

HOUSING & DEVELOPMENT BOARD

SPECIFICATIONS

SUPPLY OF CONCRETING SAND TO THE HDB (BATCH 35)

SECTION 2 – SUPPLEMENTARY SPECIFICATIONS

2.1 GENERAL

This Specification is to be read in conjunction with the Standard Specifications for the **Supply of Concreting Sand to the HDB**. In case of discrepancies between the Supplementary Specifications and the Standard Specifications, the former shall prevail.

2.2 DEFINITIONS

“Goods” or
“Concreting Sand” shall mean the Sand that the Contractor is required to supply for production of concrete under the Contract.

“Approved Standard” shall mean the Singapore Standard, including any other standards as specified in the Specifications for aggregates for concrete that are prevailing and applicable for the Goods at the time of testing or supply.

“Approved Laboratory” shall mean the Engineering Material Testing Laboratory of HDB Centre of Building Research at No. 1 Woodlands Industrial Park E3, and/or any other laboratories approved by or as directed by the SO Rep.

“Contractor’s
Stockyard” shall mean any stockyard or stockyards within Singapore, including Aggregates Landing Terminal for imported Goods, used by the Contractor for the storage and trading of the Goods as authorised by the regulating government authorities for such storage and trading purposes.

2.3 METRIC COMPONENTS

Generally, the unit of measurement used in this Contract shall be metric units unless otherwise specified.

2.4 TYPE OF CONTRACT

The Contract is a Rates Contract. The Tender Rates submitted by the Contractor shall allow for all works within and all expenses arising from the Contract as detailed in the Specifications, Articles of Agreement and the Conditions of Contract. The rates shall be firm and shall not be subjected to any price variations.

2.5 SCOPE OF CONTRACT

The scope of this Contract is for the supply and delivery of Goods to various Sites in Singapore. The quantity of Supply shall be **360,000 ± 20% tonnes** for the whole Contract. The ± 20% variation to the Supply quantity shall not constitute any variation to the Contract.

The Contractor shall be required to provide all equipment and transportation for the supply and delivery of Goods to various Sites in Singapore and shall unload the Goods at specific locations within the Sites as directed.

The Contractor shall indicate his supply source in his Tender Proposal together with all the necessary information and documentary evidence to the satisfaction of the SO Rep that he is able to comply with the Employer's requirements at all time.

2.6 CONTRACT TERM

The Contract Term shall be **Eleven (11) months** commencing from the commencement date as stated in the Employer's Letter of Acceptance. Indicatively, the commencement is on **02 January 2010**. The Contractor shall commence the Supply from the commencement date, provided he has complied with the requirements of Insurance and Security Deposit under the contract. No extension of time shall be given if he is unable to comply with the requirements of the Insurance and Security Deposit within the stipulated time.

The Employer reserves the prerogative to exercise the option to extend the Contract Term by up to the period as stated in the Appendix to the Conditions of Contract, on the same terms and conditions of the Contract. The Contractor shall ensure that in the time lapse between the end of the original Contract Term and the receipt of the extension letter, the Supply to the Sites shall not be disrupted. The Contractor shall also ensure that all the insurance policies as required under Clause 16 (5) of the Conditions shall be duly extended.

2.7 QUALITY OF GOODS

2.7.1 Source

The Contractor shall be required to supply the Concreting Sand from approved sources. In this respect, the Contractor shall provide and submit together with his Tender Proposal, all necessary information and documentary evidence to the satisfaction of the SO Rep that he is able to comply with the quality and quantity requirements as specified. The documents shall include but not limit to the follow:

- a) location maps of the source country and region;
- b) map and grit reference for the quarry;
- c) concession for quarrying and Export Permit from the government of the source country; the reserve volume for quarrying as well as any environmental impact assessment or equivalent;
- d) schematic diagrams and photographs showing the complete production processes of the Goods,
- e) type, quantity and capacity of each production machinery or equipment;
- f) in-house quality control plan;
- g) all test reports as specified in Clause "Certificate Of Compliance In Tender Submission"; and
- h) all other relevant information pertaining to the supply source.

2.7 QUALITY OF GOODS (CONT'D)

2.7.1 Source (Cont'd)

The Contractor shall only supply the Goods from one source at any time. In this regard, the Contractor shall be required to submit Bills of Lading or any other relevant shipping or relevant documents to the SO Rep upon arrival of each and every shipment of Supply for purpose of identification of the source of Supply.

Other than due to circumstances beyond the Contractor's control, the Contractor shall not be allowed to change the source of his Goods at his discretion for the entire Contract Term. The Contractor shall in writing seek the SO Rep's prior approval for any change in the source of his Goods, failing which the SO Rep may exercise his right under the Nuisance and Irregularities Clause against the Contractor. The Contractor shall submit the request together with the original reports from SAC-SINGLAS accredited laboratory or Approved Laboratory on properties tests laid down in the Clause "Certificate Of Compliance In Tender Submission", and any other relevant tests as directed by the SO Rep for the purpose of ascertaining the suitability of the Goods from the new source. In this event, every aspect of the Specifications pertaining to the Goods from the original source shall be applicable to that from the new source and the Contractor shall ensure that these are observed and complied with so as not to cause any delay or disruption to the Supply. Notwithstanding this, the SO Rep reserves the right to require the Goods from the new source to be subjected to any additional tests as and when he deems necessary.

2.7.2 Quality

The quality of Goods to be supplied throughout the Contract Term shall comply in every respect with the Approved Standard for concreting purposes. All test results including the conditions, analysis and test requirements laid down in the SS, BS, ASTM, etc. shall be determined in accordance with the relevant parts of the standards as specified in the Approved Standards.

In addition, the Contractor shall ensure that the Goods is non-alkali-silica reactive and has undergone the Potential Alkali-Silica Reactivity Test (Chemical Method) under ASTM C289 to show that the Goods are innocuous.

All local and foreign standards unless expressly specified shall be deemed to refer to the latest and shall be deemed to include any amendments, and/or modifications and/or re-enactments thereto.

2.8 CERTIFICATE OF COMPLIANCE IN TENDER SUBMISSION

The Contractor shall indicate the sources of his Supply and provide all the information required in **Appendix II**. The Contractor shall also submit together with his Tender original copies of Test Reports from SAC-SINGLAS accredited laboratories for each source of his Supply on the following properties to show that his Goods comply with the Approved Standards laid down in the Clause "Quality of Goods":

- (i) Sieve Analysis and Fineness Modulus
- (ii) Clay, Silt and Dust Content by Decantation Method (not more than 3.00%)
- (iii) Organic Impurities (lighter than Organic Plate No 3)
- (iv) Chloride Content (not more than 0.01%)
- (v) Bulk Density
- (vi) Relative Density, Apparent Relative Density and Water Absorption
- (vii) Potential alkali-silica reactivity (chemical method)
- (viii) Petrographic examination
- (ix) Acid soluble sulphate content
- (x) Magnesium Sulphate Soundness

2.8 CERTIFICATE OF COMPLIANCE IN TENDER SUBMISSION (CONT'D)

- (xi) Elemental Analysis (in percentage):
- (a) Silica as SiO_2
 - (b) Aluminium Oxide as Al_2O_3
 - (c) Iron Oxide as Fe_2O_3
 - (d) Titanium Oxide as TiO_2
 - (e) Calcium Oxide as CaO
 - (f) Magnesium Oxide as MgO
 - (g) Chromium Oxide as Cr_2O_3
 - (h) Sodium Oxide as Na_2O
 - (i) Potassium Oxide as K_2O
 - (j) Sulphate as SO_4
 - (k) Loss on Ignition at 900°C
 - (l) any other element(s) which may exist in the Goods.

The date of testing in such test reports shall not be more than six (6) months from the date of Tender submission. The Contractor shall notify the Employer of any changes in production of supply likely to affect the validity of the information given.

Any Tender not accompanied by such Test Reports may render the Tender liable to rejection by the Employer.

2.9 TEST REQUIREMENTS

Within the Contract Term, the Contractor shall be required to send samples taken from his Supply of Goods for testing at the Approved Laboratory in accordance with Approved Standard on the following properties at the stipulated frequency:

Properties	Number of Test
Sieve Analysis and Fineness Modulus	One test per batch of 4000 tonnes
Clay, Silt and Dust Content by Decantation Method (not more than 3.00%)	
Organic Impurities (lighter than Organic Plate No 3)	
Chloride Content (not more than 0.01%)	
Full List of properties specified in the Clause "Certificate of Compliance in Tender Submission", excluding Petrographic examination	One test monthly

All costs and expenses in carrying out all the tests and arranging and sending the test samples to the Approved Laboratory as required in the Contract including the cost of samples shall be borne by the Contractor.

In addition, the Contractor shall be required to submit, as and when demanded by the SO Rep, the original in-house production test results of the Goods available from the quarry at the source of supply, including BCA's Certificate Of Compliance for Stage 1 and/or Stage 2 test requirements on the Supply.

The Contractor shall note that the above test requirements are in addition to any other test requirements for all Imported Goods imposed by BCA.

2.10 TESTING OF GOODS

- (a) All samples shall be tested by the Approved Laboratory. The Contractor shall provide the original bills of lading for each barge/consignment of imported Goods and/or other documents as required by the SO Rep for verification on the source of Goods. If the SO Rep is not satisfied with such documents regarding the source of Goods, the SO Rep shall reserve the right to require Contractor to have his Goods subjected to all the tests specified in the Clause "Certificate of Compliance in Tender Submission" by the Approved Laboratory at the Contractor's own cost and expense. The Contractor is not allowed to mix the Goods from different barges, consignments, or sources of supply.
- (b) For every test, the SO Rep shall in the presence of the Contractor, take three (3) samples from the batch of Goods delivered to the Contractor's stockyard. The samples shall be kept in separate plastic bags and sealed by the Contractor in the presence of the SO Rep. Only one of the three samples will be tested, and the remaining two samples will be kept by the SO Rep. The samples so taken shall be representative of the quality of the batch of Goods supplied and shall be tested in accordance with the Clauses "Quality" and "Test Requirements".
- (c) If the sample fails any tests, the other two samples kept by the SO Rep shall be tested. If both samples pass the test or retest, the batch Goods supplied from which the samples were taken shall be deemed to have met the Approved Standard. If either of them fails any tests, the batch of Goods shall be deemed not to have complied with the Approved Standard and shall be rejected. The costs of all such re-tests shall be borne by the Contractor.
- (d) Notwithstanding any provisions to the contrary and subject to the provisions stipulated in this Clause, the Contractor shall have provided in his Tender Rate all costs of samples and/or testing as specified, including the costs of the samples and sending the SO Rep to and fro the Approved Laboratory and/or SO Rep's office for testing and/or safe-keeping of the samples.
- (e) The Contractor shall only deliver Goods from his stockyard to the Sites upon receiving all satisfactory original test reports from the Approved Laboratory by the SO Rep. Notwithstanding this and the foregoing paragraphs of this Clause, it is the responsibility of the Contractor to ensure all his Goods comply with the Approved Standards. In this respect, the SO Rep of the Employer's various construction projects reserve the right to submit for testing, samples taken at random from each and every portion of the Goods delivered to their projects. If the samples failed the tests, the costs of these tests, including re-tests if any shall be borne by the Contractor. If the samples passed the tests, the cost of testing shall be borne by the Employer. In this event, without prejudice to the Employer's right or remedy under any other clauses of the Contract, the Employer reserves the right to impose an administrative charge of **\$1,000/=** per occasion of test failure on Site.
- (f) If any earth/clay lumps, stones, pebbles, or oversized/unwanted particles, etc, were detected/found in the Goods at the Site or at any time during delivery, loading, unloading, inspection, sampling, the batch of Goods from which the Goods were taken shall be rejected.
- (g) Original or certified true copies of all the test reports shall be retained by the Employer.

2.11 **MOISTURE CONTENT OF GOODS**

The Contractor shall ensure that the moisture content of the Goods shall not exceed 8%. The Contractor shall provide suitable equipment, chemical, etc for speedy measuring of the moisture content of the Goods. The equipment, chemical, etc provided should be in good working condition and sent for verification/calibration by the relevant authority as and when directed by SO Rep.

The SO Rep and the Contractor will conduct and record the moisture content test jointly at **hourly interval** or as and when necessary or as directed by the SO Rep. However, if the moisture content exceeds 8%, the SO Rep and the Contractor will conduct and record the moisture content test jointly at **half-hourly interval** or as and when necessary or as directed by the SO Rep until the moisture content is 8% or below. The SO Rep shall reject the Goods and/or suspend the despatch if the moisture content is above 8%. All the moisture content test results including those above 8% and for the load of Goods rejected are to be recorded and signed in the Daily Site Record accordingly.

In the event, the SO Rep approves the release of Goods with the Average Daily Moisture Content exceeding 8% due to exigency of supply, the Daily Actual Quantity of the Goods will be adjusted based on the following formula:

$$\text{Daily Actual Quantity} = \frac{\text{Daily Quantity Delivered} \times 1.08}{1 + \text{Average Daily Moisture Content}}$$

2.12 **TRUCKS**

The Contractor shall be required to assign a fleet of trucks solely for delivering the Goods for the Employer throughout the whole Contract Term. The Contract shall provide in **Appendix III** the particulars of the trucks to be assigned. Only the assigned trucks shall be allowed to deliver the Goods to the Sites. The Contractor shall at all times ensure that his fleet of assigned trucks are cleaned and free of foreign materials before being loaded with the Goods, so as to ensure that there is no contamination of the Goods. The Contractor shall be required to seek the SO Rep's prior approval for increasing or reducing the number of assigned trucks and the SO Rep shall be under no obligation to approve such requests.

2.13 **MAINTENANCE OF SUFFICIENT STOCK**

The Contractor shall, for the whole Contract Term, maintain a minimum contingency stock of 10,000 tonnes of Goods in his stockyard to ensure continuous supply to meet the Employer's Construction Contractors daily and monthly Orders failing which the SO Rep shall exercise his rights under the clause "Nuisance and Irregularities" to impose charges against the Contractor.

In addition, the Contractor shall plan for the layout of the stockyard for the daily operations. Goods that have been tested and approved by the SO Rep for supply shall be separated from those under stockpiling and not tested.

In the event that the Contractor's Supply is disrupted for any reason, he shall when instructed, be required to supply from the contingency stock until its depletion before he is allowed to supply from alternative sources, subjected to SO Rep's approval. The Contractor shall, upon resuming his Supply be required to replenish the contingency stock subsequently within the time frame as instructed by the SO Rep failing which the SO Rep shall exercise his rights under the clause "Nuisance and Irregularities" to impose charges against the Contractor.

2.14 CONTINGENT SUPPLY

- 2.14.1 The Contractor shall immediately inform the SO Rep when a plant breakdown and/or shipment delay occurs. The Contractor shall ensure that supply to all the Sites are not disrupted and if necessary the Contractor shall with the SO Rep's concurrence, arrange for supply assistance from the other suppliers approved by the SO Rep.
- 2.14.2 The Contractor shall still be liable for any delay or short-supply of Goods in the event of a plant breakdown or shipment delay or when he sought supply assistance from other suppliers.

2.15 DELIVERY OF CONCRETING SAND FROM HDB STOCKPILE SITE AT TAMPINES AVE 10

Notwithstanding Clause 2.14, in the event that the Contractor is unable to supply the Goods for any reason, the SO Rep reserves the right to instruct the Contractor to provide equipment and transportation services for delivery of the Employer's own supply of Goods from the HDB Stockpile Site at Tampines Ave 10 to the designated sites. In this event the Contractor shall be paid the Contract Rates as tendered by the Contractor in the Form of Tender on:

- a) "Provision of front-end loaders and other equipment for the loading of concreting sand onto trucks at the Contractor's stockyard for delivery, etc. as specified"; and
- b) "Supply of transportation services for delivery of concreting sand from Contractor's stockyard to Designated Sites".

The Contractor shall be required to comply with the conditions in **APPENDIX IV** for delivery of Goods from HDB Stockpile Site at Tampines Ave 10. The Contractor shall be deemed to have included any additional costs and expenses arising from such delivery in the Contract Rates payable to the Contractor as specified hereinabove.

Notwithstanding above, should the Contractor be unable to supply the Goods due to reasons other than that specified in Clause 23(2) of the Conditions of Contract, the SO Rep shall be empowered to exercise his rights under the Clause "Failure in Supply" to take necessary actions against the Contractor.

2.16 CALIBRATION OF WEIGHBRIDGES

The Contractor shall ensure that his weighbridges are certified by Weights & Measures Office before the commencement of the Contract and shall at all time service and maintain his weighbridges to comply with The Weights and Measures Act throughout the whole Contract Term all at his own cost.

The Contractor shall produce certificate of verification of weight or measure for each weighbridge when demanded by the SO Rep. If the Contractor fails to produce valid certificate for each weighbridge, the Employer shall reserve the right to instruct the Contractor to have his weighbridges calibrated and certified by the Weights and Measures Office within twenty-one (21) days and the Contractor shall bear all costs including delays in the Supply of Goods to the Sites.

In the event that the Contractor does not comply with the instruction, the Employer shall employ Weights and Measures Office to calibrate all the Contractor's weighbridges and shall recover all cost incurred from any sum due to the Contractor. The Employer shall not be responsible for any loss of revenue incurred by the Contractor during the calibration exercise.

2.17 PROVISION OF LUNCH

The Contractor shall provide packet lunch costing not more than \$4.50 per meal per person for **one (1) number** of the Employer's staff to be taken at the Contractor's stockyard. These expenses shall be deemed to have been included in the Tender Rate.

Should the Employer's staff forgo lunch on his own accord, the Contractor shall not pay the equivalent in cash to the staff.

The Contractor shall not provide lunch to the Employer's staff in any other eating places such as restaurants, coffee shops, hawker centres, etc, other than at the Contractor's stockyard.

HOUSING & DEVELOPMENT BOARD

STATEMENT ON TRUCKS WHICH THE CONTRACTOR
UNDERTAKES TO SUPPLY

The Contractor is to detail below the registration number, type, payload of each of the Trucks which he undertakes to supply during the whole Phase Term and he is to state whether they are his OWN or HIRED ones. The total numbers of Trucks should be maintained at all times and may have to be increased as and when directed by the SO Rep in writing.

<u>Registration No.</u>	<u>Type</u>	<u>Payload</u>	<u>Own/Hired</u>
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No. of Trucks Owned	_____	Nos.
No. of Trucks Hired	_____	Nos.
Total No. of Trucks	_____	Nos.

We undertake to provide all the above-mentioned Trucks and additional numbers as directed by the SO Rep in writing during the Contract Term.

SIGNATURE : _____

NAME : _____

DATE : _____

ADDRESS : _____

COMPANY STAMP