CEYLON PETROLEUM STORAGE TERMINALS LIMITED

BIDDING DOCUMENT

FOR

REPAIRS TO TANK NO. 34
AT KOLONNAWA INSTALLATION

CONTRACT NO: KPR/33/2025

Employer:

Chairman,
Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa,
Wellampitiya.

Engineer:

Engineering Manager,
Engineering Function,
Ceylon Petroleum Storage Terminals Limited
Kolonnawa,
Wellampitiya.

Issued to: …….

Issued by: ……..…….

Date: ……

June - 2025

CONTENTS

Invitation for Bids (IFB)

CEYLON PETROLEUM STORAGE TERMINALS LIMITED

REPAIRS TO TANK NO. 34 AT KOLONNAWA INSTALLATION
CONTRACT NO: KPR/33/2025
NATIONAL COMPETITIVE BIDDING

1. The Chairman, Department Procurement Committee (DPC) on behalf of the **Chairman, Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa** now invites sealed bids from eligible and qualified bidders for "**Repairs to Tank No. 34 at Kolonnawa Installation"** as described below.

2. The work consists of procurement of materials(Except Carbon Steel Plates and Paints) and repairs to Tank No. 34 including the construction of new RCC ring beam foundation with soil improvement, construction of proposed RCC catch pits, drains, replacement of the existing tank bottom, removal of 125 mm strip of bottom-most shell course, fabrication and erection of new shell accessories, painting of the tank after application of leak proof paint along the reverted joints and calibration of the tank. **The construction period is 270 Days** . **Estimate cost is Rs.137.3 million.**

3. Bidding will be conducted through the **National Competitive Bidding** Procedure.

4. To be eligible for contract award, the successful bidder shall not have been blacklisted and shall meet the following requirements.

   ICTAD, CIDA registration is required as follows;

Specialty	**Grade**	**Party**
Heavy Steel Fabrication	EM1	Bidder or Partner in Charge of Joint Venture (JV)

5. Qualification requirements to qualify for contract award include

   5.1 The average annual volume of construction work performed in the last five years shall be at least **LKR 275 million.**

   5.2 The minimum amount of liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments, which may be made under the Contract, until the project is taken over by the CPSTL, shall be not less than **LKR 50 million.**

   The Bidder/Partner in Charge of JV should have experience as a prime contractor in the construction of a nature and complexity similar to the works, Construction of new 2,500 m^3 or higher capacity steel, vertical, above-ground storage tank as per API Standard 650 or two major repairs to 5,000 m^3 or higher capacity petroleum storage tanks including replacement of entire bottom conforms to API 653 with construction of RCC foundation during last ten years. (to comply with this requirement, works cited should be at least 70% complete in the case of ongoing projects).

6. Interested bidders may obtain further information from the Manager Procurement of the Ceylon Petroleum Storage Terminals Limited, (Tele Phone+94 112572156, 572155 and Tele Fax: +94 11 2074299 and Email: procure@cpstl.lk) and inspect the bidding documents free of charge during any working days from 0900 hrs to 1500 hrs. Sri Lanka local time (GMT+5.30) at the address given below. However, the bidders can inspect the bidding document (excluding drawings) from the CPSTL website; www.cpstl.lk .

7. Interested bidders may obtain the Bidding Documents through any of the following methods:

   i. In-Person Collection

   By submitting a written application to The Manager (Procurement), Procurement Function Ceylon Petroleum Storage Terminals Limited (CPSTL),1st Floor, New Administration Building Oil Installation, Kolonnawa , between **06.06.2025** and **26.06.2025**, on office days from 0900 hrs

to 1400 hrs, along with the receipt of payment of a non-refundable fee of **LKR 25,000.00**, made in cash to Cash Counter, Old Building CPSTL Kolonnawa.

ii. By Email

By making a cash payment of the non-refundable fee of LKR 25,000.00 to the CPSTL bank account (bank account, details given below). By sending proof of payment (a copy of the bank slip or transfer confirmation) along with a written request on company letterhead, signed by an authorized representative, via email to procure@cpstl.lk, during the same period and times as stated above. Upon receipt of the request and confirmation that the non-refundable fee of LKR 25,000.00 has been credited to the CPSTL account, the complete set of Bidding Documents will

[Your reference details (Applicant Name, Company Name, Tender Number [KPR/23/2025]) should be stated in your receipt.].

iii. Courier Delivery

A non-refundable fee of LKR 25,000.00 or USD 93.00 per document must be paid either by direct cash deposit or bank transfer. All associated bank charges shall be borne by the bidder. Proof of payment must be submitted to CPSTL on or before **20.06.2025** for courier delivery. Please note that CPSTL will not be held responsible for any loss or delay in the delivery of documents.

Account Details

Account Holder : Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka

USD Payment			**LKR Payment**		
Account No	:	074733828 US$	Account No	:	004-1-001-9-0208672
Swift	:	BCEYLKLX	Bank & Branch	:	People's Bank Corporate Branch No. 91, All Ceylon Hindu Congress (ACHC) Building, Sir Chittampalam A. Gardiner Mawatha. Colombo 02, Sri Lanka.
Branch Code	:	7010			
Bank & Branch	:	Bank of Ceylon Corporate Branch Head Office, Head Office Building No. 04, Bank of Ceylon Mawatha Colombo 01			

Bidding Document (excluding drawings) available on the web is only for viewing purposes, and Bids shall be submitted using a Hard Copy of the Bidding Document purchased from CPSTL.

8. A pre-bid meeting will be held at 1000 hrs. Sri Lanka local time (GMT+5.30) hrs on **13.06. 2025** at the office of Engineering Manager, Oil Installation, Kolonnawa. Sri Lanka.

   In case, the bidders are unable to participate the pre bid meeting, they can participate via video conferencing method. Interested parties who wish to participate in the Pre bid meeting shall send their request to email procure@cpstl.lk at or before 1400 hrs. Sri Lanka local time (GMT+5.30) on **12.06. 2025**.

9. Bids shall be submitted on the bidding document obtainable from procurement function and duly filled bidding documents may be sent by post/courier under registered cover or sealed cover to reach the Chairman, Department Procurement Committee (Major), C/O Manager (Procurement), Ceylon Petroleum Storage Terminals Limited, Procurement Function,1st floor, New Administration Building, Oil Installation, Kolonnawa Wellampitiya or could be deposited in the tender box kept at the main entrance of CPSTL, on

or before 1400 hrs Sri Lanka local time (GMT+5.30) on **27.06.2025**.

10. In case the bidders are unable to submit the original bids as above, they could submit the scanned copy of the duly filled bidding documents in PDF format via email tenders@cpstl.lk to reach on or before 1400 hrs. Sri Lanka local time (GMT+5.30) on **27.06.2025** subject to following conditions.

    i. Submission of the bid via email is at the bidder's own discretion.
    ii. If the bidder intends to submit a bank guarantee or bank draft as the bid security (instead of a direct deposit to the CPSTL bank account), the original bank guarantee / draft must be sent or hand-delivered to the above address by 1400 hrs. on 29.05.2025.
    iii. The title and closing date of the tender must be indicated as the subject of the email.
    iv. The size of an email (including attachments) must not exceed 20 MB. If the attachment exceeds 20 MB, the bidder must split the attachments and send them as separate emails (e.g., 01 of 03, 02 of 03, 03 of 03).
    v. Direct links to external sites or shared folders (e.g., Google Drive) are strictly prohibited.
    vi. Do not CC or BCC any other official or personal email IDs of CPSTL staff.
    vii. Emails should be sent well in advance to allow CPSTL sufficient time to print and deliver the bids to the bid opening table on time.
    viii. The original bid document must be securely kept and submitted to the Manager Procurement upon request. However, the original bid document will only be used for filing purposes and not for verification against the e-bid.

11. Bid will be closed at 1400 hrs Sri Lanka local time (GMT+5.30) of **27.06.2025** and will be opened immediately thereafter at the office of Manager Procurement, in the presence of the authorized only one representative of the bidder who chose to attend.

12. Bids shall be valid up to **26.09.2025** from the deadline for Bid Submission.

13. All bids shall be accompanied by a Bid Security of LKR 1,373,000.00 (Sri Lanka Rupees One Million Three Hundred Seventy-Three Thousand only). Bid Security shall be valid up to **24.10.2025**.

14. Any of the following parties who wishes to submit a bid, shall register himself at the Department of Registrar of Companies www.drc.gov.lk (e-ROC) as per the Public Contracts Act, No. 03 of 1987 for every public contract value exceeding Sri Lanka Rupees Five Million (LKR 5,000,000).

    a. An agent, sub-agent, representative, or nominee must be registered prior to the closing of the Bid/Tender.

    b. If the tender applicant and tenderer is the same party, he must be registered prior to award the tender.

The address referred to above is

The Chairman, Department Procurement Committee (Major),
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, 1st floor, New Building,
Oil Installation, Kolonnawa.
Telephone :+94 11 2572156, +94 11 2572155 Fax :+94112074299
E-mail : procure@cpstl.lk

SECTION 1

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

Instructions to Bidders applicable to this contract are that given in Section-I of the Standard Bidding Document for Procurement of Works - Major Contracts. CIDA Publication No. CIDA /SBD/02, Second Edition, January 2007, published by the Construction Industry Development Authority (CIDA), "Savsiripaya", 123, Wijerama Mawatha, Colombo 07.

This publication will not be issued with the Bidding Document and the Bidder is advised to purchase it from CIDA.

Instructions to Bidders shall be read in conjunction with the Bidding Data provided under Section-2 of the Bidding Document.

Instructions to Bidders will not be a part of the contract and will cease to have effect once the Contract is signed.

SECTION – 2

BIDDING DATA

This section shall be read in conjunction with Section I – Instructions to Bidders, and is intended to provide specific information in relation to corresponding clauses in Section I. Whenever there is a discrepancy, the provisions in Section 2 – Bidding Data shall supersede these provided in the Section I - Instructions to Bidders.

BIDDING DATA

Instructions to Bidders Clause Reference

1.1 Employer's Name and Address:

The Chairman
Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa.

1.1 Scope of Works

Repairs to Tank No. 34 at Kolonnawa Installation

The work consists of procurement of materials (Except Carbon Steel Plates and Paints) and repairs to Tank No. 34 including the construction of new RCC ring beam foundation with soil improvement, construction of proposed RCC catch pits, drains, replacement of the existing tank bottom, removal of 125 mm strip of bottom-most shell course, fabrication and erection of new shell accessories, painting of the tank after application of leak proof paint along the reverted joints and calibration of the tank.

1.2 Time for Completion

The Time for Completion for the whole work shall be **270 Days.**

2.1 Source of funds

The source of funds is Ceylon Petroleum Storage Terminals Limited.

4.1 Qualification Information

The following information shall be provided in Section 9 - Schedules:

- CIDA registration (for all bidders)
  - Registration number
  - Grade
  - Specialty
  - Expiry date
- Copy of Business Registration of the Company/ies
- VAT registration number (if applicable)
- Form PCA 03 (if applicable)
- Construction program
- Legal status (Sole proprietor, Partnership, Company etc.)
- Authentication for signatory in the form of Power of Attorney (Specifically for this Bid)
- Total monetary value of construction work performed for each of the last five years
- Experience in works of a similar nature and size for each of the last ten years
- Construction equipment
- Staffing
- Work plan, method statements (Construction of RCC Ring Beam, Tank Jacking, Tank Bottom Replacement, etc), QA/QC procedures and HSE policy
- Details of the suppliers and manufacturers (Pipes, Valves, etc)

4.1 (c) Not applicable

4.2 To qualify for the award of the Contract, bidder shall meet the following minimum qualifying criteria specified under 4.2 (a), 4.2 (b), 4.2 (c), 4.2 (d), 4.2 (e) and 4.2 (f) of "Bidding Data". **Any bidder who does not submit the required details in the requested manner will be liable for rejecting his bid without requesting any clarification.**

4.2(a) CIDA registration required

For all Bidders:- CIDA registration is required as follows;

Specialty	**Grade**	**Party**
Heavy Steel Fabrication	EM1	Bidder or Partner in Charge of Joint Venture (JV)

4.2(b) **Average annual volume of construction work performed in the last 5 years**

The average annual volume of construction work performed in the last five years shall be at least **LKR 275 million.** Details shall be entered in Schedule 2 of Section 9; "Schedules". Documentary evidence such as copies of audited financial statements/accounts **certified by an Attorney at Law** for the last five (05) years (2020/2021, 2021/2022, 2022/2023, 2023/2024, and 2024/2025 shall be submitted.

If any bidder's annual volume of construction work performed in the years 2020/2021, 2021/2022, and 2022/2023 is far below the average due to the pandemic situation, recent previous years can be considered for evaluation upon request of the bidder.

4.2(c) **Experience**

The Bidder/Partner in Charge of JV should have experience as a prime contractor in the construction of a nature and complexity similar to the works, Construction of new 2,500 m^3 or higher capacity steel, vertical, above-ground storage tank as per API Standard 650 or two major repairs to 5,000 m^3 or higher capacity petroleum storage tanks including replacement of entire bottom conforms to API 653 with construction of RCC foundation during last ten years. (to comply with this requirement, works cited should be at least 70% complete in the case of ongoing projects).

Details shall be entered in Schedule 4 of Section 9; "Schedules". Documentary proof (Copy of Purchase Order, performance certificate, completion certificate, agreement, etc.) for successful completion of the work relating to the experience shall be submitted with the offer.

The bidders shall have apparent documentary evidence in the English Language as proof of the above experience.

4.2(d) **Essential equipment**

Proposals for the timely acquisition (own, lease, hire, etc.) of the following minimum required essential equipment shall be entered in Schedule 5 of Section 9 "Schedules".

Bar bending machine, Plate Compactors, Scaffoldings, Excavator/JCB, Surveying Equipment, concrete breakers, compressors, Crane (50 ton /etc), Hydraulic jacks, welding generators, Sand/Grit blasting equipment, etc.

4.2(e) **Managerial and Engineering staff**

The following minimum staff shall be available and deployed to the Contract. Details shall be entered in Schedule 6 of Section 9; "Schedules". The bidder shall

produce documentary proof for the availability of the following staff and their detailed Bio-Data.

(i) Managerial:

a. One Project Manager, a Chartered Engineer (Mechanical) with a minimum of 5 years' experience after the Charter.

(ii) Engineering:

a. A Civil Engineer with B.Sc. (Eng) or equivalent with more than 6 years' experience in similar nature works should be assigned to the project full-time basis at the site during the foundation construction.

b. A Mechanical Engineer with B.Sc. (Eng) or equivalent with more than 4 years of experience and who is conversant with API Standard 653, API Standard 650, and other relevant standards and codes with experience in similar tank repair works should be assigned to the project full-time basis.

c. A Welding Inspector with AWS (Level II or above)/ CSWIP(3.1 or above) Certification or equivalent with more than 3 years of experience in similar tank fabrication works should be assigned to the project full-time basis at the site during tank repair.

This is the minimum requirement and the successful bidder shall assign all other necessary staff to enable compliance with all other contractual stipulations.

4.2(f) Liquid assets and /or credit facilities required

The minimum amount of liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments, which may be made under the Contract, until the project is taken over by the CPSTL, shall be not less than **LKR 50 million.**

4.2(g) Construction & Repair Method Statement

The Contractor should submit a proper construction & repair method statement with the bid.

5.2 One of the partners shall have the qualification requirement for 4.2 (a) and (c). The qualification for each of the partners of a joint venture shall be added together to determine the bidder's compliance with the minimum qualifying criteria of Sub-Clause 4.2 (b) and (f); however, for a joint venture to qualify, each of its partners must meet at least 25 percent of minimum criteria 4.2 (b), (c) and (f); and the partner in charge must satisfy at least 40 percent of those minimum criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid. The Subcontractor's experience and resources will not be taken into account in determining the bidder's compliance with the qualifying criteria.

8 Site Visit

Prior to submitting a bid, bidders shall familiarize themselves and shall be deemed to have done so. The bidders shall inform the Engineering Manager, Engineering Function, Oil Installation, CPSTL, Kolonnawa, Wellampitiya (Tel. +94-11-2572214, Fax No. 0094-11-2531328) at least 02 days in advance with their names, NIC Numbers/Passport Numbers so that the CPSTL will arrange required permits for the site visit.

The bidders are advised to limit the number of persons, for the visit, due to security reasons. Site visits will be permitted during 0830 – 1600 hrs except Sundays and Mercantile Holidays. The cost of such visits shall be borne by the bidder.

10.1 **Clarification of Bidding Documents**

Employer's address for clarification in the bidding document is as below.

The Chairman, Department Procurement Committee (Major),
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa.

Telephone	**:+94 11 2572156, +94 11 2572155**
Facimile	**:+94112074299**
E-mail	**: procure@cpstl.lk**

13 **Documents comprising the Bid**

The Bid submitted by the bidder shall comprise the following:

(A) Enclosed in the envelope marked as "ORIGINAL" ;

(a) Duly filled and signed Form of Bid (in the format indicated in section 7);
(b) Bid Security (in the format indicated in section 11);
(c) Power of attorney for the signatory to the Bid (Specifically for this Bid);
(d) Original of Form PCA 03 (if applicable)
(e) Section 2 - Bidding Data
(f) Section 4 - Contract Data
(g) Section 6 - Specifications;
(h) Section 8 - Priced Bill of Quantities;
(i) Section 9 - Duly filled Schedules;
(j) Section 10 - Drawing; and
(k) Detailed "Construction & Repair Procedure" of the tank including related procurements, constructions, repairs, testing, commissioning, and documentation such as catalogues, literature, and write-ups to supplement with adequate information. Manufacture/supplier, country of origin, country of manufacture of plates, paints, pipes, fittings, flanges, valves, nozzles, and other equipment shall be clearly mentioned.

(B) Enclosed in the envelope marked as "COPY"

(a) Duly filled and signed Form of Bid (in the format indicated in section 7);
(b) Section 8 - Priced Bill of Quantities;
(c) Section 9 - Duly filled Schedules;
(d) Detailed "Construction & Repair Procedure" of the tank including related procurements, constructions, repairs, testing, commissioning, and documentation such as catalogues, literature and write-ups to supplement with adequate information. Manufacture/supplier, country of origin, country of manufacture of pipes, fittings, flanges, valves, nozzles, and other equipment shall be mentioned.

14.3 VAT components shall not be included in the rates.

If the bidder is registered for VAT, the bidder shall indicate the amount of VAT claimed separately at the end of the Bill of Quantities, in addition to the net value of the bid, along with VAT registration number. The amount written on the Form of bid shall be without VAT.

14.4 **Adjustments for change in cost**

The Contract **is subject** to price adjustment.

15.1 **Currency of Bid**

The Bid shall be quoted in Sri Lankan Rupees (LKR).

16.1 **Period of Bid validity:**

The Bid shall be valid up to **26.09.2025**

17.1 **The amount of Bid Security**

The amount of Bid Security is LKR 1,373,000.00 (Sri Lanka Rupees One Million Three Hundred Seventy-Three Thousand only).

17.2 **Validity of Bid Security**

The Bid Security shall be valid up to **24.10.2025** as per the attached specified format.

Securities and Guarantees shall be irrevocable and unconditionally en-cashable upon the first written request from the Procuring Entity.

The bid securities are issued by a commercial bank operating in Sri Lanka with a valid license issued by the Monetary Board (the Central Bank of Sri Lanka).

19.1 **Pre-Bid meeting**

A pre –bid meeting will be held at 1000 hrs. Local time **(+ 5.30 GMT)** on **13.06.2025** at the office Engineering Function, Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa. Subsequently, a site visit will be arranged.

All costs incurred in attending to this pre-bid meeting and site visit will have to be borne by the Bidder.

21.2 (a) **Employer's Address for Bid Submission**

The Employer's address for the purpose of bid submission is the Office of the

The Chairman, Department Procurement Committee (Major),
C/o Manager Procurement,
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa.

21.2 (b) **Identification number of Contract**

Identification Numbers of the Contract: **KPR/33/2025**

22.1 **Deadline for submission of Bids**

Deadline for submission of Bids: **1430 hrs. Local time (+ 5.30 GMT) 27.06.2025.**

25.1 **Bid opening**

Venue: **Office of Manager Procurement,**
Ceylon Petroleum Storage Terminals Limited,
Procurement Function, New Building,
Oil Installation, Kolonnawa.

Time: **1400 hrs. Local time (+ 5.30 GMT)**

Date: **27.06.2025**

32 **Award of Contract**

After evaluation of Bids in accordance with the procedure described under Clause 28, 29 and 30 the Employer will inform to all the bidders in writing the selection of the successful bidder and the intention of contract award to such bidder. The unsuccessful bidders if they so wish, within one week of such notice may make

representation to the Chairman of CPSTL at the address given below. Such representation shall be self-contained to enable the Chairman to arrive at a conclusion and a cash deposit to amount given below shall be made. The Employer may request the bidder who had made representation to submit further evidence during the investigation of such representation. The cash deposit will be forfeited unless the Employer has changed the original contract award decision in favour of the bidder who has made such representation.

Address: The Chairman
Ceylon Petroleum Storage Terminals Limited,
Oil Installation,
Kolonnawa.

Cash Deposit: Rupees 10,000/=

35.1 **Amount of Performance Security**

Performance Security acceptable to the Employer given in the Form for Performance Security given in the bidding document shall be a Guarantee obtained from a commercial bank operating in Sri Lanka with a valid license issued by the Monetary Board (the Central Bank of Sri Lanka).

The amount of Performance Security is **5%** of the Initial Contract Price, in the currencies and proportions in which the Contract Price is payable.

The Performance Security shall be valid until 28 days beyond the expected completion date of Defects Liability Period.

37 **Adjudicator**

The Adjudicator proposed by the Employer is an Adjudicator selected from the poll of Adjudicators of the Construction Industry Development Authority (CIDA).

Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case to case basis and shall be shared by the Contractor and the Employer.

SECTION – 3

CONDITIONS OF CONTRACT

Conditions of Contract shall be read in conjunction with the Section 4 – Contract Data, which shall take precedence over the Conditions of Contract.

CONDITIONS OF CONTRACT

Conditions of Contract that will be applicable for this Contract is that given in section- 3 of the Standard Bidding Document for Procurement of Works- Major Contracts, CIDA Publication No. CIDA/SBD/02, Second Edition, January 2007, Addendum 01 issued in October 2009, published by the Construction Industry Development Authority (CIDA) "Savsiripaya" 123, Wijerama Mawatha, Colombo 7.

This publication will not be issued with the Bidding Document and Bidder is advised to purchase it from CIDA.

Conditions of Contract shall be read in conjunction with the Section 4 – Contract Data, which shall take precedence over the Conditions of Contract.

SECTION – 4

CONTRACT DATA

This section shall be read in conjunction with Section 3 – Condition of Contract, and is intended to provide specific information in relation to corresponding clauses in Section 3. Whenever there is a discrepancy, the provisions in Section 4 – Contact Data shall supersede these provided in the Section 3 - Condition of Contract.

CONTRACT DATA

Conditions of Contract Clause Number/s		
1.1.2.2 & 1.3	**Employer's Name and Address**	**Ceylon Petroleum Storage Terminals Limited,** **Oil Installation,** **Kolonnawa.**
1.3	**Contractor's Name & Address:**	Name: …… Address: …… …… ……
1.1.2.4 & 1.3	**Engineer's name & Address**	Name: Engineering Manager Address: Ceylon Petroleum Storage Terminals Limited, Engineering Function, Oil Installation, Kolonnawa.
1.1.3.3	**Time for Completion of the Works**	The time for completion of the whole work shall be **Two Hundred Seventy (270) Days**
1.1.3.7	**Defects Notification Period**	Defects Notification Period is **One Hundred Eighty (180) Days**
2.1	**Right of access to the Site**	14 days after the Letter of Acceptance
4.2.1	**Amount of Performance Security**	The amount of Performance Security is **5%** of the Initial Contract Price, in the currencies and proportions in which the Contract Price is payable. Performance Security acceptable to the Employer given in the Form for Performance Security given in the bidding document shall be a Guarantee obtained from a commercial bank operating in Sri Lanka with a valid license issued by the Monetary Board (the Central Bank of Sri Lanka). The Performance Security shall be valid until 28 days beyond the expected completion date of the Defects Liability Period.
4.8	**Safety Procedure**	Special Safety Conditions i. Fire barriers are to be erected and Fire blankets are to be laid before starting hot work at the site wherever required. The requirement of fire barriers should be obtained from the fire and safety department and approval to be obtained after erection. ii. The work/workers should conform to the Fire & Safety rules and regulations of CPSTL and they should wear safety belts when working at high elevations.

iii. The Contractor shall nominate a qualified safety officer during the construction period.

iv. Before work of any nature is commenced in any area it is necessary to obtain excavation permits, safety certificates and if the work involves sparks or flames a hot work permit from the Fire & Safety Department of the CPSTL, Kolonnawa. All precautions stipulated in these documents must be adhered by the contractor and his employees. If the work cannot be completed in the period for which these documents are valid, the work shall be discontinued until the documents have been renewed.

v. The CPSTL Kolonnawa Installation is security-restricted area and all contractor's personnel shall abide by the security regulations prevailing and those which might be enforced as and when necessary due to changed circumstances.

vi. All contractor personnel and their vehicles will be required to obtain gate passes before entering the CPSTL Kolonnawa Installation. Safety clearances are to be obtained before entering the tank farm.

vii. All contractor personnel should possess a valid police clearance certificate (Police Report) to obtain gate passes.

viii. The contractor shall, except if and so far as the contract provides otherwise, indemnify the CPSTL against all losses and claims in respect of injuries or damage to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution of the works and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation or damages for or with respect to:

a. the permanent use or occupation of land by the works or any part thereof;

b. the right of the CPSTL to execute the works or any part thereof on, over, under, in, or through any land;

c. injuries or damage to persons or property resulting from any act or neglect of the CPSTL, his agent, servants, or other Contractors, not being employed by the Contractor, or for or in respect of any claims proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the Contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the damage or injury.

6.4 **Working Hours**

i. Normal working hours of CPSTL from Monday to Friday is from 0730 hrs. to 1630 hrs.

ii. In the work programme, the contractor can consider Saturday and a period from 1630 hrs to 1800 hrs on weekdays as a working period, for which the contractor is required to obtain prior permission since the offices are normally closed on Saturdays and after-hours.

iii. However, working on Statutory holidays, Sundays and after 1800 hrs. on working days will not be permitted.

Provided always that provision of above (iii) shall not be applicable in case of any work which is customary to carry out, outside normal working hours.

8.7 **Liquidated damages for the Works**

0.2% of the Initial Contract Price per day

8.7 **Maximum amount of liquidated damages**

10% of the Initial Contract Price

12.2 (b) **Method of Measurement**

Sri Lanka Standard 573: 1999 UDC 69(08374)

13.4(b) **Percentage for Adjustment of Provisional Sums**

Not applicable

13.7 **Weightings of Inputs**

No.	CIDA No.	Name of Input	Percentage
1	L1	Skilled Labour	10.96%
2	L3	Unskilled Labour	8.10%
3	M39	Ready-mixed Concrete	2.88%
4	M8	Sand	22.44%
5	M13	Reinforcement Steel	10.47%
6	M14	Structural Steel	2.24%
7	P1	Small Equipment	10.19%
8	P2	Heavy Equipment	9.21%
9	P3	Fuel	6.65%
10	M30	Bitumen 80/100 (Bulk Form)	6.85%
			90.00

Non-adjustable elements shall be

A1, A2, A3, A4, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C19 & C33

Disregarded elements shall be

B11, B12, B26, C41, C44, & C45

14.2 **Total Advance Payment**

20 % of the Initial Contract Price, excluding Provisional Sums & Contingencies.

The advance payment securities issued by a commercial bank

		operating in Sri Lanka with a valid license issued by the Monetary Board (the Central Bank of Sri Lanka) are acceptable;
14.2	**Number and timing of instalment for Advance Payment**	20% of the Initial Contract Price, will be paid in two equal instalments. **Stage I-** The first ten percent (10%) of the Initial Contract Price will be paid within 14 days from receipt of both Performance Security and Advance Payment Guarantee as required under clauses 4.2 and 14.2 respectively. **Stage II-** Balance ten percent (10%) of the Initial Contract Price will be paid after successful mobilization at the site after receipt of mobilization Advance Payment Guarantee. To calculate the Initial Contract Price, the foreign currency component will be converted to Sri Lanka Rupees using the "Indicative Exchange Rate" published by the Central Bank of Sri Lanka, on the date of the invoice of performance security
14.3(c)	**Percentage of Retention**	**10%** of the certified value of works
14.3(c)	**Limit of Retention**	**5**% of the Initial Contract Price
14.4	**Plant & Material Intended for the works**	Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3 (Application for Interim Payment Certificate), an amount equivalent to 80% of the invoiced value of Plant and Materials which have been delivered to the Site for incorporation in the Permanent Works.
14.5	**Minimum amount of interim payment certificates**	LKR amount of 7 million.
14.6	**Payment**	All payments will be made in LKR.
14.8	**Alternative method for Payment of Retention**	Not applicable
18.1 (a)	**Insurance for Works**	For an amount not less than 115% of Initial Contract Price.
18.1 (b)	**Insurance for Contractor's Equipment**	Contractor's responsibility
18.2	**Third Party Insurance**	Insurance cover to the amount of LKR 100 Million for the entire period of construction work. The contractor shall take

	(including Employer's Property)	special measures to safeguard the adjacent storage tanks and allied facilities at the site.
18.3	**Insurance for Contractor's Personnel**	A copy of insurance policy for the workmen of the contractor as per the Workmen Compensation Act shall be forwarded to CPSTL prior to commencement of the work.

SECTION 5

STANDARD FORMS (CONTRACT)

- **FORM OF LETTER OF ACCEPTANCE**
- **FORM OF AGREEMENT**
- **FORM OF PERFORMANCE SECURITY**
- **FORM OF ADVANCE PAYMENT SECURITY**

Notes on Standard Forms (Contract):

Bidders should not complete the Form of Agreement at the time of preparing of bids. The successful Bidder will be required to sign the Form of Agreement, after the award of contract. Any corrections or modifications to the accepted bid resulting from arithmetic corrections, acceptable deviations, or quantity variations in accordance with the requirements of the bidding documents should be incorporated into the Agreement.

The Form of Performance Security, Form of Advance Payment Security and Form of Retention Money Guarantee should not be completed by the Bidders at the time of preparation of bids. The successful Bidder will be required to provide these securities in compliance with the requirements herein or as acceptable to the Employer.

FORM OF LETTER OF ACCEPTANCE

[Letter heading paper of the procuring entity]

……. *[date]*

To: …….*[name and address of the Contractor]*……...
This is to notify you that your bid dated …….*[insert date]* for the construction and remedying defects of the …….. *[name of the Contract and identification number]* for the Contract price of …… [*name of currency]* …….. [*amount in figures and words]* as corrected in accordance with Instructions to Bidders and/ or modified by a Memorandum of Understanding, is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

The Commencement date shall be: ……..……*(fill the date as per Clause 8.1 of Conditions of Contract).*

The amount of Performance Security is:…… *(fill the amount as per Clause 4.2 of Conditions of Contract).*

The Performance Security shall be submitted on or before ……...*(fill the date as per Clause 4.2 of Conditions of Contract).*

Authorized Signature : ……

Name and title of Signatory : …….…….

FORM OF AGREEMENT

This Agreement made the …….*[day]* of …… *[month]* 20…..*[year],* between **Chairman, Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya***[name and address of Employer]* (hereinafter called and referred to as "the Employer"), of the one part, and ……. …….. *[name and address of Contractor*] (hereinafter called and referred to as "the Contractor"), of the other part:

Whereas the Employer desires that the Contractor execute …… *[name and identification no of Contract](hereinafter called and referred to as "the Works")* and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and remedying of any defects therein.

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract.

2. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

3. The Employer hereby covenants to pay the Contractor in consideration of the execute and complete the Works and remedy any defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year aforementioned in accordance with laws of Sri Lanka.

……..	……..
Authorised signature of Contractor	**Authorised signature of Employer**
COMMON SEAL	COMMON SEAL

In the presence of
Witnesses :

Name and NIC No. ……
Signature ……

Address ……

……

Name and NIC No. ……..
Signature ……

Address ……

……

FORM OF PERFORMANCE SECURITY
(Unconditional)

……*[Issuing Agency's Name and Address of Issuing branch or Office]*

Beneficiary: Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya

Date:……..

PERFORMANCE GUARANTEE No:…….

We have been informed that …… …… ……*[Name of Contractor]*(Hereinafter called "The Contractor") has entered into Contract No. ……..… *[Reference number of the contract]* dated ……..……. with you, for the ……..(*insert "Construction")* of …… *(Name of Contract and brief description)* (hereinafter called "the Contract").

Furthermore, we understand that according to the conditions of the Contract, a performance guarantee is required.

At the request of the contractor, we ……..…….……. [Name of agency]hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of……[amount in figures] …… ……..……..…….…… [amount in words]Upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation (s) under the Contract without your needing to prove or to show grounds for your demand or the sum specified therein .

This guarantee shall expire, no letter than the ……..day of 20……[insert date,28 days beyond the time of completion] and any demand for payment under it must be received by us at this office on or before that date.

_____
[Signature(s)]

FORM OF ADVANCE PAYMENT SECURITY

…… *[Name and address of Agency, and Address of Issued branch or Office]*

Beneficiary: Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya

Date: ……

ADVANCE PAYMENT GUARANTEE No:……

We have been informed that …… *[Name of Contractor]* (hereinafter called " The Contractor") has entered into Contract No. …… *[reference number of the contract]* dated ……. with you , for the …… Construction of ……. ……. (Name of Contract and brief description) (hereinafter called " the Contract").

Furthermore we understand that according to the conditions of the Contract, an advance Payment in the Sum …… [amount in figures] (…… ……..……..)[amount in words] is to be made against an advance payment guarantee.

At the request of the contractor, we ……. [Name of issuing agency] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of …… [amount in figures] (…… ……) [amount in words] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation in repayment of the Advance Payment under the Contract.

The Maximum amount of this guarantee shall be progressively reduced by the amount of the Advance payment repaid by the Contractor.

This guarantee shall expire, on ……. (insert the date, 28 days beyond the Time of Completion)

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

_____

[Signature(s)]

SECTION – 6

SPECIFICATIONS

Specifications

6.1 Scope of Works

The scope of work of the Contractor is defined in general and shall include the following, but not limited to the same. The bidder shall also carry out all the related work that is not listed in this document but is required to complete the entire work as specified in this Bidding Document.

6.1.1 The Contractor shall check the proposed tank repairing works and structural rigidity for suitability of the proposed methods for the Work. Such suitability is to be informed to CPSTL in writing before the commencement of the work, as the contractor is responsible for the total work to be done.

6.1.2 The Contractor shall carry out the project planning considering that all works shall be attended to while operations are going on and with minimum impact on the operations in the Kolonnawa Installation.

6.1.3 The Contractor shall submit the project time schedule, manpower schedule, equipment schedule, and cash flow schedule (including S-curves using MS Project).

6.1.4 The Contractor shall acquire all required physical measurements (Plumbness, Radii Measurements, Roundness, etc.) of the existing tank as per the recommendations made in the API 653/650. Any deviations from the allowable limits in dimensional tolerances should be informed in writing, with proposed correction methodologies to obtain the approval of the Engineer. The Contractor shall maintain the approved dimensions of the tank at the end of the repair work.

6.1.5 The Contractor shall prepare a temporary access road as directed by the Engineer.

6.1.6 The Contractor shall erect temporary fire barriers and fire blankets as required for a petroleum terminal to protect the surrounding piping, other tanks, pump houses, and gantries in service. The approval for the temporary fire barriers and fire blankets shall be obtained from the Fire & Safety Department of the CPSTL before commencing any hot works.

6.1.7 The Contractor shall erect a safety net and coverings before blasting works, and approval shall be obtained from the Fire & Safety Department of the CPSTL.

6.1.8 The Contractor shall carry out the procurement of all materials (Except carbon steel plates and paints), equipment, machinery, tools, consumables, etc., necessary for the replacement of the tank bottom, nozzles, shell insertions, tank attachments, earthing system, soil improvements, construction of new RCC ring beam, construction of proposed oily and stormwater discharge systems, product piping modifications including fittings, valves and etc. Loading, handling, and transportation of all materials from the supply point/store at the work site / Contractor's store as per the requirements of the project.

The Contractor shall obtain written approval for all materials from the Engineer before the placement of orders and after arrival.

6.1.9 The Contractor shall submit all shop drawings, engineering calculations, and method statements as requested by the Engineer.

6.1.10 The Contractor shall maintain all contract-related documents (hard copies) in an accessible manner and hand over them to the CPSTL at the end of the work.

6.1.11 The Contractor shall remove all unused structural components, debris, and unused/replaceable pipe segments attached to the tank and in the tank farm as directed by the Engineer.

6.1.12 The Contractor shall demolish the existing tank foundation, apron, drains, remove the asphalt layer underneath the bottom, etc., and dispose of debris in a location within/outside the CPSTL premises as instructed by the Engineer.

6.1.13 The Contractor shall check the soil condition around the tank and submit a detailed method statement for excavation and construction works of the new tank foundation. The method statement should include all relevant calculations and testing procedures.

The Contractor shall commence excavations & construction of the new RCC foundation after obtaining the approval for the aforesaid method statement. It is the contractor's sole responsibility to complete the construction of the tank foundation in a safe manner. Any failure or damage to the nearby properties during the execution should be corrected/rectified by the Contractor at his own cost.

6.1.14 The Contractor shall jack up the tank as required after obtaining the approval for the tank jacking up procedure from the Engineer.

6.1.15 The Contractor shall cut & remove the existing tank bottom and a minimum of 125mm strip of the bottommost shell course to remove reverts.

6.1.16 The Contractor shall remove a minimum of 100mm thick sand layer in the existing sand filling of the tank bottom and fill with a 600mm thick new river sand layer, including the removed thickness. The Contractor shall ensure the removal of all sand that is mixed with oil, and the removal thickness can be greater than 100 mm in such locations.

Sand mixed with oil shall be disposed of safely while adhering to applicable local/environmental rules and regulations. Note – The Contractor shall propose a convenient method for sand removal and filling.

6.1.17 The Contractor shall lay a new 100mm thick sand tar mixture.

6.1.18 The Contractor shall fabricate, install, and test the proposed product pipe modifications, pipe supports, pipe crossing structures, pressure relief system, etc.

6.1.19 The Contractor shall attend to all repairs to existing internal columns, internal attachments, and roof structure as directed by the Engineer.

6.1.20 The Contractor shall fabricate, erect & test the new tank bottom, including the center sump and draw-off pipes as per API Standard 653 and API Standard 650.

6.1.21 The Contractor shall fabricate, erect & test all shell insertions (5 Nos), and shell nozzles (4 Nos) with all attachments as per API Standard 653 and API Standard 650.

6.1.22 The Contractor shall replace the earthing system as per the API 650.

6.1.23 The Contractor shall construct proposed RCC drains, catch pits, drainage pipes, footpaths, and renovations/ replacements to the existing drains in the tank farm.

6.1.24 The Contractor shall attend to the required modifications of the existing stairway.

6.1.25 The Contractor shall repair/modify the existing water drencher system and its supports.

6.1.26 The Contractor shall fabricate, install, test, and commission two vertical level gauges.

6.1.27 The Contractor shall attend to all repairs/ replacements in the roof accessories (Including Crown Hand Rail), shell manholes, stairway, etc, as specified.

6.1.28 The Contractor shall attend to the required tank modifications for gauging automation.

6.1.29 The Contractor shall apply an internal leakproof painting system for all reverted joints.

6.1.30 The Contractor shall fabricate the steel structures as specified.

6.1.31 The Contractor shall perform grit/sandblast cleaning and painting of the tank, pipes, all accessories, and steel structures as specified. All tests for painting shall be attended as specified in the document.

6.1.32 Third-party inspection of pipes, fittings, and valves shall be carried out as specified, and submission of inspection reports to CPSTL to obtain the Engineer's approvals before the shipment and after arrival.

6.1.33 The Contractor shall carry out the tank hydro test and water will be provided by the CPSTL as per the applicable tariff rates if required.

6.1.34 The Contractor shall carry out the calibration of the tank by a reputed calibration company acceptable to CPSTL and submit calibration charts in hard and soft copies.

6.1.35 The Contractor shall submit a 2-year Warranty from the date of commissioning, in the name of CPSTL, for valves and level gauges. Any defects found during the period should be rectified by the Contractor at his own cost.

6.1.36 The Contractor shall box up the tank and hand it over to CPSTL.

6.1.37 The Contractor shall attend the site cleaning, which includes the removal of excess/ unused pipe supports, steel components, temporary site offices, blasting sand, etc.

6.1.38 The Contractor shall improve the tank compound by ground leveling, earth filling, etc, up to the Engineer’s Satisfaction.

6.1.39 The Contractor shall prepare detailed drawings of the proposed repairs and constructions.

The layout and General Assembly drawing of the tank and tank bottom are annexed. The Contractor shall obtain prior approval for all drawings and documents from CPSTL before the commencement of the Work.

6.1.40 The Contractor shall provide a quality assurance plan to obtain prior approval from the Engineer. The Contractor shall maintain Quality Assurance records, and these records shall be given to the Engineer upon completion of each job.

6.1.41 The Contractor shall submit soft copies and hard copies of As-Built drawings, all catalogues, manuals, reports, and required documents in the English language as directed by the Engineer. Drawings are to be submitted in ACAD (dwg) format too.

6.2 Scope of Supply by CPSTL

6.2.1 CPSTL will supply carbon steel plates and paints. The Contractor shall collect the materials from CPSTL's main stores and transport them to the work site.

Construction Utilities

6.2.2 Electricity and drinking water can be supplied to the contractor to undertake this work. The prospective contractor is required to indicate his requirements for electrical power and water from the CPSTL in his offer for evaluation purposes.

6.2.3 The maximum available electrical power supply to the contractor is 45kVA, 400V AC, 4 wire (TPN), 50Hz and will be subjected to the following 05 conditions.

i. Electrical power supply will be provided by CPSTL on the request of the Contractor and charged according to the applicable tariff system, or the Contractor shall have to arrange his own power source.

ii. The Electrical Section of CPSTL will provide a terminating point to feed cables through a suitable circuit isolating and interrupting devices, such as a circuit breaker or a switch fuse, at a convenient location, within 150 m from the tank shell. These switch gears will remain the property of CPSTL and the contractor has no access to them.

iii. The maximum load that the CPSTL electrical section can feed will be 63A, 3 Phases.

iv. The power supply will be energized after inspection by the Electrical Engineer of CPSTL provided all requirements in the following are satisfied.

   i. Contractor shall use his own feeder cables and temporary power distribution board sufficiently rated to power the equipment and machinery used at the site, conforming to CEB regulations in consultation/supervision of the Electrical Engineer of CPSTL.

   ii. The Contractor's power distribution board should consist of adequate over-current and earth leakage protective devices for the safety of men and machinery.

   iii. The Contractor shall install the feeder cables from the metering point up to the temporary power distribution board as per the instruction & approval of the CPSTL Electrical Engineer.

   iv. It is the responsibility of the contractor to maintain his switch gear and cable network in good condition, so as to provide, complete safety to men and machinery.

   v. All portable electrical appliances used inside the tank shall be at low voltage, 110V, 1 Phase, and should be fed through a center-earthed transformer.

   vi. The whole electrical installation of the contractor should conform to IEE wiring regulations (16^{th} Edition) published by the Institution of Electrical Engineers (I.E.E), London.

v. CPSTL will reserve the right to disconnect the power supply to the Contractor without prior notice, if any of the aforesaid conditions are violated.

6.2.4 Water supply will be provided by CPSTL at the request of the Contractor and charged according to the meter.

6.2.5 Water for the tank hydro test will be provided by CPSTL(tariff will be applied as per applicable industrial rates) at the request of the Contractor, and the Contractor shall provide necessary pumping, piping, manifolds, etc.

6.3 Site Conditions

6.3.1 The Bidder is responsible for its own investigations to establish sufficient and accurate information for all works of the existing steel storage tank. The Bidder shall visit the proposed site and shall ascertain the nature and location thereof, and all conditions that may affect repairs and construction works of the existing steel storage tank.

6.3.2 The Bidder shall make its own assessment of any and all of the information provided in this bidding document and collect its own information. CPSTL is not responsible for the accuracy or completeness of any such information.

6.4 General Specifications

6.4.1 Permits, Licenses and Consents

It is the sole responsibility of the Contractor to identify, obtain, complete, and maintain any permits and any other consent, licenses, and approvals that are required for repairs and construction of the existing tank. CPSTL will coordinate with the Contractor in identifying, applying for, and processing such permits, consents, licenses, and approvals.

6.4.2 Packing and Transportation of Materials

All parts of the tank repair and equipment shall be well packed and protected against loss or damage during transport by sea and over land, and whilst in storage under adverse climatic conditions. All packing shall be performed in such a way that overturning of the packages will not damage the equipment. Dimensions of packages, crates, etc., shall be suitable for road transportation. Instructions for handling shall be clearly marked on all parts, packages, and crates.

All parts, packages, and crates shall be adequately marked in order to enable identification. Each item contained in a package shall be clearly identified on the packing list by its description, part number, and assembly drawing reference, and each item shall be marked or labelled to correspond with the packing list.

The Contractor shall be entirely responsible for all packing, any loss or damage, and shall be replenished/ fixed by the Contractor and, except where otherwise provided, at the Contractor's own expense.

Any transshipment of materials and equipment through countries shall be the Contractor's responsibility. Any cost(s) associated with the transshipment of materials and equipment shall be deemed to be included in the Bid Price.

Identification and preparation of access to the site and transportation of equipment and materials shall be the responsibility of the Contractor. Any costs associated with the identification and preparation of access to the site shall be deemed to be included in the offered Price.

6.4.3 Material Properties

i. Materials selected by the Bidder shall be proven adequate and sufficient for the completion of the repair work.

ii. The Contractor shall carefully consider all corrosion and erosion possibilities, subject to the environment of the Site and nearby facilities.

6.4.4 Codes and Standards

The Bidder shall ensure that the engineering works, reviewing of designs, construction, testing, etc, relevant to repairs to the tank are according to Government and Local Authority Requirements, International Codes, Latest revisions of the following codes.

Document Title	Document Number
BS Structural use of Concrete	BS 8110: Part 1: 1985
BS Structural use of Steelwork	BS 5950 – 1: 2000
Code of Practice for Foundation	BS 8004
Code of Practice for Earth retaining structures	BS 8002
Inspection Documents for Metallic Products	EN 10204
Standard for Welding Pipelines and Related Facilities	API 1104
Process Piping (Pressure piping)	ASME B 31.3
Pipeline Transportation Systems for Liquid Hydrocarbon and Other Liquids	ASME B31.4
Specification for Line Pipe	API 5L
Specifications for Pipeline Valves	API 6D
Valve inspection & Testing	API 598
ANSI – Pipe Flanges and Flanged Fittings	ANSI B 16.5
Large Diameter Steel Flanges	ASME B16.47
Welded Steel Tanks for Oil Storage	API STD 650 Twelfth Edition, March 2013. (including all Addenda and Errata)
Tank Inspection, Repair, Alteration, and Reconstruction of Welded Steel Tanks for Oil Storage	API 653
Manual of Petroleum Measurement Standards	API-MPMS
Automatic level gauges for measuring the level of liquid in stationary storage tanks	OIML R 85-1 & 2
Design, Construction, Operation, Maintenance and Inspection of Terminal and Tank Facilities	API Standard 2610, Third Edition, September 2018
Boiler and Pressure Vessel Code (Welding and Brazing Qualification)	ASME Sec IX

Document Title	Document Number
Recommended Practice Classification of Locations For Electrical Installations At Petroleum Facilities Classified As Class 1, Division 1 And Division 2	API RP 500
Applicable codes and Standards published by National Fire Protection Association (NFPA)	NFPA 11, NFPA 15, NFPA 20, NFPA 30
Specifications for Electrical & Mechanical Works - [2nd Edition (Revised) – August 2000]	SCA/8
Specifications for Fire Detection, Protection & Suppression Systems	SCA/9

It is implied that the eligible Bidders are fully acquainted with the above Documents and therefore, those will not be issued to the Bidders with this Bidding Document. However, Bidders may purchase the same if necessary, from CIDA, Savsiripaya", 123, Wijerama Mawatha, Colombo 7, Sri Lanka, or other relevant organizations.

6.5 Technical Specifications

6.5.1 Site Clearing

The construction site, including the tank farm area, shall be cleared by removing vegetation, debris, excess soil, steel components, pedestals, etc, before the commencement, during the work & at the completion of works. The debris shall be transported to a location within the CPSTL, and the Contractor shall hand over the usable materials to the CPSTL stores/ auction yard as directed by the Engineer.

6.5.2 Construction of Temporary Access Road

The Contractor shall construct a temporary access road by removal/ alteration of existing obstructions (if any) in the selected route. It is the Contractor's sole responsibility to provide adequate and safe access to the site without interrupting CPSTL operations. Required permissions for the proposed access road/s shall be obtained from the Engineer. Any damages/ alterations to existing properties shall be rectified at the end of the repair works.

6.5.3 Construction and maintenance of a temporary site office with required storage facilities. The site office should be equipped with necessary furniture and other facilities such as washing/bathing, sanitary, etc. The disposal/ discharge of generated wastes should be attended to as per the applicable rules and regulations within the CPSTL.

6.5.4 Construction of Fire Barriers/ Protection Nets/ Screens & Coverings

Erection of temporary fire barriers and fire blankets in order to protect the surrounding piping, nearby tanks, and pump houses in operation. This should be complied with the fire and safety regulations of the CPSTL.

A temporary fire barrier should be erected as instructed by the Engineer using corrugated metal sheets (where required) which shall ensure a firm stand during adverse weather conditions. It should be erected in such a way as to give positive fire isolation. In addition to that, pipes, valves, accessories, etc located around the tank and

the tank farm should be covered by fire blankets.

Erection of protection nets/temporary dust barriers/extraction systems/curtain walls during the sandblasting and painting in order to protect the surrounding properties. The tank is located near one of the boundaries of the CPSTL and residential dwellings are located beyond. Hence, the escape of dust particles and paints to the nearby properties should be eliminated/controlled. Any delay that arises due to an improper covering shall be absorbed by the Contractor.

6.5.5 Erection of Scaffolding

Internal/ External scaffolding should be erected to the approval of the safety department of CPSTL as follows:

- Should be of steel pipes and couplings, toe plates, platforms, etc.
- Thickness of 2" timber planks/ steel to be used for the platform and to be properly fastened at both ends.
- Ladders should be provided from the ground to the platform.
- The scaffolding work shall be inspected and approved by a qualified third-party inspector.
- After erecting the scaffolding, the contractor should obtain written approval from the safety department of CPSTL before the commencement of the work.
- The safety and fitness for use shall be monitored regularly by the Contractor's safety officer.

6.5.6 The Contractor shall obtain a physical measurement report of the tank and check the existing tank dimensions are within the specified limits in the API 653/650. Any deviations found should be informed to the CPSTL in writing with proposed corrective methodologies for prior approval. The Contractor shall ensure that the physical dimensions of the repaired tank are within the specified limits of dimensional tolerances at the end of the repair work.

6.5.7 New Constructions, Repairs and Modifications

6.5.7.1 The Contractor shall dismantle all pipe connections (Product Pipes, Fire Water, etc) to the tank including the earthing system, etc after obtaining the approval of the Engineer. Dismantled materials, valves, equipment, etc shall be handed over to the CPSTL.

6.5.7.2 The Contractor shall examine the soil condition around the tank area and propose a suitable shoring arrangement for the required excavations to construct the new RCC tank foundation. It is the Contractor's sole responsibility to plan and execute the excavation works without any effect on the existing tank and the nearby properties.

6.5.7.3 The Contractor shall submit a comprehensive method statement for soil improvement and the construction of the ring beam foundation to obtain prior approval from the Engineer.

6.5.7.4 The Contractor shall remove the existing tank foundation, including the apron and the outer drainage. All debris should be disposed of in a location outside the CPSTL premises as instructed by the Engineer.

6.5.7.5 Construction of New Tank Foundation (Ring Beam & Drain)

6.5.7.5.1 Excavation

Excavation works shall be carried out after obtaining the Engineer's approval for the method statement as specified in 6.5.7.2. The Contractor shall dispose of excavated soil at a location within/outside the CPSTL as directed by the Engineer.

6.5.7.5.2 Soil Improvement

The ring beam shall be placed on the ground after filling of 425 - 500 mm (minimum) height and in an area at least 1.5m wider with well-compacted ABC, which should have a minimum allowable bearing capacity of 175kN/m^2 (Refer Drawing No. 1839 – 5).

6.5.7.5.3 RCC Ring Beam and Drain

The ring beam and drain shall be constructed as per the approved drawing confirming to following requirements.

i. Concrete Mixes
Concrete mixes shall conform to Grade 25 of, SCA/4/I and SCA/4/II or equivalent.

ii. Steel Reinforcement
Steel reinforcement shall conform to BS 4449, SCA/4/I and SCA/4/II or equivalent.

iii. Formwork
Form Work shall conform to SCA/4/I and SCA/4/II or equivalent.

The Contractor shall provide required provisions through the foundation for the earthing system, etc where necessary.

6.5.7.6 Cut, remove, and stack the existing bottom plates. Bottom plates shall be cut along the reverted joints to manageable sizes and handed over to the CPSTL.

6.5.7.7 Removal of the asphalt layer underneath the existing bottom, including 100 mm thick sand layer. The Contractor shall ensure the removal of the entire sand that is mixed with the oil. The disposal of the oily mixed sand/soil shall be carried out as per the applicable environmental rules and regulations.

6.5.7.8 Supply and Laying of Sand Bedding

Level the sand bed underneath the removed bottom plates in such a way as to install the new bottom plates. The sand bed is to be consolidated as per the instructions given by the Engineer. Lay a minimum of 700 mm sand layer (including the removed sand layer of 100 mm thickness or higher) of river sand with standard compaction on the existing sand filling. The layer is to be graded to suit the slope of the bottom plates. The sand bed is to be consolidated as per the instructions given by the Engineer.

Parameters of the river sand must comply with the specifications. Test reports of the sand samples must be submitted to obtain prior approval from the Engineer.

Note – The Contractor shall propose a suitable method to remove and fill the sand, considering the large volume. The proposed method shall not make any interruptions to the CPSTL operations and residential dwellings nearby.

6.5.7.9 Laying of Sand Tar Mixture

Lay a 100mm thick layer of sand tar mixture using river sand mixed with hot bitumen (80% - 100% penetration grade), and the percentage of bitumen used should be 5% by weight of sand. The mix is to be laid hot and compacted as instructed by the Engineer. The layer is to be graded to suit the slope of the bottom plates.

6.5.7.10 Tank Apron

The apron should be provided with reinforced concrete slabs to a suitable slope as per detailed drawings, and joints to be filled with sand tar mixer. Compacted sand is to be used to obtain the required slope underneath the slabs.

6.5.7.11 Demolish and Reconstruction of the Existing Drain (D2) in the Tank Farm

The existing damaged drain in the tank farm should be demolished, and a new RCC drainage to be constructed as per the specified dimensions. The Contractor shall dispose of debris and excavated soil outside the premises as per the Engineer's Instructions. The drain should be adequately sloped and ensure the proper flow of contaminants during the operations.

6.5.7.12 Construction of Newly Proposed Drains (D3 & D4) in the Tank Farm

Excavation, disposal of excavated soil, and construction of the drains and RCC catch pits as specified. The adequate slope of the drains is to be maintained towards the flow direction.

Layouts of the drains are specified in Drawing No. 1839-4. The Contractor shall obtain the site measurements and confirm the adequacy of the slopes to ensure the proper discharge of water/contaminants.

6.5.7.13 Construction of RCC Catch Pit and Laying of External Pipes of Oily Water Discharge System

Construction of RCC Catch pit with all piping, valves (2 no's of 4" gate valves), and accessories. All underground pipes should be externally coated (Bitumen/other) as per the directions of the Engineer. The proposed layout of the oily water discharge system is shown in Drawing No. 1839-4.

6.5.8 Improvements to the Existing Tank Farm

The existing tank farm of tank no. 34 shall be cleaned by removal of all construction debris, abandoned pipes, steel structural components, concrete pedestals, etc at the end of the repair work. The entire tank farm shall be improved with the removal of all unnecessary vegetation and maintaining slopes towards the drainages to ensure proper discharge of stormwater. The Contractor shall remove/ fill & compact of soil as directed by the Engineer. The gravel soil required for the tank farm improvement shall be supplied by the Contractor.

The Contractor shall introduce grass turfing where required.

6.5.9 Construction of Footpath

Supply and construction of footpaths as per the specifications provided in Drawing No. 1839 -4.

6.5.3 Repairs of the Tank

Repairing of the tank shall be done as per the details provided in the bidding document by referring to the API Standard 653/650 & other applicable standards. The Contractor's work shall not be bound to the wording in this document, and all required repairs should be attended to complete the work.

6.5.3.1 The tank would be handed over to the contractor in a gas-free state.

6.5.3.2 Welding Procedure and Welder Qualification

6.5.3.2.1 Qualification of Welding Procedure

Prepare welding procedure specification (WPS) for all categories of welding that are intended to be carried out in tank repair work, and perform tests documented by Procedure Qualification Records (PQR) to support the specifications as required by Section IX of the ASME code and any additional provisions of API 650/653 standards.

6.5.3.2.2 Qualification of Welders

Tests will be conducted for all welders assigned to manual and semi-automatic welding to demonstrate the welder's ability to make acceptable welds in accordance with Section IX of the ASME code and API 650 standards.

6.5.3.3 The Contractor shall fabricate and install the required jacking-up brackets to the shell plates and internal columns of the tank. The Contractor shall ensure the jacking up of the tank shell without distorting the shell plates/ reverted joints. Any distortions encountered in the shell plates/reverted joints shall be rectified by the Contractor at his own cost. Method statement with relevant calculations for the tank jacking procedure shall be submitted 02 weeks before the commencement to obtain approval from the Engineer.

6.5.7.4 Cut, remove, and stack the minimum of 125 mm strip of the bottommost shell course(to remove reverts), including required shell openings for the nozzles (2 No's of 12" Product inlet & outlet, 02 No's of 4" drain outlets) and shell insertions. The Contractor shall refer to the specified dimensions of the shell openings, and work shall be carried out without any distortions to the existing shell/ reverted joints.

6.5.7.5 The Contractor must hand over all removed steel materials and components to the main stores of CPSTL.

6.5.7.6 Procure (Except carbon steel plates), supply, fabricate, erect, weld, and test bottom plates, annular plates, and the datum plate as per the bottom plate layout submitted by the contractor and approved by the Engineer. Laying of new bottom plates as per the approved bottom plate layout on the premix asphalt layer. Weld the joints of new bottom plates as per the welding sequence submitted by the contractor and approved by the Engineer. Welding of plate joints shall be carried out using AWSE 7018 series electrode in such a way that it will provide a nearly possible plane surface as per the given welding sequence, the welding sequence adopted should result in the least distortion.

6.5.7.7 Supply, fabricate, erect, weld, and testing of the 02 numbers of 4" dia. tank internal draw-off pipes.

6.5.7.8 Supply, fabricate, repair, and test of tank internal columns. The Contractor shall supply all required materials to attend to the repairs in the columns, column bases, and supports. The Contractor shall submit a method statement for finalized repairs to obtain approval from the Engineer.

6.5.7.9 Procure (Except carbon steel plates), supply, fabricate, erect, weld, and test of 04 no's of shell nozzles and shell insertions as per the shell plate layout submitted by the Contractor and approved by the Engineer. Weld the joints of new shell plate segments as per the welding sequence submitted by the Contractor and approved by the Engineer. Welding of plate joints shall be carried out by using AWSE 7018 series electrode in such a way that it provides a near possible plane surface as per the given welding sequence. The welding sequence adopted should result in the least distortion. Low-hydrogen electrodes shall be used for manual metal arc welds in shell-to-bottom joints.

6.5.7.10 Procure, supply, fabricate, and install proposed modifications for tank gauging automation. Pipes shall be mounted with the required strengthening boxes on the roof.

6.5.7.11 Procure, supply, fabricate, install, and testing of the required product pipe modifications with all accessories and pipe supports. Final connections to the existing product piping should be carried out under directions by the Engineer.

6.5.7.12 Procure, supply, install, and test of 04 No's of 12" dia. gate valves as per specifications.

6.5.7.13 Supply, fabricate, install, and test of pressure relief system for cargo and delivery pipes.

6.5.7.14 Supply, fabricate, and install proposed steel platforms and required pipeline cross-overs in the tank farm. The Contractor shall provide the required concrete bases for the installation.

6.5.7.15 The existing water drencher system shall be modified to suit the elevational changes of the tank. The existing piping arrangement should be repaired by replacing the corroded flanges, studs, bolts, pipe supports, & water drencher heads. All materials required for the repair works shall be supplied by the Contractor. The entire piping of the water drencher (including the pipes along the tank farm) shall be cleaned and painted after hot-dipped galvanizing as per the specifications.

6.5.7.16 Supply and repair of existing 02 no's of roof manholes, 02 no's of PV valves, and the dip hatch. Existing roof accessories shall be repaired by replacement of the corroded plates, flanges, nuts, bolts, etc. All repairs shall be attended to the satisfaction of the Engineer.

6.5.7.17 Supply, fabricate, erect, and fix the toe guard for the existing crown handrail. Dimensions of the toe guard are 75mm× 6 mm flat irons.

6.5.7.18 Supply, fabricate, and fixing of steel mesh near the dip hatch area. Steel mesh length and width should be matched with the operational requirements.

6.5.7.19 Supply and replace the corroded studs & bolts of all shell attachments and roof attachments. Required packing materials of all tank accessories shall be replaced.

6.5.7.20 Procure, supply, install, and testing of side-mounted sour service Mechanical Level Gauges (two no's) with grease-sealed pulley system with aspects of easiness to read indicator and sign board.

6.5.7.21 Procure, supply, installation, and testing of Earthing system as per API Standard 650 Twelfth Edition, March 2013. The contractor must provide details of the proposed system to obtain approval from the Engineer.

i. Removal of the existing earthing system and dump remaining to the RDD stores, CPSTL.

ii. For plate electrode installation, excavate a pit for a depth of 3m from the ground level, install the electrode with bonding material (Bentonite, etc.), backfill, and compact the filling up to the ground level. The plate must be bonded with the copper tapes using exothermic welding and an additional 2 sets of stainless-steel nuts and bolts.

iii. Additional copper rods shall be installed spaced at two times the length of the rod to achieve the required resistance level.

iv. Concrete inspection pits must be installed for each separate electrode. The pit shall be complete with a lid, and the assembly shall be installed flush with ground level.

v. All connections between electrodes and the grounding points on the tank shall be carried out using 25 mm×3 mm high conductive copper tapes, and all underground tape joints must be exothermically welded.

vi. 40mm PVC sleeves must be kept through the ring beam, pavement, and drain to route the conductor tapes from the tanks to the inspection pits.

vii. The earthing system shall be tested jointly with a representative of the Engineer to ascertain the electrode resistance levels and a report shall be submitted to the Engineer upon completion.

6.5.8 Painting of the Tank

6.5.8.1 The required paints for the painting will be supplied by the CPSTL. The painting work shall be conducted under the supervision/direction of the supplier-assigned painting consultant, the inspection unit of the CPSTL, and the Engineer. The Contractor shall perform the painting works under predefined parameters (Application rates, equipment, competency/skill of workers, etc), and any failure or noncompliance will be directly penalized to the Contractor.

6.5.8.2 The Contractor shall certify all painters from the paint supplier, and certifications shall be pre-approved by the Engineer.

6.5.8.3 The Contractor shall attend to all pre-cleaning of surfaces (High-pressure water, detergent cleaning &, etc) as recommended by the paint supplier/ consultant. The method statement for surface preparation and painting shall be forwarded to obtain the approval of the Engineer.

6.5.8.4 The Contractor shall grit/sand blast clean and paint the bottom underside, tank bottom, 1m height of bottommost shell course (interior), all reverted joints (150 mm wide strips to both sides from revert edge), internal columns (1m from bottom and 1m from top inclusive of base plates and structures), 1m height of topmost shell course, tank exterior, stairways, handrails, pipes (Product, etc) and all steel structures/platforms.

i. Painting of Underside of Bottom Plates

The undersides of the bottom plates (including the backing strip) are to be painted after grit/ sand blast cleaning specified under Clause vii). Approval for painting is to be obtained as described in Clause viii).

Description	Thickness	Coat
An Epoxy Primer	50 microns DFT	Primer
Added Cured Coal Tar Epoxy	150 microns DFT	Intermediate
Added Cured Coal Tar Epoxy	150 microns DFT	Finish
Required overall paint thickness	350 microns DFT	
Solvent – Thinner as specified in the manufacturer's datasheet.		

ii. Painting of the Tank interior

The entire bottom of the tank interior, the bottommost shell course up to 1-meter height from the bottom, 1-m height of the topmost shell, internal columns, and draw-off pipes are to be painted as follows after Grit/ Sandblast cleaning specified under clause vii). Application of paint and obtaining of approval for painting shall be carried out as described in clause viii).

Description	Thickness	Coat
An Epoxy Primer	50 microns DFT	Primer

Amine Cured Phenolic Epoxy	150 microns DFT	Intermediate
Amine Cured Phenolic Epoxy	150 microns DFT	Finish
Required overall paint thickness	350 microns DFT	
Solvent – Thinner as specified in the manufacturer's datasheet.		

Note – The pipes of the tank gauge automation system shall be fully painted.

iii. Painting of Tank Exterior

The shell exterior surface and roof external surfaces with all attachments shall be painted as follows after Grit/ Sand blast cleaning specified under clause vii). Application of paint and obtaining of approval for painting shall be carried out as described in clause viii).

Description	**Thickness**	**Coat**
An Epoxy Primer	60 microns DFT	Primer
Epoxy	120 microns DFT	Intermediate
Aliphatic Polyurethane	60 microns DFT	Finish
Required overall paint thickness	240 microns DFT	
Solvent – Thinner 91-92 as specified in the manufacturer's data sheet.		

Note:

Projected portion of annular plate and 1000 mm height band of bottom most shell plate exterior shall be painted with additional 100 microns intermediate coat before finish coat to accomplish total overall thickness of 340 microns.

300 mm height of the bottom most shell plate, vertical strip along the dip hatch area and area around the dip hatch shall be painted in black colour finish coating.

Tank shall be marked with tank identification number and CPSTL logo as directed by the Engineer.

iv. Painting of Stairways, handrails, all attachments, and steel structures/ platforms.

The Stairways and their supportive structures, handrails, mid hand rails and crown handrail with all attachments including stanchions and steel structures/ platforms shall be painted according to their standard color codes as follows after Grit/ Sand blast cleaning specified under clause vii). Application of paint and obtaining of approval for painting shall be carried out as described in clause viii).

Description	Thickness	Coat
Epoxy Primer	60 microns DFT	Primer
Epoxy	130 microns DFT	Intermediate
Aliphatic Polyurethane Yellow/ Black/ Grey/ Red	50 microns DFT	Finish
Required overall paint thickness	240 microns DFT	
Solvent – Thinner 21-06 as specified in manufactures data sheet.		

The Contractor shall grit/ sand blast clean and paint all existing steel components (Interceptor/valve pit covers) in the tank farm as directed by the Engineer.

v. Piping systems of water drencher system, product piping (modified sections and exposed pipes in the tank farm of Tk. 34), and drain piping (Above ground / Exposed) shall be painted as follows after hot dip galvanizing specified under clause ix). Application of paint and obtaining of approval for painting shall be carried out as described in clause viii).

Description	Thickness	Coat
Epoxy Primer	60 microns DFT	Primer
Epoxy	130 microns DFT	Intermediate
Aliphatic Polyurethane Yellow/ Black/ Grey/ White/ Red	50 microns DFT	Finish
Required overall paint thickness	240 microns DFT	
Solvent – Thinner as specified in the manufactures data sheet.		

vi. All horizontal and vertical reverted joints shall be painted (150 mm width from both revert edges inclusive of the revert area) after cleaning as per the paint manufacturer/ consultant specifications. The cleaned surfaces shall be grit/sand blasted prior to application of the paint. The contractor shall submit a method statement along with the manufacturers consent for leak proof painting to obtain the approval of the Engineer. Application of paint and obtaining of approval for painting shall be carried out as described in clause viii).

Description	Thickness	Coat
Epoxy Primer	50 microns DFT	Primer
Solvent free, amine cured epoxy coating	150 microns DFT	Intermediate
Solvent free, amine cured epoxy coating	150 microns DFT	Intermediate
Solvent free, amine cured epoxy coating	200 microns DFT	Finish
Required overall paint thickness	550 microns DFT	
Thinner should be added as specified in manufactures data sheet.		

Note – The proposed painting system shall be validated by the paint manufacturer and optimum thickness should be used.

vii. Surface Preparation

All the surfaces which are to be painted are to be blast cleaned to conform to Swedish Standard SA 2 ½ by grit/sand blasting.

Industrial vacuum cleaning is to be carried out for the tank bottom before the application of paint.

viii. Details of application and approval

a. All painting work shall be done as per the manufacturer's "datasheet". The whole area specified above is to be painted with primer, intermediate, and finish paint. The primer paint is recommended to be applied by Air Spray or Airless spray. The intermediate and finish coats are recommended to apply by Airless spray.

b. Stripe coating 3 times on welding joins, sharp edges & reverted joints before each paint code and other required areas to be stripped coated as required.

c. Required overall paint thickness should not be less than 350 microns DFT for tank interior/bottom underside and 240 microns DFT for tank exterior/stairway/handrails/external pipes while first coat, intermediate coat and final coat thickness to be not less than what is specified.

d. Approval for painting should be obtained from the Inspection Engineer of CPSTL or his representative as follows.

- Prior to the application of first primer coat after satisfactory cleaning of surfaces.
- Prior to application of the first intermediate coat after applying the required thickness of primer.
- Prior to application of first finish coat after applying the required thickness of intermediate coat.
- Required total DFT indicated in specifications to be applied and the first coat of Paint shall be applied as soon as possible after surface preparation is approved by the Engineer. The preparation of paint before application is to be done as per the instructions stated by the paint manufacturer.
- Contractor shall arrange a pinhole test on the tank bottom, tank shell & roof with the witness of the Inspection officer.

- The time interval between two coatings shall comply with the paint manufacturer's instructions
- The Engineer reserves the authority to accept or reject.
- Prepared surface before painting depending on his observations.
- Application of paint depending on the preparation of paint and the weather.

Painting carried out under doubtful weather conditions is the responsibility of the contractor. If any painting is found to be unacceptable the particular surfaces shall be made paint-free and repainted at the contractor's expense.

ix. Hot dip Galvanizing

All hot dip galvanizing work shall conform to ASTM A 123 or BS EN ISO 1461:2009. The average mean coating thickness of galvanizing is 85 microns for all pipes, fittings, studs, nuts, flanges, supports, and gratings.

Touch-up painting with Zn-rich paint shall be attended to on the galvanized surfaces wherever required after installation.

A certificate from the galvanizing company stating that all the specifications of the bidding document were met shall be submitted to CPSTL after the completion of the galvanizing work.

6.5.9 Testing

6.5.9.1 The Contractor shall carry out the required testing and inspection of the tank as per the API 653, API Standard 650 latest edition, and all the other applicable standards of mechanical, electrical & civil. Required testing and inspection shall be supervised and certified by the Engineer/his nominee and the Inspection Unit of CPSTL as appropriate.

6.5.9.2 Hydro Test

The Contractor shall carry out the hydro test for the tank. Testing procedure to be agreed by the Contractor and CPSTL. Water will be supplied by the CPSTL if requested. Required manifold and piping connections to be erected by the Contractor. Required piping and pumping facilities to be supplied by the Contractor.

6.5.9.3 Calibration

After the successful completion of hydro testing, the tank calibration is to be attended. The calibration and tabulations shall conform to API 2550, and ASTM 1220. The tank calibration is to be carried out using one of the following methods by a third-party company acceptable to CPSTL.

i. MPMS Ch. 2.2B – Calibration of Upright Cylindrical Tanks using the Optical Reference Line Method (ORLM)

ii. MPMS Ch. 2.2C – Calibration of Upright Cylindrical Tanks using the Optical Triangulation Method (OTM)

iii. MPMS Ch. 2.2D - Calibration of Upright Cylindrical Tanks using the Internal Electro-Optical Distance Ranging Method (EODRM)

iv. MPMS (Manual of Petroleum Measurement Standards)

The name and address of the 3rd party company should be given in the bid for evaluation purposes.

Calibration of the tanks and submission of calibration charts and soft copies in the form

of spreadsheets.

The Contractor shall submit three sets of certified calibration tables to the Engineer on or before the successful completion of the work.

6.5.9.4 Box up the Tank

After completion of all works, the tank shall be boxed up and handed over for operational purposes. The Contractor shall supply all materials required for box up the tank.

6.5.9.5 Tank Details

Tank Capacity : 11,217 m^3
Tank Diameter : 35.41 m
Tank Height : 12.19 m
Type of the Tank : Fixed/Cone welded roof, reverted shell & bottom, Steel, Vertical Storage Tank at Kolonnawa Installation, CPSTL
Status : Without product
Product : Fuel Oil

6.5.10 Materials shall be as per the following Specifications

6.5.10.1 List of recommended manufacturers – Mechanical works

No.	Item	Country of Origin and Country of Manufacture
1.	Pipes, fittings, flanges, studs, bolts & gaskets	European, UK, Japan, South Africa or the USA
2.	Valves Level gauges	Europe, Japan, or the USA

Note:

The reference made here to certain manufacturers' products, has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of materials or fittings to a particular manufacturer.

6.5.10.2 Carbon Steel Pipes

i. Single Random Length (SRL), seamless and Bevel Ends (BE)
ii. Material shall conform to API Standard 5L-Gr B or ASTM A 106 B
iii. Dimensions shall conform to ANSI B 36.10 SCH 40/80

Note – Pipes for all shell nozzles and all pipes of nominal diameter less than 2" should be SCH 80 (Refer to the provided pipe modifications drawing).

iv. Identification:-Heat/Batch number, SCH number, API or ASTM number, seamless, and material description shall be marked on the pipes.
v. Both ends of the pipe should have protective sleeves.

Mill Certificate should be supplied in accordance with EN 10204 3.1 with Heat/Batch numbers or any other reference number marked on pipes as well as in the certificates to check once the items are delivered to CPSTL Kolonnawa with reference to the items against the Mill Certificate

6.5.10.3 Carbon Steel fittings (Elbows, Reducers)

i. Bevel ends (BE)

ii. Material shall conform to ASTM A 234 Gr. WPB.

iii. Dimensions shall conform to ANSI B 16.9, SCH40

iv. Identification:-SCH number, ASTM number, and material description shall be marked on the elbows and reducers.

v. Mill Certificate should be supplied in accordance with EN 10204 3.1 with an identification number or any other reference number marked on the elbow as well as in the certificates to check once the items are delivered to Ceylon Petroleum Storage Terminals Limited Kolonnawa with reference to the items against the Mill Certificate.

6.5.10.4 Carbon Steel Flanges

i. Class 150, Slip on, Raised Face (RF)

ii. Material shall conform to ASTM A 105 Normalized.

iii. Dimensions shall conform to ANSI B 16.5.

iv. Identification:-ASTM number, ANSI Number, Class, and material description shall be marked on the flange.

v. Flange should be marked with the ASTM specification grade identification symbol and ASTM specification number.

vi. Mill Certificate should be supplied in accordance with EN 10204 3.1 with identification numbers or any other reference number marked on flanges as well as in the Certificate to check once the items are delivered to CPSTL Kolonnawa with reference to the items against the Mill Certificate.

6.5.10.5 Studs and Bolts

i. Material of studs to be conformed to ASTM A 193 Gr. B 07 or BS 1506-621 Gr.A and materials of nuts shall conform to ASTM A 194 Gr. 2H or BS 1506-162.

ii. Threads should be in accordance with ANSI B 1.1 or BS 1580 Class 2A for studs and Class 2B for nuts.

iii. Identification marks shall be available on items to conform above standards.

6.5.10.6 Gasket Materials

i. Maximum Working Pressure :- 225 psi

ii. Nominal Working Temperature :- 45^{o} C

iii. Thickness :- 3 mm

iv. To use as packing for flanges of pipelines and tank manholes for petroleum refined products such as Gasoline, Gas oil, Fuel Oil, and Aviation Turbines.

v. Gaskets should conform to BS 7531 or equivalent.

vi. Each sheet of jointing shall be indelibly marked with the number of British Standard and manufacturer's identification mark.

6.5.10.7 Cast Steel Gate Valves (Class 150)

i. Operational Conditions
   a. Maximum Working Pressure :- 150 psi
   b. Nominal Working Temperature :- 45 ^{0}C

ii. Use for petroleum refined products such as Gas Oil, Gasoline, Kerosene, Fuel Oil, and Aviation Turbines.

iii. The valves should be of the outside screw and york type with rising stem nonrising hand wheel, bolted bonnet, and with solid or flexible wedge type plain gate and should conform to the following.
   a. Designed as per API 6D & API 600.
   b. End flanges shall be raised face type and flange dimensions should conform to ANSI B 16.5.
   c. Face to face dimensions should conform to ANSI B 16.10.
   d. Valve inspection and testing as per API 598.

iv. Materials of valve

   a. Materials of component of the valve should conform to API 600.

      - Body and bonnet - ASTM A 216 Gr. WCB
      - Seat and Wedge facing - 13% Chromium Steel
      - Stud - ASTM A 193 Gr. B7
      - Stud Nut - ASTM A 194 Gr. 2H

   b. Trim material should be specified and should conform to API 600 normal trim material (supplier should forward manufacturer's certificate confirming the same).

   c. The materials of all parts of the valve are to be specified according to ASTM standards.

v. Other Conditions

   a. Method of packing should be indicated in the quotation or Pro-forma Invoice.

   b. Valves should be shipped with the gate closed and flange closed with suitable material or end caps.

   c. Exterior surface (unmachined) should be painted with suitable paint to prevent corrosion and the machined or threaded surface should be coated with easy removable rust preventive coating.

   d. The method of testing should conform to API 598 and valid test certificate should be supplied with the items and the supplier should mention in the quotation or Pro-forma Invoice whether this can be supplied.

   e. Period of guarantee and the conditions of guarantee should be mention in the quotation.

   f. The supplier should forward the copy of certificate of Authority to use official monogram of API and the originals of internationally published catalogues/literature relevant to the valve.

   g. The supplier should forward all details mentioned above for evaluation purposes. The offers of those who fail to submit the requested details will not be considered for evaluation.

6.5.10.8 Bidder should replace all materials found with manufacturing defects free of charge within the performance bond validity period.

6.5.10.9 Literature should be supplied in the English language along with the bid for the manufacturing process of the materials.

6.6 Technical Documents and Information

6.6.1 Documentation to be submitted after Award of Contract

The following describes the minimum scope of information, documents, drawings, etc. to be submitted by the Contractor to the Employer after the award of the contract (during the site construction). The Employer reserves the right to request from the Contractor such additional information, drawings, documents, etc. as may be reasonably required for proper understanding and definition of the project.

The Contractor shall provide softcopies and two (2) hard copies of all drawings and documentation to be submitted by him.

Monthly progress reports shall be provided no later than ten (10) days after the last day of each month.

Any revision of the project implementation schedule shall not be delivered later than fourteen (14) days after such revision.

6.6.1.1 Documentation to be submitted before Commencement

All documents and permits required for new constructions/ repairs shall be submitted before initiating site works.

6.6.1.2 Documentation to be submitted during the work

The following documents shall be submitted during the site works:

i. The Contractor shall submit drawings, diagrams, graphs, curves, calculations, schedules for information, reviews, or approvals as described in the Contract to the Engineer. The quality of all documents submitted shall conform to acceptable international practice.
ii. The Contractor shall provide the calibration certificates of all calibrated equipment to the CPSTL.
iii. Monthly progress brief reports - by no later than one (1) week after the last day of each month including S-curves showing the work progress. The minimum information shall be:
    a. Engineering activities
    b. Component and material purchase and receipt status
    c. Construction activities
    d. HSE
    e. Incidents
    f. Accidents
    g. Personal on site
    h. Number of staff
    i. Number of local staff
    j. 4-week look ahead schedule
    k. Recommendations for improvement
    l. Project graphs
    m. Layout drawings which shall show the work status
    n. S-curves which shall show on a monthly base the status of the works (planned and actual as well as cumulated) for the project.

6.6.1.3 Final Documentation

The Contractor shall deliver to the CPSTL the final documentation, both in digital and hard copies (2x). The final documentation shall comprise at least the following:

i. All As-built drawings
ii. QA/QC Documents
iii. Site safety procedures
iv. HSE procedure and plan
v. Key list and site access contacts
vi. Component data sheets
vii. Installation and O&M manuals from component manufacturers
viii. Mechanical completion documents, including but not limited to:
    a. Data sheets and manuals of all components and equipment
    b. Calibration protocols
ix. Warranties of component suppliers
    a. Valves
    b. Galvanization

SECTION -07

FORM OF BID

FORM OF BID

Name of Contract**:** **Repairs to Tank No. 34 at Kolonnawa Installation**

To: **The Chairman, Ceylon Petroleum Storage Terminals Limited,**
Oil Installation,
Kolonnawa.

Gentlemen:

1. Having examined the Standard Bidding Document - Procurement of Works – Major Contracts [ICTAD/SBD/02 - Second Edition, January 2007], Specifications, Drawings and Bills of Quantities and Addenda for the execution of the above-named Works, we the undersigned, offer to execute and complete such Works and remedy any defect therein in conformity with the aforesaid Conditions of Contract, Specifications, Drawings, Bills of Quantities and addenda Nos.……..……for the sum of LKR ……..……..……..…… ……..……[in words] (LKR.....……..[in figures]) or such other sums as may be ascertained in accordance with the said Conditions.

2. We acknowledge that the Contract Data forms part of our Bid.

3. We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Contract Data.

4. We agree to abide by this Bid until the date specified in ITB Clause 16, ……..… [*insert Date*] and it shall remain binding upon us and may be accepted at any time before that date.

5. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.

6. We understand that you are not bound to accept the lowest or any bid you may receive.

7. We certify/confirm that we comply with the requirements as per ITB Clause 3and 4 of the bidding documents.

Dated this …… day of……..……20……..

Signature ……... in the capacity of ……..…...……...……...

duly authorized to sign bids for and on behalf of ..……..…..…… ……..……..……..……..……..……..……..……..…… *[in block capitals or typed]*

Name : .....

Designation: ….....

Address: ……..……..…….

Witness: ……...……..

SECTION- 8

BILL OF QUANTITIES

PREAMBLE TO THE BILL OF QUANTITIES

It is the Bidder's responsibility to see that the prices include complying with all the requirements of the other documents, whether specifically referred to in the Bill of Quantities.

The Bidder is advised to visit the site of the proposed work, and it is the responsibility of the Bidder to ascertain the conditions governing access to the site, the extent of working space, store area, etc.

1. This Bill of Quantities contains pages numbered from 52 to 65. Bidders are requested to see that no page is missing, no duplicates, and that all TRADES are carried to SUMMARY at the end of the Bill of Quantities.

2. The Conditions of Contract, the Specifications, and the Drawings are to be read in conjunction with the Bill of Quantities.

3. The cost of complying with all conditions, obligations and liabilities described in the Conditions of Contract, Specifications and the Bill of Quantities including all overhead charges and profit in carrying out the work as shown on the Drawings shall be deemed to be spread over and included in the prices of sums stated by the Bidder in the Bill of Quantities unless separately measured.

4. If the Bidder fails to price any items in the Bill of Quantities, then the cost of the work under such items shall be held to be spread over and included in the prices given against other items of work.

5. The quantities set out in the Bill of Quantities are provisional and cover the approximate scope of the work anticipated to be performed by the Contractor. The actual quantities used for final measurement purposes will be determined by the Engineer by measurement of the work completed by the Contractor.

6. Where trade names, brands, and or Catalogue Numbers are referred to, sole preference to any material or equipment is not intended. Any other material or equipment may be used, provided that the characteristics of type, quality, appearance, finish, method of construction and / or performance are superior to the specified.

7. Whenever the method of measurement is not clear from the documents available, the principles as given in the Sri Lanka Standard 573: 1999 UDC 69(08374) shall be applicable.

8. Selected Bidder shall comply with the arrangement of work and be ready to work part by part as required by the Authorities of the Employer if applicable.

9. The unit and lump sum prices of the Bill of Quantities (referred to as the Contract Rates) shall, except in so far as is otherwise provided for under the Contract, be deemed to cover all obligations set out in the Contract, and all matters or things necessary for the proper completion and maintenance of the Works, and shall be fixed and binding upon the Contractor.

10. Unit prices when applied to the quantity of work performed under the Contract shall, and other sums specifically determined under the provisions of the Contract, constitute full remuneration to the Contractor under the Contract.

11. Each item shall be priced by the Bidder in Sri Lanka Rupees.

12. Rates for items in this Bill of Quantities shall be inclusive for hauling, transporting, loading, unloading, spreading, heaping, supporting, scaffolding, welding, and for laps, unless otherwise specifically stated.

13. Unless otherwise specifically stated in Bill of Quantities or herein, the following shall be deemed to be included with all items:-
    i. Labour and all costs in connection therewith.
    ii. Materials, goods, and all costs in connection therewith.
    iii. Tools, plants, equipment, machinery, and all costs in connection therewith.
    iv. Waste of materials.
    v. Protecting and clearing.
    vi. Square cutting.
    vii. Establishment charges, overhead charges, and profit.
    viii. All setting out works.
    ix. For providing method statements, calculations, proposals by Contractor, shop drawings, and as-built drawings.
    x. The rate for each item shall also include for all the following.
        a. Complying with regulations of the Municipal Council and/or any other relevant authority under which a particular item of work is to be executed unless otherwise included in the preliminaries.
        b. Plant and equipment unless and otherwise included in preliminaries.
        c. In addition to the above, the rate for an item of work in the substructure shall include for the works at depth extending below ground water table where applicable including excavation under water, removal and disposal of mud, stand and preparation of place to a condition suitable for proper execution of the work.

14. If Bidders are anticipating to give any discount, it shall be marked separately in the space allocated in the summary of Bill of Quantities. Provisional Sums shall not be considered when calculating discount.

15. All materials, equipment supplied shall be new, unused without any defects.

16. All materials used in the Works shall be of the best quality of their respective kinds as specified and shall be obtained from sources and suppliers approved by the Engineer and shall comply strictly with the tests prescribed or, Where tests are not laid down in this Specification, with the requirements of the latest issue of the relevant British Standards or other Standards approved by the Engineer.

17. Metric units are used throughout the Bill of Quantities for measurement purposes unless otherwise indicated. Abbreviations used in the Contract are as follows:-

L.S.	-	Lump Sum
P.S.	-	Provisional Sum
m	-	Metre
m^2	-	Square metre
m^3	-	Cubic metre
kg	-	kilograms
nr	-	Numbers
LKR	-	Sri Lankan Rupees

ITEM	DESCRIPTION	UNIT	QTY	RATE LKR	AMOUNT LKR
A	**Contractors are strictly advised to visit the site & follow the given details, sketch drawings, and specifications before pricing. Any discrepancy should be forwarded to the Engineer through the Manager Procurement during the bidding period.** **PRELIMINARIES**				
A1	Mobilization & Demobilization	Item	1		
A2	Temporary fire barriers, fire blankets, protection nets, screens, and coverings. The Contractor shall eliminate the escape of dust during the blasting works and ensure adequate fire isolation for all hot works.	Item	1		
A3	Supply, fixing, maintaining & dismantling of Internal & external scaffolding.	Item	1		
A4	Site cleaning, removal of all construction debris, oil-mixed soil/ sand, and surplus in the tank farm as directed by the Engineer. The Contractor shall remove all available steel remains, concrete blocks, etc, and dump at a location directed by an Engineer.	Item	1		
	The total amount carried to the summary				
B	**CIVIL WORKS** The Contractor is requested to visit the site and to acquaint himself regarding the work spaces, conditions of adjoining properties, access, actual extent of the work to be done, existing services, methods of disconnecting and termination of services, method of transportation of material, equipment to be used etc. before pricing of this section.				

	The contractor shall dispose of excavated material away from the premises, referring to recommendations from the Engineer. The excavation shall be carried out on an approved method with approved tools and equipment acceptable to the Engineer, with prior approval. The contractor's rates shall include all precautions to minimize the noise, dust, and vibrations, etc., to the approval of the Engineer. The contractor shall submit all relevant information stated in this document and the information based on his pricing for this section. Dewatering, if required only.				
	Construction of Ring Beam & Outer Drain				
B1	Excavations for the new RCC ring beam foundation (Refer the Drawing No. 1839-5)	m^3	275		
B2	Demolish existing concrete pavement (approx. 600mm wide & 450mm depth) with a drain and remove debris from the site.	Item	1		
B3	Supply & fix temporary earth work supports (open planks or etc), minimum depth up to 2.0 m from the ground level (Shoring)	m^2	200		
B4	Supply, levelling & compacting of ABC (Aggregate Base Course up to 98%) as specified for soil improvement. (Refer the Drawing No. 1839-5) The compacted layer thickness shall be as per the approved construction drawing. The Contractor shall submit a shop drawing to obtain the approval of the Engineer after analysing the soil conditions at the site. Suitable compacting equipment shall be used to achieve the compaction. (Compaction of the ABC mixture shall comply with the relevant SCA/5 specification. Compacted ABC layers shall be tested for compaction as prescribed by the SCA/5 specification.)	m^3	65		

B5	Supply & pour mass concrete of grade C 15 into the area directly under the new RCC ring beam foundation & drain (Screed concrete of 75 mm thickness).	m^3	9		
B6	Supply & pour mass concrete of grade C30 (ready mixed) to cast new RCC to the ring beam foundation with a drain.	m^3	114		
B7	Supply & fix fair-faced timber/ suitable material for formwork for the ring beam. (Rate to be included for all necessary boards, supports, erecting, framing, cutting angles, cleaning, wetting, and treatment before placing concrete and removals)	m^2	560		
B8	Supply, cut, form, and erect of tor steel bar reinforcement for RCC ring beam.	kg	19,600		
B9	Supply, fill & compaction of river sand for the ring wall and under the tank bottom (Sand layer shall be sloped to the centre of the tank bottom as per specified angle).	m^3	825		
B10	Supply & lay a 100mm thick layer of sand tar mixture (river sand and 80 - 100 hot bitumen mixture) over the compacted sand filling.	m^2	1,060		
B11	Excavation, laying, backfilling, and connecting of proposed 8" dia. oily water discharge pipe as per drawing 1839 -4. The pipe shall be hot-dipped galvanized and coated with bitumen.	m	6		
B 12	Modifications to the existing stairway as per the proposed tank elevational changes.	Item	1		
B13	**<u>Construction of RCC Catch Pits and Apron</u>** Excavation and removal of soil for the pits, the commencement depth shall not exceed 1.5 m from the ground level.	m^3	3		
B14	Supply & pour a 50 mm thick layer of grade C15 mass concrete (Screed for the RCC valve pit base)	m^3	0.3		
B15	Supply & pour grade C 25 Concrete for the pit base & walls.	m^3	6.1		
B16	Supply & fix fair-faced timber/ suitable material for formwork for the valve pits. (Rate to be included for all necessary boards,	m^2	25		

	supports, erecting, framing, cutting angles, cleaning, wetting, and treatment before placing concrete and removals)				
B17	Supplying of tor / mild steel bar reinforcement, cut to length, bent to shape, placed in position, and tied with Gi wire	kg	400		
	Construction of Drains in the Tank Farm				
B18	Demolish & removal of the existing damaged drain in the tank farm area.	Item	1		
B19	Excavation and removal of soil along the proposed paths of the storm water drains, commencement depth shall not exceed 1 m from the ground level.	m^3	35		
B20	Supply & pour a 50 mm thick layer of grade C15 mass concrete (Screed for the RCC drain base)	m^3	3		
B21	Supply & pour grade C25 Concrete for the RCC drain base & walls.	m^3	17		
B22	Supply & fix fair-faced timber/ suitable material for formwork for the drains. (Rate to be included for all necessary boards, supports, erecting, framing, cutting angles, cleaning, wetting, and treatment before placing concrete and removals)	m^2	224		
B23	Supply, cut, form, and erect of tor steel bar reinforcement for RCC drain.	kg	1,600		
B24	Power Tool Cleaning and painting of the existing interceptor coverings.	Item	1		
B25	Fill & Seal the expansion joint of the tank apron by using hot tar & river sand mixture	Item	1		
	Other Civil Works				
B 26	Supply & laying of 75mm thick precast concrete paving slab as per the drawing no. 1839-5 laying of proposed interlocks as per the drawing no. 1839-4. The rate shall include excavation, supply & laying quarry dust, placing pre-cast slab, and edge concrete cube, etc.	m^2	120		

B 27	Supply levelling and compacting of imported soil to the tank farm to improve the proper surface water discharge as per the Engineer's instruction.	m^3	25		
	The Total amount carried to the summary				
C	**MECHANICAL WORKS** The contractor shall obtain approval from CPSTL for all materials and equipment before commencing any work.	Note			
	The tank repair shall be carried out according to the API STD 653 & API STD 650, Twelfth Edition, March 2013, and Specifications. **The contractor's rates shall include :** Supplying of all materials (Except plates & Paints) and costs of preparation, fabrication, erection, laying in position, forming, welding & painting, etc. Transportation of all the materials to the final location at the CPSTL premises, Kolonnawa is under the Contractor's scope. The Contractor shall arrange for a third-party inspection where applicable. All inspections and testing shall be done according to the API 653, API 650, and other applicable standards.	Note Note Note Note Note			
	<u>Removal Works</u>				
C1	Dismantle & removal of existing cargo and delivery pipe segments	Item	1		
C2	Cut & removal of 05 No's of existing nozzles (1000x800mm), provisions for proposed new nozzle openings (3400x1110 mm),	Item	1		

	and proposed drain nozzle opening (1300x800mm) with attached shell area as specified in drawings.				
C3	Supply, fabricate, erect & jack up the tank for required elevational changes.	Item	1		
C4	Cut & removal of the tank bottom with internal drainpipes, sump & etc, including the existing asphalt layer.	Item	1		
C5	Cut & removal of 125 mm of the bottom-most shell strip, including jacking up the tank.	Item	1		
C6	Cut & remove 600 mm length of tank internal columns with mounting structure/ pad. The Contractor shall include rates for the temporary supports where required.	Item	1		
C7	**Supply of Materials** Supply of 12" dia. Carbon Steel pipes, pipe fittings, and other required materials for cargo and delivery pipe modifications (Refer to relevant drawings along with the site measurements).	Item	1		
C8	Supply of 4 no. of 12” diameter Gate Valves as per specifications. (API 650 ANSI Class 150)	Item	1		
C9	Supply of valves, pipes, fittings and etc for the pressure relief system as per the Drawing No. 1839 - 2	Item	1		
C10	Supply of pipes, pipe fittings, valves (2 Nos of 4” Gate Valves), & etc for oily water discharge system.	Item	1		
C11	Supply of pipes, pipe fittings, valves, & etc for oily water discharge system (from catch pit to existing drain).	Item	1		
C12	Supply of materials for repairs to be attended in the existing water drencher system, 02 No’ of roof manholes, 02 no’s of PV Valves, and the existing dip hatch (for all roof accessories).	Item	1		
C13	Supply of materials for the replacement of the earthing system	Item	1		

C14	Supply of studs, bolts, and washers for the corroded nuts and bolts of the exiting shell attachments, and pipe connections.	Item	1		
C15	Supply of materials for the fabrication of the toe guard in the crown handrail and minor repairs.	Item	1		
C16	Supply of materials for the GI mesh required in the dip hatch area as per specifications.	Item	1		
C17	Supply of materials for the fabrication and installation of the pipe crossing structures.	Item	1		
C18	Supply of materials for replacements/ repairs in the tank's internal columns.	Item	1		
C19	Supply of materials for modifications in the tank gauging automation system.	Item	1		
C20	Supply of two no's of mechanical level gauges.	Item	1		
C21	**Fabrications, Erections, Repairs & Testing** Fabrication, installation & testing of cargo and delivery pipe modifications including valves & construction of pipe supports.	Item	1		
C22	Fabrication, installation & testing of pressure relief system	Item	1		
C23	Fabrication, installation & testing of 04 No's of shell nozzles with attached shell plate insertions.	Item	1		
C24	Fabrication, erection, welding and testing of bottom plates, annular plates with centre sump, and tank internal drains.	Item	1		
C25	Repairs, modifications, and testing of the existing water drencher system	Item	1		
C26	Repairs & modifications of the existing 02 no's of roof manholes, 02 no's of PV valves and the dip hatch (Shal include repairs in the all-existing roof accessories).	Item	1		
C27	Fabrication and installation of toe guard for the existing crown handrail including all repairs.	Item	1		

C28	Fabrication and installation of the GI mesh near the dip hatch area.	Item	1		
C29	Fabrication, installation, and testing of proposed tank modifications for the tank gauging automation system.	Item	1		
C30	Fabrication and Installation of pipe crossing structures with concrete supports/ pedestals.	Item	1		
C31	Fabrication, erection, and testing of required replacements/ repairs in internal columns.	Item	1		
C32	Installation, testing & commissioning of 02 no's of level gauges	Item	1		
C33	Installation & testing of the Earthling system.	Item	1		
	Painting of the Tank Note – The Bidder shall confirm all areas before bidding, and any deviations should be clarified during the pre-bid meeting. Note – The Contractor shall clean all internal and external surfaces by application of high-pressure water jet/ chemical cleaning/ detergent cleaning before sand blasting. Regular cleaning during the painting process should be carried out as instructed by the paint Supplier/ Consultant / Engineer.				
C34	Grit/Sand blast cleaning and painting of the underside of the bottom plates (including backing strip).	m^2	1,105		
C35	Grit/ Sandblast cleaning and painting of the entire bottom of the tank and shell interior as specified (All pipes, columns, etc).	m^2	1,285		
C36	Grit/ Sand blast cleaning and painting of the roof external surfaces with all accessories (Manholes, PV Valves, Dip Hatch, Pipe Supports, etc).	m^2	1,212		
C37	Grit/Sand blast cleaning and painting of the shell exterior with all attachments (Remaining shell openings, pipe supports, etc).	m^2	1,378		

C38	Grit/Sand blast cleaning and painting of the stairway and its supportive structure, handrail, crown handrail, pipe crossing structures, with all attachments.	Item	1		
C39	Grit/ Sand blast cleaning and painting of the water drencher system, product pipes, and pipes of the oily water discharge system after hot dipped galvanizing as specified.	Item	1		
C40	Cleaning & application of leak prevention paint for reverted joints (Cleaning should be attended after approved method statement which should be included following of Sand/ Grit blast cleaning after chemical/ detergent wash.	Item	1		
C41	Painting the tank identification number, CPSTL logo and other details	Item	1		
C42	Black coloured paintings around the dip hatch, tank shell and bottom-most shell strip as specified.	Item	1		
C43	Box up the Tank	Item	1		
C44	**Testing and Calibration** Tank Hydro test	Item	1		
C45	Tank calibration & Physical Measurement Report	Item	1		
	Total amount carried to the summary				

SUMMARY OF BOQ					
ITEM	**DESCRIPTION**				**LKR AMOUNT**
A	PRELIMINARIES		=	LKR	
B	CIVIL WORK		=	LKR	
C	MECHANICAL WORKS		=	LKR	
	Sub Total I	(a)	=	LKR	
	Less discount if any	(b)	=	LKR	
	Sub Total II	(c)	=	LKR	
	SSCL (2.5%) Tax	(d) = 2.5% (c)	=	LKR	
	Total sum carried to the Form of Bid	(e) = (c)+ (d)	=	LKR	
	VAT (18%)	(f) = 18% (e)	=	LKR	

Total amount in words (LKR):-……………………………………………………………...……………………………………………………..

…………………………………….………………………………………………………………………………………………………..…

VAT Amount :- ……….……….

VAT registration No :-………………………………………… …… SSCL Registration No: ….………………………………..……………..…

Name of Bidder :-……...

Address :-………..……..………...

……………………………………………………………………………………………………..…………………………...…………..…

…………………

Date

…………………………………..…

Signature & Common Seal of the Bidder

Witness :…………………………………………..

Name :…………………………………………..

Address :…………………………………………..

N.I.C. No:………………………………………….

Witness :…………………………………………..

Name :………………………...………………..

Address :…………………………………………..

N.I.C. No:………………………………………….

SECTION – 9

SCHEDULES

SCHEDULES

Schedule 1 – General Information

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

ITB Clause reference	Description	Information (to be filled by the bidder)	Remarks
	ICTAD Registration		Provide certified copies and label as attachment to clause 3.1
	Registration Number		
	Grade		
	Specialty		
	Expiry Date		
	Written Power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to clause 4.1(a)	
	If a Joint Venture, names and addresses of Joint Venture Partner	1. …….. 2. …….. 3. ……..	Provide a draft copy of the Joint Venture Agree-ment or alternatively the memorandum of understanding
	If a Joint Venture, Name of Lead Partner		
	For joint ventures, each joint venture partner shall furnish Legal Status separately		
	(Lead Partner)		Provide certified copies and label as attachment to clause 4.1(a)
	Legal Status		
	Place of registration		
	Principal place of business		
	Written Power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to clause 4.1(a)	

Schedule 1– General Information continued …….

	If a Joint Venture, names and addresses of Joint Venture Partner	1. …….. 2. …….. 3. ……..	Provide a draft copy of the Joint Venture Agreement or alternatively the memorandum of understanding
	If a Joint Venture, Name of Lead Partner		
	For joint ventures, each joint venture partner shall furnish Legal Status separately		
	(Partner 2)		Provide certified copies and label as attachment to clause 4.1(a)
	Legal Status		
	Place of registration		
	Principal place of business		
	Written Power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to clause 4.1(a)	
	VAT Registration Number		
	Name (Partner 3)		Provide certified copies and label as attachment to clause 4.1(a)
	Legal Status		
	Place of registration		
	Principal place of business		
	Written Power of attorney of the signatory to the Bid	Provide original or certified copy of the power of attorney attested by a Notary and label as attachment to clause 4.1(a)	
	VAT Registration Number		

Schedule 2 – Annual Turn-over Information

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

Year	Turn-over	Remarks
2020 / 2021		Attach audited reports and label as attachment to clause 4.2
2021 / 2022		
2022 / 2023		
2023 / 2024		
2024 / 2025		
Average		

Schedule 3 – Adequacy of Working Capital

If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

Source of credit line	Amount	Remarks
		Provide documentary evidence and label as attachment to clause 4.2

Schedule 4 – Construction Experience in the last ten years

(i) If pre-qualification is done the bidders are required to include information Subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

Year	Employer	Description of Works	Amount	Contractor's Responsibility (%)

- Provide documentary evidence and label as attachment to Clause 4.2

Schedule 5 – Major Items of Construction Equipment Proposed

Type	Capacity

Schedule 6 – Construction Management Staff (Contract Managers/Technical Staff)

A. Key Personnel / Professionals

	Name	Position	Task
Managerial	1.		
	2.		
	3.		
Technical	1.		
	2.		
	3.		

B. Support Staff

	Name	Position	Task
	1.		
	2.		
	3.		
	4.		
	5.		

Schedule 7 - Time Schedule for Key Staff

Name	Position	Activities	Months (in the form of a Bar Chart)										Number of Months
			1	2	3	4	5	6	7	8	9		

Full Time:----------

Part Time:----------

Schedule 8 - Work Program										
	(1st, 2nd, etc. months from the start date.)									
Construction Activity	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	

SCHEDULE FOR DAY WORKS

SCHEDULE A- LABOUR

Any labour engaged on Day work shall be paid at the rates given below. Contractor's profit and overheads should not be included in the rates.

No.	Category	Gross Daily Wages LKR
1	Skilled labour	
2	Semi-skilled labour	
3	Unskilled labour	
4	Welder	

SCHEDULE B-MATERIAL

The Bidder shall give in this schedule the basic price of the following material

No.	Category	Unit	Gross Rate LKR
1	12" Gate Valves	Nos	
2	Sulphur-resistant cement	50 kg bag	
3	Sand	m^3	
4	Reinforcement steel	kg	

SCHEDULE C – PLANT

Any Plant engaged on Day works shall be paid at the rates given below. The rates are for wet hire. These rates shall include for all inputs for running of the plant, transport to site, operators, attendants, insurance and other overheads associated with such plant.

No.	Description of Plant	Hourly Rate LKR
1	Farm Tractor with Trailer	
2	Backhoe Loader	
3	Excavator (1 m^3)	
4	Lorry/Tipper (5 t) with driver	
5	DC Welding Plant	
6	50 Ton Crane	
7	Grit/Sand blasting equipment	

Schedule 9–Details of Suppliers & Manufactures					
No	**Item**	**Manufacture**	**Supplier**	**Country of Origin**	**Country of manufacture**
1.	Pipes				
2.	Fittings				
3.	Flanges				
4.	Studs & bolts				
5.	Gaskets				
6.	Valves				
7.	Level gauges				
8.	Any Other				

SECTION – 10

DRAWINGS

LIST OF DRAWINGS

NO.	DRAWING TITLE	DRG. NO.
01	Details of Marking	1839
02	Bottom Plate Arrangement	1839-1
03	Shell Accessories & Sump Details	1839-2
04	Platform & Piping Details	1839-3
05	Layout Plan of Drain System and Foot Path	1839-4
06	Foundation Details	1839-5
07	General Arrangement	1839-6
08	Modifications for Tank Gauge Automation	

SECTION – 11

STANDARD FORMS (BID)

FORM OF BID SECURITY

*[This Guarantee form shall be filled in accordance with the instructions indicated in brackets]*_____ *[insert issuing agency's name, and address of issuing branch or office]*

Beneficiary: **Ceylon Petroleum Storage Terminals Limited, Oil Installation, Kolonnawa, Wellampitiya, Sri Lanka**.

.

Date: _____*[insert (by issuing agency) date]*

BID GUARANTEE No.: _____*[insert (by issuing agency) number]*

We have been informed that _____*[insert (by issuing agency) name of the Bidder]* (hereinafter called "the Bidder") has submitted to you its bid dated _____ *[insert (by issuing agency) date]* (hereinafter called "the Bid") for the _____of *[insert name of Contract]* under Invitation for Bids No. _____*[insert IFB number]* ("the IFB").

Furthermore, we understand that, according to your conditions, Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we _____*[insert name of issuing agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of _____*[insert amount in figures]* _____ [*insert amount in words]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

(a) has withdrawn its Bid during the period of bid validity specified; or

(b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or

(c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This Guarantee shall expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the Contract signed by the Bidder and of the Performance Security issued to you by the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of the successful bidder furnishing the performance security, otherwise it will remain in force up to _____*(insert date)*

Consequently, any demand for payment under this Guarantee must be received by us at the office on or before that date.

_____

[Signature(s) of authorized representative(s)]

CHECK LIST FOR BIDDERS

CHECK LIST FOR BIDDERS

Bidders are advised to fill the following table.

ITEM	ITB Clause	YES (tick)	REFERENCE
Form of Bid			
Addressed to the **Employer?**	20		
Completed?	20		
Signed?	20		
Bid Security			
Address to the **Employer?**	17		
Format as required?	17		
Issuing Agency as specified?	17		
Amount as requested?	17		
Validity **28 days beyond** the validity of Bid?	17		
Qualification Information			
All relevant information completed?	4		
Signed?	4		
Addendum			
Contents of the addendum (if any) taken in to account?	11		
Bid package			
All the documents given in ITB Clause 13 enclosed in the original and copy?	13		
ITB Clause 21 followed before sealing the Bid package?	21		