

Annexure M:

Works breakdown structure (Rail)



WBS Level 1	WBS Level 2	WBS Level 3	WBS Level 4	Description
10000	Client Costs			
	10300	Client Costs – Develop Options		
		10309	Rail Traffic Analysis and Report	
		10310	Engineering Survey	
		10311	Existing Rail System Survey	
		10341	Platform / Station Design	
		10350	Track Design	
		10351	Concept Signal and Telecommunications Design	
		10352	Concept Track Power Design	
		10353	Concept Power Overhead Design	
		10354	Concept Cable Design	
		10355	Concept Enabling Works Design	
		10360	Preliminary Design – Layouts and Planning Design	
	10500	Development Phase – Preliminary Design		
		10509	Rail Traffic, Analysis and Report	
		10510	Engineering Survey	
		10511	Existing rail systems survey	
		10542	Platform / Station Design	
		10550	Track Design	
		10551	Preliminary Signal and Telecommunications Design	
		10552	Preliminary Track Power Design	
		10553	Preliminary Power Overhead Design	
		10554	Preliminary Cable Design	
		10555	Preliminary Enabling Work Design	
		10560	Preliminary Layouts and Planning Report	
	10600	Development Phase – Detailed Design		
		10609	Rail Traffic Analysis and Report	
		10610	Engineering Survey	
		10611	Existing Rail systems survey	
		10641	Platform / Station Design	
		10650	Track Design	
		10651	Signal and Telecommunications Design	
		10652	Track Power Design	
		10653	Power Overhead Design	
		10654	Cable Design	

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	10655	Enabling Works Design	
	10660	Design layouts and Planning Report	
40000	Construction Costs		
	41200	Rail	
	41201	Track	
		41201-01	Trackworks – includes materials, ballast and construction
		41201-02	Other – items such as GIJs
	41202	Turnout	
		41202-01	Turnouts – includes materials, ballast, Point Machines, construction and testing
		41202-02	Other – items such as
	41203	Signalling	
		41203-01	Track and DEDs
		41203-02	Signals
		41203-03	Equipment Housings
		41203-04	Interlocking
		41203-05	Modifications to Locations and SER
		41203-06	Signal Power
		41203-07	Other
	41204	Telecommunications	
		41204-01	Telecommunications Equipment Room
		41204-02	Transmission Network
		41204-03	Data Networks
		41204-04	Network Control Communications Systems
		41204-05	Wireless Infrastructure
		41204-05	Wayside Infrastructure
	41205	Cable Supply and Installation	
		41205-01	Cable Route Installation
		41205-02	Cable Supply and Install
		41205-03	UTX
	41206	Power Supply	
	41207	Power – Overheads	
		41207-01	OHLE Catenary and Portals
		41207-02	Motorised Isolators
		41207-03	OPGW

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	41208	Fencing and Gates	
	41209	Stabling Yards	
	41211	Roadworks	
		41211-01	Access Roads
	41211	Commissioning	
41300	Major Structures		
	41301	Pedestrian Footbridge / Underpasses	
41400	Building		
	41401	Station Platform	
	41402	Station Buildings	
	41403	Carparks	
	41404	Lighting	