Name of work: Establishing Batching Plant & supplying concrete at site for Construction of Hangars and other Utility Buildings for Hindustan Aeronautics Ltd., (HAL) AT Ojhar, Nasik

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Rate (Rs.)</th>
<th>Amount (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROVIDING PLAIN AND REINFORCED CEMENT CONCRETE:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Notes: The following notes shall be applicable to all the items in this Bill of Quantities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) 0.00 M level corresponds to finished ground floor level of respective structures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Unless stated otherwise, the rates shall include for the works to be carried out at all levels and for all linear shapes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Rates shall also include the cost of all the required materials except cement by the Contractor, etc. and cost of deployment/s of all equipment, Plant Machineries and labour unless otherwise specifically indicated. The contractor shall erect central concrete batching and mixing plant with a computerised controls of capacity 30 cum/hr or more at site. The land required for installation of the plant will be provided by HAL free of cost and the Contractor shall make all arrangements for developing the area and all the required access and path for the same at his cost.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Rates shall also include the cost of establishing design mix of the specified grades of concrete viz, M-25, M-35 and M-40 using minimum quantity of cement as 360 Kgs/cum, 400 kgs and 438 kgs respectively.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.No.</td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Rate (Rs.)</td>
<td>Amount (Rs)</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>----------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>Providing plain cement concrete levelling courses under foundations, pipelines, pits, under floors and all other allied works whatsoever required for completion of the building, at any place, level and locations all as directed by the Consultant and Engineer In Charge and as detailed in the drawing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Plain cement concrete, 1:3:6 using 20 to 40 mm size stone aggregate for levelling course below foundations, walls, rafts, floors and similar work requirement.</td>
<td>Cum</td>
<td>2800.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Plain cement concrete, 1:2:4 using 12.50 to 20mm size stone aggregate for Ramps, floors, levelling course, sill, coping, etc., &amp; similar work.</td>
<td>Cum</td>
<td>400.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Providing in position plain or reinforced cement concrete machine batched, machine mixed and machine vibrated design mix cement concrete of below specified grade for structural elements, excluding the cost of centering, shuttering and reinforcement, including adding admixtures in recommended proportion (as per IS 9103) to accelerate or retard the setting of concrete, improve workability without impairing strength and durability, necessary curing etc., complete as directed and working at all levels and heights (reinforcement and form work not under the scope of the present tender/work order) or otherwise in any area like foundations, including rafts, footings, foundation beams, basements, plinth, columns, balconies, slabs, linties, etc. beams bases for columns, walls, retaining walls basement walls, ballasts, roofs, landings, canopils, deck slab shelves, chajjas, facias, drop walls, cantillvers, pillars, piers, posts, strunts, staircase, carriages, on prepared subgrade for road pavements, flooring etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sl.No.</td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Rate (Rs.)</td>
<td>Amount (Rs)</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>----------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>Cement to be used for this item shall be of 43 Grade OPC conforming to IS 8112 and the minimum quantity specified shall be ensured. In case of nonavailability of cement in the market due to unforeseen reason, OPC - 53 grade cement conforming to 15 12269 will be allowed in place of 43 grade cement on establishment of its suitability supported with testing documents. In both the cases the mix design is to be obtained by the Contractor at his cost to achieve the desired results.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>a) M25 using minimum quantity of cement 360 kgs/cum or more as established by design mix</td>
<td>Cum</td>
<td>1600.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) M35 using minimum quantity of cement 400 kgs/cum or more as established by design mix</td>
<td>Cum</td>
<td>5200.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Providing pavement quality concrete (as per the design mix) of M40 grade in proper line and level, with concrete (line) pump, Minimum quantity of Cement 438 kgs/cum including all cementous materials as per requirements.</td>
<td>Cum</td>
<td>4000.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
1. Contractor has to unload the cement (Loose) from bulker to cilo at no extra cost
2. Cement will be supplied by EPI at site in bulker (loose) in free of cost but on accountable basis.
3. All admixture, aggregate, machine, transitmixer etc. required for production of concrete and supply of concrete to the pouring site is in the scope of contractor with no additional charge.
4. RMC shall be produced as per designmix provided by EPI.
5. Contractor should depute person for taking concrete sample as desired by EPI/Engineer-in-charge as per norms and one QC person. Otherwise suitable recovery will be made through their bill.