| Laboratory             |                               | Aimil Testing Laboratory, A-8, Mohan Co-operative Industrial Estate,<br>Mathura Road, New Delhi |   |                 |  |
|------------------------|-------------------------------|---|---|-----------------|--|
| Accreditation Standard |                               | ISO/IEC 17025: 2005   |   |                 |  |
| Certificate Number     |                               | TC-7287 (in lieu of T-2250)   | Page 1 of 3   | Page 1 of 3     |  |
| Validity               |                               | 07.06.2018 to 06.06.20  | 20 Last Amen  | Last Amended on |  |
| SI.                    | Product / Material<br>of Test | Specific Test Performed   | Test Method Specification<br>against which tests are<br>performed |                 |  |

## MECHANICAL TESTING

| Ι.  | BUILDINGS MATERIALS |  | T  | r  |
|-----|---------------------|--|--|--|
| 1.  | Fine Aggregate      | Sieve Analysis   | IS 2386 (Part-1)   | 150 µ to 10 mm   |
| 2.  | Coarse Aggregate    |  |  | 2.36 mm to 80 mm                                       |
|     | 1                   | Aggregate Impact Value   | IS 2386 (Part-4)   | 5 % to 50 %  |
|     |                     | *  | IS 2386 (Part-4)   | 5 % to 50 %  |
| 3.  | Cement Concrete     | Compressive Strength of<br>cubes                                     | IS 516   | 2 N/mm <sup>2</sup> to 55 N/mm <sup>2</sup>            |
|     |                     | Compressive Strength of<br>Cores                                     | IS 516   | 2 N/mm <sup>2</sup> to 55 N/mm <sup>2</sup>            |
| II. | SOIL & ROCK         | *  | +  |  |
| 1.  | Soil                | Grain Size Analysis<br>Dry/Wet Sieve Analysis<br>Hydrometer Analysis | IS : 2720 (Part-4)<br>IS : 2720 (Clause 4.3.1<br>/4.3.2)IS : 2720 (Clause 5.2) | 2 micron to 100 mm                                     |
|     |                     | Atterberg Limits<br>Liquid Limit<br>Plastic Limit                    | IS : 2720 (Part-5)   | 20 % to 60 %<br>5 % to 40 %                            |
|     |                     | California Bearing Ratio<br>(C.B.R.)                                 | IS : 2720 (Part-16)  | 02 % to 80 %   |
|     |                     | Direct Shear Test<br>C   | IS : 2720 (Part-13)  |  |
|     |                     | Φ  |  | 0 to 5.6 kg/cm²<br>5° to 50°<br>(vertical Stress Up to |

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|--------------------|-------------------------------|--|---|---|--|
| Acc                | reditation Standard           | ISO/IEC 17025: 2005  |   |   |  |
| Certificate Number |                               | TC-7287 (in lieu of T-2250)  | Page 2 of 3   | Page 2 of 3   |  |
| Validity           |                               | 07.06.2018 to 06.06.2020 Last Ame  |   | nded on   |  |
| SI.                | Product / Material<br>of Test | Specific Test Performed  | Test Method Specification<br>against which tests are<br>performed | Range of Testing /<br>Limits of Detection                         |  |
| r                  |                               |  |   | 4 kg/cm²)<br>(Shear Load Up to 2.0 kN)                            |  |
|                    |                               | Proctor Compaction Test<br>ompaction<br>Compaction   | IS : 2720 (Part-7)<br>IS : 2720 (Part-8)                          | OMC= 3 % to 40 %<br>MDD=1.00 g/cc to<br>2.50 g/cc                 |  |
|                    |                               | Tri-axial Compression<br>Test Without pore<br>pressure (UU)<br>C<br>Φ  | IS : 2720 (Part-11)   | Up to 5 kg/cm <sup>2</sup><br>0° to 15°<br>(0 to 10kN) (20 bar)   |  |
|                    |                               | Consolidated Undrained<br>Triaxial Compression Test<br>With measurement pore<br>water pressure<br>(CU)<br>C<br>Φ | IS : 2720 (Part-12)   | 0.01 to 5 kg/cm <sup>2</sup><br>5° to 45°<br>(Up to 10 kN,20 bar) |  |
|                    |                               | Consolidated Drained<br>Triaxial Compression Test<br>With measurement pore<br>water pressure (CD)<br>C<br>Φ      | IS : 2720 (Part-12)   | 0.01 to 5 kg/cm <sup>2</sup><br>5° to 50°<br>(Up to 10 kN,20 bar) |  |
| 2.                 | Rock                          | Unconfined Compressive<br>Strength   | IS : 9143   | 3 MPa to 200 MPa  |  |
|                    |                               | Triaxial Compression Test<br>C   | IS : 13047  | 1 MPa to 15 MPa   |  |

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| Accreditation Standard |                               | ISO/IEC 17025: 2005                            |   |   |  |
| Certificate Number     |                               | TC-7287 (in lieu of T-2250) Page 3             |   | of 3                                      |  |
| Validity               |                               | 07.06.2018 to 06.06.2020 Last Am               |   | nded on                                   |  |
| SI.                    | Product / Material<br>of Test | Specific Test Performed                        | Test Method Specification<br>against which tests are<br>performed                               | Range of Testing /<br>Limits of Detection |  |
| [                      | <br>!<br>!                    | Φ  | <br>I<br>I  | 4° to 70°                                 |  |
|                        | !<br>!                        | Slake Durability Index                         | IS : 10050  | 50 % to 99.9 %                            |  |
| !                      | !<br>!                        | Point Load Strength Index                      | IS : 8764   | 2 to 30 MPa                               |  |
|                        |                               | Rock Joints-Direct Shear<br>Strength<br>C<br>Φ |   | Up to 12 MPa<br>2° to 45°                 |  |
|                        |                               | Tensile strength by<br>Brazilian Method        | IS 10082  | Up to 20 MPa                              |  |