WORK STUDY REPORT
ON

REVIEW OF TRACKMAN STAFF

WORKING UNDER SSE-'P' WAY OF ENGG DEPTT

OVER

FIROZPUR DIVISION

2019-20

WORK STUDY TEAM

SH. LALIT KUMAR	AWSO	LEADER
SH. RAM PARSHAD	CWSI	MEMBER
SH. YOGESH BADHWAR	SWSI	MEMBER

GUIDANCE

BY

SH. ASHOK KUMAR AGARWAL
SWSO

DATE OF COMMENCEMENT: 05.04.2019
DATE OF COMPLETION : 09.05.2019

No. 16-CP/09/WS/2019-20

Central Planning Cell,
Northern Railway,
Headquarters Office,
Baroda House, New Delhi.

EXECUTIVE SUMMARY

This study was allotted to Central Planning Cell, HQ Office on the directives of SDGM/NR ON "Review of trackman staff under SSE/P.Way controlled by Sr. DEN-C/FZR over Firozpur Division" with a view to achieve economy and manpower productivity.

STAFF POSITION

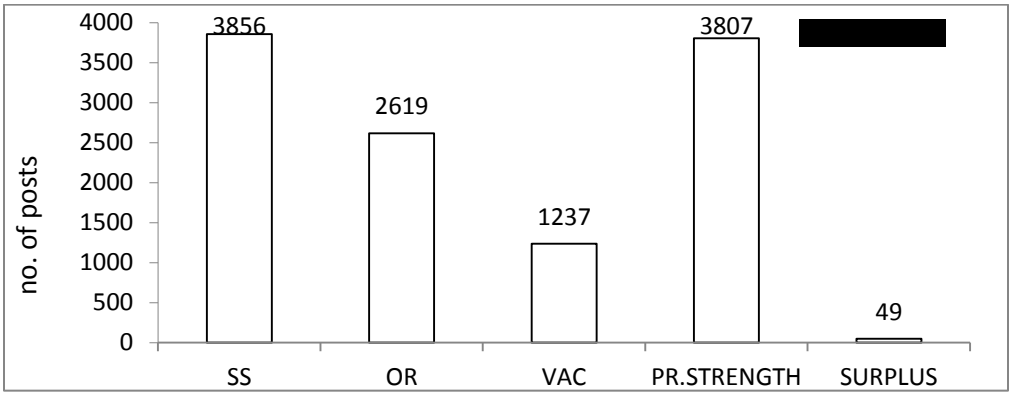
The sanctioned and on roll strength of trackman staff under SSE/P.Way controlled by Sr. DEN-C/FZR over Firozpur Division is as under:-

S.N.	Station	S/S	O/R	Var.
1.	Trackman	3856	2619	1237
Total		3856	2619	1237

No. of posts identified as surplus and recommended for surrender:
Gr. 'C' = NIL
Gr. 'D' = 49 posts
Total = 49 posts

FINANCIAL IMPLICATIONS

Anticipated recurring savings = [redacted]246.63 lakh per annum.
Capital saving = Nil
Total = [redacted]246.63 lakh per annum



I N D E X

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SYNOPSIS

Indian Railway is undergoing through transition phase of modernization of track structure and mechanization of track maintenance as far as track lying is concerned. High speed and dense passenger traffic on one hand and heavy excel load of goods traffic on the other hand, demand better initial laying of tracks, these modern tracks require less maintenance during service life and ensuring the durability and stability.

Permanent way plays a vital role in safe running & trains on railway track. A huge manpower is deployed to maintain the track within the prescribed tolerances so as to enable the trains to run at an optimum level of safety, security, reliability and punctuality.

It has become inevitable to run trains at high speeds, which has necessitated introducing modernized track structure and its improvised maintenance system. Even after the introduction of improvised track and track machines for maintenance, the trackmen are still being deployed on conventional pattern. Taking into consideration the activities based upon improvised track and mechanized maintenance by Track Machines, by the Central Planning Cell, HQ Office Baroda House, New Delhi has been assigned to undertaken the study of trackman over FZR Division.

The team collected the SSE/P.Way wise trackman staff position and activity wise workload being maintained by the trackman staff and workload maintained by Track Machines for the last two years, 2017-18 & 2018-19 over FZR Division. The team critically analyzed the workload of trackman and work done by the track machines to access the requirement of trackman staff.

The requirement of trackman staff comes to 3807 posts against the sanctioned strength of 3856 posts and 49 posts of trackman are identified as surplus and recommended for surrender.

The zealous acceptance and implementation of the recommendations contained therein the work study report will result in recurring saving to the tune of worth ■ 246.63 lakh per annum to the administration.

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SUMMARY OF RECOMMENDATIONS

S. N.	Recommendations	Refer para No.	Accepting/ implementing authority.
1	It is proposed that 49 posts of trackman Gr. Rs. 5200-20200-1800 identified as surplus under the control of Sr. DEN-C/ FZR over FZR Division and recommended for surrendered.	2.5.2	ADRM/FZR Sr.DEN/C/ FZR Sr.DPO/ FZR
2	It is proposed that steel sleepers on branch lines should be renewed with PRC sleepers. This will definitely increase the manpower productivity and economy of the railway.	2.5.3	-do-

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ACKNOWLEDGEMENT

The work study team is highly grateful to Shri Sukhvinder Singh, ADRM/ FZR, Sh. D K SIngh, Sr.DEN/C/ FZR and Sh. Jusuf Kabir, Sr. DPO/ FZR for their valuable guidance and other functionaries for extending full cooperation in providing requite data/information during the conduct of study.

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1.0.0 INTRODUCTION

1.1.0 The Permanent way is the backbone of any railway system. The safety and comfort of rail users depend upon the proper maintenance of track. The permanent way is maintained by Engineering Department by deploying huge manpower. Due to introduction of high speed trains like Shatabdi, Duranto & Rajdhani etc. mechanized maintenance technology is now being used to maintain the track structure to cope up with heavier and faster traffic needs. The modernized track machines have changed the working of trackman category and workload has been reduced to some extent. However, the trackmen are still being deployed based upon conventional pattern.

1.2.0 In view of above, SDGM/NR assigned to conduct "Review of trackman staff working under SSE/P way of Engg Deptt over FZR Division" with a view to effect optimum utilization of advance track maintenance technology thereby reducing wastage to improve productivity of organization.

1.3.0 TERMS OF REFERENCE:

The following terms of reference were adopted for conducting the study:-

1. Review of staff strength vis-à-vis existing workload.
2. Suggest ways and means to identify redundant/unproductive activities to eliminate wastages.
3. Suggest ways and means to improve the system economic in view of modernization and system development.

1.4.0 METHODOLOGY ADOPTED

The following method study and work measurement techniques of work study were applied for conducting the review:-

1. Data collection and its critical analysis to assess the factual position
2. Application of yardstick in vogue, if any
3. Held discussions at various levels.

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2.0.0 BRIEF DESCRIPTION, STAFF POSITION, WORKLOAD, CRITICAL ANALYSIS, PROPOSED STAFF AND RECOMMENDATIONS.

2.1.0 BRIEF DESCRIPTION

2.1.1 Firozpur Division is an important Division of Northern Railway. The layout of FZR division spread over the territory of Jammu & Kashmir, Punjab, Himachal Pradesh and Rajasthan.

2.1.2 Permanent Way or track is the real head upon which the trains run. Track is the backbone of any railway system, which is maintained effectively by P.Way engineers and trackman staff within the prescribed tolerances.

2.1.3 Modernization in railway system has become necessity of today so as to haul heavier and longer trains at faster speeds safely and conveniently to achieve better productivity and render better consumer service to rail users. Modernization of track involves use of heavier track structure (PRC sleeper), long welded rails, modern mechanized methods of track maintenance by track machines and quick renewals of track structure.

2.1.4 The Indian Railway track is mainly maintained by permanent way gangs (track man) of 10/20 men each having a beat of about 6 to 10 km. Depending upon various local/tropical/working conditions, the gangs normally carry out thorough packing of their beat every year and deep screening once in five years. Besides, trackman, mates, key-men, blacksmiths and welders are also utilized for track maintenance.

2.1.5. **Activities carried out by departmental Trackman staff.**

The activities performed by departmental staff are tabulated as under:-

	Activities	Norms
T	**Activities 'T' affected by Traffic Density**	
T.1	Slack attention to	
a.	Bad spots	12 sleepers/head, 1/4 length
b.	Low joints (F for welded) Glued joints	10 GJs attended 4 times/year
c.	SEJ (1 no. per km)	6 times/year, 8SL/SEJ, 12 SL/Head.
d.	Minor curve realignment	As required 10% of gang length.
T.2	For tie tamper work	
a.	Pretamping operations	(2 years cycle) 20 men/km
b.	Along with tamper	10 men for week/gang length of 10 km.
c.	Post tamping operations	28 men/km (includes boxing needed).
T.3	Casual renewal of	
a.	Rails	60 mandays/gang length of 10 km.
b.	Track sleepers	60 mandays/gang length of 10 km.
c.	Fasteners (along with re-gauging)	100 mandays/gang length of 10 km.
T-4	Repair Welding	12 men/failure/year
R	**ACTIVITIES 'R' UNAFFECTED BY TRAFFIC DENSITY**	
R.1	Lubrication of ERCs	Keyman duty (occasional)
R.2	Shallow screening (1/5 length)	6 SL/Head
R.3	Loading, leading, unloading	Inferred from field data analysis.
R.4	Overhauling of level crossing	1 LC per 1.5 km, 20 men/LC
R.5	Watching caution spots and misc.	Inferred from field data analysis.
R.6	Tree cutting for visibility	-do-
R.7	Lubrication of rails in curves	-do-
R.8	Accident relief & carcass removal in run over case.	-do-
R.9	Bridge sleeper attention and renewal.	-do-
R.1	Pre monsoon attention, such as cleaning of drains and water ways, cess repairs, deweeding of track and attention to cuttings and trolley refuges.	Referred from field data analysis.
R.1	Creep pulling (approaches of bridge turnout)	-do-
R.1	Rectifying damage to L/C posts	-do-

	and gates.	
M	**ACTIVITIES 'M'**	
M.1	Monsoon patrolling	Total no. of patrol man in 24 hrs. No. of days for which patrolling is required.
M.2	Hot weather patrolling	30xlength of LWR in km
M.3	Cold weather patrolling	12 x length of LWR
M.4	Vulnerable locations	Total no. of stationery watchman no. of days for which locations is watched.
M.5	Waterman duty	No. of beatx1 man/ beatx294
M.6	Site store chowkidar	No. of site store x shifts x 365
M.7	Rest Givers to gate keepers (No. of manned level x-ing.	Xingx2x365- S/S of gate keeper x 294
'S'	**ACTIVITIES SITE SPECIFIC**	
S1	Tunnel maintenance = length of tunnel in km x no. of line in tunnel) x1.2 x 294	
S2	Bridge structure maintenance = (length of bridge in km. x no. of line on bridge) 1.1 x 294	
S3	Long girder bridge maintenance = 6x4x4/56=0.64xtotal lineal water way.	
S4	Extra for very sharp curve= (Length of track in km x 1 x 294)	
S5	Extra for very bad formation =(Length of bad formation meter x 10 x 4 x 3/200)	
S6	Look out man duty= length of poor visibility/length of gang length x 294	
S7	Fog signal man duty 1st yr 2nd yr 3rd yr Avg.	
S8	Filth removal= 1 man /beat	
S9	Security patrolling 1st yr 2nd yr 3rd yr Avg.	

2.1.6 Activities which can be outsourced

During the conduct of study, the non safety activities which can be outsourced on contract were discussed at various levels. The work done on contractual basis is economical and better in quality when compared with departmental staff. Indian Railway has already outsourced certain non safety activities in some departments like cleaning of coaches, cleaning of drains, platform surface cleaning, washing line cleaning, picking up slag/rag/poly bag from railway lines, cleaning work in Medical Department, box porter work in mechanical/operational departments etc. Some activities in P.Way can be outsourced which will not only improve economy but also increase productivity and standard of work. The non safety activities which can be outsourced are listed below:-

1. Loading, leading and unloading of material.
2. Lorrying of material for other than casual renewal of rails and sleepers.
3. Monsoon patrolling under Railway suspension.
4. Cleaning of drains and waterways.
5. Painting of rails in station yards.
6. Deep screening of ballast.
7. Watching of material.
8. Painting of bridges.
9. Heavy repair to track including lifting.
10. Complete renewal of points and crossing under Rly suspension.
11. Heavy cess repair and attention to cuttings and trolley refuges.
12. De-stressing LWR when planned with track renewed.
13. Shallow screening.
14. Unloading ballast.
15. Muck removal from yard.
16. Rectifying damage of L/C posts and gates.

2.1.7 This study is limited to review the trackman staff working under SSE/SE (P. Way) controlled by Sr. DEN-C/FZR over Firozpur Division. The head quarters station of SSE/SE (P. Way) under their respective ADENs is given below:-

SN	ADEN	SEE/P. Way	
1	FZR-I		MQF
		Kapurthala	KKP
		Muktasar	MKS
2	FZR-II	Firozpur	FZR
		Fazilka	FKA
		Lohian Khas	LNK
		Nakodar	NRO
3	LDH	Ludhiana	LDH
		Nawashahar	NSS
4	JRC	Jalandhar Cantt	JRC
		Jalandhar City	JUC
5	ASR	Amritsar	ASR
		Beas	BEAS
		Patti	PAX
6	PTK	Dhariwal	DHW
		Pathankot/BG	PTK/BG
		Mukerian	MEX
7	JAT	Jammu Tawi	JAT
		Kathua	KTHU
8	UHP	Udhampur	UHP
9	BDGM	Badgaon	BDGM
10	PLMX	Palampur	PLMX
		Pathankot/NG	PTK/NG

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2.2.0 STAFF POSITION

During the course of study, the team collected the staff position from Divisional Headquarters office as well as from SSE/SE (P.Way) offices. The sanctioned strength provides by Divisional Office FZR and the on roll strength of the respective SSE/SE P.Way offices have been taken into consideration. The detailed staff position is depicted as annexure No.II in the report and the summarized position of the trackman staff is tabulated below:-

SN	ADEN	SEE/P. Way	Trackman		
			S/S	O/R	Vac
1	FZR-I	MQF	157	117	40
		KKP	141	109	32
		MKS	103	40	63
2	FZR-II	FZR	194	164	30
		FKA	178	86	92
		LNK	143	85	58
		NRO	116	32	84
3	LDH	LDH	250	207	43
		NSS	143	71	72
4	JRC	JRC	233	165	68
		JUC	153	108	45
5	ASR	ASR	211	168	43
		BEAS	239	163	76
		PAX	124	68	56
6	PTK	DHW	154	110	44
		PTK/BG	236	176	60
		MEX	208	146	62
7	JAT	JAT	165	114	51
		KTHU	163	108	55
8	UHP	UHP	187	146	41
9	BDGM	BDGM	148	128	20
10	PLMX	PLMX	99	42	57
		PTK/NG	111	66	45
Total			3856	2619	1237

The above table reveals that the on roll strength of trackman staff is 2619 against the sanctioned strength of 3856 posts and 1237 posts are lying vacant under Sr.DEN/C/FZR over FZR Division.

2.3.0 WORKLOAD

During the course of study, the team collected the workload in terms of track kilometer being maintained by track maintenance staff. The effective working days in one year are taken as 294 days.

The depot wise workload in terms of the kilometer is depicted as Annexure III in the report and the summarized position of the same is tabulated below:-

S.N	ADEN	SSE/P way	Track on other layout (in km)	Total track on PRC (in km)	Total Track in Km
1	ADEN FZR	FZR	99.430	176.030	275.460
2	ADEN-I/ FZR	NRO	4.200	98.060	102.260
		FKA	20.213	148.782	168.995
		LNK	38.934	122.302	161.236
3	ADEN/LDH	LDH	173.583	265.798	439.381
		NSS	18.873	120.363	139.236
4	ADEN/PTK	PTK	116.693	211.793	328.486
		MEX	38.270	158.370	196.640
		DHW	23.150	119.150	142.300
5	ADEN/ PLMX	PTK/NG	13.972	99.672	113.644
		PLMX	11.935	90.535	102.470
6	ADEN/JAT	JAT	74.630	142.217	216.847
		KATHU	18.384	98.884	117.268
7	JRC	JUC	55.223	120.992	176.215
		JRC	87.667	221.887	309.554
8	ASR	ASR	58.420	153.670	212.090
		PAX	14.575	90.227	104.802
		BEAS	27.380	176.980	204.360
9	ADEN-I	MKS	8.000	84.100	92.100
		KKP	7.940	76.600	84.540
		MQF	17.100	104.770	121.870
10	ADEN-UHP	UHP	73.644	121.224	194.868
		BDGM	53.433	196.368	249.801
Total			1055.649	3198.774	4254.423

2.3.1 Mechanized maintenance of track by Track Machines

Indian Railways runs around 11,000 trains every day of which 7000 are Passenger trains over 86526 TKM of Broad Gauge (BG) track. Increase in number of trains and saturated line capacity has posed a challenge to Indian Railways to maintain the track fit and safe within the limited maintenance blocks. Moreover, technology advancement of track structure has necessitated switching over from manual maintenance to mechanized maintenance. The track structure has become sturdier and less amenable for manual maintenance due to continuous developments in various track components namely rails, sleepers, fastenings, points and crossings etc.
Track machines of various types are being used for performing activities such as tamping of track (packing of ballast below sleepers) and cleaning of ballast, stabilizing of track, laying and handling of rails/sleepers/points and crossings etc. The following types of track machines are used on IR for mechanized maintenance of track.

i) Ballast Cleaning Machine(BCM)
The ballast in the track has an important role in providing the desired resilience and lateral resistance to track while at the same time ensuring good drainage. This is possible when the ballast is clean. The Ballast Cleaning Machine (BCM) is used for screening of ballast under the sleepers on plain track as well on turn-outs for restoring drainage and resilience of track. This process is done to improve the mobility, safety and passenger comfort.

ii) Ballast Regulating Machine (BRM)
Lateral and longitudinal stability of track can only be ensured by maintaining a predetermined ballast profile all the times. During various maintenance operations, ballasting and track renewals the ballast profile gets disturbed which needs to be restored quickly. On-Track Ballast Regulating Machine rectifies the disturbed features of the track.

iii) Dynamic Track Stabilizing Machine (DTS)
Conventional tamping machines are used for leveling, tamping and lining work of track. These maintenance operations result in reduction in lateral stability of track thus rendering track unsuitable for high speeds

immediately after maintenance. To restore the stability of track as early as possible on track stabilizing machine works behind tamping machines to achieve desired consolidation of track and to obviate the need to impose speed restrictions immediately after maintenance tamping as also for faster relaxation of speed restrictions after Track renewal/deep screening.

iv) Multipurpose Tampers (MPT)

With the mechanization of track maintenance activities on Indian railway, machines are required for spot tamping of concrete sleepers on plain track and turnouts and special locations like switch expansion joints, glued joints, L-Xing with check rails, ballasted track with Guard Rails on Bridges, Curve etc. without removing check/guard rails. This multipurpose machine transport engineering materials, equipments and workmen for day to day working.

v) Plasser Quick Relaying System(PQRS)

Plasser's Quick Relaying System (PQRS) a semi-mechanized system of track renewal. PQRS consists of self propelled cranes which move on an auxiliary track of 3400 mm gauge having the same centre line as that of track to be relayed. These portal cranes are capable of self loading and unloading from BFRs.

vi) UNIMAT

The machine has been widely used for tamping of newly laid turnouts on. Deployment of UNIMAT has tremendously helped in expeditious commissioning of NI working.

vii) Utility Vehicle (UTV)

After completion of track renewal works and other similar works, a lot of materials including sleepers and rails, etc. remain at the work area. To remove all surplus and leftover materials from site as early as possible a self propelled machine with a crane facility is used.

viii) Worksite Tamper (WST)

This machine helped in achieving excellent track geometry in most difficult working conditions.

2.3.2 During the conduct of study the work study team collected the progress of the track machines in terms of track kilometer maintained by track machines during the FY 2017-18 & 2018-19 over Firozpur Division which is annexed as annexure No IV in the report and the summarized position is depicted as under:

Type of Machine	No of Machine	Maintenance of track by track Machine in Km for FY	
		2017-18	2018-19
BCM	2	95.42	93.3
BRM	1	468.22	0
CSM	3	198.74	362.15
DTS	1	476	445.13
FRM	1	220.34	212.9
MPT	1	58.32	60.43
PQRS	2	37.32	35.7
RGM	1	20.69	41.25
UNIMAT	2	10.13	0
WST	5	711.47	1075.33
Total	19	2296.65	2326.19

The above table reveals that during the last two years maintenance of track by modernized track machines is on increasing trend. As compared to FY 2017-18 maintenance of track by track machines has increased by 1.28 % in FY 2018-19. It shows that the maintenance of track by using track machines is on increasing trend. Thus the workload of trackman has reduced respectively.

2.4.0 CRITICAL ANALYSIS

The modernization of track has resulted in introduction of modern infrastructure, equipments and devices etc. involving heavy costs in commissioning but on the other hand wastages of manpower specially manual labour viz utilization of trackman is still persisting. Due to introduction of high speed trains, the track maintenance is being used exclusively and intensively by track machines; it not only minimizes the working expenses but also improves safety standards.

Mechanized maintenance technology is now being used to maintain heavy and modernized track structure to cope up with heavier and faster traffic needs. By virtue of heavy/modernized track (**PRC sleepers**) structure and mechanized maintenance of track, introduction of **Track Machine** and change in working pattern i.e. outsourcing of non-core activities, the workload of trackman category has been reduced considerably.

2.5.0 REQUIREMENT OF TRACKMAN STAFF

The team collected the workload in terms of track kilometers from respective SSE/SE (P.Way) offices working under Sr. DEN-C/FZR over FZR Division. The work study team has considered the Track kilometers and track kilometers maintained by track machines while calculating the requirement of staff.

2.5.1 The work study team critically analysed the work load in terms of track kilometer maintained by the Track Machines and compared the workload of the FY 2017-18 and 2018-19. As compared to FY 2017-18, maintenance of track by track machines has increased by 1.28 % in FY 2018-19. It shows that workload of trackman has reduced in the same proportion. At present 3856 trackman are working under SSE/P way over FZR division and due to reduction of trackman workload by 1.28 % as shown in para 2.3.2 , thus 49 posts of trackman staff is rendered surplus.

2.5.2 ADEN WISE AND SSE/P.Way wise, the summarized position of existing S/S proposed staff and surplus/required position of trackman over FZR Division is given below:-

SN	ADEN	SEE/P. Way	Trackman		
			S/S	Proposed	Surplus
1	FZR-I	MQF	3856	3807	49
		KKP			
		MKS			
2	FZR-II	FZR			
		FKA			
		LNK			
		NRO			
3	LDH	LDH			
		NSS			
4	JRC	JRC			
		JUC			
5	ASR	ASR			
		BEAS			
		PAX			
6	PTK	DHW			
		PTK/BG			
		MEX			
7	JAT	JAT			
		KTHU			
8	UHP	UHP			
9	BDGM	BDGM			
10	PLMX	PLMX			
		PTK/NG			
Total			3856	3807	49

The above table reveals that the proposed requirement of trackman comes to 3807 against the sanctioned strength of 3856 posts thus 49 posts of trackman are identified as surplus and recommended for surrender.

RECOMMENDATION NO.1

It is proposed that 49 posts of trackman Gr. ■5200-20200-1800 identified as surplus under the administrative control of Sr.DEN/C/FZR over Firozpur Division and recommended for surrender.

2.5.3 GENERAL OBSERVATIONS

During the conduct of study, the team was apprised that there is shortage of track tie tempting and track maintenance machines in the division which should be procured immediately. On some branch line some of the track is still on steel sleeper which is not only uncomfortable to the rail users but also the journey is time consuming. The track on steel sleepers should be renewed with PRC sleeper so that punctuality and speed can be maintained in the section. On the other hand, the old pattern track, consumes more manpower to maintain the track which is a loss of revenue and manpower to the railway. The track on steel sleepers should be renewed with PRC sleeper.

RECOMMENDATION NO.2

It is proposed that the steel sleeper track on branch lines should be renewed with PRC sleeper track. This will definitely increase the manpower productivity and economy of the railway.

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3.0.0 FINANCIAL IMPLICATIONS

After the implementation of the work study recommendations following are the financial implications.

S. No	Category	Grade Rs.	Refer Recom. No.	No. of surplus posts	Monthly value per posts ■	Anticipated annual recurring saving ■
1	Trackman	5200-20200+ 1800	1	49	41,944/-	24663072/-
Total				49	41,944/-	24663072/-

No. of posts identified as surplus: -

Group 'C'= NIL posts
Group 'D'= 49 posts
Total = 49 posts

Anticipated recurring saving = ■ 246.63 lakh per annum.
Capital saving = Nil
Total saving = ■ 246.63 lakh per annum.

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4.0.0 PRODUCTIVITY

4.1.0 The total annual expenditure on the sanctioned strength of P.Way staff working under SSE/P.Way controlled by Sr. DEN/C/FZR over FZR Division is tabulated as under:-

SN	Category	Pay Scale + Grade Pay	Monthly value per posts	Sanctioned strength	Total annual expenditure in ₹
1	Trackman	5200-20200+1800	41,944/-	3856	1940832768/-
Total			41,944/-	3856	1940832768/-

The above table reveals that Ambala division is expending ₹1940832768/- on the sanctioned posts of 3856 trackman every year.

4.1.2. The annual expenditure on the proposed staff working under SSE/P.Way controlled by Sr. DEN/C/ FZR.

SN	Category	Pay Scale + Grade Pay	Monthly value per posts	Proposed staff	Total annual expenditure in ₹
1	Trackman	5200-20200+1800	41,944/-	3807	1916169696/-
Total			41,944/-	3807	1916169696/-

The above table reveals that after the implementation of the work study report, the expenditure on the proposed staff will come to ₹1916169696/-. Therefore the expenditure will be reduced from ₹ 1940832768/- to ₹ 1916169696/-

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WORK STUDY REPORT DETAILED CHART

Department : - Engineering

Name of study : - Review of P. Way staff working under SSE/P. Way controlled by Sr. DEN/C/FZR over Firozpur Division.

Activity Centre : - MQF, KKP, MKS, FZE, FKA, LNK, NRO, LDH, NSS, JRC, JUC, ASR, BEAS, PAX, DHW, PTG/BG, MEX,JAT, KTHU, UHP, BDGM, PLMX, PTK/NG

S N	Sub activity	Brief description of workload	Actual staff deployed	Work Study recommendation	Representative workload
1	MQF, KKP, MKS, FZE, FKA, LNK, NRO, LDH, NSS, JRC, JUC, ASR, BEAS, PAX, DHW, PTG/BG, MEX,JAT, KTHU, UHP, BDGM, PLMX, PTK/NG	Maintenance of track through various maintenance practices, security hot/cold patrolling, bad spots, welding, black smithy, watching and vulnerable locations etc.	S/S= 3856 O/R=2619 Vac 1237	S/S =3856 posts Proposed staff= 3807 Surplus posts = +49	To maintain the track maintenance by adopting various activities of maintenance.

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LIST OF ANNEXURES

S.N.	Description	Annex. No.
1	Letter of authority No. 16-CP/09/19-20 dt. 05.04.2019	I
2	Statement showing category wise, the sanctioned strength of P. Way staff working under SSE/P. Way controlled by Sr.DEN/C/FZR over Firozpur Division	II
3	Statement showing workload of track kilometer being maintained by the track maintenance staff working under SSE/P. Way controlled by Sr.DEN/C/FZR over Firozpur Division	III
4	Statement showing workload in terms of track kilometer being maintained by track machines For FY 2017-18 & 2018-19 over Firozpur division	IV

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Annexure No I

Annexure No II

Statement showing category wise, the sanctioned strength of P. Way staff working under SSE/P. Way controlled by Sr.DEN/C/FZR over Firozpur Division:

SN	ADEN	SEE/P. Way	Trackman (Gr. 5200-20200 GP+1800)		
			S/S	O/R	Vac
1	FZR-I	MQF	157	117	40
		KKP	141	109	32
		MKS	103	40	63
2	FZR-II	FZR	194	164	30
		FKA	178	86	92
		LNK	143	85	58
		NRO	116	32	84
3	LDH	LDH	250	207	43
		NSS	143	71	72
4	JRC	JRC	233	165	68
		JUC	153	108	45
5	ASR	ASR	211	168	43
		BEAS	239	163	76
		PAX	124	68	56
6	PTK	DHW	154	110	44
		PTK/BG	236	176	60
		MEX	208	146	62
7	JAT	JAT	165	114	51
		KTHU	163	108	55
8	UHP	UHP	187	146	41
9	BDGM	BDGM	148	128	20
10	PLMX	PLMX	99	42	57
		PTK/NG	111	66	45
Total			3856	2619	1237

Annexure No III

Statement showing workload of track kilometer being maintained by the track maintenance staff working under SSE/P. Way over Firozpur Division.

S.N	ADEN	SSE/P way	Track on other layout on	Total track on PRC	Total Track Km
1	ADEN FZR	FZR	99.430	176.030	275.460
2	ADEN-I/ FZR	NRO	4.200	98.060	102.260
		FKA	20.213	148.782	168.995
		LNK	38.934	122.302	161.236
3	ADEN/LDH	LDH	173.583	265.798	439.381
		NSS	18.873	120.363	139.236
4	ADEN/PTK	PTK	116.693	211.793	328.486
		MEX	38.270	158.370	196.640
		DHW	23.150	119.150	142.300
5	ADEN/ PLMX	PTK/NG	13.972	99.672	113.644
		PLMX	11.935	90.535	102.470
6	ADEN/JAT	JAT	74.630	142.217	216.847
		KATHU	18.384	98.884	117.268
7	JRC	JUC	55.223	120.992	176.215
		JRC	87.667	221.887	309.554
8	ASR	ASR	58.420	153.670	212.090
		PAX	14.575	90.227	104.802
		BEAS	27.380	176.980	204.360
9	ADEN-I	MKS	8.000	84.100	92.100
		KKP	7.940	76.600	84.540
		MQF	17.100	104.770	121.870
10	ADEN-UHP	UHP	73.644	121.224	194.868
		BDGM	53.433	196.368	249.801
Total			1055.649	3198.774	4254.423

Annexure No. IV

Statement showing workload in terms of track kilometer being maintained by track machines For FY 2017-18 & 2018-19 over Firozpur division.

Machine & type	Maintenance of track by track Machine in Km for FY	
	2017-18	2018-19
BCM (332)	47.99	43.61
BCM (371)	47.43	49.69
BRM (PBR-36)	468.22	316.16
CSM (912)	99.26	45.99
CSM (942)	99.48	0
DTS (405)	476	442.13
FRM (1876)	220.34	212.9
MPT (2005)	58.32	60.43
PQRS (88231,89238)	37.32	9.87
RGM (RGI-6)	20.69	15.97
T-28 (0519,0520)	0	9.86
UNIMAT (8270)	10.03	27.43
UNIMAT (8273)	0.1	0
UTV (2008 01 040)	0	13.82
WST (8027UNO)	193.63	0
WST (8069)	383.39	0
WST (8120)	39.81	69.07
WST (VPR-2M-54)	94.64	433.65
Total	2296.65	2326.19

Salient features of work study report No. 16-CP-09/WS/2019-20

Sub: "work study report on review of Trackman staff working under SSE/P Way of Engg Department over Firozpur division"

Staff Position:

Sanctioned Strength of Trackman = 3856
On Roll strength of Trackman = 2619
Vacancy = 1237

1. Introduction of track machine have changed the track maintenance pattern thus the workload of trackman category has been reduced considerably.
2. By introduction of heavy/modernized track (PRC sleepers) structure work load of trackman has been reduced due to less maintenance required at PRC sleepers.
3. Outsourcing and zonal contracts/special contracts.
4. The workload of trackman has been reduced by 1.28 % in FY 2018-19 as compared to 2017-18 due to track maintenance by track machines

No. of posts identified as surplus and recommended for surrender: -

Gr. 'C' =NIL
Gr. 'D' =49 posts
Total =49 posts

FINANCIAL IMPLICATIONS

Anticipated recurring savings = ■246.63 lakh per annum.
Capital saving = Nil
Total = ■246.63 lakh per annum