GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No.2015/AIMS&AR/ED/FAR/ED's Committee Date: 18.08.2016

FA&CAOs
All Zonal Railways.

Sub:- Codal life of Assets.

1. During the conduct of Pilot Study at North Western Railway, it was brought to the notice of Accounting Reforms Directorate of Indian Railways that codal life of the following assets is not available in the Indian Railways Finance Code Volume-I:

i. Buildings
ii. Roads/Streets
iii. Furniture and Fixtures

2. The matter was discussed in the ED's Committee on Assets and based on the advice of Research, Design & Standards Organization (RDSO), Lucknow it has been decided that the life of buildings may tentatively be taken as 70 years. Based on the Model National Municipal Asset Valuation Manual the life of concrete road may tentatively be taken as 15 years and for BT Roads at 5 and 15 years for wearing surface and sub grade respectively. Based on the Schedule II of the Companies Act 2013, the useful life of Furniture and Fixtures may tentatively be taken as 10 years.

3. The above may be adopted for the purpose of working out depreciation of each of the category of assets during the construction of Asset Register in your Railway. On a parallel note the matter has been referred to Advisor/ Accounts to settle the issue in consultation with the Committee that prescribes the Codal Life of Assets.

18/8/16.
(Abhilasha Jha Misra)
Director/Accounting Reforms

217 In applying the unit cost data for working out the cost of moving the additional anticipated traffic, it has to be considered whether it would be reasonable to adopt the 'incremental cost' approach or to take 'fully distributed costs' into account. Logically, it would be realistic to work on the basis of 'incremental costs' for any small increases in traffic and over the short run. In the long run, however, even the so-called fixed costs will vary, and the incremental or marginal costs may fail to cover such semi-variable expenses. On the other hand, it would be equally unreasonable to apply fully distributed costs in all cases while working out the financial implications of a line capacity work. A realistic (though somewhat conservative) approach would, therefore, be to adopt 'long term variable costs' (based on percentages given at the end of Annexure 'A' for each item of cost) which will ensure not only that projects are not thrown out because of the adoption of the 'fully distributed costs' but also that a project is considered as remunerative so long as it yields the requisite return after meeting the 'long term variable costs'.

218 **Provision for depreciation-** Depreciation provision in respect of an asset will be equal to the annual payment to a Sinking Fund which, together with the interest thereon at such rates as may be prescribed by the Railway Board, when compounded annually, will provide the amount required for the replacement of the asset at the end of the normal life. The duration of the Sinking Fund payment will be determined by the 'normal life' of the asset, and the amount of the annual Sinking Fund payment will be ascertained by referring to the table reproduced as Annexure 'B' to this Chapter, which shows the annual amount payable at different rates of interest ranging from 2% to 8% (over periods extending up to 100 years)

219 **Normal lives of assets –**For the purpose of the annual Sinking Fund payment referred to in para 218, the normal life of the various classes of railway assets should be taken as in the table below :-

***(i)* CIVIL ENGINEERING ASSETS**

S.No.	Class of Assets	Average life in years			
		ROUTES			
		A & B	C(Sub)	D	E
1. **RAIL & FASTENTING etc.**					
1.	*Rail & Fastenings*				
(a).	*Rails*	*20*	*15*	*30*	**30*
(b).	*Wooden Sleepers*	*10*	*10*	*10*	**10*
(c.1)	*Metal sleepers (Cast Iron & Steel)*	*20*	*20*	*20*	**20*
(c.2)	*Fittings steel trough*	*10*	*10*	*10*	**10*
(d).	*Concrete sleepers*	*35*	*35*	*40*	**40*
(e).	*Elastic Fastenings*				
(i)	*Elastic Rail clips*	*5-8*	*5-8*	*8-10*	**8-10*
(ii).	*Rubber Pads/ Liners*	*2-4*	*2-4*	*4*	**4-6*
(f).	*Switches*	*4*	*2 / 3*	*5*	**5*
(g).	*Crossings*	*5*	*4/5*	*8*	**8*
***2 (A).* MAJOR BRIDGES**					
(a).	*Bridges work- Steel work*	*60*			

(b).	*Bridge Masonry*	*100*
©.	*Structures Steel*	*60*
(d).	*Structure- masonry and cement concrete*	*65*
(e).	*RCC Bridge Works*	*60*
(f).	*Pre-stressed concrete-Bridge work*	*40*
***(B).* MINOR BRIDGES**		
(a).	*Bridges work-Steel work*	*60*
(b).	*Bridge Masonry*	*100*
©.	*Structures Steel*	*60*
(d).	*Structure- masonry and cement concrete*	*65*
(e).	*RCC Bridge Works*	*60*
(f).	*Pre-stressed concrete-Bridge work*	*40*
***3.* FOOT OVER BRIDGES**		
(a).	*Bridges work-Steel work*	*60*
(b).	*Bridge Masonry*	*100*
©.	*Structures Steel*	*60*
(d).	*Structure- masonry and cement concrete,*	*65*
(e).	*RCC Bridge Works*	*60*
(f).	*Pre-stressed concrete-Bridge work*	*40*
***4.*TRACK MACHINE (All Categories)**		*15*

* The service life as indicated in the table is general life/service life for track components. However renewal/replacement will be subject to various criteria laid down in IRPWM about its condition.

(ii) **COMPUTERS AND OTHER IT SYSTEMS**

S.No.	Class of assets	Average life in years
1	Active (viz. MIS systems including external storage systems and their connects) & Passive (viz. Network cabling) networking equipments	8 years
2	Small Multi-user systems and power supply equipments (viz. individual office LANs, UPS)	4 years
3	PCs	3 years
4	Secondary systems (Portable Computers/Laptops etc.)	4 years
5	Thin clients/Dumb terminals (for PRS/UTS etc.) (Authority: Board's letter no.2002/AC-II/2/10/Vol.II dated 2 2.08.2012)—acs no.73	5 years (Local administration may approve premature condemnation up to 2 years earlier than the end of average life)
6	Printers (All type) (Authority : Board's letter no. 2002/AC-ll/2/10/Vol.ll dated l5-03-2012)—ACS NO.71 for S.No. 1 to 6	3 years (Local administration may approve premature condemnation up to 1 year earlier than the end of average life)
7.	ATVM (Composite Unit) (Authority: Board's letter no.2002/AC-II/2/10/Vol.II dated 2 2.08.2012)—acs no.73	4 Years

(iii) **ELECTRICAL ASSETS**

S.No.	Class of assets	***Average life in years***
1.	*Electric Locomotives*	*35*
2.	*EMU/Metro Motor Coaches*	*25*
3.	*EMU/Metro Trailor Coaches*	*25*
4.	*Over Head Power Lines*	*40*
5.	*Over Head Traction Line excluding contact wire*	*60*
6.	*Electric under ground Cables*	*30*
7 (a)	*Electric contact wire (Alm.)*	*25*

S.No.	Class of assets	***Average life in years***
(b)	*Electric contact wire (Copper)*	*40*
8.	*Electric Power plant excluded oil engine driven*	*25*
9.	*Electric Plant above 25 HP*	*25*
10.	*Electric power plant oil engine driven (diesel)*	*15*
11.	*Overhead traction lines contact wire*	*40*
12.	*Electric Machinery others*	*30*
13.	*Electric Sub Station Building*	*50*
14.	*Water Cooler, Refrigeration, Air Conditioner, hospital and domestic appliance*	*5*
15.	*Internal wiring of building*	*10*
16.	*Switch Gear*	*25*
17.	*Instruments*	*25*
18.	*Electric Pumps*	*20*
19.	*Electric Lifts & Hoist*	*20*
20.	*Ceiling Fans*	*20*
21.	*Electric Battery charging set*	*15*
22.	*Flood Light Projection*	*10*
23.	*Battery lead Acid*	*4*
24.	*Coach wiring*	*12*
25.	*Carriage Fans*	*10*
26.	*Air conditioner Central unit –above 3 tons*	*10*

B) **Equipments required for replacement through DRF/ Sinking Fund.**

S.No	Class of assets	***Average life in years***
27	**AC EQUIPMENT**	
(i)	*25 KV Inverter*	*15*
(ii)	*AC Control Panel (As per F-I codal life is 12 yrs.)*	*15*
(iii)	*Inverter Panel*	*15*
28	**TL Power Equipment**	
(i)	*4.5/18/22.75/25 KW Alternator (As per F-I codal life of Dynamo is 20 years)*	*12*
(ii)	*800 A.H.L.A Battery*	*4*
(iii)	*1100 AH VRLA (SMF) Battery*	*4*
(iv)	*Diesel Engine for Powers Car*	*15*
(v)	*Alternator for Power Car*	*15*
29	**Electric Locomotive Equipments**	
(i)	*All Electric rotating machines up to 25 HP used on Electric Locomotives, EMU's Coaches and for stationary items*	*12*
(ii)	*All Electric rotating machines above 25 HP and upto 750 HP used on Electric Locomotives, EMU's Coaches and for stationary items*	*12*
(iii)	*Traction Motor*	*18*
(iv)	*Traction Converters*	*18*
(v)	*Auxiliary Converters*	*18*
(vi)	*Control Electronics*	*18*
(vii)	*Tap-Changer*	*35*

S.No	Class of assets	***Average life in years***
(viii)	*Rectifier Block*	*18*
(ix)	*Traction Gears*	*12*
(x)	*Motor Suspension*	*12*
(xi)	*Bogies with Wheel*	*18*
(xii)	*Armature for Traction Motors*	*15*
(xiii)	*Stator for Traction Motor*	*18*
(xiv)	*Commutator for Traction Motor*	*15*
(xv)	*Locomotive re-cabling*	*18*
30.	Microprocessor based control and fault diagnostic system	*12*
31.	*Speedometer cum recorder and monitoring system*	*10*
32.	*BA Panel*	*18*
33.	*VCB*	*18*
34.	*DBR (roof mounted)*	*9*
35.	*DBR (vertical mounted)*	*9*
36.	Pantograph	*12*
37.	**TRD Equipments**	
(i)	*Current/Potential/transformer*	*30*
(ii)	*Earthing system in sub-station etc.*	*15*
(iii)	*Lighting arrestor (Gapless type)*	*15*
(iv)	*Lighting arrestor (Convertor type)*	*15*
(v)	*Buster & Terminal connection*	*30*
(vi)	*Battery charger*	*15*
(vii)	*Relay (Electromechanical)*	*15*
(viii)	*Relay (Electronic)*	*15*
(ix)	*Instruments (Electrical)*	*30*
(x)	*Instruments (Electronic)*	*30*
(xi)	*Relay testing kit & other testing equipment*	*15*
(xii)	**OHE conductors & components - For Normal Zone**	
(a)	**OHE fixed structures**	
	(i) Mast / Structure / Guy Rod / foundation	80
(b)	**Other than fixed structures**	
	(i) Cantilever assembly and all types of insulators	40
	(ii) Isolators / ATD	30
(c)	**Wires**	
	(i) Catenary / feeder wire / return conductor	60
	(ii) Contact wire	*40
(xiii)	**OHE conductors & components - For Polluted Zone**	
	(i) Cantiliver assembly & all types of insulators	**On condition basis**
	(ii) ATD	**On condition basis**
(xiv)	**PSI equipments**	

S.No	Class of assets	*Average life in years*
Ray	**Substation's equipments**	
	(i) Power Transformer / Auxilliary Transformers	**40**
	(ii) All types of cables	**30**
	(iii) Fixed capacitor bank	**15**
(b)	**Control equipments**	
	(i) Circuit Breaker , panels , all switchgear and protective circuits	**25**
	(ii) SCADA system	**10**
(XV)	**Transmission line equipments & components**	
	(i) 110KV / 132 KV , ACSR conductors / Earth wire / insulators / Tower fittings ***or on the basis of condemning dia** (Authority : Board's Letter no. 2002/ AC1I/1/10 (Vol.11) dated 2-5.02.09)-S.No. 37 (xii to xv)—acs no. 67	**60**
38	Tower Wagons(both 4 wheeler, 8 wheeler & all types (Authority: Board's letter no.2002/AC-II/2/10/Vol.II dated 2 2.08.2012)-acs no.73 Add S.No, 38	40

C). Equipments required for replacement through Revenue

S.No.	Class of assets	*Average life in years*
1	**Electric Loco Equipment**	
(i)	*Armature for Traction Motor*	*15*
(ii)	*Stator for Traction Motor*	*18*
(iii)	*Commutator for Traction Motor*	*15*
(iv)	*Auxiliary Motor*	*18*
(v)	*Arno Converter*	*18*
(vi)	*Blower Impeller/Casing*	*10*
(vii)	*Locomotive re-cabling*	*18*
(viii)	*Power Cables*	*18*
(ix)	*Control Cables*	*18*
(x)	*Compressor with exhausters complete recondition /replacement*	*10/15*
2	**AC Equipment**	
(i)	*Compressor ACCEL/ CARRIER*	*10*
(ii)	*Sealed Compressor KCL make*	*5*
(iii)	*Sealed Compressor Maneurope make*	*8*
(iv)	*Compressor Motor DC*	*10*

S.No.	Class of assets	***Average life in years***
(v)	*Compressor Motor AC*	*15*
(vi)	*Condenser Fan Motor (DC)*	*8*
(vii)	*Condenser Fan Motor (AC)*	*10*
(viii)	*Condenser Fan Motor (RMPU)*	*10*
(ix)	*Evaporater Fan Motor (AC)*	*10*
(x)	*Evaporater Fan Motor (DC)*	*10*
(xi)	*Evaporater Fan Motor (RMPU)*	*12*
(xii)	*Condenser Unit*	*8*
(xiii)	*Condenser Unit (RMPU)*	*10*
(xiv)	*Evaporater unit*	*10*
(xv)	*Evaporater unit (RMPU)*	*10*
(xvi)	*Mercury in glass thermostat*	*5*
3	**TL/Power Equipment**	
(i)	*4.5/18/22.75/25 KW alternator regulator*	*12*
(ii)	*Emergency 90 AH L!A. Battery*	*3*
(iii)	*120 AH VRLA (SMF) Batttery*	*4*
(iv)	*290 AH starting L.A. Batteries for Power Car*	*3*
(v)	*Power Car power panel*	*15*
(vi)	*Power panel (AC coaches)*	*15*
(vii)	*Pre Cooling cum battery charging transformer rectifier unit*	*12*
(viii)	*50 KVA 750/415 V transformer unit*	*15*
(ix)	*3 KVA 415/190 V transformer*	*15*
(x)	*Water Raising Apparatus (WRA)*	*5*
(xi)	*Water Boiler for Pantry*	*5*
(xii)	*Hot Case for Pantrv*	*5*
(xiii)	*Bottle Cooler cum deep freezer*	*5*
(xiv)	*Ventilation Blower Motor for Power Car*	*12*
(xv)	*Radiator for Power car*	*10*
(xvi)	*Radiator Motor for Power Car*	*15*

(IV) MECHANICAL ASSETS

S.No.	Class of assets	***Average life in years***
	Machinery & Plant	
1	*Machine Tools like Lathes, Planners, Drilling, Boring and Milling machines etc.*	*15*
2	*High Precision and special purpose machines like wheel Lathes etc.*	*15*
3	*Tool Room and Testing Laboratory equipment*	*15*
4	*Foundry and Forge Equipment*	*15*

S.No.	Class of assets	***Average life in years***
5	*Heat Treatment Equipment*	*15*
6	*Cranes-EOT*	*25*
7	*Power Generation Machinery & Switches*	*15*
8	*General purpose light machinery e.g. band saws, floor grinder etc.*	*10*
9	*Air Compressors*	*15*
10	*Other miscellaneous machines e.g. light cleaning machines, test equipment in diesel sheds, workshops, depots & sick lines*	*15*
11	*(i). Construction Machinery*	*15*
	(ii). Track Maintenance equipment	*20*
12	*Station machinery e.g. weighing machines etc.*	*15*
13	*Miscellaneous machinery and equipment for hospital, offices etc.*	*10*
14	*Mechanical Weigh Bridges*	*15*
15	*Electronic in motion Weigh Bridges*	*08*
16	*Diesel Pumps*	*10*
17	*Welding equipment including diesel welding sets*	*10*
18	*Diesel refrigeration equipment*	*15*
19	*Material handling equipment like FLT, Lister trucks etc.*	*10*
20	*Traversers*	*25*
21	*Fuel Station Dispensation Equipment*	*10*
22	*Bulldozers and other earth moving equipment*	*15*
23	*Motor Boats*	*10*
24	*Hydraulic re-railing equipment*	*15*
	ROAD VEHICLES	
25	*Staff Cars including Jeeps*	*07*
26	*Light Motor Vehicles*	*10*
27	*Heavy Motor Vehicles*	*10*
28	*Tractors*	*10*
	ROLLING STOCK	
29	*Diesel Electric/ Hydraulic Locomotives*	*36*
30	*Diesel Engine*	*18*
31	*Shunting Locomotives*	*36*
32	*Steam Locomotives*	*40*
33	*Boiler and Tender*	*20*
34	*Steam Cranes*	*30*
35	*Diesel Hydraulic Cranes*	*25*
36	*Steel Body Coaches including DMUs / EMUs, Restaurant Cars etc.*	*25*
37	*Full Stainless Steel Body Coaches including DMUs/EMUs, Restaurant Cars etc.*	*30*
38	*Light utilisation categories of coaches (steel body) like inspection carriages etc.*	*40*

S.No.	Class of assets	***Average life in years***
39	*IRS Coaches*	*30*
40	*Open Bogie wagons with air brakes and Casnub bogies*	*30*
41	*Bogie tank wagons with air brakes and Casnub bogies*	*40*
42	*All other types of Bogie wagons with air brakes and Casnub bogies*	*35*
43	*Open wagons with vacuum brakes and UIC bogies*	*25*
44	*Other wagons with vacuum brakes and UIC bogies*	*30*
45	*4- Wheeler wagons (open and covered)*	*30*
46	*4- Wheeler tank wagons (with plain bearings)*	*35*
47	*4-Wheeler tank wagons (with roller bearings)*	*35*
	Equipment/Sub assemblies of Diesel locos	
48	Engine Block	***18***
49	Crank Shaft	***18***
50	Turbo Super Charger	***12***
51	Governor	***18***
52	ECC assembly with RA Gear Box	***18***
53	Radiator Fan	***16***
54	Heat Exchangers including radiator	***10***
55	Expressor/Compressor	***16***
56	Bogies with wheels	***18***
57	Traction Motor	***18***
58	Traction Generator/Alternator	***18***

S.No.	Class of assets	***Average life in years***
59	All electrical rotating machines above 5 HP on Diesel locos	***18***
60	Rectifiers	***18***
61	Traction Gear	***18***
62	Loco Batteries	***4***
63	Power Cables	***18***
64	Control Cables	***18***
65	Blowers	***10***
66	Armature for Traction Motor	***18***
67	Stator for Traction Motor	***20***
68	Control Equipments	***18***
	Equipment/Sub assemblies of DMUs	
69	Power Pack	**16**
70	Bogies with wheels	**18**
71	Traction Motor	**18**
72	Traction Generator/Alternator	**18**
73	All electrical rotating machines above 5 HP on DMUs/Rail bus/Railcar	**18**
74	Rectifiers	**18**
75	Heat Exchangers	**10**
76	Batteries	**4**
77	Power Cables	**18**

S.No.	Class of assets	*Average life in years*
78	Control Cables	**18**
79	Control Equipments	**18**
80	Hydraulic Transmission Rehabilitation/Replacement	**16**
	(Authority: Board's letter no.2002/AC-II/l/10 dated 12.10.2007)S.No. 48 to 80-**acs no.65.**	

(V) SIGNAL & TELECOMMUNICATION ASSETS

(A) SIGNALLING SYSTEM

S.No.	Class of assets	*Routes*	*Average life in years*
1.	*Electrical/ Mechanical Signalling System*	• *Route-' A'* • *Route-'C'/Sub Urban section* • *Big Yards on all Routes*	*25 Yrs.*
		• *Routes- 'B'* • *Route 'D'* • *Route 'D'-special'*	*25 to 28 Yrs depending upon location & condition*
		• *Routes-'E'* • *Route 'E- Special'*	*30 Yrs*
2.	*Electronic Signalling system like SSI, Axle Counter, AWS, AFTC, IPS etc.*		*15 years or based on obsolescence.*

(B) SIGNALLING EQUIPMENT

S No	Class of assets	*Life in terms of operations*	*Average life in years*				
			Routes				
			A	*B*	*C/ Suburban*	*D & D-Spl*	*E & E-Spl*
1	*Cranks and Compensators*	*50,000*	*2*	*2*	*1*	*4*	*4*
2	*Lock Bar Clips*	*1,00,000*	*3*	*3*	*3*	*5*	*7*
3	*Facing Point Lock with bolt detection*	*3,00,000*	*8*	*8*	*8*	*15*	*15*
4	*Mechanical Detectors*	*5,00,000*	*-*	*15*	*—*	*20*	*25*

S No	Class of assets	Life in terms of operations	Average life in years				
			Routes				
			A	B	C/ Suburban	D & D-Spl	E & E-Spl
5	Circuit breakers	5,00,000	15	15	15	25	30
	Lever locks	-	7	7	7	12	15
6	EK Transmitter	-	10	10	10	15	15
7	SM's Slide Frame	-	30	30	30	30	30
8	Electric Point Detector & Reversors	-	15	15	15	20	20
9	Signal Machines	1,50,000	-	10	-	20	20
10	Signal Wire Transmission	-	3	3	3	3	3
11	Point Machine	3,00,000	12	12	7	15	15
12	Plug-in and Shelf type Relays	10,00,000	25	28	25	28	30
13	Track Feed battery chargers	-	10	10	10	10	10
14	Signal Transformers, Transformers	-	12	12	12	12	12
	Battery Chargers, DG Sets, Inverters,	-	10	10	10	10	10
15	Batteries	-	4	4	4	4	4
16	Block Instruments	-	25	25	25	25	25
17	Cable *(Authority : Board's letter no.2002/AC-II/1/10 dated 18.08.2006)-**AC NO.63***	-	**25**	**25 to 28**	**25**	**30**	**30**
18	Block Instrument Electro Mechanical	-	20	20	20	20	20
19.	LED Signals (all aspect types) of specification prior to version 2011	*(Authority : Board's letter no.2002/AC-II/1/10 dated 28.08.2015)-**AC NO.78***	**6**	**6**	6	6	6
20.	LED Signals (all aspect types) of specification version 2011 or later	*(Authority : Board's letter no.2002/AC-II/1/10 dated 28.08.2015)-**AC NO.78***	**8**	**8**	8	8	8

(C) TELECOMMUNICATION EQUIPMENT

S..No.	Class of assets	Average life in years
1	Microwave Equipment	12-15 Years
2	Exchange & accessories including	12-15 Years

S..No.	*Class of assets*	*Average life in years*
	Telephone equipment	
3	*Under Ground Cables*	*Quad}-20 Years* *PIJF}*
		OFC -20 Years
4	*Overhead alignment*	*25 Years*
5	*All other electronic/ wireless items including OFC equipment*	*12-15 Years*
6	*Cell Phones*	*5-8 Years*
7	*FAX*	*10 Years*
8	*Walkie-Talkie Sets/VHF*	*5-8 Years*
9	*Datacomm. Equipment, Routers, Modems, PCs etc.*	*5-8 Years*
10.	LED display Board for Passenger Information System, True Colour Video cum Train Information Display System (Authority: Board's letter no.2002/AC-II/2/10(Vol.II)…ACS no.76 dated 25.0.2014	*10 Years*
11.	GPS based Digital Clocks (Authority: Board's letter no.2002/AC-II/2/10(Vol.II)…ACS no.76 dated 25.0.2014	*10 Years*

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(Authority Railway Board letter No.2002/AC-II/1/10 dated 24 /05/06)-acs no. 62

220 Technique of financial appraisal of projects- The following methods of appraisal of capital expenditure proposals are commonly used in industrial and commercial undertakings: -

(a) Accounting rate of return,
(b) Pay back period, and
(c) Discounted Cash Flow.

Of these, methods, (a) & (b) are employed without considering the time value of money. These are also known as the 'Financial statement' methods since the calculation involves data taken from and used essentially in the same form as in financial statements. When time is considered, the method employed for financial appraisal is the Discounted Cash Flow method, also called the 'Present value method', since the time value of money is an explicit consideration.

221 Accounting rate of return method - Under this method, the rate of return is worked out by arriving at a percentage ratio of the net gain (i. e., earnings less working expenses) over the initial anticipated investment of the project. Simply illustrated, it is proposed to construct a masonry building at a cost of Rs.1 1akh to accommodate an office which is now housed in a building at a rental of Rs.15,000 per annum. It will be necessary to ascertain (a) the average annual cost of maintenance and repairs of the proposed building and (b) its scrap value at the end of its normal life. If these are taken to be (say) Rs. 5,000 and Rs. 10,000 respectively, then the average annual cost of the proposed new building will be (a) Rs.5,000 plus (b) Rs. 801 being the annual sinking fund payments (at 3 per cent for 50 years which is equal to 0.0089 multiplied by Rs.1 lakh minus Rs.10,000), or Rs.5,801 in all. This will result in a saving of Rs. 9,199 (Rs.15,000 minus Rs. 5,801) in the annual rental charges that are presently being paid, or a net return of 9.2 percent on the investment of Rs.1 lakh.