

**»» Beam Longitudinal Rebar (Include OverLap Length):**

Rebar d16 : 4058.8 m = 6.404 ton  
 » Sum of Beam Longitudinal Rebar Weight = 6.404 ton

**»» Beam Additional Rebar (Include Hook Length):**

Rebar d16 : 688.8 m = 1.087 ton  
 Rebar d18 : 168.2 m = 0.335 ton  
 Rebar d20 : 153.9 m = 0.379 ton  
 Rebar d22 : 248.2 m = 0.74 ton  
 Rebar d25 : 250.3 m = 0.965 ton  
 » Sum of Beam Additional Rebar Weight = 3.507 ton

**»» Beam Ties (Include Beam Ends and Middle Length Ties):**

Rebar d8 : 6903.7 m = 2.71 ton  
 » Sum of Beam Ties Rebar Weight = 2.71 ton

**»» Column Longitudinal Rebar (Include Foundation Anchore And OverLap Length):**

Rebar d14 : 821.2 m = 0.993 ton  
 Rebar d16 : 778.8 m = 1.229 ton  
 Rebar d18 : 1330.8 m = 2.653 ton  
 Rebar d20 : 358.6 m = 0.884 ton  
 » Sum of Column Longitudinal Rebar Weight = 5.759 ton

**»» Column Ties (Include Column Ends and Middle Length Ties):**

Rebar d10 : 3277 m = 2.032 ton  
 » Sum of Column Ties Rebar Weight = 2.032 ton

**»» Shear Wall Vertical Rebar (Include OverLap and Anchore Length):**

Rebar d12 : 1698.5 m = 1.507 ton  
 Rebar d14 : 902.8 m = 1.091 ton  
 Rebar d18 : 488.3 m = 0.974 ton  
 » Sum of Shear Wall Vertical Rebar Weight = 3.572 ton

**»» Shear Wall Horizontal Rebar :**

Rebar d10 : 3189.3 m = 1.978 ton  
 » Sum of Shear Wall Horizontal Rebar Weight = 1.978 ton

**»» Shear Wall Tiepin Rebar :**

Rebar 10 : 1497.5 m = 0.923 ton  
 » Sum of Shear Wall Tiepine Rebar Weight = 0.923 ton

**»»» SUMMERY OF STRUCTURE CONCRETE VOLUME:**

»» Beam : Volume = 82.199 m<sup>3</sup> , Average = 0.082 m<sup>3</sup>/m<sup>2</sup>  
 »» Column : Volume = 35.452 m<sup>3</sup> , Average = 0.035 m<sup>3</sup>/m<sup>2</sup>  
 »» Shear Wall : Volume = 28.381 m<sup>3</sup> , Average = 0.028 m<sup>3</sup>/m<sup>2</sup>  
 »» Total : Volume = 146 m<sup>3</sup> = 350477.1 Kg , Average = 0.146 m<sup>3</sup>/m<sup>2</sup>

**»»» SUMMERY OF STRUCTURE REBAR WEIGHT:**

»» Beam : Weight = 12.621 ton , Average = 12.621 kg/m<sup>2</sup>  
 »» Column : Weight = 7.791 ton , Average = 7.791 kg/m<sup>2</sup>  
 »» Shear Wall : Weight = 6.473 ton , Average = 6.473 kg/m<sup>2</sup>  
 »» Total : Weight = 26.885 ton , Average = 26.885 kg/m<sup>2</sup>

**»»» SUMMERY OF REBAR TYPE LENGTH AND WEIGHT:**

»» Rebar d8 : Total Length = 006'903.7 m = 002.710 ton = 575 Piece (12m)  
 »» Rebar d10 : Total Length = 007'963.8 m = 004.939 ton = 664 Piece (12m)  
 »» Rebar d12 : Total Length = 001'698.5 m = 001.507 ton = 142 Piece (12m)  
 »» Rebar d14 : Total Length = 001'724.0 m = 002.084 ton = 144 Piece (12m)  
 »» Rebar d16 : Total Length = 005'526.3 m = 008.720 ton = 461 Piece (12m)  
 »» Rebar d18 : Total Length = 001'987.3 m = 003.963 ton = 166 Piece (12m)  
 »» Rebar d20 : Total Length = 000'512.5 m = 001.263 ton = 43 Piece (12m)  
 »» Rebar d22 : Total Length = 000'248.2 m = 000.740 ton = 21 Piece (12m)  
 »» Rebar d25 : Total Length = 000'250.3 m = 000.965 ton = 21 Piece (12m)

**»»» SUMMERY OF STRUCTURE COST:**

Assumed Information: Project Area = 1000m<sup>2</sup>, Rebar Cost = 2000\$/m<sup>2</sup>, Concrete Cost = 110000\$/m<sup>3</sup>  
 »» Rebar Cost : Absolute = 54 x 1e6 \$ , Average = 54 x 1e3 \$/m<sup>2</sup>  
 »» Concrete Cost : Absolute = 16 x 1e6 \$ , Average = 16 x 1e3 \$/m<sup>2</sup>  
 »» Total Cost : Absolute = 70 x 1e6 \$ , Average = 70 x 1e3 \$/m<sup>2</sup>