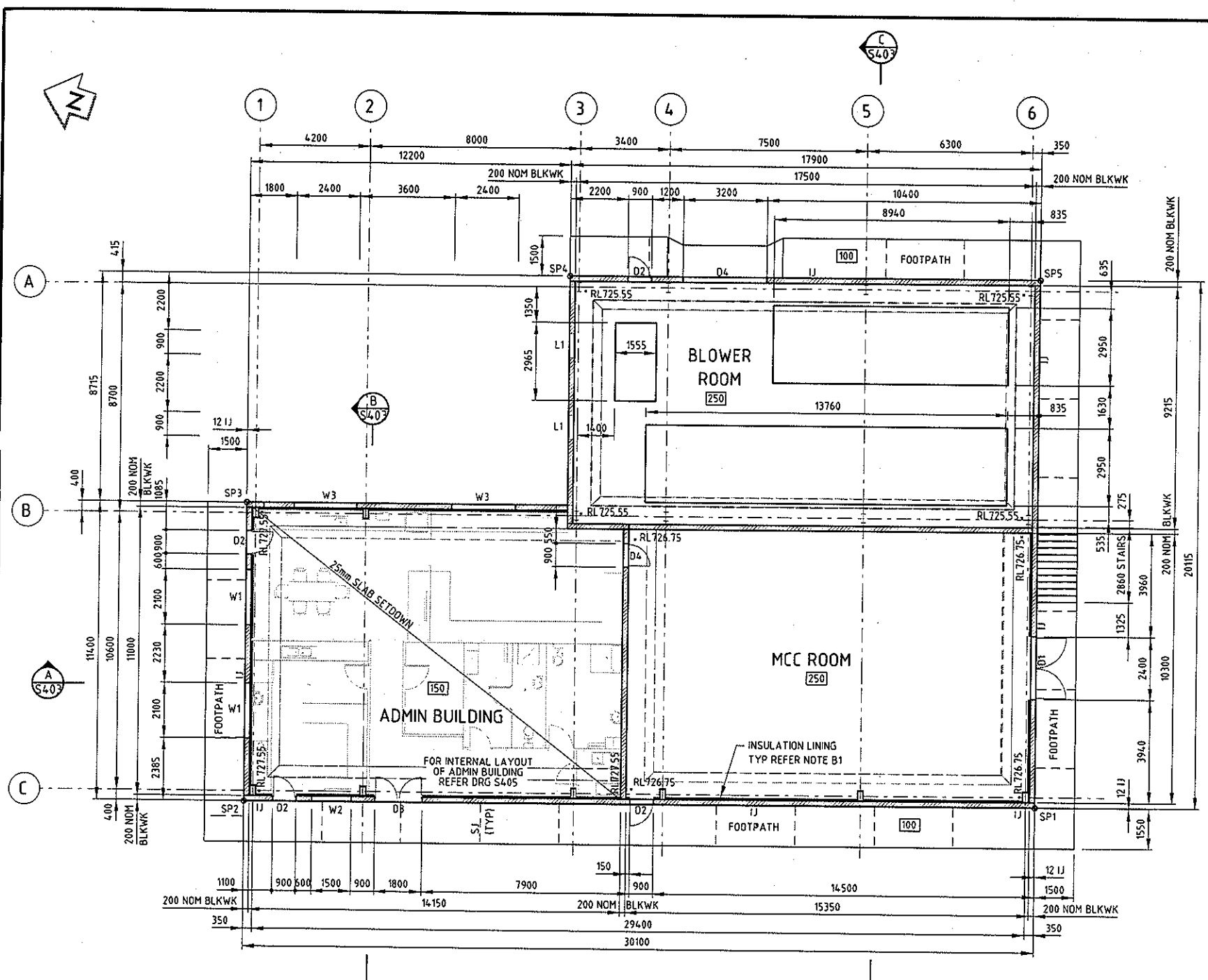
GOOGONG WATER RECYCLING PLANT STAGE AB

BLOWER BUILDING - GENERAL ARRANGEMENT

SECTION SHEET 2

Status Stamp	FOR REVIEW
Date Stamp	11.12.14
Scale	AS SHOWN
Drawing No.	83502156-01-001-G405
Rev.	A

ORIGINAL SIZE A1



FLOOR PLAN
SCALE 1:100

SETOUT POINTS

POINT	EASTING	NORTHING
SP1	703625.582	6078260.140
SP2	703616.032	6078288.685
SP3	703626.843	6078292.302
SP4	703638.979	6078283.496
SP5	703644.657	6078266.522

COLOUR SCHEME

ELEMENT	SPECIFICATION
ROOFING	COLORBOND COLOUR "JASPER"
GUTTERS AND DOWNPIPES	COLORBOND COLOUR "LOFT"
BARGE CAPPING	COLORBOND COLOUR "LOFT"
EXTERNAL BLOCKWORK	COLORBOND COLOUR "ARAVA"
DOOR AND DOOR FRAMES	COLORBOND COLOUR "LOFT"

BCA certifiers

ABN: 58 119 755 734

CONSTRUCTION CERTIFICATE

CC140503-4 15/12/2014

Principal Certifying Authority
Ros Pascoe BPB2220

NOTES

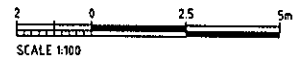
- FOR GENERAL NOTES REFER DRG G003 AND G004
- LIASE WITH PLUMBER TO CONFIRM LOCATION OF ALL SLAB PENETRATIONS PRIOR TO PLACEMENT OF CONCRETE.
- REFER TO STANDARD DRAWING 83502156-01-001-S002 FOR CONCRETE JOINT DETAILS.
- FOR CAST-IN ELECTRICAL CONDUIT DETAILS REFER TO ELECTRICAL SUBCONTRACTORS DRAWINGS. ALL CONDUITS SHALL BE PLACED BENEATH SLAB

BUILDING NOTES

- INSULATION LINING SHALL BE PROVIDED TO THE INTERNAL FACE OF EXTERNAL BLOCKWORK WALLS FOR THE ADMIN BUILDING AND MCC ROOM. INSULATION SHALL BE IN ACCORDANCE WITH AS 4859.1 AND SHALL BE INSTALLED AS REQUIRED BY NSW PART J1 OF BCA 2014. ALL WALLS SHALL ACHIEVE AN INSULATION RATING OF R2.8.
- INSULATION LINING SHALL BE PROVIDED TO THE CEILING AND ROOF IN ADMIN BUILDING AND MCC ROOM. INSULATION SHALL BE IN ACCORDANCE WITH AS 4859.1 AND SHALL BE INSTALLED AS REQUIRED BY NSW PART J1 OF BCA 2014. ROOF AND CEILING SHALL ACHIEVE AN INSULATION RATING OF R3.7.
- GLAZING SHALL BE IN ACCORDANCE WITH PART J2 BCA 2014.
- FACILITIES FOR ENERGY MONITORING SHALL BE PROVIDED IN ACCORDANCE WITH CLAUSE J8.3 OF BCA 2014.
- LIGHTING POWER AND CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH PART J6 OF BCA 2014.
- THE AIR-CONDITIONING AND VENTILATION SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH PART J5 OF BCA 2014.
- ALL DOORS SHALL BE 40mm THICK PLY LINED SOLID CORE DOORS.
- ALL EXTERNAL DOORS SHALL BE WATERPROOF QUALITY.
- MASONRY WALL TIES TO BE INSTALLED IN ACCORDANCE WITH THE GENERAL PROJECT SPECIFICATION.
- ANY PENETRATIONS OR GAPS TO THE EXTERIOR OF THE BUILDING NOT NOMINATED ON THE DRAWINGS SHALL BE SEALED WITH A NON-CORROSIVE MESH WITH APERTURE SIZE OF 2mm OR LESS IN ACCORDANCE WITH AS 1680.2.4
- EACH LOUVRE SHALL BE FITTED WITH A 2mm SQUARE APERTURE 0.5mm NOMINAL WIRE THICKNESS EMBER PROOF WIRE MESH TO THE INTERIOR FACE IN ACCORDANCE WITH AS 3959.
- INSTALL ROOFING BLANKET UNDER SHEETING PRIOR TO FIXING. ROOFING BLANKET SHALL BE SUPPORTED ON WIRE MESH.
- COMPUTER FLOOR SHALL BE DESIGNED FOR 1250kg/ SQ. m UDL AND 4.5kN CONCENTRATED LOAD WITHOUT EXCEEDING A DEFLECTION OF 2mm.

LEGEND

- IJ ISOLATION JOINT
- SJ SHRINKAGE JOINT
- [250] INDICATES SLAB THICKNESS
- INSULATION LINING



REV	DESCRIPTION	AN	ACS	SC	DATE
1	APPROVED FOR CONSTRUCTION				11.12.14

NO.	DESCRIPTION	DATE
SURVEYED		
DESIGNED	Shreya Phadnis	17.09.14
DRAWN	Akshay Naik	17.09.14
CAD REVIEW	Alan Gilbert	11.12.14
DESIGN CHECK	Adam Chan-Sew	11.12.14
DESIGN REVIEW	Adam Chan-Sew	11.12.14
APPROVED	Stephen Chapman	11.12.14

MWH

GOOGONG

GOOGONG WATER RECYCLING PLANT STAGE AB

ADMIN MCC BLOWER BUILDING

GENERAL ARRANGEMENT PLAN

Status Stamp

FOR CONSTRUCTION

Date Stamp

11.12.14

Scales AS SHOWN

Drawing No

83502156-01-001-S400

Rev **1**