

TECHNICAL SPECIFICATIONS

**“Balance Internal Civil,
Horticulture & MEP Works”**

FOR

‘Alder Grove’

AT

GURUGRAM, HARYANA

1. **GENERAL**

The work in general shall be executed as per the description of the item, specifications attached and CPWD Specifications (Latest version). Wherever any reference to any Indian Standard Specifications is made in the document relating to this contract, the same shall be inclusive of all amendments issued there to or revision thereof, if any, up to the date of receipt of tender. The rates quoted by the contractor shall be inclusive of all items, included in these specifications and special conditions and nothing extra shall be payable whatsoever unless otherwise specified.

However, wherever required by Engineer in charge, the contractor shall submit a detailed methodology for execution of the specific work and shall get the same approved before the start of that specific work.

For the specialized works contractor shall engage specialized agencies with prior approval of Engineer-In-Charge.

Wherever it is mentioned "at all levels" in Schedule of Rates/ Technical Specifications for any item, the same shall be considered for "at all heights" irrespective of height of the structural element viz. Columns, Walls, Retaining walls etc. Contractor to quote his rates accordingly and nothing extra shall be paid on this account.

Retaining wall, Basement structure shall be considered under works upto plinth level only irrespective of the height of the basement above the Ground Level.

2. **CARRIAGE OF MATERIALS**

The carriage and stacking of materials shall be done as per Sub-head No-1 of CPWD Specifications Volume-1. However, where CPWD specifications are not available, the work shall be carried out with prior approval of Engineer in charge.

3. **Measurements**

- Measurements shall be done as per the relevant CPWD specification/ IS codes. However for 'HARD ROCK' and 'SOFT ROCK/DISINTEGRATED ROCK', following mode shall be followed for measurement;
- Excavated materials from 'HARD ROCK' and 'SOFT ROCK/DISINTEGRATED ROCK' shall be stacked separately, measurement reduced by 50% to allow for voids to arrive at the quantity payable under 'hard rock' and 'soft rock' respectively.
- The difference between the entire excavation (worked out from the levels) and such of the quantities payable under 'hard rock' and 'soft rock/disintegrated rock' shall be paid for as excavation in all kinds of soil.

Technical Specifications for Civil Works

1. **Earth work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-02 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
2. **Concrete Work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-04 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
3. **RCC work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-05 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
4. **Masonry work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-06 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
5. **Steel work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-10 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
6. **Flooring work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-11 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
7. **Roofing work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-12 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
8. **Cladding work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-08 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.

- 9. Wood work-** The Work shall be carried out as per CPWD Specifications, Volume-I 2019, Chapter-09 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 10. Finishing work-** The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-13 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 11. Dismantling & Demolishing-** The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-15 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 12. Road Works -** The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-16. However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 13. Waterproofing work-** The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-22 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 14. Repair to Buildings-** The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-14 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 15. Aluminium Works -** The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-21 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.

Note: In addition to above, aluminum works shall be carried out by the contractor, considering the following points.

- 1. Shop drawings and Design Calculation Shall be prepared and submitted by contractor for approval of engineer in- charge prior to commencement of work.**

- 2. Aluminum profile / section as provided in existing flats shall be preferred.**
- 3. Aluminum casement door shall be provided with heavy duty hinges.**
- 4. Rate given are inclusive of all the work stated above, nothing extra shall be paid.**

Technical Specifications for Plumbing Works

1. **Sanitary Fixture & Fittings** - The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-17 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
2. **Sewerage & Drainage Work** - The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-19 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
3. **Water Supply System Work**- The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-18 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
4. **Soil, Waste, Vent & Rain pipe fittings Work**- The Work shall be carried out as per CPWD Specifications Volume-II 2019, Chapter-17 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.

NOTE:

1. **In the Items of Providing & fixing of Wall mounted C.P fittings, Prices are inclusive of providing & fixing of items like wall flanges and W.C connector etc.**
2. **In the Items of Providing & fixing of basin mixture, Prices are inclusive of providing & fixing of braided pipe also.**

Technical Specifications for Electrical Works

- 1. Wiring Work** - The Work shall be carried out as per CPWD General Specification for Electrical Work Part-01 Internal 2013, Chapter- 3 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 2. Sub mains & cables Work**- The Work shall be carried out as per CPWD General Specification for Electrical Work Part-01 Internal 2013, Chapter- 3 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 3. Distribution System Work**- The Work shall be carried out as per CPWD General Specification for Electrical Work Part-01 Internal 2013, Chapter- 3 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 4. Earthing Work**- The Work shall be carried out as per CPWD General Specification for Electrical Work Part-01 Internal 2013, Chapter- 8 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.
- 5. Fixtures & Fittings Work**- The Work shall be carried out as per CPWD General Specification for Electrical Work Part-01 Internal 2013, Chapter- 3 However, where CPWD specifications are not available, the work shall be carried out with prior approval of EIC.

Technical Specifications for HVAC works

1. **Split System:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 2, sub chapter 2.4.
2. **VRF System:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 4, sub chapter 4.3.
3. **Insulation:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 11, sub chapter 11.3.
4. **Copper Pipe:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 4, sub chapter 4.3.3 point no VIII.
5. **Drain Pipe:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 4, sub chapter 4.3.3 point no VII.
6. **GSS Ducting & Accessories:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 9.
7. **Fans:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 15 sub chapter 15.9.
8. **Fan Accessories:** - Please refer CPWD General Specification for HVAC Work 2017 Chapter 2 sub chapter 2.9.2.6.
9. **Electrical cables:** Please refer CPWD General Specification for HVAC Work 2017 Chapter 13 sub chapter 13.4.