

52ST.305



## TENDER FORM

**The Chairman – Tender Opening Committee**

**PNG Power Ltd**

**P. O. Box 1105**

**BOROKO 111 NCD**

**Papua New Guinea**

**Phone: (675) 324 3381**

**Fax: (675) 3250791**

**Email: [supplyhelpdesk@pngpower.com.pg](mailto:supplyhelpdesk@pngpower.com.pg)**

We (Full name of company).....

.....

.....

.....

hereby tender for the undermentioned goods and services subject to the conditions of tendering and at the prices quoted in the scheduled therein

**TENDER No. 55/2019**

**CLOSING AT 4.00 PM FRIDAY 27<sup>TH</sup> SEPTEMBER 2019**

**FOR CONSTRUCTION OF WELDING SHOP BUILDING FOR PNG POWER TRAINING COLLEGE AT SECTION 12, ALLOTMENT 04, HOHOLA, NATIONAL CAPITAL DISTRICT.**



**TENDER NO: 55 / 2019**

**CONSTRUCTION OF WELDING SHOP BUILDING**  
**AT SECTION 12 ALLOTMENT 04 - HOHOLA.**  
**NATIONAL CAPITAL DISTRICT**

*Property Development Team  
Property Group – Finance & Shared Services BU  
P. O. Box 1105, BOROKO 111  
National Capital District*



**TENDER NO: 55 / 2019**

**CONSTRUCTION OF WELDING SHOP BUILDING (PPLTC)**  
**AT SECTION 12 ALLOTMENT 04 – HOHOLA,**  
**NATIONAL CAPITAL DISTRICT**

Prepared By:

A handwritten signature in black ink, appearing to be a stylized name, positioned above the "Prepared By:" label.

Checked By:

A handwritten signature in black ink, appearing to be a stylized name, positioned above the "Checked By:" label.

Date:

30<sup>th</sup> August 2019

**PNG POWER LIMITED**

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**FRONTISPIECE**

**BRIEF DESCRIPTION OF QUOTATION / TENDER**

This Quotation/Tender is purposely for the Construction of a New Welding Shop Building at Section 12 Allotment 04 – Hohola, National Capital District and other associated works required under this contract.

The existing slab and foundation would be used to construct the new welding shop. Refer schedules for works required under Concrete Works.

**PNG POWER LIMITED**

**SECTION 1**

**CONSTRUCTION OF WELDING SHOP BUILDING (PPLTC) AT SECTION 12 ALLOTMENT  
04 – HOHOLA. NATIONAL CAPITAL DISTRICT.**

**(A) INVITATION TO QUOTE / TENDER**

Quotation close with:

PNG Power Limited,  
P. O. Box 1105,  
**BOROKO.**  
Papua New Guinea

At 4:00 pm Friday 27<sup>th</sup> September 2019.

The Quotation Submission shall consist of the following, all duly completed;

- Form of Quotation
- Schedule of Quantities
- GST and Tax Registration Numbers
- Additional information/price offered by the Supplier to aid the evaluation of the Quotation.

Enquiries during the Quotation period shall be addressed to:

PNG Power Limited,  
P. O. Box 1105,  
**BOROKO.**  
Papua New Guinea.

**ATTENTION:** Mr. Ivan Anengo  
Senior Property Development Officer  
Finance & Shared Services Business Unit

Fax: 323 5239  
Telephone: 324 3514  
Email: [ianengo@pngpower.com.pg](mailto:ianengo@pngpower.com.pg)

**(B) FORM OF QUOTATION**

**CONSTRUCTION OF WELDING SHOP BUILDING (PPLTC) AT SECTION 12  
ALLOTMENT 04 – HOHOLA. NATIONAL CAPITAL DISTRICT.**

Companies quoting are required to complete the blank spaces in this Quotation Form and complete the Schedules included.

To: PNG Power Limited  
P. O. Box 1105,  
**BOROKO**, NCD

Gentlemen,

1. Having examined the Drawings, Specification and Schedules for the execution of the above named Works, we, the undersigned, offer to execute and complete the works accordingly for the sum of (words & figures)  
.....  
.....  
.....(K.....)
2. We undertake, if our quotation is accepted, to complete and deliver the whole of the works within ten (10) weeks from the date of receiving your Official Order.
3. We agree to abide by this Quotation for the period of ninety (90) days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before expiration of that period.
4. This Quotation, together with the receipt of your Official Order thereof, shall constitute a binding Contract between us.
5. We understand that you are not bound to accept the lowest or any Quotation you may receive.

Signed and sealed for and on behalf of: )  
..... )  
by ..... ) .....  
the ..... )  
of the said Company herein .....  
authorised in the presence of ) .....  
Address of Company Quoting:.....

(C) **QUOTATION DATA**

**CONSTRUCTION OF WELDING SHOP BUILDING (PPLTC) AT SECTION 12  
ALLOTMENT 04 – HOHOLA. NATIONAL CAPITAL DISTRICT.**

(i) **TENDERER'S ORGANISATION**

1. Name: ..... Nationality: .....
2. Business Address: ..... Fax: .....
- P. O. Box No: ..... Phone: .....
- .....

(ii) **CONTRACT SUPERVISION**

Tenderers shall list their proposed supervisory staff for this Contract. (number and designation only).

(iii) **STATEMENT OF EXPERIENCE**

The Tenderer shall state hereunder facts in detail describing previous experience and achievements in performing similar or comparable works together with the names of authorities for whom, and the dates when, such works was carried out.

**CONSTRUCTION SCHEDULE**

**CONSTRUCTION OF WELDING SHOP BUILDING (PPLTC) AT SECTION 12  
ALLOTMENT 04 – HOHOLA. NATIONAL CAPITAL DISTRICT.**

The Bidder should indicate his proposed program for completing various stages of the work by filling in the schedule below.

ACTIVITY	TIME IN WEEKS									
	1	2	3	4	5	6	7	8	9	10
Mobilisation & Set-Up										
Concrete Works										
Metal Works										
Steel Works										
Carpentry (incl. roof framing)										
Roofing, Plumbing & Drainage Works										
Tiling and Glazing										
Electrical & Fire										
Painting Works										
Clean Up										

**(D) PRICE SCHEDULES**

**CONSTRUCTION OF WELDING SHOP BUILDING (PPLTC) AT SECTION 12  
ALLOTMENT 04 – HOHOLA. NATIONAL CAPITAL DISTRICT.**

**(i) LUMP SUM BREAKDOWN**

1.0	Mobilisation & Site Set Up	K.....
2.0	Concrete Works	K.....
3.0	Concrete Blockworks	K.....
4.0	Metal/Steel Works	K.....
5.0	Carpentry Works (incl. roofing)	K.....
6.0	Roofing, Plumbing & Drainage Works	K.....
7.0	Tiling & Glazing	K.....
8.0	Electrical & Fire Works	K.....
9.0	Painting Works	K.....
10.0	Cleaning Works	K.....
	Sub-total	K.....
	GST	K.....
	<b>TOTAL LUMP SUM</b> (Carried to Form Quotation)	K.....

Name of Contractor: .....

Signature: .....

Date: .....

Witness: .....

## **SECTION 2 TECHNICAL SPECIFICATION**

### Description

### Page No

1. Schedule of Preliminaries
  - 1.1 General
  - 1.2 Standards
  - 1.3 Nature of Contract
  - 1.4 Location of Site
  - 1.5 Description of Work
  - 1.6 Site Inspection
  - 1.7 Possession of Site
  - 1.8 Site Operations
    - 1.8.1 Safety
    - 1.8.2 Site Facilities
  - 1.9 Construction Schedule
  - 1.10 Use of Second Hand Materials
  - 1.11 Setting Out
  - 1.12 Time for Completion
  - 1.13 Liquidated Damages
  - 1.14 Approvals, Fees and Notices
  - 1.15 Cleaning Up
  
2. Job Specifications (Scope of Works)
  - 2.1 Mobilisation and Site Establishment
  - 2.2 Fencing, Drains and Driveway
  - 2.3 Concrete Works
  - 2.4 Steel and Metal Works
  - 2.5 Carpentry (incl. Roofing)
  - 2.6 Electrical, Fire and Plumbing
  - 2.7 Tiling and Glazing
  - 2.8 Painting
  - 2.9 Cleaning Up

**(A) JOB SPECIFICATION**

**1. SCHEDULE OF PRELIMINARIES**

**1.1 GENERAL**

The Contractor shall carry out the works as detailed and or inferred in the Technical Specification comprising of Trade Schedules and Drawings which takes precedence over the Standard Specification, Part (B).

**1.2 STANDARDS**

All works shall be carried out to the accepted standard trade practices, Local Authority Regulations and the relevant PNG and Australian Standards.

**1.3 NATURE OF CONTRACT**

The contract will be Fixed Price Lump Sum Contract. Approved variations shall be paid for at the applicable rates listed in the Schedule of Rates for Variations.

**1.4 LOCATION OF SITE**

The work site is located at Section 12 Allotment 04 within the vicinity of PNG Power Training College Workshop Area – Hohola, National Capital District.

**1.5 DESCRIPTION OF WORK**

All works covered in this contract is as stipulated within the scope of works. It basically requires concrete masonry, carpentry, metal and steel works, electrical and painting.

**1.6 SITE INSPECTION**

The Contractor shall inspect the site prior to lodging his Tender and satisfy himself with the nature of the site, PNG Power Ltd will not be liable if conditions proved otherwise climatic conditions and services relevant to the contract.

**1.7 POSSESSION OF SITE**

Possession of Site shall be on the date stated in the Letter of Acceptance to the successful tenderer.

The Contractor shall be given such possession of the site as is considered necessary to carry out these works, but such possession shall not be deemed to mean exclusive possession.

**1.8 SITE OPERATIONS**

**1.8.1 Safety**

All matters and conditions regarding safety, health and welfare of persons working on site shall be the responsibility of the Contractor.

**1.8.2 Site Facilities**

The Contractor shall arrange for and meet all the costs associated with the provisions of his electricity, telephone, water ablution facilities, temporary buildings for his workmen including site security.

**1.9 CONSTRUCTION SCHEDULE**

The Contractor shall provide a detailed construction schedule expanding on the Tender Construction Schedule within seven (7) days of acceptance of contract.

**1.10 USE OF SECOND HAND MATERIALS**

No second hand materials shall be used unless indicated in the specification or shown on the drawing or until they have been inspected and approved by the Superintendent. Any materials reused shall be finished to "as new" condition.

**1.11 SETTING OUT**

The works shall be located where indicated on the drawings, however, the accurate setting out and adherence to details of levels and squareness of the building will be the sole responsibility of the Contractor.

**1.12 TIME FOR COMPLETION**

The works shall be Practically Completed within Ten (10) weeks from the date of Possession of Site given in PNG Power's Letter of Acceptance.

**1.15 CLEANING UP**

Upon completion of the works, the contractor shall leave the work areas clean and clear of rubbish, excavated material and access material which is of no use to PNG Power. All rubbish shall be dumped at the local authority's official garbage dump and not at or around the work site.

## **2.0 DESCRIPTION OF WORKS**

### **2.1 MOBILISATION & SITE SET-UP**

- 2.1.1 The Contractor shall organise and mobilise on site upon PPL instruction or upon receiving of PPL Official Purchase Order.
- 2.1.2 The contractor shall arrange for temporary services on site including site access, telephone, power and sewerage for use by its workers.
- 2.1.3 The Contractor shall arrange for storage spaces on site to store materials, tools and other plant and equipments.
- 2.1.4 The Contractor shall also arrange for Security on site to safe-guard building materials, plants and equipments where necessary.

### **2.2 EXCAVATION, DEMOLITION AND DRAINAGE**

- 2.2.1 The existing ground level around the perimeter of the building shall be excavated and levelled properly. Backfill any area that is low with proper soil or road base materials. Refer slab level line on site.
- 2.2.2 Locate underground services and foundations before any excavation work commences. Make good at no extra cost damages to existing services.
- 2.2.3 Demolition of existing part of buildings and shall be confirmed by PNG Power inspector and carried out under this contract as agreed upon. Any obstruction (ie; stonewall, trees, stumps etc) shall also be cleared properly to make way for construction.
- 2.2.4 Contractor shall make good existing stone pitched drains with proper fall or gradient.
- 2.2.5 All drain wastes to connect to proper main drain system.

### **2.3 CONCRETE WORKS**

- 2.3.1 All concrete shall have a minimum strength of 20 MPa.
- 2.3.2 All concrete mixing shall be by mechanically driven revolving drum. Hand mixing is not permitted unless approved by the Superintendent. Minimum mixing proportions shall be 3:2:1 with a maximum slump of 80mm.
- 2.3.3 All footings, slabs, reinforcing, formwork etc. shall be inspected by the Superintendent before commencement of mixing and placing of concrete.
- 2.3.4 For all slab construction, supply and lay fortecon membrane to underside of slab, lapped 150mm and taped at joints.
- 2.3.5 Construct slab of 75mm thick and lay F72 mesh on the entire floor area.
- 2.3.6 Any existing cracked concrete foot path shall be removed and replaced with new slab construction to match existing.

2.3.7 Cracked or broken existing stone walls for drains shall be made good or repaired as indicated on drawings.

## 2.4 **BLOCK AND MASONRY WORKS**

All works under this category shall be undertaken by the experienced Bricklayer and comply with all relevant codes of this specifications.

### 2.4.1 Blocks

All blocks shall be Class A blocks Monier or equal approved – with a minimum strength of 12MPa.

### 2.4.2 Standard 400x200 Blocks

Lay stretcher bond, reinforced and core filled as detailed. Refer Drawing No: M11894-08.

### 2.4.3 Beams

At every second course where horizontal reinforcement is required all round, lay knock out beam blocks and core fill. Also lay and reinforce above all openings.

### 2.4.4 Reinforcements

Provide and place all bars (S12) and ties (R10) in blockwork as detailed. Horizontal at every second coarse all round.

### 2.4.5 Conduits

For electrical wiring the contractor will provide 25 dia. Conduits for embedding as instructed on site. Draw wires shall be left in the conduit runs.

### 2.4.6 Laying

All blocks shall be laid in stretcher bond to meet acceptable standards.

### 2.4.7 Corefill

All cores whether reinforced or not shall be core-filled.

### 2.4.8 Jointing

Joints in blockwork shall be "iron" jointed all through-out.

### 2.4.9 Chasing

Chasing of blockwork is not permitted. Pipework, conduits etc. shall be built in and concealed in blockwalls.

### 2.4.10 Cleaning

Clean down all blockwork as work progresses to ensure total removal of motar droppings and smears.

## **2.5 METAL WORKS**

All works under this section shall be done with as per relevant building codes and practices.

- 2.5.1 Supply and installed new 80mm NB galvanised pipe balustrades and hand rails firmly fixed to the concrete apron floor.
- 2.5.2 Supply and installed new roofing sheets as listed under Roofing Section with proper fastenings.
- 2.5.3 Supply and install all required louvre frames. Louvre blade shall be 6mm glass blades or metal accepted as approved.

## **2.6 STEEL WORKS**

### **2.6.1 Steel Truss System**

Supply and fabricate the steel trusses as shown on the drawings.

- 2.6.2 All steel member sizes are as shown on the drawing schedule.
- 2.6.3 All fasteners/bolts for fixing the steel members and the steel truss are also shown n the drawing.
- 2.6.4 All security doors shall be fabricated as per the detail drawings shown.
- 2.6.5 Supply and fabricate all security grill mesh for the windows as shown on the drawings.
- 2.6.6 All steel products shall be obtained from an approved manufacturer.
- 2.6.7 All weldings and fabrication shall be done by a Licensed Welder.

## **2.7 CARPENTRY**

### **2.7.1 Barge and Fascia Board**

Supply and fix new fascia and barge boards. The size shall be 200x32mm and fascia boards shall be securely fixed at the end of 6mm plates with 10mm bolts.

The contractor shall ensure to apply wood primer to exposed timber board surfaces prior to fixing.

### **2.7.2 Door Jambs and Window Frames**

The contractor shall supply and install door and window frames as shown on the drawings.

## **2.8 JOINERY AND HARDWARE**

### **2.8.1 Doors**

Supply and install new solid core doors as shown on the drawings.

### 2.8.2 Door Locks/Stoppers

- a. Provide new Tubular Dead bolts, 777 series with 56x100mm x 75mm "D" handle fixed on both sides of the doors.
- b. Provide magnetic door stoppers to all doors where appropriate.

### 2.8.3 Hinges and Catches

Supply and install new 100mm butt steel hinges. Mark out for fitting of the butt steel hinges shall be 150mm from the top of the door and 200mm up from the bottom edge of the door

### 2.8.4 Work Bench

- a. All work bench to be constructed as shown on the drawing.
- c. Bench tops shall covered 2mm thick laminex glued with contact adhesives.

## 2.9 ROOFING WORKS

All roofing works to be carried out according to Manufacturers relevant codes and practices.

### 2.9.1 Roofing Sheets

Roofing shall be corrugated zincaluminum bond custom orb neatly fixed on to the purlins/battens.

### 2.9.2 Overhangs

Overhang length shall be 900mm minimum as shown on drawings.

### 2.9.3 Roof Fasteners

60mm long tek screws shall be used as roof fasteners and the contractor shall use three(3) number of tek screws on roof sheets and securely fastened as per roof battens.

### 2.9.4 Sisalation

Supply and install 1.2m wide double sided insulation paper and allow 150mm lap over on each joints.

### 2.9.5 Gutter

- a. Supply and install new sheerline gutter and shall be fixed the full length of both sides of the existing building.
- b. The contractor shall allow a fall starting from the centre of the length of the building and runs towards the two ends of the building.

### 2.9.6 Gutter Brackets

An appropriate trim line gutter brackets shall be used prior to fixing of the gutter. The gutter brackets shall be fixed at 1.0 meter spacing with an appropriate fixer or fasteners.

### 2.9.7 Down Pipes

Down pipes shall be 100 diameter PVC and shall be filtered tightly where the drops are. All joints shall be neatly fitted to avoid appearing of gaps.

### 2.9.8 Flashings

An appropriate metal flashing shall be provided at the edges of the roofing and securely fasten with appropriate fasteners on to the Barge Board. Ensure to seal off screw heads properly with approved sealant.

## 2.10 PLUMBING WORKS

### 2.10.1 General

All plumbing shall be carried out by competent Tradesmen who hold current Sanitary Plumbers licences issued by the authorised Public Health Authority.

### 2.10.2 Cold Water Supply

Provide and maintain cold water supply to the following fittings:-  
- hand basin

### 2.10.3 Traps and Wastes

Supply and provide 50mm dia. uPVC to hand basin and laundry trough.

## 2.11 FIRE AND ELECTRICAL

All electrical works to be undertaken by a Licensed Electrician according to the relevant codes and practices. All materials shall be of the best quality and workmanship shall be accordingly to the best trade practice of the workmanship in accordance with the PNG Power requirement.

### 2.11.1 Fire

#### a. Standards and Workmanship

Comply with all relevant Fire Authority rules, codes and requirements.

b. Provide and install portable fire extinguisher of the types and capacities shown below. Install fixings, brackets and position indicating signs and labels for each extinguisher.

- c. Provide extinguisher as;

Type 1 4.5kg Dry Chemical Powder (DCP)

Locations of the extinguishers are shown on drawing.

#### 2.11.2 Electrical

- a. Standards and Workmanship

Comply with all the relevant PNG Power Limited rules, codes and requirements.

- b. Distribution Board

The contractor shall supply and install new distribution board for the new building as shown on plan M11894-06.

- c. Wiring

All wiring shall be concealed inside the ceiling and in conduits embedded in the block walls.

- d. Power Outlets / 3 Phase Outlets

Supply and install as shown on the Electrical Drawing M11894-06 where necessary.

A 3 phase supply is required for this building as it will contain number of heavy duty welding machines.

- e. Light Switch

Supply and install light switches as shown on the Electrical plans M11894-06. Switches shall be mounted 1.2m above floor level.

- f. Lights and Fittings

Supply and install light tubes and fittings as shown on the Electrical plan – M11894-06.

- g. Daylight Switch

Provide and install a daylight switch as shown on drawing – M11894-06.

## 2.12 PAINTING SPECIFICATION

### 2.12.1 Quality of Materials

The contractor shall supply all painting materials and store them neatly in an appropriate area free from dust, moisture or anything that may have an immediate effect on painting materials.

All materials used for this painting work shall be of higher grade. No second grade materials shall be used, if the

contractor shall or may want to use second graded materials,  
the contractor must seek Inspector's approval.

2.12.2 Brand

The contractor shall supply materials such as, undercoat, turps, final coat etc, from the same Manufacturer. Mixtures of painting materials from different brand of manufactures shall not be allowed.

2.12.3 Wash down

All painting surfaces shall be thoroughly washed down with approved detergent or sugar soap prior to commencement of any painting work. The contractor shall seek approval from PNG Power supervisor after thorough wash down all surfaces before commencing of painting work.

2.12.4 Drop Sheet

A drop sheet shall be used by the Contractor during the course of the painting work to protect the floor of the building.

2.12.5 Under Coats

A water base Acrylic under coat or similar approved type under coat that can quickly settled and dried shall be used. The Contractor shall apply one (1) coat on old surfaces. 2 coats of under coats on new surfaces.

2.12.6 Putty

The contractor shall use sparkfilla and polyfilla or similar approved putty to fill holes, gaps or any uneven surfaces. Puttied areas shall be left for a day before any sanding is carried out. This putting work shall be carried out after painting of first coat of under coat.

2.12.7 Final Coat

After completion of the sanding work to all painting surfaces, the contractor shall carry out the painting of the final two (2) coats. Colours shall be preferred by the PNG Power Supervisor.

2.12.8 Turpentine

The Contractor shall only use turpentine to wash paintbrushes or to soften paint so that paints are flexible and easy to use. Kerosene shall not be used when carrying out the painting work.

2.12.9 Scaffolding

The Contractor's responsibility to provide necessary scaffolds and securely fixed to avoid accidents. PNG Power shall not be responsible for any accident created due to negligence.

2.12.10 Painting and Finishes

- a. The contractor shall use Taubmans paints only when carrying painting works.
- b. Do not apply under coat without the approval of the PNG Power Inspector.
- c. All existing paint surface shall be cleaned and washed down properly with sugar soap or detergents prior to applying of any under coat.
- d. Apply masonry filler under coat for all masonry surfaces prior to painting of final coats.
- e. All rusted metal surface shall be cleaned and scrape off properly before applying of metal primer.
- f. Colours scheme shall be provided by PNG Power Inspector.
- g. New surfaces shall have 2 coats of under before applying of 2 final coats.

**Note: The concrete floor area will be finished with paints. Paint colour type to be confirmed and contractor to be advised.**

2.13 CLEANING UP

Upon completion of the works, the contractor shall leave the work areas clean and clear of rubbish and excess material which is of no use to PNG Power Ltd.

All rubbish shall be dumped at the Local Authority's official dump site and not at or around the work site.

\*\*\*\*\*END OF SCOPE\*\*\*\*\*

(J) **LIST OF DRAWINGS**

The Contractor shall undertake the works for Tender in accordance with the Drawings listed below and as appended. The drawings form part of the Contract Documents and all notes on the drawings are considered to be part of the drawings and the Contract. If the drawings conflict with any other part of the Contract Documents, the drawings will take precedence.

<b>Drawing Ref. No.</b>	<b>Drawing Title</b>	<b>Date of Issue</b>
<b>M11894</b>	<b>Construction of Welding Shop Building (PPLTC) at Section 12 Allotment 04 – Hohola. National Capital District</b>	<b>Nov 2016</b>
Sheet 00		
Sheet 01 of 09	Cover Sheet, Drawing Index	
Sheet 02 of 09	Site Locality / Site Plans & Details	
Sheet 03 of 09	Floor Plan & Details	
Sheet 04 of 09	Elevation 01 & 02	
Sheet 05 of 09	Elevation 03 & 04	
Sheet 06 of 09	Roof Framing & Layout / Truss Details	
Sheet 07 of 09	Electrical Layout – Ground & Top Floor	
Sheet 08 of 09	Cross Section & Details	
Sheet 09 of 09	Blockwork Details Window/Door Schedules & Details	



# PNG POWER Ltd

P. O. Box 1105, BOROKE. NCD, Papua New Guinea.

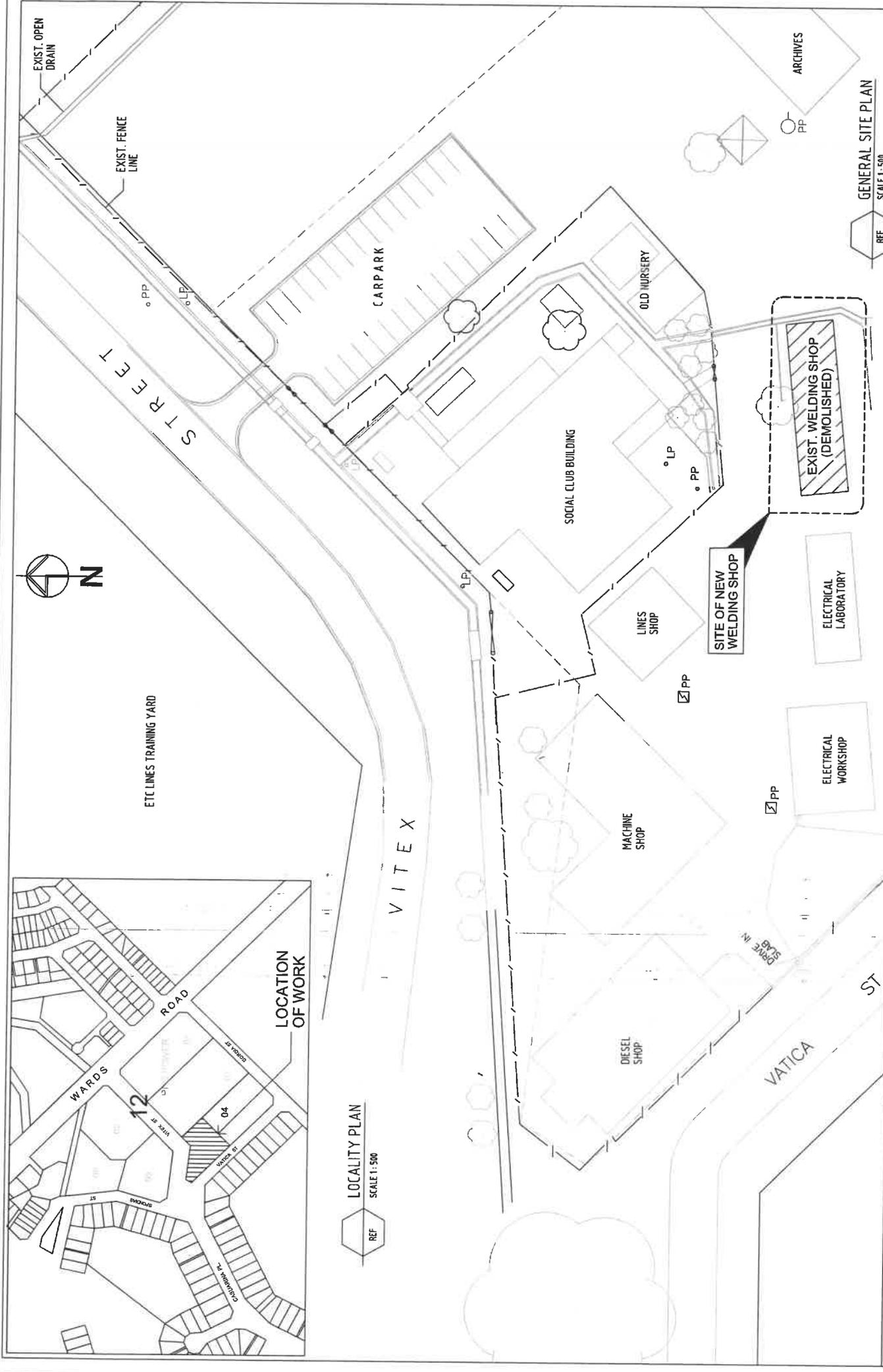
## CONSTRUCTION OF ETC WELDING SHOP AT SECTION 12 ALLOTMENT 04, HOHOLA. NCD

### NEW WELDING SHOP BUILDING

#### ARCHITECTURAL DRAWINGS

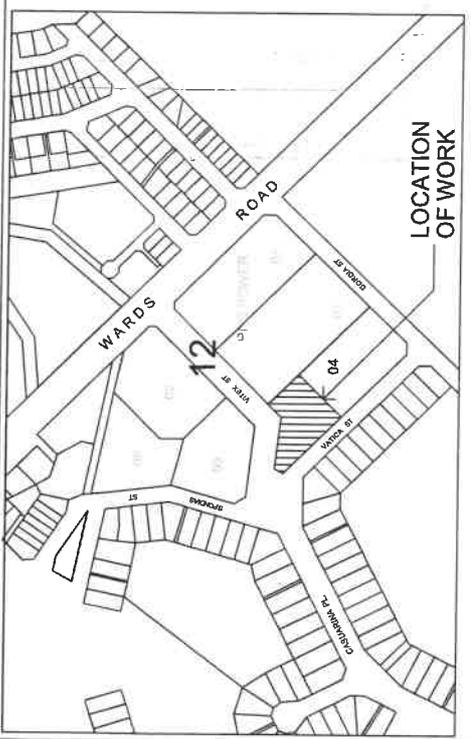
- M 11894-00 COVER / DRAWING INDEX
- M 11894-01 SITE LOCALITY/SITE PLAN & DETAILS
- M 11894-02 FLOOR PLAN & DETAILS
- M 11894-03 ELEVATIONS 01 & 02
- M 11894-04 ELEVATIONS 03 & 04
- M 11894-05 ROOF FRAMING & LAYOUT / TRUSS DETAILS
- M 11894-06 ELECTRICAL & FIRE LAYOUT
- M 11894-07 CROSS SECTION & DETAILS
- M 11894-08 BLOCKWORK DETAILS
- M 11894-09 WINDOW / DOOR SCHEDULE & DETAILS

M-11894-00



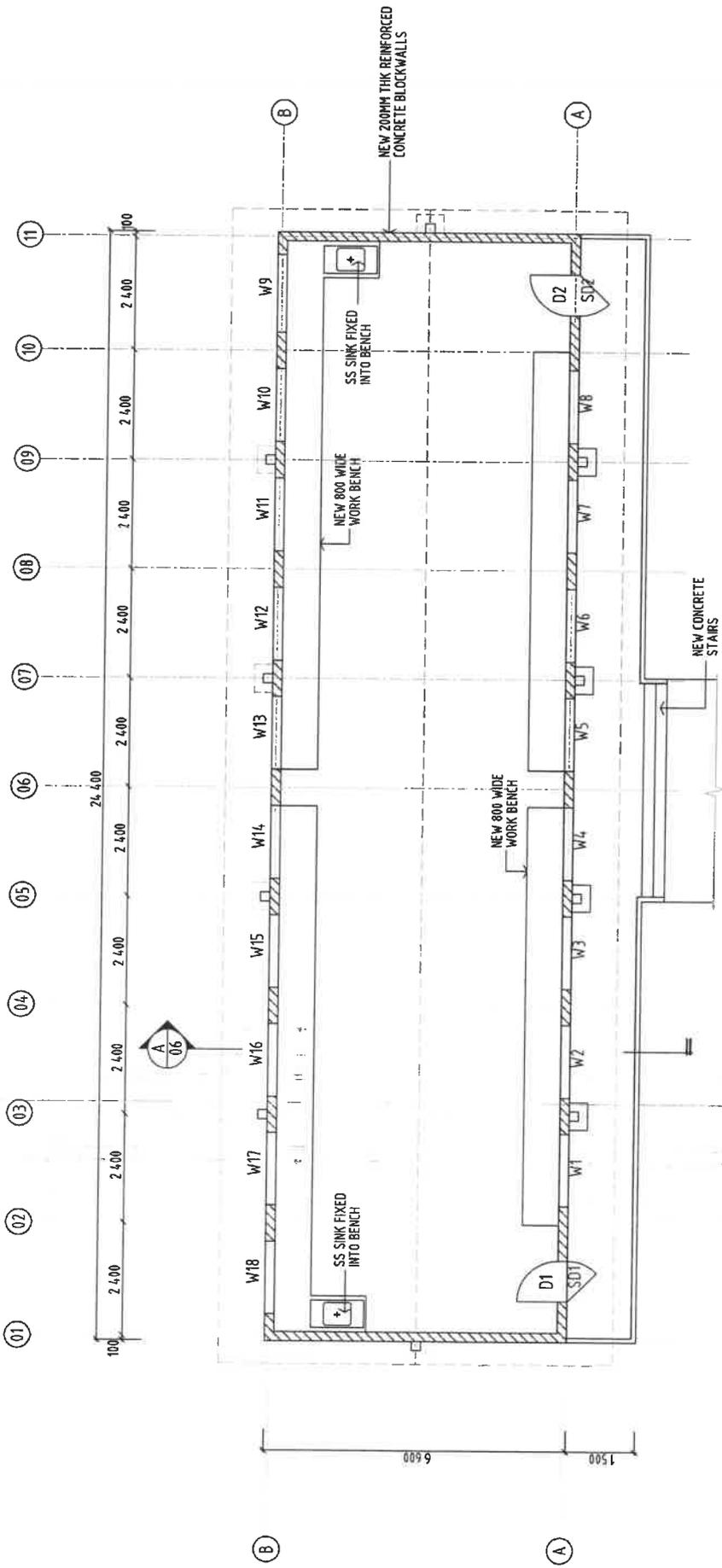
GENERAL SITE PLAN  
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LOCALITY PLAN  
SCALE 1:500

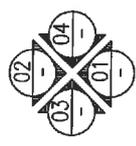


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Endorsed		Revision
Approved		
PNG POWER LTD - HOHOLA, NCD CONSTRUCTION OF NEW PPLTC WELDING SHOP SITE LOCALITY & SITE LAYOUT M 11894		
REF SCALE 1:500		
REF		
SHEET 01 OF 09		


**PNG POWER LTD**  
 P. O. Box 1105, BOROBUKO 111, NCD, Papua New Guinea.  
 Telephone: (675) 324 3200  
 Facsimile: (675) 325 0072  
 Website: www.pngpower.com.pg



ELEVATION LEGEND

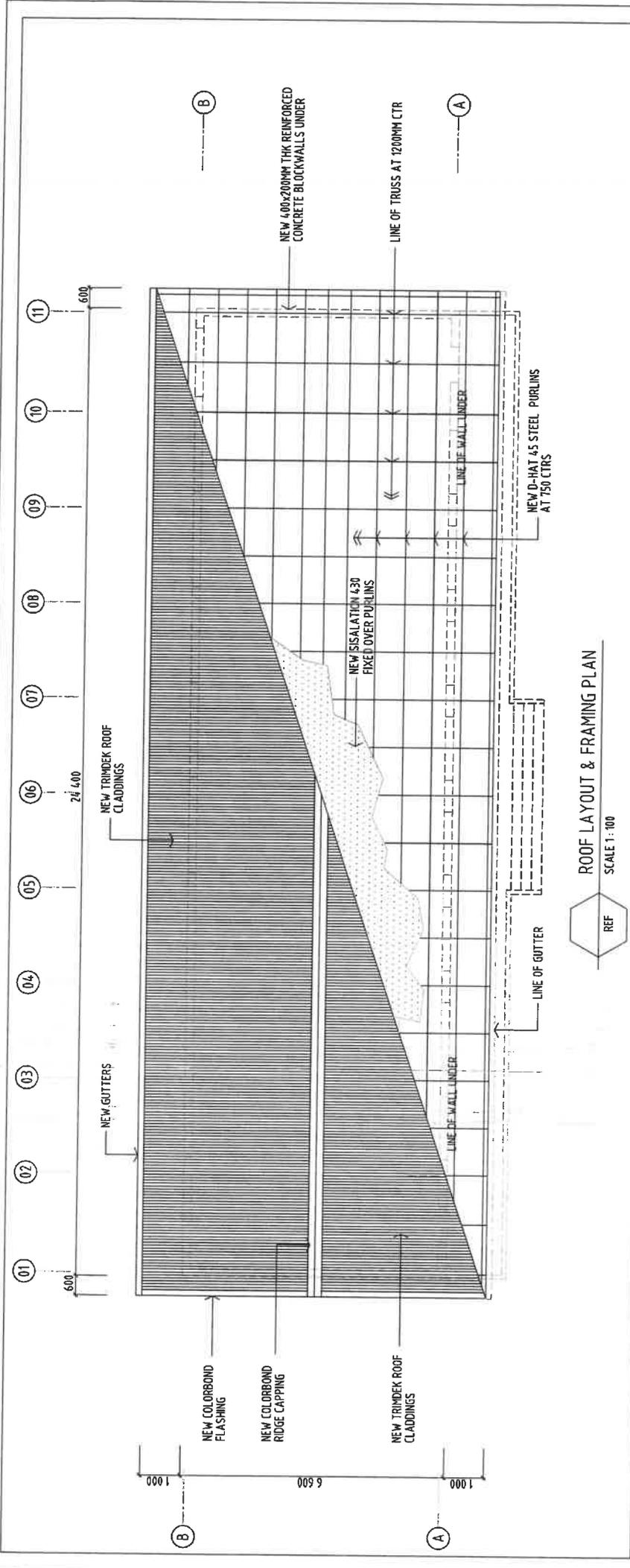


PROPOSED FLOOR PLAN  
SCALE 1: 100

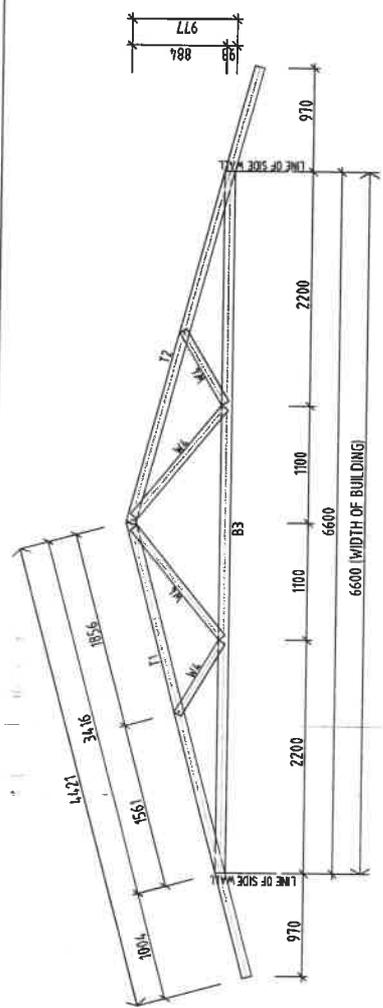
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CAD Filename: weldshop-02.dwg		Date Plotted: 22.10.15		Scale: 1: 100		Time Plotted: 10:40am		P. O. Box 1105, BOROKO 111, HCD, Papua New Guinea. Telephone: (675) 324 3200 Facsimile: (675) 325 0072 Website: www.pngpower.com.pg	
PNG Power Ltd		Location: PNG POWER LTD - HOHOLA, NCD		Title: CONSTRUCTION OF PPLTC WELDING SHOP		Number: M 11894		Sheet: 02 OF 09	
Drawn:		30/11/16		Title:		Number:		Revision:	
Designed:		Checked:		Endorsed:		Approved:		Location:	







ROOF LAYOUT & FRAMING PLAN  
SCALE 1:100



STEEL TRUSS SECTION  
SCALE 1:50

TRUSS MEMBERS

NAME	CODE	QTY	LENGTH
T1	U9012	1	4421
T2	U9012	1	4421
B3	U9012	1	6600
W4	C7506	1	755
W5	C7506	1	1247
W6	C7506	1	1247
W7	C7506	1	755

THIS TRUSS DRAWING ADAPTED FROM ATLAS STEEL DRWG FILE: PNGR1TP-0912016

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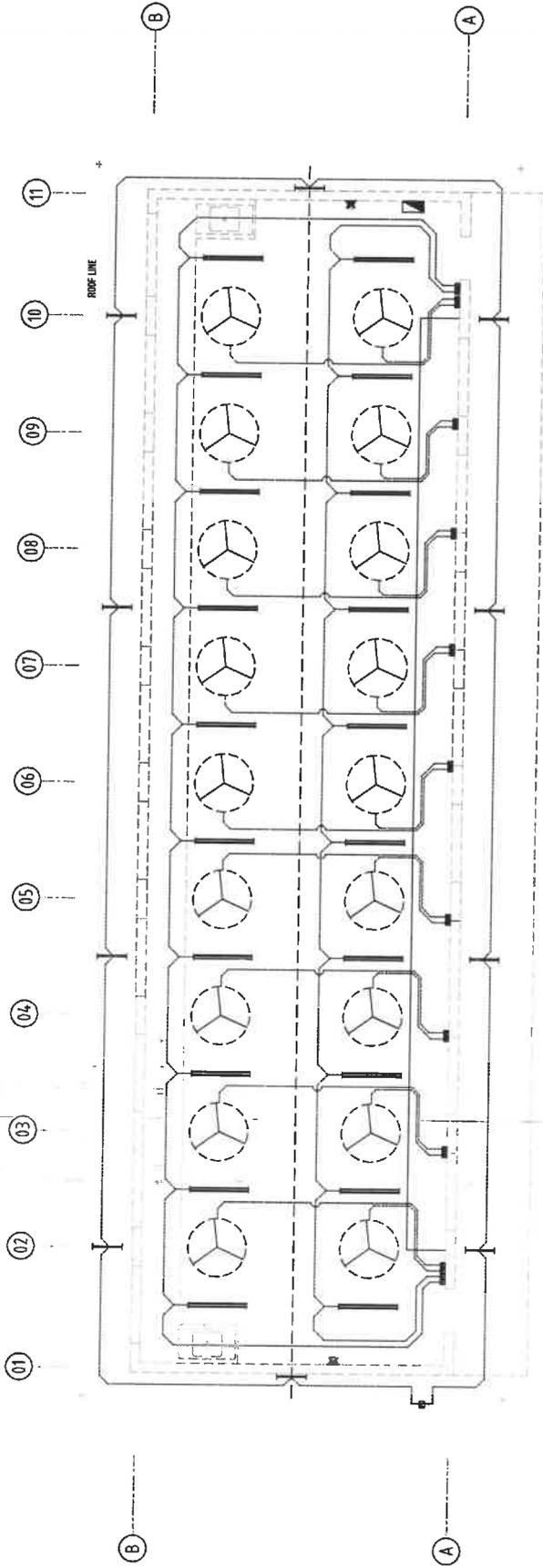
Rev.	Revised	By	Chkd	Date

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Location	Title	Number	Revision
00716	A3	M 11894	

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CONSTRUCTION OF PPLTC WELDING SHOP  
ROOF FRAMING & LAYOUT / TRUSS DETAILS



REF ELECTRICAL LAYOUT SCALE 1:100

**ELECTRICAL LEGEND**

	DISTRIBUTION BOARD
	1/36W FLOURESCENT BARE TUBE BATTEN
	1/18W FLOURESCENT BARE TUBE BATTEN
	FIRE EXTINGUISHER
	NEW SINGLE POWER OUTLET
	DOUBLE POWER OUTLET
	LIGHT SWITCH
	METERFUSE BOX
	PHOTO ELECTRIC DAYLIGHT SWITCH
	FAN REGULATOR
	36" ELECTRIC FAN
	3 PHASE SUPPLY

**DRAINAGE LEGEND**

HB	HAND BASIN
IO	INSPECTION OPENING
SVP	SOIL VENT PIPE
RWDP	RAINWATER DOWNPIPE

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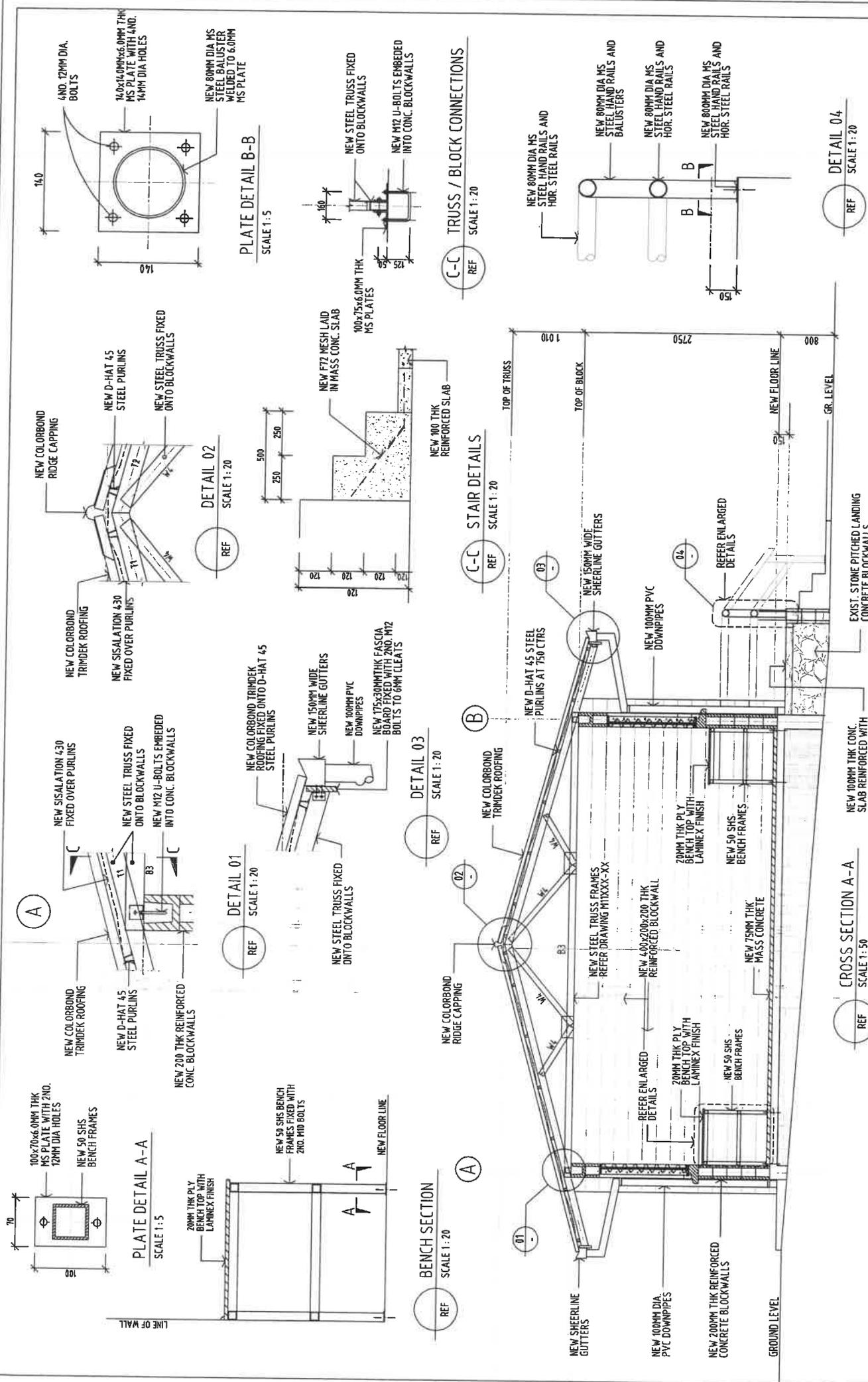
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Rev.	By	Chkd	Date	Revision

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Designed	u	
Checked	u	
Endorsed	u	
Approved	u	

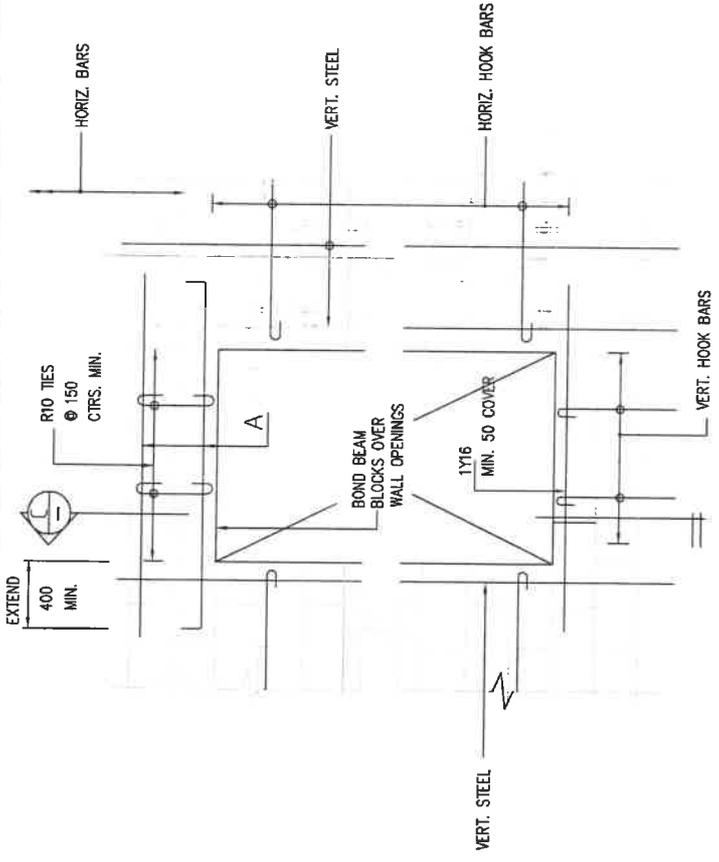
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Title	CONSTRUCTION OF NEW PPLTC WELDING SHOP		
Number	A3		
Revision	M 11894		



PNG POWER LTD - HOHOLA, NCD CONSTRUCTION OF NEW PPLTC WELDING SHOP CROSS SECTION & DETAILS		Drawn: [ ] Designed: [ ] Checked: [ ] Endorsed: [ ] Approved: [ ]	Location: [ ] Title: [ ] Number: [ ] Revision: [ ]
P. O. Box 1105, BOROBU 111, NCD, Papua New Guinea. Telephone: (675) 324 3200 Facsimile: (675) 325 0072 Website: www.pngpower.com.pg		M 11894 Sheet 07 OF 09	

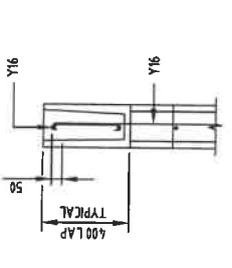
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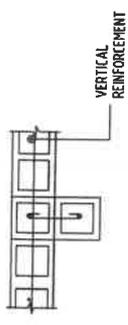


TYPICAL BLOCKWALL OPENING DETAIL, U.N.O.

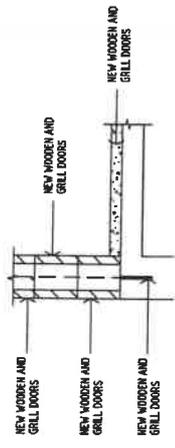
A = 1 Y12 T & B FOR OPENING WIDTH < 1 000, BOND BEAM DEPTH = 200 Min.  
 1 Y16 T & B FOR OPENING WIDTH < 3 000, BOND BEAM DEPTH = 400 Min.



TYPICAL DETAIL AT TOP OF WALLS  
 SCALE 1:20



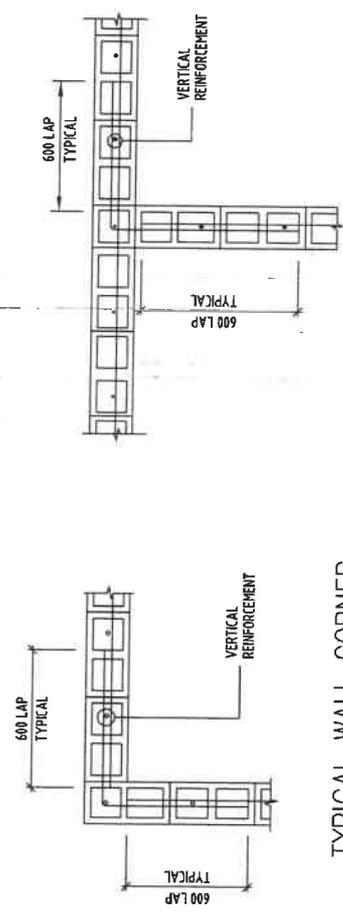
TYPICAL PIER DETAIL



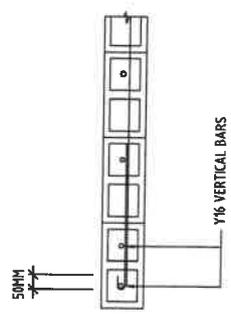
TYPICAL CONNECTION OF NEW WALL TO EXISTING SLAB



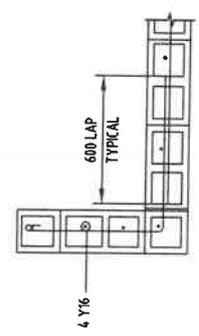
SECTION C  
 SCALE 1:20



TYPICAL WALL CORNER DETAIL



TYPICAL DETAIL AT WALL ENDS AND SIDES OF OPENINGS.



TYPICAL WALL CORNER AND WALL END DETAIL.

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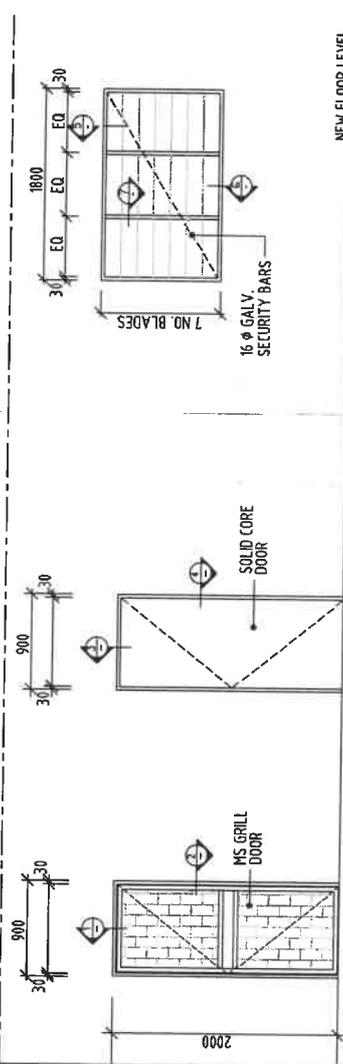
Rev.	By	Check	Date

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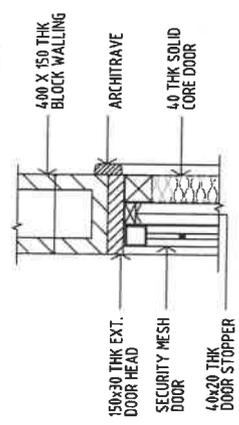
Drawn	Checked	Endorsed	Approved	Location	Title	Number	Revision
				COR'16	A3	M 11894	

PNG POWER LTD - HOHOLA, NCD  
 CONSTRUCTION OF NEW PPLTC WELDING SHOP  
 BLOCKWALL CONNECTION & DETAILS

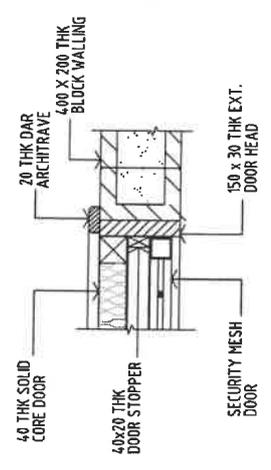
Sheet: 08 OF 09



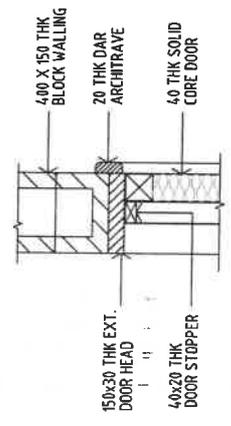
DOOR / WINDOW SCHEDULES/ DETAILS  
SCALE 1:50



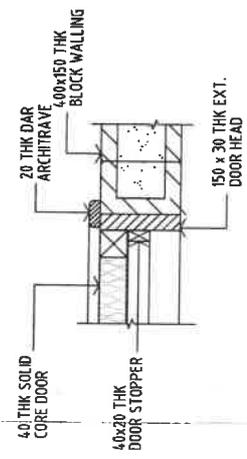
DETAIL 01 - (OPTIONAL)  
SCALE 1:10



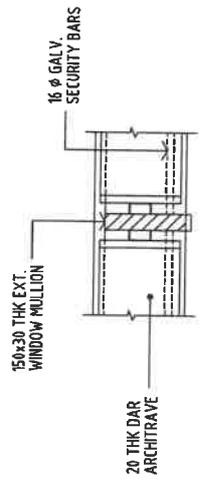
DETAIL 02 - (OPTIONAL)  
SCALE 1:10



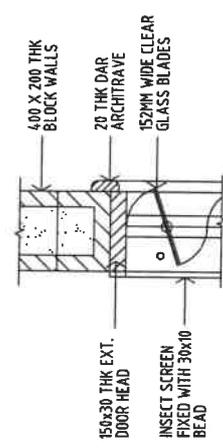
DETAIL 01  
SCALE 1:10



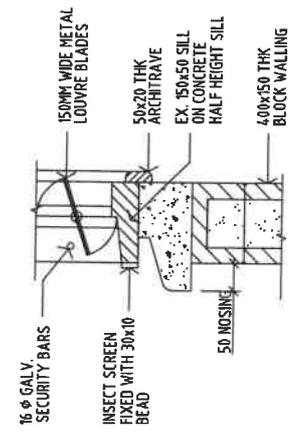
DETAIL 02  
SCALE 1:10



DETAIL 07  
SCALE 1:10



DETAIL 05  
SCALE 1:10



DETAIL 06  
SCALE 1:10

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Rev.	Revision	By	Chkd	Date

Location	Title	Number	Revision
CCT16	A3		

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PNP POWER LTD - HOHOLA, NCD  
CONSTRUCTION OF NEW PPLTC WELDING SHOP  
WINDOWS & DOORS - DETAILS & SCHEDULES  
M 11894  
Sheet 09 OF 09