

SKILLS FRAMEWORK FOR PUBLIC TRANSPORT				
SKILLS MAP - SENIOR ASSISTANT ENGINEER/ASSISTANT ENGINEER (PERMANENT WAY AND CIVIL STRUCTURE)				
Sector	Public Transport			
Track	Rail Engineering			
Sub-Track	Permanent Way and Civil Structure			
Occupation	Rail Engineer			
Job Role	Senior Assistant Engineer/Assistant Engineer (Permanent Way and Civil Structure)			
Job Role Description	<p>The Senior Assistant Engineer/Assistant Engineer (Permanent Way and Civil Structure) is responsible for supervising his/her team in performing preventive and corrective maintenance work on train tracks, railway reserves and buildings. He/She is adept in using various test equipment for the maintenance of permanent ways and civil structures as well as provides recommendations to workflow improvements and facilitating the work of external contractor. He also manages the team's performance in achieving established Key Performance Indicators (KPIs).</p> <p>He is required to work in shifts and carries out his duties at various rail premises such as on train tracks, in train tunnels and at various train stations. He is meticulous in implementing workplace safety measures and demonstrates team leadership skills to ensure maintenance works are carried out in safe and orderly manner.</p>			
Critical Work Functions and Key Tasks	Critical Work Functions	Key Tasks		
	Maintain permanent way and civil structures	Supervise the execution of permanent way and civil structures preventive maintenance work		
		Supervise the execution of permanent way and civil structures corrective maintenance work		
		Perform fault analysis and testing of permanent way and civil structures		
		Supervise patrolling and visual inspection of train tracks, railway reserves and building		
		Escalate maintenance needs for tracks, railway reserves and building based on issues identified		
	Operate engineering trains	Operate engineering trains and train-mounted maintenance equipment		
		Manage movements of engineering train during maintenance		
	Support maintenance activities and operational requirements	Supervise and facilitate the work of contractors and stakeholders external to the permanent way and civil structures team to ensure safety requirements, operating standards and quality standards are met		
		Track quantities of and support the requisition of maintenance supplies and expendables required at work base		
		Validate inspection and maintenance documents		
		Ensure workplace adherence with Workplace Safety and Health (WSH) policies, procedures and regulations when carrying out work		
	Support continuous improvement activities to enhance service reliability	Ensure workplace adherence with the Rapid Transit System (RTS) Codes of Practice		
		Propose workflow improvements to enhance the reliability and efficiency of permanent way and civil structures		
	Manage people and team performance	Carry out engineering improvement activities to enhance the reliability and efficiency of permanent way and maintenance of civil structures		
Plan work activities and manpower allocation				
Perform on-the-job coaching				
	Manage team's performance in achieving Key Performance Indicators (KPIs)			
	Technical Skills & Competencies		Generic Skills & Competencies (Top 5)	
	Asset Management	Level 3	Communication	Intermediate
	Civil Structure Maintenance	Level 3	Leadership	Intermediate
	Condition-based Assets Monitoring Management	Level 2	Teamwork	Intermediate
	Continuous Improvement Management	Level 3	Problem Solving	Intermediate
	Data and Statistical Analytics	Level 3	Interpersonal Skills	Intermediate
	Engineering Train and Rolling Stock Operation	Level 3		
	Equipment Maintenance and Housekeeping	Level 2		
	Innovation Management	Level 3		
	Internet of Things Application	Level 3		
	Inventory Management	Level 3		
	Maintenance Scheduling	Level 3		
	Manpower Planning and Deployment	Level 3		
	People Development	Level 3		

Skills & Competencies	Rail Regulatory Compliance	Level 3
	Rail Track Inspection	Level 3
	Rail Track Maintenance	Level 3
	Report Writing	Level 2
	Robotics and Automation Application	Level 3
	Staff Performance Management	Level 3
	Third Rail Maintenance	Level 3
	Track Access Management	Level 1
	Vendor Management	Level 2
	Work at Heights	Level 3
	Workplace Facilities Safety Management	Level 3
	Workplace Safety and Health Culture Development	Level 3
	Workplace Safety and Health for Confined Spaces	Level 3
	Workplace Safety and Health for Electrical Safety	Level 2
	Workplace Safety and Health for Fire Prevention and Fire Fighting	Level 2
	Workplace Safety and Health for Incident and Accident Investigation	Level 3
Programme Listing	For a list of Training Programmes available for the Public Transport sector, please visit: www.skillsfuture.sg/skills-framework/public-transport	

The information contained in this document serves as a guide.