7th TECHNICAL COMMITTEE MEETING

7th Technical Committee Meeting for Scrutiny and Appraisal of Project Reports prepared by PMU	
Meeting No. 07	**Date** – 16th March, 2020; 02.30 pm
Venue : Conference Hall, Office of the Chief Engineer, LSGD, Public Office Compound, Revenue Complex, Thiruvananthapuram	

AGENDA

1. Scrutiny and Appraisal of Project Reports prepared by PMU

PRESENT

S.No	Name	Designation and Office Address
1	Rajan M V	Chief Engineer, LSGD
2	Dr.B.G.Sreedevi	Chief Scientist, NATPAC
3	Sreela S	Superintending Engineer, KSRRDA
4	Dr. Vishnu R	Assistant Professor, NIT, Waranagal
5	Dr.Jaya V	Professor, CET
6	Dr.Ashalatha R	Professor, CET
7	Jithuraj R	Assistant Engineer, LSGD, PMU RKI LSGD
8	Vishnukumar G	Project Director, PMU RKI LSGD
9	Ajith Kumar G S	Executive Engineer, PMU RKI LSGD
10	Sathyanath B	Assistant Executive Engineer, PMU RKI LSGD
11	Shiju Chandran R	Assistant Executive Engineer, PMU RKI LSGD
12	Shainy N	Assistant Executive Engineer, PMU RKI LSGD
13	Anil D J	Assistant Engineer, PMU RKI LSGD
14	Riphin K John	Assistant Engineer, PMU RKI LSGD
15	Binil Gopinath	Assistant Engineer, PMU RKI LSGD
16	Binod S	Assistant Engineer, PMU RKI LSGD
17	Jiju V	Assistant Engineer, PMU RKI LSGD

Sl.No.	Description	Action
1.1	The Chief Engineer, LSGD informed that PD, PMU has submitted the preliminary DPR of 26 nos works proposed to be undertaken by PMU RKI LSGD under RKI Scheme for scrutiny and appraisal and approval of projects	-
	DISCUSSIONS	
2.1	PMU explained that 3 tier Quality control mechanism is proposed in the DPR, namely Tier 1 Project Implementation Unit (PIU) Tier 2 Panel of Expert Faculty from Engineering Colleges Tier 3 Project Manage Unit (PMU)	-
2.2	Technical Committee enquired about how the life cycle cost is arrived. PMU explained that Life Cycle cost is considered for comparing the various types of pavements proposed for the concerned work and the same is explained under the Sl No 4.5 of the DPR	-
2.3	Technical Committee informed that Performance Data has to be collected, similar to RMMS in PWD. Technical Committee opined that a separate PMMS has to be formulated for the upkeep and maintenance of RKI roads	**PD, PMU**
2.4	PMU explained that IRC SP 13, IRC SP 62, IRC SP 72, IRC SP 76 is being used for the design / redesign of Cross drainage works, Rigid pavement construction, flexible pavement construction and thin white topping of existing pavements. Considering poor performance of PMC roads in Kerala and the requirement of PMU to construct flood resilient long-life roads, Bituminous Concrete (BC-2) surfacing layer is provided as per the clause 1.4.4 of IRC SP:72. The same is explained in the S.No 4.4.15 of the DPR. The Methodology- AASHTO Flexible Pavement design for low volume roads is explained in S.No 4.4.15.1 of the DPR	
2.5	PMU explained that as per SP 20 width of paved shoulder upto 1mtr is suggested and the same is considered in the pavement design	
2.6	PD, PMU and the Engineers of PMU RKI LSGD explained the Nature of work, components of work included in the estimate. The details of the work proposed is listed in the table below	

S.No	Name of Work	Features of Road	
1	Malakunnam Kannanthrappadi road in Kurichy GP in Kottayam District	Length of Road	0/000 – 1/125
		Reconstruction or Rehabilitation Suggested	Reconstruction + Rehabilitation
		Nature of Pavement Suggested	Flexible (GSB+WMM+BC)

		Additional Features or Structures provided	2 Dip/Chappath No drains provided
2	Kunnumpuram Mahilasamajam road	Length of Road	0/000 – 0/900
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Flexible (WMM+BC)
		Additional Features or Structures provided	Minor bridge 7mx3m, Side drains, Road Markings, R.Wall and Side Drain
	PMU informed that the surrounding area of the proposed road is a built up area and when the proposed road construction work is executed at site road level has to be raised with respect to the houses in the surrounding. Approximately 5-6 houses will then be below the road level. Technical Committee opined that there should not be any stagnation of water and the possibility of houses getting submerged during monsoon may be avoided. Also, the bed slope of drain should be mentioned and it should match with the Road profile slope. TC also opined that Signal boards should be provided in both directions and SBC (10 t/m2) should be ensured in the bridge construction		PMU
3	Pathinanjil kadavu illikkal road	Length of Road	0/000 – 2/035
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Flexible (GSB+WMM+BC)
		Additional Features or Structures provided	Box Culverts-6 nos, DRM
	PMU informed profile correction is required by raising the existing road level and since CBR is low, road reconstruction is proposed and Vent way size of Culvert is increased		PMU
4	Kulikkanpalam Shappupadi road	Length of Road	0/000 – 1/400
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Rigid (PQC M40)
		Additional Features or Structures provided	Slab Culvert

	PMU informed that since CBR value is 3.5% and the proposed road was one of the worst hit roads during the flood, rigid pavement construction is proposed with Chemical Stabilisation. TC opined that Junction marking should be provided		PMU
5	Construction of Udumpuzha Chempassery Road in Ernakulam	Length of Road	0/000 – 0/597
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (PQC M40)
		Additional Features or Structures provided	Culvert, Cross drains, Side Retaining Wall Concrete and DRM
	TC opined that Traffic Signs should be provided and Traffic markings should be as per IRC 35, 67		PMU
6	Upgradation of kadungalloor masjid road in Ernakulam	Length of Road	0/000 – 0/223
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Rigid (PQC M40)
		Additional Features or Structures provided	Culvert, Cross drains, Side Retaining Wall Concrete
7	Reconstruction of Pennukara canal Jn Nettuvaramcode road in Alappuzha	Length of Road	0/000 – 1/420
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Rigid (PQC M40)
		Additional Features or Structures provided	Culverts, Cross drains, Side Retaining Wall (Concrete and DRM)
8	Reconstruction of Masjid Road in Kumbalam GP	Length of Road	0/000 – 0/255
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Rigid (PQC M40)
		Additional Features or Structures provided	Culvert, Drain

	TC opined that Traffic Signs should be provided and Traffic markings should be as per IRC 35, 67		PMU
9	Upgradation of Budhanoor Ponnathara Road in Alappuzha	Length of Road	0/000 – 1/800
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (PQC M40) using IRC SP 76
		Additional Features or Structures provided	Culvert-3 nos, Drain, Damaged Parapet reconstruction
10	Upgradation of Anicadu Pravidakunnu Road in Ernakulam	Length of Road	0/000 – 1/167
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (PQC M40) using IRC SP 76
		Additional Features or Structures provided	Culverts, Drain
	PMU informed that piers of the culvert is damaged and hence, the reconstruction of C/D structures is proposed		PMU
	DECISIONS		
3.1	Technical Committee ascertained that the mix for BC layer of the pavement should be Design Mix. Mix and Binder Samples should be collected and kept in the selected Colleges as per Tier-II of the Quality Control mechanism		**PMU**
3.2	Technical Committee opined that Junction marking should be provided Also Signal boards should be provided in both the directions, Regulatory, Warning, and Guide signs should be provided in the estimate and site Traffic markings should be as per IRC 35, 67		**PMU**
3.3	Technical Committee informed that where Pedestrian facility is not provided in the site, design speed should be restricted to 30 km/hr and warning signs should be installed at site		**PMU**
3.4	Technical Committee granted approval for the Works listed in the S.No 2.6 subject to the conditions as listed above		**PMU**
	NEXT MEETING		
4.1	Next meeting will be held at 9.30am on 18.03.2020		

Chief Engineer

7th TECHNICAL COMMITTEE MEETING

7th Technical Committee Meeting for Scrutiny and Appraisal of Project Reports prepared by PMU	
Meeting No. 07	**Date** – 18th March, 2020; 09.30 am
Venue : Conference Hall, Office of the Chief Engineer, LSGD, Public Office Compound, Revenue Complex, Thiruvananthapuram	

AGENDA

1. Scrutiny and Appraisal of Project Reports prepared by PMU

PRESENT

S.No	Name	Designation and Office Address
1	Rajan M V	Chief Engineer, LSGD
2	Dr.B.G.Sreedevi	Chief Scientist, NATPAC
3	Dr.Jaya V	Professor, CET
4	Dr.Ashalatha R	Professor, CET
5	Jithuraj R	Assistant Engineer, LSGD, PMU RKI LSGD
6	Vishnukumar G	Project Director, PMU RKI LSGD
7	Ajith Kumar G S	Executive Engineer, PMU RKI LSGD
8	Sathyanath B	Assistant Executive Engineer, PMU RKI LSGD
9	Shiju Chandran R	Assistant Executive Engineer, PMU RKI LSGD
10	Shainy N	Assistant Executive Engineer, PMU RKI LSGD
11	Anil D J	Assistant Engineer, PMU RKI LSGD
12	Riphin K John	Assistant Engineer, PMU RKI LSGD
13	Binod S	Assistant Engineer, PMU RKI LSGD
14	Jiju V.	Assistant Engineer, PMU RKI LSGD

Sl.No.	Description	Action
1.1	The Chief Engineer, LSGD informed that PD, PMU has submitted the preliminary DPR of 26 nos works proposed to be undertaken by PMU RKI LSGD under RKI Scheme for scrutiny and appraisal and approval of projects, in continuation to the 7th Technical Committee meeting held on 16.03.2020	-

	DISCUSSIONS	
2.1	PMU explained that 3 tier Quality control mechanism is proposed in the DPR, namely Tier 1 Project Implementation Unit (PIU) Tier 2 Panel of Expert Faculty from Engineering Colleges Tier 3 Project Manage Unit (PMU)	-
2.2	Technical Committee enquired about how the life cycle cost is arrived. PMU explained that Life Cycle cost is considered for comparing the various types of pavements proposed for the concerned work and the same is explained under the Sl No 4.5 of the DPR	-
2.3	Technical Committee informed that Performance Data has to be collected, similar to RMMS in PWD. Technical Committee opined that a separate PMMS has to be formulated for the upkeep and maintenance of RKI roads	**PD, PMU**
2.4	PMU explained that IRC SP 13, IRC SP 62, IRC SP 72, IRC SP 76 is being used for the design / redesign of Cross drainage works, Rigid pavement construction, flexible pavement construction and thin white topping of existing pavements. Considering poor performance of PMC roads in Kerala and the requirement of PMU to construct flood resilient long-life roads, Bituminous Concrete (BC-2) surfacing layer is provided as per the clause 1.4.4 of IRC SP:72. The same is explained in the S.No 4.4.15 of the DPR. The Methodology- AASHTO Flexible Pavement design for low volume roads is explained in S.No 4.4.15.1 of the DPR	
2.5	PMU explained that as per SP 20 width of paved shoulder upto 1mtr is suggested and the same is considered in the pavement design	
2.6	PD, PMU and the Engineers of PMU RKI LSGD explained the Nature of work, components of work included in the estimate. The details of the work proposed is listed in the table below	

S.No	Name of Work	Features of Road	
1	Improvement of Girideepam Kadathukadavu Road in Kottayam District	Length of Road	0/000 – 1/820
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Flexible (75 ESM + MSS) using IRC SP 76
		Additional Features or Structures provided	Culverts, Irish Drain

	PMU informed that for the proposed road Extra thickness for WMM + Emulsion based stabilized base + MSS Cold mix technology is proposed. BC	PMU

	Surface course and White topping, since drainage is good is omitted		
2	Chittanda- Padinjattumuri - Chathamkulam road	Length of Road	0/000 – 5/400
		Reconstruction or Rehabilitation Suggested	Reconstruction
		Nature of Pavement Suggested	Flexible (GSB+WMM+BC)
		Additional Features or Structures provided	12 Culverts for reconstruction/new construction, Irish Drain
	PMU informed that there are 13 culverts existing in the proposed road, of which 12 are in good condition and in addition 1 new culvert is proposed		PMU
3	Reconstruction of Paduvathil Police Station Road in Kadungalloor GP in Ernakulam	Length of Road	0/000 – 0/625
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Flexible (GSB+WMM+BC)
		Additional Features or Structures provided	Culverts, Drain, Side Protection (DRM)
4	Renovation of TV Puram Theeradesa Road in TV Puram GP in Kottayam District	Length of Road	0/000 – 2/100, 0/000 – 1/690
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (PQC)
		Additional Features or Structures provided	Culverts (10 nos), Soil Stabilisation, Retaining Wall
	PMU informed that there is choking of Culverts as 7 existing culverts are pipe culverts and for others as well the vent way is insufficient. Hence, Culvert reconstruction is proposed. Technical Committee opined that the approach of the C/D works should be corrected and Soil stabilization, if required, should be done Technical Committee informed that Pedestrian crossing facility should be provided in the site at junctions.		PMU
5	*LPS Mukkam Kollori road*	*Length of Road*	*0/000 – 0/332*
		Reconstruction or Rehabilitation Suggested	*Reconstruction*
		Nature of Pavement Suggested	*Rigid (PQC)*
		Additional Features or	*Retaining Wall*

		Structures provided	
	PMU informed that the proposed road is the side of a river and the only way to reach the colony and the side protection is proposed over the DR dumping. Technical Committee opined before finalizing the retaining wall slope of the side w.r.to river and SPT should be taken. Also Bio fencing, if possible may be given in the proposed reach where side protection is need. Technical committee informed that the proposal of the said road may be finalized after conducting a detailed site inspection by PMU officials/experts		*PMU*
6	Renovation of Valavazhi Road in Angamaly Muncipality in Ernakulam District	Length of Road	0/000 – 0/115
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (White topping PQC)
		Additional Features or Structures provided	Culverts, Side drain, Sign boards
	PMU informed that there is choking of Culverts due to insufficient vent way, hence new culvert with improved vent way is proposed. Technical Committee opined that Mandatory sign boards should be provided		PMU
7	Renovation of Kavanathinkara Manchira Road in Aymanam GP in Kottayam District	Length of Road	0/000 – 1/305
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (White topping PQC)
		Additional Features or Structures provided	Culverts, Side drain, Sign boards
	PMU informed that the proposed area is a Tourist spot and road is a bund road and to the side is a lake. The left side is an earthern bund built by the natives Technical Committee opined that during monsoon provision for draining the water to the Outlet should be ensured		PMU
8	Okkal Muslim juma masjid road	Length of Road	0/000 – 0/165
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (White topping)
		Additional Features or Structures provided	Side Protection, Road Markings
	PMU informed that the proposed road consists of BT along with ICPB surface in few portion. As life cycle cost of the same is low removed and white topping		PMU

	is proposed, also by providing ICPB in the shoulders of the initial stretch		
9	BJP Kadavu road	Length of Road	0/000 – 0/180
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (White topping)
		Additional Features or Structures provided	Culvert, Side drain, Sign boards, Road markings
10	(Budhanoor) Ennakkadu Alumoodu Elanjimel road	Length of Road	0/000 – 3/225
		Reconstruction or Rehabilitation Suggested	Reconstruction + Rehabilitation
		Nature of Pavement Suggested	Flexible pavement with BC overlay
		Additional Features or Structures provided	Bridge, Side Protection Wall with intermediate RC belts
11	Upgradation of Pannikuzhy Kavumthazham Road in Ernakulam	Length of Road	0/000 – 1/200
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (White topping PQC)
		Additional Features or Structures provided	Culverts, Cross Drain, Side Protection Works
	PMU informed that the in the proposed road Side drains could not be provided		
12	Upgradation of Vayalodam Thadikkadavu Road in Ernakulam District	Length of Road	0/000 – 0/907
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid (White topping PQC)
		Additional Features or Structures provided	Culverts, Cross Drain, Side Protection Works
	PMU informed that the in the proposed road Side drains could not be provided		
13	Rehabilitation of Pavamkulangara Kannankulangara Road in Thrippunithura Muncipality in Ernakulam	Length of Road	0/000 – 1/953
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Flexible pavement with BC overlay

		Additional Features or Structures provided	Culverts, Side drain, Sign boards
	PMU informed that the proposed road connects SH and PWD roads and both sides of the road is built up area, due to insufficient vent way, culverts are to be reconstructed. PMU informed that at present there is a side drain in the site apart from that new side drain is to be constructed in few length of the road. Technical committee opined that provision for covering slabs for the drains should be included in the estimate		PMU
14	Rehabilitation of St Mary's Swaraj Road in Kumbalangi GP in Ernakulam	Length of Road	0/000 – 1/567 (New Construction for only 567 mtr)
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Rigid
		Additional Features or Structures provided	Culverts, Side drain, Sign boards
	PMU informed that there is an minor bridge existing in the proposed road and the same is in good condition. But the BT surface and drainage is poor, hence white topping is proposed. The carriage way width of the road proposed is 3 mtr. Technical Committee opined that it may be checked if the carriage way width could be increased to 3.75m		PMU
15	Rehabilitation of Thandilam Manali Kecheri Road in Thrissur	Length of Road	0/000 – 4/965
		Reconstruction or Rehabilitation Suggested	Rehabilitation
		Nature of Pavement Suggested	Flexible pavement with BC overlay
		Additional Features or Structures provided	Culverts (7 out of 8), Side drain, Sign boards
	DECISIONS		
3.1	Technical Committee ascertained that the mix for BC layer of the pavement should be Design Mix. Mix and Binder Samples should be collected and kept in the selected Colleges as per Tier-II of the Quality Control mechanism		**PMU**
3.2	Technical Committee opined that Junction marking should be provided Also Signal boards should be provided in both the directions, Regulatory, Warning, and Guide signs should be provided in the estimate and site Traffic markings should be as per IRC 35, 67		**PMU**
3.3	Technical Committee informed that where Pedestrian facility is not provided in the site, design speed should be restricted to 30 km/hr and warning signs		**PMU**

	should be installed at site	
3.4	Technical Committee granted approval for the Works listed in the S.No 2.6 (except for the work mentioned in the S.No 05) subject to the conditions as listed above	**PMU**
	NEXT MEETING	
4.1	Next meeting will be informed in advance	

Chief Engineer