গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
তত্ত্বাবধায়ক প্রকৌশলীর কার্যালয়
গণপূর্ত ই/এম প্ল্যানিং সার্কেল
পূর্ত ভবন, ঢাকা।

স্মারক নং -২৫.৩৬.০০০০.৬৩০.০৭.০২৫.২০. ৬৩২(৫)

তারিখঃ- ২২ /০৭/২০২০ইং

"বিজ্ঞপ্তি"

এতদ্বারা সংশ্লিষ্ট সকলের অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহনের জন্য জানানো যাচ্ছে যে, গণপূর্ত অধিদপ্তরের সিডিউল অব রেটস(SoR) কমিটির সিদ্ধান্ত মোতাবেক গণপূর্ত অধিদপ্তরের বৈদ্যুতিক/ যান্ত্রিক কাজের জন্য প্রণীত PWD SCHEDULE OF RATES -2018 FOR ELECTRO-MECHANICAL WORKS (TENTH EDITION) এর Lift সংক্রান্ত Sub-Head-08 এবং Annexure 08 এতদসংগে সংযুক্ত Lift এর স্পেসিফিকেশন ও দর অনুযায়ী পরিবর্তিত হিসেবে গন্য হবে। এতে প্রধান প্রকৌশলী মহোদয়ের অনুমোদন রয়েছে। এই আদেশ অবিলম্বে কার্যকর হবে।

২২/৭

(মোঃ কায়কোবাদ)
তত্ত্বাবধায়ক প্রকৌশলী
গণপূর্ত ই/এম প্ল্যানিং সার্কেল
পূর্ত ভবন, ঢাকা।
ও
সদস্য সচিব
SOR প্রণয়ন কমিটি (ই/এম)
গণপূর্ত অধিদপ্তর, ঢাকা
তারিখঃ- ২২ /০৭/২০২০ইং

স্মারক নং -২৫.৩৬.০০০০.৬৩০.০৭.০২৫.২০.

সদয় অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহনের অনুলিপি প্রেরণ করা হলোঃ-

০১। প্রধান প্রকৌশলী,.গণপূর্ত অধিদপ্তর, ঢাকা।
০২। প্রধান স্থপতি, স্থাপত্য অধিদপ্তর, স্থাপত্য ভবন, সেগুনবাগিচা, ঢাকা।
০৩। অতিরিক্ত প্রধান প্রকৌশলী, গণপূর্ত জোন, (সওস)/(পওবিপ্র)/(স্বাস্থ্য উইং)/(ই/এম পিএন্ডডি)/গণ পূর্ত অধিদপ্তর, পূর্ত ভবন, সেগুনবাগিচা, ঢাকা।
০৪। অতিরিক্ত প্রধান প্রকৌশলী, গণপূর্ত জোন, ঢাকা/ ঢাকা মেট্রোপলিটন/(ই/এম)/চট্টগ্রাম/রাজশাহী /খুলনা/বরিশাল/গোপালগঞ্জ/সিলেট/রংপুর/ময়মনসিংহ।
০৫। তত্ত্বাবধায়ক প্রকৌশলী, (সংস্থাপন, গণপূর্ত অধিদপ্তর, ঢাকা)/(সমন্বয়, গণপূর্ত অধিদপ্তর, ঢাকা)/(উন্নয়ন, গণপূর্ত অধিদপ্তর, ঢাকা)/(পিপিসি, গণপূর্ত অধিদপ্তর, ঢাকা)/(পেকু, গণপূর্ত অধিদপ্তর, ঢাকা)/(রক্ষণাবেক্ষণ, ঢাকা)/(অডিট এ্যান্ড মনিটরিং , ঢাকা)/(ই/এম পিএন্ডডি)/(এমআইএস, ঢাকা)/(ই/এম ডিজাইন, ঢাকা)
০৬। তত্ত্বাবধায়ক প্রকৌশলী, গণপূর্ত সার্কেল, ----------
০৭। নির্বাহী প্রকৌশলী, গণপূর্ত ই/এম প্ল্যানিং বিভাগ-১/২/৩, গণপূর্ত ই/এম পিএন্ডডি বিভাগ-১/২/৩, গণপূর্ত ই/এম ডিজাইন বিভাগ-১/২/৩, গণপূর্ত এম আই এস বিভাগ-১/২/৩, পূর্ত ভবন, ঢাকা।
০৮। নির্বাহী প্রকৌশলী, গণপূর্ত বিভাগ----------
০৯। নির্বাহী প্রকৌশলী, গণপূর্ত ডিজাইন বিভাগ-২, ঢাকা ও সদস্য সচিব, SoRকমিটি। ইহা তার দপ্তর স্মারক নং ডিডি-২/SoR-28(A)/২০২০/৬৩১(৪১) তাং- ১৯/০৭/২০২০ এর বরাতে।
১০। প্রধান প্রকৌশলী মহোদয়ের ষ্টাফ অফিসার (নির্বাহী প্রকৌশলী), গণপূর্ত অধিদপ্তর, ঢাকা।
১১। প্রধান বৃক্ষপালনবিদ,আরবরিকালচার, গণপূর্ত বিভাগ, ঢাকা।
১২। নোটিশ বোর্ড/ গার্ড ফাইল।

২২/৭

তত্ত্বাবধায়ক প্রকৌশলী
গণপূর্ত ই/এম প্ল্যানিং সার্কেল
পূর্ত ভবন, ঢাকা।
ও
সদস্য সচিব
SOR প্রণয়ন কমিটি (ই/এম)
গণপূর্ত অধিদপ্তর, ঢাকা।

22.7.2020

PWD SCHEDULE OF RATES 2018 FOR ELECTRO-MECHANICAL WORKS (TENTH EDITION)

(Edited : 22.07.2020)

SUB-HEAD : 08 (EDITED)

(lift and related works)

Effective from 22 July 2020

SUB-HEAD : 08

LIFT AND RELATED WORKS

Item. no.	Description of item	Unit	Unit rate

8.1 Supply of following lift complete with car, control panel, traction machine(permanent magnet synchronous motor type), gearless, oil free, steel suspension ropes, safety devices, guide rails, push buttons, with other necessary accessories etc. complete including counter weight as required, suitable for installation & use in tropicalised country like Bangladesh (considering ambient temperature from 0^0C to 46^0C and relative humidity from 40% to 98%) & as per detailed specifications and standards as mentioned below herewith :

8.1.1 Brand & country of origin (Type A) :

Fujitec (Japan), **Hitachi** (Japan), **Kone** (Finland), **Mitsubishi** (Japan), **Otis** (USA / Japan / France), **Schindler** (Switzerland / EU Countries), **Thyssenkrupp** (Germany) or equivalent product; provided the lift manufacturing company shall be a multinational one and shall have lift manufacturing capability for speed 10 m / sec (minimum), also shall have lift manufacturing experience in their own factory for a period of not less than 60 years and the proposed brand of lift shall be manufactured and tested in **FINLAND / FRANCE / GERMANY / JAPAN / SWITZERLAND / UK / USA**, complying all other detailed specifications stated in the item.

8.1.1.(i) **Passenger Lift**

8.1.1(i) Passenger Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Passenger Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	4,471,863.00	172,263.00
		2	4,784,893.00	184,321.00
		2.5 - 3.0	4,919,049.00	189,489.00
		4	5,008,487.00	192,934.00
(b)	750-800kg	1.0 - 1.5	5,430,327.00	172,263.00
		2	5,810,450.00	184,321.00
		2.5 - 3.0	5,973,359.00	189,489.00
		4	6,081,967.00	192,934.00
(c)	900-1000kg	1.0 - 1.5	6,709,245.00	172,263.00
		2	7,178,891.00	184,321.00
		2.5 - 3.0	7,380,169.00	189,489.00
		4	7,514,354.00	192,934.00
(d)	1150-1250kg	1.0 -1.5	7,667,708.00	175,944.00
		2	8,204,447.00	188,002.00
		2.5 - 3.0	8,434,479.00	193,170.00
		4	8,587,832.00	196,615.00
(e)	1350-1400kg	1.0 - 1.5	8,388,368.00	175,944.00
		2	8,975,554.00	188,002.00
		2.5 - 3.0	9,227,205.00	193,170.00
		4	9,394,972.00	196,615.00
(f)	1500-1600kg	1.0 - 1.5	8,626,172.00	175,944.00
		2	9,230,004.00	188,002.00
		2.5 - 3.0	9,488,789.00	193,170.00
		4	9,661,312.00	196,615.00
(g)	2000-2100kg	1.0 - 1.5	9,584,635.00	175,944.00
		2	10,255,559.00	188,002.00
		2.5 - 3.0	10,543,098.00	193,170.00
		4	10,734,791.00	196,615.00

8.1.1.(ii) **Passenger Cum Bed / Stretcher Lift**

8.1.1(ii) Passenger cum Bed Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Passenger cum Bed Lift	
			Upto 3-stop Price	Next per stop
(a)	900-1000kg	1.0 - 1.5	6,709,245.00	172,263.00
		2	7,178,891.00	184,321.00
		2.5 - 3.0	7,380,169.00	189,489.00
		4	7,514,354.00	192,934.00
(b)	1150-1250kg	1.0 - 1.5	7,667,708.00	175,944.00
		2	8,204,447.00	188,002.00
		2.5 - 3.0	8,434,479.00	193,170.00
		4	8,587,832.00	196,615.00
(c)	1350-1400kg	1.0 - 1.5	8,388,368.00	175,944.00
		2	8,975,554.00	188,002.00
		2.5 - 3.0	9,227,205.00	193,170.00
		4	9,394,972.00	196,615.00
(d)	1500-1600kg	1.0 - 1.5	8,626,172.00	175,944.00
		2	9,230,004.00	188,002.00
		2.5 - 3.0	9,488,789.00	193,170.00
		4	9,661,312.00	196,615.00
(e)	2000-2100kg	1.0 - 1.5	9,584,635.00	175,944.00
		2	10,255,559.00	188,002.00
		2.5 - 3.0	10,543,098.00	193,170.00
		4	10,734,791.00	196,615.00

8.1.1.(iii) Panorama / Capsule Lift

The panorama/capsule lift shall have the following features -

(i)Lift car shall have tempered and fire proof glass in three sides (including cabin & landing door).

(ii)The car shape may be customized as per direction of the Engineer.

8.1.1(iii) Panorama/Capsule Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Panoroma/Capsule Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	4,695,455.00	177,808.00
		2	5,024,138.00	190,469.00
		2.5 - 3.0	5,165,001.00	195,895.00
		4	5,258,910.00	199,513.00
(b)	750-800kg	1.0 - 1.5	5,701,843.00	177,808.00
		2	6,100,972.00	190,469.00
		2.5 - 3.0	6,272,027.00	195,895.00
		4	6,386,065.00	199,513.00
(c)	900-1000kg	1.0 - 1.5	7,044,707.00	177,808.00
		2	7,537,836.00	190,469.00
		2.5 - 3.0	7,749,177.00	195,895.00
		4	7,890,072.00	199,513.00
(d)	1150-1250kg	1.0 - 1.5	8,051,093.00	180,876.00
		2	8,614,669.00	193,537.00
		2.5 - 3.0	8,856,203.00	198,963.00
		4	9,017,224.00	202,580.00
(e)	1350-1400kg	1.0 - 1.5	8,807,786.00	180,876.00
		2	9,424,331.00	193,537.00
		2.5 - 3.0	9,688,565.00	198,963.00
		4	9,864,720.00	202,580.00
(f)	1500-1600kg	1.0 - 1.5	9,057,481.00	180,876.00
		2	9,691,505.00	193,537.00
		2.5 - 3.0	9,963,229.00	198,963.00
		4	10,144,379.00	202,580.00
(g)	2000-2100kg	1.0 - 1.5	10,063,867.00	180,876.00
		2	10,768,338.00	193,537.00
		2.5 - 3.0	11,070,253.00	198,963.00
		4	11,271,531.00	202,580.00

8.1.1.(iv) Fire Cum Passenger Lift

The fire lift shall have the follwing features -

Updated standards of EN-81-2,NFPA and Bangladesh fire rules shall strictly be followed.
(i) All Cabin walls,cabin door,landing door and related parts shall be fire rated.(2 hours)

(ii) There shall be separate fire switch covered by tempered glass in each floor
(iii)There shall be a heat sensor in the car door. The lift car shall not open in the floor while a fire incident happens.

8.1.1(iv) Fire cum Passenger Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Fire cum Passenger Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	4,919,049.00	189,489.00
		2	5,263,382.00	202,754.00
		2.5 - 3.0	5,410,953.00	208,439.00
		4	5,509,335.00	212,229.00
(b)	750-800kg	1.0 -1.5	5,973,359.00	189,489.00
		2	6,391,494.00	202,754.00
		2.5 - 3.0	6,570,695.00	208,439.00
		4	6,690,162.00	212,229.00
(c)	900-1000kg	1.0 - 1.5	7,380,169.00	189,489.00
		2	7,896,782.00	202,754.00
		2.5 - 3.0	8,118,187.00	208,439.00
		4	8,265,790.00	212,229.00
(d)	1150-1250kg	1.0 - 1.5	8,434,479.00	192,557.00
		2	9,024,893.00	205,821.00
		2.5 - 3.0	9,277,927.00	211,507.00
		4	9,446,617.00	215,296.00
(e)	1350-1400kg	1.0 - 1.5	9,227,205.00	192,557.00
		2	9,873,108.00	205,821.00
		2.5 - 3.0	10,149,924.00	211,507.00
		4	10,334,469.00	215,296.00
(f)	1500-1600kg	1.0 - 1.5	9,488,789.00	192,557.00
		2	10,153,005.00	205,821.00
		2.5 - 3.0	10,437,669.00	211,507.00
		4	10,627,444.00	215,296.00
(g)	2000-2100kg	1.0 - 1.5	10,543,097.00	192,557.00
		2	11,281,114.00	205,821.00
		2.5 - 3.0	11,597,408.00	211,507.00
		4	11,808,269.00	215,296.00

8.1.2 Brand & country of origin (Type B):

MOVI (Italy), LM (Germany), **McPuarsa** (Spain), **Orona S.coop** (Spain) or equivalent product manufactured and tested in **JAPAN / EU countries / UK / USA**; provided the lift manufacturing company shall have lift manufacturing capability for speed 4 m / sec (minimum) and shall have lift manufacturing experience in their own factory for a period of not less than 20 years, complying all other detailed specifications stated in the item.

8.1.2.(i) **Passenger Lift**

8.1.2(i) Passenger Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk) Passenger Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	3199565.00	127602.00
		2	3423534.00	136534.00
		2.5 - 3.0	3519522.00	140362.00
		4	3583513.00	142914.00
(b)	750-800kg	1.0 - 1.5	3885335.00	127602.00
		2	4157308.00	136534.00
		2.5 - 3.0	4273868.00	140362.00
		4	4351575.00	142914.00
(c)	900-1000kg	1.0 - 1.5	4800386.00	127602.00
		2	5136413.00	136534.00
		2.5 - 3.0	5280424.00	140362.00
		4	5376432.00	142914.00
(d)	1150-1250kg	1.0 -1.5	5292526.00	129387.00
		2	5663002.00	138015.00
		2.5 - 3.0	5821778.00	141712.00
		4	5927628.00	144177.00
(e)	1350-1400kg	1.0 - 1.5	5789951.00	129387.00
		2	6195247.00	138015.00
		2.5 - 3.0	6368946.00	141712.00
		4	6484745.00	144177.00
(f)	1500-1600kg	1.0 - 1.5	5954092.00	129387.00
		2	6370878.00	138015.00
		2.5 - 3.0	6549501.00	141712.00
		4	6668582.00	144177.00
(g)	2000-2100kg	1.0 - 1.5	6615657.00	129387.00
		2	7078753.00	138015.00
		2.5 - 3.0	7277223.00	141712.00
		4	7409536.00	144177.00

8.1.2.(ii) Passenger Cum Bed / Stretcher Lift

8.1.2(ii) Passenger cum Bed Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Passenger cum Bed Lift	
			Upto 3-stop Price	Next per stop
(a)	900-1000kg	1.0 - 1.5	4800386.00	127602.00
		2	5136413.00	136534.00
		2.5 - 3.0	5280424.00	140362.00
		4	5376432.00	142914.00
(b)	1150-1250kg	1.0 - 1.5	5292526.00	129387.00
		2	5663002.00	138015.00
		2.5 - 3.0	5821778.00	141712.00
		4	5927628.00	144177.00
(c)	1350-1400kg	1.0 - 1.5	5789951.00	129387.00
		2	6195247.00	138015.00
		2.5 - 3.0	6368946.00	141712.00
		4	6484745.00	144177.00
(d)	1500-1600kg	1.0 - 1.5	5954092.00	129387.00
		2	6370878.00	138015.00
		2.5 - 3.0	6549501.00	141712.00
		4	6668582.00	144177.00
(e)	2000-2100kg	1.0 - 1.5	6615657.00	129387.00
		2	7078753.00	138015.00
		2.5 - 3.0	7277223.00	141712.00
		4	7409536.00	144177.00

8.1.2 (iii) Panorama / Capsule Lift

The panorama/capsule lift shall have the following features -

(i)Lift car shall have tempered and fire proof glass in three sides (including cabin & landing door).

(ii)The car shape may be customized as per direction of the Engineer.

8.1.2(iii) Panorama/Capsule Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Panorama/Capsule Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	3359543.00	133982.00
		2	3594711.00	143361.00
		2.5 - 3.0	3695498.00	147380.00
		4	3762688.00	150060.00
(b)	750-800kg	1.0 - 1.5	4079602.00	133982.00
		2	4365174.00	143361.00
		2.5 - 3.0	4487562.00	147380.00
		4	4569154.00	150060.00
(c)	900-1000kg	1.0 - 1.5	5040405.00	133982.00
		2	5393233.00	143361.00
		2.5 - 3.0	5544446.00	147380.00
		4	5645253.00	150060.00
(d)	1150-1250kg	1.0 - 1.5	5557152.00	135550.00
		2	5946153.00	144608.00
		2.5 - 3.0	6112867.00	148491.00
		4	6224011.00	151080.00
(e)	1350-1400kg	1.0 - 1.5	6079448.00	135550.00
		2	6505009.00	144608.00
		2.5 - 3.0	6687393.00	148491.00
		4	6808982.00	151080.00
(f)	1500-1600kg	1.0 - 1.5	6251796.00	135550.00
		2	6689422.00	144608.00
		2.5 - 3.0	6876976.00	148491.00
		4	7002012.00	151080.00
(g)	2000-2100kg	1.0 - 1.5	6946440.00	135550.00
		2	7432691.00	144608.00
		2.5 - 3.0	7641084.00	148491.00
		4	7780013.00	151080.00

8.1.2.(iv) Fire Cum Passenger Lift

The fire lift shall have the follwing features -

Updated standards of EN-81-2,NFPA and Bangladesh fire rules shall strictly be followed.

(i) All Cabin walls,cabin door,landing door and related parts shall be fire rated.(2 hours).

(ii) There shall be separate fire switch covered by tempered glass in each floor.

(iii)There shall be a heat sensor in the car door. The lift car shall not open in the floor while a fire incident happens.

8.1.2(iv) Fire cum Passenger Lift

Capacity (Kg)		Speed (m/sec)	Unit Price (Tk) Fire cum Passenger Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	3519522.00	140362.00
		2	3765949.00	150188.00
		2.5 - 3.0	3871474.00	154398.00
		4	3941863.00	157206.00
(b)	750-800kg	1.0 - 1.5	4273868.00	140362.00
		2	4573039.00	150188.00
		2.5 - 3.0	4287048.00	154398.00
		4	4786733.00	157206.00
(c)	900-1000kg	1.0 - 1.5	5280424.00	140362.00
		2	5650054.00	150188.00
		2.5 - 3.0	5808466.00	154398.00
		4	5914075.00	157206.00
(d)	1150-1250kg	1.0 - 1.5	5821778.00	142940.00
		2	6229303.00	152431.00
		2.5 - 3.0	6403956.00	156498.00
		4	6520392.00	159209.00
(e)	1350-1400kg	1.0 - 1.5	6368946.00	142940.00
		2	6814772.00	152431.00
		2.5 - 3.0	7005841.00	156498.00
		4	7133220.00	159209.00
(f)	1500-1600kg	1.0 - 1.5	6549501.00	142940.00
		2	7007966.00	152431.00
		2.5 - 3.0	7204452.00	156498.00
		4	7335441.00	159209.00
(g)	2000-2100kg	1.0 -1.5	7277222.00	142940.00
		2	7786628.00	152431.00
		2.5 - 3.0	8004944.00	156498.00
		4	8150489.00	159209.00

8.1.3 **Brand & country of origin (Type C)**:

The lift manufacturing company shall have lift manufacturing experience in their own factory for a period of not less than 15 years and shall have capability of manufacturing lift for speed 4 m / sec (minimum); where the lift shall be manufactured and tested in **CHINA / MALAYSIA / SOUTH KOREA / THAILAND**, complying all other detailed specifications stated in the item.

8.1.3.(i) **Passenger Lift**

8.1.3(i)Passenger Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Passenger Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	1826077.00	64444.00
		2	1953902.00	68957.00
		2.5 - 3.0	2008684.00	70889.00
		4	2045205.00	72178.00
(b)	750-800kg	1.0 - 1.5	2217380.00	64444.00
		2	2372596.00	68957.00
		2.5 - 3.0	2439118.00	70889.00
		4	2483465.00	72178.00
(c)	900-1000kg	1.0 - 1.5	2484952.00	64444.00
		2	2658899.00	68957.00
		2.5 - 3.0	2733447.00	70889.00
		4	2783146.00	72178.00
(d)	1150-1250kg	1.0 -1.5	2743166.00	68235.00
		2	2935187.00	73011.00
		2.5 - 3.0	3017483.00	75058.00
		4	3072345.00	76423.00
(e)	1350-1400kg	1.0 -1.5	3001629.00	68235.00
		2	3211742.00	73011.00
		2.5 - 3.0	3301790.00	75058.00
		4	3361823.00	76423.00
(f)	1500-1600kg	1.0 - 1.5	3086042.00	68235.00
		2	3302065.00	73011.00
		2.5 - 3.0	3394646.00	75058.00
		4	3456367.00	76423.00
(g)	2000-2100kg	1.0 - 1.5	3428935.00	68235.00
		2	3668960.00	73011.00
		2.5 - 3.0	3771828.00	75058.00
		4	3840407.00	76423.00

8.1.3.(ii) Passenger Cum Bed / Stretcher Lift

8.1.3(ii) Passenger cum Bed Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Passenger cum Bed Lift	
			Upto 3stop Price	Next per stop
(a)	900-1000kg	1.0 - 1.5	2484952.00	64444.00
		2	2658899.00	68957.00
		2.5 - 3.0	2733447.00	70889.00
		4	2783146.00	72178.00
(b)	1150-1250kg	1.0 - 1.5	2743166.00	68235.00
		2	2935187.00	73011.00
		2.5 - 3.0	3017483.00	75058.00
		4	3072345.00	76423.00
(c)	1350-1400kg	1.0 - 1.5	3001629.00	68235.00
		2	3211742.00	73011.00
		2.5 - 3.0	3301790.00	75058.00
		4	3361823.00	76423.00
(d)	1500-1600kg	1.0 - 1.5	3086042.00	68235.00
		2	3302065.00	73011.00
		2.5 - 3.0	3394646.00	75058.00
		4	3456367.00	76423.00
(e)	2000-2100kg	1.0 - 1.5	3428935.00	68235.00
		2	3668960.00	73011.00
		2.5 - 3.0	3771828.00	75058.00
		4	3840407.00	76423.00

8.1.3.(iii) Panorama / Capsule Lift

The panorama/capsule lift shall have the following features -
(i)Lift car shall have tempered and fire proof glass in three sides (including cabin & landing door).
(ii)The car shape may be customized as per direction of the Engineer.

8.1.3(iii) Panorama/Capsule Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Passenger/Capsule Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	1917380.00	67667.00
		2	2051596.00	72404.00
		2.5 - 3.0	2109118.00	74434.00
		4	2147466.00	75787.00
(b)	750-800kg	1.0 - 1.5	2328249.00	67667.00
		2	2491226.00	72404.00
		2.5 - 3.0	2561073.00	74434.00
		4	2607638.00	75787.00
(c)	900-1000kg	1.0 - 1.5	2609200.00	67667.00
		2	2791843.00	72404.00
		2.5 - 3.0	2870120.00	74434.00
		4	2922303.00	75787.00
(d)	1150-1250kg	1.0 - 1.5	2880324.00	71647.00
		2	3081947.00	76663.00
		2.5 - 3.0	3225963.00	78812.00
		4	3151710.00	80245.00
(e)	1350-1400kg	1.0 - 1.5	3372329.00	71647.00
		2	3466881.00	76663.00
		2.5 - 3.0	3529915.00	78812.00
		4	3240344.00	80245.00
(f)	1500-1600kg	1.0 - 1.5	3467168.00	71647.00
		2	3564375.00	76663.00
		2.5 - 3.0	3564378.00	78812.00
		4	3629185.00	80245.00
(g)	2000-2100kg	1.0 - 1.5	3600381.00	71647.00
		2	3852408.00	76663.00
		2.5 - 3.0	3960420.00	78812.00
		4	4032427.00	80245.00

8.1.3.(iv) Fire Cum Passenger Lift

The fire lift shall have the follwing features -

Updated standards of EN-81-2,NFPA and Bangladesh fire rules shall strictly be followed.
(i) All Cabin walls,cabin door,landing door and related parts shall be fire rated.(2 hours).

(ii) There shall be separate fire switch covered by tempered glass in each floor.

(iii)There shall be a heat sensor in the car door. The lift car shall not open in the floor while a fire incident happens.

8.1.3(iv) Fire Cum Passenger Lift				
Capacity (Kg)		Speed (m/sec)	Unit Price (Tk)	
			Fire cum Passenger Lift	
			Upto 3-stop Price	Next per stop
(a)	610-630 kg	1.0 - 1.5	2008684.00	70889.00
		2	2149292.00	75852.00
		2.5 - 3.0	2209553.00	77978.00
		4	2249726.00	79396.00
(b)	750-800kg	1.0 - 1.5	2439117.00	70889.00
		2	2609855.00	75852.00
		2.5 - 3.0	2683029.00	77978.00
		4	2731811.00	79396.00
(c)	900-1000kg	1.0 - 1.5	2733447.00	70889.00
		2	2924788.00	75852.00
		2.5 - 3.0	3006792.00	77978.00
		4	3061460.00	79396.00
(d)	1150-1250kg	1.0 - 1.5	3017483.00	75058.00
		2	3228706.00	80312.00
		2.5 - 3.0	3319230.00	82564.00
		4	3379580.00	84065.00
(e)	1350-1400kg	1.0 - 1.5	3301792.00	75058.00
		2	3532917.00	80312.00
		2.5 - 3.0	3631970.00	82564.00
		4	3698006.00	84065.00
(f)	1500-1600kg	1.0 - 1.5	3394646.00	75058.00
		2	3632272.00	80312.00
		2.5 - 3.0	3734111.00	82564.00
		4	3802004.00	84065.00
(g)	2000-2100kg	1.0 - 1.5	3771828.00	75058.00
		2	4035856.00	80312.00
		2.5 - 3.0	4149011.00	82564.00
		4	4224447.00	84065.00

Detailed Specification of Lift :

I. **Type** :Gearless, oil free, permanent magnet motor driven type passenger/ bed .

II. Capacity : ---------- kg. (---------- Passenger) (To be inserted)

III. No of stops : ---------- Stops. (To be inserted)

IV. Travelling speed :.....m / sec (To be selected as per BNBC Table given below :

Speed of lift according to building type				
Type of Bldg.	Speed (m / sec)			
	From 2-6 Floor	From 7-12 Floor	From 13-20 Floor	From 21-25 Floor
Office	0.75 - 2.0	2.0 – 2.5	2.5 – 3.0	3.0 – 3.5
Apartment	1	1.0-1.5	2	2.5
Hospital	1.0 – 2.0	2.0 – 2.5	3.5	4

V. Car Travel height : ---------- Meters (approximate) (To be inserted)

VI. Floor Designation : (G, 1, 2, 3.....)

VII. Power rating : Compatible with the capacity of the lift as mentioned above with 180/240 starts per hour minimum.

VIII. Number of entrances : 1 / 2 nos. arranged in the same line

IX. (a) Shaft size : .....mm(Width) x .....mm(Depth), the Dimensions to be inserted as per requirement mention in the standard chart given below or as per built -in shaft size.

Passenger Lift			Passenger Cum Bed Lift		
Capacity (kg)	Shaft Size(WxD)(mm)	Door Size(mm)(centre opening)	Capacity (kg)	Shaft Size(WxD)(mm)	Door Size(mm)(center opening)
500	1700x1800	750			
630	1800x2000	800			
800	2000x2100	900			
1000	2200x2300	1000	1000	2200X2800	1000
1250	2400x2700	1100	1250	2400X3000	1100
1400	2400x2700	1100	1400	2400X3000	1100
1600	2600x2800	1200	1600	2600X3000	1200
2100	2800x3100	1300	2100	2800X3100	1300

(b) Overhead Height : 5000 mm

XI. Machine Room Location : Directly above hoist way ; MR (Machine room) / MRL (Machine Room Less) type

XII. Power Source : 400 Volt. (+10%), 3-Phase, 50Hz.

XIII. Light mains : 230 Volt. (+10%), single-phase 50Hz.

XIV. Signal Source : 24 volt. D.C or as designed.

XV. Operation System : Simplex / Duplex / Triplex / Quarduplex / DDS (Destination Despatch System)

XVI. **Control System** : Collective selective with fully programmable microprocessor control, designed for optimum, efficient & energy saving elevator operation. All controls shall always be equipped with an alarm device in machine room, control room and other suitable places as per direction of the Engineer-in-charge. Variation in speed of the lift between no load & full load conditions shall not be more than +/- 10%. The control system shall be capable of correcting any tendency to over speed or under speed, shall have safety devices to stop the car if it's running speed exceeds it's rated speed by 20%. The car stopping & leveling system shall be unaffected by external influence like variation in load, temperature and rope elongation etc. The drive control system with Thyristor/ IGBTs (Integrated Gate Bipolar Transistors) controls acceleration & deceleration getting feedback from encoder and shows information & data in LCD/LED display. The controller must be manufactured as per drawing & design by the proposed Brand of Lift manufacturing company.
Test certificate of the control system shall be furnished during execution of work.

XVII. **Additional controls & accessories** :
* Over load control with indication lamp & buzzer/indication & buzzer.
* Full load control with indication.
* Attendant control.
* Fire man's control switch at ground floor.
* 3 station, (2-way) inter-communication system between the car, machine room & other suitable place.
* Door close / open button in the car.
* Sensor switch in the car for light & fan.
*Line flow Fan fitted on drop ceiling for sufficient air flow.

XVIII. **Maintenance control** : Car stop station with :
* An initiation switch.

XIX. **Traction Machine** : The Traction machine must be manufactured as per drawing & design of the lift manufacturing company.
Type : Gearless, oil free, permanent magnet motor.
Class of insulation : F

XX. **Drive system** : Inverter operated A.C. Variable Voltage, Variable frequency (AC-VVVF)

XXI. **Smooth leveling** : The lift shall be provided with automatic self leveling feature to ensure automatic aligning the car with the floor landing within maximum tolerance of (+/-) 5mm under normal loading & unloading conditions. Self-leveling will be entirely automatic & independent of the operating device & shall correct the over travel, under travel & rope stretch.

XXII. CAR : Car size .....mm (width) x.....mm (depth), the dimensions to be inserted from the standard chart given below or as per customised condition of the built-in shaft. Car height shall be **2250 mm** (minimum)

Cabin Size			
Passenger Lift		Passenger Cum Bed Lift	
Capacity (Kg)	Cabin Size (WxD) (mm)	Capacity (Kg)	Cabin Size (WxD) (mm)
500	1000x1300		
630	1100x1400		
800	1350x1450		
1000	1500x1600	1000	1200X2100
1250	1500x2000	1250	1300X2300
1400	1600x2000	1400	1400X2300
1600	1700x2100	1600	1600X2300
2100	1800x2400	2100	1800X2400

(a) Cabin floor : Securedly fastened sheet steel sound isolated platform made of fire resistant and weather resistant sound absorbing synthetic materials.

(b) Car frame & safety : Car body Passenger type made of entirely structural sheet steel (304 grade) assembly to safely support the rated load of the cabin & accessories with elastic isolators between metal parts to ensure low vibration & low noise during car travel with natural ventilation arrangement in ceiling & floor.

For Passenger & Goods Lift / Stretcher / bed Lift :

(c) Car type : Entirely Stainless steel 304 grade made.

(d) Car body and roof :The car body shall be of sufficient mechanical strength to resist accidental impact. The roof shall be capable of supporting two persons or minimum load of 150 kg. The platform shall be made of sheet steel. The enclosure height shall be 2300mm minimum below suspended ceiling.

(e) Cabin wall :Shall be 1.5 mm thick sheet steel with 0.7mm (minimum) stainless steel sheet walls with stainless steel etching hairline / mirror / hairline / digital print / synthetic wood /l aminated wood finish in sections having in front, rear & side walls as per manufacturer's standard design to be approved by the Engineer-in-Charge.

(f) Cabin door : Fully automatic heavy duty centre/side opening horizontal sliding door panel of stainless steel etching hairline/hairline/digital print finish to be approved by the Engineer-in-Charge.

(g) Car ceiling :Anodized metal framed with decorative stainless steel luminous ceiling by LED spot light. Synthetic glass with diffused motion sensor LED lighting / any other options selected by the Engineer in charge & concealed fan(s) fitted on ceiling for adequate forced ventilation (Suitable for tropicalised Country like Bangladesh) to create comfortable environment for the passenger.

(h) **Hall & car button** : Metallic structures call button LCD / LED panel with indication system on each landing, digital car position indicators, arrival gong & direction indicators/arrows to be installed above or at the side of the landing doors at all landing & inside the car. Car Operating panel board to be installed inside the car. Manual call cancellation system should be incorporated inside lift car OPB. The center line of the hall call buttons shall be at a nominal height of 01 meter above the floor.

(i) **Other cabin features** :* 3 (Three) hand rails of smooth stainless steel of minimum 100 mm. width &
12 mm thickness or 30 mm dia round shape.

* Ceiling mounted emergency light in the cabin, which will illuminate for a period of minimum 30 minutes of power failure and charged by trickle charger battery during power failure.
* Mirror on full rear wall of car from top to hand rail.
* Inter-com and alarm button system among car, machine room and lobby/suitable place
* Audible overload protective device.
* Emergency stops and call button provided on car operating panel board.
* Full height Photocell shall be provided for the full height of the door which re-opens the door when it is obstructed by human body or any object while closing.
* Re-tractable both safety shoes for the full height of the door which reopens the door when it is obstructed by any object while closing.
* Sufficient Air Ventilation by motor driven fan built in ceiling panel.
* Emergency exit with safety contact in car roof, the trap door can be opened from inside and outside the car.
* Non contact electronic door safety sensor with full height photocell.
* A door reversal feature in case of obstruction of door

XXIII. **Architrave & transom** :

XXIV. **Door** : Door Height : 2100 mm

Doorsills :Doorsills shall be extruded aluminum with anti-slip grooving with guiding slots. For cargo & stretcher lift : Doorsills shall be extruded galvanized.

Door operation :

Door opening :

Door Size			
passenger lift		passenger cum bed lift	
Capacity (kg)	Door size (mm) Centre Opening	Capacity (kg)	Door size (mm) Centre Opening
450/500	750		
600/630	800		
750/800	900		
1000	1000	1000	1000
1250	1100	1250	1100
1350/1400	1100	1350/1400	1100
1600	1200	1600	1200
2100	1300	2100	1300

XXV: **Safety features** :Non contact electronic full height door safety sensor, power supply, **auto phase reversal correction**, friction clutch to avoid passengers to be trapped between doors.

* Emergency unlocking of door from landing for evacuation as well as for maintenance with a special key.
* Facilities for opening of door from inside the car within the landingduring power failure
* During power failure, Manual opening of doors from inside the car is possible within landing zone.
* A friction clutch to avoid passengers to be trapped between door.
* A door reversible feature in case of obstruction of door.

Guide rails :Guide rails shall be continuous throughout the entire length right from the bottom of the pit floor to the top most floor served, plus additional length as may be required for smooth operation or equivalent fixing devices shall be provided which are of such design & spacing that rails shall not deflect more than 4mm under normal condition. The relevant fixing devices such as brackets, clamps etc shall be of such design & spacing that rails shall not deflect more than 4mm under normal working condition. The dimension of the guide rails (both main and counter weight guide rails) shall be as per latest version of EN-81 standards.

Suspension Rope :Main rope shall be of bright steel wires minimum 8mm dia or as per manufacturer's design with fiber/ham core having a safety factor at least 14/STMs (Suspension Traction media.

* The rope suspension is to be constructed to shut the lift down if one or more suspension ropes become slack.
* The over Speed Governor rope shall be of bright steel wires minimum 6mm dia or as per manufacturer's design having a safety factor at least 8.

Speed governor & safety gear :Gradual type safety gear actuated by the speed governor to be installed in the machine room above the hoist way/inside the head room in order to stop the car quickly & safely in case of exceeding 20% of designed speed during down/up both wards travel for any reasons (i.e. breakage of all suspension elements).

-Suitable means will be supplied to cut off power from the motor and apply brake on application of the safety

Counter weight condition :Car and counter weight guide rails shall be made as per International Standard and shall have working surface machined & smooth.

i. **Buffer** :Energy absorbing oil buffer for speed more than 1m/sec, oil/spring buffer for speed less than 1m/sec shall be mounted in pit beneath the car & counter weight with suitable concrete foundation.

ii. **Pre & final limit switch** :To disconnect the controller from electric power supply if the car over travels higher at the top or lower at the bottom terminal landing.

Traveling cable, wiring :Traveling cables having conductors adequate in size & number.

- All electrical cables shall be fire retardant and shall go through PVC conduits in machine room & shaft. The circuit, wiring cable of the motor shall not run through any pipe used in connection with the wiring for the control and safety devices.

XXVI. **Painting** : All exposed ferrous metal parts of machine, car, doors and other materials in the hoistway including guide rail fixation brackets (except guide rails) will have one coat of factory rust protecting paint.

XXVII. **Compensation equipment** : For reducing the motor output and improving stopping accuracy and running characteristics the weight of the suspension ropes shall be compensating to account for individual conditions. The required compensating chains or ropes shall be attached to the car and the counter weight.

XXVIII. **Operation and Maintenance** : 4 (Four) sets of detail operation & maintenance manuals , catalogues, spare parts catalogues with part number, control wiring diagrams and soft copy etc. shall be included to the supply of lift & the language shall be in English.

XXVIV. **Standard / conformity** : The entire lift shall be designed & manufactured as per latest version of EN-81 standards. The safety components, such as, progressive safety gear, door locking devices, buffers, over speed governor, car over travel protection system, door inter-locking device, pre and final limit switches of the proposed lift shall be in conformity with latest version BS EN-81/EN-81(Lift Directive 95/16/EC) / DIN / VDE / ANSI/ASME A17.1 / JIS standards & safety codes. Installation, testing and Commissioning of the lift shall also be in conformity with the above standards & codes. Certificates issued by internationally recognized authorities like TUV / DNV for the product(s) (At least the safety components such as, progressive safety gear, door locking devices, buffers, over speed governor, car over travel protection system, door inter-locking device, pre and final limit switches) of the manufacturer(s) as per above mentioned relevant valid regulations, codes and standards shall have to be submitted by the bidder.

The above certificates shall have to be authenticated by the Chamber of Commerce / Ministry of Commerce / Foreign Ministry of the manufacturing Country. Relevant ISO certificate(s) of the manufacturer shall also have to be submitted by the bidder.

TERMS AND CONDITIONS OF LIFT & ESCALATOR

1 The bidder shall submit the technical proposal with sealed & signed by manufacturing company and main catalogue (marked) including mentioning brand, model & country of origin of the proposed lift.

2 The bidder shall submit a certificate by manufacturing company stating that minimum 1000 Nos. of the proposed brand of lift have been used in minimum 10 (ten) countries of the world including the manufacturing country for equal to or more than ten years. The certificate must be authenticated by Chamber of Commerce/ Ministry of Commerce/ Ministry of Foreign Affairs of the lift manufacturing company.

3 The bidder shall submit a certificate stating that minimum 20 Nos. of lift of proposed brand and proposed country of origin have been used successfully in Bangladesh. A certificate in prescribed form must be attested by the concerned Executive Engineer of PWD which stated that minimum 15 of those 20 lifts have installed and have been running successfully in Bangladesh.

4 If a Sole agent of any renowned lift manufacturing company which may be able to manufacture lift of 4m/sec or above, has been marketing minimum 1000 lifts on an average per annum can participate in a bid by proposing that renowned brand lift. (in this case condition 3 is not applicable)

5 Under the above condition(condition no-4), the sole agent / representative of that renowned brand lift must submit the entire declaration by the manufacturing company. That declaration shall be authenticated by Chamber of Commerce/ Ministry of Commerce/ Ministry of Foreign Affairs of the lift manufacturing company and shall be enclosed with the contract.

6 Each bidder must be the sole agent / representative / distributor of the proposed lift of the contract and he/she must submit its all supporting documents.

7 The bidder shall have one year's experience of maintenance of minimum 20 nos of lift and a detailed list of that experience shall be certified in a prescribed form and attested by the concerned Executive Engineer of PWD .

8 The bidder shall have BC class contractor license provided by the electric licensing board. After completion of the work, the bidder and the manufacturing company shall give the certification about installation, testing and commissioning of the lift.

9 The bidder shall give the assurance from the manufacturing company to supply of spare parts for minimum 20 years and this assurance must be authenticated by the Chamber of Commerce/ Ministry of Commerce/ Ministry of foreign affairs of the concerned manufacturing company.

10 The main parts of the proposed lift such as traction machine, controller, cabin, door and door drive system must follow the actual drawing, design of the lift manufacturing country and the logo/name of the manufacturing country must be embedded with the body of the proposed lift. A certificate must be submitted stating that the other parts of the proposed lift are made of/made by/supplied by the lift manufacturing company. Without importing from the lift manufacturing company use of any other parts/components is not permissible .

11 The block diagram of the complete lift system including all control system with ACVVVF, power components must be submitted with the contract.

12 The successful bidder must submit the detail packing list with sealed and signed by the lift manufacturing company to the concerned Executive Engineer minimum 15 days before shipment of the lift equipment. That packing list must comply the items described in the work order and the manufacturing company must certify that all parts/items are supplied in the packing list.

13 Before shipment the performance test of safety devices of lift/escalator and Quality assurance tests of the products as per standards shall have to be carried out by the manufacturer in presence of nominated engineers of PWD at the factory premises. One engineer will be nominated for one/ two lifts in a single tender to accomplish this inspection and testing. For more than two lifts in a single tender, the number of nominated engineers will be increased by one per two lifts.But total number of nominated engineers/officers must not exceed three irrespective of the number of lifts to be inspected in a single tender. All cost related to engineers' travel, food, accommodation, etc. will be borne by awarded organization/Manufacturer. The expenditure for this will be incorporated by the bidder at the time of participation. For special reasons if inspection is not performed by the engineers of the PWD, taking prior approval of the procuring entity quality assurance tests will be carried out by Internationally accepted inspection agencies(home and abroad)

14 Lift equipment shall be listed packet wise in detail while importing the lift under the work order. The name of the project and LC no. shall be marked clearly in the packets. Equipment of one contract cannot be packetized together with other equipment/ other contracts.

15 After released from the port, the imported equipment shall be reached to the site according to the condition of the contract

16 The bidder shall submit the detail address of the factory, telephone no., website address, e-mail address and company profile of the lift manufacturing company.

17 The bidder shall certify that all given certificates/ documents/ drawings are complete and correct. If any error is found, the contract will be cancelled and the bidder will be disqualified from future participation of any contract.

Lift Installation

8.2 Installation, testing and commissioning of the above lift including supplying of necessary fixing materials, shaft lighting with wirings, additional works on base foundation (if necessary) for machineries and painting of all parts and initial lubrication shall be carried out as per BSEN-81 /EN-81(Lift Directive 95/16/EC)/DIN/ VDE/ ANSI /ASME A17.1/ JIS .The supplier / Installer shall carry out 16 hours per day trial run operation for 30 (thirty) days before handing over the lift to the competent authority.

All electrical and civil works mending good the damages in connection with installation of the lift shall be carried out in accordance with the provision of the Bangladesh National Building code, latest Bangladesh Electricity Rules, Regulations & PWD specification. All non-current carrying metallic enclosure of electrical materials/equipment viz. electric motor frames, control panel, other metallic cases, door, call and control button, car switch, limit switch, junction boxes & similar electric fittings shall be properly connected to the earthing system. All the works in this regard shall conform to general standards, codes and specifications of PWD. The bidder shall ensure all the safety measure as per international safety codes for the workers, supervisors and others during the installation period.

8.2 (a) For 320 kg. - 500 kg. capacity

8.2 (a).(i)	Upto 3-stop	Each	Tk.	76,725.00
8.2 (a).(ii)	Next per stop	Each	Tk.	19,004.00

8.2 (b) For 630 kg. - 1000 kg. capacity

8.2 (b) (i)	Upto 3-stop	Each	Tk.	94,715.00
8.2 (b) (ii)	Next per stop	Each	Tk.	19,004.00

8.2 (c)	**For 1250 kg. - 1500/1600 kg. capacity**			
8.2 (c).(i)	Upto 3-stop	Each	Tk.	110,826.00
8.2 (c).(ii)	Next per stop	Each	Tk.	19,004.00
8.2 (d)	**For 1800 kg. - 2100 kg. capacity**			
8.2 (d).(i)	Upto 3-stop	Each	Tk.	125,717.00
8.2 (d).(ii)	Next per stop	Each	Tk.	19,004.00

8.3 ARD

Providing & fixing Automatic rescue device set(ARD) of lift set of following specification
travel height : 3.5 m to 7.0 m
Drive system : min 3 times/h and starting time after min 20 sec & max 180 sec that can
Diection : up or down which side is heavier
Battery: Maintenance free Sealed Gelled / AGM battery or equivalent as per direction of the Engineeirng-in-Charge

(i) Capacity : 630 kg to 800 kg lift	P/Job	Tk.	223,026.00
(ii) Capacity : 1000 kg and above	P/Job	Tk.	294,520.00

AVR

8.4 Supply, installation, testing & commissioning of following 415V, 3-phase, 50Hz electronically controlled, automatic voltage stabilizer/regulator locally assembled in metallic painted cabinet suitable for input voltage range 300 - 460V, output stepless continuous voltage 400V ± 3%, correction speed 20V/sec. (minimum) complete with phase failure and spike & surge-fluctuation voltage protection, auto shut off at high & low voltage with auto reset system, overload & instantaneous short circuit protection by MCCB & relay, transient suppression circuit, ON-OFF-TRIP indicators, voltmeter & ammeter, bypass circuit etc.
Assembled by AEG/ MICRO/ NAVANA/ RAHIMAFROOZ or equivalent accepted/approved by the Engineer.

8.4.1	10 KVA AVR	Each	Tk.	84,850.00
8.4.2	15 KVA AVR	Each	Tk.	93,103.00
8.4.3	20 KVA AVR	Each	Tk.	108,508.00
8.4.4	30KVA AVR	Each	Tk.	126,421.00
8.4.5	40KVA AVR	Each	Tk.	177,893.00
8.4.6	50KVA AVR	Each	Tk.	230,466.00
8.4.7	60KVA AVR	Each	Tk.	238,047.00
8.4.8	75KVA AVR	Each	Tk.	308,592.00
8.4.9	100KVA AVR	Each	Tk.	458,279.00
8.4.10	150KVA AVR	Each	Tk.	550,887.00
8.4.11	200KVA AVR	Each	Tk.	668,615.00

LIFT ACCESSORIES

Counter weight

8.5	Supply and fixing of counter weight of cast iron as required (local made)	Per kg.	Tk.	67.00

Joist

8.6	Providing fitting & fixing of Joist or support beam between two lift shafts with ncy. materials in/c. fabrication, fittings, fixing, reveting, welding, hoisting by rivets, bolts etc. & painting the same complete. (I-section size 250 mm x 125mm & Shall be 10 mm thick M.S plate) as per sample accepted/approved by the Engineer.	Per meter	Tk.	4,739.00

Architraves

8.7	Providing fitting & fixing of wide jam architraves in front of lift door made by smooth stainless steel mirror polished/mirror finished sheet Shall be 1.5 mm thick in/c. fabrication, riveting, the same complete as per sample accepted/approved by the Engineer.	P/sqm.	Tk.	38,212.00

8.8 Main Rope

Providing & fixing Main Rope shall be of bright steel wires with Ham/ fiber cores having a safety factor at least 14 as required as per sample accepted/approved by the Engineer.

8.8.(i)	Size :6/8 mm dia	P/mtr	Tk.	212.00
8.8(ii)	Size : 10 mm dia	P/mtr	Tk.	290.00
8.8(iii)	Size : 12 mm dia	P/mtr	Tk.	375.00

LIFT REPAIRING

Trailing Cable

8.9	Labour charge for disconnecting the old/ damaged trailing cables from panel board/ control box/ switching unit/ control unit/door control/ signaling unit/ power supply unit etc. in all floors, machine room and car top including wrapping re-connecting pre-supplied trailing cables with all the controls/ devices in all the floors, machine room and car top with cheking, testing, adjusting and leveling all the controls and devices etc for smooth operation of the lift.			
8.9.1	Upto 3 stop lift	Each	Tk.	15,364.00
8.9.2	Add Tk.2800.00 per lift per stop (after 3 stops)			

Monthly servicing & maintenance of lift

8.10	Monthly servicing and maintenance of lift such as cleaning, checking, trouble shooting, adjusting, balancing, greasing, oiling fixing of spares etc. as required for trouble free operation of lift.			
8.10 (a)	Upto 3-stop: Per Lift	Per Month	Tk.	4,431.00
8.10 (b)	Next per stop (up to 11 stop) : Per Lift	Per Month	Tk.	402.00
8.10 (c)	12-stop and above: Per Lift	Per Month	Tk.	9,654.00

Monthly operation of lift

8.11	Operation of lift as per lift operation manual and direction of the E/Ch by engaging required number of lift operators.	Per Person / Month	Tk.	15,959.00

FOR TENDERING

TERMS AND CONDITIONS

1 The bidder shall submit the technical proposal with sealed & signed by manufacturing company and main catalogue (marked) including mentioning brand, model & country of origin of the proposed lift.

2 The bidders shall submit a certificate issued by manufacturing company stating the time span of lift manufacturing experience of the manufacturer. The certificate must be authenticated by chamber of commerce / Ministry of Commerce / Ministry of Foreign Affairs of lift manufacturing company.

3 The proposed lift manufacturing company shall have their own testing tower and R&D(Research and development) wing/centre.

4 Each bidder must be the sole agent/representative / Distributor of the proposed lift of the contract and he/she must submit its all supporting documents.

5 The bidder shall have one year's experience of maintenance of minimum 20 nos of lift and a detailed list of that experience shall be certified in a prescribed form and attested by the concerned Executive Engineer of PWD .

6 The bidder shall have B, C class contractor license provided by the electric licensing board. After completion of the work, the bidder and the manufacturing company shall give the certification about installation, testing and commissioning of the lift.

7 The bidder shall give the assurance from the manufacturing company to supply of spare parts for minimum 20 years and this assurance must be authenticated by the Chamber of Commerce/ Ministry of Commerce/ Ministry of foreign affairs of the concerned manufacturing company.

8 The bidder shall submit a certificate by manufacturing company stating that they manufacture PMS (Permanent Magnet System) type gearless motor , controller , inverter , motherboard , Door Inverter & all PCBs (Printed Circuit Boards) in their own factory . The certificate must be authenticated by Chamber of Commerce / Ministry of Commerce / Ministry of Foreign Affairs of the Lift Manufacturing Company.

9 The block diagram of the complete lift system including all control system with ACVVVF, power components must be submitted with the contract.

10 The successful bidder must submit the detail packing list with sealed and signed by the lift manufacturing company to the concerned Executive Engineer minimum 15 days before shipment of the lift equipments. That packing list must comply the items described in the work order and the manufacturing company must certify that all parts/items are supplied in the packing list.

11 Before shipment the performance test of safety devices of lift/escalator and Quality assurance tests of the products as per standards shall have to be carried out by the manufacturer in presence of nominated engineers of PWD at the factory premises. One engineer will be nominated for one lift. For two lifts in a single tender minimum one engineer will accomplish this inspection and testing. For more than two lifts in a single tender, the number of nominated engineers will be increased by one per two lifts. All cost related to engineers' travel, food, accommodation, etc. will be borne by awarded organization/Manufacturer. The expenditure for this will be incorporated by the bidder at the time of participation. For special reasons if inspection is not performed by the engineers of the PWD, taking prior approval of the procuring entity quality assurance tests will be carried out by Internationally accepted inspection agencies(home and abroad).

12 Lift equipment shall be listed packet wise in detail while importing the lift under the work order. The name of the project and LC no. shall be marked clearly in the packets. Equipment of one contract cannot be packetized together with other equipment/ other contracts.

13 After released from the port, the imported equipment shall be reached to the site according to the condition of the contract

14 The bidder shall submit the detail address of the factory, telephone no., website address, e-mail address and company profile of the lift manufacturing company.

15 The bidder shall certify that all given certificates/ documents/ drawings are complete and correct. If any error is found, the contract will be cancelled and the bidder will be disqualified from future participation of any contract.

ANNEXURE – 08

MEASUREMENT CHART

FOR PASSENGER LIFT

Passenger (No)	Capacity (Kg)	Shaft Size (W^D) (mm)	Car Size (W^D)(mm)	Door Size (mm) (Centre Opening)	Pit Depth (mm)	Overhead Height (mm)	Power (KW)	Slab Load (Tons)
6	450/500	1700x1800	1000x1300	750	1500	5000	4.04	8
8	600/630	1800x2000	1100x1400	800	1500	5000	5.5	10
10	750/800	2000x2100	1350x1450	900	1500	5000	8	12
13	1000	2200x2300	1500x1600	1000	1500	5000	11	16
17	1250	2400x2700	1500x2000	1100	1500	5000	15	20
19	1350/1400	2400x2700	1600x2000	1100	1600	5000	18	25
21	1600	2600x2800	1700x2100	1200	1600	5000	20	30
24	2100	2800x3100	1800x2400	1300	1600	5000	22/24	35

FOR PASSENGER CUM BED LIFT

Capacity (Kg)	Shaft Size (W^D) (mm)	Car Size (W^D)(mm)	Door Size(mm) (Centre Opening)	Pit Depth (mm)	Overhead Height (mm)	Machine Room Plan (mm)
1000	2200X2800	1200X2100	1000	1800	5000	2900x4200
1250	2400X3000	1300X2300	1100	1800	5000	3000x4200
1350/1400	2400X3000	1400X2300	1100	1800	5000	3200x4300
1600	2600X3000	1600X2300	1200	1800	5000	3300x4300
2100	2800X3100	1800X2400	1300	1800	5000	3500x4300

FOR CARGO LIFT

Load(Kg)	Shaft Size (W^D) (mm)	Car Size (W^D)(mm)	Pit Depth (mm)	Overhead Height (mm)	Machine Room Plan (mm)
2000	2800x2750	2000x2400	1400/1500	4500	4500
3000	3550x2950	2500x2600	1400/1501	4800	4300x4700
5000	4400x3750	3000x3400	1400/1600	5000	5500x5500

N.B :

I. The above chart is based on lift speed of 1 m/sec to 1.5 m/sec
II. The Dimension of PIT & overhead will increase with increase of the Elevator Speed.
III. Door opening can be increased in case of side opening

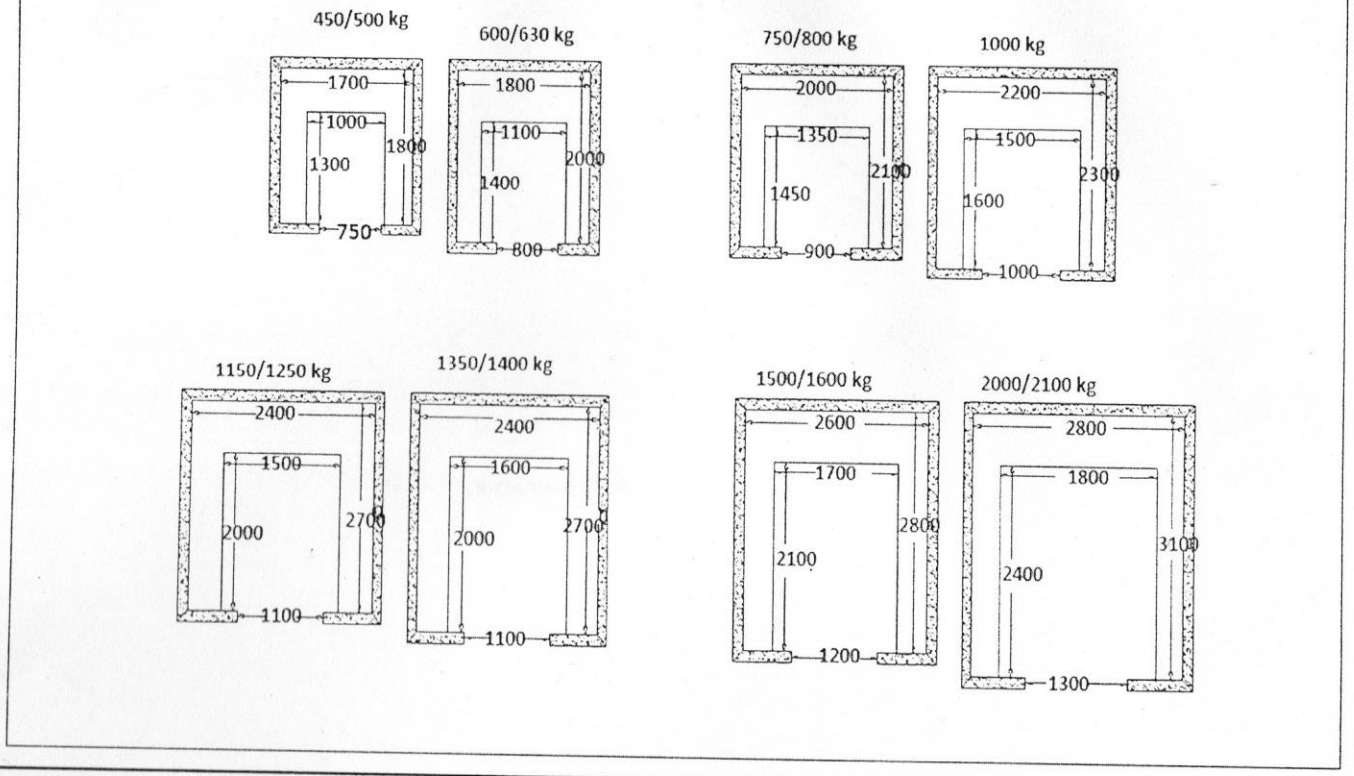
Maximum inside net platform areas for various rated loads

Rated load (kg)	Maximum available car area (m^2)	Maximum number of passengers	Rated load (kg)	Maximum available car area (m^2)	Maximum number of passengers
100	0.40	1	975	2.35	14
180	0.50	2	1000	2.40	14
225	0.70	3	1050	2.50	15
300	0.90	4	1125	2.65	16
375	1.10	5	1200	2.80	17
400	1.17	5	1250	2.90	18
450	1.30	6	1275	2.95	18
525	1.45	7	1350	3.10	19
600	1.60	8	1425	3.25	20
630	1.66	9	1500	3.40	22
675	1.75	10	1600	3.56	23
750	1.90	11	1800	3.88	26
800	2.00	11	2100	4.36	30
825	2.05	12	2500	5.00	36
900	2.20	13			

Minimum pit depths for traction Lifts - Overhead machines

	Depth (m)							
Speed (m / sec)	0.5	1.0	**1.5**	2.0	2.5	3.0	3.5	4.0
(i) With restrained rope compensation	-	-	-	1.6	2.6	2.8	3.0	3.2
(ii) With chain, free rope or travelling cable compensation	1.5	1.5	1.6	2.4	2.5	-	-	-
(iii) With reduced stroke buffer and either restrained rope chain travelling cable or free rope compensation	-	-	1.5	1.6	2.4	2.6	2.6	2.8

SHAFT SIZE OF PASSENGER LIFT



END OF SUB–HEAD-8