



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

Ref: PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16)

Date 05/07/2021

**NOTICE INVITING TENDER**

**NOTE: INTENDING BIDDER TO PARTICIPATE MAY DOWNLOAD FROM WEB SITES**

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-1) through **NIC E-Procurement Portal** <https://eprocurebhel.co.in> only, for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Issue/ forwarding intimation regarding tender to any bidder shall not construe that the bidder is considered to be qualified. Following points relevant to the tender may please be noted and complied with.

**1.0 Salient Features of NIT**

SL NO	ISSUE	DESCRIPTION	
i	TENDER NUMBER	PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) Date 05/07/2021	
ii	Broad Scope of job	SUPPLY OF TRANSLUCENT POLYCARBONATE CLADDING SHEET FOR CHP-AHP , COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH	
iii	DETAILS OF TENDER DOCUMENT		
a	Volume-IA	General conditions of contract (Supply)	Applicable.
B	Volume-IB	General conditions of contract (Service)	Not Applicable.
C	Volume-IC & ID	Special conditions of contract (Supply & Service- Common)	Not Applicable.
D	Volume-IC	Special conditions of contract (Supply)	Applicable.
E	Volume-ID	Special conditions of contract (Service)	Not Applicable.
F	Volume-IE	Forms & Procedures	Applicable.
H	Volume-IF	Technical Specification	Applicable.
I	Volume-III	Price Schedule (Absolute value) – Rev-0	Applicable.
iv	ISSUE OF TENDER DOCUMENTS	a) Online through e-procurement platform at <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> b) In BHEL website ( <a href="http://www.bhel.com">www.bhel.com</a> & <a href="#">CPP Portal</a> ): For tender view purpose only. <i>Start date of the tender : 05/07/2021</i>	a) Applicable b) Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	<i>Date: 15/07/2021 , Time: 14:00 Hrs. IST</i> <i>(Offer to be submitted online only through e-procurement platform at <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a>)</i>	Applicable.

vi	TECHNO COMMERCIAL OPENING OF TENDER	<i>Date: 15/07/2021, Time: 16:30 Hrs. IST</i> <i>(online only through e-procurement platform at <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a>, participating bidders may witness the same online only)</i>	<i>Applicable.</i>
vii	EMD AMOUNT	<i>Not Applicable</i>	<i>Not Applicable</i>
viii	COST OF TENDER	<i>Not Applicable</i>	<i>Not Applicable</i>
ix	LAST DATE FOR SEEKING CLARIFICATION	<i>Date: 12/07/2021, Time: 16:30 Hrs. IST</i>	<i>Applicable.</i>
x	SCHEDULE OF PRE BID DISCUSSION (PBD)	<i>Will be intimated later if required.</i>	<i>Not Applicable</i>
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	<i>IP SHALL BE APPLICABLE .</i>  <i>IEM DETAILS:</i>  <i>Refer Relevant Clause below</i>	<i>Applicable</i>
xii	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage ( <a href="http://www.bhel.com">www.bhel.com</a> ) ; CPP portal & E-Procurement Site <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> only. Bidders to keep themselves updated with all such information.	<i>Shall be intimated to bidder</i>
XII	Evaluation currency	<b><u>United States dollar (USD)</u></b>	<i>Applicable</i>

2.0 The offer shall be submitted as per the instructions of tender document. Only One set of tender document (**in original, downloaded from website**) signed by authorised company rep. of bidder and stamped on each page shall be submitted as detailed further, as given below. Bidders to note specifically that all pages of tender document, including these NIT pages etc. appearing in the website for this particular tender shall be submitted by them (after signing/stamping on each page) as a part of their offer. **Price shall not be mentioned by them anywhere in the techno-commercial portion of offer. Price shall be mentioned in the relevant price schedule only and to be submitted in e-procurement portal/platform in the form and manner mentioned in tender.**

**For E-PROCUREMENT ASSISTANCE & TRAINING, NIC PORTAL HELPDESK CONTACTS AS PER FOLLOWING: -**

For any technical related queries please call at 24 x 7 Help Desk Number  
0120-4001 002

0120-4200 462

0120-4001 005

0120-6277 787

Email Support

Address: A) For any Issues or Clarifications relating to the published tenders, bidders are requested to contact the respective Tender Inviting Authority

Technical - [support-eproc@nic.in](mailto:support-eproc@nic.in)

**or for any difficulty in downloading the tender from internet website, they should contact this office (Manager , Purchase or SDGM, Purchase Phone no. 033-23398224/8220). No alteration/changes by bidders is permitted in the tender/NIT appeared in the website.**

- 3.0 Unless specifically stated otherwise, bidder shall remit cost of tender (non-refundable) and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Kolkata, issuing the Tender, along with techno-commercial offer.
- 4.0 Unless specifically stated otherwise, bidder shall have to deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Kolkata. For other details please refer General Conditions of Contract.
- 5.0 Procedure for Submission of Tenders: The Tenderers must submit their Tenders as detailed below:

***This is an E-tender floated online through our E-Procurement Site <https://eprocurebhel.co.in>. The bidder should respond by submitting their offer online only in our e-Procurement platform at <https://eprocurebhel.co.in>. Offers are invited in two-parts only. No Hard copy bid or bids through email/ fax shall be accepted. Bids are invited in two parts & shall be submitted as described below:***

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : +91 33 23211960

फोन/Phone : बोर्ड/EPABX : +91 33 23398000, Dir: +91 33 23211690

DOCUMENTS TO BE UPLOADED & MODALITY OF UPLOADING

OFFER DESCRIPTION	DOCUMENTS TO BE UPLOADED & MODALITY OF UPLOADING
<b>TECHNICAL OFFER</b>	<p>1.Scanned copy of Covering letter of offer (To be attached in <b>relevant Attachment</b> section)</p> <p>2. Scanned copy of Entire tender documents signed &amp; stamped in each page by authorized representative of the bidder except price bid (To be attached in <b>relevant Attachment</b> section).</p> <p>3. Scanned copy of Techno-Commercial Offer (To be attached in <b>relevant Attachment</b> section)</p> <p>4. Duly filled all annexures except price &amp; unpriced format (To be attached in <b>relevant Attachment</b> section).</p> <p>5. Copy of records notes of Pre-Bid Conference, if applicable/ pre-bid MOM. (To be attached in <b>relevant Attachment</b> section)</p> <p>6. Copy of Tender change notice (TCN), if applicable (To be attached in <b>relevant Attachment</b> section)</p> <p>7. All supporting documents/ Annexures etc. as applicable (To be attached in <b>relevant Attachment</b> section).</p> <p>8. No deviation certificate in bidder's letterhead as per format given in Tender (To be attached in <b>relevant Attachment</b> section).</p>
<b>PRE-QUALIFICATION PART</b>	9. Pre-qualifying documents with all credentials as per tender. (To be attached in <b>relevant Attachment</b> section)
<b>UNPRICED PRICE BID</b>	10. Price schedule – Unpriced but mentioning only quoted / unquoted against each item as per tender. (To be attached in <b>Unpriced bid Attachment</b> section)
<b>PRICE BID</b>	<p>11. Duly filled in Price Schedule as per tender. (To be attached in <b>price bid Attachment</b> section)</p> <p>Any other document uploaded in the price bid, apart from tendered Price schedule, shall not be taken into cognizance for evaluation of offer.</p>

SPECIAL NOTE:

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)  
 POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091  
 फैक्स/Fax : +91 33 23211960 फोन/Phone : बोर्ड/EPABX : +91 33 23398000, Dir: +91 33 23211690



- A) Your offer & documents submitted along with offer shall be digitally signed & stamped in each page by your authorized representative. No overwriting/ correction in tender documents by bidders shall be allowed. However, if correction is unavoidable, the same may be signed by authorized signatory.
- B) The credentials/documents submitted towards compliance of Pre-qualification requirement shall be physically signed by the authorized signatory & stamped before uploading/submission with the offer in the e-procurement portal.
- C) All documents/ annexures submitted with the offer shall be properly attached in the respective sections. BHEL shall not be responsible for any missing documents.
- 6.0 No Deviation with respect to tender clauses and no additional clauses/ suggestions/ in Techno-commercial bid/ Price bid shall normally be considered by BHEL. Bidders are requested to positively comply with the same. Offers with deviation are liable for rejection.
- 7.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD, as applicable). However, BHEL may communicate rejection to the unsuccessful bidder after award of work and acceptance by the successful bidder.
- 8.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions. No additional claim shall be entertained by BHEL in future, on account of non-acquaintance of above.
- 9.0 For any clarification on the tender document, you may seek the same in writing or through e-procurement portal/platform as per specified format within the last date of seeking clarification as per tender. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay, and receipt of any query after due date shall not be entertained.
- 10.0 BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 11.0 In case of absence of any queries from bidder(s), their quoted price will be PRESUMED to be final and complete with reference to the tender documents (including Tender change notes (TCNs), clarifications, corrigendum issued by BHEL, if any). Bidders are requested to study the tender documents in detail and prepare their queries/clarifications accordingly. All such queries / clarifications shall be cleared/replied by BHEL. Such clarification letters, corrigendum and/or Tender change notes (TCNs), if issued by BHEL, shall form part of tender document.
- 12.0 In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer else BHEL's interpretation shall prevail & binding on you.
- 13.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender along with TCNs including PBD, if any.

- 14.0 Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), along with techno - commercial bid. This pact shall be considered as a preliminary qualification for further participation. The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (xi) of 1 above.
- 15.0 The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened, who will qualify for the subject job on the basis of pre-qualification evaluation & Techno-Commercial bids etc. BHEL reserves the right to reject the bidders with unsatisfactory past performance in the execution of a contract. BHEL's decision in this regard shall be final & binding.
- 16.0 While BHEL reserve the right to open the price bid of the offers in camera, the date & time to open the PRICE BID, tender opening shall be intimated to the bidders in case BHEL decides it to be 'Public opening' and in such a case, price bid (Volume-III) uploaded in E-Procurement Site <https://eprocurebhel.co.in> will be opened.
- 17.0 Validity of the offer shall be for six months from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 18.0 Bidders are required to submit their **BEST** price as per tender Price Schedule format in e-procurement portal/platform in the form & manner as mentioned in tender.
- 19.0 BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) for this tender. RA shall be conducted among the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.
- 20.0 *Bidders are requested to note that the accepted / agreed tender terms (technical, commercial or on Reverse Auction) in their original offer cannot be altered / withdrawn by their own during the processing of tender.*
- 21.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 22.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
- 23.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 24.0 The bidder shall submit documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped/ digitally signed (as applicable) by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
- 25.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0 The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL Website ([www.bhel.com](http://www.bhel.com)).

i. Integrity commitment, performance of the contract and punitive action thereof:

a) Commitment by BHEL:

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BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

b) Commitment by Bidder/ Supplier/ Contractor:

b.i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.

b.ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

b.iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage includes in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on [www.bhel.com](http://www.bhel.com) and/ or under applicable legal provisions.

- 27.0 Corrigendum/ corrigendum/ extension/ addendum, if any, pertaining to this tender will be published in the web sites CPP Portal, [www.bhel.com](http://www.bhel.com), <https://eprocurebhel.co.in> etc. or will be issued directly to you, as applicable.
- 28.0 Unsolicited discounts received after opening of techno commercial bid shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-1 party, then the awarded price shall be after considering the discount.
- 29.0 The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL Website ([www.bhel.com](http://www.bhel.com)).
- 30.0 It may please be noted that applicable Guidelines/Rules in respect of Suspension of business dealings, Vendor Evaluation formats, quality, safety and HSE guidelines, standard T&P hire charges of BHEL etc. may undergo change from time to time and the latest one shall be followed. Latest applicable "Guidelines for Vendor Evaluation" is web based, quality, safety & HSE"; standard T&P hire charges shall be available at site and shall be given to the successful vendors/ subcontractors during execution.
- 31.0 Bidders are requested to note that the accepted / agreed tender terms (technical, commercial or on Reverse Auction) in their original offer can not be altered / withdrawn by their own during the processing of tender.
- 32.0 The Bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

- 33.0 Suspension of Business dealings with Suppliers/ Contractors: BHEL reserves the right to take action against contractors who fail to perform or indulge in malpractices, by suspending business dealings with them as detailed in Annexure-A.

33.1 It may be noted that existing contractor/ supplier of Tender no: PSER:PUR:PMX:374(V):105(ENQ:19:PP:0015:PUR:139) Date 24/02/2020 shall not be eligible to quote in this tender. Existing Contractor/Supplier will include:

i) In case existing contractor/supplier is The Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor. ii). In case existing contractor/supplier is The Partnership Firm, any firm comprising of same partners/ some of the same partners (but not including any new partner); or sole proprietorship firm owned by any partner(s) as a sole proprietor.

- 34.0 "For this procurement, the local content to categorize a supplier as a Class-I local supplier/ Class-II local supplier/ Non-Local supplier and purchase preference to Class-I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04-06-2020 issued by DPIIT. In case of subsequent orders issued by the Nodal Ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT".

Duly filled & signed Form-1 (Format for local content), as applicable, to be submitted by bidders along with their techno-commercial offer.

35.0

- a) Cost of Tender: Not Applicable
- b) Earnest Money Deposit (EMD): Not Applicable
- c) Security Deposit (SD): Not Applicable
- d) Performance Bank Guarantee (PBG): Not Applicable
- e) Performance Bond: Not Applicable
- f) Additional Security Deposit: Not Applicable

- 36.0 MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) if they submit along with the offer, attested copies of either Udyam Registration Certificate or EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or Udyog Aadhar Memorandum (UAM) & Acknowledgement or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure – B where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer.

Any Bidder falling under MSME category, shall furnish the following details & submit documentary evidence/Govt. Certificate etc. in support of the same along with their techno-commercial offer: -

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Type under MSME	SC/ST owned	Women owned	Others
Micro			
Small			
Medium			

Note: - If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSME category.

- 37.0 Annexure-B – Terms & conditions of Reverse Auction is enclosed herewith.
- 38.0 Annexure-E – State wise GST Registration nos. is enclosed herewith.
- 39.0 Duly filled & signed Annexure- CPP/I to be submitted by bidders along with their techno-commercial offer.
- 40.0 **Integrity Pact (IP) –**

- (a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

SI	IEM	Email
1.	Shri Arun Chandra Verma, IPS (Retd.)	<a href="mailto:acverma1@gmail.com">acverma1@gmail.com</a>
2.	Shri Virendra Bahadur Singh, IPS (Retd.)	<a href="mailto:vbsinghips@gmail.com">vbsinghips@gmail.com</a>

- (b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- (c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

Details of contact person(s):

Name	Mr. Sriparna Mukherjee	Mr. Avijit Pan
Dept.	Purchase Dept., BHEL PSER, Kolkata	Purchase Dept., BHEL PSER, Kolkata
Address	DJ-9/1, Sector – II, Salt Lake, Kolkata – 700091	DJ-9/1, Sector – II, Salt Lake, Kolkata – 700091
Phone	033-2339 8224	033-2339 8220
Email	<a href="mailto:sriparna@bhel.in">sriparna@bhel.in</a>	<a href="mailto:avijitpan@bhel.in">avijitpan@bhel.in</a>
FAX	033-2321 1960	033-2321 1960

41.0 Rights of BHEL:

41.1 To withdraw any portion of work and/or to restrict / alter the quantum of work as indicated in the contract during the progress of work and get it done through other agency and/or by departmental labour to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergency reasons / BHEL's obligation to its customer.

41.2 To terminate the contract or withdraw portion of work and get it done through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:

- Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available (#) period considering its performance of execution.
- Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
- Non-completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor.
- Termination of Contract on account of any other reason (s) attributable to Contractor.
- Assignment, transfer, subletting of Contract without BHEL's written permission.
- Non-compliance to any contractual condition or any other default attributable to Contractor.

(#) In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract.

Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

$$\text{Risk \& Cost Amount} = [(A-B) + (A \times H/100)]$$

Where,

A= Value of Balance scope of Work (\*) as per rates of new contract

B= Value of Balance scope of Work (\*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

(\*) Balance scope of work (in case of termination of contract):



Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In-case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

#### LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line with LD clause as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence), for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of "LD against delay in executed work in case of termination of contract" is given below.

- i) Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii) Let the value of executed work till the time of termination of contract = X
- iii) Let the Total Executable Value of work for which inputs/fronTS were made available to contractor and were planned for execution till termination of contract = Y
- iv) Delay in executed work attributable to contractor i.e.  $T2 = [1 - (X/Y)] \times T1$
- v) LD shall be calculated in line with LD clause [as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence)] of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

#### 41.3 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor

Following sequence shall be applicable for recoveries from contractor:

- a) Dues available in the form of Bills payable to contractor, SD, BGs against the same contract.
- b) Demand notice for deposit of balance recovery amount shall be sent to contractor, if funds are insufficient to effect complete recovery against dues indicated in (a) above.
- c) If contractor fails to deposit the balance amount to be recovered within the period as prescribed in demand notice, following action shall be taken for balance recovery:
  - i) Dues payable to contractor against other contracts in the same Region shall be considered for recovery.
  - ii) If recovery cannot be made out of dues payable to the contractor as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor.
  - iii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.

- 41.4 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customers are terminated for any reason.

**42.0 ARBITRATION & CONCILIATION:****42.1 ARBITRATION:**

- 42.1.1 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 2.14.2 herein below or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, commence arbitration in respect of such Dispute by issuance of a notice in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice'). The Notice shall contain the particulars of all claims to be referred to arbitration in sufficient detail and shall also indicate the monetary amount of such claim. The arbitration shall be conducted by a sole arbitrator to be appointed by the Head of the BHEL Power Sector Region issuing the Contract within 60 days of receipt of the complete Notice. The language of arbitration shall be English.

The Arbitrator shall pass a reasoned award.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder as in force from time to time shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Kolkata (the place from where the contract is issued). The Contract shall be governed by and be construed as per provisions of the laws of India. Subject to this provision 42.1.1 regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.

- 42.1.2 In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018 as amended from time to time.

- 42.1.3 The cost of arbitration shall initially be borne equally by the Parties subject to the final allocation thereof as per the award/order passed by the Arbitrator.
- 42.1.4 Notwithstanding the existence of any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner unless the dispute inter-alia relates to cancellation, termination or short-closure of the Contract by BHEL.

**42.2 CONCILIATION:**

If at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation effect, interpretation or breach of the agreement, contract), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee (IEC) to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

**Notes:**

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.

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2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure 2.3 : "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com). The Procedure 2.3: "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com) together with its Formats (as available in www.bhel.com) will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC.

The Contractor hereby agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Procedure 2.3 : "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com) from time to time and confirms that it shall be bound by such amended or modified provisions of the Procedure 2.3 : "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com) with effect from the date as intimated by BHEL to it.

#### 42.3 NO INTEREST PAYABLE TO CONTRACTOR:

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.

- 43.0 It may please be noted that Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid, else bid shall be liable for rejection.

All overwriting/ cutting, etc. will be numbered by bid opening officials and announced during bid opening.

Bidder shall submit duly filled & signed Form-2 along with their techno-commercial offer towards compliance of Department of Expenditure's (DoE) Public Procurement Division Order vide ref. F.No.6/18/2019-PPD dated 23.07.2020 & 24.7.2020. In this connection, following may be noted:

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms, or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this order means: -
  - a. An entity incorporated, established or registered in such a country; or
  - b. A subsidiary of an entity incorporated, established or registered in such a country; or
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d. An entity whose beneficial owner is situated in such a country; or
  - e. An Indian (or other) agent of such an entity; or
  - f. A natural person who is a citizen of such a country; or
  - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

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IV. The beneficial owner for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.  
Explanation-
  - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
  - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. GeMAR and PTS ID: GEM/GARPTS/17062021/7RVJBB1KP0FO

VII .The GeM Seller ID shall be mandatory before placement of order / award of contract for goods and services to the successful bidder(s).-[Not applicable](#)

44. The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

Bidder shall submit duly filled & signed Annexure-VII along with their techno-commercial offer.

- 45 In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.

In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss / draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).

Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding

#### 46 Order of Precedence

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- Amendments/Clarifications/Corrigenda/Errata etc issued in respect of the tender documents by BHEL
- Notice Inviting Tender (NIT)
- Price Bid/Schedule – Volume-III
- Special conditions of contract (Supply)
- Technical Specification – Volume-IF
- General conditions of contract (Supply)
- Forms and Procedures – Volume-IE

for BHARAT HEAVY ELECTRICALS LTD.

Manager (Purchase)

Agency	Contact details	
BHEL, PSER, Kolkata	Address	BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR – EASTERN REGION 2ND FLOOR, BLOCK-DJ, PLOT- 9/1, SECTOR, SALT LAKE CITY, KOLKATA – 700 091
	Phone no.	033-23398223, 23398220, 23211690
	FAX no.	033-23211960
	E-mail ID	<a href="mailto:sriparna@bhel.in">sriparna@bhel.in</a> ; <a href="mailto:a_sarkar@bhel.in">a_sarkar@bhel.in</a> ; <a href="mailto:avijitpan@bhel.in">avijitpan@bhel.in</a>
		<p><b>For E-PROCUREMENT ASSISTANCE &amp; TRAINING, NIC HELPDESK CONTACTS AS PER FOLLOWING: -</b></p> <p>For any technical related queries please call at 24 x 7 Help Desk Number 0120-4001 002 0120-4200 462</p>

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	0120-4001 005 0120-6277 787  Email Support Address: A) For any Issues or Clarifications relating to the published tenders, bidders are requested to contact the respective Tender Inviting Authority  Technical - <a href="mailto:support-eproc@nic.in">support-eproc@nic.in</a>
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**Enclosure:**

01. Annexure-1: Pre-Qualification Criteria.
02. Annexure-2: Format for No Deviation Certificate.
03. Annexure-3: Format for seeking clarification.
04. Annexure-4: Check List.
05. Annexure-A: Suspension of Business dealings with Suppliers/ Contractors.
06. Annexure-B: Terms & conditions of Reverse Auction.
07. Annexure-C: CA certificate Format.
08. Annexure-E: State wise GST Registration nos.
09. Annexure-CPP-GST/I: State wise GST Registration nos.
10. Form-1-Format for Local Content
11. Form-2- CERTIFICATE (Regarding bidder from a country which shares a land border with India)
12. Annexure-VII
13. Integrity Pact Agreement Format
14. Other Tender documents as per this NIT.

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**ANNEXURE – 1****PRE QUALIFICATION CRITERIA**

JOB	SUPPLY OF TRANSLUCENT POLYCARBONATE CLADDING SHEET FOR CHP-AHP , COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH
TENDER NO	PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/2021

SL NO	CRITERIA
1.0	<b>FINANCIAL CRITERIA :</b>
1.1	BIDDER SHOULD HAVE AVERAGE MINIMUM ANNUAL FINANCIAL TURNOVER OF <b>USD 0.20 MILLION OR EQUIVALENT AMOUNT*</b> DURING THE LAST 3 (THREE) YEARS, ENDING ON 31-03-2020 OR CORRESPONDING FINANCIAL YEAR FOLLOWED BY THE BIDDER AND SHOULD SUBMIT THEIR AUDITED BALANCE SHEET AND PROFIT & LOSS ACCOUNT FOR LAST THREE FINANCIAL YEARS, IN SUPPORT OF THE SAME.
1.2	IN CASE AUDITED BALANCE SHEET AND PROFIT & LOSS ACCOUNT HAS NOT BEEN SUBMITTED FOR ALL 3 YEARS INDICATED ABOVE THEN THE APPLICABLE FINANCIAL AUDITED STATEMENTS SUBMITTED BY THE BIDDERS AGAINST THE REQUISITE THREE YEARS, WILL BE AVERAGED FOR THREE YEARS.
1.3	IF FINANCIAL STATEMENTS ARE NOT REQUIRED TO BE AUDITED STATUTORILY, THEN INSTEAD OF AUDITED FINANCIAL STATEMENTS, FINANCIAL STATEMENTS ARE REQUIRED TO BE CERTIFIED BY CHARTERED ACCOUNTANT.
2.0	<b>TECHNICAL CRITERIA:</b>
2.1	<p>THE BIDDER SHOULD HAVE PREVIOUS EXPERIENCE OF SUPPLYING <b>6500 SQM</b> OF POLYCARBONATE SHEET TO GOVT./ PSU/ REPUTED ORGANISATIONS THROUGH A SINGLE PURCHASE ORDER IN LAST FIVE YEARS AS ON LAST DATE OF BID SUBMISSION.</p> <p style="text-align: center;"><b>OR</b></p> <p>THE BIDDER SHOULD HAVE PREVIOUS EXPERIENCE OF SUPPLYING <b>10500 SQM</b> OF POLYCARBONATE SHEET TO GOVT./ PSU/ REPUTED THROUGH TWO SEPARATE PURCHASE ORDERS IN LAST FIVE YEARS AS ON LAST DATE OF BID SUBMISSION.</p> <p>BIDDER SHALL HAVE TO SUBMIT RELEVANT DOCUMENTS IN SUPPORT OF THE SAME.</p>

3.0	<b>GENERAL</b>
A	CONSORTIUM BIDDING/JV BIDDING IS NOT ALLOWED.
B	IN CASE THE JOB IS UNDER EXECUTION/ ONGOING JOB, THE VALUE OF EXECUTED PORTION OF THE JOB SHALL AT LEAST CORRESPOND TO THE RESPECTIVE VALUES SPECIFIED ABOVE EVEN IF THE CONTRACT HAS NOT BEEN COMPLETED OR CLOSED.
C	THE VENDOR SHOULD HAVE ACHIEVED THE CRITERIA SPECIFIED IN THE PRE-QUALIFICATION CRITERIA, EVEN IF THE CONTRACT HAS NOT BEEN COMPLETED OR CLOSED.
D	AFTER SATISFACTORY FULFILLMENT OF ALL ABOVE CRITERIA, OFFER SHALL BE CONSIDERED FOR FURTHER EVALUATION & PARTICIPATION AS PER NIT & ALL OTHER TERMS OF TENDER, ALONG WITH ACCEPTANCE/ APPROVAL OF BIDDER BY CUSTOMER.
E	* EQUIVALENT AMOUNT MEANS THAT IT IS CONVERTED AT RATES AS ON THE DATE OF TENDER FLOATING (BANGLADESH BANK RATES - SELLING RATE).

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**ANNEXURE - 2****FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

To,  
BHARAT HEAVY ELECTRICALS LIMITED,  
Power Sector - Eastern Region,  
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,  
Kolkata – 700 091

SUB	NO DEVIATION CERTIFICATE	
JOB	<b>SUPPLY OF TRANSLUCENT POLYCARBONATE CLADDING SHEET FOR CHP-AHP , COAL &amp; LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH</b>	
REF	1.0	PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/2021
	2.0	ALL OTHER PERTINENT ISSUES TILL DATE.

Dear Sir/Madam,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized  
representative of the bidder)

**ANNEXURE - 3****FORMAT FOR SEEKING CLARIFICATION**

JOB	SUPPLY OF TRANSLUCENT POLYCARBONATE CLADDING SHEET FOR CHP-AHP , COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH
TENDER NO.	PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/2021

SI no	Reference clause of tender document	Existing provision	Bidder's query	BHEL's clarification

**ANNEXURE - 4****CHECK LIST**

NOTE:- Tenderers are required to fill in the following details and no column should be left blank

1	Name and Address of the Tenderer		
2	Details about type of the Firm/Company		
3.a	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
3.b	Details of alternate Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4	EMD DETAILS	DD No:                      Date : Bank :                      Amount: Please tick ( ✓ ) whichever applicable:- ONE TIME EMD / ONLY FOR THIS TENDER	
5	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
		APPLICABILITY(BY BHEL)	ENCLOSED BY BIDDER
6	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
7	Audited profit and Loss Account for the last three years	Applicable	YES/NO
8	Copy of PAN Card	Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable	YES/NO
10	Integrity Pact	Applicable	YES/NO
11	Declaration by Authorised Signatory	Applicable	YES/NO
12	No Deviation Certificate	Applicable	YES/NO
13	Declaration confirming knowledge about Site Conditions	Applicable	YES/NO
14	Declaration for relation in BHEL	Applicable	YES/NO
15	Non Disclosure Certificate	Not Applicable	YES/NO
16	Bank Account Details for E-Payment	Applicable	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Not Applicable	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	Not Applicable	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable	YES/NO
20	Analysis of Unit rates	Not Applicable	YES/NO
21	Annexure-D – Exim bank Undertaking.	Not Applicable	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED ABOVE APPLICABLE DOCUMENTS ARE LIABLE TO BE SUMMARILY REJECTED.

DATE :

AUTHORISED SIGNATORY

(With Name, Designation and Company seal)



**PRICE SCHEDULE (UNPRICED)**

**PLEASE REFER**

**E-PROCUREMENT PORTAL <https://eprocurebhel.co.in>**

**PRICE SCHEDULE**

**PLEASE REFER**

**E-PROCUREMENT PORTAL <https://eprocurebhel.co.in>**

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**ANNEXURE-A**

<b>1.0</b>	<b><u>Suspension of Business dealings with Suppliers/ Contractors</u></b>
1.1	BHEL reserves the right to take action against Suppliers/ Contractors who fail to perform or indulge in malpractices, by suspending business dealings with them.
1.2	<p>Suspension of business dealings with Suppliers/ Contractors could be in the form of following: --</p> <p><b>a) Hold within the unit for specific item(s)/ material category(ies)/ type of work(s) for one year.</b></p> <p><b>b) Hold within the unit for all item(s)/ material category(ies)/ type of work(s) for two years</b></p> <p><b>c) Banning across BHEL for all items/ material category(ies)/ type of work(s) for three years.</b></p> <p>The Supplier may be either put on hold or banned, as detailed hereinafter on the basis of one or more of the category wise reasons as enumerated hereunder.</p>
1.3 1.3.1	<p><b>Hold within the unit for a specific item(s)/ material category(ies)/ type of work(s) shall be imposed in the following cases, if</b></p> <p>i) In the last three consecutive supplies of a specific material category, average quality rating, as provided in the supplier performance rating (SPR) as per SEARP, falls below 80% of the quality weightage. This is irrespective of supplies against PO(s) having single/ multiple delivery schedules.</p> <p>Note: Not applicable in cases for erection works of Power Sector Regions, where separate guidelines for evaluation of capacity of bidders is being followed.</p> <p>ii) Two consecutive delays, for reasons of delay attributed to the Supplier, in execution of the contracts where delay occurred is such that</p> <p>a) prescribed maximum LD time limits of the contracts is exceeded or</p> <p>b) delay period has equaled/ exceeded half the original delivery period specified in the contracts whichever among the above is earlier.</p> <p>iii)</p> <p>a) Overall SPR (Supplier Performance Rating) in that particular Unit in line with SEARP falls below 60% of the specific material category.</p> <p>b) Bids of contractors (in PS-MSX portal) shall not be considered (if average score of last six months falls 60% or below as per guidelines for evaluation of capacity of bidders formula).</p>

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1.3.2	<p><b>Hold within the unit for all item(s)/material category(ies)/ type of work(s) shall be put in the following cases, if</b></p> <ul style="list-style-type: none"> <li>i) Supplier tampers with tendering procedure affecting ordering process.</li> <li>ii) Supplier has misused BHEL documents/ drawings/ technical information or has breached the confidentiality agreement with BHEL.</li> <li>iii) after placement of order, Supplier fails to execute the contract.</li> <li>iv) within warranty period as per contract, Supplier continues to supply low/ less/ non-performing equipment/ services, repetitive failures, remains non-responsive.</li> <li>v) Wherever risk purchase clause (amounting to more than 5% of contract value) has been</li> </ul>
1.4	<b>Banning across BHEL shall be imposed in following cases, if</b>
1.4.1	<ul style="list-style-type: none"> <li>i) After price bid opening but before placement of order, Supplier withdraws his offer or varies it in any manner within the validity period.</li> <li>ii) "Supplier is found to be responsible for submitting fake/ false/ forged documents, certificates, or information or misrepresentation/ wilful suppression of facts, or has resorted to unethical, illegal means or has forged BHEL documents, certificates etc. for securing business, meeting PQR or for enlistment in BHEL or with customers other than BHEL."</li> <li>iii) In spite of warnings, the Supplier persistently violates or circumvents the provisions of labour laws/ regulations/ rules or other statutory requirements.</li> <li>iv) Supplier is found to be involved in cartel formation or in any other act so as to influence the bidding process or influence the price.</li> <li>v) The Supplier has indulged in malpractices or misconduct such as bribery, corruption and fraud, pilferage, coercion etc.</li> <li>vi) The Supplier is found guilty by any court of law for criminal activity/ offences involving moral turpitude in relation to business dealings.</li> <li>vii) Supplier is found to have obtained any internal information/ documentation of BHEL by unauthorized means.</li> <li>viii) The foreign Principals along with the representing Agent shall be banned together if information submitted by them about their precise relationship, commission/ remuneration etc. payable/ receivable and other particulars as asked by BHEL, as per the extant guidelines regarding dealing with Agents of Foreign Suppliers is found false/ incorrect, at any stage.</li> <li>ix) Supplier has substituted, damaged, failed to return, or unauthorizedly disposed off free issue materials/ tools etc. of BHEL.</li> </ul>
1.4.2	A Supplier can also be banned with the approval of Director (E, R&D) provided a direction to this effect has been received from the administrative ministry of the Government.

**Note: Above shall be applicable along with Guidelines for “Suspension of Business dealings with Suppliers/ Contractors” available in BHEL website <http://www.bhel.com>. These shall form part of tender documents.**

## Annexure -B

### Terms & Conditions of Reverse Auction

Against this enquiry for the subject item/ system with detailed scope of supply/service as per tender specifications, BHEL *shall be resorting to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER).* The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. *Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA.*
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained for participation in the reverse auction.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax /e-mail the Compliance form (annexure III) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” which is inclusive of all cost elements in line with terms & conditions of the tender for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal
10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VI) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. *Bidders shall be required to read the “Terms and Conditions” section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the “Business Rules of Reverse Auction”, which will be communicated before the Reverse Auction.*
12. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)),* shall be initiated by BHEL and the results of the RA scrapped/ aborted.
13. Reverse Auction will be conducted if two or more bidders are techno-commercially qualified. In case of two or three qualified bidders, there shall be no elimination of H1 bidder (whose quote is highest in sealed envelope price bid). In case of four qualified bidders, the H1 bidder shall be eliminated whereas in case of five qualified bidders, H1 & H2 bidders shall be eliminated. However, in case of six or more qualified bidders are available, RA would be conducted amongst first 50% of the bidders arranged in the order of prices from lowest to highest. Number of bidders eligible for participating in RA would be rounded off to next higher integer value if number of qualified bidders is odd (e.g. if 7 bids are qualified, then RA will be conducted amongst lowest four bidders). However, there will be no elimination of qualified bidders who are MSE or qualifying under PPP-MII, Order 2017, irrespective of the number of bidders qualifying techno-commercially. In case of multiple H1 bidders, all H1 bidders

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(excluding MSEs and bidders qualifying under PPP-MII, Order 2017) shall be removed provided minimum two bidders remain in fray, else no H1 removal.

### Annexure -C

#### Certificate by Chartered Accountant on letter head

This is to Certify that M/S ....., (hereinafter referred to as 'company') having its registered office at ..... is registered under MSMED Act 2006, (Entrepreneur Memorandum (Part-II) / UAM / Udyam Registration No. .... dtd: ..... Category: ..... (Micro/Small). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year ..... as per MSMED Act 2006 is as follows:

- 1. For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No.S.O.1722(E) dated October 5, 2006:  
Rs.....Lacs
- 2. For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:  
Rs.....Lacs
- 3. For Enterprises (having EM-Part-II / UAM):** Investment in plant and machinery or equipment is Rs.....Lacs and turnover is Rs.....Lacs {as notified in MSME notification no. S.O. 2119 (E) dated 26-06-2020}.
- 4. For Enterprises (Udyam, registered under Udyam Registration Portal):** Investment in plant and machinery or equipment is Rs.....Lacs and turnover is Rs.....Lacs {as notified in MSME notification no. S.O. 2119 (E) dated 26-06-2020}.

#### **(Strike off whichever is not applicable)**

The above investment of Rs.....Lacs is within permissible limit of Rs.....Lacs for .....Micro I Small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category {Micro/Small} (Strike off which is not applicable) and the date of graduation of such enterprise from its original category is ..... (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature) Name-

Membership number-

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Seal of Chartered Accountant

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**ANNEXURE-E**

<u>State wise GST Registration nos.</u>		
Sl. No.	State / UT	GST Reg. No.
1	Andhra Pradesh	37AAACB4146P7Z8
2	Assam	18AAACB4146P1ZE
3	Bihar	10AAACB4146P1ZU
4	Chandigarh	04AAACB4146P1ZN
5	Chattishgarh	22AAACB4146P1ZP
6	Daman & Diu	25AAACB4146P1ZJ
7	Delhi	07AAACB4146P1ZH
8	Gujarat	24AAACB4146P1ZL
9	Haryana	06AAACB4146P1ZJ
10	HP	02AAACB4146P1ZR
11	Jharkhand	20AAACB4146P5ZP
12	Karnataka	29AAACB4146P1ZB
13	Kerala	32AAACB4146P1ZO
14	Maharashtra	27AAACB4146P1ZF
15	MP	23AAACB4146P1ZN
16	Punjab	03AAACB4146P2ZO
17	Rajasthan	08AAACB4146P1ZF
18	Tamil Nadu	33AAACB4146P2ZL
19	Telangana	36AAACB4146P1ZG
20	Tripura	16AAACB4146P1ZI
21	UP	09AAACB4146P2ZC
22	Uttarakhand	05AAACB4146P1ZL
23	West Bangal	19AAACB4146P1ZC
24	Mizoram	15AAACB4146P1ZK
25	Orissa	21AAACB4146P1ZR
26	Arunachal Pradesh	12AAACB4146P1ZQ

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[Annexure- CPP-GST/I](#)**Please arrange to submit this filled-up format along with Tender**

Name of the Company	
Address of Company*	
Company Registration Number*	
Name of Partners / Directors	
ALL THE STATES WHERE BIDDER HAS A PLACE OF BUSINESS*	
ALL ADDRESS OF VENDOR MENTIONING THEIR PIN AS PER THE LATEST GST REGISTRATION*	
GSTN OF ALL THE ABOVE NOTED PLACES OF VENDOR*	
Bidder Type: Indian/ Foreign*	
City*	
State*	
Country*	
Postal Code*	
PAN/TAN Number*	
Company's Establishment Year	
Company's Nature of Business*	
Company's Legal Status* {limited /undertaking/joint venture/partnership/other}	
Company Category* {micro unit as per MSME/small unit as per MSME/medium unit as per MSME/Ancillary unit/project affected person of this company/ssi/ other}	
Enter Company's Contact Person Details	
Title(Mr. / Mrs. / Ms. / Dr. / Shri)*	
Contact Name*	
Date Of Birth*	
Correspondence Email*	
(Correspondence Email ID can be same as your Login ID. All the mail correspondence will be sent only to the Correspondence Email ID.)	
Designation	
Phone*	
Fax*	
Mobile*	

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Form-1 (Format for local content)

Format for Certification regarding Local content (LC) for Product/ Services/ Works

Date:

\_\_\_\_\_ S/o, D/o, W/o \_\_\_\_\_, Resident of \_\_\_\_\_ do hereby solemnly affirm and declare as under:

That the percentage of local content for the Product/ Services/ Works offered by the bidder/supplier against the subject tender (TENDER NO: PSER:PUR:.....) is \_\_\_\_%. We certify that the item(s) offered meets the local content requirement for < Class-I Local Supplier / Class-II Local Supplier/ Non-Local Supplier, **tick the applicable option** >. We are also enclosing the details of the location(s) at which the local value addition is made.

That I agree to abide by terms and conditions of Department of Industrial Policy & Promotion issued vide Notification No: P-45021/2/2017-B.E.-II Dated: 15-06-2017 & P-45021/2/2017-PP (BE-II) Dated: 28-05-2018, of Department of Promotion of Industry and Internal Trade issued vide Notification No: P-45021/2/2017-PP(BE-II) Dated: 29-05-2019 & P-45021/2/2017-PP (BE-II) Dated: 04-06-2020.

That the information furnished hereinafter is correct to best of my knowledge and belief and I undertake to produce relevant records before the procuring entity or any other authority so nominated by the Government of India for the purpose of assessing the LC.

That the LC for all inputs which constitute the said Product/ Services/ Works has been verified by me and I am responsible for the correctness of the claims made therein

That in the event of the LC of the Product/ Services/ Works mentioned herein is found to be incorrect and not meeting the prescribed LC norms, based on the assessment of an authority so nominated by the Government of India and I will be liable as under clause 9 (f) of Public Procurement (Preference to Make in India) order 2017.

I agree to maintain all information regarding my claim for LC in the Company's record for a period of 2 years and shall make this available for verification to any statutory authorities

- i. Name and details of the Local supplier (registered Office, Manufacturing and location, nature of legal entity)
- ii. Date on which this certificate is issued
- iii. Product / Services/ Works for which the certificate is produced
- iv. Procuring agency to whom the certificate is furnished
- v. Percentage of LC claimed.
- vi. Name and contract details of the unit of the manufacturer
- vii. Sale Price of the product
- viii. Ex-Factory Price of the product
- ix. Freight, insurance and handling
- x. Total Bill of Material
- xi. List and total cost value of inputs used for manufacture of the Products/ Services/ Works
- xii. List and total cost of inputs which are locally sourced. Please attach LC certificates from local suppliers, if the input is not in-house.
- xiii. List and cost of inputs which are imported, directly or indirectly

For and behalf of \_\_\_\_\_ <Name of Firm/ entity>

Authorized signatory of Firm/ entity

<Insert Signature, Stamp of Authorized signatory, Name, Designation & Contact No and date

**FORM – 2****(To be submitted in the bidder's letter head)****In-line with Department of Expenditure's (DoE) Public Procurement Division Order vide ref. F.No.6/18/2019-PPD dated 23.07.2020 & 24.07.2020**

**Job:** “ SUPPLY OF TRANSLUCENT POLYCARBONATE CLADDING SHEET FOR CHP-AHP , COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH”

**E-Tender No.:** PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/2021

*“I/We have read the clauses pertaining to Department of Expenditure's (DoE) Public Procurement Division Order (Public procurement no 1, 2 & 3 vide ref. F.No.6/18/2019-PPD dated 23.07.2020 & 24.7.2020) regarding restrictions on procurement from a bidder of a country which shares a land border with India; I/We hereby certify that I/We the bidder <Name of the Bidder.....> is/are not from such a country or, if from such a country, has been registered with the Competent Authority. I/We hereby certify that I/We the bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached]”.*

**For and behalf of \_\_\_\_\_ (Name of the bidder)**

(Signature, date & seal of authorized representative of the bidder)

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**ANNEXURE-VII****DECLARATION**

Date: -----

**Job: SUPPLY OF TRANSLUCENT POLYCARBONATE CLADDING SHEET FOR CHP-AHP , COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGHERHAT, BANGLADESH**

**E-Tender No.:** PSER: PUR: PMX: 374(VI): 0017 (ENQ: 21: PP: 0015: PUR: 16) dated 05/07/2021

To: -----  
 Address: BHEL, -----  
 -----  
 -----  
 Email: -----  
 -----

**Sub: Details of related firms and their area of activities**

Dear Sir/Madam,

Please find below details of firms owned by our family members that are doing business/registered for same item with BHEL, ----- (NA, if not applicable)

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
...		

**Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.**

Regards,

(-----)

From: M/s-----  
 Supplier Code: -----  
 Address: -----  
 -----  
 -----

**FORM NO. 10F****[See sub-rule (1) of rule 21AB]****Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961**

I \_\_\_\_\_ \*son/daughter of Shri. \_\_\_\_\_ in the capacity of \_\_\_\_\_ (designation) do provide the following information, relevant to the previous year \_\_\_\_\_ \*in my case/in the case of \_\_\_\_\_ for the purposes of sub-section (5) of \* section 90/section 90A:-

<b>Sl.No.</b>	<b>Nature of information</b>	<b>Details#</b>
(i)	Status (individual; company, firm etc.) of the assessee	
(ii)	Permanent Account Number (PAN) of the assessee if allotted	
(iii)	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)	
(iv)	Assessee's tax identification number in the country or specified territory of residence and if there is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assessee claims to be a resident	
(v)	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A is applicable	
(vi)	Address of the assessee in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable	

2. I have obtained a certificate referred to in sub-section (4) of section 90 of sub-section (4) of section 90A from the Government of \_\_\_\_\_ (name of country or specified territory outside India).

**Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Permanent Account Number:** \_\_\_\_\_

## **Verification**

I \_\_\_\_\_ do hereby declare that to the best of my knowledge and belief what is stated above is correct complete and is truly stated.

Verified today the \_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
**Signature of the person providing the information**

Place: \_\_\_\_\_

### ***Notes:***

1. \*Delete whichever is not applicable.
2. #Write N.A. if the relevant information forms part of the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A.

**VOL-1A -GENERAL CONDITIONS OF CONTRACT (GCC)SUPPLY -R0**

TENDER NO :PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/21

SL. NO.	BHEL STANDARD TERMS	Bidder's confirmation
1.	<p>Our requirement is for <b><u>use BHEL MAITREE SITE 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH</u></b></p> <p><b><u>Offers are invited to submit in two-parts.</u></b></p> <p><b><u>Part-I : TECHNICAL-CUM-COMMERCIAL AND UN PRICED BID :</u></b> Consisting of complete technical details, catalogues, drawings and all commercial terms. (Money values shall not be indicated i.e; un price bid). Following formats are to be filled and submitted in a single cover super scribing as Technical - cum - Commercial and Un Priced Bid, Tender Enquiry No. and Due Date. (i) Technical Specification (Catalogues to be enclosed if any) (ii) BHEL Standard Terms &amp; Conditions (iii) No deviation certificate (Part-D) (iv) Un Price Bid</p> <p><b><u>Part-II : PRICE BID</u></b> Price to be indicated in the format enclosed. (Any preconditions for price will not be accepted and the tender will be rejected).</p> <p>The Technical-Cum-Commercial offer will be opened first, scrutinized, finalized and only then the price bid of technically acceptable offers will be opened.</p> <p>Tenders will be received up to 14.00 Hours on the said due date.(Refer NIT for details)</p> <p><b><u>If the vendor submits offer i.e. Technical &amp; Price bid together in single envelope, the offer will be liable for rejection.</u></b></p>	
2.	If any vendor sought to quote through their agents "They have to inform to BHEL in advance, before opening date. Otherwise the offer will be treated as Unsolicited Offer and same will not be opened".	
3.	BHEL keeps its right to <b>reject / load</b> any offer which is having deviations to BHEL Specifications, Standard Terms & Conditions. All the bidders shall submit their offers only by filling the original BHEL tender documents. No other offer will be entertained. In case of Technical-Cum-Commercial bid, copy of the price bid has to be used to indicate commercial terms without price.	
4.	Your offer shall be strictly conforming to the specification and for complete unit, as per tender.	
5.	No offer for individual accessories or part machinery will be accepted. No revision in rates shall be entertained after opening of the tenders.	
6.	<b><u>PAYMENT TERMS:</u></b> <b>Shall be as per SCC of tender. No advance shall be paid. Payment shall be paid in USD, in line with relevant clause of SCC.</b>	
7.	<b><u>WARRANTY/GUARANTEE:</u></b> As specified in SCC OF TENDER. The material supplied will be covered under 12 MONTHS guarantee. Defects if any found within this period shall be replaced by supplier free of cost within one month notice.	
8.	<b><u>DELIVERY TERMS:</u></b> As specified in SCC OF TENDER.	

**VOL-1A -GENERAL CONDITIONS OF CONTRACT (GCC)SUPPLY -R0**

TENDER NO :PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/21

9.	<b><u>DISCOUNTS:</u></b> Discounts offered by the vendor in price shall not be entertained by BHEL. The vendor should factor in his discount in the price offer only. In spite of the same, if a discount is offered by the bidder, the same shall not be considered for evaluation of the offer, but purchase order shall be issued on bidder's final discounted price.	
10.	<b><u>LIQUIDATED DAMAGE/PENALTY CLAUSE:</u></b> As per SCC of tender document	
11.	<b>a. <u>SECURITY DEPOSIT BANK GUARANTEE(SDBG):</u> Not Applicable</b>  <b>b. <u>PERFORMANCE BANK GUARANTEE (PBG):</u> Not Applicable</b>	
12.	The sealed tenders super scribing tender number and due date should be <b>addressed to: NOT APPLICABLE</b>	
13.	<b><u>INSPECTION:</u></b> As specified in SCC OF TENDER.	
14.	<b><u>CONSIGNEE DETAILS OF THE EQUIPMENT :-</u></b> As specified in SCC OF TENDER. All documents / correspondences must bear the Tender no. / Purchase Order No. & Date.	
15.	The manufacturing/job <b>progress</b> will have to be furnished to us periodically in the form and manner required by us.	
16.	Supplier must submit with their offer list of customers (with their full address and their purchase reference number) to whom they have supplied similar machine/material in the past five years. The year of supply should also be indicated.	
17.	The quotation should be valid at least for a period of <b>180 DAYS</b> from the tender due date of submission (extended, if any). Price Variation Clause will not be entertained.	
18.	<b><u>FORCE MAJEURE :</u></b> The vendor shall be subject to force majeure clause defined as under :  This force majeure is herein defined as any cause which is beyond the control of the tenderer which they would not have foreseen or with a reasonable amount of diligence could not have foreseen and which subsequently affect the performance of the contract such as SRCC (strike riot and civil commotion), earthquake, flood, acts of god, acts of any government, domestic or foreign including but not limited to war. The tenderer shall not be liable for delay in performing his obligation resulting from any force majeure clause as referred to and/or defined above. The date of completion will be subject to hereinafter provided be extended by a reasonable time even though such cause may occur after tenderer's performance of his obligation has been delayed for other causes.	
19.	<b><u>ARBITRATION &amp; CONCILIATION</u></b>	
19.1	<b><u>ARBITRATION :</u></b>	
19.1.1	Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 19.2 herein below or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or. in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, commence arbitration in respect of such	



**VOL-1A -GENERAL CONDITIONS OF CONTRACT (GCC)SUPPLY -R0**

**TENDER NO :PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/21**

	<p>Dispute by issuance of a notice in terms of section 21 of the Arbitration &amp; Conciliation Act, 1996 (hereinafter referred to as the 'Notice'). The Notice shall contain the particulars of all claims to be referred to arbitration in sufficient detail and shall also indicate the monetary amount of such claim. The arbitration shall be conducted by a sole arbitrator to be appointed by the Head of the BHEL Power Sector Region issuing the Contract within 60 days of receipt of the complete Notice. The language of arbitration shall be English.</p> <p>The Arbitrator shall pass a reasoned award.</p> <p>Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder as in force from time to time shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Kolkata (the place from where the contract is Issued). The Contract shall be governed by and be construed as per provisions of the laws of India. Subject to this provision 19.1.1 regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.</p>	
19.1.2	<p>In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:</p> <p>In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs &amp; Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018 as amended from time to time.</p>	
19.1.3	<p>The cost of arbitration shall initially be borne equally by the Parties subject to the final allocation thereof as per the award/order passed by the Arbitrator.</p>	
19.1.4	<p>Notwithstanding the existence of any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner unless the dispute inter-alia relates to cancellation, termination or short-closure of the Contract by BHEL.</p>	
19.2	<p><b><u>CONCILIATION:</u></b></p> <p>If at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation effect, interpretation or breach of the agreement, contract), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee (IEC) to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.</p> <p>Notes:</p> <ol style="list-style-type: none"><li>1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.</li><li>2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.</li></ol> <p>The proceedings of Conciliation shall broadly be governed by Part-III</p>	

**VOL-1A -GENERAL CONDITIONS OF CONTRACT (GCC)SUPPLY -R0**

TENDER NO :PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/21

	<p>of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure 2.3 to this GCC (as available in <a href="http://www.bhel.com">www.bhel.com</a>). The Procedure 2.3 together with its Formats (as available in <a href="http://www.bhel.com">www.bhel.com</a>) will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC.</p> <p>The Contractor hereby agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Procedure 2.3 (as available in <a href="http://www.bhel.com">www.bhel.com</a>) to this GCC from time to time and confirms that it shall be bound by such amended or modified provisions of the Procedure 2.3 (as available in <a href="http://www.bhel.com">www.bhel.com</a>) with effect from the date as intimated by BHEL to it.</p>	
19.3	<p><b><u>No Interest payable to Contractor</u></b></p> <p>Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.</p>	
20.	<p><b><u>JURISDICTION :</u></b></p> <p>All disputes or differences arising out of or in connection with the Purchase Order shall be subject to the exclusive jurisdiction of Courts (pecuniary or territorial) viz Commercial Court Rajarhat/ District Court Barasat ( 24 PGN North) as the case may be and Calcutta High Court at Kolkata</p>	
21.	<p><b><u>RIGHTS OF BHEL:</u></b></p> <p>(A) To withdraw any portion of work/supply and/or to restrict / alter the quantum of work/supply as indicated in the contract during the progress of work/supply and get it done through other agency and/or to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergency reasons / BHEL's obligation to its customer.</p> <p>(B) To terminate the contract or withdraw portion of work/supply and get it done through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:</p> <ol style="list-style-type: none"><li>Contractor/Supplier's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor/supplier including unexecuted portion of work/supply does not appear to be executable within balance available (#) period considering its performance of execution.</li><li>Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.</li><li>Non-completion of work/Non-supply by the Contractor / Supplier within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the contractor/supplier.</li><li>Termination of Contract on account of any other reason (s) attributable to Contractor/Supplier.</li><li>Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of contract or part thereof by BHEL.</li><li>Non-compliance to any contractual condition or any other default attributable to Contractor/ Supplier.</li></ol> <p>(#) In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract.</p> <p><b><u>(C) Risk &amp; Cost Amount against Balance Work:</u></b></p>	

**VOL-1A -GENERAL CONDITIONS OF CONTRACT (GCC)SUPPLY -R0**

TENDER NO :PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/21

	<p>Risk &amp; Cost amount against balance work shall be calculated as follows:</p> <p>Risk &amp; Cost Amount= <math>[(A-B) + (A \times H/100)]</math></p> <p>Where,</p> <p>A= Value of Balance scope of Work/Supply (*) as per rates of new contract</p> <p>B= Value of Balance scope of Work/Supply (*) as per rates of old contract being paid to the contractor / supplier at the time of termination of contract i.e. inclusive of PVC &amp; ORC, if any.</p> <p>H = Overhead Factor to be taken as 5</p> <p>In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).</p> <p>(*) Balance scope of work / supply (in case of termination of contract):</p> <p>Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work / Supply for calculating risk &amp; cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.</p> <p>Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.</p> <p>Substitute / extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute / extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.</p> <p>However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.</p> <p>NOTE: In-case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work / supply' for calculating Risk &amp; Cost amount.</p> <p><b>(D) LD against delay in executed work/ supply in case of Termination of Contract :</b></p> <p>LD against delay in executed be work / supply shall calculated in line with LD clause as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence), for the delay attributable to contractor / supplier. For this purpose, contract value shall be taken as Executed Value of work / supply for the purpose of limiting the maximum LD value.</p> <p>Method for calculation of "LD against delay in executed work / supply" is given below.</p> <p>i) Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor / supplier = T1</p> <p>ii) Let the value of executed work / supply till the time of termination of contract= X</p> <p>iii) Let the Total Executable Value of work / supply for which inputs/fronts were made available to contractor / supplier and were planned for execution till termination of contract = Y</p> <p>iv) Delay in executed work / supply attributable to contractor/supplier i.e. <math>T2=[1-(X/Y)] \times T1</math></p> <p>v) LD shall be calculated in line with LD clause [as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence)] of the Contract for the delay attributable to contractor / supplier taking "X" as Contract Value and</p>	
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**VOL-1A -GENERAL CONDITIONS OF CONTRACT (GCC)SUPPLY -R0**

TENDER NO :PSER:PUR:PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) dated 05/07/21

	<p>"T2" as period of delay attributable to contractor/ supplier.</p> <p><b>(E)</b> Recoveries arising out of Risk &amp; Cost and LD or any other recoveries due from Contractor.</p> <p>Following sequence shall be applicable for recoveries from contractor / supplier on whom risk &amp; cost has been invoked, after informing the contractor / supplier of the total proposed recovery :</p> <p>a) Dues available in the form of Bills payable to contractor / supplier, SD, BGs against the same contract.</p> <p>b) Demand notice for deposit of balance recovery amount shall be sent to contractor/ supplier, if funds are insufficient to effect complete recovery against dues indicated in (a) above.</p> <p>c) If contractor / supplier fails to deposit the balance amount to be recovered within the period as prescribed in demand notice, following action shall be taken for balance recovery:</p> <p>i) Dues payable to contractor / supplier against other contracts in the same Region / Unit shall be considered for recovery.</p> <p>ii) If recovery cannot be made out of dues payable to the contractor / supplier as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor / supplier.</p> <p>iii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor / supplier.</p>	
22.		
i)	Bank Guarantee: Non submission of 10% BG (if applicable) will attract 10% loading on the offers.-Not Applicable	
ii)	<b>Penalty Clause:</b> Non acceptance of penalty clause will attract maximum 10% loading on the offer and accordingly proportionate percentage will be loaded for accepting less percentage of penalty clause. Ex: If the supplier has accepted for maximum 5% penalty clause, then balance 5% will be loaded.	
iii)	For all other Terms & Conditions, if the offer is not confirming to the same, BHEL at its discretion shall load the same and the loading pattern shall be intimated to the bidders before price bid opening. However BHEL reserves the right to cancel a bid in case of non-acceptance of any terms and conditions finally arrived before price bid opening.	
23	<b>Note:</b> The offers not complying the above Terms & Conditions will not be accepted.	

**Note:**

01. In case of any conflict / inconsistency in any clause of the tender or between various sections of the tender, bidder should bring the same in writing to BHEL for clarification before submission of the bid, failing which the most stringent interpretation of the clause in favour of BHEL shall be adopted and the same shall be binding to the bidder.
02. Any deviation sought by the bidder should be indicated in the techno-commercial offer.
- 03. Bidder should write "accepted" in the column "Bidder's confirmation" for each clause.**
04. If any clause left blank, shall be presumed that the clause is accepted by the bidder.

SIGNATURE OF THE BIDDER WITH SEAL AND DATE

# **SPECIAL CONDITIONS OF CONTRACT**

FOR THE PURCHASE  
OF

Design, Drawing & Supply of  
3mm Thickness Translucent  
Polycarbonate Cladding Sheet  
for CHP-AHP, Coal & Lime  
Sheds

For 2x660MW  
Maitree Rampal  
Maitree Project



**BHARAT HEAVY ELECTRICALS**

**CONTENTS**

<b>CLAUSE NO</b>	<b>DESCRIPTION</b>
<b>1.0</b>	<b>NAME OF JOB</b>
<b>2.0</b>	<b>BROAD SCOPE OF WORK</b>
<b>3.0</b>	<b>SITE VISIT</b>
<b>4.0</b>	<b>PROJECT MANAGEMENT</b>
<b>5.0</b>	<b>SERVICES TO BE RENDERED BY THE SUCCESSFUL BIDDER</b>
<b>6.0</b>	<b>COMMUNICATION</b>
<b>7.0</b>	<b>GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)</b>
<b>8.0</b>	<b>ENGINEERING SERVICES</b>
<b>9.0</b>	<b>QUALITY PLAN</b>
<b>10.0</b>	<b>QUALITY ASSURANCE PROGRAMME</b>
<b>11.0</b>	<b>GENERAL REQUIREMENTS - QUALITY ASSURANCE</b>
<b>12.0</b>	<b>QUALITY ASSURANCE DOCUMENT</b>
<b>13.0</b>	<b>INSPECTION, TESTING AND INSPECTION CERTIFICATE</b>
<b>14.0</b>	<b>OPERATING MANUAL AND MAINTENANCE INSTRUCTION</b>
<b>15.0</b>	<b>INSURANCE</b>
<b>16.0</b>	<b>MATERIAL DESPATCH CLEARANCE CERIFICATE (MDCC) &amp; MATERIAL RECEIPT CERTIFICATE (MRC)</b>
<b>17.0</b>	<b>REPORTING, CLEARING &amp; SHIPPING DOCUMENTS</b>
<b>18.0</b>	<b>CONSIGNEE AND OTHER DETAILS</b>
<b>19.0</b>	<b>DISPATCH</b>
<b>20.0</b>	<b>PACKAGING</b>
<b>21.0</b>	<b>CUSTOM CLEARANCE</b>
<b>22.0</b>	<b>LAWS AND REGULATIONS</b>
<b>23.0</b>	<b>COMPLIANCE WITH APPLICABLE LAWS</b>
<b>24.0</b>	<b>APPROVED MANUFACTURER/ SUB-VENDOR</b>
<b>25.0</b>	<b>CONTRACT RATE/ PRICE</b>
<b>26.0</b>	<b>BANK DETAILS</b>
<b>27.0</b>	<b>EARNEST MONEY DEPOSIT (EMD) / SECURITY DEPOSIT (SD) / PERFORMANCE BOND (PB)</b>
<b>28.0</b>	<b>TAXES, DUTIES, ETC</b>
<b>29.0</b>	<b>COMPLETION PERIOD</b>
<b>30.0</b>	<b>DELIVERY/ SUPPLY SCHEDULE</b>
<b>31.0</b>	<b>EXTENSION OF TIME FOR COMPLETION</b>
<b>32.0</b>	<b>TERMS OF PAYMENT</b>
<b>33.0</b>	<b>BILLING BREAK-UP</b>
<b>34.0</b>	<b>MOBILISATION ADVANCE/ INTEREST BEARING RECOVERABLE ADVANCE</b>
<b>35.0</b>	<b>ESCALATION (PVC)</b>
<b>36.0</b>	<b>OVER RUN COMPENSATION (ORC)/ RATE REVISION</b>
<b>37.0</b>	<b>LIQUIDATED DAMAGE AND OTHER PENALTIES</b>
<b>38.0</b>	<b>GUARANTEE/WARRANTY, AND LATENT DEFECT LIABILITY.</b>
<b>39.0</b>	<b>BANK CHARGE</b>
<b>40.0</b>	<b>OTHER TERMS</b>

This volume shall be construed as part of tender document and shall be read along-with other volumes of tender. Unless otherwise specified, in case of any confusion of any clause/ provision of this volume or any conflict/ inconsistency of any clause/ provision of this volume with that of other volumes, the same shall be brought out by the Successful bidder in writing to BHEL for clarification or during pre-bid discussions, if applicable, failing which most stringent interpretation in favour of BHEL shall be adopted and the same shall be binding to the Successful bidder. Unless otherwise specified, all terms & conditions shall be applicable for entire scope and for each part/ package of tender.

CLAUSE NO	DESCRIPTION
<b>1.0</b>	<b>NAME OF JOB</b>
	Design, Drawing & Supply of 3mm thickness translucent Polycarbonate cladding sheet as per technical specification of the contract.  (Design & drawing of Polycarbonate sheet shall be required to submit as per technical specification & input structure drawing to match the profile & curvature of metal deck sheet)  Supply of flushing/ flat materials (if required) shall also be under the scope of supplier. However, payment for such materials shall be included in the price and shall not be paid extra. Payment shall be made for the profiled polycarbonate sheet only as per SCC.
<b>1.2</b>	Crimping/Curving matching the curvature of the shed/structure as per requirement shall be done in the polycarbonate sheet and supplier will take care all the aspects of design, drawing , specifications, etc. accordingly.
<b>2.0</b>	<b>BROAD SCOPE OF WORK</b>
2.1	The work to be done under this specification comprises of manufacturing, inspection, testing at manufacturer's/ sub-vendor's works, painting, proper packing, transportation, delivery, handing over at site of Materials as stated above & detailed in the specification & elsewhere in tender documents.
2.2	The scope of work broadly covers as per specification & elsewhere in the document but shall not be limited to the following.
2.3.1	Detail design of polycarbonate sheets as per specification/input from BHEL.
2.3.2	Preparation of the manufacturing quality plan.
2.3.3	<b>Transportation of materials on FOR destination/ site basis and door delivery of materials at site.</b>
2.3.4	The bidder shall act as "Transporter" of the materials after Transfer of Ownership of the materials at the registered place of the Bidder.
2.3.5	The bidder shall provide a copy of the Purchase Order issued to their C&F Agent before commencement of transportation of goods from the registered place. The C&F agent shall maintain close liaison with BHEL officials in India/Bangladesh with respect to the compliance of Export formalities from India/overseas and Import formalities in Bangladesh.
2.4	Drawings/ documents submitted along with tender are for guidance purpose only and no claim/ compensation, whatsoever, shall be entertained by BHEL on this account.
2.5	<b><u>MEASUREMENT PROCEDURE FOR PAYMENT:</u></b> Profiled sheeting shall be measured flat and not girthed. <b>Supply of screw &amp; accessories for fixing of Cladding sheets are excluded from the scope of works.</b>
2.8	All other points shall be as per the terms & conditions and specification along with aforesaid references together with amendments incorporated thereto.
<b>3.0</b>	<b>SITE VISIT</b>
	Not required
<b>4.0</b>	<b>PROJECT MANAGEMENT</b>
	To meet the need of project management, successful bidder shall provide the

	following services within quoted/ accepted prices.
4.1	PLANNING & MONITORING
4.1.1	The Successful bidder shall prepare L1 schedule/ network of engineering, manufacturing, testing, and procurement of sub-vendor items, as per completion schedule given in this document. This network must conform to the overall project schedule.
4.1.2	Based on L1 network the successful bidder will prepare L2 network which will indicate exhaustive list of activities of engineering, procurement of raw materials, manufacturing, testing, procurement of sub-vendor items, and dispatch as per completion schedule given in this document. This network must include all milestone and key activities for each subsystems/ components in the areas of engineering (wherever applicable), procurement, manufacture (wherever applicable), dispatch, erection/ commissioning.
4.1.3	Based on L2 network The successful bidder will develop L3 network, which will indicate micro details of each activity of L2 network and also show customer/ BHEL hold points, responsibility of the customers/ BHEL and Successful bidder.
4.1.4	Above schedules are to be preferably made in Microsoft Project, so that the same is compatible with BHEL's project management software.
4.1.5	Above schedules/ networks would be submitted to BHEL sequentially by the successful bidder within 15 days from date of LOI and finalized within a month.
<b>5.0</b>	<b>SERVICES TO BE RENDERED BY THE SUCCESSFUL BIDDER</b>
5.1	Services for complete engineering, coordination and project management as detailed elsewhere in this tender.
5.2	Services for shop test, quality assurance, as detailed elsewhere in this tender.
5.3	Furnishing preservation schedule with all details of preservation method and preservatives required storing.
5.4	DOCUMENTS
5.4.1	The successful bidder shall furnish required sets of approved drawing & documents before start of production work.
5.4.3	The successful bidder shall furnish required sets of 'Storage, preservation & painting manual'.
<b>6.0</b>	<b>COMMUNICATION</b>
	The successful bidder shall be responsible for arranging all communication facilities at office. The successful bidder has to establish independent internet/ e-mail facilities with mobile connection for all key site personnel and same shall be integrated with BHEL's voice/ data network & database systems at site. The successful bidder's office must have facilities of communications like Fax, E-mail, and telephone with STD facility etc.
<b>7.0</b>	<b>GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)</b>
7.1	The work must be performed according to the most recent relevant codes, standards, accident prevention regulations and local rules and legal regulations.
7.2	All materials and equipment supplied and all work carried out as well as calculation sheets, drawings, quality and class of goods, methods of inspection, specific design features of equipment and parts and acceptances of partial plants shall comply in every respect with the applicable standards, codes and regulations to be chosen from the following:
7.2.1	American Association of State Highway and transportation Officials AASHTO American Concrete Institute ACI American Gear Manufacturers Association AGMA American Institute of Steel Construction AISC American Iron & Steel Institute AISI American Moving and Conditioning Association AMCA American National Standards Institute ANSI American Petroleum Institute API American Public Health Association APHA American Society for Testing and Materials ASTM American Society of Civil Engineers ASCE



	<p> American Society of Heating, Refrigeration &amp; Air Conditioning Engineers ASHRAE  American Society of Mechanical Engineers ASME  American Water Works Association AWWA  American Welding Society AWS  American Wire Gauge AWG  Anti-Friction Bearing Manufacturers Association AFBMA  Architectural Institute of Japan AIJ  Association Francaise de Normalisation AFNOR  British Standards Institute BS  Chlorine Institute CI  Crane Manufacturers Association of America CMAA  Deutsches Institut für Normung DIN  Diesel Engine Manufacturers Association DEMA  European Norm EN  Expansion Joint Manufacturer Association EJMA  Fédération Européene de Manutention FEM  Heat Exchanger Institute HEI  Hydraulic Institute HI  Illuminated Engineers Society IES  Institute of Electrical and Electronics Engineers IEEE  Instrument Society of America ISA  Insulated Power Cable Engineers Association IPCEA  International Electrotechnical Commission IEC  International Standards Organization ISO  Japanese Architectural Standard Specification JASS  Japanese Electrical Manufacturers Association JEMA  Japanese Electrotechnical Institute JEC  Japanese Industrial Standards JIS  Manufacturers Standardization Society MSS  National Association of Corrosion Engineers NACE  National Electrical Code (USA) NEC  National Electrical Manufacturer Association (USA) NEMA  National Electrical Safety Code NESC  National Fire Protection Association NFPA  National Structural Code for Building NSCB  Occupation Safety and Health Administration OSHA  Portland Cement Association PCA  Properties of Water and Steam IFC  Scientific Apparatus Manufacturers Association SAMA  Society of Automotive Engineers ASE  Standards of Japanese Electrotechnical Committee JEC  Steel Structures Painting Council SSPC  Technische Vereinigung der Grosskraftwerksbetreiber VGB  Tubular Exchanger Manufacturers Association TEMA  Underwriters Laboratory UL  Uniform Building Code UBC  Verband Deutscher Elektrotechniker VDE  Verein Deutscher Ingenieure VDI  Vereinigung Deutscher Elektrizitätswerke (Association of German Power Plants) VDEW  Water Pollution Control Federation WPCF </p>
7.3	Generally, all internationally and nationally recognized standards as above will be applied, except if specific standards called for by:
7.3.1	<p> a) Occupational Safety Board of Bangladesh  b) Department of Inspection for Factories and Establishments, Bangladesh  c) Department of Environment, Bangladesh  d) Bangladesh Power Development Board </p>

	e) Bangladesh Energy Regulatory Commission f) Ministry of Power, Energy and Mineral Resources g) Bangladesh Fire Service and Civil Defence Ministry h) All relevant Bangladesh National Statutory Regulations i) Bangladesh National Building Code j) Bangladesh Standards k) Local Authorities.
7.4	All services, supplies and works shall comply with the requirements of the relevant laws of Bangladesh and the IFC/World Bank Group Standards and Guidelines in their latest edition, including but not limited to:
7.4.1	Environmental Conservation Rules Bangladesh Energy Regulatory Commission Act; BERC Licensing Regulation BERC Technical Quality Standards; Bangladesh National Building Code; other applicable laws in Bangladesh; IFC Performance Standards on Environmental and Social Sustainability; IFC / World Bank Group Environmental, Health and Safety (EHS) General Guidelines; IFC / World Bank Group EHS Guidelines for Thermal Power Plants; IFC / World Bank Group EHS Guidelines for Electric Power Transmission and Distribution.
7.5	It is contractor's responsibility to provide sufficient evidence that any national or other standard the Contractor proposes (other than those mentioned above) will ensure an equivalent or higher standard.
7.6	Except where otherwise specified, the plant/equipment shall comply with the appropriate agreed internationally accepted Standard Specification as mentioned elsewhere in contract specifications, each incorporating the latest revisions at the time of tendering. Where no internationally accepted standard is applicable, the Successful bidder shall give all particulars and details as necessary; to enable BHEL to identify all of the plant/equipment in the same detail as would be possible had there been a Standard Specification.
7.7	Where the Successful bidder proposes alternative codes or standards he shall include in his tender one copy (in English) of each Standard Specification to which materials offered shall comply. In such case, the adopted alternative standard shall be equivalent or superior to the standards mentioned in the specification.
7.8	In case bidder proposes any IS code, it shall be verified by reputed institutions like IIT that the proposed code is equivalent or superior to the codes mentioned above. Comparison report shall be established and provided to BHEL/Owner for information. Such report shall highlight the main items of the code, including material composition, material properties, design clauses and others as required. Report shall identify deviations of both codes and give justification for this deviation.
7.9	The bidder shall ensure that design will consider material properties as per approved code.
7.10	In the event of any conflict between the codes & standards referred above, and requirements of this specification, the requirements which are more stringent shall govern.
7.11	Wherever specified or required the plant/equipment shall conform to various applicable statutory regulations at Bangladesh. Wherever required, obtaining approval for plant/ equipment supplied under the specification from statutory authorities shall be the responsibility of the successful bidder.
7.12	Below mentioned IS codes have been approved/accepted by BIFPCL:
7.13.1	IS 2061 for Structural Steel
<b>8.0</b>	<b>ENGINEERING SERVICES</b>
	As part of the overall project management activity, the successful bidder shall be responsible for proper engineering and coordination activities during various phases of execution of the contract. The successful bidder shall identify one

	Engineering Manager with whom BHEL will interact on all matters on coordination between BHEL and the contactors. The Engineering Manager shall be the single point contact person on behalf of the successful bidder and shall be responsible for all engineering co-ordination.
<b>9.0</b>	<b>QUALITY PLAN</b>
	The Successful bidder shall furnish the quality assurance plan which would be approved by BHEL/ owner.
<b>10.0</b>	<b>QUALITY ASSURANCE PROGRAMME</b>
	To ensure that the equipment & services under the scope of the contract whether manufactured/ performed at Successful bidder's works or at Successful bidder's premises or at any other place of work are in accordance with the specifications The successful bidder shall adopt suitable quality assurance programme to control activities as necessary. Such programme shall be outlined by the successful bidder and shall be finally accepted by BHEL/ owner/ authorised representative. A quality assurance programme of the successful bidder shall generally cover the following.
10.1	The organization structure and qualification data of key personnel for the management and implementation of the proposed quality assurance program.
10.2	System for site erection control including process controls and fabrication and assembly controls.
10.3	The procedure for purchase of materials, parts, components and selection of sub-Successful bidder's service including Successful bidder analysis, source inspection, incoming raw material inspection, verification of materials purchased, etc.
10.4	System for shop manufacturing and site erection control including process control, fabrication and assembly controls.
10.5	Control of non-conforming items and system for corrective actions.
10.6	Inspection and test procedure for all site related works.
10.7	Control of calibration and testing of measuring and testing equipment.
10.8	System for quality audit.
10.9	System for indication and appraisal of inspection status.
10.10	System for authorizing release of manufactured product to BHEL.
10.11	System for handling storage and delivery.
10.12	System for maintenance of records.
10.13	Furnishing of Quality Plan for manufacturing and Field activities detailing out the specific quality control procedures adopted for controlling the quality characteristics relevant to each item of equipment/ component.
<b>11.0</b>	<b>GENERAL REQUIREMENTS - QUALITY ASSURANCE</b>
11.1	All materials, components and equipment covered under this specification shall be procured, manufactured, and tested at all the stages, as per a comprehensive Quality Assurance Program. An indicative program of inspection/tests to be carried out by the successful bidder for some of the major items is given in the respective technical specification. This is however not intended to form a comprehensive program as it is the responsibility of the successful bidder to draw up and implement such program duly approved by BHEL The detailed quality plan for manufacturing should be drawn up by the Successful bidder and will be submitted to BHEL for approval.
11.2	Manufacturing Quality Plans will detail out all the equipment & components, various tests/ inspection to be carried out as per requirement of specification & standards mentioned therein and the quality practices & procedures, etc to be followed by The successful bidder 's quality control organization during various stages of materials procurement, manufacturing, assembly and final testing/ performance testing.
11.3	The Successful bidder shall furnish copies of reference documents/ plant standards/ acceptance norms/ tests and inspection procedures etc. as referred in Quality Plans along with Quality Plan. These Quality Plans and reference documents/ standards etc. will be subject to BHEL/ owner's approval without which manufacturing will not proceed. These approved documents will form part of the contract. In these approved Quality Plans, BHEL/ authorized representative shall

	identify customer hold points, test/ checks which shall be carried out in presence of BHEL/ owner's representative and beyond which work will not proceed without consent of BHEL/ owner. All deviations to the specifications, approved Quality Plan and Applicable standards must be documented and referred to BHEL for approval & disposition.
11.4	Quality audit/ approval of the results of tests and inspection will not prejudice the right of BHEL to reject equipment not giving the desired performance after erection and shall not in no way limit the liabilities and responsibilities of the successful bidder in earning satisfactory performance of equipment as per specification.
11.5	Repair/ rectification procedures to be adopted to make any job acceptable shall be subject to the approval of BHEL/ owner.
11.6	<b>The successful bidder shall ensure that only asbestos-free materials including consumables are used/supplied at the project. Any material having asbestos content is forbidden in the project.</b>
<b>12.0</b>	<b>QUALITY ASSURANCE DOCUMENT</b>
12.1	The successful bidder shall be required to submit the following Quality Assurance Documents within 2 weeks after dispatch of the equipment.
12.1.1	Test report of components.
12.1.2	The inspection plan with verification, inspection plan check points, verification sketches, if used and methods used to verify that the inspection and testing points in the inspection plan were performed satisfactorily.
12.1.3	Non-destructive examination results/ reports including radiography interpretation reports.
12.1.4	Welder identification list listing welder's and welding operator's qualification procedures and welding identification symbols.
12.1.5	Sketches and drawings used for indicating methods of traceability of the radiographs to the location of the equipment.
12.1.6	Stress relief time temperature charts.
12.1.7	Factory test results for testing required as per applicable codes and standards referred to in the specification.
12.1.8	Inspection Report duly signed by QA Personnel of BHEL and successful bidder for the agreed inspection hold points. During course of inspection the following will also be recorded.
12.1.8.1	When some important work repair work is involved to make the job acceptable.
12.1.8.2	The repair work remains part of the accepted product quality.
12.1.8.3	Letter of conformity certifying that that requirement is in compliance with finalized specification requirements.
<b>13.0</b>	<b>INSPECTION, TESTING AND INSPECTION CERTIFICATE</b>
<b>13.1</b>	<b>Inspection, Examination and Testing</b>
13.1.1	<p>All design, engineering, equipment, materials, Plant and workmanship supplied by Successful bidder or for which Successful bidder is responsible shall be subject to inspection, examination and testing by the BHEL/Employer's (BIFPCL) and/ or Engineer's (FICHTNER) designated consultants and/ or representatives at any and all times during design, engineering, manufacture, procurement, fabrication and construction and at any and all places where such design, engineering, manufacture, procurement, fabrication and construction are carried on.</p> <p>Provided such inspection, examination and testing shall to the extent possible be carried out in conjunction with Successful bidder's similar activities, and if not, upon prior consultation with Successful bidder in order to avoid any unnecessary delay in the performance of the Work.</p>
13.1.2	In furtherance of the foregoing, Successful bidder shall arrange for the aforesaid consultants and representatives of the Employer and/ or Engineer to have access to all places where manufacture or preparation of equipment, materials and Plant or construction activities are being carried out.
13.1.3	In respect of the Work which the Employer and/ or Engineer are entitled to examine, inspect, measure and/or test, Successful bidder shall give notice (of not

	less than 20 working days) to the Employer and the Engineer whenever any such Work is ready and before it is covered up, put out of sight or packaged for storage or transport. The Employer and/or the Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or give notice to Successful bidder that Employer and/ or the Engineer (as applicable) does not require to do so after receipt of Successful bidder's notice for such examination, inspection, measurement or testing at Site.
13.1.4	If Successful bidder fails to give such notice, it shall, if and when required by the Employer and/or the Engineer, uncover the work and thereafter reinstate and make good, all at Successful bidder's cost and expense. The Employer and the Engineer shall be responsible for their respective expenses in connection with inspection, examination and testing.
13.1.5	The Successful bidder shall co-operate with and provide full opportunity to the Employer/Engineer to regularly monitor the progress of manufacture in the Works of the Successful bidder to the detailed extent necessary to establish that satisfactory progress relative to the Contract Schedule is being achieved.
13.1.6	All pertinent information such as shop loading, detailed manufacturing programs to enable the Employer and/ or Engineer to determine the adequacy of the advance planning for material procurement, machine and manpower resources to meet the Contract Schedule shall be made freely available to the Employer and/ or Employer 10 working days before visiting the manufacturing facilities.
13.2	<b>Rejection and Replacement</b>
13.2.1	The Employer and/ or the Engineer and their designated consultants and representatives shall have the right to reject any portion of the Work which is effective, deficient, not within specifications provided in the Contract or not according to Good Industry Practice or faulty workmanship and require its repair or replacement
13.2.2	Rejected and other defective equipment, materials and Plant shall be satisfactorily replaced with proper replacements. The costs and expenses associated with such repairs and replacements shall be to the account of Successful bidder and not reimbursable
13.2.3	After completion of the necessary repairs or replacements, the relevant equipment, materials and Plant, shall be subject to further inspection, examination and testing by the Employer and/ or Engineer and their designated consultants and representatives, all the costs and expenses of which shall be to the Successful bidder's account.
13.2.4	If Successful bidder fails to proceed promptly with the replacement of rejected equipment, materials and Plant and the correction of defective workmanship, Employer and/ or the Engineer may, by contract with third parties or otherwise, replace such equipment, materials and Plant or correct such workmanship and/or may terminate this Contract and Successful bidder shall be liable and reimburse Employer and/ or the Engineer (as applicable) upon demand for all costs, expenses and damages incurred by the Employer and/ or Engineer relating to such replacement or correction.
13.2.5	The Successful bidder shall be entitled to remove and retain all rejected components Work that the Employer and/ or may have replaced at the Successful bidder's cost.
13.3	The Successful bidder shall furnish; at each location where inspection, examination and testing is carried out; all reasonable facilities, assistance, labour, equipment, materials, utilities, apparatus and instruments necessary for the safe and convenient inspection and testing of material and workmanship that may be required pursuant to this Contract.
13.4	The right of inspection, examination and testing by Engineer or the Employer, their designated consultants and representatives provided herein is intended solely for the Engineer's and the Employer's benefit, it being understood that no exercise of or failure to exercise such right shall relieve Successful bidder of any of its obligations hereunder or prejudice any of the Engineer or Employer's rights under

	this Contract.
13.5	The Engineer, his duly authorized representative and/ or an outside inspection agency acting on behalf of BHEL/ owner shall have access at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture and if part of the works is being manufactured or assembled on other premises or works, The successful bidder shall obtain for the Engineer and for his duly authorized representative permission to inspect as if the works were manufactured or assembled on Successful bidder's own premises or works. Necessary arrangement for carrying out inspection including supply of labour, IMTEs, area illumination and scaffolding, if required will be Successful bidder's responsibility and same has to be carried out within the quoted price.
13.6	To facilitate advance planning of inspection in addition to giving inspection notice the successful bidder shall furnish quarterly inspection program indicating schedule dates of inspection at customer hold point and final inspection stages. Updated quarterly inspection plans will be made for each 3 consecutive months and shall be furnished before beginning of each calendar month.
13.7	Before any plant/equipment leaves the place of manufacture BHEL shall be given the option of witnessing inspections and tests for compliance with the specifications and related standards. The successful bidder shall give the engineer/ Inspector 15 days' written notice of any material being ready for testing. Such test shall be to the successful bidder's account except for the expenses of the Inspector .The Engineer/ Inspector, unless the inspection is waived will attend such tests within 15 days of the date on which the equipment is notified as being ready for test/ inspection failing which The successful bidder may proceed with test which shall be deemed to have been made in the Inspector's presence and he shall forthwith forward to the Inspector duly certified copies of test reports.
13.8	The Engineer or Inspector shall within 15 days from the date of inspection as defined herein give notice to The successful bidder of any objection wrt drawing/ equipment/ workmanship which in his opinion not in accordance with the specification/ contract. The successful bidder shall either make modification as may be necessary to meet the said objection or explain to the engineer/ inspector giving reasons that no modifications are necessary to comply with the contract.
13.9	When the factory tests have been completed at The successful bidder's or successful bidder's works, the engineer or Inspector shall issue a certificate to this effect within reasonable time after completion of tests but if the tests are not witnessed by the engineer or Inspector the certificate shall be issued within 15 days of the receipt of Successful bidder's test certificate by the engineer Inspector. The completion of these tests or the issue of the certificates shall not bind BHEL to accept the equipment should it on further tests after erection be found not to comply with the contract.
13.10	In all cases where The successful bidder provides the tests at the premises of The successful bidder or any sub-vendor, The successful bidder except where otherwise specified shall provide free of charge such items as labour, materials, electricity, fuel, water, stores, apparatus and instruments as may be reasonably demanded by the Engineer/ Inspector to carry out effectively such tests on the equipment in accordance with the contract and shall give facilities to the Engineer/Inspector to accomplish testing.
13.11	<b>INSPECTION &amp; JOINT VERIFICATION (AT SUCCESSFUL BIDDER'S WORKS)</b>
13.11.1	Prior to dispatch, the materials would be offered by The successful bidder for joint inspection at The successful bidder's works as detailed in this tender specification for which The successful bidder would serve the advance notice of 7 days for inspection call to BHEL.
13.11.2	For further information, Successful bidder shall visit web site <a href="http://cgir.bhel.in">http://cgir.bhel.in</a> to login & lodge inspection related calls.
13.12	<b>INSPECTION &amp; JOINT VERIFICATION (AT SITE)</b>
	The successful bidder shall be intimated within 7 days from the date of receipt of each consignment at site to depute their representative for joint inspection and

	verification of the equipment/ materials received at site. The successful bidder shall depute their representative within 7 days from receipt of such intimation failing which BHEL shall proceed with the inspection and verification of equipment/materials and BHEL's decision in this regard shall be final and binding on The successful bidder.
<b>14.0</b>	<b>OPERATING MANUAL AND MAINTENANCE INSTRUCTION</b>
	Not applicable
<b>15.0</b>	<b>INSURANCE</b>
15.1	BHEL/ customer shall arrange comprehensive insurance policy for total supply & services for main equipment/ system covering transit risks & loss, destruction or damage during handling at site, storage, civil works, erection, testing and commissioning up to trial operation/ completion of unit(s) including theft, sabotage, fire, lightning and other natural calamities. <b>The details of the underwriter shall be intimated to the successful bidder before commencement of dispatch of the materials from the registered place of the bidder.</b>
15.2	Successful bidder shall timely intimate dispatches/ discrepancy during contract operation, to the underwriter. The name of the underwriter and Policy No shall be intimated in due course of time.
15.3	The successful bidder will take necessary precautions/ due care to protect the material at project site, while in their custody from any damage/ loss till the same is handed over to BHEL/ customer at project site. For lodging/ processing of insurance claim The successful bidder will submit necessary documents. BHEL reserve the right to recover the loss from The successful bidder in case the damage/ loss is due to negligence/ carelessness on the part of The successful bidder. In case of theft of material under Successful bidder's custody, the same shall be reported to police by The successful bidder immediately and copy of FIR and subsequently police investigation report shall be submitted to BHEL/ customer for taking up with insurance. However this will not relieve The successful bidder of their contractual obligation for the materials in his custody.
15.7	In case the damage/ loss/ theft of materials are attributable to negligence/ failure in discharging the duties and obligations of The successful bidder, the expenses incurred for repair/ replacement of such components in excess of the amount realized from the underwriters, limited to Normal Excess (Deductible Franchise) shall be recovered from The successful bidder.
15.8	In case the claim is summarily rejected by the underwriters due to WILFUL NEGLIGENCE of The successful bidder, the entire cost of repair/replacement will be recovered from The successful bidder.
15.9	It will be responsibility of The successful bidder to replenish the items lost/ damaged in time without hampering the schedule of work and without waiting for settlement of insurance claim. Amount received from the underwriters on settlement of insurance claim shall be passed on to The successful bidder as and when available.
15.10	Other conditions of Insurance shall be as per relevant clause of GCC.
<b>16.0</b>	<b>MATERIAL DESPATCH CLEARANCE CERTIFICATE (MDCC) AND MATERIAL RECEIPT CERTIFICATE (MRC)</b>
16.1	MDCC shall be issued by BHEL/ owner or their authorized representative prior to dispatch. In case the tests are not witnessed by BHEL/ owner's representative, the test certificates shall be submitted to owner through BHEL and MDCC will be issued thereafter.  <b>If inspection is to be done in India, then BHEL/TPI/OE's/BIFPCL shall do inspection as per approved MQP.</b>  <b>If inspection is to be done in outside of India, then inspection (as per approved MQP) shall be done by BIFPCL/OE's approved TPIA and BIFPCL/OE's may witness as per their discretion. In this case the cost of inspection shall be borne by the bidder.</b>

16.2	Copy of MDCC and other dispatch document shall accompany with every dispatch, failing which the consignment shall not be allowed to enter the project premises.
16.3	MRC shall be issued by BHEL/ owner or their authorized representative after the material is received at site in good condition.
<b>17.0</b>	<b>REPORTING, CLEARING &amp; SHIPPING DOCUMENTS</b>
	The Successful bidder shall provide all official forms and documentary information as shall be necessary to fulfill the requirement of Bangladesh customs and the employer/BHEL. Following are the list of tentative documents as may be required during execution of the job:
17.1	<b>Reporting Documents</b> <ol style="list-style-type: none"> <li>1) Shipping Specification – 2 copies (if applicable)</li> <li>2) Information regarding dimensions, Gr, Wt / Nt. Wt. in specific format as per annexure attached.</li> <li>3) Packing lists (one copy should be submitted along with the consignment, 2 copies in a special packet)</li> <li>4) Transit insurance Intimation to the underwriter</li> <li>5) Invoice in Original &amp; duplicate in 3 (three) originals.</li> <li>6) Full set of Truck Receipt/ Railway Receipt/Shipping Document (by Barge) in India in 1 (one) original and 3(three) copies marked freight prepaid.</li> <li>7) Warranty Certificate in 1 (one) original as per contract.</li> <li>8) Certificate of Origin Issued by the Manufacturer of the materials shipped in 1 (one) original mentioning merchandise to be of anywhere except Israel.</li> <li>9) Material Despatch Clearance Certificate issued by the purchaser for goods supplied issued prior to the shipment date of goods as applicable.</li> </ol>
17.2	<b>Clearing Documents</b> <p>The Successful bidder shall forward to the Employer/BHEL through their bankers not later than seven (7) days from the date of sailing for the purpose of clearing the cargo at the point of destination the following documents required:</p> <ol style="list-style-type: none"> <li>a) Negotiable copy of bill of lading – 1 copy</li> <li>b) Invoice with item wise prices – 3 copies</li> <li>c) Shipping Specification – 3 copies</li> <li>d) Copy of Charter Party Approved by Employer/BHEL</li> </ol>
17.3	<b>Shipping Documents</b>
17.3.1	<p>Simultaneously with the dispatch of the negotiable documents as listed in above the Successful bidder shall also send by air mail eleven (11) sets of non-negotiable shipping documents to the employer/BHEL. The invoices and shipping specification shall bear the insurance cover note number. Each set will comprise the following documents:</p> <ol style="list-style-type: none"> <li>a) The name of the vessel</li> <li>b) Port of destination</li> <li>c) Description of the cargo (grouped)</li> <li>d) Number of cases and/or weight of cargo</li> <li>e) Number of cases weighing above 20 tons and their individual weights</li> <li>f) Number of bills of lading</li> <li>g) Expected date of arrival at the port of destination</li> </ol>
17.3.2	The Successful bidder shall so arrange that the master of the vessel will inform the employer/BHEL by cable of the date and time of arrival of the vessel at the port of destination seventy two (72) hours in advance.
<b>18.0</b>	<b>CONSIGNEE AND OTHER DETAILS</b>
18.1	<p>Consignee for material shall be as mentioned below.</p> <p>Managing Director, Bangladesh-India Friendship Power Company (Pvt.) Limited, Level-17, Borak Unique Height, 117, Kazi Nazrul Islam Avenue, Eskaton Garden, Dhaka-1217, Bangladesh</p>
18.2.0.	Notify Party shall be as mentioned below.



18.2.1	BHEL It shall be intimated later.
18.2.2	BIFPCL (OWNER) DGM (C&M) Bangladesh-India Friendship Power Company (Pvt.) Limited, Level-17, Borak Unique Height, 117, Kazi Nazrul Islam Avenue, Eskaton Garden, Dhaka-1217, Bangladesh Contact No.: +8801678582730 E-Mail ID: <a href="mailto:epcmainplant@bifpcl.com">epcmainplant@bifpcl.com</a>
18.2.3	The Successful bidder shall notify owner / BHEL at the abovementioned mail IDs before dispatch of any consignment. All correspondence with regard to dispatch of the material shall be done with the “Notify Party”.
18.3	Delivery Address for material shall be as mentioned below. Site In-charge, Bangladesh-India Friendship Power Company (Pvt.) Limited, 2x660 MW Maitree Super Thermal Power Project, PO-Kalekharber, Union-Rajnagar, Upajila-Rampal, Dist: Bagerhat-9333, Bangladesh Contact No.: +8801678582723
18.4.1	<b>PAYING AUTHORITY</b> All issues related to invoicing, payment shall be addressed to following <b>Head (Finance)</b> Bharat Heavy Electricals Ltd. Power Sector Eastern region, BHEL Bhawan, Plot No. DJ – 9/1, Sec-II, Karunamoyee, Salt Lake, Kolkata, West Bengal-700091, India.  Any change of above shall be intimated to the successful bidder accordingly.
<b>19.0</b>	<b>DISPATCH</b>
19.1	All materials/ plants/ equipment shall be transported through roadways/waterways including ODC consignment. Dispatch shall only be made after inspection and issue of MDCC by BHEL/ owner. Advance information by fax/ courier of dispatch details shall be sent to Construction Manager, BHEL.
19.2	No consignment shall be dispatched on SELF basis. Material shall be dispatched prepaid, door delivery basis, else ensure the clearance and collection of goods from lorry go down and arrangement to transport the same to Site store shall be in the scope of successful bidder.
19.3	Each package should carry the packing slip/ details of contents and should be put inside a metal enclosure, properly fixed to the packing from outside. The packing shall be such as to ensure prevention of damage, corrosion, pilferage, deterioration, loss in transit or storage and road-worthy.
19.4	The title of the ownership of goods to be supplied shall pass on to the owner on dispatch ex works/ FOR destination. However till the scope is completed in all respect and the plant/ equipment is taken over by the owner the goods shall remain with the custody of the Successful bidder.
<b>20.00</b>	<b>PACKAGING</b>
20.01	Provided however, shippers container used for transportation of material shall be returned to the Successful bidder.
20.02	Each package or shipping unit shall be clearly marked or stenciled on at least two sides as follows:

	<p>BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (Pvt.) LIMITED 2X660 MW MAITREE SUPER THERMAL POWER PROJECT BANGLADESH (Name of the Successful bidder)</p> <p>In addition, each package or shipping unit shall have the symbol painted in red on at least two sides of the package, covering one fourth of the area of the side.</p>
20.02	Each case shall contain a packing list showing the detailed contents of the package. When any technical documents are supplied together with the shipment of materials no single package shall contain more than one set of such documents. Shipping papers shall clearly indicate in which packages the technical documents are contained.
20.03	The case number shall be written in the form of a fraction, the numerator of which is the serial number of the case and the denominator the total number of case in which a complete unit of equipment is packed.
20.04	Wherever necessary besides usual inscriptions the cases shall bear special indication such as "Top", "Do not turn over", "Care", "Keep dry", etc., as well as indication of the centre of gravity (with red vertical lines) and places for attaching slings (with chain marks).
20.12	Cases which cannot be marked as above shall have metal tags with the necessary markings on them. The metal tags shall be securely attached to the packages with strong steel binding wire.
20.04	Each piece, skid, case or package shipped separately shall be labelled or tagged properly.
20.05	The Successful bidder shall be solely responsible for packing and marking of cargo with respect to handling, transport. Successful bidder shall be fully liable for proper, sufficient and adequate packing, completeness of contents, protection of contents for a storage time of at least twelve months, and correct preparation of the packing list. All damage and costs whatsoever resulting from inadequate or insufficient packing shall be fully charged to the Successful bidder.
20.06	Packing and conservation of goods shall be sufficient to protect them from damage during transit from point of manufacturer up to unloading and storage at site under conditions which may involve multiple handling, extended storage, exposure to moisture and the possibility of pilferage.
20.07	Materials shall be suitably packed in weather proof, seaworthy packing for ocean transport under tropical conditions. The packing shall be strong and sufficient enough to ensure safe preservation of the materials up to the final point of destination.
<b>20.08</b>	<b>SPECIAL PACKING INSTRUCTIONS PRIOR TO DISPATCH</b>
20.08.1	<p>Each package should have the following inscriptions legibly and clearly:  <b>Destination: MSTPP/ Bangladesh</b>  <b>Package number: BHEL/MTR/BD/PSE/YYY/ZZZZZ</b>  <b>Where: YYY stands for vendor name/code and ZZZZZ stands for package sl. no. (to be intimated by BHEL before dispatch)</b></p> <p><b>Handling marks and the following Delivery marking:</b></p> <p><b>Gross and Net weight:</b>  <b>Dimension:</b>  <b>Lifting Places:</b>  <b>CONTRACT NO.: BIFPCL/EPC/-MAIN PLANT/2016/01</b>  <b>PURCHASER: BIFPCL, Bangladesh</b></p>
20.08.2	Packing commensurate with international standards and accepted norms will be ensured by CQA/ Unit QC/Third Party Inspection Agency.
20.08.3	The packing list has to be checked and certified by the Inspection agency/agencies with due signatures.
20.08.4	<b>Routing of Packing Lists:</b> Packing list is an extremely important document, which

TENDER NO –PSER: PUR: PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) Date 05/07/2021		
VOLUME-IC, R-0	SPECIAL CONDITIONS OF CONTRACT	PAGE 15 OF 26

	forms a part of export documentation in connection with the processing of custom formalities.
20.08.5	<b>Excise Attestation at Works:</b> To avoid opening of big cases, if applicable, for examination by customs at port of shipment, the supplying unit may arrange to get the packing cases sealed by local excise authorities/ self-certification and the relevant invoices and packing lists to be endorsed from Superintendent, Central Excise. Successful bidder to provide "specification of packing with the indication of the number of cargo packages, type of packing and weight of packing in English" along with the packing list.
20.08.06	<b>Marking on the consignment</b> For each invoice, item wise Mark No. has to be allotted as per guidelines mentioned above. This mark no. shall be put on all the packages of that particular item. However, there can be multiple items in one invoice.  For example, if one invoice contains 4 items and each item contains 250, 100, 125 & 75 no. of packages, then for 1st item, Mark number for all packages shall be: BHEL/MTR/BD/PSE/YYY/00001 and for 2nd item, Mark number for all packages shall be: BHEL/MTR/BD/PSER/YYY/00002 and so on.
20.08.07	<b>Marking for safe handling</b>
20.08.07.1	To ensure safe handling, packing case shall be marked to show the following:  Upright position, Sling position and Centre of Gravity position, Storage category. Fragile components (to be marked properly with a clear warning for safe handling).)
<b>21.0</b>	<b>CUSTOM CLEARANCE</b>
21.1	The successful bidder shall be responsible for Bangladesh customs clearance of all materials, supplies, equipment, tools and other articles shipped into Bangladesh by him for the implementation of his works, including the food and the personal effects of the Successful bidder's personnel.
21.2	All payment for clearance charge, storage charge, etc. which are imposed by the relevant agencies of the Government of Bangladesh, relating to the clearance of equipment, materials and Plant that will be incorporated in the Permanent Works or relating to the Temporary Works shall be borne by the Successful bidder. Further, if the Successful bidder is delayed in submitting necessary shipping documents to the Employer, the demurrage charges by the Port Authority will be borne by the Successful bidder.
21.3	Tools and equipment and other equipment of the Successful bidder for use during construction but which are to remain the property of the Successful bidder and which are to be exported by the successful bidder from Bangladesh at the completion of the Work shall be carefully documented and specially listed to facilitate both import and export. The Successful bidder shall determine prior to shipment the customs regulations applicable to this special case as well as normal import rules and regulations applicable. The Successful bidder shall also be responsible for inland transport by barge/ truck/train to the Site.
<b>22.0</b>	<b>LAWS AND REGULATIONS</b>
22.1	The Successful bidder agrees and acknowledges that:
22.1.1	He and their respective employees, servants, consultants and agents abide by all Applicable Law, (i) relating to the performance of the Work; (ii) by all rules and regulations of those Governmental Authorities who have control or jurisdiction over the Site or the countries where the Successful bidder may reside or perform work, directly or indirectly under this Contract (including the timely payment of any and all fees, assessments, or other governmental charges and registrations with relevant agencies or other Governmental Authorities required in connection therewith) and; (iii) With the terms and conditions of any Authorizations.

22.1.2	Successful bidder represents that it is fully aware of all of the Applicable Laws, terms and conditions of any Authorizations, business practices and plant rules and regulations which must be complied with when performing the Work.
22.1.3	Successful bidder shall furnish to Employer and Engineer, promptly upon request, such information concerning Successful bidder, their respective employees, consultants, servants and agents as the Employer or Engineer may be required to furnish to any applicable Governmental Authority.
22.2	Without prejudice to the generality of the foregoing:
22.2.1	The Successful bidder shall observe, comply with and respect Bangladesh laws, rules and regulations and shall not interfere with Bangladesh political or religious affairs either directly or indirectly.
22.2.2	The Successful bidder shall comply with such other rules and regulations as Employer and the Engineer may establish from time to time with respect to the construction work and personnel employed by the Successful bidders provided such rules and regulations shall not modify any of the Contract.
22.2.3	The Successful bidder shall, in all dealings with its labour, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labour.
22.2.4	The Successful bidder shall not give or barter or otherwise dispose of, to any person or persons, any arms or ammunition of any kind, or permit the same as aforesaid.
22.2.5	In the event of any outbreak of illness of an epidemic nature the Successful bidder shall comply with and carry out such regulations, orders and requirements as may be made by the Government of the People's Republic of Bangladesh or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.
<b>23.0</b>	<b>COMPLIANCE WITH APPLICABLE LAWS</b>
<b>23.1</b>	<b>Compliance</b>
23.1.1	Successful bidder shall ensure that its employees, servants, consultants and agents abide by all Applicable Law, relating to the performance of the Work and by all rules and regulations of those Governmental Authorities and persons who have control or jurisdiction over the Site (including the timely payment of any and all fees, assessments, or other governmental charges and registrations with relevant agencies or other Governmental Authorities required in connection therewith) and with the terms and conditions of any Authorizations.
23.1.2	Successful bidder represents that it is fully aware of all of the Applicable Laws, terms and conditions of the Authorizations, consents, business practices and plant rules and regulations which must be complied with when performing the Work.
23.1.3	Successful bidder shall furnish to the BHEL / Employer, promptly upon request, such information concerning its employees, consultants, servants and agents as BHEL / Employer may be required to furnish to any applicable Governmental Authorities.
<b>23.2</b>	<b>Related Compliance Obligations</b>
23.2.1	The Successful bidder shall Take all reasonable care that the Work is performed with the minimum possible impact on the environment and local community in respect of land and occupants affected by or adjacent to the Work.
23.2.2	The Successful bidder shall have responsibility prior to Provisional Acceptance Certificate for administration and co-ordination with the Governmental Authorities, as necessary, of any testing or the taking of any other action necessary to demonstrate the Work's compliance with all Applicable Laws, as well as the Authorizations, Consents, as maybe required for or issued in connection with the development, construction, erection and operation of the Works.
23.2.3	The Successful bidder shall provide BHEL / Employer with a copy of all communications with any such authorities and at least five (5) days prior written notice to BHEL / Employer in respect of any meeting with any such authorities (with Successful bidder responsible for obtaining all necessary permissions for the

	attendance of a representative of BHEL / Employer at any such meeting).
23.2.4	The Successful bidder shall carry out its obligations under this Contract so as not to cause or contribute to any breach by, or violation of, Employer of any Applicable Law, consent or Authorization.
23.3	<b>Permits and Licenses</b>
23.3.1	Successful bidder shall obtain and maintain all consents, permits and licenses (“ <b>Consent</b> ”) which are required by Applicable Law for the performance of the Work and to allow Successful bidder to perform and complete the Work in accordance with the Contract Schedule (irrespective of whether the same are required to be procured in the name of Successful bidder or Employer), other than the Authorizations.
23.3.2	Specifically, where an Consent by its very nature can only be procured by the Employer (BIFPCL), the Employer shall at the Successful bidder’s request, execute such documents and complete such formalities as are necessary for presentment of the application or other Consent related documents to the relevant Governmental Authority or other person. However, the foregoing shall in no circumstances be construed as (i) relieving the Successful bidder from his obligations under Clause 23.3.1 for which he shall remain primarily and fully responsible, or (ii) as imposing any responsibility on the Employer in respect of procurement of consents/ licenses/ approvals/ permits other than the Authorizations.
23.3.3	<p>If requested by Successful bidder, BHEL / Employer shall provide reasonable assistance to Successful bidder in obtaining and maintaining such Consents. Successful bidder shall not be entitled to any adjustment to the Contract Schedule or the Contract Price or any other terms of this Contract relating to any delay or failure to obtain or maintain any such Consents.</p> <p>Employer /BHEL will provide reasonable assistance to the Successful bidder for obtaining any required authorization and export licenses for exporting tolls, equipment, test equipment, and other Successful bidder’s Equipment, all of which are and remain the property of the Successful bidder, from Bangladesh at the conclusion of the Work.</p>
23.4	<p><b>SUCCESSFUL BIDDER’S RESPONSIBILITY TO GET ACQUAINTED WITH BANGLADESH LAWS, IMPORT POLICY, ETC.</b></p> <p>The Successful bidder shall get himself acquainted with the relevant Bangladesh Laws as well as the import policy of the Government of People’s Republic of Bangladesh remaining in force regarding import of banned items, if any, during the execution of the Contract. In case of import of any banned items and/or contraband item, the consequential liability shall rest with the Successful bidder. Similarly the Successful bidder shall be responsible for any non-conformance of Bangladesh Laws either by its own employees during execution of the Contract.</p>
24.0	<p><b>APPROVED MANUFACTURER/ SUB-VENDOR</b></p> <p>For other bought out items, Successful bidder have to adhere to the list of sub-vendors, indicated elsewhere in the technical specification, Volume-II/ approved sub-vendor.</p>
25.0	<b>CONTRACT RATE/ PRICE</b>
25.1	Successful bidder shall quote their price in USD as per the format of Volume-III, price schedule (Latest revision) only.
25.3	<b>TENDER EVALUATION</b>
25.3.1	<p>Bidder to note that Grand Total F.O.R. site price at Maitree Project Site, Bangladesh including all the taxes, custom clearance, transportation etc but excluding transit insurance (In USD) above shall be considered for evaluation &amp; awarding. As such Total price should be complete in all respect for the full scope defined considering all terms and conditions.</p> <p>In case of bidders opting for LC, payment shall be made through LC as per Clause No. 32.2. However, for evaluating the lowest bidder, @ 1.5% on the offered value shall be loaded to the price of the respective bidders.</p>
25.3.2	<b>LC RELATED BANK CHARGES</b>

	As Per LC Format(Annexure A)
<b>26.0</b>	<b>BANK DETAILS</b>
	<b>Deleted</b>
<b>27.0</b>	<b>EARNEST MONEY DEPOSIT (EMD) / SECURITY DEPOSIT (SD) / PERFORMANCE BOND (PB)</b>
<b>27.1</b>	<b>EARNEST MONEY DEPOSIT (EMD)</b>
	Not applicable.
<b>27.2</b>	<b>SECURITY DEPOSIT(SD)</b>
	Not applicable.
<b>27.3</b>	<b>PERFORMANCE BOND</b>
<b>27.3.1</b>	Not applicable.
<b>28.0</b>	<b>TAXES, DUTIES ETC</b>
<b>28.1</b>	<b>Indian GST: (For Indian Suppliers)</b>
28.1.1	<p>All taxes excluding GST along with Cess (as applicable) but including, Charges, Royalties, any State or Central Levy and other taxes for materials if any obtained for the work and for execution of the contract shall be borne by successful supplier and shall not be payable extra by BHEL.</p> <p>Any increase of above at any stage during execution of contract, including extension of the contract, shall have to be borne by successful supplier contractor. Supplier's quoted/ accepted rates/ price shall be inclusive of all such requirements.</p>
28.1.2	<p>GST along with Cess (as applicable) legally leviable &amp; payable by successful supplier as per GST Law shall be paid by BHEL, extra. <b>Hence, supplier shall not include GST along with Cess (as applicable) in their quoted rates/ price.</b></p> <p>Supplier, however, must ensure that the reduced/ <b>concessional rate of GST as applicable for penultimate exporter vide Notification No. 41/2017-Integrated Tax (Rate) dtd. 23-10-2017, Notification No. 40/2017-Central Tax (Rate) dtd. 23-10-2017 or similar Notification issued by any State / Union Territory GST Authority</b> is levied along with all the necessary compliances. The documents/ undertaking required for availing concessional rate of GST shall be made available by BHEL to the supplier before, during or after export of goods from India.</p> <p>The supplier shall also issue suitable instruction to their C&amp;F agent to comply with relevant conditions for compliance of Notification as issued by the tax authorities from time to time.</p> <p><b>Concessional rate of GST shall be charged on Basic price, Packing and Forwarding Charges and Transportation Charges up Maitree site.</b></p>
28.1.3	<p>GST along with Cess (as applicable) legally leviable &amp; payable by successful supplier as per GST Law shall be paid by BHEL, extra. Hence, supplier shall not include GST along with Cess (as applicable) in their quoted rates/ price.</p> <p><b>** In case of third country import by an Indian Bidder ( i.e. supply of goods from country other than India),the transaction involves supply of goods from a non-taxable territory to another non-taxable territory, Indian GST shall not be applicable as being a non-taxable transaction (SL No.7 of Schedule –III of CGST Act,2017 as amended from time to time).</b></p> <p>The bidder must take into account the above provision of the CGST Act and offer the price accordingly.</p>
28.1.4	<p>The successful supplier shall instruct C&amp;F agent engaged by them to ensure mentioning of GSTN of BHEL in the "Shipping Bill" to be filed by them.</p> <p>Bharat Heavy Electricals Ltd is registered with "Engineering Export Promotion Council</p>

	of India (EEPC India). The copy of valid Registration Cum Membership Certificate shall be provided to the successful supplier. The successful supplier shall obtain Certificate of Origin (4 Copies [Two Original plus 2 Copy]) from the regional office of EEPC, India. The cost of obtaining the Certificate of Origin (2 Copies) shall on the successful supplier's account.
28.1.5	The C&F Agent engaged by the successful supplier shall be suitably instructed by the supplier to send a copy of the " Shipping Bill ( which shall contain the GSTN of BHEL and Invoice No. of BHEL) and Export General Manifest( EGM)
28.1.6	Successful supplier shall furnish proof of GST registration with GSTN Portal covering the services under this contract. Registration should also bear endorsement for the premises from where the billing shall be done by successful supplier on BHEL for this project/ work.
28.1.7	Since GST on output will be paid by BHEL separately as enumerated above, supplier's quoted rates/ price should be after considering the Input Credit under GST law at supplier's end.
28.1.8	TDS as per Income Tax Act shall be deducted at prevailing rates on gross invoice value from the running bills (RA bills) unless exemption certificate from the appropriate authority/ authorities is furnished. From 01.07.2021 – Supplier is not required to charge TCS in their Invoice/Bill.
28.1.8.1	<b>FORMAT – 10F ( ATTACHED ) has to be submitted by bidder.</b>
28.1.9	TDS under GST shall be deducted at applicable rates on gross invoice value from the running bills (RA bills).
28.1.10	Supplier shall note that GST Tax Invoice complying with GST Invoice Rules (Section 31 of GST Act & Rules referred thereunder) wherein the 'Bill to' details shall encompass following.  BHEL GSTN - 19AAACB4146P1ZC  Name - Bharat Heavy Electricals Limited  Address - Power Sector Eastern Region, Plot No. 9/1, DJ- Block, Sector II Salt Lake City , Kolkata -700 091
28.1.11	Successful supplier to intimate immediately on the day of removal of goods (in case of any supply of goods) to BHEL along with all relevant details and send a scanned copy of Tax Invoice to BHEL through following communication mode for enabling BHEL to meet its GST related compliances.  Portal address- Shall be intimated later and  Email address – Shall be intimated later.  Specific details of above shall be intimated to successful supplier by BHEL at appropriate juncture.
28.1.12	In case of delay in submission of above-mentioned documents on the date of dispatch, BHEL may incur penalty/ interest for not adhering to Invoicing Rules under GST Law. The same will be liable to be recovered from successful supplier, in case such delay is not attributable to BHEL.
28.1.13	In case of raising any Supplementary Tax Invoice (Debit/ Credit Note), successful supplier shall issue the same containing all the details as referred to in Section 34 read with Section 31 of GST Act & Rules referred there under.
28.1.14	Successful supplier shall comply with the Time Limit prescribed under the GST Law and rules thereof for raising of the Tax Invoice. If any supply of goods is applicable, successful supplier shall also ensure prompt delivery of goods after dispatch.

28.1.15	Supplier shall note that in case GST credit is delayed/ denied to BHEL due to delayed/ non receipt of goods and/ or Tax Invoice or expiry of the timeline prescribed in GST Law for availing such ITC, or any other reasons, not attributable to BHEL, GST amount shall be recoverable from successful supplier along with interest levied/ leviable on BHEL, as the case may be.
28.1.16	Successful supplier shall upload the invoices raised on BHEL in GSTR-1 within the prescribed time as given in the GST Act. Supplier shall note that in case of delay in declaring such invoice in your return and GST credit availed by BHEL is denied or reversed subsequently as per GST Law, GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from the successful supplier along with interest levied/ leviable on BHEL.
28.1.17	Way Bill: Successful supplier to arrange for waybill/ e-waybill for any transfer of goods for the execution of the contract.  Successful supplier has to make their own arrangement at their cost for completing the formalities, if required, with Issuing Authorities, for bringing materials, plants & machinery at site for execution of the works under this contract, Road Permit/ successful supplier, if required, shall arrange Way Bill, and BHEL will not supply any Road Permit/ Way Bill for this purpose.
28.1.18	Any new taxes & duties, if imposed subsequent to due date of offer submission as per NIT & TCN, by statutory authority during contract period (including extension, if the same is not attributable to you), shall be reimbursed by BHEL on production of relevant supporting document to the satisfaction of BHEL. However, you shall obtain prior approval from BHEL before depositing new taxes and duties.
28.1.19	Benefits and/ or abolition of all existing taxes must be passed on to BHEL against new taxes, if any, proposed to be introduced at a later date.
28.1.20	The supplier shall raise GST Compliant consolidated invoice covering all the charges including Design & Drawing, Manufacturing / Fabrication, Transportation up to Site, Customs Clearance both in Indian and in Bangladesh, Erection & Commissioning etc. The currency of this Invoice shall be Indian Rupees (INR). The charges on account of customs Clearance Ocean Freight and / or any other charges shall include all taxes (Global Tax: Income Tax on C & F Commission, VAT on C & F Commission, Document processing fees, Fines and Penalties, if any), duties, charges, Cess or any other taxes incurred in connection with performance of the supply of goods at project site in Bangladesh.
28.1.21	The name of BHEL must appear in the all the export documents including Shipping Bills, Packing List, Certificate of Origin, Export Declaration Form (EDF) to be filed with Indian Customs authority as the "Exporter" and name of the Supplier may appear as the "Manufacturer Exporter". IEC No. of BHEL (0588138690) and BIN No. of BHEL (AAACB4146PFT001) must be used in all export related documents in India.
28.1.22	BHEL intends to claim rewards under ' <b>Merchandise Exports from India Scheme (MEIS)</b> ' and also intends to claim Duty Drawback under the Customs Act, 1962. The supplier should instruct their C&F agent to ensure availability of these benefits to BHEL.
28.1.23	However, if any of the taxes as mentioned above are paid by the supplier as per the extant law in force in Bangladesh, the same shall be reimbursed at actuals subject to production of documentary evidence in support of such payment. However, the supplier shall obtain prior approval of BHEL before deposition of such taxes.
28.1.24	Supplier shall note that the Commercial Invoice must contain the 'Bill to'; 'Ship to'; 'Consignee'; details as below: <b>Consignee:</b> <b>To The Order of Janata Bank Limited</b> <b>Commercial Area, Dhaka -1000, Bangladesh,</b>



TENDER NO –PSER: PUR: PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) Date 05/07/2021		
VOLUME-IC, R-0	SPECIAL CONDITIONS OF CONTRACT	PAGE 21 OF 26

	<p><b>BIN :000000027</b></p> <p><b><u>Ship to:</u></b>  <b>Bangladesh-India Friendship Power Company (Pvt.) Limited</b>  <b>(A Joint Venture Company of Bangladesh Power Development Board (BPDB) &amp; NTPC Ltd.), Level-17, Borak Unique Height, 117, Kazi Nazrul Islam Avenue Eskaton Garden, Dhaka-1217, Bangladesh TIN:679263372309, BIN:000305686-0802</b></p> <p><b><u>Bill to:</u></b>  <b>Bharat Heavy Electricals Limited</b>  <b>Power Sector Eastern Region,</b>  <b>Plot No. 9/1, DJ- Block, Sector II</b>  <b>Salt Lake City, Kolkata -700 091</b></p>
<b>28.2.0</b>	<b>BANGLADESH VAT</b> <b>(Applicable For Supplier From Bangladesh)</b>
28.2.1	The Supplier shall submit copy of VAT registration Certificate (Musak-8), TIN Certificate, Trade License to the BHEL site office immediately after receiving the Order but before raising the first Tax Invoice against this tender.
28.2.2	<p>The supplier shall raise Tax Invoice (Challan Patra) as per Rule 16(1) (Musak-11) of the Value Added Tax Rules, 1991 mentioning Name, Address and VAT Registration Number of BHEL site office.</p> <p>Supplier shall note that the Tax Invoice complying with Rule16(1) of the Value Added Tax Rules, 1991 must contain the ‘Bill to’ and ‘Ship to’ details as below:  BHEL VAT Regn. No. 000761853-0208  NAME Bharat Heavy Electricals Limited  ADDRESS Power Sector Eastern Region,  2x660 MW Maitree Super Thermal Power Project  Moidara Village, Rampal Upazila,  Bagerhat District, Bangladesh</p>
28.2.3	The supplier shall submit self-certified copy of the Treasury Challan and / or self-attested copy of the Current Account (Musak-18) along with the Tax Invoice as an evidence of payment of output tax claimed from BHEL.
28.2.4	<p><b>Suppliers shall quote price excluding Bangladesh VAT.</b></p> <p>VAT is separately payable for which the supplier shall submit self-certified copy of the Treasury Challan and / or self-attested copy of the Current Account (Musak-18) along with the Tax Invoice as an evidence of payment of output tax claimed from BHEL.</p>
<b>28.2.5</b>	<b>Value Added Tax Deduction at Source:</b>
	<p>BHEL shall make deduction of VAT at source (VDS), as / if applicable, from the Running Account Bills of the supplier depending upon the status of the supplier like “Manufacturer”, “Trader” or “Procurement Provider” as per the extant provision of the Value Added Tax Act, 1991 read with the relevant Notification issued thereunder.</p> <p>BHEL shall issue VAT Deduction Certificate in “Musak-12kha” to enable the service provider to take credit of the same while paying his Output VAT. Since VAT is separately payable by BHEL as mentioned in clause <b>28.2.3 &amp; 28.2.4</b> and since VDS is adjustable by supplier against his output tax, hence Supplier <b>shall quote price excluding Bangladesh VAT.</b></p>
<b>28.2.6</b>	Bidder to take into consideration the provision of Duty Drawback / Export Incentive in Bangladesh, as applicable. As such, while offering the rates, the supplier may take into

TENDER NO –PSER: PUR: PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) Date 05/07/2021		
VOLUME-IC, R-0	SPECIAL CONDITIONS OF CONTRACT	PAGE 22 OF 26

	<p>account the benefit of above provisions, as the cost of input to the supplier will be net of such incentives and adjust their offer price accordingly to make it more competitive.</p> <p>The bidder shall indicate the amount of export incentive (per Metric Ton of the materials) considered in the offer price in the price bid format duly supported by statutory documents.</p> <p>However, in case of any change both upward and downward in the export incentive amount in comparison to the amount considered above and quoted in the price bid format, the differential amount shall either be recovered or paid (as the case may be) from the offer price at the time of payment against the supply invoices .The bidder shall provide the adequate statutory documents in support of such changes for further consideration by BHEL.</p>
<b>28.2.7.0</b>	<b>INCOME TAX DEDUCTION AT SOURCE:</b>
<b>28.2.7.1</b>	<p>Bidder should have valid 12-digit TIN number in Bangladesh prior to start of work.</p> <p>Advance Income Tax (AIT) under the Income Tax Ordinance,1984(and rules made thereunder) shall be deducted at prevailing rates on Gross Invoice value from the bills unless Exemption Certificate from the appropriate authority/ authorities is/ are furnished under Income Tax Laws of Bangladesh</p>
<b>28.2.7.2</b>	Since payment shall be made in Bangladesh. Bangladesh Income Tax (AIT) shall be deducted, if applicable.
<b>28.3</b>	<b>Import in Bangladesh:</b> (Applicable for Indian Supplier and other Foreign Suppliers)
<b>28.3.1</b>	<p>Supplier may please note that import for the project shall be in the name of our Employer / Owner of the Plant / Project and such import shall be exempted from payment of Import Duty comprising of Supplementary Duty (SD), Value Added Tax (VAT), Customs Duty (CD), Advanced Income Tax (AIT,) Advanced Tax (AT), Advance Trade VAT (ATV) as per S.R.O-73 dtd. 19-03-1997.</p> <p>Further, any documentation needed for facilitating the Imports like Bill of Entry, Bill of Lading, Packing List, Certificate of Origin etc. will be submitted by the supplier in reasonable time having regard to the time for delivery of the work and the time for completion.</p> <p>Documents required for import clearance at Bangladesh Customs shall be provided/ arranged by BHEL from Customer based on supplier's documents as above.</p>
<b>28.3.6</b>	<p>Supplier shall note that the Commercial Invoice must contain the 'Bill to'; 'Ship to'; 'Consignee'; details as below:</p> <p><b><u>Consignee:</u></b></p> <p style="text-align: center;"><b>TO THE ORDER OF LC OPENING BANK (IN CASE OF NON- LC- REFER SL.NO. 28.1.24)</b></p> <p><b>1ST NOTIFY PARTY</b>  <b>To The Order of Janata Bank Limited</b>  <b>Commercial Area, Dhaka -1000, Bangladesh,</b>  <b>BIN :000000027</b></p> <p><b>2ND NOTIFY PARTY</b>  <b>Bangladesh-India Friendship Power Company (Pvt.) Limited</b>  <b>(A Joint Venture Company of Bangladesh Power Development Board (BPDB) &amp; NTPC Ltd.), Level-17, Borak Unique Height, 117, Kazi Nazrul Islam Avenue</b>  <b>Eskaton Garden, Dhaka-1217, Bangladesh TIN:679263372309,</b></p>

TENDER NO –PSER: PUR: PMX:374(VI):0017 (ENQ:21:PP:0015:PUR:16) Date 05/07/2021		
VOLUME-IC, R-0	SPECIAL CONDITIONS OF CONTRACT	PAGE 23 OF 26

	<b>BIN:000305686-0802</b>  <b>3RD NOTIFY PARTY</b> <b>Bharat Heavy Electricals Limited</b> <b>Power Sector Eastern Region,</b> <b>Plot No. 9/1, DJ- Block, Sector II</b> <b>Salt Lake City, Kolkata -700 091</b>
28.3.7	<p>In case of third country (i.e. any country other than India and Bangladesh) import, the supplier shall get the Bill of Lading / Air Way Bill issued in the name of “Bharat Heavy Electricals Limited, Power Sector Eastern Region, Plot No. 9/1, DJ- Block, Sector II, Salt Lake City, Kolkata -700 091”, which will be endorsed further (before arrival of the goods in Bangladesh) in favour of “<b>Janata Bank Limited, Commercial Area, Dhaka - 1000, Bangladesh</b>”.</p> <p><b>The exporter from third country shall get the “Country of Origin” issued from the recognized authority in the country of export.</b></p> <p><b>The exporter from third country shall prepare Packing list in the prescribed format which will be intimated later.</b></p>
28.3.8	<p>The supplier should correctly and accurately classify all the materials, supplies, equipment, tools and other articles to be shipped under the subject purchase order as per the Harmonized Commodity Description and Coding System. The supplier may refer the website of Bangladesh Customs Authority in this regard (<a href="http://www.bangladeshcustoms.gov.bd/trade_info/operating_center">http://www.bangladeshcustoms.gov.bd/trade_info/operating_center</a>).</p>
28.3.9	<p>The Supplier shall promptly unload the materials, supplies, equipment, tools and other articles.</p>
28.3.10	<p>The supplier shall be responsible for import of all permanent imported items including freight forwarding, custom clearance on both side at India &amp; Bangladesh, port handling, port charges and C&amp;F commission &amp; their offer Price should consider Demurrage, Landing fee and Additional Border Charges, and various other charges / fees imposed by the Customs Authority, Port Authority or any other authority.</p> <p>No extra payment shall be paid by BHEL in this regard. The price shall be DDP(Delivery Duty Paid) Site as such and shall be inclusive of all such requirement.</p>
28.3.11	<p>Any Taxes for exporting material from source country &amp; as applicable in the source country shall be on supplier's account. <b>However, supplier to take into consideration Duty Free Export Provisions in source country, as applicable, including that in GST in case of exports from India.</b> As such, while offering the rates, the supplier may take into account the benefit of above provisions, as the cost of input to the supplier will be net of such taxes and adjust their offer price accordingly to make it more competitive.</p> <p><b>In case of supply from India Supplier to take into consideration applicable, Zero Rated Export Provisions under GST Law.</b></p>

<b>29.0</b>	<b>COMPLETION PERIOD</b>
29.1	The successful bidder shall supply materials in such a manner that entire supply gets completed within <b>5 (Five) months</b> from the date of LOI.
i	Drawing & Design completion within <b>15 (Fifteen) days</b> from date of LOI
ii	12000 SQM sheet within <b>40 (Forty) days</b> from the date of LOI
iii	12000 SQM sheet within <b>3 (Three) months</b> from the date of LOI
iv	12000 SQM sheet within <b>4(Four) months</b> from the date of LOI
v	Balance within <b>5 (Five) months</b> from the date of LOI
<b>30.0</b>	<b>DELIVERY/ SUPPLY SCHEDULE</b>
30.1	Upon receipt of order/ LOI from BHEL, successful bidder within 7 days shall interact with BHEL for kick-off meeting to discuss & firm up schedule of design/ engineering, manufacturing/ procurement, supply/ delivery of various items so as to complete the entire job within the stipulated completion period, matching with project schedule.

<b>31.0</b>	<b>EXTENSION OF TIME FOR COMPLETION</b>
31.1	If the completion of work as detailed in the scope of work gets delayed beyond the contract/ completion period, The successful bidder shall request for an extension of the contract and BHEL at its discretion may extend the contract.
31.2	Based on the reviews jointly signed, the scope balance at the end of original contract period less the backlog attributable to The successful bidder shall be quantified, and the number of months of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', The successful bidder is bound to complete the portion of backlog attributable to The successful bidder. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.
31.3	However if any 'Time extension' is granted to The successful bidder to facilitate continuation of work and completion of contract, due to backlog attributable to The successful bidder alone, then it shall be without prejudice to the rights of BHEL to impose penalty/ LD for the delays attributable to The successful bidder, in addition to any other actions BHEL may wish to take at the risk and cost of Successful bidder.
31.4	A joint program shall be drawn for the balance amount of work to be completed during the period of 'Time Extension'. Review of the program and record of shortfall shall be done.
31.5	At the end of total work completion as certified by BHEL engineer, and upon analysis of the total delay, the portion of time extensions attributable to (i) Successful bidder, (ii) Force majeure conditions, and (iii) BHEL, shall be worked out and shall be considered to be exhausted in the same order. The total period of time extensions shall be the sum of (i), (ii) and (iii) above and shall be equal to period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/ levied for the portion of time extensions attributable to successful bidder and recoverable from the dues payable to The successful bidder.
<b>32.0</b>	<b>TERMS OF PAYMENT</b> Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.
<b>32.1</b>	<b>For All Bidders ( Payment in USD )</b>
	<ol style="list-style-type: none"> <li>1. 75% direct payment against dispatch of materials within 30 days from the date of LR or B/L. against following documents :- <ol style="list-style-type: none"> <li>a. BILL OF EXCHANGE FOR 75 PCT OF INVOICE VALUE.</li> <li>b. SIGNED COMMERCIAL INVOICE IN ORIGINAL WITH ITEM WISE (1 ORIGINAL PLUS 2 COPIES) FOR 100 PCT VALUE.</li> <li>c. NEGOTIABLE COPY OF FULL SET OF AIR WAY BILL/ BILL OF LADING IN 1 (ONE) ORIGINAL (1 ORIGINAL PLUS 2 COPIES) MARKED AS PER CLAUSE NO:- <b>REFER SL.NO. 28.1.24 &amp; 28.3.6 AS APPLICABLE</b></li> <li>d. PACKING LIST (1 ORIGINAL PLUS 2 COPIES)</li> <li>e. COPY OF <b>IINTIMATION TO INSURANCE COMPANY REGADING DESPATCH.</b></li> <li>f. CERTIFIED TRUE COPY OF EXPORT DOCUMETS AND OR DECLARATION BY THE EXPORTER (MANUFACTURER) PROCESSED BY CUSTOMS AT RESPECTIVE COUNTRIES</li> <li>g. CERTIFICATE OF ORIGIN ISSUED BY RESPECTIVE COUNTRIES CHAMBER OF COMMERCE (1 ORIGINAL PLUS 2 COPIES)/ APPROPRIATE ISSUING AUTHORITY</li> <li>h. COPY OF MDCC ISSUED BY BHEL.</li> </ol> </li> <li>2. 20% direct payment within 30 days from the date of MRC shall be released against receipt of material at site against following documents :- <ol style="list-style-type: none"> <li>a. BILL OF EXCHANGE FOR 20 PCT OF INVOICE VALUE.</li> <li>b. COPY OF SIGNED COMMERCIAL INVOICE FOR 100 PCT.</li> <li>c. COPY OF MATERIAL RECEIPT CERTIFICATE (duly Signed by BHEL).</li> <li>d. BILL OF ENTRY FILED WITH BANGLADESH CUSTOMS.</li> <li>e. COPY OF FULL SET OF TRUCK RECEIPT/ RAILWAYS RECEIPT FOR TRANSPORTATION IN BANGLADESH.</li> </ol> </li> </ol>

	<p>3. Balance 5% direct payment shall be made after completion of Guarantee/warranty period. However, if desired by vendor, this 5% may be released by BHEL against submission of equivalent amount bank guarantee as per Performance Bank Guarantee format, to be kept valid till warranty period.</p> <p>(d) No advance shall be paid.</p> <p>(e) Paying Authority: AGM Finance, BHEL-PSER Kolkata.</p> <p>If supplier insists for LC, only 30 days Non-Transferable Usance LC against 95% value with revolving amount of 0.6 Million USD will be opened with a validity up to scheduled date of delivery as per PO plus 21 days (for document submission). Further loading @ 1.5% on the offered value will be considered. LC shall be opened for net payable value.</p> <p>The bidder shall ensure that manufacturing &amp; readiness of material shall not be linked with LC opening considering mutual agreement of LC terms &amp; the time required in the formalities for establishment of LC. However, BHEL shall ensure opening of LC prior to despatch of 1<sup>st</sup> Consignment.</p>
<b>32.2</b>	<b>LC Format – as per Annexure – A of SCC document</b>
32.3	Along with every RA bill, The successful bidder shall submit item-wise plan (w.r.t. L2 Schedule) vs actual status of supply, as applicable.
32.4	For Bidders( <b>Opting in INR payment through NEFT/RTGS</b> ), payment shall be made in India, from Kolkata/HQ in equivalent amount of USD converted to INR with SBI TT Selling rate as on the Date of Bill/Invoice. Credit period and documents required shall be as per <b>Clause No: 32.1 above</b> .
32.5	Subject to any deduction which BHEL may be authorized to make under the contract, The successful bidder shall on the certification of BHEL engineer at site, be entitled to payment as per billing schedule.
32.6	However no extra payment shall be made in the event of deferment in payment.
32.7	All admissible recovery/ adjustment, etc. shall be made from interim payment.
<b>33.0</b>	<b>BILLING BREAK-UP</b>
	Applicable, If required.
<b>34.0</b>	<b>MOBILISATION ADVANCE/ INTEREST BEARING RECOVERABLE ADVANCE</b>
	Not applicable for this tender.
<b>35.0</b>	<b>ESCALATION (PVC)</b>
	Not applicable for this tender.
<b>36.0</b>	<b>OVER RUN COMPENSATION (ORC)/ RATE REVISION</b>
	Not applicable for this tender.
<b>37.0</b>	<b>LIQUIDATED DAMAGE AND OTHER PENALTIES</b>
37.1	If The successful bidder fails to complete entire scope of work within completion period, for reasons attributable to them, BHEL shall have the right to recover, as liquidated damages (LD), a sum equivalent to 0.5% of contract price for delay of each week or part thereof for balance executable supply.
37.2	The liability for delay shall not in any case exceed 10 % (Ten percent) of the contract price (Supply part), including taxes, duties, etc.
37.3	BHEL shall deduct aforesaid amounts from any money due or which may become due to The successful bidder and/ or recover from the bank guarantees/ security deposit of The successful bidder. To be entitled to impose such compensation/ penalty/ recovery, BHEL will not be required to prove that they have incurred such amount as actual damage.
37.4	BHEL reserve the right to complete the job through other resource on account of and at the risk & cost of Successful bidder without notice to Successful bidder of

	the work not so executed, without cancelling the order/ contract in respect of the work not yet due for completion.
37.5	BHEL reserve the right to cancel the order/ contract or a portion thereof for the work not so completed at the risk & cost of The successful bidder and The successful bidder shall be liable to BHEL for any excess costs thereof.
37.6	The successful bidder shall continue with performance of the order/ contract under all circumstances, to the extent not cancelled.
37.7	Where action is taken as per above, The successful bidder shall be liable for any loss, which BHEL may sustain on that account. The successful bidder shall not be entitled to any gain on such action and the manner & the method of such purchase shall be at the discretion of BHEL. It shall not be obligatory on the part of BHEL to serve a notice of such completion, through other resource, on successful bidder.
37.8	Liquidated damages (LD) shall be applicable for each contract as per the corresponding completion periods as well as contract prices, indicated elsewhere in the tender.
37.9	All other terms & conditions of GCC shall be applicable.
<b>38.0</b>	<b>GUARANTEE / WARRANTY</b>
<b>38.1</b>	The contractor will be responsible for the quality of workmanship, quality of materials/ items and design for which the contractor is responsible.
<b>38.2</b>	Guarantee / warranty period shall be 12 Months as per relevant clause of GCC. Commencement of guarantee period shall be from the supply of last consignment.
<b>39.0</b>	<b>BANK CHARGE</b>
	No interest, whatsoever, shall be payable by purchaser on the security deposit, any bank guarantee submitted or any amount due to the seller/ Successful bidder.
<b>40.0</b>	<b>OTHER TERMS</b>
	All other term & conditions of this specification shall be governed by the pertinent provisions of GCC & other volumes of this tender, as applicable.

**LC FORMAT**

20 : LC NUMBER : \_\_\_\_\_

31C : DATE : (DD/MM/YYYY) : \_\_\_\_\_

<b>40A#</b>	<b>TYPE OF L/C</b>	IRREVOCABLE & NON TRANSFERABLE
<b>31D#</b>	<b>DATE AND PLACE OF EXPIRY</b>	DATE: SCHEDULED SHIPMENT DATE + 21 DAYS PLACE:
<b>50#</b>	<b>NAME AND ADDRESS OF THE APPLICANT</b>	<i>BHARAT HEAVY ELECTRICALS LIMITED</i> POWER SECTOR EASTERN REGION, 9/1, DJ BLOCK, SECTOR-II, SALT LAKE, KOLKATA.-700091, INDIA
<b>59#</b>	<b>NAME AND ADDRESS OF THE BENEFICIARY</b>	
<b>32B#</b>	<b>CURRENCY AND AMOUNT OF CREDIT (IN FIGURES AND WORDS)</b>	TOTAL VALUE / REVOLOVING VALUE <b>AS PER PO</b> (INCLUDING TAXES BUT EXCLUDING TDS)
<b>39A</b>	<b>AMOUNT OF TOLERANCE IN QUANTITY AND/ OR VALUE</b>	+/- <b>AS PER TENDER – Maximum 10%</b>
<b>39B</b>	<b>MAXIMUM CREDIT AMOUNT</b>	CLAUSE 32B +/- TOLERANCE
<b>39C</b>	<b>ADDITIONAL AMOUNT COVERED (USANCE INTEREST, RATE ETC.)</b>	NOT APPLICABLE
<b>41A#</b>	<b>CREDIT AVAILABLE WITH</b>	AS PER BIDDER
	<b>CREDIT AVAILABLE BY</b>	NEGOTIATION
<b>42C#</b>	<b>USANCE OF THE DRAFTS</b>	AT SIGHT / USANCE - <b>AS PER TENDER</b> (IN CASE OF USANCE THE PERIOD STARTS FROM SUBMISSION OF BOE)

**42A DRAFT TO BE DRAWN ON**

**43P# PARTIAL SHIPMENTS** ***AS PER OFFER***

**43T# TRANSSHIPMENTS** ***AS PER OFFER***

**44A DELIVERY FROM** ***AS PER OFFER***

**# SHIPMENT FROM** ***AS PER OFFER***

**44B# SHIPMENT TO** ***AS PER TENDER***

**DELIVERY TO** ***AS PER TENDER***

**44C# LATEST SHIPMENT DATE** LAST DATE OF DELIVERY PERIOD ***AS PER TENDER***

**45A# DESCRIPTION OF GOODS AND/OR SERVICES:**

***AS PER TENDER***

**#DESPATCH TERMS:** ***AS PER TENDER , UCP 600***

**46A DOCUMENTS REQUIRED:**

***AS PER TENDER (MUST BE CLEARLY MENTIONED)***

**47A ADDITIONAL CONDITIONS: -**

- 1) LD CLAUSE APPLICABLE
- 2) ALL DOCUMENTS MUST BE WRITTEN IN ENGLISH
- 3) PAYMENT SHALL BE MADE AFTER DEDUCTING IT TDS / GST TDS AND IS BINDING ON THE BENEFICIARY.
- 4) GST (IF APPLICABLE) SHALL BE WITHHELD FROM THE BILL AND THE SAME IS BINDING ON THE BENEFICIARY AND SHALL BE REFUNDED DIRECTLY AFTER RECEIVING CREDIT.
- 5) ALL DOCUMENTS MUST MENTION OUR LC NO EXCEPT THIRD PARTY DOCUMENTS
- 6) DOCUMENT DATE PRIOR TO THIS CREDIT IS ACCEPTABLE BUT NOT BEFORE THE DATE OF PO
- 7) ACTUAL MEASUREMENT OF MATERIAL RECEIPT SHALL BE CONSIDERED FOR PAYMENT



- 8) CONSIGNEE DETAILS: ***AS PER TENDER (SHOULD BE TO THE ORDER OF LC OPENING BANK AND NOTIFY PARTY-1,2,3 ETC.)***

**71 BANK CHARGES**

BHEL WILL BEAR OPENING CHARGES AND  
RETIREMENT CHARGES ONLY

ANY OTHER CHARGES WILL BE TO BENEFICIARY  
ACCOUNT INCLUDING DISCREPANY CHARGES  
AND DISCREPANCY DOCUMENT ACCEPTANCE  
CHARGES.

IN CASE LC IS EXTENDED, THE EXTENSION  
CHARGES ARE TO BE BORNE BY THE PERSON  
(APPLICANT / BENEFICIARY) TO WHICH THE  
DELAY IS ATTRIBUTABLE.

**48 PRESENTATION PERIOD  
OF DOCUMENTS**

WITHIN THE VALIDITY OF LC

**49 # CONFIRMATION INSTRUCTIONS**

WITHOUT CONFIRMATION.

**57A CREDIT TO BE ADVISED TO  
BENEFICIARY THROUGH (BANK) :-**

AS PER BIDDER

**NOTE: ADDITIONAL CONDITION AS PER CLAUSE 47A ABOVE MAY VARY AS PER THE  
FINALIZED TERMS OF THE TENDER**

## FORMS & PROCEDURES

Form No: F-01 (Rev 00)

### OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

Offer Reference No:.....

Date:.....

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : Submission of Offer against Tender Specification No: .....

I/We hereby offer to carry out the work detailed in the Tender Specification issued by Bharat Heavy Electricals Limited, Power Sector-....., in accordance with the terms and conditions thereof.

I/We have carefully perused the following listed documents connected with the above work and agree to abide by the same.

1. Amendments/Clarifications/Corrigenda/Errata/etc issued in respect of the Tender documents by BHEL
2. Notice Inviting Tender (NIT)
3. Price Bid
4. Technical Conditions of Contract
5. Special Conditions of Contract
6. General Conditions of Contract
7. Forms and Procedures

Should our Offer be accepted by BHEL for Award, I/we further agree to furnish 'Security Deposit' for the work as provided for in the Tender Conditions within the stipulated time as may be indicated by BHEL.

I/We further agree to execute all the works referred to in the said Tender documents upon the terms and conditions contained or referred to therein and as detailed in the appendices annexed thereto.

I/We have deposited/depositing herewith the requisite Earnest Money Deposit (EMD) as per details furnished in the Check List.

#### **Authorised Representative of Bidder**

Signature :

Name :

Address :

Place:

Date:

## FORMS & PROCEDURES

Form No: F-02 (Rev 00)

### DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration by Authorised Signatory**

Ref : 1) NIT/Tender Specification No: .....  
2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above Tender Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned tender and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized  
Signatory of the Bidder)

Date:

Enclosed : Power of Attorney

## FORMS & PROCEDURES

Form No: F-05 (Rev 00)

### DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration for relation in BHEL**

Ref : 1) NIT/Tender Specification No: .....,

I/We hereby submit the following information pertaining to relation/relatives of Proprietor/Partner(s)/Director(s) employed in BHEL

**Tick(✓) any one as applicable:**

1. The Proprietor, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprietor, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

(i)

(ii)

Signature of the Authorised Signatory

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable action against the Bidder/Contractor.

## BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of the Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at BHEL House, Siri Fort, Asiad, New Delhi – 110049 through its Unit at Bharat Heavy Electricals Limited, Power Sector Eastern Region, BHEL Bhawan, Plot No 9/1, DJ Block, Sector-II, Salt lake City, Kolkata – 700091 having awarded to ( Name of the Vendor / Contractor / Supplier) having its registered office at \_\_\_\_\_<sup>1</sup> hereinafter referred to as the 'Contractor/Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated .....<sup>2</sup> valued at Rs.....<sup>2</sup> ( Rupees -----)for <Nature of Work><sup>3</sup> (hereinafter called the 'Contract') and the Contractor having agreed to provide a Contract Performance Guarantee, equivalent to .....% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we, ....., (hereinafter referred to as the Bank), having registered/Head office at ..... and inter alia a branch at ..... being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer a maximum amount Rs ----- ( Rupees -----)<sup>4</sup> without any demur, immediately on a demand from the Employer, .

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor/ Supplier in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the contractors/supplier shall have no claim against us for making such payment.

We the .....bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We ..... BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Contractor/Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor/Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force upto and including.....<sup>5</sup> and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Contractor/Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the .....<sup>6</sup> (3 months more than the present date of validity of Bank Guarantee) we shall be discharged from all liabilities under this guarantee thereafter.

We, ..... BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed.....<sup>7</sup>
- b) This Guarantee shall be valid up to .....<sup>8</sup>
- c) Unless the Bank is served a written claim or demand on or before .....<sup>9</sup> (3 months more than the present date of validity of Bank Guarantee) all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, \_\_\_\_\_ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

*Any claim or dispute arising under the terms of this document shall only be enforced or settled in the courts of at Kolkata only.*

For and on behalf of  
(Name of the Bank)

Dated.....

Place of Issue.....

<sup>1</sup> NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.

<sup>2</sup> DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

<sup>3</sup> PROJECT/SUPPLY DETAILS

<sup>4</sup> BG AMOUNT IN FIGURES AND WORDS

<sup>5</sup> VALIDITY DATE

<sup>6</sup> DATE OF EXPIRY OF CLAIM PERIOD

<sup>7</sup> BG AMOUNT IN FIGURES AND WORDS.

<sup>8</sup> VALIDITY DATE

<sup>9</sup> DATE OF EXPIRY OF CLAIM PERIOD

**Note:**

**1. Units are advised that expiry of claim period may be kept 2/3 months after validity date.**

**2. In Case of Bank Guarantees submitted by Foreign Vendors-**

- a. **From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

- b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)**
- b.1** In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank (BHEL's Consortium Bank). It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
- b.2** **In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank** (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.
- b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). In case, of Foreign Vendors, the BG Format provided to them should clearly specify the same.
- b.4** The BG should clearly specify that the demand or other document can be presented in electronic form.



List of Consortium Banks *			
	Nationalised Banks		Nationalised Banks
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		<b>Public Sector Banks</b>
3	Bank of Baroda	20	IDBI
4	Canara Bank		<b>Foreign banks</b>
5	Corporation bank	21	CITI Bank N.A
6	Central bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Limited
8	Indian Oversea Bank	24	Standard Chartered Bank
9	Oriental bank of Commerce	25	J P Morgan
10	Punjab National Bank		
11	Punjab & Sindh Bank		<b>Private banks</b>
12	State Bank of India	26	Axis Bank
13	State Bank of Hyderabad	27	The Federal Bank Limited
14	Syndicate Bank	28	HDFC
15	State Bank of Travancore	29	Kotak Mahindra Bank
16	UCO Bank	30	ICICI
17	Union Bank of India	31	Indusind Bank
18	United Bank of India	32	Yes Bank

\* wef 22.03.2016

# Technical Specifications

FOR THE PURCHASE  
OF

Design, Drawing & Supply of  
3mm Thickness Translucent  
Polycarbonate Cladding Sheet  
for CHP-AHP & Coal & Lime  
Shed



**BHARAT HEAVY ELECTRICALS LTD**

BHEL- ISG BANGALORE	Technical Specification for Polycarbonate Sheet for CHP-AHP, Coal & Lime shed at Maitree - 2X660MW	Specification Number:
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## **SECTION - 1**

### **PROJECT & SITE INFORMATION**

## **SECTION - 2**

### **SCOPE OF SUPPLY**

Supply of polycarbonate translucent sheet on Roof & side cladding of CHP-AHP Structures, Coal Shed – 4 nos and Lime Shed – 1 no for natural lighting & glazing purpose, conforming to the technical specification given below shall be supplied to the extent of quantities as mentioned in price schedule. GA and elevation drawings of cladding supporting side runners/purlins will be issued to the successful bidder. As per the provided GA and elevation drawings, successful bidder shall submit the sheeting fabrication drawings along with cutting details etc., including fixing details as required for the erection of polycarbonate sheet at site. These materials shall be supplied as per the delivery schedule and project requirement.

For CHP-AHP structures, required profiling of polycarbonate sheets shall be done in line with the approved design & GA/Elevation drawings.

For Coal & Lime Sheds, required profiling & curving of polycarbonate sheets (to match the curvature of the shed) shall be done in line with the approved design & GA/Elevation drawings.

However detail drawings (including BOM) to be prepared by agency and submitted to BHEL for approval.

Issued by : Engg. - Civil	Date : 05.06.21	Rev no. 01	Sheet : 2 of 5
------------------------------	-----------------	------------	----------------

BHEL- ISG BANGALORE	Technical Specification for Polycarbonate Sheet for CHP-AHP, Coal & Lime shed at Maitree - 2X660MW	Specification Number:
------------------------	--	--------------------------

Metal Cladding sheets are supplied by different vendors for:

- (i) Coal Shed -1,
- (ii) Coal shed 2&3 and Lime shed
- (iii) Coal Shed 4
- (iv) CHP-AHP Structures

Profile & curvature of the polycarbonate translucent sheet shall match to the profile & curvature of the respective structures/sheds as they are different.

Bidder to furnish relevant supplier catalogues, complete technical data sheet, profile of sheet, calculations of section modulus, strength, etc., of the above sheeting materials considering the technical specification along with technical bid for the approval of BHEL/ customer BIFPCL. Successful bidder shall submit the material quality plan within seven days from the date of issue of LOI /P.O. for the approval of BHEL/customer BIFPCL.

Quantities mentioned in price format are indicative which may vary to any extent. Rate quoted by the bidder shall be valid for variation upto (+/-) 30% of order value.

### **SECTION - 3**

#### **TECHNICAL SPECIFICATION:**

A: Design Requirement:

- 1) Thickness of the sheet shall be 3 MM.
- 2) Sheet and fasteners should withstand the wind load as specified in the design criteria.

B. Performance Requirement:

- 1) Sheet shall be fire retardant and ultra violet resistant with sealed open edges sheets for roofing at coal and lime shed.

Issued by : Engg. - Civil	Date : 05.06.21	Rev no. 01	Sheet : 3 of 5
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BHEL- ISG BANGALORE	Technical Specification for Polycarbonate Sheet for CHP-AHP, Coal & Lime shed at Maitree - 2X660MW	Specification Number:
------------------------	--	--------------------------

- 2) Sheet shall have minimum Linear thermal expansion 0.065 mm/m°C, and should satisfy fire resistant with respect to EuroClass B-s1,d0 - EN 13501
- 3) Light transmission levels shall be more than 80%
- 4) The density shall in the order of 1.2 - 1.22 g/cm<sup>3</sup>, maintains toughness upto 140°C and down to -20°C.
- 5) Modulus of elasticity, when tested shall be minimum 2343.96 MPA.
- 6) The corrugation of polycarbonate translucent sheets shall match to the profile of permanently colour coated metal cladding sheet so as to have a watertight lapping arrangement.

**All the given above parameters are to be tested as per relevant ASTM or its equivalent certified by ISO.**

#### C: Appearance Requirement

1. Minimum overlap of the sheets in width should be 120 mm.
2. Manufacturing Tolerances shall be within the limit specified in any International codes of latest edition preferably ASTM, DIN, EN etc.. .
3. All polycarbonate translucent materials should be free from cracks, surface flaws, laminations and imperfect edges. If at any point of time during erection, any sheeting materials is found to contain the defect of lamination the same shall be replaced on intimation at free of cost including transportation.
4. Polycarbonate translucent sheeting shall not be pitted and should be free from scales and rust.

Issued by : Engg. - Civil	Date : 05.06.21	Rev no. 01	Sheet : 4 of 5
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BHEL- ISG BANGALORE	Technical Specification for Polycarbonate Sheet for CHP-AHP, Coal & Lime shed at Maitree - 2X660MW	Specification Number:
------------------------	--	--------------------------

## SECTION - 4

### INSPECTION & TESTING

1. Manufacture quality plan shall be submitted and all sheets shall be of tested quality. The material inspection and co-related mill test certificates in accordance with relevant ASTM codes shall be furnished by the supplier in 6 copies before the dispatch of material.
2. BHEL will visit the factory for inspection of quality of sheets.

### SOURCE OF POLYCARBONATE SHEET:

Our end customer has approved the following manufacturers for Polycarbonate sheet. If any bidder wants to supply Polycarbonate sheet of other manufacturer, then acceptance/ approval of bidder by customer will be required before finalization of vendor during tendering stage. After satisfactory fulfillment of all the criteria, offer shall be considered for further evaluation & participation as per nit & all other terms of tender, along with acceptance/ approval of bidder by customer.

SL	Polycarbonate	Status of Approval by Customer
1	GE PLASTIC (SABIC)	Approved
2	BAYER (MAKROLON)	Approved

Issued by : Engg. - Civil	Date : 05.06.21	Rev no. 01	Sheet : 5 of 5
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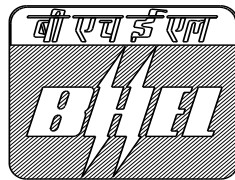
**BANGLADESH-INDIA FRIENDSHIP POWER**  
**COMPANY (PVT.) LIMITED**

**2x660MW MAITREE STPP, RAMPAL**  
**BANGLADESH**

**VOLUME – II B**  
**TECHNICAL SPECIFICATIONS**  
**COVER SHED**  
**FOR COAL & LIME STOCK YARD**

**SPECIFICATION NO.**  
**IS-4-TS-702-100-C005- R0**

**SECTION – C1**  
**SPECIFIC TECHNICAL REQUIREMENT**



**Bharat Heavy Electricals Limited**  
**Industrial Systems Group**  
**IISc, Post**  
**Malleswaram**  
**Bangalore-560012**

## Contents

- 1.0 General
- 2.0 Civil Design Criteria
  - 2.1 Codes and standards
  - 2.2.2 Architecture
  - 2.2.3 Design loads
  - 2.2.4 Deflections
  - 2.2.5 Settlements
  - 2.2.6 Stability
  - 2.2.7 Miscellaneous metal works
  - 2.2.8 Drainage systems
    - 2.2.8(a) Load Combinations
- 2.3 System/Building details
  - 2.3.1 Coal & Lime Cover Shed
- 3.0 Materials:
  - 3.1 Structural steel
  - 3.2 Cladding Sheet: Roof And Wall Cladding
  - 3.3 Painting



## 1.0 General

This document covers the general description of structural framing system, applicable design codes and standards, specific design criteria, design loads and combinations, design methodology and characteristics of construction materials to be adopted for the structures of the plant for Coal, Ash, Lime, and Gypsum handling system.

## 2.0 Civil Design Criteria

### 2.1 Codes and standards

The engineering and execution of all the civil works shall be based on the latest editions and revisions of the applicable codes as mentioned in this document.

Design codes BS EN 1992 (Euro code 2) and BS EN 1993 (Euro code 3) shall be followed for concrete and steel structures respectively. The codes for loads, load combinations and other systems are provided in respective clauses.

### 2.2 Design loads

The following design loads shall be considered for the design of buildings and structures:

- **Dead load**

Dead load is defined as the weight of all permanent construction including walls, foundations, floors, roofs, ceilings, partitions, stairways, and fixed service equipment and shall be calculated according to BS EN 1991-1-1.

The gravity weight of soil overburden shall be considered as dead load.

- **Live load**

Live load is defined as the weight superimposed by the use and occupancy of the building or other structure, but not permanently attached to it. For industrial design, live load can be defined as the load produced by personnel, moveable equipment, tools, and other items placed on the structure, but not permanently attached to it. Design shall be done for the actual plant live loads or the live loads specified in according to BS EN 1991-1-1.

Roof Live for design of shed shall be considered as 75 kg/M<sup>2</sup>.

Dust load for design of shed shall be as 50kg/m<sup>2</sup>

Unless specified otherwise, or required due to erection, operation and maintenance the minimum live load values for floors and roofs given in Table below shall be considered

### Minimum requirements for live loads [kN/m<sup>2</sup>]

	Slabs and secondary supports	Gratings <sup>2)</sup>	Main girders	Supports, e.g. columns, walls, brackets, etc.	Foundations
<b>1. Reinforced concrete structures</b>					
1.1 at road level in areas used by large vehicles	15	5	15	10	10
	SLW 30 <sup>3)</sup>		SLW 30 <sup>3)</sup>		
In areas of major assembly work at their access roads	SLW 60 <sup>3)</sup>		SLW 60 <sup>3)</sup>		
1.2 Machinery floor for storage of heavy machine parts	30	10	20	20	20
1.3 Heavy intermediate floor slabs	10	5	10	7,5	7,5
1.4 Medium intermediate floor slabs	7,5	5	7,5	5	5
1.5 Light intermediate floor slabs	5	5	5	5	5
1.6 Roofs	1,5		1,5	1,5	0,75
<b>2. Steel structures</b>					
2.1 Heavy platforms	15	10	15	10	10
2.2 Medium platforms	5	5	5	5	5
2.3 Platforms and walkways in Conveyor galleries	5	5	5	5	5
2.4 Light platforms and walkways	2,5	2,5	2,5	2,5	2,5
2.4 Roofs	1,5		1,5		0,75

1) Figures in kN/m<sup>2</sup>

2) The loads shown are used for determining the load for structural analysis but not for dimensioning the gratings

3) Truck loads according to DIN 1072

Areas designated for different loadings on the same floor shall be clearly and permanently marked.

- **Crane/hoist load**

Crane/hoist loads shall be considered as live loads. The vertical and horizontal loads from cranes/hoists shall be as per the supplier's loading data. In the absence of specific

information, the following minimum horizontal loads shall be considered at the location of each wheel:

- transverse surge = 20 % of static wheel load
- longitudinal surge = 10 % of static wheel load.

- **Product load**

The load shall be defined as the gravity load imposed by liquid, solid, or viscous materials in vessels, tanks, equipment or piping during operation. All buildings with RCC roof and suitable/sufficient space shall be designed for solar installation of solar photovoltaic panels on roof tops for renewable energy purpose.

- **Test load**

The test load shall be defined as the gravity load imposed by any method necessary to test vessels, tanks, cranes, equipment or piping.

- **Thermal load**

Thermal loads shall be defined as forces caused by changes in temperature (ambient temperatures see Section B0). The primary source of thermal loads in an industrial plant is the expansion or contraction of vessels and piping. Another source of thermal loads in a structure is the expansion or contraction of the entire structure or individual structural components.

Average maximum annual variation in temperature shall be considered as 20 dec to calculate thermal loads.

- **Truck load**

Structures accessible to trucks shall be designed to withstand the gravity, lateral and impact effects of truck loading. Truck loading shall be SLW 60 or equivalent as per relevant standards or codes.

- **Soil load**

Soil loads shall consist of lateral earth pressures. Active and passive and at rest coefficients for lateral pressures shall be obtained from the project soils report. The weight of soil shall be considered as dead load.

- **Hydrostatic load and buoyancy**

Hydrostatic load is the load due to water pressure. The design of structures shall include hydrostatic loads when applicable. The buoyancy load is equal to the weight of the volume of displaced water.

- **Wind load**

The wind load calculation for the buildings and structures shall be as per Bangladesh National Building Code -2012, Part 6, Chapter 2.4.

Basic wind Speed,  $V$ , shall be taken as 73 m/s, Three-second gust at 10 m above ground in exposure C, having a return period of 50 years.

- **Earthquake load**

All buildings, structures and foundations shall be designed and adopt necessary earthquake design criteria.

The Project site is exposed to seismic conditions. The area is in Seismic Zone 1 as determined by the Bangladesh National Building Code (BNBC-2012).

For Site specific data refer annexure-1, which shall be used for designs.

- **Dynamic loads**

Each structure shall be designed to withstand the effects of vibration and impact to which it may be subjected. Each structure and foundation supporting a compressor, turbine, pump or other machinery having significant dynamic unbalance shall be designed to resist the peak loads specified by the manufacturer. Vibration amplitudes of the supporting structure or foundation shall be kept within acceptable limits for dynamic forces that occur during normal machine operation. In the case of a tall and slender structure, there may be a need to investigate the dynamic effects of wind gusts.

In the dynamic analysis, the following codes are to be considered: DIN 4024, ISO 1940-1 and ISO-10816. The vibration amplitudes & velocities, if not specified by the manufacturer, shall follow ISO-10816.

- **Impact loads**

When a structure, structural component or connection is subjected to moving or vibrating loads which do not warrant a dynamic analysis, the following impact loads shall be considered:

Elevator machinery	100% machinery weight
Shaft or motor driven machinery	50% machinery weight
Reciprocating machinery	20% machinery weight
Overhead travelling crane	Crane load shall be considered as live load, when applying this load the following impact load shall be considered as per BS 6399:PART 1 EN 1991 or equivalent.
<ul style="list-style-type: none"> <li>Vertical force</li> </ul>	25% of maximum wheel loads for cab operated crane. 10% of maximum wheel loads for pendent operating crane.
<ul style="list-style-type: none"> <li>Lateral force</li> </ul>	20% of the weight of the trolley and lifted load (but exclusive of other parts of the crane).
<ul style="list-style-type: none"> <li>Longitudinal force</li> </ul>	10% of maximum wheel loads.
Truck loads	Impact effects of truck loading shall be considered according to BS EN 1991-1-7 6399: PART 1 or equivalent.
Vertical force	20% of lifted loads

## 2.3 Deflections

The maximum allowable deflections under the serviceability loads shall be as given below, if not other requirements due to functionality of the structures shall be followed, e.g. for transfer points and trestles of conveyor belt:

### a) Structural steel

Cantilevers	L/180
Beams carrying plaster	L/360 or 20 mm, whichever is less
Other beams (except purlins and sheeting rails)	L/200
Top of columns (single floor)	H/300
Top of columns in each floor (more than one floor)	H/300
Crane gantry girders	
Vertical	L/600
Horizontal	L/500
(where L: span/H: Height)	
Purlins and sheeting rails	L/200

### b) Concrete structures

L/500 or 20 mm (whichever is less)

## 2.4 Settlements

Settlements have to be calculated according to BS EN 1997-1 or equivalent and to be monitored.

The following requirements for settlements shall be applied:

- Max. settlement 25 mm,
- Max. differential settlement 1/500 rad.

## 2.5 Stability

All ground stability analysis should be based on data given in the soil investigation report.

Ground stability of structures has to be calculated according to BS EN 1997 -1 or equivalent.

Embankment stability analysis shall be calculated according to BS 6031 or equivalent.

Stability of masonry wall shall be checked according to BS 5628 or equivalent.

The structures shall be designed and checked using a factor of safety of 1.50 for stability against overturning and sliding under the permanent loads and 1.2 under the temporary loads.

For Buoyancy the structures shall be designed to fulfill the purpose and follow BNBC.

## 2.6 Miscellaneous metal works

### **Stairways**

Main stairways shall be min. 1250 mm wide.

Riser max. 180, Tread min. 260, and Local stairway shall be min. 1200 wide. The number of steps between flights shall be limited to 12.

Head clearance min. 3000 mm for air conditioned buildings, and min. 3500mm for non-conditioned buildings.

Head clearance of toilets shall be designed as per good engineering practice and applicable regulations.

The requirements of the specific local codes of procedures and the Local Authority requirements have to be respected by the Contractor.

### **Steel ladders other than companion way ladders**

Rung: round bars of 20 mm diameter

Rise: 250 mm

Width: 400 mm

Safety cages shall be provided if height exceeds 2.5 m and the ladder design shall comply with BS 5395: Part 3.

#### **Handrails**

GI Handrails shall be min. 1100mm high. Design to follow BS 5395: Part 3/BS 4592-0:2006+A1:2012 or equivalent.

#### **Gratings**

Gratings shall be hot-dip galvanized and comply with BS 4592: Part 1 & 2 or equivalent. As per BS 4592: Part 1 & 2 and BS EN ISO 1461 average coating mass on gratings shall be 610 gm/sqm.

#### **Chequered plates**

Chequered plates shall be minimum 6 mm thick mild steel.

## **2.7 Drainage systems**

#### **General**

The drainage systems will consist of open reinforced concrete drains for stormwater and surface drainage and piping for other drainage systems and reinforced concrete culverts/hume pipes for street crossings. In general, drainage systems shall be designed in accordance with BS 6367 or equivalent, the Bangladesh National Building Code 2012 and all relevant Local Authority requirements.

#### **Rain run-off**

Rainwater runoff shall be determined in accordance with the relevant Bangladesh Standards by considering the maximum rainfall intensity of 95 mm/hr for a one hour rainfall with 50 year return period.

The water shall be collected in a storm water pond located outside the Plant. The Pond is not in scope of BHEL. The Tie-in point of the system will be at the pond

Sizing of ditches and pipes shall be determined by using Manning's formula, using the following Roughness coefficient N for the various types of material:

Type	Roughness efficient N
Concrete pipe	0.014
Plastic pipe	0.013
Vitrified clay pipe	0.013
Smooth concrete channels	0.014

#### **Gradient**

Drains shall have the following minimum gradient:

• open ditch for storm water drainage	1/1000
• sanitary sewage drainage pipes	1/150
• oily water drain pipes	1/200
• chemically polluted water drains/pipes	1/250
• other drainage systems	1/400.

However, the sectional shapes have to be determined by the water carrying requirements and must have the most favorable hydraulic qualities so as to remove the drain water in a proper manner without settlements.

**Velocity of flow**

Minimum velocity 0.80 m/s (to maintain self cleaning)

## 2.8 Load Combinations

### Basic Loads

SL NO	LOAD SYMBOL	LOAD DESCRIPTION
1	DL	Dead Load/Permanent Load
2	LL	Imposed Load/Live Load
3	WL(X , CLW)	Net wind load in 'X' direction with clock wise effect
4	WL(X ,ACLW)	Net wind load in 'X' direction with anti-clock wise effect
5	WL(Z , CLW)	Net wind load in 'Z' direction with clock wise effect
6	WL(Z ,ACLW)	Net wind load in 'Z' direction with anti-clock wise effect
7	SL(X)	Seismic Load In 'X' Direction
8	SL(Z)	Seismic Load In 'Z' Direction
9	TEMP	Temperature load
10	CL	Crane/Monorail self weight
11	CLA	Crane trolley + lifted load near A row
12	CLB	Crane trolley + lifted load near B row
13	CS	Crane surge

The design loading combinations have been taken from BS-EN-1990 2002.

#### Load combination for buildings without cranes (Ultimate Limit States)

Permanent + Single Variable action (as per eqn. 6.10)

1.  $1.35(DL) + 1.5(LL) \pm 1.5 \times 0.6(TEMP)$
2.  $1.35(DL) \pm 1.5(WL) \pm 1.5 \times 0.6(TEMP)$

Permanent + Accompanying Variable actions (as per eqn. 6.10a)

3.  $1.35(DL) + 1.5 \times \Psi_0(LL) \pm 1.5 \times 0.6(WL) \pm 1.5 \times 0.6(TEMP)$  ( $\Psi_0 = 1.0$  for storage areas, 0.7 for others)

Permanent + Leading Variable + Accompanying Variable actions (as per eqn. 6.10b)

4.  $1.35 \times 0.85(DL) + 1.5(LL) \pm 1.5 \times 0.6(WL) \pm 1.5 \times 0.6(TEMP)$  (Live Load as Leading variable action)
5.  $1.35 \times 0.85(DL) \pm 1.5(WL) + 1.5 \times \Psi_0(LL) \pm 1.5 \times 0.6(TEMP)$  (Wind Load as Leading variable action) ( $\Psi_0 = 1.0$  for storage areas, 0.7 for others)



Permanent + Leading Seismic + Accompanying variable action (as per eqn. 6.12a/b)

6.  $(DL) \pm (SL) + \Psi_2(LL)$  ( $\Psi_2 = 0.3$  for domestic/residential/office areas, 0.8 for storage areas, 0.6 for others)

#### Load combination for buildings with cranes (Ultimate Limit States)

Permanent + Single Variable action (as per eqn. 6.10)

1.  $1.35(DL) + 1.5(LL) \pm 1.5 \times 0.6(TEMP)$
2.  $1.35(DL) \pm 1.5(WL) \pm 1.5 \times 0.6(TEMP)$
3.  $1.35(DL) + 1.35(CL+CLA/CLB) \pm CS \pm 1.5 \times 0.6(TEMP)$

Permanent + Accompanying Variable actions (as per eqn. 6.10a)

4.  $1.35(DL) + 1.5 \times 0.7(LL) \pm 1.5 \times 0.6(WL) + 1.35 \times 1.0(CL+CLA/CLB \pm CS) \pm 1.5 \times 0.6(TEMP)$

Permanent + Leading Variable + Accompanying Variable actions (as per eqn. 6.10b)

5.  $1.35 \times 0.85(DL) + 1.5(LL) \pm 1.5 \times 0.6(WL) + 1.35 \times 1.0(CL+CLA/CLB \pm CS) \pm 1.5 \times 0.6(TEMP)$  (Live Load as Leading variable action)
6.  $1.35 \times 0.85(DL) \pm 1.5(WL) + 1.5 \times 0.7(LL) + 1.35 \times 1.0(CL+CLA/CLB \pm CS) \pm 1.5 \times 0.6(TEMP)$  (Wind Load as Leading variable action)

Permanent + Leading Seismic + Accompanying variable action (as per eqn. 6.12a/b)

7.  $(DL) \pm (SL) + \Psi_2(LL) + (CL)$  ( $\Psi_2 = 0.3$  for domestic/residential/office areas, 0.6 for others)

Note:-

- Temperature load shall be considered only where they are significant (Refer Cl. 2.3.1.2 of EN 1992-1-1) i.e. for buildings having length between expansion joints > 30 m (Refer Cl. 2.3.3 of EN 1992-1-1).

#### Load combination for buildings without cranes (Serviceability Limit States)

Permanent + Leading Variable + other Variable actions (As per table A1.4)

1.  $(DL) + (LL) \pm 0.6(WL) \pm 0.6(TEMP)$  (Live Load as Leading variable action)
2.  $(DL) \pm (WL) + \Psi_0(LL) \pm 0.6(TEMP)$  (Wind Load as Leading variable action) ( $\Psi_0 = 1.0$  for storage areas, 0.7 for others)

#### Load combination for buildings with cranes (Serviceability Limit States)

##### Characteristic combination

Permanent + Leading Variable + other Variable actions (As per table A1.4)

1.  $(DL) + (LL) \pm 0.6(WL) + 1.0(CL+CLA/CLB \pm CS) \pm 0.6(TEMP)$  (Live Load as Leading variable action)
2.  $(DL) \pm (WL) + 0.7(LL) + 1.0(CL+CLA/CLB \pm CS) \pm 0.6(TEMP)$  (Wind Load as Leading variable action)

## **2.3 SYSTEM / BUILDING:**

### **2.3.1: Covered coal & Lime yard**

The coal & lime sheds shall be of structural steel columns and roof trusses with a metal roof and metal sheet siding. Foundations with piled foundations for the steel columns is envisaged, according to the geotechnical investigation.

The profile of the roof shall follow the profile of the handling equipment with clearances mentioned in the drawing. Each coal/lime pile shall be covered separately. Spacing of shed supporting columns shall be considered from 6M to 9M. For **distance between the steel columns**, the height of the roof and width of the shed refer furnished tender drawings. The two cantilevers connected with a joint at the highest point need not be symmetrically depending on the size of coal handling equipment used.

Any collision of the stacking and reclaiming machines with the shed must be safely avoided in any operational case.

The cover shall be suitable to protect the environment from dust pollution from the coal & lime yard during dry season and to protect the coal from heavy rainfalls during monsoon. The coal & lime yard coverage may in no way inhibit the normal operation of the coal yard.

Multiple dozer entries in the transverse side of the shed is envisaged. Opening of minimum size 5 meter in width and 8 meter in height for dozer entry shall be provided. Location of dozer entry will be provided during detail engineering.

**Roof sheeting on shed shall be extended till 1M from F.G.L.**

Poly carbonate sheet of matching profile of 10% of covered area shall be provided for natural light as per the relevant international standards.

## **3.0 Materials:**

### **3.1 Structural steel:**

All ferrous materials, their dimensions, forms, weights, tolerances, chemical and mechanical properties, shall be the best of their kind, complying with relevant international Standards.

All structural steel material shall be grade S275-JR+AR for Rolled sections & plates upto 20mm thickness, S275-J0+N for plates above 20mm and S275-J2+N for plates used in Gantry girder as per BS EN10025-2.

In the case of structural steel work, care shall be taken that all parts in the assembly fit accurately together and corresponding parts shall preferably be interchangeable.

The Contractor shall submit to the Employer for approval the country of origin and manufacturer of the steel he proposes to supply.

The structural steelwork and testing shall comply with the relevant clauses of BS 4, BS EN 10162, BS 4360 and BS 6323, BS EN 10025-1:2004, BS EN 10130:2006 or equivalent standards.

Each steel part shall be marked with the manufacturer's name or trademark. The steelwork shall be manufactured by a specialist firm approved beforehand by the Employer. As much of the work of manufacturing of the steelwork as is reasonably and technically practicable shall be executed in the manufacturer's works, and facilities for inspection by the Employer shall be provided.

All steelwork before and after manufacturing shall be smooth, undeformed, straight and free of cracks, twist and burrs. All steelwork shall be cut and fabricated to a tolerance of  $\pm 1.5$  mm in its length. All plates shall be truly at right angles to the longitudinal axis of the section. No work shall be painted, packed or dispatched from the manufacturer's works until it has been inspected and complies with or has been certified to comply with all the tests and requirements of the standard applicable to the material specified and until it has been inspected and approved.

#### Tests

The manufacturer's test certificate for all steelwork shall be supplied to the Employer. The certificates shall state the manufacturing process and shall include a test sheet giving the results of the mechanical tests and the chemical composition. The Contractor shall provide free of charge any supplementary tests reasonably required by the Employer. Steel which do not conform to the specified standards shall be rejected at the expense of the Contractor. No steelwork shall be delivered from the manufacturer's works until it has been tested and the results comply with the requirements of the relevant standards.

Materials complying with codes and standards listed below shall be used for the design and construction work.

Unless the materials meet these codes and standards the equivalent ASME/ASTM standard shall be used.

(A)	a.	Structural Steel Built-up Members	DIN EN 10 027-1	all steel brands S235 and S355
			Formerly DIN 17100 and EN 10 025	Formerly St, USt & RSt37-2, St37-3, St52-3 or Fe360B, BFU, BFN, C & D1, and Fe 510
	b.	Structural Steel Hot Rolled	DIN 1024 Series DIN 1025 Series	all steel brands S235 and S355,

		Members		
			DIN 1026 Series DIN 1027 Series DIN 1028 Series	Formerly St, USt & RSt37-2, St37-3 and St52-3; or Fe360B, BFU BFN, C & D1, and Fe 510
			DIN 1029 Series	
(c)		Structural Steel Tubes	DIN EN 10 210-1,2	S235 and S355
(B)	a.	Bolts and Anchor Bolts	DIN ISO 898, DIN 18 800-1	4.6 (fy $\geq$ 240 N/mm <sup>2</sup> ) 5.6 (fy $\geq$ 300 N/mm <sup>2</sup> )
	b.	High Strength Bolts	DIN ISO 898, DIN 18 800-1	8.8 (fy $\geq$ 640 N/mm <sup>2</sup> ) 10.9 (fy $\geq$ 900 N/mm <sup>2</sup> )
	c.	Stud Bolts	DIN 32 500, Part 1 & DIN 18 800-1	4.8 (fy $\geq$ 320 N/mm <sup>2</sup> )
			DIN 32 500, Part 3 & DIN 18 800-1	St 37-3 per DIN 17 100, (fy $\geq$ 350 N/mm <sup>2</sup> )
(C)		Electrodes for Arc Welding	DIN 1913/ DIN EN 499	

For all above mentioned material standards, the equivalent standards as per BS, ASME/ASTM and SA/IS2062-2006 (Sixth Revision), standards are acceptable for general structural purpose and in the project.

For tubes and hollow sections, proposal for use of steel specification as per IS1161 and IS4923 standards are under acceptance by customer.

#### Workmanship

##### Tolerances

Care shall be taken to ensure that the tolerances specified on the drawings or the relevant standards are worked to. The erection tolerance for cleated ends of members connecting steel shall be not greater than 2 mm at each end. No work shall be painted, packed or dispatched from the manufacturer's works until it has been tested and complies with all requirements of the standards.

##### Cutting

Cutting may be by shearing, cropping, sawing or machine flame cutting. Hand flame cutting shall be avoided. If rolled products for steel structures under predominantly static loading are cut by flame-cutting or shearing there will generally be no need for a finishing operation if the cut surface is free of defects.

##### Bolting

The threaded portion of each bolt shall project through the nut by at least one thread. Approved high strength friction grip bolts, preferably the type with indicated load, shall be used where specified and shall be tightened strictly in accordance with the manufacturer's instructions and the relevant regulations. The surfaces in contact shall not be painted and shall be free of oil, dirt, loose rust, burrs and other defects, which would prevent proper seating

of the parts or interfere with the development of friction between them. When connections are made using high strength friction grip bolts the relevant standards shall be observed.

#### **Welding**

The execution and testing of welding shall be in accordance with BS EN 1011-1, BS EN 1011-2 or equivalent standards

All welds, unless otherwise stated shall be continuous minimum 6 mm fillet weld and shall be dressed smooth, free of porosity, cracks, holes and finished to match adjacent surfaces. When welding operations are completed, all welding flux shall be removed without delay. Cooling of welds shall not be accelerated by any special measures.

Site welding shall be restricted to the absolute minimum. Site welding is subject to approval by Employer. The examination of welded work and the inspection of welds during and after manufacture shall be carried out by responsible specialist welding engineers. Welding shall be carried out by expert trades men and in strict accordance with the current code of practice.

#### **Erection**

The Contractor shall supply all suitable plant, hoisting gears and tackles for the erection of the steelwork and shall provide all temporary baulks, struts, shores, etc.

Steelwork damaged due to inadequate precautions being taken during the storage, transport and erection of the steelwork shall be made good to the satisfaction of the Employer at the Contractor's expense.

All shop connections shall be made by electric welding. All site connections shall be bolted unless otherwise specified in drawings or directed by the Employer.

### **3.2 Cladding Sheet: Roof and Wall Cladding:**

#### **Metal cladding**

Trapezoidal profile min. 0.75 mm thick, The sheeting unit shall be a multilayer, protected metal system consisting of a trapezoidal galvanized steel substrate, heavy epoxy base coat and a high build weather coat of polyurethane as follows:

#### **Substrate:**

Hot-dipped galvanized steel substrate, with a minimum zinc coating weight of 275 g/m<sup>2</sup> total both sides. The steel substrate shall be min. 0.75 mm thick.

**Pre-treatment:**

After cleaning, a "chemical conversion" of the zinc coating to a nonmetallic surface with corrosion inhibiting and adhesion additives shall be applied.

**Primer**

Nominal 8-micron thick anti-corrosive pigmented epoxy primer applied to both sides of the sheet.

**Epoxy barrier coat:**

Nominal 70-micron thick TF Epoxy Barrier coat with special flexibilizer compounds applied to both sides of the sheet and baked to a hard corrosion resistant finish.

**Weather coat on the exposed surface:**

Nominal 40 micron thick urethane exterior coating on outer exposed face of the sheet pigmented in one of the standard colors of the manufacturer's color range.

**Internal decorative coat of the interior profiled liner**

Nominal 20 micron stoving polyester decorative finish.

Poly carbonate sheet of matching profile shall be provided for natural light as per the relevant international standards.

### 3.3 PAINTING :

This specification shall be used for the corrosion protection of steel structures, components, pipings and equipment in general which are installed in confined areas (indoors) or outdoors. Surface preparation, as well as protective coatings and coating systems are based on this specification in order to assure that structural parts of different suppliers will get a corrosion protection of similar and high quality.

Coating material shall only be supplied by manufacturers with international experience and their products can be obtained internationally.

Regarding maintenance work (storage), application and supervision of coating work, choice of coating suppliers should be minimized. At any rate, similar parts of structures/components (such as structural steel, containers, piping, etc.) shall only be coated with products of one individual manufacturer.

The materials and equipment used, the methods of application and the quality of work shall at all times be subject to the inspection and approval of the Employer or his Representative. To mitigate crevice corrosion, the designs and construction of structures and equipment shall ensure that no collection of water occurs in crevices which could lead to crevice corrosion.

It is the responsibility of the Contractor to ensure that, for all supplied equipment (including that from sub suppliers):

- The protection system is perfectly suitable for the Site conditions and for the specific purpose.
- The shop paints provide a sufficient protection during transport, storage and erection.
- The shop paints are suitable for handling and erection conditions (slinging, Site welding works etc.) and are compatible with the Site finishing coats
- All necessary precautions are taken in order to prevent damage to paints during storage, handling, welding.
- The necessary repairs are carefully executed as soon as possible.
- The colour RAL number of the finishing coat has been approved by the Employer, including identification code for piping.
- Standardised equipment will be painted according to the manufacturer's standard.
- All corrosion protection and coating on site shall be done in a workshop specifically for the purpose of the application of corrosion protection and coating.

#### **Codes and standards**

Applicable standards are:

- ☐ Product data of coating manufacturer
- ☐ DIN 2403 Indication of pipe-lines according to flowing material
- ☐ DIN 4762 Surface roughness
- ☐ ISO 8503 Surface roughness
- ☐ DIN 8201 Part 1-9 tight blasting agents
- ☐ DIN 50976 Corrosion protection, hot dip batch galvanizing of single parts, requirements and testing
- ☐ DIN 55928 Part 1-9 corrosion protection of structural steel work through protective coatings and topcoats
- ☐ ISO 8501 Preparation of steel substrates before application of paints and associated products
- ☐ ISO 12944 Paints and varnishes – corrosion protection of steel structures by protective paint systems
- ☐ RAL Colour card
- ☐ ISO 8501-1 Preparation of steel substrates before application of paints and related products
- ☐ SSPC Vol. 1 and 2 Steel structure painting council

### **SURFACE PREPARATION AND CLEANING OF SURFACES IN THE SHOP**

Prior to blasting, areas have to be cleaned from oil, grease, paint residues, splatters, welding splashes and welding slag using a suitable aqueous degreaser, or solvent for more severe grease contamination. The cleaning should be to provide a “water break free surface”.

Sharp edges have to be rounded off.

Contaminations caused by salts, acids and alkali solutions shall be eliminated by rinsing with water up to a pH value of 6-8. Soluble salt contamination is to be tested using the Weber Reilly test method (or similar approved) and pH is to be tested using universal indicator paper strips prior to continuation with the blasting.

The preparation of substrates shall be carried out on the basis of the specifications of ISO 12944 part 4 and ISO 8501. The preparation of steel before application of paint and related products shall be in line with ISO 11124 for metallic blast cleaning abrasives and ISO 11126 for non-metallic blast cleaning abrasives. No recycled blast grit may be utilised.

After blasting, an anchor profile of 25 - 50 µm shall be achieved. Blasted surfaces have to be provided with a prime coat of the approved coating system immediately within 4 hours of blasting. All blasting and priming must take place outside of the high humidity periods of the day (i.e. maximum relative humidity of 80%).

#### **Cleaning to be performed on site**

Steel work protected by shop primer after arrival on site must be cleaned of salt, sand, oil, etc. before the first coat of paint is applied on site. Shop primer damaged during transport must be rectified by blast-cleaning and coating before application of the site coats.

Wood surfaces shall be sanded clean. All nail holes shall be puttied and sanded before priming, , unless the specific coating system allows for coating onto damp concrete, in which case only with approval from the Employer.

If a protective coating of concrete is required, concrete shall be allowed to cure before painting.

Transport and erection damages, as well as damages which result out of additional welding have to be repaired as soon as possible. The damaged areas have to be derusted with rotating or steel brushes, abrasive wheels, and abrasive blasting according to DIN ISO 8501-1.

#### **Cleaning of prime and intermediate coats (if required)**

To prevent contamination by mineral oil products, areas with prime and intermediate coat have to be treated with suitable cleaning agent. Cleaning has to be done free of residues, e.g. with alkaline detergents and thorough washing done with fresh water. Rusty spots have to be removed according to required purity. Metallic areas which are provided with temporary corrosion protection have to be cleaned. No oxidation products shall remain on the surface. Further care shall be taken that on hot components, no destructive or reaction products will be released when heating which could injure insulation.

#### **Application procedure**

When using the provided coating material, strict adherence to all application instructions given in product data of coating manufacturer is necessary. To obtain



the maximum performance, technical data as well as application instructions for the individual coating material have to be strictly followed.

For a multi-layer coating system each layer has to have a different colour shade in order to clearly identify number of coats applied.

The last finish coat has to be applied in the specified colour shade.

All paintings shall be performed according to ISO 12944. The durability of all paintings shall be “high” which corresponds to 15 years.

The interval between applying the different coats has to follow according to supplier’s precautions. Each layer has to be cleaned and released from spray dust before the next layer will be applied. Prior to applying a further layer, the last one has to be repaired. All coatings have to be applied without retarding.

Following application procedures are allowed:

- ☐ prime coats by airless spray areas like disconnections, angles, corners, etc. which are difficult to be reached can be applied by brush or roller
- ☐ repair of prime coat by brush
- ☐ finish coats
- ☐ at works by airless spray, roller or brush
- ☐ at site by roller or brush or airless spray.

When applying coating systems by roller, rollers have to be of kind and quality which make an appropriate application possible.

Control areas in accordance with the coating supplier’s instructions have to be applied. For this procedure, a schedule for control areas has to be prepared by the Contractor and coating supplier which corresponds with the requirements of the warranty agreement.

Number and performance of the control areas have to be done in accordance with ISO 12944 part 7 and have to be documented in writing.

No application shall take place either in the condition of the relative humidity not within the given limit or in case of poor weather conditions such as fog, dust, rain, snow, hail or when it can be assumed that such conditions of poor weather will arise within 2 hours after application.

Temperature of the coated parts has always to be above 5 °C and 3 K above dew point.

All specified dry film thicknesses (DFT) are minimum thicknesses.

Welding seams executed at site have to be taped with an adhesive tape of about 30-50 mm after surface preparation (blasting or manual derusting) and prior to application in the manufacturing plant and to be coated with stripping coat.

Chequered plates, nap plates, etc. have not to be covered with adhesive tape, but have to be coated with stripping coat in a dry film thickness of at least 150 µm.

Edging lines on steel structure have to be taped prior to application and after blasting in sufficient width or have to be protected with varnish before application.

Thickness of prime coat may be 50 µm maximum.

During repairing works at site on shop-primed structures, it is important that different coats will have different colour shades. Numbers of layers have to be the same as the original coating system to be used.

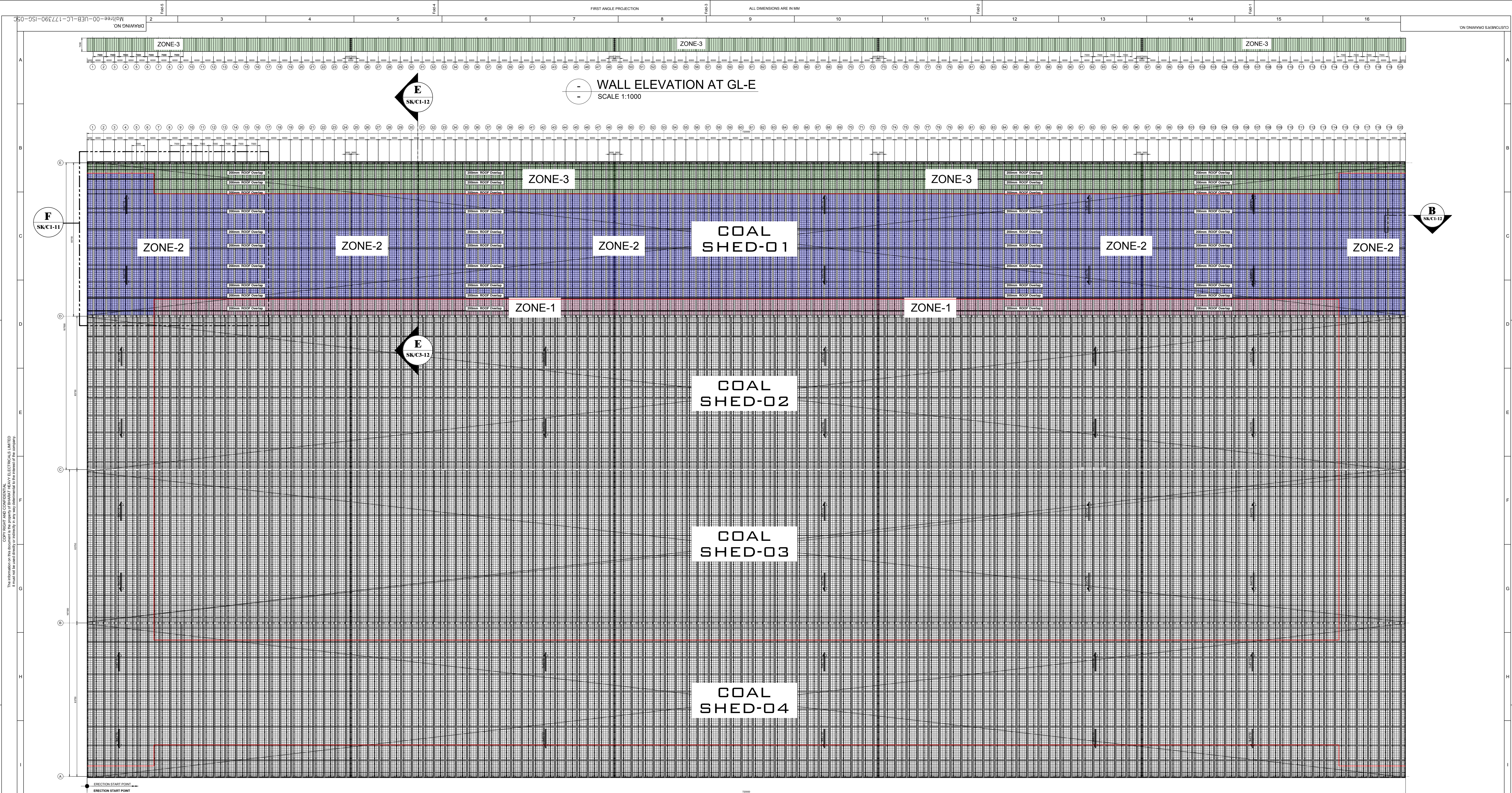
Application of temporary primer on structures which have to be insulated has to be in accordance with a sufficient corrosion protection for the period of storage respectively erection time.

Coating Systems								
System-No.	Surface location	Temp. °C	Surface preparation	Coating systems	No. of coats	Generic type	Dry film thickness (DFT) per coat µm	Total DFT µm
1	Structural steel works, piping, vessels, tanks INDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Finish	1	Epoxy High Solid	80	80 160
2	Structural steel works, piping, vessels, tanks OUTDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Intermediate	1 – 2	Epoxy High Solid	160	160
				Finish	1	2-Comp.Polyurethane	50	50 290
3	Piping, tanks, etc. INDOOR and OUTDOOR, Insulated	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	50	50
4	Pumps, motors, other equipment OUTDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Intermediate	1	Epoxy High Solid	110	110
				Finish	1	2-Comp.Polyurethane	50	50 240
5	Pumps, motors, other equipment INDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Finish	2	Epoxy High Solid	50	100 180
6	Piping, reactors OUTDOOR Insulated	> 120	SA 2.5	Primer	1	Zinc Ethysilicate	75	75
7	Stacks OUTDOOR	< 120	SA 2.5	Primer	1	Zinc Ethysilicate	75	75
		< 200		Finish	2	Silicone Acrylic	50	100 175

Coating Systems								
System-No.	Surface location	Temp. °C	Surface preparation	Coating systems	No. of coats	Generic type	Dry film thickness (DFT) per coat µm	Total DFT µm
8	Steel surfaces Uninsulated	200 - 450	SA 2.5	Primer	1	Zinc Ethysilicate	75	75
				Finish	2	Silicone Aluminium	25	50 125
9	Galvanized surfaces	up to 120	Mechanical cleaning from contaminants and zinc salts by means of washing or steam jetting or sweep-blasting with fine sand	When Finish Coat is required, such as sea climate with chloride exposure	1	Epoxy High Solid*	125	125
10	Steel surfaces permanently in contact with water, also river water splash zone	Medium temp. °C up to 60	SA 2.5	Prime and Finish Coat in One	1	Glassflake reinforced High Solid Epoxy	500	500
11	Plant / Cooling water pipes	GRP, or steel lined concrete pipes with cathodic protection and coating according to AWWA C 203						

\* Additional 1 x Finish Coat 2-Comp. Polyurethane, 50 µm, when exposed to UV or weathering conditions and colour retention is required.





ZONE MARKING PLAN

COAL SHED-01

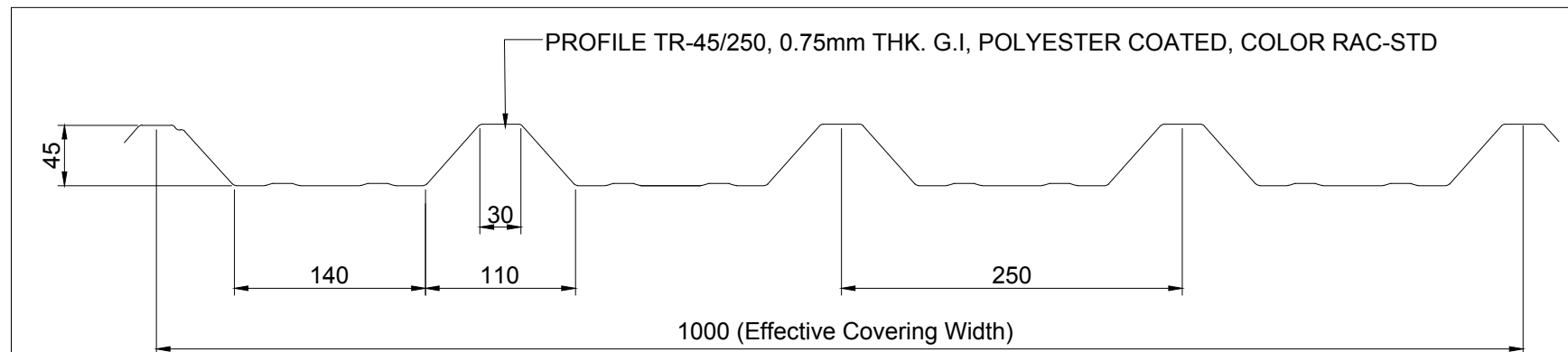
- (ZONE-1)  
1 No OF Ø5.5X65mm LONG SPACE  
@ EVERY 250mm C/C EACH CROWN
- (ZONE-2)  
2 Nos OF Ø5.5X65mm LONG SPACE  
@ EVERY 250mm C/C EACH CROWN
- (ZONE-3)  
1 No OF Ø5.5X65mm LONG SPACE  
@ EVERY 500mm C/C ALTERNATIVE CROWN

COAL SHED-02,03 & 04  
NOT IN TPI SCOPE

ROOF PLAN  
SCALE 1:1000

NOTE:

Polycarbonate Sheet -TPI will provide the profile details. Polycarbonate sheet shall match the same profile & corrugation . All the structural design capability, requirement of accessories & other parameters needs to be verified from the manufacturer.



ROOF PANEL TR-45/250 SINGLE SKIN

CLADDING SUPPLIER:




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F: +971 6 533 6673  
info@tigerprofiles.com  
www.tigerprofiles.com  
Comm. Reg. No: 24046

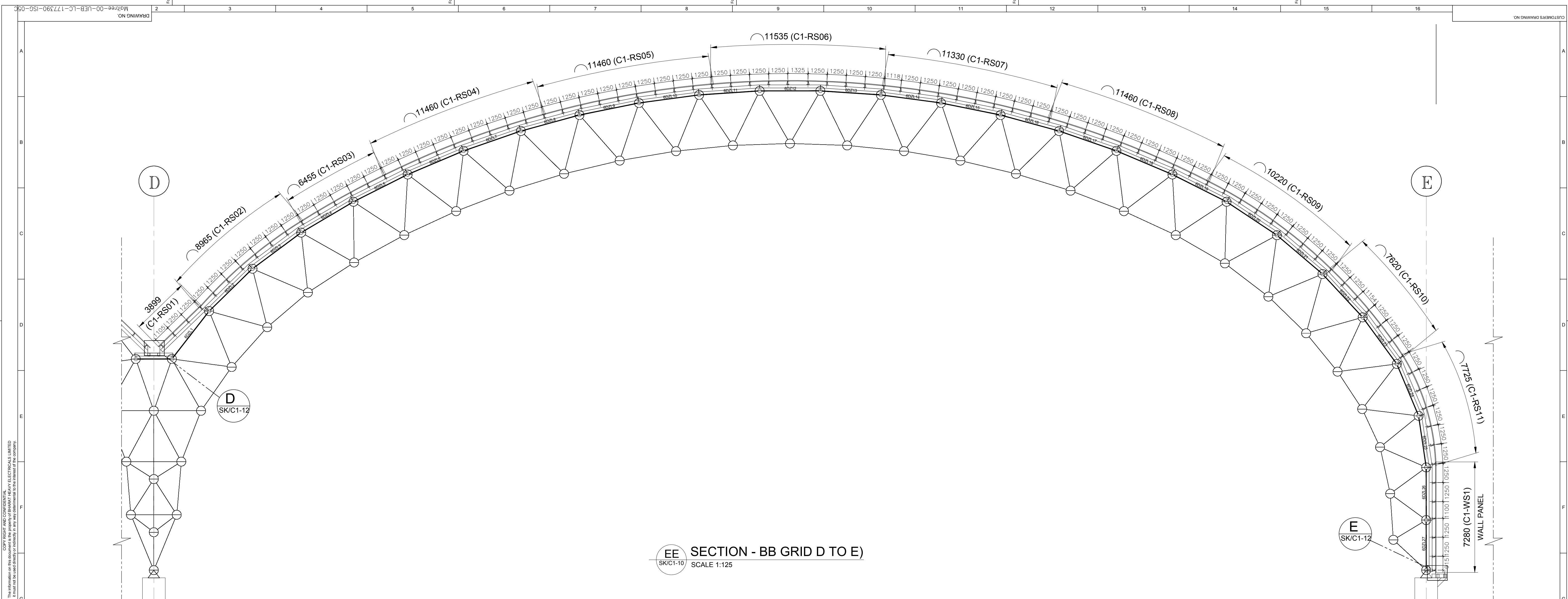
1	25.05.2021	FM	JEC	MHM	ISSUED FOR APPROVAL
0	14.04.2021	FM	JEC	KAS	ISSUED FOR INFORMATION
REV.	DATE	ALTERED	CHECKED	APPROVED	NOTE
PROJECT 2x660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)					
OWNER CONSULTANT:  M/s FICHTNER GmbH & Co KG, Stuttgart,GERMANY			OWNER:  BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LIMITED, BANGLADESH  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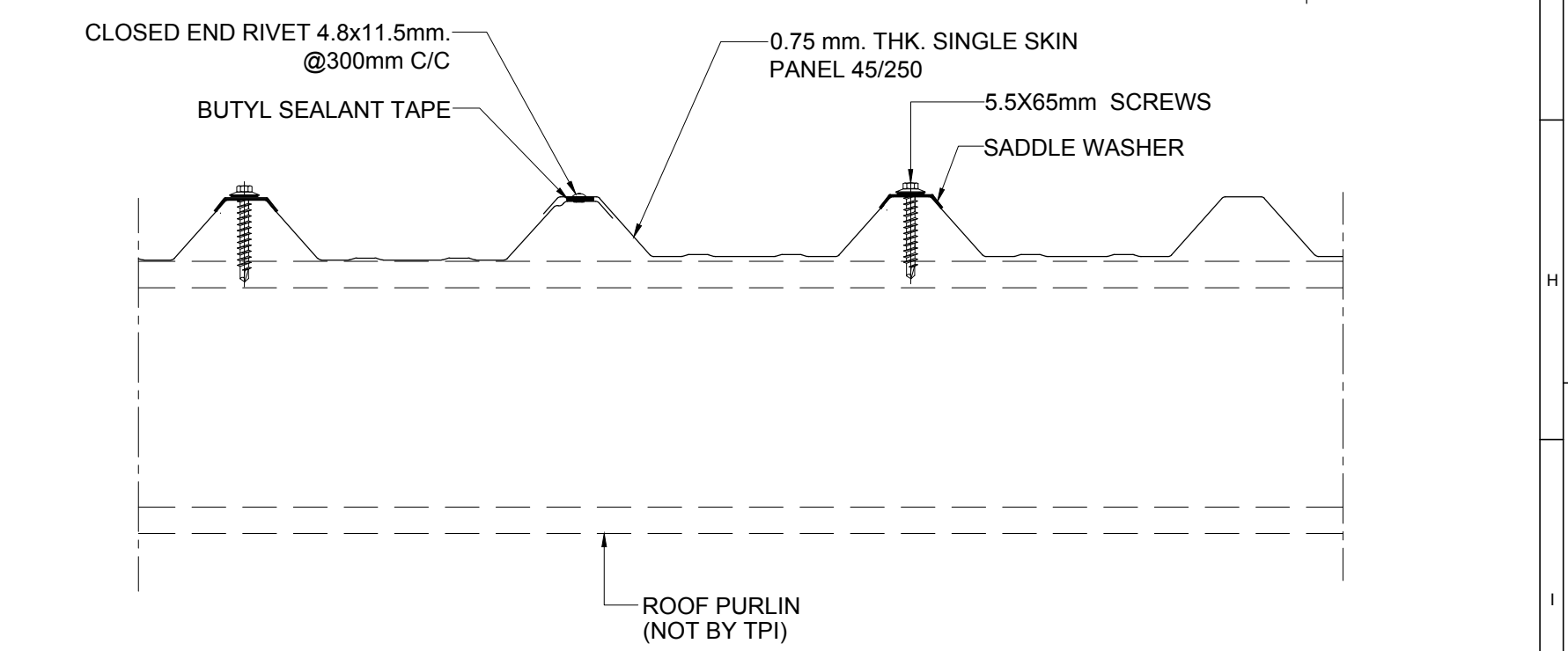
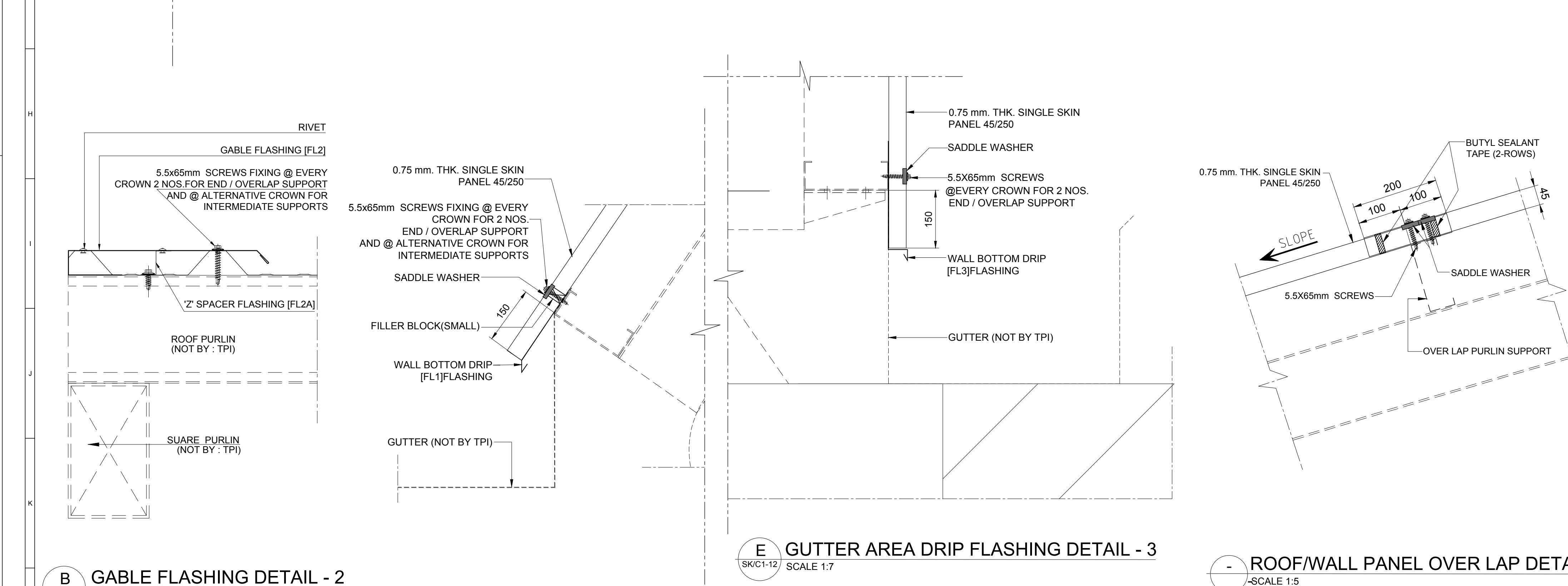
COAL SHED - 1 PANEL SCHEDULE				
SR. NO.	PIECE MARK	LENGTH (mm)	QTY	TOTAL LENGTH (m)
1	C1-RS01	3900	617	2406.3
2	C1-RS02	8965	617	5531.405
3	C1-RS03	6455	617	3982.735
4	C1-RS04	11460	617	7070.82
5	C1-RS05	11460	617	7070.82
6	C1-RS06	11535	617	7117.095
7	C1-RS07	11330	617	6990.61
8	C1-RS08	11460	617	7070.82
9	C1-RS09	10220	617	6305.74
10	C1-RS10	7620	617	4701.54
11	C1-RS11	7725	617	4766.325
12	C1-WS1	7280	617	4491.76
ADDITIONAL PANELS				
13	C1-ARS01	3900	10	39
14	C1-ARS02	8965	10	89.65
15	C1-ARS03	6455	10	64.55
16	C1-ARS04	11460	10	114.6
17	C1-ARS05	11460	10	114.6
18	C1-ARS06	11535	10	115.35
19	C1-ARS07	11330	10	113.3
20	C1-ARS08	11460	10	114.6
21	C1-ARS09	10220	10	102.2
22	C1-ARS10	7620	10	76.2
23	C1-ARS11	7725	10	77.25
24	C1-AWS1	7280	10	72.8
TOTAL			68,600	

1	25.05.2021	FM	JEC	MHM	ISSUED FOR APPROVAL			
0	14.04.2021	FM	JEC	KAS	ISSUED FOR INFORMATION			
REV.	DATE	ALTERED	CHECKED	APPROVED	NOTE			
PROJECT 2x660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)								
OWNER CONSULTANT:  M/s FICHTNER GmbH & Co KG, Stuttgart,GERMANY			OWNER:  BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LIMITED, BANGLADESH					
						BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP BANGALORE		SCALE:  SHEET OF
DRAWN BY	DATE	NAME	TITLE			NEXT SPACES LIMITED (IN CONSORTIUM WITH JIANGSHU ANDY STEEL STRUCTURE COMPANY LTD.)		
DESIGN BY	28.11.2019		COAL COVERED SHED:					
CHECKED BY			GA DRAWING FOR					
APPROVED BY			ROOF CLADDING SECTION-AA					
SUPERSEDES:								
SUPERSEDED BY:			SIZE: A1 PROJECT NO.:		FILE:			
SYSTEM:			ANNEX:		TPI/SK/C1-11			
			REV 1					





EE SECTION - BB GRID D TO E)  
SCALE 1:125



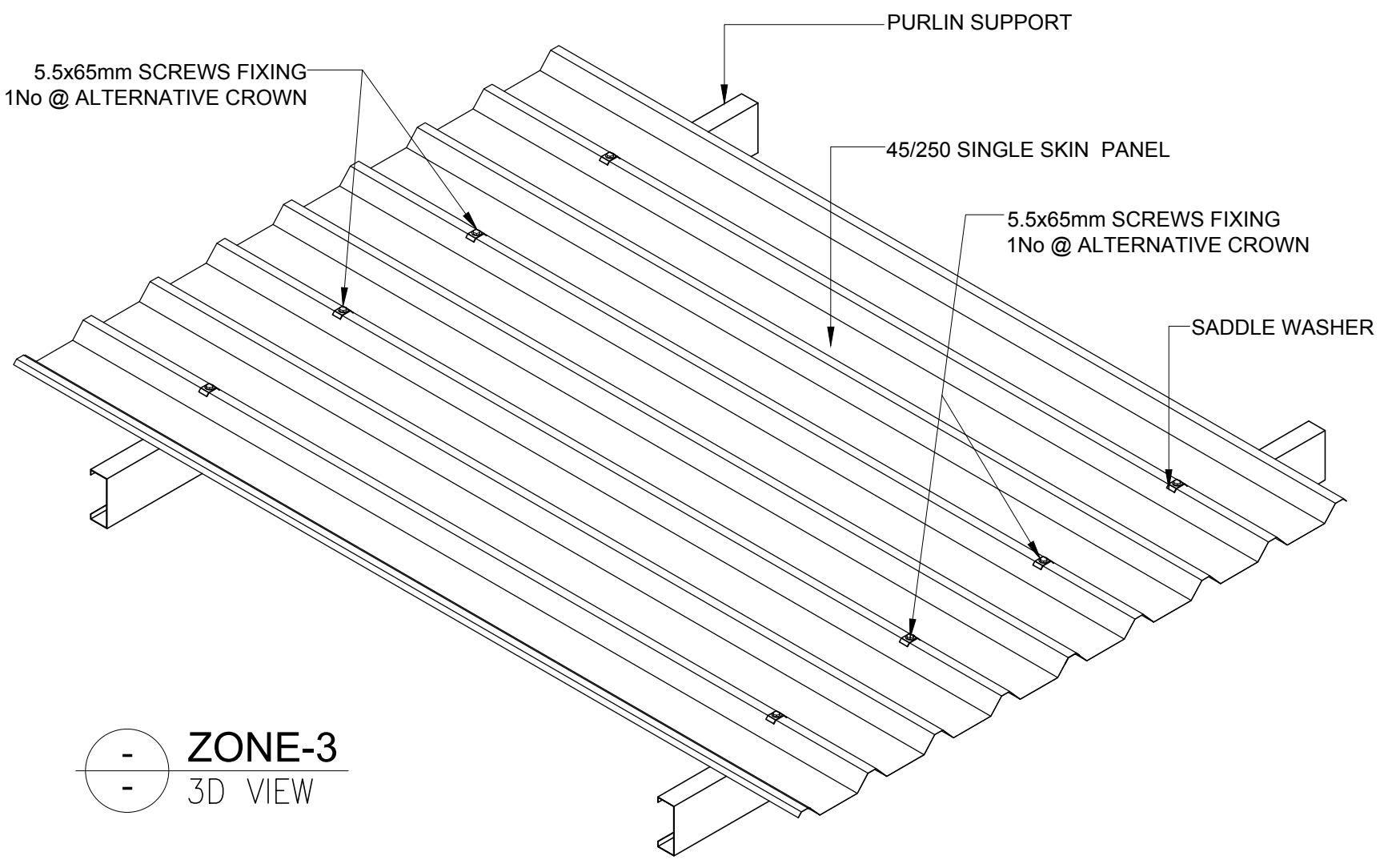
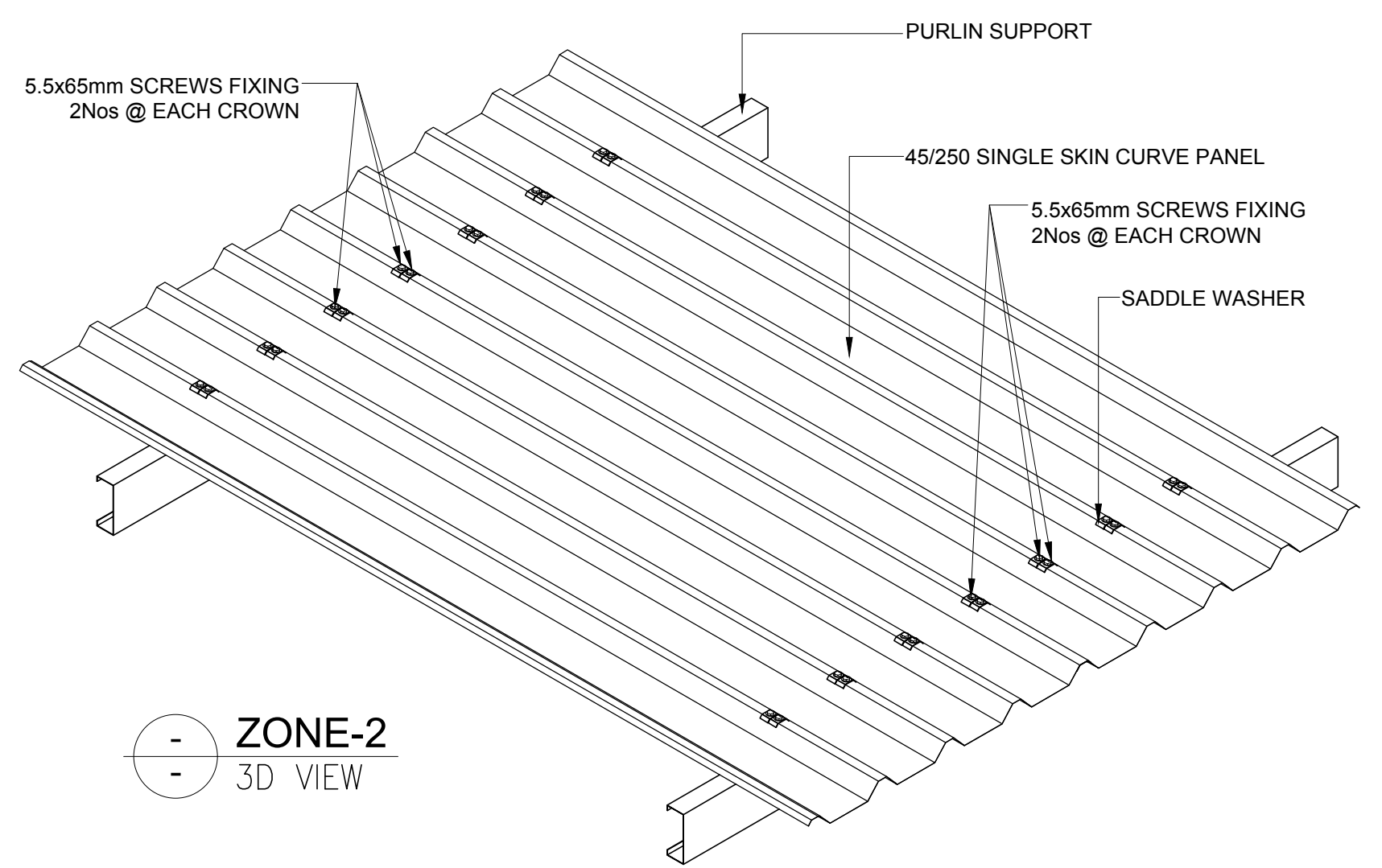
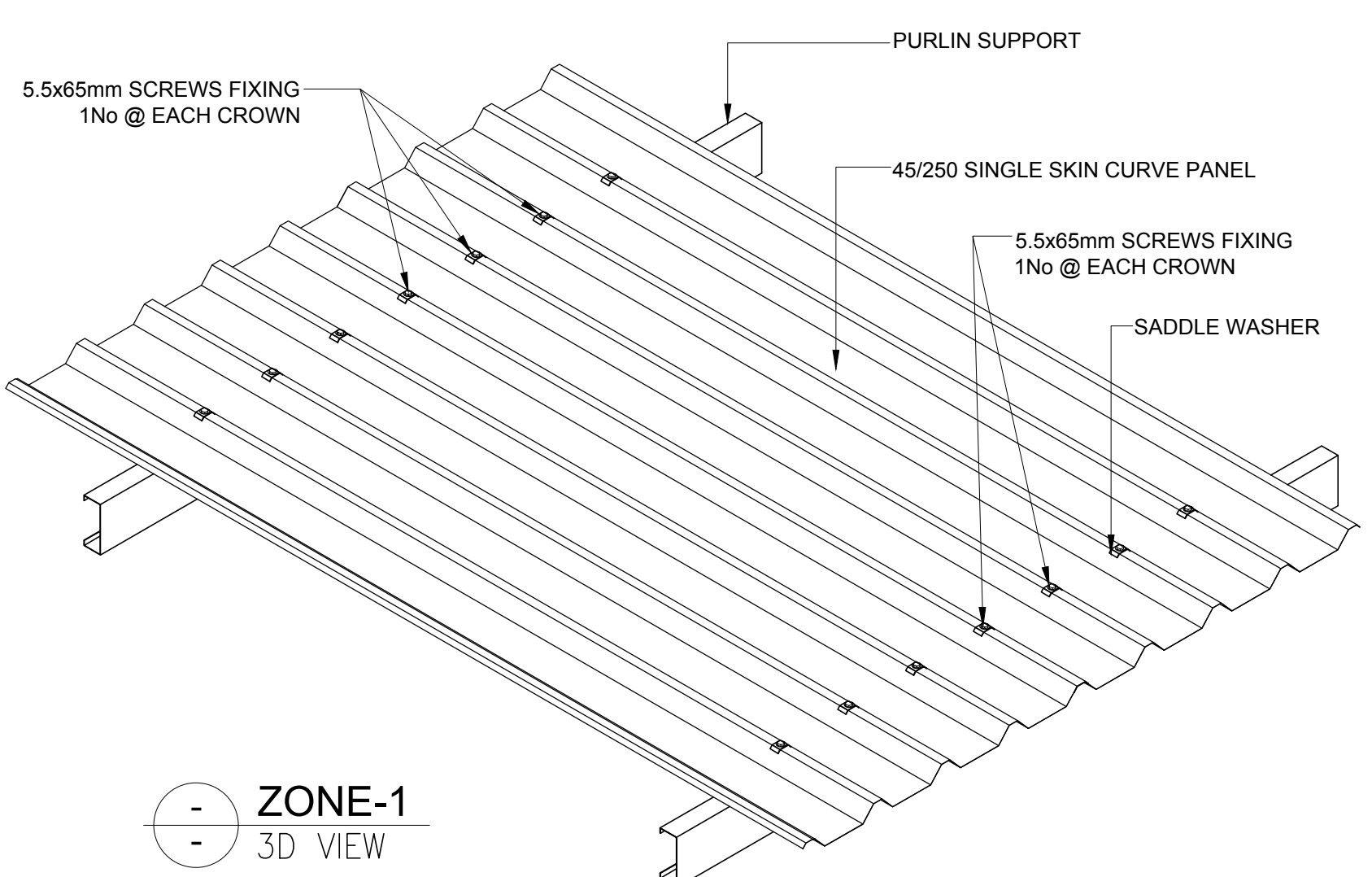
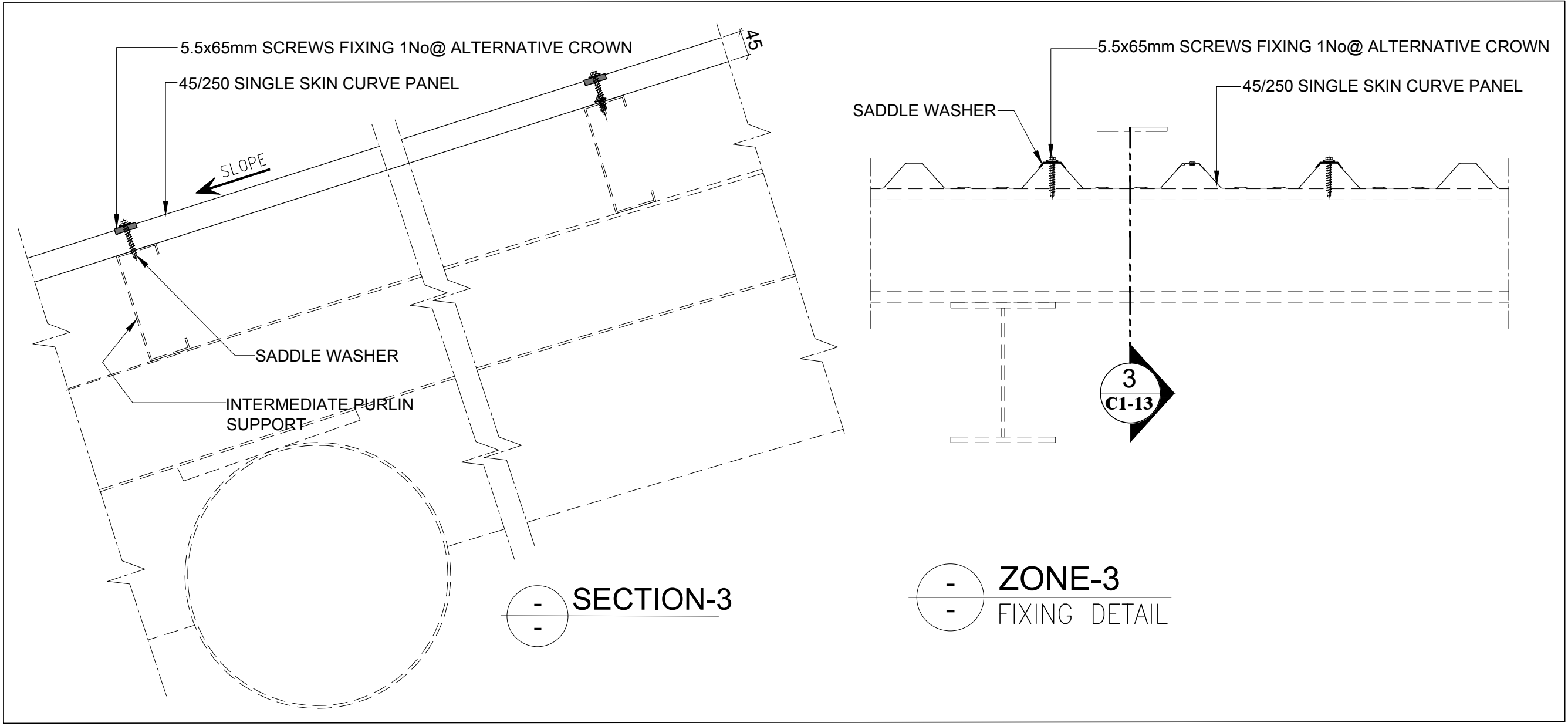
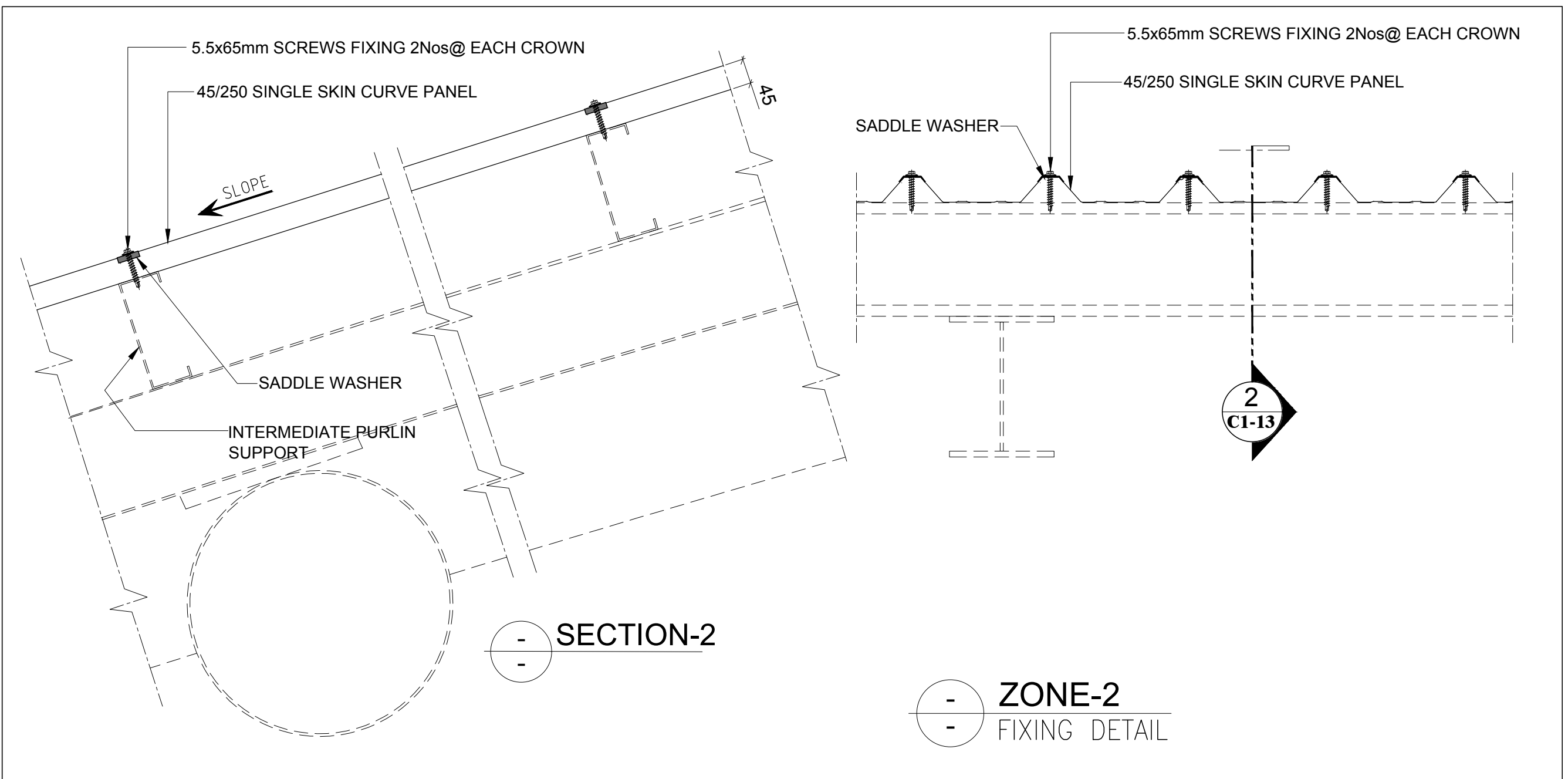
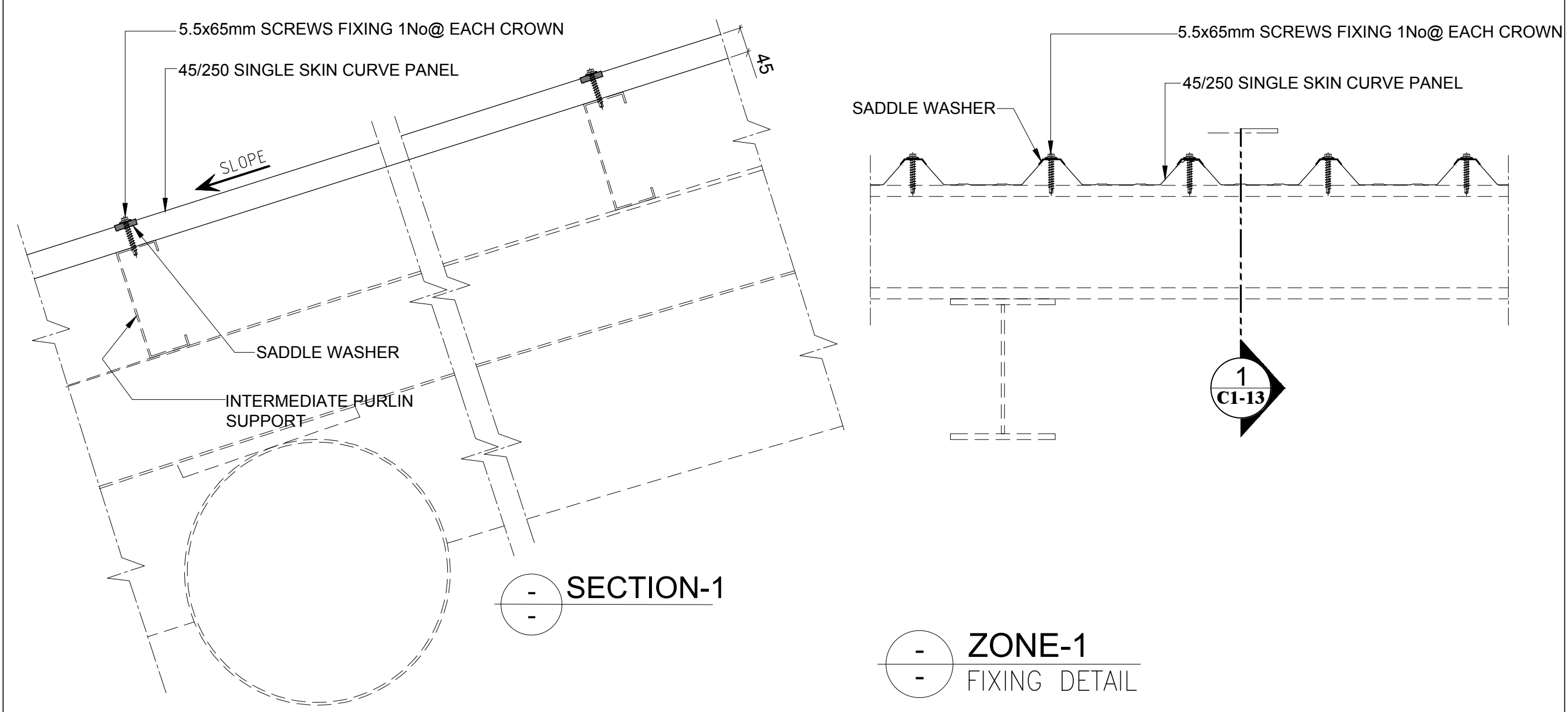
ROOF PANEL SIDE LAP DETAIL  
SCALE 1:5

1	25.05.2021	FM	JEC	MHM	ISSUED FOR APPROVAL
0	14.04.2021	FM	JEC	KAS	ISSUED FOR INFORMATION
REV.	DATE	ALTERED	CHECKED	APPROVED	NOTE
PROJECT 2x660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)					
OWNER CONSULTANT: M/s FICHTNER GmbH & Co KG, Stuttgart,GERMANY			OWNER: BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LIMITED, BANGLADESH BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP BANGALORE		
DRAWN BY DESIGN BY CHECKED BY APPROVED BY SUPERSEDES: SUPERSEDED BY: SYSTEM:			DATE 28.11.2019 NAME		
TITLE COAL COVERED SHED: GA DRAWING FOR ROOF CLADDING SECTION-AA			SCALE: SHEET OF		
SIZE: A1 ANNEX:			PROJECT NO.: DRAWING NO.: TPI/SK/C1-12		
			FILE: NEXT SPACES LIMITED (IN CONSORTIUM WITH JIANGSHU ANDY STEEL STRUCTURE COMPANY LTD.)		
			REV 1		

CLADDING SUPPLIER:

P.O.Box: 23499  
Sharjah - U.A.E  
T: +971 6 533 8449  
F: +971 6 533 6673  
info@Tigerprofiles.com  
www.Tigerprofiles.com  
Comm. Reg. No: 24046





FIXING ACCESSORIES (NOT BY TPI)

CLADDING SUPPLIER:

**TigerPROFILES**  
INSULATION LTD  
The Roof & Cladding Company

P.O.Box: 23499  
Sharjah — U.A.E  
T: +971 6 533 8449  
F: +971 6 533 6673  
info@Tigerprofiles.com  
www.Tigerprofiles.com  
Comm. Reg. No: 24046

1	25.05.2021	FM	JEC	MHM	ISSUED FOR APPROVAL
0	14.04.2021	FM	JEC	KAS	ISSUED FOR INFORMATION
REV.	DATE	ALTERED	CHECKED	APPROVED	NOTE
PROJECT 2x660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)					
OWNER CONSULTANT:			OWNER:		
M/s FICHTNER GmbH & Co KG, Stuttgart,GERMANY			BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LIMITED, BANGLADESH		
			BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP BANGALORE		
DRAWN BY			DATE	NAME	SCALE:
DESIGN BY					SHEET
CHECKED BY					OF
APPROVED BY					
SUPERSEDES:					
SUPERSEDED BY:					
SYSTEM:					
TITLE			NEXT SPACES LIMITED (IN CONSORTIUM WITH JIANGSHU ANDY STEEL STRUCTURE COMPANY LTD.)		
COAL COVERED SHED: GA DRAWING FOR ROOF CLADDING SECTION-AA					
SIZE: A1			FILE:		
ANNEX:			DRAWING NO.: TPI/SK/C1-13		
			REV 1		



TITLE: **2X660 MW MAITREE STPP,  
RAMPAL, BANGLADESH**

SPECIFICATION NO. IS-4-TS-702-100-C005  
R0- VOLUME - II B

SECTION - B

REV.NO. 0

SHEET 1 OF 2

PROJECT INFORMATION

**BANGLADESH-INDIA FRIENDSHIP POWER  
COMPANY (PVT.) LIMITED**

**2x660MW MAITREE STPP, RAMPAL  
BANGLADESH**

**VOLUME – II B**

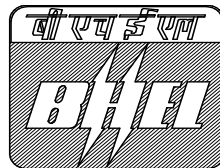
**TECHNICAL SPECIFICATIONS**

**COVER SHED**

**FOR COAL & LIME STOCK YARD**

**SPECIFICATION NO.  
IS-TS-702-100-C005 R0**

**SECTION - B  
*PROJECT INFORMATION***



**Bharat Heavy Electricals Limited**  
Industrial Systems Group  
IISc, Post  
Malleswaram  
Bangalore-560012





TITLE: **2X660 MW MAITREE STPP,  
RAMPAL, BANGLADESH**

SPECIFICATION NO. IS-4-TS-702-100-C005  
R0- VOLUME - II B

SECTION - B

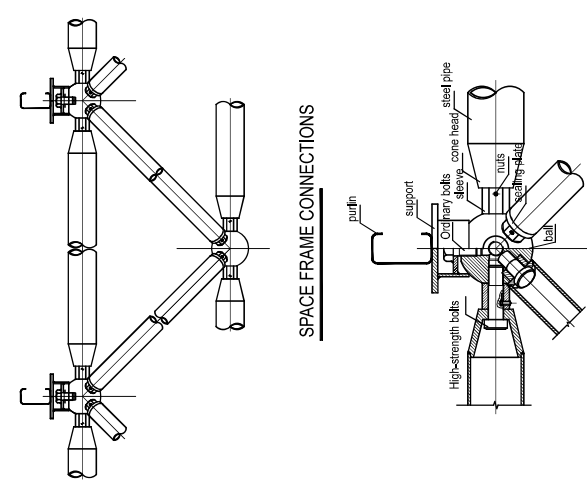
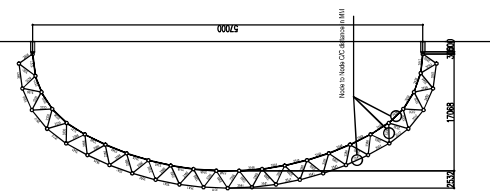
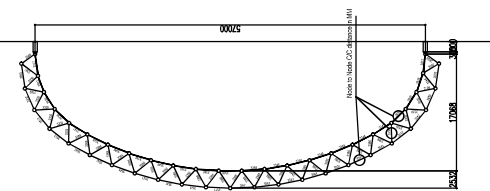
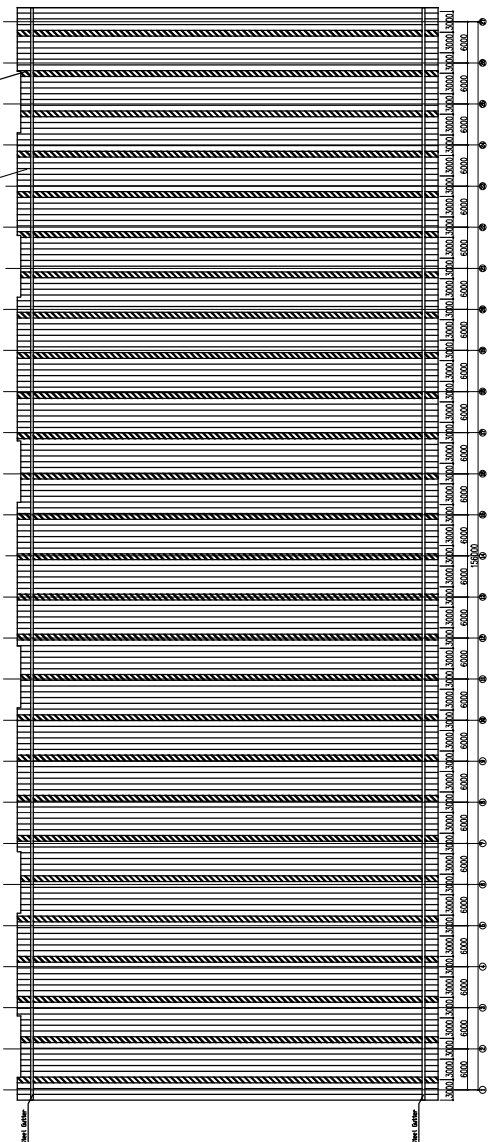
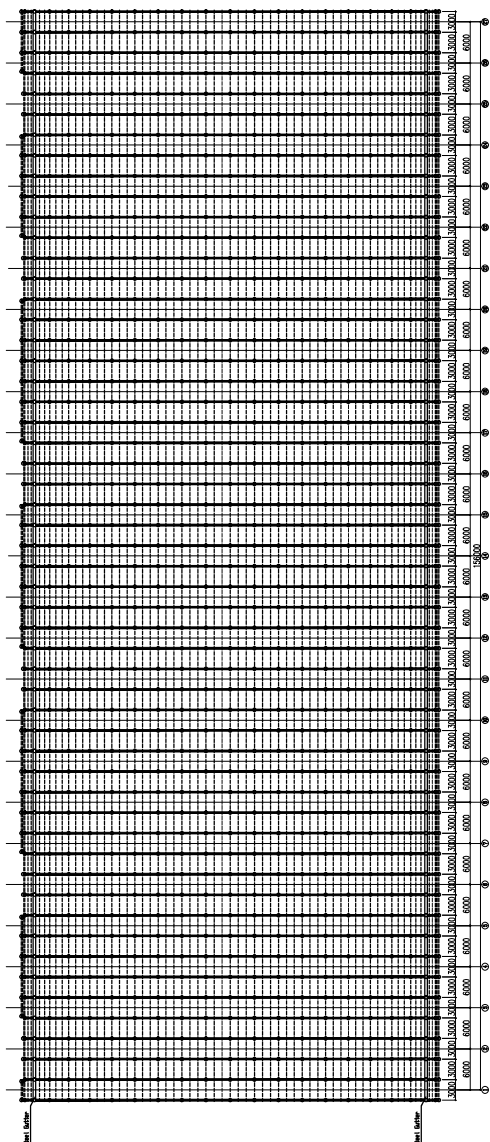
REV.NO. 0

SHEET 2 OF 2

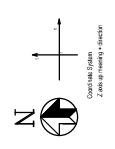
**PROJECT INFORMATION**

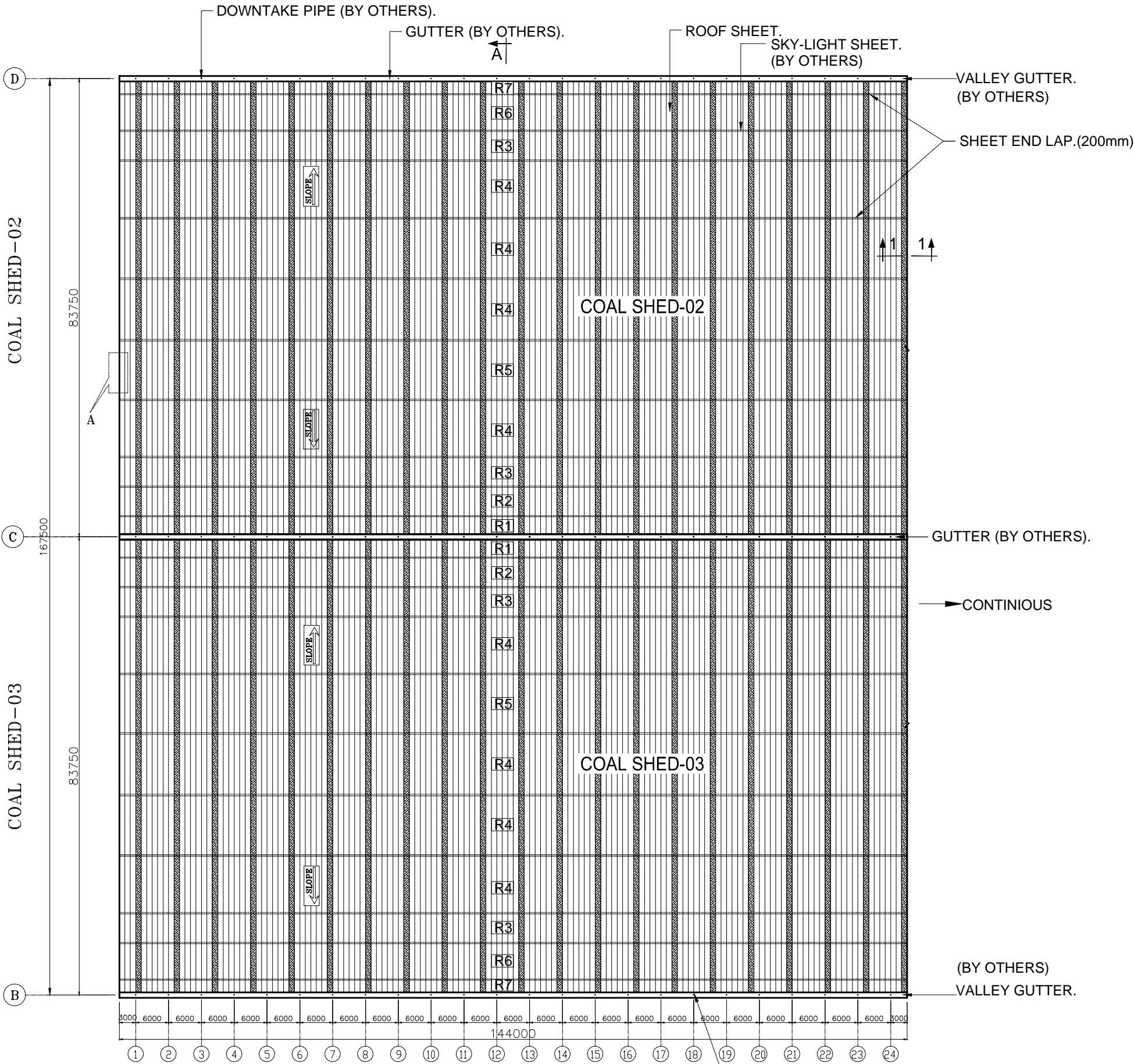
**PROJECT INFORMATION**

1.	Owner	BANGLADESH-INDIA (PVT.) LIMITED, FRIEND SHIP POWER COMPANY
2.	Project	2 x 660 MW MAITREE KHULNA-STPP
3.	No of Units	2
4.	Consultant	FICHTNER
5.	Location	The site is located approximately 14 km northeast of the Mongla Port and 14 km northwest of the Sundarbans, is infringed by the Passur and Moidara Rivers to the west and south east respectively. The project requires an area of approximately 500 acres.
6.	District	The site is located in Rampal Upazila of the Bagherat District in the Rajnagar Union
7.	Nearest Railway station	Khulna
8.	Nearest Airport	Jessore
9.	Nearest Seaport	Mongla
10.	Accessibility	Currently, the Site is accessible by boat and road.

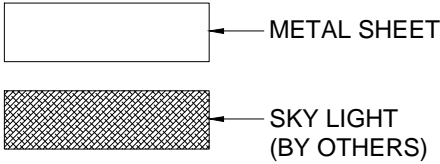


## REFERENCE DRAWINGS:

[illegible]



ROOF SHEETING PLAN



SPECIFICATION:

- 1. ROOF:**  
1.GALVANIZED COLOUR COATED SHEET.  
2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.  
3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

- 2. SUBSTRATE:**  
HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

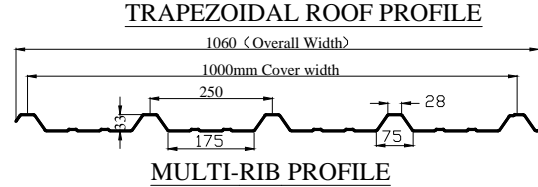
- 3. PRE-TREATMENT:**  
AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

- 4. PRIMER:**  
NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.




- 5. EPOXY BARRIER COAT:**  
NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.

- 6. EXTERNAL WEATHER COAT:-**  
NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE

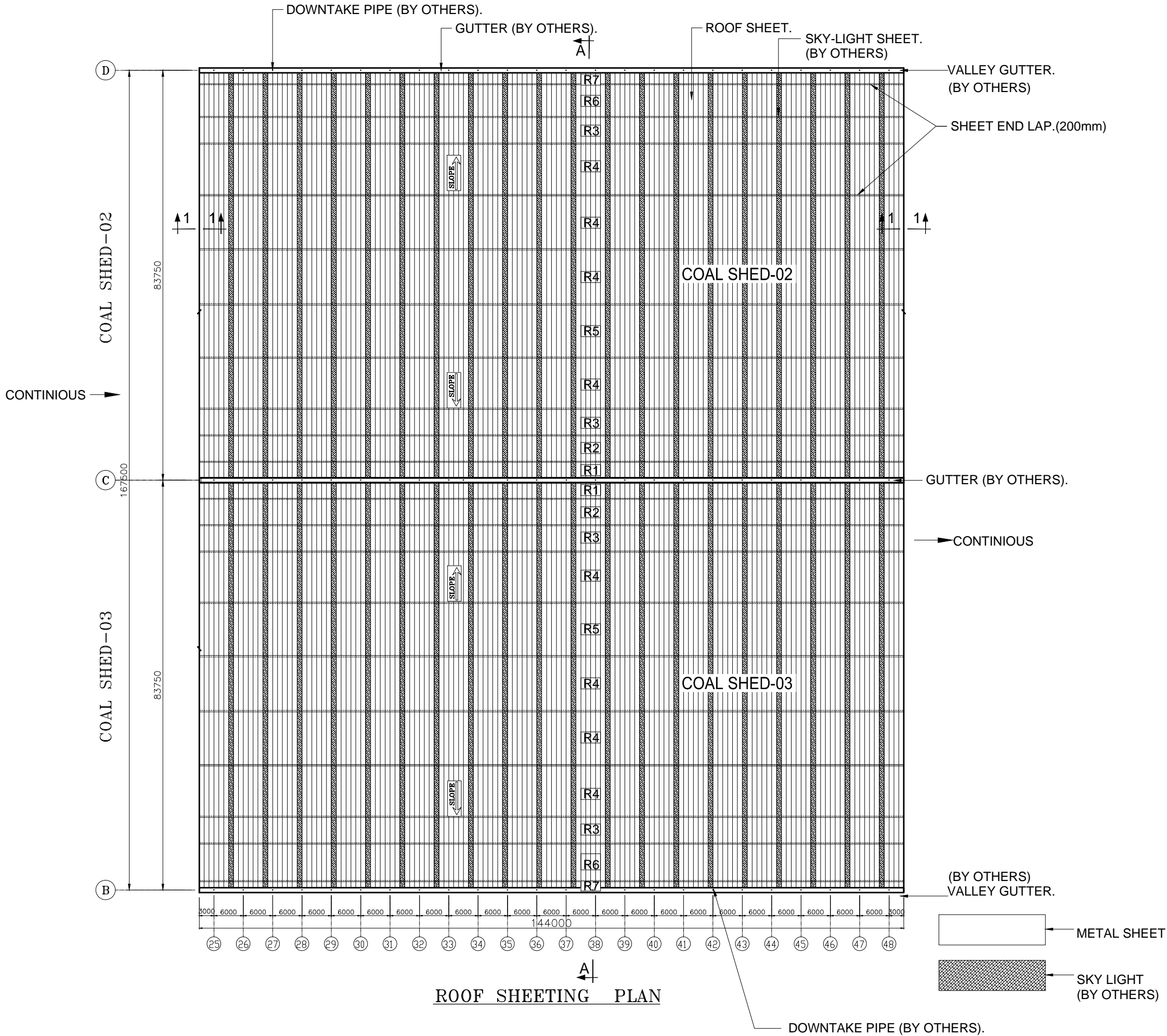
- 7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**  
NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE



NOTE: -  
ALL DIMENSION ARE IN MM.

PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976   F: + 97144254132 INFO@UMCUAE   WWW.UMCUAE.AE   LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED 2 & 3		
TITLE:	ROOF SHEET PLAN (GRID 1 ~ 24)		
ROOFING SYSTEM BY:		MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660	
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-01		SHEET 1 OF 9    REV -00





**SPECIFICATION:**

**1. ROOF:**

- 1.GALVANIZED COLOUR COATED SHEET.
- 2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.
- 3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

**2. SUBSTRATE:**

HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

**3. PRE-TREATMENT:**

AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

**4. PRIMER:**

NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.

**5. EPOXY BARRIER COAT:**

NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.

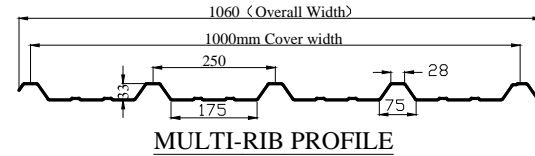
**6. EXTERNAL WEATHER COAT:-**

NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE




**7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**

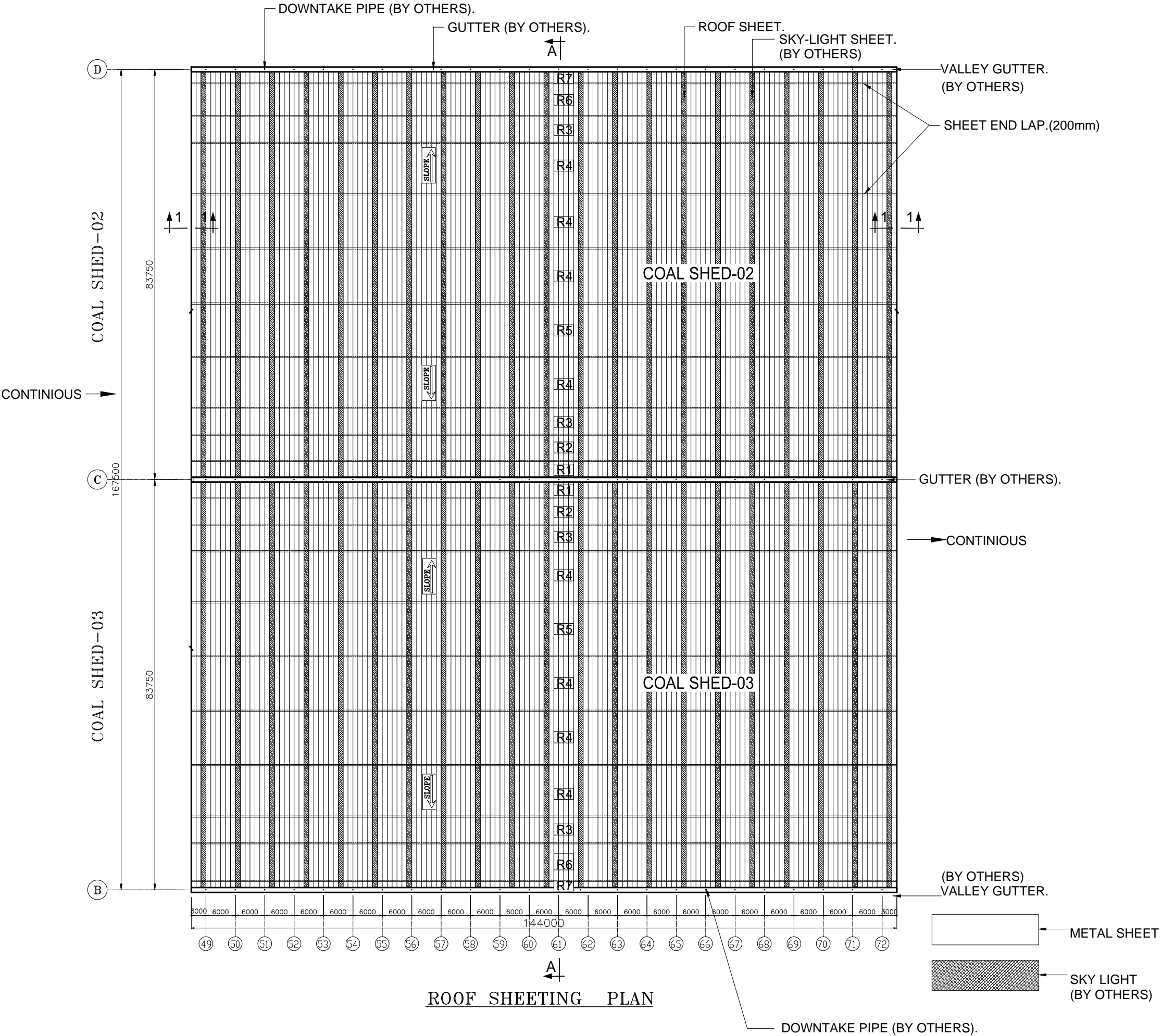
NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE

**TRAPEZOIDAL ROOF PROFILE**



NOTE: -  
ALL DIMENSION ARE IN MM.

PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F: + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED 2 & 3		
TITLE:	ROOF SHEET PLAN (GRID 25 ~ 48)		
ROOFING SYSTEM BY:	 MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660		
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-02		SHEET 2 OF 9
			REV -00



**SPECIFICATION:**

**1. ROOF:**  
1.GALVANIZED COLOUR COATED SHEET.  
2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.  
3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

**2. SUBSTRATE:**  
HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

**3. PRE-TREATMENT:**  
AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

**4. PRIMER:**  
NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.

**5. EPOXY BARRIER COAT:**  
NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.

**6. EXTERNAL WEATHER COAT:-**  
NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE

**7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**  
NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE

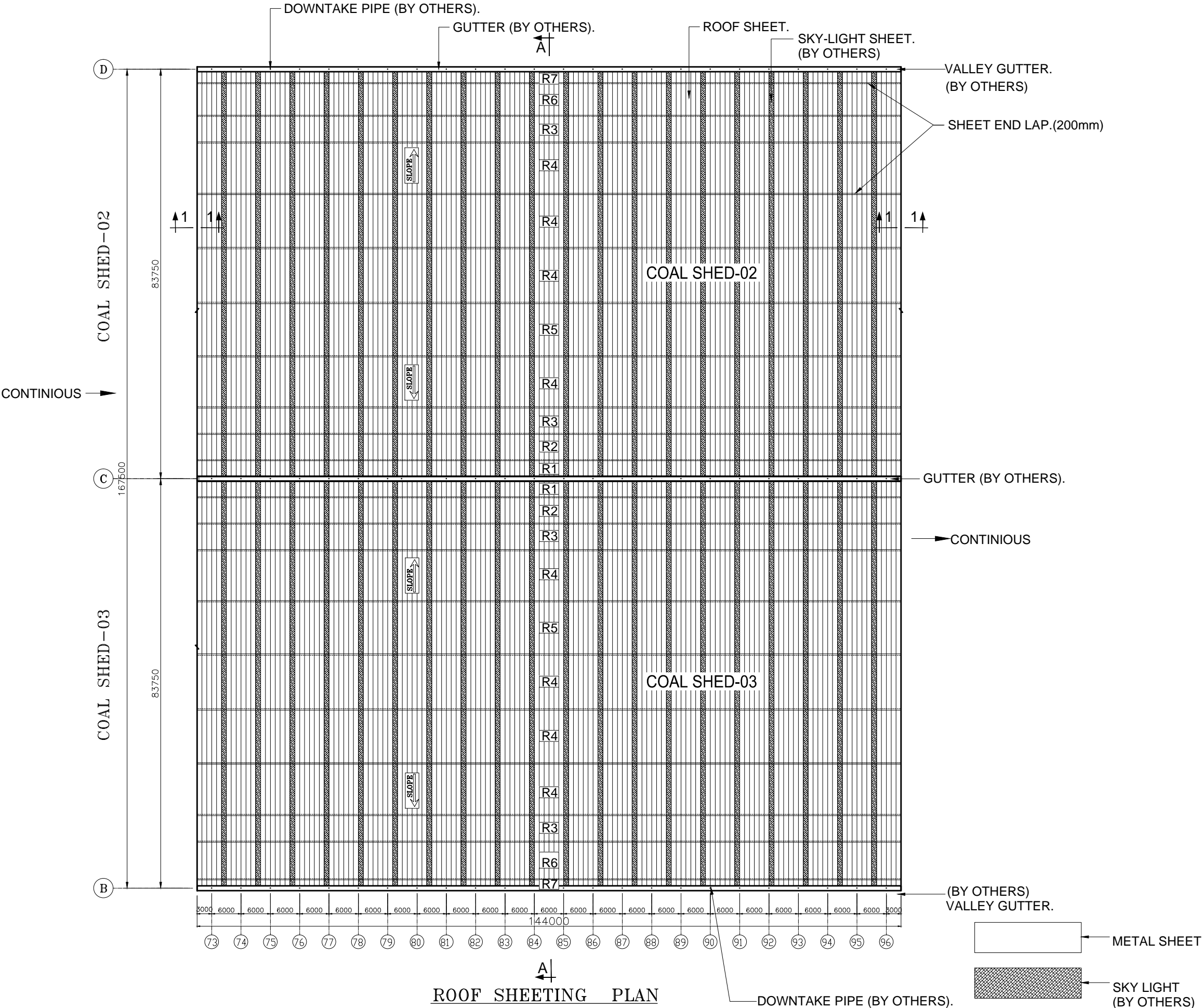
**TRAPEZOIDAL ROOF PROFILE**

**MULTI-RIB PROFILE**

NOTE: –  
ALL DIMENSION ARE IN MM.

PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F: + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED 2 & 3		
TITLE:	ROOF SHEET PLAN (GRID 49 ~ 72)		
ROOFING SYSTEM BY:	MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660		
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-03	SHEET 3 OF 9	REV -00





SPECIFICATION:

- 1. ROOF:**  
1.GALVANIZED COLOUR COATED SHEET.  
2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.  
3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

- 2. SUBSTRATE:**  
HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

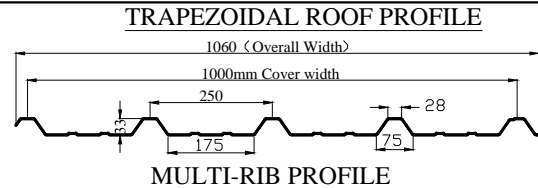
- 3. PRE-TREATMENT:**  
AFTER CLEANING, A "CHEMICAL CONVERSION "OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

- 4. PRIMER:**  
NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.




- 5. EPOXY BARRIER COAT:**  
NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.

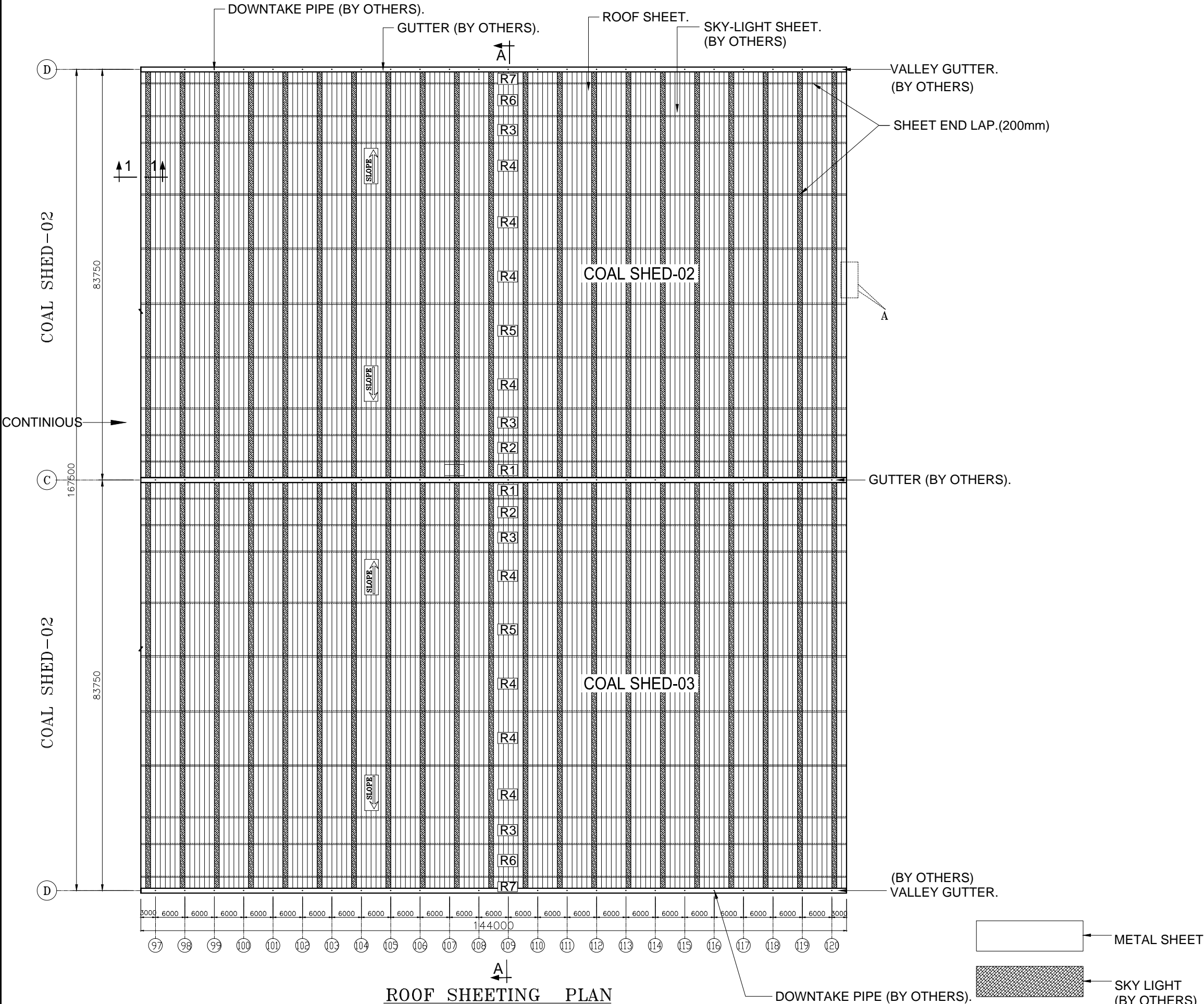
- 6. EXTERNAL WEATHER COAT:-**  
NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE

- 7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**  
NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE



NOTE: -  
ALL DIMENSION ARE IN MM.

PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F: + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED 2 & 3		
TITLE:	ROOF SHEET PLAN (GRID 73 ~ 96)		
ROOFING SYSTEM BY:		MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660	
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-04		SHEET 4 OF 9 REV -00



**SPECIFICATION:**

- 1. ROOF:**  
1.GALVANIZED COLOUR COATED SHEET.  
2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.  
3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

- 2. SUBSTRATE:**  
HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

- 3. PRE-TREATMENT:**  
AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

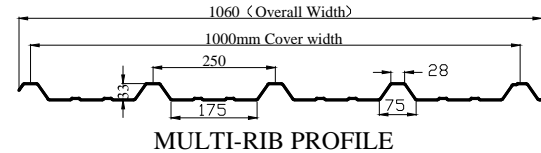
- 4. PRIMER:**  
NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.

- 5. EPOXY BARRIER COAT:**  
NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.




- 6. EXTERNAL WEATHER COAT:-**  
NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE

- 7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**  
NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE

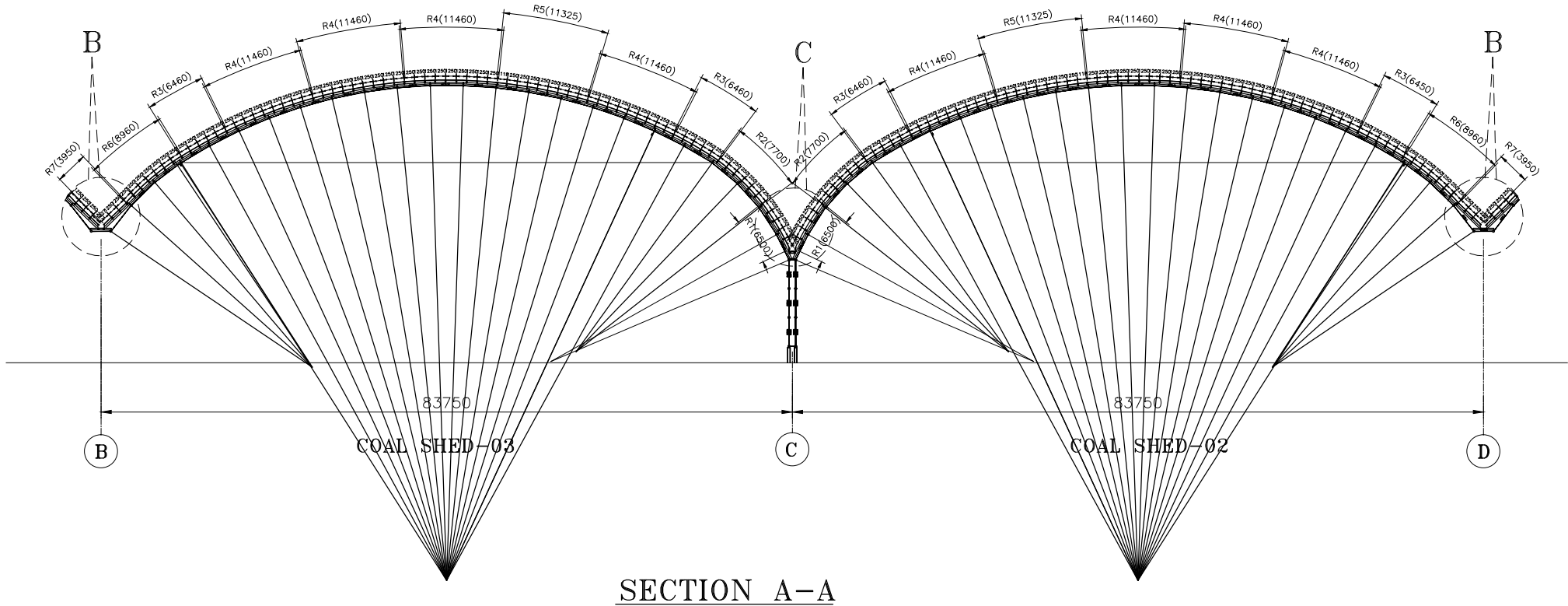
**TRAPEZOIDAL ROOF PROFILE**



NOTE: -  
ALL DIMENSION ARE IN MM.

PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F : + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED 2 & 3		
TITLE:	ROOF SHEET PLAN (GRID 98 ~ 120)		
ROOFING SYSTEM BY:	 MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660		
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-05		SHEET 5 OF 9
			REV -00





SECTION A-A

**SPECIFICATION:**

- 1. ROOF:**  
1.GALVANIZED COLOUR COATED SHEET.  
2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.  
3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

- 2. SUBSTRATE:**  
HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

- 3. PRE-TREATMENT:**  
AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

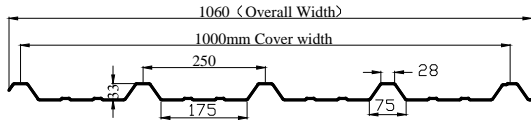
- 4. PRIMER:**  
NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.

- 5. EPOXY BARRIER COAT:**  
NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.

- 6. EXTERNAL WEATHER COAT:-**  
NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE




- 7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**  
NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE

**TRAPEZOIDAL ROOF PROFILE**

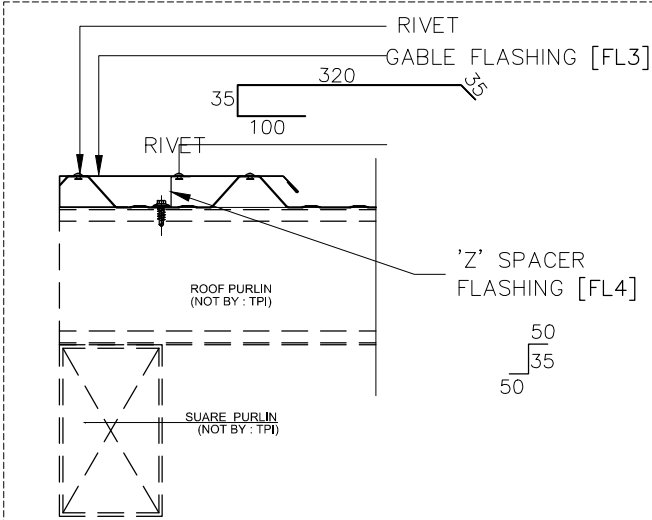
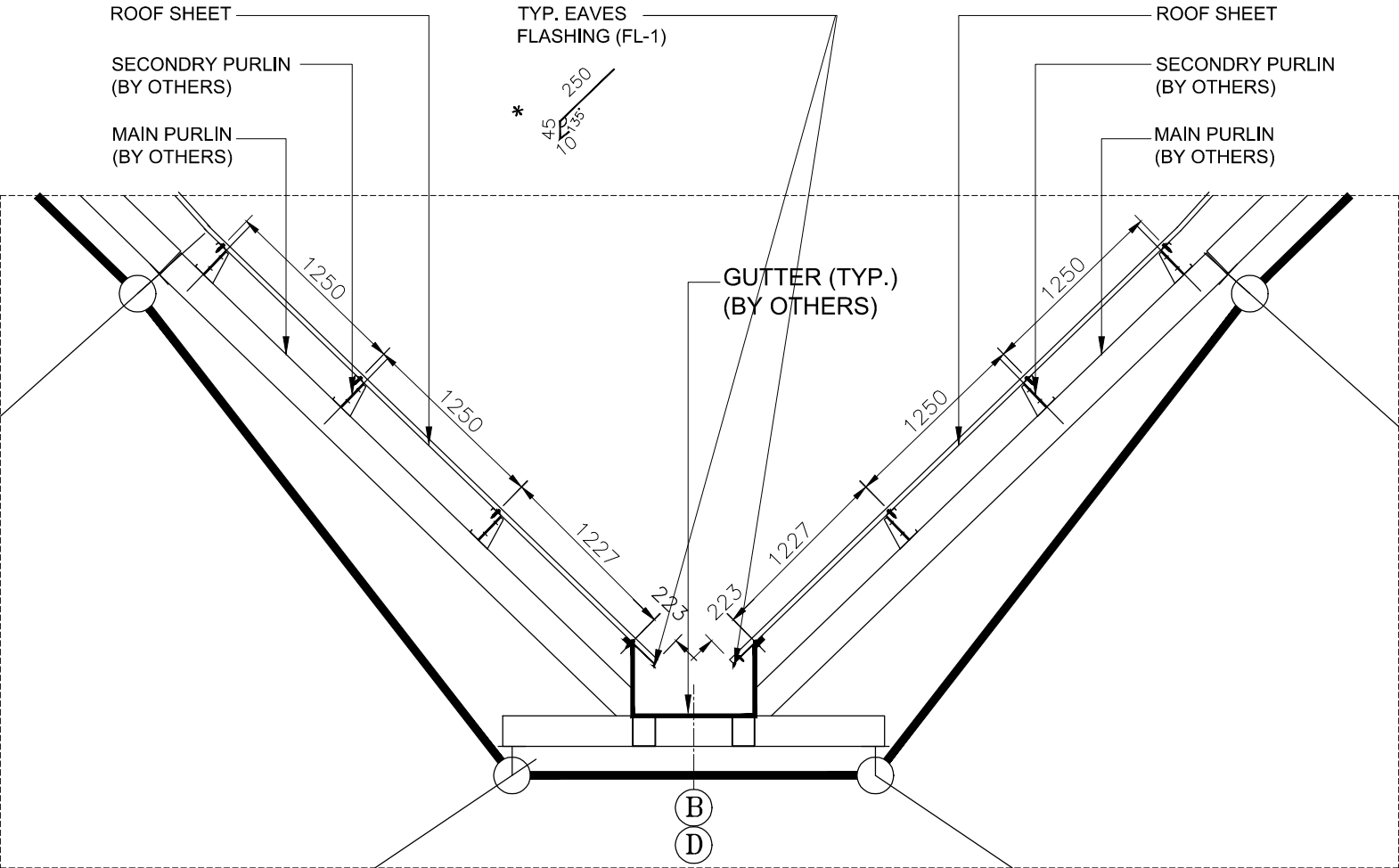


**MULTI-RIB PROFILE**

NOTE: -  
ALL DIMENSION ARE IN MM.

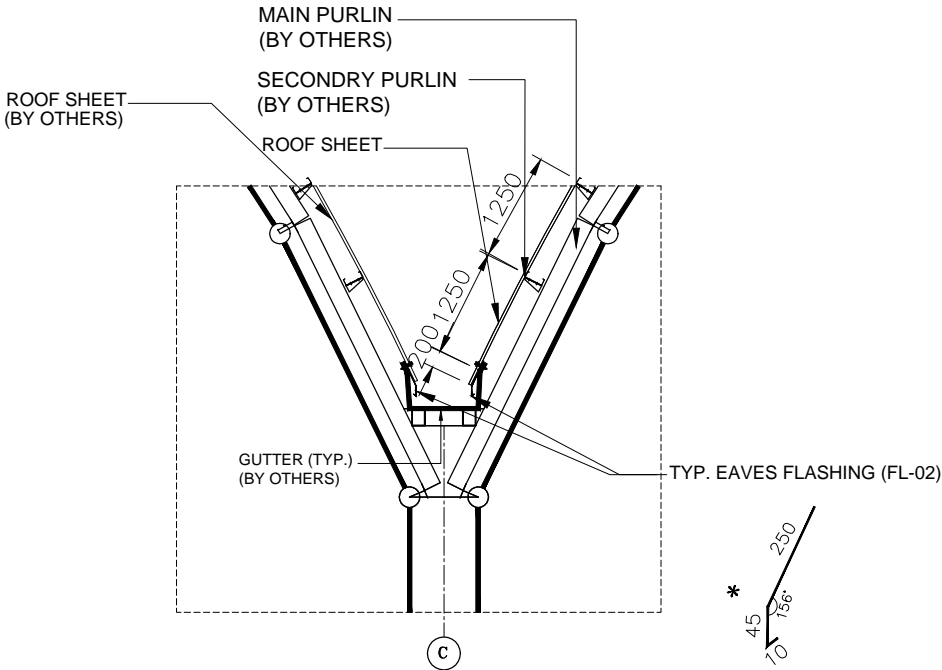
PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDISHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F: + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED 1 & 2		
TITLE:	ROOF SECTION AA		
ROOFING SYSTEM BY:	 MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660		
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-06	SHEET 6 OF 9	REV -00



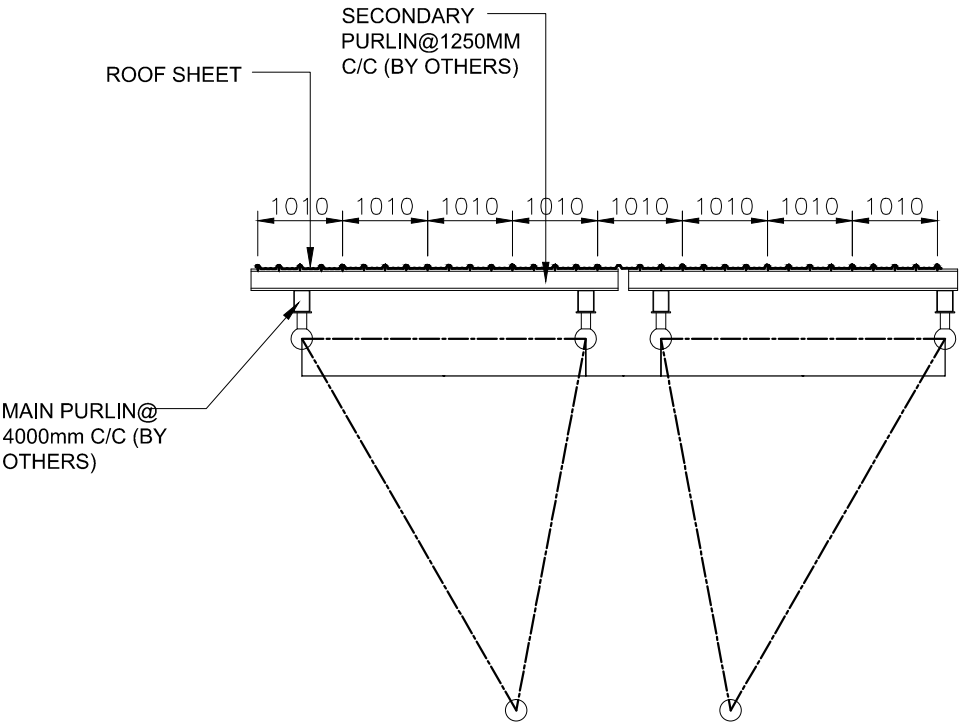


DETAIL-A  
TYP. GABLE END FLASHING

DETAIL-B  
GUTTER DETAIL  
(NOT IN MIPL SCOPE)



DETAIL-C  
GUTTER DETAIL  
(NOT IN MIPL SCOPE)



SECTION 1-1  
TYP. JUNCTION DETAIL

SPECIFICATION:

- 1. ROOF:**
  - 1.GALVANIZED COLOUR COATED SHEET.
  - 2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.
  - 3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.
- 2. SUBSTRATE:**

HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.
- 3. PRE-TREATMENT:**

AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.
- 4. PRIMER:**

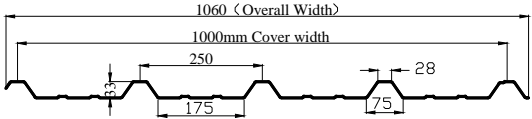
NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.
- 5. EPOXY BARRIER COAT:**

NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.
- 6. EXTERNAL WEATHER COAT:-**

NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE
- 7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**




NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE

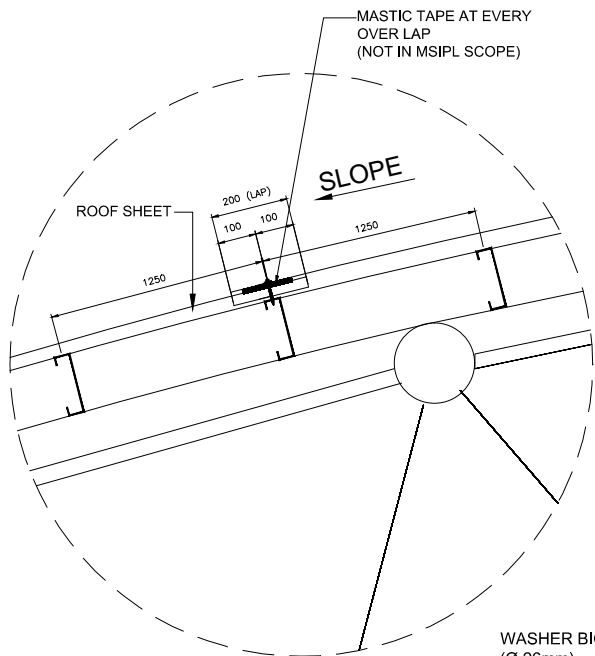
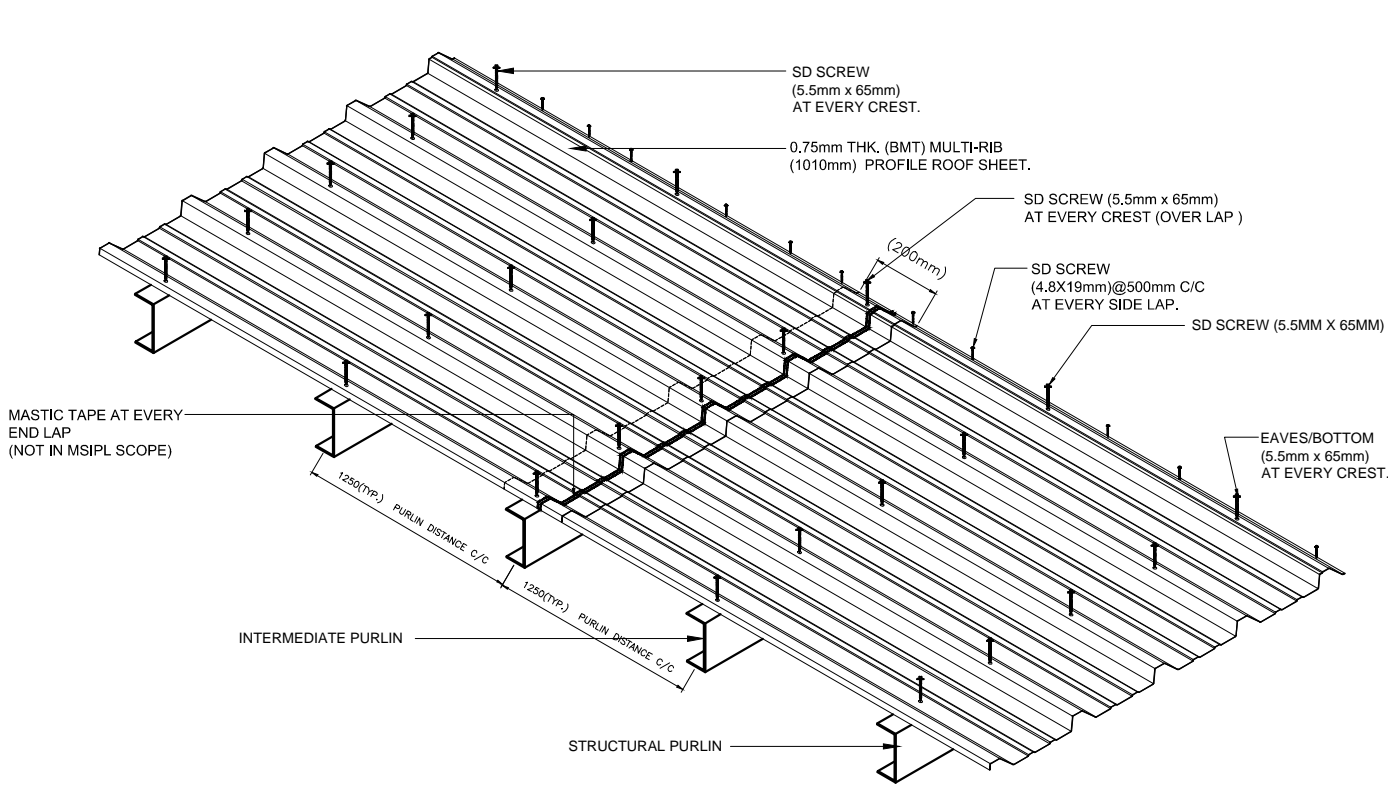
TRAPEZOIDAL ROOF PROFILE



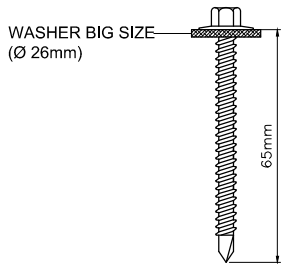
MULTI-RIB PROFILE

NOTE: -  
ALL DIMENSION ARE IN MM.

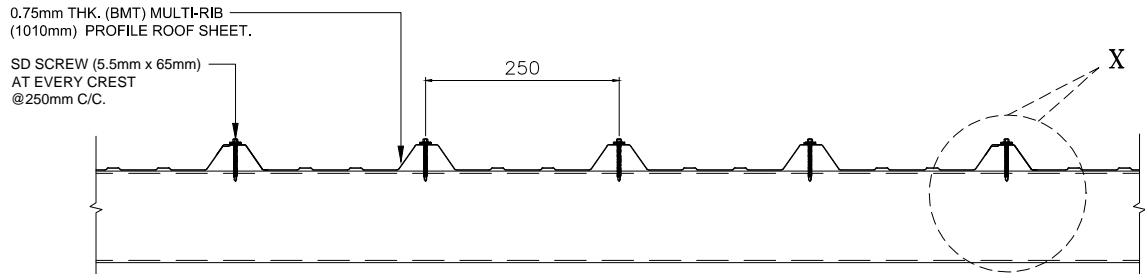
PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)			
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH			
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)			
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F: + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION			
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY			
BUILDING:	COAL COVERED SHED 1 & 2			
TITLE:	GUTTER DETAIL-B			
ROOFING SYSTEM BY:		MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660		
SUBMITTED FOR		APPROVAL	SCALE:	N.T.S.
APPROVAL			DATE:	28.05.21
INFORMATION			DRAWN	SUNIL
CONSTRUCTION			CHECKED	R.P
AS BUILT			APPROVED	D.G
PROJ. NO.			PROJECT.INCH.	D.G
DRG. NO.		MSIPL-MSTP-BHEL-CS-5547-07		SHEET 7 OF 9
				REV -00



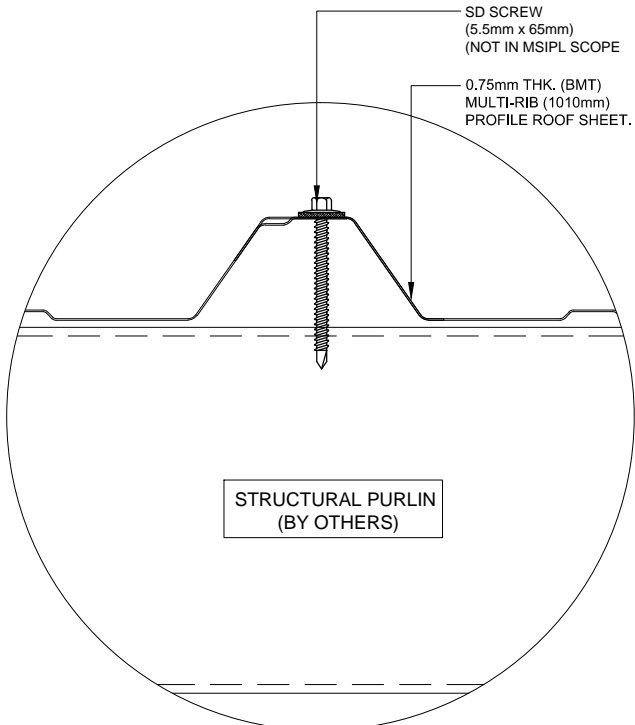
(TYP.) SHEET END LAP DETAIL



SD SCREW (5.5x65mm) (NOT IN MSIPL SCOPE)



SECTIONAL VIEW(TYP.) ROOF SHEET FIXING DETAIL



DETAIL-X (TYP.) SHEET SIDE LAP DETAIL

SPECIFICATION:

- 1. ROOF:**
- 1.GALVANIZED COLOUR COATED SHEET.
- 2.THICKNESS: 0.75mm BMT. + GALVANIZATION 275gsm + PAINT COATING 216 MICRON.
- 3.GRADE SS340-CLASS 1 AS PER ASTM: A653/653.

- 2. SUBSTRATE:**
- HOT DIPPED GALVANIZED STEEL SUBSTRATE, WITH A MINIMUM ZINC COATING WEIGHT 275 g/m2 TOTAL BOTH SIDES.THE STEEL SUBSTRATE SHALL BE MIN. 0.75mm THK.

- 3. PRE-TREATMENT:**
- AFTER CLEANING, A "CHEMICAL CONVERSION" OF THE ZINC COATING TO A NON METALLIC SURFACE WITH CORROSION INHIBITING AND ADHESION ADDITIVES SHALL BE APPLIED.

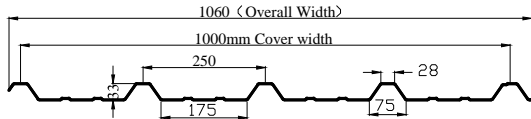
- 4. PRIMER:**
- NOMINAL 8-MICRON THICK. ANTI CORROSIVE PIGMENTED EPOXY PRIMER APPLIED TO BOTH SIDES OF THE SHEET.

- 5. EPOXY BARRIER COAT:**
- NOMINAL 70-MICRON THICK TF EPOXY BARRIER COAT WITH SPECIAL FLEXIBILIZER COMPOUNDS APPLIED TO BOTH SIDES OF SHEET AND BAKED TO A HARD CORROSION RESISTANT FINISH.

- 6. EXTERNAL WEATHER COAT:-**
- NOMINAL 40 MICRON THICK URETHANE EXTERIOR COATING ON OUTER EXPOSED FACE OF THE SHEET PIGMENTED IN ONE OF THE STANDARD COLOURS OF THE MANUFACTURER' COLOUR RANGE. (COLOUR:-RAL-5012).LIGHT BLUE




- 7.INTERNAL DECORATIVE COAT OF THE INTERIOR PROFILED LINER:-**
- NOMINAL 20 MICRON STOVING POLYESTER DECORATIVE FINISH ON INNER EXPOSED FACE OF SHEET.(COLOUR:-RAL-9002). GREY WHITE

TRAPEZOIDAL ROOF PROFILE



MULTI-RIB PROFILE

NOTE: – ALL DIMENSION ARE IN MM.

PROJECT:	2X660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)		
OWNER:	BANGLADESH-INDIA FRENDSHIP POWER COMPANY PVT. LTD BANGLADESH		
	BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP (BANGALORE)		
	UNITED METAL COATING LLC DUBAI IND. CITY, P.O. 181837, DUBAI, UAE T-97144253976 I F: + 97144254132 INFO@UMCUAE I WWW.UMCUAE.AE I LOCATION		
OWNER CONSULTANT:	M/S FICHTNER GmbH & co. KG, Stuttgart, GERMANY		
BUILDING:	COAL COVERED SHED –02		
TITLE:	ROOF SHEET FIXING DETAIL		
ROOFING SYSTEM BY:	 MULTICOLOR STEEL (INDIA) PVT. LTD. 1/18-20, WHITE HOUSE, RANI JHANSI ROAD NEW DELHI-55 TEL: 61290100 FAX: 23513660		
SUBMITTED FOR	APPROVAL	SCALE:	N.T.S.
APPROVAL		DATE:	28.05.21
INFORMATION		DRAWN	SUNIL
CONSTRUCTION		CHECKED	R.P
AS BUILT		APPROVED	D.G
PROJ. NO.		PROJECT.INCH.	D.G
DRG. NO.	MSIPL-MSTP-BHEL-CS-5547-08		SHEET 8 OF 9
			REV –00





**INTEGRITY PACT****Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

**and**

\_\_\_\_\_, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

**Preamble**

The Principal intends to award, under laid-down organizational procedures, contract/s for \_\_\_\_\_

\_\_\_\_\_. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

**Section 1- Commitments of the Principal**

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions:



## **Section 2 - Commitments of the Bidder(s)/ Contractor(s)**

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

## **Section 3 - Disqualification from tender process and exclusion from future contracts**

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

## **Section 4 - Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to



demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

### **Section 5 - Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

### **Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors**

- 6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.
- 6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

### **Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

### **Section 8 - Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.



- 8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.9 IEM should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.
- 8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.12 The word 'Monitor' would include both singular and plural.

### Section 9 - Pact Duration

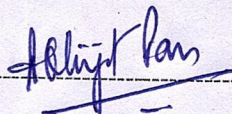
- 9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.
- 9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

### Section 10 - Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.



- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.



For &amp; On behalf of the Principal

अभिजीत पान / AVIJIT PAN

उप महाप्रबंधक (क्रय) / Dy. General Manager (PUR)

वी. एच. ई. एल. / पी.एस.ई.आर. / BHEL / PSER

(Office Seal) सॉल्ट लेक / DJ-9/1, SALT LAKE

कोलकाता-700 091/ KOLKATA-700 091

For &amp; On behalf of the Bidder/

Contractor

(Office Seal)

Place

Kolkata

Date

Witness:

(Name &amp; Address)

Sripurna Mukherjee  
BHELPSER, Kolkata

Witness:

(Name &amp; Address)