

WI 500 - Appendix 05

Programme Narrative

1. General

1.1. Data Date

What is the data date applied to the programme

1.2. Last accepted programme

What is the last accepted programme?

1.3. Calendars

What calendars have been used within the programme?

What calendars have been changed?

What changes have been made to assignments of calendars to activities?

1.4. Float and Time Risk Allowances

What is the general approach on how Time Risk Allowance is calculated and assigned?

Has any Time Risk Allowance been used in order to complete the Works so far?

What float is contained within your programme?

Is any negative float shown within your programme?

2. Programme Summary

	Current Period	Previous Period
Planned Date for Completion		
Terminal Float		
Contract Completion Date		

Has the Planned Date for Completion and terminal float changed from last period?
Please provide reasons if changed.

Has the Contract Completion Date changed? Please provide reasons if changed.

3. Sequence of Works

What is the sequence of works shown within the programme? What is run in parallel?
What is run sequential? What are the current programme assumptions, if any?

4. Critical Path

4.1. Description of the Critical Path

A critical path programme is to be attached.

A detailed description of the critical path shown within your programme is to be provided (not just the reference to the attachment)

4.2. Changes to the Critical Path within the Period

What changes have been made to the programme which impacted the critical path?

What logic changes were made in order to maintain the project's completion date?

What were the reasons for the changes applied?

5. Progress

5.1. Progress in the period and any slippages

5.1.1. Design

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.2. Manufacturing / Procurement

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.3. Civil Works 1

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.4. Civil Works 2

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.5. Electrical Works 1

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.6. Electrical Works 2

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.7. Electrical Works 3

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.8. Commissioning / Outage Works

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.9. External Works (if required)

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.1.10. Site Handover Documentation (O&M manuals, Red Lines, As-Builts etc)

Please provide an update on progress made within the period, describe reasons for any slippages experienced and any mitigations applied in order to recover any of these slippages

5.2. Activities planned but not achieved

Please note down the activities from the previous period's 4 week look ahead which were not achieved and provide reasons why they were not achieved

5.3. Planned activities for the next period

Please note down the activities forecasted to be progressed / completed in the next period

6. Logic changes applied this period (incl amended leads and lags)

What changes were applied to the programme, what activities in particular were affected and what were the reasons for the changes? Please also list any changes to lags and leads.

7. Duration changes applied this period

What changes to activity durations were undertaken and why (this includes original and At Completion duration changes)?

8. New activities added

Please list the new activities included within the programme and the reasons why they were added.

9. Existing activities deleted / retired

Please list the existing activities within the programme which were deleted / moved to the retired section and the reasons why this was done.

10. Activity Name changes

Please note down any activity name changes undertaken and why?

Generally, no activity name or activity ID changes are to be amended without prior approval of the LU Project Manager.

11. Upcoming Third Party LU dependencies & critical resource requirements

Please describe any upcoming Third Party dependencies and critical resource requirements which are essential to progress the upcoming works.

12. Constraints applied to the programme

What constraints have been assigned to the programme and what are the reasons?

13. Cost & Commercial

13.1. Compensation Events included within the current programme

CE No / QUO No	Description	Value
		£

		£
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13.2. PMIs included within the current programme

PMI No / QUO No	Description	Value

13.3. NCEs and EWN included within the current programme

NCE No / EWN No	Description	Current Programme Impact

13.4. Total Cost

Total Project Cost previous period	£
CEs / PMIs added	£
Total Project Cost current period	£

13.5. Earned Value Management

13.5.1. Overview of Earned Value figures in comparison to last period

	Current Period	Previous Period
Earned Value		
Actual Cost		
Planned Value		

13.5.2. SPI

Please provide SPI figure based on baseline applied to the programme as indicated under section 1.2

Please provide explanation of reason for the SPI less than 0.95

13.5.3. CPI

Please provide CPI figure based on baseline applied to the programme as indicated under section 1.2

Please provide explanation of reason for the CPI less than 0.95

13.6. Cost mapping overview

A mapping sheet needs to be created for costs which have been re-allocated from retired activities in order to maintain a history of cost allocations. This can be undertaken in an Excel Spreadsheet to be attached to this document. However, please provide as a minimum the information as shown in the table below.

Retired Activity Section			Main Programme Section			
Act ID	Act Name	Original Cost	Act ID	Act Name	Total Cost	Reasons for re-allocation of cost
		£			£	
		£			£	
		£			£	

14. AOB

Please add any additional information with regards to the programme which was not covered under the previous sections but which requires attention.

Parent Code	Code		Code		Code		Code		Code		Code		Code		Code		Code		Code		Code	
	Responsibility	Resp	Milestones	Mst	Procurement	Comm	Consents	Consnt	Engineering	Eng	Delivery	Del	Others	Oth	Handover & Commissioning	H&C	Access		Delay Event	Delay	Supplier	Delay
Sub-Code	Transport for London	TfL	Contract	Con	Sub-Contractor	Sub Con	Highway Closure	Hgwy	Civils	Civils	Civils	Civils	TfL Track Power	TPwr	NOWRI (Notification of works required for inspection)	NOWRI	Building	Bldng	Delay Event 1	DE1	Kone	Kone
			Key Milestones	KM	Materials	Mat	Transport and Works Act Order	TWAO	Premises	Prem	Premises	Prem	TfL Telecoms	Telec	QICC (Quality Inspection Completion Certificate)	QICC	Highway	Hwy	Delay Event 2	DE2	Otis	Otis
			Interface	ITF			Planning Permission	PP	Electrical	Elec	Electrical	Elec	TfL Signalling	Sign	Contractor Assurance Activity	CAA	Station (Open Hours)	Stn EH	Delay Event 3	DE3	Balfour Beatty	BB
							Building Control	BCG	HV Power	HV	HV Power	HV	Docklands Light Railway	DLR	TfL Assurance Review Activity	TFLAA	Station (Closed Hours)	Stn TH			Schindler	Sch
									Mechanical	Mech	Mechanical	Mech	TfL Information Management	IM	Other	Other	Track (Engineering Hours)	Tr EH			NG Bailey	NGB
									Lifts	Lifts	Lifts	Lifts	TfL Connect	Cnct			Track (Traffic Hours)	Tr TH			T.Clarke	TCL
									Escalators	Esc	Escalators	Esc	TfL Prestige	Pres							Joseph Galagher	JGL
							Moving Wa ks	MWIk	Moving Walks	MWIk	TfL 3rd Party Cables	3PCab									Livis	Liv
							Pumps & Drainage	P&D	Pumps & Drainage	P&D	TfL HV Power	LU Pwr									Thales	This
									Comms	Comms	Comms	Comms	TfL Advertising	Advt							etc.	
							Data Systems	Dsys	Data Systems	Dsys	Thames Water Sewers	TWU Swr										
									Rolling Stock	RStck	Rolling Stock	RStck	Thames Water Potable	TWU Pot								
									Systems Engineering	Sys	Fire	Fire	UK Power Networks	UKPN								
									Fire	Fire	Track	Trck	National Grid Gas	NGG								
									Track	Trck	Signals (rail)	Sig Rail	British Telecom	BT								
									Signals (rail)	Sig Rail	Signals (road)	Sig Road	Other Utilities	Other Ut								
									Signals (road)	Sig Road	Highway	Hghwy										
									Highway	Hghwy												
									Operations	Ops												
									Maintenance	Maint												
									Quality Review	Qual												
									Health & Safety	H&S												
									Environmental	Env												
Contractor to code any activity that falls under the responsibility of the Employer or Project Manager.		Contractor shall code milestones as directed by the Project Manager; these will likely be develop through the project lifecycle.		Contractor to code any procurement activity, to include long lead materials and equipment, and sub-contractors		Contractor to code any third party consent activity irrespective of whether responsibility of the Project Manager, Employer or Contractor.		Contractor to code all Engineering and Design activities.		Contractor to code all Delivery disciplines.		Contractor to code any activity that falls under "Others" as defined in the contract.		Contractor to code any testing, commissioning and handover activities which requires witness by TfL.		Contractor to code any activity requiring access to Employer's property or the property of Others.		Contractor to code all activities relating to Employer attributed delay events.		Contractor to code Tier 1 Supply Chain; coding to be agreed with Planning Manager to provide consistency across the organisation.		

Note:
Any addition or amendment to this code list can be made by agreement with the Project's Senior Planning Manager; the code list shall be generic, and not specific to individual projects. The coding structure is relevant to both Contractor and Client schedules.

[illegible]

5	RCS	Rail & Road Control Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and Authorisation RCS_100_AD Asset Disruption RCS_100_FES Feasibility Design & Early Studies RCS_100_CD Concept Design RCS_100_DD Detailed Design RCS_100_CM Commercial Management (incl. Procurement) RCS_100_MAN Manufacturing/Fabrication/Delivery on Site RCS_100_PLW Preliminary Works RCS_100_EW Enabling Works RCS_100_CW Construction/Installation Works RCS_100_COM Testing & Commissioning RCS_100_HCO Handover & Close-out	RCS_101	Controls and Monitoring Systems	RCS_101.01	Consoles & Panels	1						
						RCS_101.02	Lever Frames	1								
						RCS_101.03	Ground Frames	1								
						RCS_101.04	Train Describers	1								
						RCS_101.05	Supervisory Items	1								
						RCS_101.06	Signalling Simulator	1								
						RCS_102	Interlocking System	RCS_102.01	Mirco-Processor Based System	1						
								RCS_102.02	Electro-Mechanical Interlocking	1						
								RCS_102.03	Mechanical System	1						
								RCS_102.04	Trackside Interlocking Interface Unit	1						
								RCS_102.05	Tokenless Block	1						
						RCS_103	Point Mechanisms	RCS_103.01	Electrical Point Mechanisms	1						
								RCS_103.02	Hydraulic Points Mechanisms	1						
								RCS_103.03	Electro-Pneumatic Point Mechanisms	1						
								RCS_103.04	Air Point Mechanisms	1						
								RCS_103.05	Mechanical Point Mechanisms	1						
						RCS_104	Signals and Indicators	RCS_104.01	Colour Light Signal	1						
								RCS_104.02	Banner Repeaters	1						
								RCS_104.03	Position Light Signal	1						
								RCS_104.04	Route Indicators	1						
								RCS_104.05	Mechanical Signal	1						
								RCS_104.06	Operational Signs and Noticeboards	1						
								RCS_104.07	Other Signals & Indicators	1						
						RCS_105	Train Detection Systems	RCS_105.01	Track Circuits	1						
								RCS_105.02	Axle Counters	1						
								RCS_105.03	Treadle	1						
								RCS_105.04	Balise	1						
								RCS_105.05	Insulated Block Joints	1						
								RCS_105.06	Impedance Bonds	1						
								RCS_105.07	Hot Axle Box Detectors	1						
						RCS_106	Train Protection Systems	RCS_106.01	Automatic Warning System (AWS)	1						
								RCS_106.02	Train Protection Warning System (TPWS)	1						
								RCS_106.03	Automatic Train Control (ATC)	1						
								RCS_106.04	Automatic Train Protection (ATP)	1						
						RCS_107	Remote Control Systems	RCS_107.01	Time Division Data Transmission Systems (TDM)	1						
								RCS_107.02	Frequency Division Data Transmission Systems (FDM)	1						
								RCS_107.03	Radio Electronic Tokenless Block (RETB)	1						
								RCS_107.04	Lockout Device (LOD)	1						
								RCS_107.05	Alarms, Warnings, and Controls	1						
								RCS_107.06	Other Remote Control Systems	1						
						RCS_108	Signal Support Structures	RCS_108.01	Cables	1						
								RCS_108.02	Containment devices	1						
								RCS_108.03	Theft Protection devices	1						
						RCS_109	Cables and Containment Structures	RCS_109.01	Freestanding Single Post	1						
								RCS_109.02	Structural Ancillaries	1						
								RCS_109.03	Cantilevers	1						
								RCS_109.04	Gantry / Portal	1						
						RCS_110	Signalling Equipment Housing, Platforms	RCS_110.01	Location Case - Racking and Equipment	1						
								RCS_110.02	Portable Building - REB Container	1						
								RCS_110.03	Trackside Equipment	1						
						RCS_111	Level Crossings	RCS_111.01	Highway	1						
								RCS_111.02	Barriers	1						
								RCS_111.03	Signalling & Traffic Protection	1						
								RCS_111.04	Control and Operating Systems	1						
						RCS_112	Other Signalling Systems (digital or non-digital)	RCS_112.01	Other Signalling Systems Components (digital or non-digital)	1						
						Signalling Systems Total										55
						RCS_200	Traffic Management Systems	RCS_200_CA Consents and Authorisation RCS_200_AD Asset Disruption RCS_200_FES Feasibility Design & Early Studies RCS_200_CD Concept Design RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_201	Supervisory Control Incident Management Stock and Crew Systems	RCS_201.01	Hardware Components	1			
									RCS_201.02	Software Components	1					
									RCS_202	Management Systems	RCS_202.01	Hardware Components	1			
									RCS_202.02	Software Components	1					
									RCS_203	Stock and Crew Systems	RCS_203.01	Hardware Components	1			
									RCS_203.02	Software Components	1					
									RCS_204	Safe Track Worker Access	RCS_204.01	Hardware Components	1			
									RCS_204.02	Software Components	1					
									Traffic Management Systems Total				8			
						RCS_300	Telecommunications Systems	RCS_300_CA Consents and Authorisation RCS_300_AD Asset Disruption RCS_300_FES Feasibility Design & Early Studies RCS_300_CD Concept Design RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning RCS_300_HCO Handover & Close-out	RCS_301	Operational Control Centre	RCS_301.01	Visual Display Units	1			
											RCS_301.02	Signal Box Control Panel	1			
									RCS_302	Operational Radio	RCS_302.01	Masts	1			
											RCS_302.02	Aerials	1			
											RCS_302.03	Base Stations	1			
									RCS_303		Data Transmission		RCS_303.01	Transmission Network	1	
													RCS_303.02	Transmission Equipment	1	
									RCS_304		Communication Cabling		RCS_304.01	Communication Cables and Containment	1	
													RCS_305.01	Telephone Concentrators	1	
									RCS_305		Concentrator Equipment		RCS_305.02	Operational Radio	1	
													RCS_305.03	Zone Control Communication Systems	1	
													RCS_305.04	Other Stated Concentrators	1	
													RCS_306.01	Access Point	1	
									RCS_306		Operational Telephone		RCS_306.02	Direct Line	1	
													RCS_306.03	Emergency	1	
													RCS_306.04	Lineside Plug	1	
													RCS_306.05	Emergency Telephone Devices (ETD)	1	
													RCS_306.06	Signal Post Telephone (SPT)	1	
													RCS_306.07	Point Zone Telephone (PZT)	1	
													RCS_306.08	Ground Frame Circuit	1	
													RCS_306.09	Tunnel Emergency Circuit	1	
													RCS_306.10	Level Crossing Public Emergency Telephone System (PETS)	1	
													RCS_307.01	CCTV Cameras	1	
									RCS_307		Audio-Visual Management Systems		RCS_307.02	Monitors	1	
													RCS_307.03	Mirrors	1	
													RCS_307.04	Control Panels	1	
													RCS_307.05	Microphones and Speaking Points	1	
													RCS_307.06	Recorders	1	
													RCS_307.07	Amplifiers	1	
													RCS_307.08	Primary Object Detectors (POD)	1	
													RCS_307.09	Complementary Object Detectors (COD)	1	
													RCS_308.01	Automatic Train Reporting (ATR)	1	
									RCS_308		Positioning Equipment		RCS_308.02	Station Information VDU stepping (SIVS)	1	
													RCS_308.03	Train Running Under System TOPS (TRUST)	1	
													RCS_309.01	Point Heaters	1	
									RCS_309		Remote Asset Monitoring Systems (SCADA)		RCS_309.02	Standby Generators	1	
													RCS_309.03	Pumps	1	
													RCS_309.04	SCADA Equipment	1	
													RCS_309.05	Relocatable Equipment Buildings (REB)	1	
													RCS_310.01	Speakers	1	
									RCS_310		Customer Information System		RCS_310.02	Microphones and Speaking Points	1	
													RCS_310.03	Amplifiers	1	
													RCS_310.04	Ambient Noise Sensor	1	
													RCS_310.05	Audio & Video Control Panels	1	
													RCS_310.06	Video Display Units	1	
													RCS_310.07	Recorders	1	
													RCS_311.01	Racking Equipment Location Case	1	
		RCS_311	Communication Equipment Housing, Platforms		RCS_311.02	Relocatable Equipment Buildings (REB)	1									
RCS_311.03	Trackside Equipment				1											
Telecommunications Systems Total										49						
Grand Total										581						

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
UT	Underground Transport	INF	Infrastructure	INF_UT100	Track	INF_UT101	Ballasted Track	1. PM	Project Management	1.1 PM	Project Management and Controls	INF_UT101.01	Rails	1
ST	Surface Transport	BP	Buildings & Property	BP_UT200	Stations	INF_UT102	Track Drainage	2. ENG	Engineering	1.2 PM	Consents and Authorisations	INF_UT101.02	Sleepers	1
		TS	Train Systems	BP_UT300	Property	INF_UT103	Points & Crossings (P&C)	3. PRO	Procurement	1.3 PM	HSSE	INF_UT101.03	Tampers	1
		RCS	Railway Control Systems	TS_UT400	Depots & Stabling	INF_UT104	Conductor Rail	4. CON	Construction	1.4 PM	Quality Assurance & Control	INF_UT101.04	Switches & Crossings	1
		GEN	General Deliverables	INF_UT500	Power	INF_UT105	Deep Tube	5. CMT	Commissioning & Testing	1.5 PM	Governance	INF_UT101.05	Rail Fishplate	1
				INF_UT600	Cooling	INF_UT106	Embedded Rail	6. OM	Operations & Maintenance	1.6 PM	Surveys	INF_UT101.06	Ballast	1
				INF_UT700	Civil & Structures	INF_UT107	Slab Track			1.7 PM	Miscellaneous	INF_UT101.07	Fasteners	1
				RCS_UT800	Signalling	INF_UT108	Ancillaries			2.1 ENG	General Engineering & Management	INF_UT101.08	Cabling	1
				RCS_UT900	Communications	BP_UT201	Tunnels & Shafts			2.2 ENG	Civil & Structural Engineering	INF_UT102.01	Drain	1
				TS_UT1000	Rolling Stock	BP_UT202	Station Box/Station Structure			2.3 ENG	Mechanical Engineering	INF_UT102.02	Pipe	1
				INF_ST100	Civil & Structures	BP_UT203	Ticket Hall			2.4 ENG	Electrical Engineering	INF_UT102.03	Valves	1
				INF_ST200	Highways	BP_UT204	Concourse			2.5 ENG	Signalling & Controls	INF_UT102.04	Chambers	1
				INF_ST300	Vehicles	BP_UT205	Circulation Areas / Passages			2.6 ENG	Technical Compliance & Safety	INF_UT102.05	Separator	1
				BP_ST400	Buildings	BP_UT206	Operations Rooms			3.1 PRO	Contracted Packages - Equipment/Plant/Bulk Materials & Procurement Stage	INF_UT102.06	Channels	1
				BP_ST500	Property	BP_UT207	Staff Facilities/Rooms			4.1 CON	General Construction & Management	INF_UT102.07	Catchpit	1
				GEN_100	Programme Management	BP_UT208	Other Rooms/Areas			4.2 CON	Civil & Structural Construction	INF_UT102.08	Siphon	1
				GEN_200	Governance & Assurance	BP_UT209	Platforms			4.3 CON	Mechanical Installation	INF_UT102.09	Water Retention Tank	1
						BP_UT210	Station Signage			4.4 CON	Electrical Installation	INF_UT102.10	Pumps	1
						BP_UT211	Lifts & Escalators			4.5 CON	Signalling & Controls Installation	INF_UT102.11	Treatment Plant	1
						BP_UT212	Fare Collection/Ticketing			4.6 CON	Pre-Commissioning	INF_UT103.01	Rails	1
						BP_UT213	Utility Facilities			5.1 CMT	Testing & Start-up	INF_UT103.02	Stretcher bar	1
						BP_UT214	Fire (Safety) Systems			5.2 CMT	Handover	INF_UT103.03	Heel Blocks	1
						BP_UT215	Cooling			6.1 OM	Operations & Maintenance	INF_UT103.04	Switch tie plates	1
						BP_UT216	Electrical System					INF_UT103.05	Slide Chairs	1
						BP_UT217	Communications & Other Systems					INF_UT103.06	Fasteners	1
						BP_UT218	Pumps & Drainage					INF_UT104.01	Rails	1
						BP_UT219	External Works & Facilities					INF_UT104.02	Sleepers	1
						BP_UT301	Signalling Equipment Room					INF_UT104.03	Tampers	1
						BP_UT302	Platform Edge Doors Controller Room					INF_UT104.04	Switches & Crossings	1
						TS_UT401	Buildings & Ancillary Property					INF_UT104.05	Rail Fishplate	1
						TS_UT402	Access Platforms					INF_UT104.06	Ballast	1
						TS_UT403	Drainage Facility/System					INF_UT104.07	Fasteners	1
						TS_UT404	Accommodation & Storage Facilities					INF_UT104.08	Cabling	1
						TS_UT405	Security Facilities/Systems					INF_UT105.01	Rails	1
						TS_UT406	Mechanical Facilities/Systems					INF_UT105.02	Sleepers	1
						TS_UT407	Power and Lighting Facilities/Systems					INF_UT105.03	Tampers	1
						TS_UT408	Signalling Facilities/System					INF_UT105.04	Switches & Crossings	1
						TS_UT409	Cleaning Facilities					INF_UT105.05	Rail Fishplate	1
						TS_UT410	Maintenance Facilities					INF_UT105.06	Ballast	1
						TS_UT411	Track Facilities					INF_UT105.07	Fasteners	1
						TS_UT412	Other Systems/Facilities					INF_UT105.08	Cabling	1
						INF_UT501	Electrical Substation					INF_UT106.01	Rails	1
						INF_UT502	Electrical Cables & Accessories					INF_UT106.02	Sleepers	1
						INF_UT503	Overhead Line Equipment					INF_UT106.03	Tampers	1
						INF_UT601	Cooling System					INF_UT106.04	Switches & Crossings	1
						INF_UT602	Platform Air Handling Unit (PAHU)					INF_UT106.05	Rail Fishplate	1
						INF_UT701	Bridges & Viaducts					INF_UT106.06	Ballast	1
						INF_UT702	Cutting & Embankment					INF_UT106.07	Fasteners	1
						INF_UT703	Footbridge					INF_UT106.08	Cabling	1
						INF_UT704	Overbridge					INF_UT107.01	Rails	1
						INF_UT705	Retaining Walls					INF_UT107.02	Sleepers	1
						INF_UT706	Miscellaneous Structures					INF_UT107.03	Tampers	1
						INF_UT707	Fencing & Barriers					INF_UT107.04	Switches & Crossings	1
						INF_UT708	Staircases					INF_UT107.05	Rail Fishplate	1
						INF_UT709	Tunnels & Shafts					INF_UT107.06	Fasteners	1
						INF_UT710	Canopy					INF_UT107.07	Cabling	1
						RCS_UT801	Digital Signalling					INF_UT108.01	Buffer Stops	1
						RCS_UT802	Legacy Signalling					INF_UT108.02	Retarders	1
						RCS_UT803	Cable Route Management System					INF_UT108.03	Sundries	1
						RCS_UT804	Signalling Immunisation					BP_UT201.01	Escalator Shaft	1
						RCS_UT805	LVAC ATC Signalling Power					BP_UT201.02	Platform Tunnel	1
						RCS_UT806	Signage					BP_UT201.03	Subways and Underpasses	1
						RCS_UT807	Interlocking System					BP_UT201.04	Tunnel Crossover	1
						RCS_UT901	One Person Operation Cameras					BP_UT201.05	Lift Shaft	1
						RCS_UT902	One Person Operation Monitors					BP_UT202.01	Substructures	1
						RCS_UT903	Corrective Side Door Enabling System					BP_UT202.02	Frame	1
						RCS_UT904	Selective Door Opening System					BP_UT202.03	Upper Floors	1
						RCS_UT905	Operational Control Centre					BP_UT202.04	Roof	1
						RCS_UT906	Operational Control Systems					BP_UT202.05	Stairs	1
						RCS_UT907	Station Management System (CER)					BP_UT202.06	External Walls	1
						RCS_UT908	Remote Monitoring / SCADA					BP_UT203.01	Windows & External Doors	1
						RCS_UT909	Information Transmission Systems					BP_UT203.02	Internal Walls and Partitions	1
						RCS_UT910	Telephone System					BP_UT203.03	Internal Doors	1
						RCS_UT911	Security Systems					BP_UT203.04	Wall Finishes	1
						RCS_UT912	Operational Management Systems					BP_UT203.05	Floor Finishes	1
						RCS_UT913	Other Systems					BP_UT203.06	Ceiling Finishes	1
						TS_UT1001	Passenger Rolling Stock					BP_UT203.07	Fittings and Furnishings	1
						TS_UT1002	Wagons					BP_UT204.01	Windows & External Doors	1
						TS_UT1003	On track machines					BP_UT204.02	Internal Walls and Partitions	1
						TS_UT1004	Cab Simulators					BP_UT204.03	Internal Doors	1
						TS_UT1005	Other vehicles					BP_UT204.04	Wall Finishes	1
						INF_ST101	Bridge					BP_UT204.05	Floor Finishes	1
						INF_ST102	Retaining Walls					BP_UT204.06	Ceiling Finishes	1
						INF_ST103	Other Structures					BP_UT204.07	Fittings and Furnishings	1
						INF_ST104	Footbridge & Cycle Bridge					BP_UT205.01	Windows & External Doors	1
						INF_ST105	Gantries					BP_UT205.02	Internal Walls and Partitions	1
						INF_ST106	Tunnels					BP_UT205.03	Internal Doors	1
						INF_ST107	Arches					BP_UT205.04	Wall Finishes	1

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
						INF_ST108	River Piers					BP_UT205.05	Floor Finishes	1
						INF_ST201	Carriageway					BP_UT205.06	Ceiling Finishes	1
						INF_ST202	CCTV System					BP_UT205.07	Fittings and Furnishings	1
						INF_ST203	Crossings					BP_UT206.01	Windows & External Doors	1
						INF_ST204	Cycle Lane					BP_UT206.02	Internal Walls and Partitions	1
						INF_ST205	Drainage					BP_UT206.03	Internal Doors	1
						INF_ST206	Footway					BP_UT206.04	Wall Finishes	1
						INF_ST207	Furniture					BP_UT206.05	Floor Finishes	1
						INF_ST208	Junction					BP_UT206.06	Ceiling Finishes	1
						INF_ST209	Landscape					BP_UT206.07	Fittings and Furnishings	1
						INF_ST210	Lighting					BP_UT207.01	Windows & External Doors	1
						INF_ST211	Public Realm					BP_UT207.02	Internal Walls and Partitions	1
						INF_ST212	Road Signs and Markings					BP_UT207.03	Internal Doors	1
						INF_ST213	Traffic Signalling					BP_UT207.04	Wall Finishes	1
						INF_ST214	Utilities					BP_UT207.05	Floor Finishes	1
						INF_ST215	Variable Message Sign					BP_UT207.06	Ceiling Finishes	1
						INF_ST216	Vehicle Restraint System					BP_UT207.07	Fittings and Furnishings	1
						INF_ST301	Buses					BP_UT208.01	Windows & External Doors	1
						INF_ST302	Coaches					BP_UT208.02	Internal Walls and Partitions	1
						INF_ST303	Cycles					BP_UT208.03	Internal Doors	1
						INF_ST304	Ferries					BP_UT208.04	Wall Finishes	1
						INF_ST305	Other vehicles					BP_UT208.05	Floor Finishes	1
						BP_ST401	Bus Garage					BP_UT208.06	Ceiling Finishes	1
						BP_ST501	Bus Station and Stands					BP_UT208.07	Fittings and Furnishings	1
						BP_ST502	Bus Stops and Shelters					BP_UT209.01	Platform End Barriers (PEB)	1
						BP_ST503	Charging Stations					BP_UT209.02	Train Stop Markers (TSM)	1
						BP_ST504	Pumping Stations					BP_UT209.03	Platform Train Interface (PTI)	1
												BP_UT209.04	Platform Humps	1
												BP_UT209.05	Platform Edge Doors	1
												BP_UT209.06	Platform Operational Signage	1
												BP_UT210.01	Station Signage Non-Illuminated	1
												BP_UT210.02	Whiteboard	1
												BP_UT210.03	Poster Frame	1
												BP_UT210.04	Advertising Panel / Notice Board	1
												BP_UT211.01	Escalator System	1
												BP_UT211.02	Passenger Conveyor	1
												BP_UT211.03	Passenger Lifting Platform	1
												BP_UT211.04	Hydraulic Lift	1
												BP_UT211.05	Traction Lift	1
												BP_UT211.06	Other Equipment	1
												BP_UT212.01	Passenger Operated Machines	1
												BP_UT212.02	Staff Operated Machines	1
												BP_UT212.03	Ticketing Gates	1
												BP_UT212.04	Non-Ticketing Gates	1
												BP_UT212.05	Station Computer	1
												BP_UT212.06	Ticket Office Equipment	1
												BP_UT212.07	Other Equipment	1
												BP_UT213.01	Water Services	1
												BP_UT213.02	Gas Services	1
												BP_UT213.03	Oil Services	1
												BP_UT213.04	Sanitary Appliances	1
												BP_UT213.05	Disposal Installations	1
												BP_UT214.01	Fire Detection	1
												BP_UT214.02	Supression Fire System	1
												BP_UT214.03	Fire Estringuishers	1
												BP_UT215.01	Air Conditioning Unit	1
												BP_UT215.02	Ventilation Unit	1
												BP_UT216.01	Distribution Board	1
												BP_UT216.02	Circuit Breaker	1
												BP_UT216.03	Power Transformers	1
												BP_UT216.04	Transformer Rectifier	1
												BP_UT216.05	Electricity meters	1
												BP_UT216.06	Electrical relays	1
												BP_UT216.07	Electrical switches	1
												BP_UT216.08	Batteries, Chargers and Auxiliary supplies	1
												BP_UT216.09	Cabling and Containment within Substation	1
												BP_UT216.10	Power Inverters	1
												BP_UT216.11	Control & Protection Panel	1
												BP_UT216.12	Fire alarm panel	1
												BP_UT216.13	SCADA system	1
												BP_UT216.14	Feeder Cables	1
												BP_UT216.15	Platforms & Bases	1
												BP_UT216.16	Fiber Optic Cable	1
												BP_UT216.17	DC Continuity Cable	1
												BP_UT216.18	Tunnel Lighting	1
												BP_UT216.19	Station Signange Illumination	1
												BP_UT216.20	Appliances	1
												BP_UT217.01	CCTV Systems	1
												BP_UT217.02	PA Systems	1
												BP_UT217.03	Security Systems	1
												BP_UT217.04	Operator Information Systems	1
												BP_UT217.05	Telecommunications	1
												BP_UT217.06	Station Management System	1
												BP_UT217.07	Service Control System	1
												BP_UT217.08	Platform Telephones/Help Points	1
												BP_UT217.09	Other Systems	1
												BP_UT218.01	Drain	1
												BP_UT218.02	Pipe	1

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline			
												BP_UT218.03	Valves	1
												BP_UT218.04	Chambers	1
												BP_UT218.05	Separator	1
												BP_UT218.06	Channels	1
												BP_UT218.07	Catchpit	1
												BP_UT218.08	Siphon	1
												BP_UT218.09	Water Retention Tank	1
												BP_UT218.10	Pumps	1
												BP_UT218.11	Treatment Plant	1
												BP_UT219.01	Access Road	1
												BP_UT219.02	Car Park	1
												BP_UT219.03	Covered Walkway	1
												BP_UT219.04	Footpath	1
												BP_UT219.05	Forecourt	1
												BP_UT219.06	Wall	1
												BP_UT219.07	Steps / Ramps	1
												BP_UT219.08	Fence	1
												BP_UT219.09	Road Markings	1
												BP_UT219.10	Gate	1
												BP_UT220.11	Lineside buildings	1
												BP_UT301.01	Foundation	1
												BP_UT301.02	Drainage System	1
												BP_UT301.03	Electrical System	1
												BP_UT301.04	Mechanical System	1
												BP_UT301.05	Fire Protection System	1
												BP_UT301.06	Walkway	1
												BP_UT301.07	Pathway	1
												BP_UT302.01	Foundation	1
												BP_UT302.02	Drainage System	1
												BP_UT302.03	Electrical System	1
												BP_UT302.04	Mechanical System	1
												BP_UT302.05	Fire Protection System	1
												BP_UT302.06	Walkway	1
												BP_UT302.07	Pathway	1
												TS_UT401.01	Windows & External Doors	1
												TS_UT401.02	Internal Walls and Partitions	1
												TS_UT401.03	Internal Doors	1
												TS_UT401.04	Wall Finishes	1
												TS_UT401.05	Floor Finishes	1
												TS_UT401.06	Ceiling Finishes	1
												TS_UT401.07	Fittings and Furnishings	1
												TS_UT402.01	Walkway	1
												TS_UT402.02	Signage	1
												TS_UT403.01	Chambers	1
												TS_UT403.02	Pipe	1
												TS_UT403.03	Separator	1
												TS_UT403.04	Channels	1
												TS_UT403.05	Ditch	1
												TS_UT403.06	Siphon	1
												TS_UT403.07	Drain	1
												TS_UT403.08	Valves	1
												TS_UT403.09	Water Retention Tank	1
												TS_UT403.10	Treatment Plant	1
												TS_UT403.11	Pumps	1
												TS_UT404.01	Staff Accommodation Office Block	1
												TS_UT404.02	Lockers	1
												TS_UT404.03	Toilets	1
												TS_UT404.04	Shower Rooms	1
												TS_UT404.05	Drying Rooms	1
												TS_UT404.06	Shed	1
												TS_UT405.01	Depot Public Address	1
												TS_UT405.02	Depot Ground Public Address	1
												TS_UT405.03	Depot Alarm Systems	1
												TS_UT405.04	Building Access System	1
												TS_UT405.05	Security CCTV	1
												TS_UT406.01	Workshop Equipment	1
												TS_UT406.02	De-Icing Equipment	1
												TS_UT406.03	Lifting Equipment	1
												TS_UT406.04	Overhead Trolley	1
												TS_UT406.05	Wheel Lathe	1
												TS_UT406.06	Welding Equipment	1
												TS_UT406.07	Compressed Air Equipment	1
												TS_UT406.08	Noise & Vibration	1
												TS_UT407.01	Circuit Breaker	1
												TS_UT407.02	Traction Switches	1
												TS_UT407.03	Lighting Equipment	1
												TS_UT407.04	Shore Supplies	1
												TS_UT407.05	Cabling	1
												TS_UT407.06	Electric Switchboard	1
												TS_UT408.01	Cable Route Management System	1
												TS_UT409.01	Cleaning Equipment	1
												TS_UT410.01	Battery Maintenance Unit	1
												TS_UT411.01	Plain Line	1
												TS_UT411.02	Switches & Crossings	1
												TS_UT411.03	Conductor Rail	1
												TS_UT412.01	Other Systems/Facilities	1
												INF_UT501.01	Electric Switchboard	1
												INF_UT501.02	Distribution Board	1

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline			
												INF_UT501.03	Circuit Breaker	1
												INF_UT501.04	Power Transformers	1
												INF_UT501.05	Transformer Rectifier	1
												INF_UT501.06	Electricity meters	1
												INF_UT501.07	Electrical relays	1
												INF_UT501.08	Electrical switches	1
												INF_UT501.09	Batteries, Chargers and Auxiliary supplies	1
												INF_UT501.10	Cabling and Containment within Substation	1
												INF_UT501.11	Power Inverters	1
												INF_UT501.12	Control & Protection Panel	1
												INF_UT501.13	Fire alarm panel	1
												INF_UT501.14	SCADA system	1
												INF_UT501.15	Platforms & Bases	1
												INF_UT502.01	Fiber Optic Cable	1
												INF_UT502.02	Junction box	1
												INF_UT502.03	Splice Box	1
												INF_UT502.04	Loop Tray	1
												INF_UT502.05	Feeder Cables	1
												INF_UT502.06	Pilot Cables	1
												INF_UT502.07	Pilot Box	1
												INF_UT502.08	Cable Joints	1
												INF_UT502.09	Cable Terminations	1
												INF_UT502.10	Undertrack crossing	1
												INF_UT502.11	Underroad crossing	1
												INF_UT502.12	Earth Electrodes	1
												INF_UT502.13	Trunk Switch	1
												INF_UT502.14	Track Crossing	1
												INF_UT503.01	Foundations	1
												INF_UT503.02	Masts	1
												INF_UT503.03	Booms	1
												INF_UT503.04	Autotransformer Feeder	1
												INF_UT503.05	Wiring	1
												INF_UT503.06	Switches	1
												INF_UT503.07	Sundries	1
												INF_UT601.01	Fans	1
												INF_UT601.02	Air Vent	1
												INF_UT601.03	Air Conditioning Unit	1
												INF_UT602.01	Air Handling Unit	1
												INF_UT602.02	Water Circuit	1
												INF_UT602.03	Control Sensors and Indicators	1
												INF_UT701.01	Foundation	1
												INF_UT701.02	Abutment	1
												INF_UT701.03	Wing Wall	1
												INF_UT701.04	Pier	1
												INF_UT701.05	Drain	1
												INF_UT701.06	Structural Deck	1
												INF_UT701.07	Bearings	1
												INF_UT702.01	Concrete Piles	1
												INF_UT702.02	Beams	1
												INF_UT702.03	Netting	1
												INF_UT702.04	Grounds anchors	1
												INF_UT702.05	Barriers	1
												INF_UT702.06	Fence	1
												INF_UT702.07	Ram Wall	1
												INF_UT702.08	Crest Walkway	1
												INF_UT702.09	French Drain	1
												INF_UT702.10	Drainage Blanket	1
												INF_UT703.01	Foundation	1
												INF_UT703.02	Abutment	1
												INF_UT703.03	Pier	1
												INF_UT703.04	Parapet	1
												INF_UT703.05	Drain	1
												INF_UT703.06	Ramp	1
												INF_UT703.07	Stairs	1
												INF_UT703.08	Lift Shaft	1
												INF_UT703.09	Structural Deck	1
												INF_UT703.10	Bearings	1
												INF_UT704.01	Foundation	1
												INF_UT704.02	Abutment	1
												INF_UT704.03	Wing Wall	1
												INF_UT704.04	Pier	1
												INF_UT704.05	Drain	1
												INF_UT704.06	Structural Deck	1
												INF_UT704.07	Bearings	1
												INF_UT705.01	Foundation	1
												INF_UT705.02	Posts	1
												INF_UT705.03	Walls	1
												INF_UT705.04	Crib Walling	1
												INF_UT705.05	Gabions	1
												INF_UT705.06	Anchors	1
												INF_UT705.07	Sleepers/Beams	1
												INF_UT705.08	Barriers	1
												INF_UT705.09	French Drain	1
												INF_UT705.10	Drainage Blanket	1
												INF_UT706.01	Staircases	1
												INF_UT706.02	Access lader	1
												INF_UT706.03	Gantry	1
												INF_UT706.04	Station wall	1

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
												INF_UT706.05	Beams	1
												INF_UT706.06	Girders	1
												INF_UT707.01	Trackside	1
												INF_UT707.02	Access gate	1
												INF_UT708.01	Foundation	1
												INF_UT708.02	Steel Structure	1
												INF_UT709.01	Escalator Shaft	1
												INF_UT709.02	Platform Tunnel	1
												INF_UT709.03	Subways and Underpasses	1
												INF_UT709.04	Tunnel Crossover	1
												INF_UT709.05	Lift Shaft	1
												INF_UT_709.06	Running Tunnel	1
												INF_UT710.01	Sections	1
												INF_UT710.02	Panels	1
												INF_UT710.03	Brackets	1
												INF_UT710.04	Supports	1
												INF_UT710.05	Fittings	1
												RCS_UT801.01	TBA	1
												RCS_UT802.01	TBA	1
												RCS_UT803.01	Concrete Footings	1
												RCS_UT803.02	Steel Posts	1
												RCS_UT803.03	Anchor Posts	1
												RCS_UT803.04	Steel Straps	1
												RCS_UT803.05	Backplates	1
												RCS_UT803.06	Hangers	1
												RCS_UT803.07	Cable Tray	1
												RCS_UT803.08	Supports	1
												RCS_UT804.01	TBA	1
												RCS_UT805.01	TBA	1
												RCS_UT806.01	TBA	1
												RCS_UT807.01	TBA	1
												RCS_UT901.01	TBA	1
												RCS_UT902.01	TBA	1
												RCS_UT903.01	Safety PLC	1
												RCS_UT903.02	ASDO Controller	1
												RCS_UT903.03	Geofence	1
												RCS_UT903.04	Network Route	1
												RCS_UT903.05	Door Circuits	1
												RCS_UT904.01	Safety PLC	1
												RCS_UT904.02	ASDO Controller	1
												RCS_UT904.03	Geofence	1
												RCS_UT904.04	Network Route	1
												RCS_UT904.05	Door Circuits	1
												RCS_UT905.01	Fixed Asset Control Display & Communication	1
												RCS_UT905.02	Power System Control Display & Communication	1
												RCS_UT905.03	Traffic Management Control Display & Communication	1
												RCS_UT905.04	Passenger Information Control Display & Communication	1
												RCS_UT905.05	Security Management Display & Communication	1
												RCS_UT906.01	CCTV Systems	1
												RCS_UT906.02	Customer Information System	1
												RCS_UT906.03	Emergency Traction Discharge System	1
												RCS_UT906.04	Traction Earth Detection System	1
												RCS_UT906.05	Control Room Telephony	1
												RCS_UT906.06	Passenger Emergency Alarms	1
												RCS_UT906.07	Train Surveillance Network	1
												RCS_UT907.01	SMS Control System	1
												RCS_UT907.02	SMS Operator Interface System	1
												RCS_UT908.01	Controlled Plant	1
												RCS_UT908.02	Transducer	1
												RCS_UT908.03	Sensors	1
												RCS_UT908.04	Pilot Box	1
												RCS_UT908.05	GPS Antenna	1
												RCS_UT908.06	Modems	1
												RCS_UT908.07	Remote Terminal Unit	1
												RCS_UT908.08	Supervisory Computer	1
												RCS_UT908.09	Programmable Logic Controllers	1
												RCS_UT908.10	Alarm Systems	1
												RCS_UT908.11	Human-Machine Interface	1
												RCS_UT909.01	Operational Radio	1
												RCS_UT909.02	Data Transmission	1
												RCS_UT910.01	Telephony Equipment	1
												RCS_UT910.02	Public Emergency Telephone	1
												RCS_UT910.03	Tunnel Telephone	1
												RCS_UT911.01	Surveillance System	1
												RCS_UT911.02	Security Alarms	1
												RCS_UT911.03	Access Control Systems	1
												RCS_UT912.01	Driver-Only Operation	1
												RCS_UT912.02	Train Monitoring System	1
												RCS_UT913.01	Other Systems	1
												TS_UT1001.01	Braking System	1
												TS_UT1001.02	Traction & Propulsion	1
												TS_UT1001.03	Door System	1
												TS_UT1001.04	Car Body System	1
												TS_UT1001.05	Bogie & Suspension System	1
												TS_UT1001.06	Coupling System	1
												TS_UT1001.07	Underframe System	1
												TS_UT1001.08	Auxillary System	1
												TS_UT1001.09	Heating & Ventilation	1

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
												TS_UT1001.10	Air Supply System	1
												TS_UT1001.11	Electrical Distribution	1
												TS_UT1001.12	Emergency Equipment System	1
												TS_UT1001.13	Fault Recording Equipment	1
												TS_UT1001.14	Automatic Train Control	1
												TS_UT1001.15	Communications System	1
												TS_UT1001.16	Label and notice System	1
												TS_UT1001.17	Shoegear System	1
												TS_UT1001.18	Vehicle Location System	1
												TS_UT1001.19	ATMS	1
												TS_UT1001.20	Leaf Fall Mitigation	1
												TS_UT1002.01	Wagon body Structure	1
												TS_UT1002.02	Couplers, Buffers, & Drawgear	1
												TS_UT1002.03	Wagon mounted equipment	1
												TS_UT1002.04	Braking System	1
												TS_UT1002.05	Bogies & running gear	1
												TS_UT1003.01	Body Structure	1
												TS_UT1003.02	Couplers, Buffers, & Drawgear	1
												TS_UT1003.03	Traction Equipment	1
												TS_UT1003.04	Braking System	1
												TS_UT1003.05	Bogies & running gear	1
												TS_UT1003.06	Interior	1
												TS_UT1003.07	Auxillary Electrical Equipment	1
												TS_UT1003.08	Specialist Equipment	1
												TS_UT1003.09	Train Control System	1
												TS_UT1003.10	Exterior	1
												TS_UT1004.01	Driver Display Units	1
												TS_UT1004.02	Audio System	1
												TS_UT1004.03	Video System	1
												TS_UT1004.04	Ventilation System	1
												TS_UT1005.01	Body Structure	1
												TS_UT1005.02	Couplers, Buffers, & Drawgear	1
												TS_UT1005.03	Traction Equipment	1
												TS_UT1005.04	Braking System	1
												TS_UT1005.05	Bogies & running gear	1
												TS_UT1005.06	Interior	1
												TS_UT1005.07	Auxillary Electrical Equipment	1
												TS_UT1005.08	Specialist Equipment	1
												TS_UT1005.09	Train Control System	1
												TS_UT1005.10	Exterior	1
												INF_ST101.01	Foundation	1
												INF_ST101.02	Abutment	1
												INF_ST101.03	Wing Wall	1
												INF_ST101.04	Pier	1
												INF_ST101.05	Drain	1
												INF_ST101.06	Structural Deck	1
												INF_ST101.07	Bearings	1
												INF_ST102.01	Foundation	1
												INF_ST102.02	Posts	1
												INF_ST102.03	Walls	1
												INF_ST102.04	Crib Walling	1
												INF_ST102.05	Gabions	1
												INF_ST102.06	Anchors	1
												INF_ST102.07	Sleepers/Beams	1
												INF_ST102.08	Barriers	1
												INF_ST102.09	French Drain	1
												INF_ST102.10	Drainage Blanket	1
												INF_ST103.01	Other Structures	1
												INF_ST104.01	Foundation	1
												INF_ST104.02	Abutment	1
												INF_ST104.03	Pier	1
												INF_ST104.04	Parapet	1
												INF_ST104.05	Drain	1
												INF_ST104.06	Ramp	1
												INF_ST104.07	Stairs	1
												INF_ST104.08	Lift Shaft	1
												INF_ST104.09	Structural Deck	1
												INF_ST104.10	Bearings	1
												INF_ST105.01	TBA	1
												INF_ST106.01	Escalator Shaft	1
												INF_ST106.02	Platform Tunnel	1
												INF_ST106.03	Subway	1
												INF_ST106.04	Tunnel Crossover	1
												INF_ST106.05	Running Tunnel	1
												INF_ST107.01	TBA	1
												INF_ST108.01	TBA	1
												INF_ST201.01	TBA	1
												INF_ST202.01	TBA	1
												INF_ST203.01	TBA	1
												INF_ST204.01	TBA	1
												INF_ST205.01	TBA	1
												INF_ST206.01	TBA	1
												INF_ST207.01	TBA	1
												INF_ST208.01	TBA	1
												INF_ST209.01	TBA	1
												INF_ST210.01	TBA	1
												INF_ST211.01	TBA	1
												INF_ST212.01	TBA	1

Level 0		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		
Business Areas ID	Business Area	Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Discipline ID	Discipline	Sub-Discipline ID	Sub-Discipline	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element	No.
												INF_ST213.01	TBA	1
												INF_ST214.01	TBA	1
												INF_ST215.01	TBA	1
												INF_ST216.01	TBA	1
												INF_ST301.01	TBA	1
												INF_ST302.01	TBA	1
												INF_ST303.01	TBA	1
												INF_ST304.01	TBA	1
												INF_ST305.01	TBA	1
												BP_ST401.01	TBA	1
												BP_ST501.01	TBA	1
												BP_ST502.01	TBA	1
												BP_ST503.01	TBA	1
												BP_ST504.01	TBA	1

4	VS	Vehicle Systems	BP_200	Operation and Other Properties	BP_200_CA Consents and Authorisation BP_200_AD Asset Disruption BP_200_FES Feasibility Design & Early Studies BP_200_CD Concept Design BP_200_DD Detailed Design BP_200_CM Commercial Management (incl. Procurement) BP_200_MAN Manufacturing/Fabrication/Delivery on Site BP_200_PLW Preliminary Works BP_200_EW Enabling Works BP_200_CW Construction/Installation Works BP_200_COM Testing & Commissioning BP_200_HCO Handover & Close-out	BP_116	Control and Communication Systems	BP_116.01	Central Control & Building Management Systems	1			
						BP_117	Specialist Equipment	BP_117.01	Specialist Piped Supply Installations	1			
								BP_117.02	Specialist Refrigeration Systems	1			
								BP_117.03	Specialist Mechanical Installations	1			
								BP_117.04	Specialist Electrical / Electronic Installations	1			
								BP_117.05	Water Features	1			
								BP_117.06	Specialist Station Equipment	1			
						BP_118	External Services	BP_118.01	Water Mains Supply	1			
								BP_118.02	Electrical Mains Supply	1			
								BP_118.03	External Transformation Devices	1			
								BP_118.04	Electricity Distribution to External Plant & Equipment	1			
								BP_118.05	Gas Mains Supply	1			
								BP_118.06	Telecommunications & Other Communication System Connections	1			
								BP_118.07	External Fuel Storage and Piped Distribution Systems	1			
								BP_118.08	External Security Systems	1			
								BP_118.09	External / Street Lighting Systems	1			
								BP_118.10	Local / District Heating Installations	1			
						BP_119	Pre-Fabricated Buildings	BP_119.01	Complete Buildings	1			
								BP_119.02	Building Units	1			
								BP_119.03	Pods	1			
								BP_119.04	Bike Stores	1			
						Buildings (incl. Stations) Total							
			BP_200	Operation and Other Properties	BP_200_CA Consents and Authorisation BP_200_AD Asset Disruption BP_200_FES Feasibility Design & Early Studies BP_200_CD Concept Design BP_200_DD Detailed Design BP_200_CM Commercial Management (incl. Procurement) BP_200_MAN Manufacturing/Fabrication/Delivery on Site BP_200_PLW Preliminary Works BP_200_EW Enabling Works BP_200_CW Construction/Installation Works BP_200_COM Testing & Commissioning BP_200_HCO Handover & Close-out	BP_201	Bus Garage	BP_201.01	Foundations	1			
						BP_202	Bus Station and Stands	BP_201.02	Parking Surface	1			
								BP_201.03	Warehouse / Buildings Structure	1			
								BP_201.04	Floor Marking / Signalling	1			
								BP_202.01	Foundations	1			
								BP_202.02	Bus Shelter	1			
						BP_203	Bus Stops and Shelters	BP_202.03	Furniture	1			
								BP_202.04	Bus Stop Posts	1			
								BP_202.05	Floor Marking / Signalling	1			
								BP_203.01	Foundations	1			
								BP_203.02	Bus Shelter	1			
								BP_203.03	Furniture	1			
						BP_204	Pumping Stations	BP_203.04	Bus Stop Posts	1			
								BP_203.05	Floor Marking / Signalling	1			
						BP_204	Pumping Stations	BP_204.01	Fuel Pumping Stations	1			
								BP_204.02	Vehicle Cleaning Water Pumping Stations	1			
						Operation and Other Properties Total							
						VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and Authorisation VS_100_AD Asset Disruption VS_100_FES Feasibility Design & Early Studies VS_100_CD Concept Design VS_100_DD Detailed Design VS_100_CM Commercial Management (incl. Procurement) VS_100_MAN Manufacturing/Fabrication/Delivery on Site VS_100_PLW Preliminary Works VS_100_EW Enabling Works VS_100_CW Construction/Installation Works VS_100_COM Testing & Commissioning VS_100_HCO Handover & Close-out	VS_101	Passenger Rolling Stock	VS_101.01	Car Body (Shell)	1
											VS_101.02	Interior Fit Out Elements	1
											VS_101.03	Windows	1
											VS_101.04	Bogies	1
											VS_101.05	Braking System	1
											VS_101.06	Articulation & Suspension System	1
											VS_101.07	Traction System	1
											VS_101.08	Coupling system	1
											VS_101.09	Control and Communication System	1
											VS_101.10	Auxiliary Equipment and Batteries	1
											VS_101.11	Heating, Ventilation and Air Conditioning	1
											VS_101.12	Driver's Console and Cab Equipment	1
									VS_102	Freight Rolling Stock	VS_102.01	Car Body (Shell)	1
											VS_102.02	Interior Fit Out Elements	1
											VS_102.03	Windows	1
											VS_102.04	Bogies	1
											VS_102.05	Braking System	1
											VS_102.06	Articulation & Suspension System	1
											VS_102.07	Traction System	1
											VS_102.08	Coupling system	1
											VS_102.09	Control and Communication System	1
											VS_102.10	Auxiliary Equipment and Batteries	1
											VS_102.11	Heating, Ventilation and Air Conditioning	1
											VS_102.12	Driver's Console and Cab Equipment	1
									VS_103	Engineering Rolling Stock	VS_103.01	Car Body (Shell)	1
											VS_103.02	Interior Fit Out Elements	1
											VS_103.03	Windows	1
											VS_103.04	Bogies	1
											VS_103.05	Braking System	1
											VS_103.06	Articulation & Suspension System	1
											VS_103.07	Traction System	1
											VS_103.08	Coupling system	1
											VS_103.09	Control and Communication System	1
											VS_103.10	Auxiliary Equipment and Batteries	1
											VS_103.11	Heating, Ventilation and Air Conditioning	1
											VS_103.12	Driver's Console and Cab Equipment	1
									VS_104	Signalling Interface Systems	VS_104.01	Train Borne Signalling Equipment	1
									VS_105	Cab Simulators	VS_105.01	Driver Display Units	1
											VS_105.02	Audio System	1
											VS_105.03	Video System	1
											VS_105.04	Ventilation System	1
									VS_106	Buses	VS_106.01	Bus Body (Shell)	1
											VS_106.02	Interior Fit Out Elements	1
											VS_106.03	Windows	1
											VS_106.04	Bogies	1
											VS_106.05	Braking System	1
											VS_106.06	Articulation & Suspension System	1
											VS_106.07	Traction System	1
											VS_106.08	Coupling system	1
											VS_106.09	Control and Communication System	1
											VS_106.10	Auxiliary Equipment and Batteries	1
											VS_106.11	Heating, Ventilation and Air Conditioning	1
											VS_106.12	Driver's Console and Cab Equipment	1
									VS_107	Coaches	VS_107.01	Coach Body (Shell)	1
											VS_107.02	Interior Fit Out Elements	1
											VS_107.03	Windows	1
											VS_107.04	Bogies	1
											VS_107.05	Braking System	1
											VS_107.06	Articulation & Suspension System	1
											VS_107.07	Traction System	1
											VS_107.08	Coupling system	1
											VS_107.09	Control and Communication System	1
											VS_107.10	Auxiliary Equipment and Batteries	1
											VS_107.11	Heating, Ventilation and Air Conditioning	1
											VS_107.12	Driver's Console and Cab Equipment	1
									VS_108	Cycles	VS_108.01	Gears and drivetrain	1
											VS_108.02	Frames and Forks	1
											VS_108.03	Wheels & Tyres	1
											VS_108.04	Brakes & Pads	1
									VS_109	Ferries	VS_108.05	Power Meters	1
											VS_109.01	Car Body (Shell)	1
											VS_109.02	Interior Fit Out Elements	1
											VS_109.03	Windows	1
											VS_109.04	Bogies	1
											VS_109.05	Braking System	1
											VS_109.06	Articulation & Suspension System	1
											VS_109.07	Traction System	1
											VS_109.08	Coupling system	1
		VS_110				Other vehicles	VS_109.09	Control and Communication System	1				
VS_109.10	Auxiliary Equipment and Batteries						1						
VS_109.11	Heating, Ventilation and Air Conditioning						1						
VS_109.12	Driver's Console and Cab Equipment						1						
VS_110.01	Car Body (Shell)						1						
VS_110.02	Interior Fit Out Elements						1						
VS_110.03	Windows						1						
VS_110.04	Bogies						1						
VS_110.05	Braking System						1						
VS_110.06	Articulation & Suspension System	1											
VS_110.07	Traction System	1											
VS_110.08	Coupling system	1											
VS_110.09	Control and Communication System	1											
VS_110.10	Auxiliary Equipment and Batteries	1											
VS_110.11	Heating, Ventilation and Air Conditioning	1											
VS_110.12	Driver's Console and Cab Equipment	1											
Rolling Stock & Vehicles Total										94			
VS_200	Power Systems	VS_200_CA Consents and Authorisation VS_200_AD Asset Disruption VS_200_FES Feasibility Design & Early Studies VS_200_CD Concept Design VS_200_DD Detailed Design VS_200_CM Commercial Management (incl. Procurement) VS_200_MAN Manufacturing/Fabrication/Delivery on Site VS_200_PLW Preliminary Works VS_200_EW Enabling Works VS_200_CW Construction/Installation Works VS_200_COM Testing & Commissioning VS_200_HCO Handover & Close-out				VS_201	Power Distribution	VS_201.01	Auto Transformer Site (ATS)	1			
								VS_201.02	Auto Transformer Feeder Site (ATFS)	1			
								VS_201.03	Mid Point Auto Transformer Site (MPATS)	1			
								VS_201.04	Sectioning Auto Transformer Site (SATS)	1			
								VS_201.05	Main Grid Traction Supply Substation (Feeder Station)	1			
								VS_201.06	Track Sectioning Switch (TSS)	1			
						VS_202	Overhead Line Equipment	VS_201.07	Direct Current (DC) Substation	1			
								VS_201.08	Track Paralleling Hut	1			
								VS_201.09	Structure Mounted Outdoor Switchgear (SMOS)	1			
								VS_201.10	Containensened Switchgear	1			
								VS_201.11	Booster Transformer	1			
								VS_201.12	Auxiliary Equipment Enclosure	1			
						VS_203	Conductor Rail	VS_201.13	Cables and Containment	1			
								VS_202.01	OLE Support Structures	1			
								VS_202.02	Small Part Steelwork (SPS)	1			
								VS_202.03	Wiring	1			
						VS_204	Road Charging Stations	VS_202.04	Depot Traction	1			
VS_202.05	Earthing & Bonding	1											
VS_203.01	Conductor Rail Contact system	1											
Power Systems Total										21			
									RCS_101	Controls and Monitoring Systems	RCS_101.01	Consoles & Panels	1
											RCS_101.02	Lever Frames	1
					RCS_101.03						Ground Frames	1	
			RCS_101.04	Train Describers	1								
			RCS_101.05	Supervisory Items	1								
			RCS_101.06	Signalling Simulator	1								
					RCS_102.01				Mirco-Processor Based System	1			

5	RCS	Rail & Road Control Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and Authorisation RCS_100_AD Asset Disruption RCS_100_FES Feasibility Design & Early Studies RCS_100_CD Concept Design RCS_100_DD Detailed Design RCS_100_CM Commercial Management (incl. Procurement) RCS_100_MAN Manufacturing/Fabrication/Delivery on Site RCS_100_PLW Preliminary Works RCS_100_EW Enabling Works RCS_100_CW Construction/Installation Works RCS_100_COM Testing & Commissioning RCS_100_HCO Handover & Close-out	RCS_102	Interlocking System	RCS_102.02	Electro-Mechanical Interlocking	1			
						RCS_102.03	Mechanical System	1					
						RCS_102.04	Trackside Interlocking Interface Unit	1					
						RCS_102.05	Tokenless Block	1					
						RCS_103	Point Mechanisms	RCS_103.01	Electrical Point Mechanisms	1			
								RCS_103.02	Hydraulic Points Mechanisms	1			
								RCS_103.03	Electro-Pneumatic Point Mechanisms	1			
								RCS_103.04	Air Point Mechanisms	1			
								RCS_103.05	Mechanical Point Mechanisms	1			
						RCS_104	Signals and Indicators	RCS_104.01	Colour Light Signal	1			
								RCS_104.02	Banner Repeaters	1			
								RCS_104.03	Position Light Signal	1			
								RCS_104.04	Route Indicators	1			
								RCS_104.05	Mechanical Signal	1			
								RCS_104.06	Operational Signs and Noticeboards	1			
								RCS_104.07	Other Signals & Indicators	1			
						RCS_105	Train Detection Systems	RCS_105.01	Track Circuits	1			
								RCS_105.02	Axle Counters	1			
								RCS_105.03	Treadle	1			
								RCS_105.04	Balise	1			
								RCS_105.05	Insulated Block Joints	1			
								RCS_105.06	Impedance Bonds	1			
								RCS_105.07	Hot Axle Box Detectors	1			
						RCS_106	Train Protection Systems	RCS_106.01	Automatic Warning System (AWS)	1			
								RCS_106.02	Train Protection Warning System (TPWS)	1			
								RCS_106.03	Automatic Train Control (ATC)	1			
						RCS_107	Remote Control Systems	RCS_106.04	Automatic Train Protection (ATP)	1			
								RCS_107.01	Time Division Data Transmission Systems (TDM)	1			
								RCS_107.02	Frequency Division Data Transmission Systems (FDM)	1			
								RCS_107.03	Radio Electronic Tokenless Block (RETB)	1			
								RCS_107.04	Lockout Device (LOD)	1			
								RCS_107.05	Alarms, Warnings, and Controls	1			
						RCS_108	Signal Support Structures	RCS_107.06	Other Remote Control Systems	1			
								RCS_108.01	Cables	1			
								RCS_108.02	Containment devices	1			
						RCS_109	Cables and Containment Structures	RCS_108.03	Theft Protection devices	1			
								RCS_109.01	Freestanding Single Post	1			
								RCS_109.02	Structural Ancillaries	1			
								RCS_109.03	Cantilevers	1			
						RCS_110	Signalling Equipment Housing, Platforms	RCS_109.04	Gantry / Portal	1			
								RCS_110.01	Location Case - Racking and Equipment	1			
								RCS_110.02	Portable Building - REB Container	1			
						RCS_111	Level Crossings	RCS_110.03	Trackside Equipment	1			
								RCS_111.01	Highway	1			
								RCS_111.02	Barriers	1			
								RCS_111.03	Signalling & Traffic Protection	1			
						RCS_112	Other Signalling Systems (digital or non-digital)	RCS_111.04	Control and Operating Systems	1			
								RCS_112.01	Other Signalling Systems Components (digital or non-digital)	1			
								Signalling Systems Total					
						RCS_200	Traffic Management Systems	RCS_200_CA Consents and Authorisation RCS_200_AD Asset Disruption RCS_200_FES Feasibility Design & Early Studies RCS_200_CD Concept Design RCS_200_DD Detailed Design RCS_200_CM Commercial Management (incl. Procurement) RCS_200_MAN Manufacturing/Fabrication/Delivery on Site RCS_200_PLW Preliminary Works RCS_200_EW Enabling Works	RCS_201	Supervisory Control	RCS_201.01	Hardware Components	1
									RCS_201.02	Software Components	1		
									RCS_202	Incident Management	RCS_202.01	Hardware Components	1
									RCS_202.02	Software Components	1		
									RCS_203	Stock and Crew Systems	RCS_203.01	Hardware Components	1
									RCS_204	Safe Track Worker Access	RCS_203.02	Software Components	1
											RCS_204.01	Hardware Components	1
										RCS_204.02	Software Components	1	
						Traffic Management Systems Total							8
						RCS_300	Telecommunications Systems	RCS_300_CA Consents and Authorisation RCS_300_AD Asset Disruption RCS_300_FES Feasibility Design & Early Studies RCS_300_CD Concept Design RCS_300_DD Detailed Design RCS_300_CM Commercial Management (incl. Procurement) RCS_300_MAN Manufacturing/Fabrication/Delivery on Site RCS_300_PLW Preliminary Works RCS_300_EW Enabling Works RCS_300_CW Construction/Installation Works RCS_300_COM Testing & Commissioning RCS_300_HCO Handover & Close-out	RCS_301	Operational Control Centre	RCS_301.01	Visual Display Units	1
									RCS_301.02	Signal Box Control Panel	1		
									RCS_302	Operational Radio	RCS_302.01	Masts	1
											RCS_302.02	Aerials	1
									RCS_303	Data Transmission	RCS_302.03	Base Stations	1
											RCS_303.01	Transmission Network	1
										RCS_303.02	Transmission Equipment	1	
									RCS_304	Communication Cabling	RCS_304.01	Communication Cables and Containment	1
									RCS_305	Concentrator Equipment	RCS_305.01	Telephone Concentrators	1
											RCS_305.02	Operational Radio	1
											RCS_305.03	Zone Control Communication Systems	1
											RCS_305.04	Other Stated Concentrators	1
									RCS_306	Operational Telephone	RCS_306.01	Access Point	1
											RCS_306.02	Direct Line	1
											RCS_306.03	Emergency	1
											RCS_306.04	Lineside Plug	1
											RCS_306.05	Emergency Telephone Devices (ETD)	1
											RCS_306.06	Signal Post Telephone (SPT)	1
											RCS_306.07	Point Zone Telephone (PZT)	1
											RCS_306.08	Ground Frame Circuit	1
											RCS_306.09	Tunnel Emergency Circuit	1
											RCS_306.10	Level Crossing Public Emergency Telephone System (PETS)	1
									RCS_307	Audio-Visual Management Systems	RCS_307.01	CCTV Cameras	1
											RCS_307.02	Monitors	1
											RCS_307.03	Mirrors	1
											RCS_307.04	Control Panels	1
											RCS_307.05	Microphones and Speaking Points	1
											RCS_307.06	Recorders	1
											RCS_307.07	Amplifiers	1
											RCS_307.08	Primary Object Detectors (POD)	1
											RCS_307.09	Complementary Object Detectors (COD)	1
									RCS_308	Positioning Equipment	RCS_308.01	Automatic Train Reporting (ATR)	1
											RCS_308.02	Station Information VDU stepping (SIVS)	1
											RCS_308.03	Train Running Under System TOPS (TRUST)	1
									RCS_309	Remote Asset Monitoring Systems (SCADA)	RCS_309.01	Point Heaters	1
											RCS_309.02	Standby Generators	1
											RCS_309.03	Pumps	1
											RCS_309.04	SCADA Equipment	1
											RCS_309.05	Relocatable Equipment Buildings (REB)	1
									RCS_310	Customer Information System	RCS_310.01	Speakers	1
											RCS_310.02	Microphones and Speaking Points	1
											RCS_310.03	Amplifiers	1
											RCS_310.04	Ambient Noise Sensor	1
											RCS_310.05	Audio & Video Control Panels	1
											RCS_310.06	Video Display Units	1
											RCS_310.07	Recorders	1
									RCS_311	Communication Equipment Housing, Platforms	RCS_311.01	Racking Equipment Location Case	1
											RCS_311.02	Relocatable Equipment Buildings (REB)	1
											RCS_311.03	Trackside Equipment	1
						Telecommunications Systems Total							49
Grand Total										581			

N/A	Level 1		Level 2		Level 3		Level 4		Level 5		
Order Pivot Table	Asset / Deliverables Group ID	Asset / Deliverables Group	Asset ID	Asset Name	Discipline	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element/Component	No.	
1	GEN	General	GEN_100	Programme/Project Management	GEN_100_P&GM Project & Governance Management	N/A	N/A	N/A	N/A	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.01	Rails	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.02	Sleepers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.03	Tampers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.04	Switches & Crossings	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.05	Rail Fishplate	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.06	Ballast	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.07	Fasteners	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_101	Ballasted Track	INF_101.08	Cabling	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.01	Rails	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.02	Sleepers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.03	Tampers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.04	Switches & Crossings	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.05	Rail Fishplate	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.06	Fasteners	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_102	Slab Track	INF_102.07	Cabling	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_103	Longitudinal Bearer Track	INF_103.01	Longitudinal Bearer	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_103	Longitudinal Bearer Track	INF_103.02	Sleepers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_103	Longitudinal Bearer Track	INF_103.03	Running Rails	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.01	Rails	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.02	Sleepers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.03	Tampers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.04	Switches & Crossings	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.05	Rail Fishplate	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.06	Ballast	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.07	Fasteners	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_104	Deep Tube Track	INF_104.08	Cabling	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.01	Rails	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.02	Sleepers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.03	Tampers	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.04	Switches & Crossings	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.05	Rail Fishplate	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.06	Ballast	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.07	Fasteners	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_105	Embedded Rail	INF_105.08	Cabling	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.01	Rails	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.02	Stretcher bar	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.03	Heel Blocks	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.04	Switch tie plates	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.05	Slide Chairs	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_106	Points & Crossings (P&C)	INF_106.06	Fasteners	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_107	Ancillaries	INF_107.01	Buffer Stops	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_107	Ancillaries	INF_107.02	Retarders	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_107	Ancillaries	INF_107.03	Sundries	1	
2	INF	Infrastructure	INF_100	Track (Permanent Way)	INF_100_CA Consents and AuthorisationINF_100_AD	INF_107	Ancillaries	INF_107.04	Other Ancillaries	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.01	Concrete Piles	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.02	Beams	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.03	Netting	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.04	Grounds anchors	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.05	Barriers	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.06	Fence	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.07	Ram Wall	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.08	Crest Walkway	1	
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.09	French Drain	1	

2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.10	Drainage Blanket	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.11	Embankments	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.12	Landscape	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_201	Cuttings & Embankments	INF_201.13	Ecological items	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_202	Coastal & Estuarial Defences	INF_202.01	Diaphrag Walls & Anchors	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_202	Coastal & Estuarial Defences	INF_202.02	Groynes	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_202	Coastal & Estuarial Defences	INF_202.03	Walls & Revetments	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.01	Tunnels (Segments & Lining)	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.02	Adits	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.03	Supports	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.04	Portals	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.05	Shaft	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.06	Furniture	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_203	Tunnels & Shafts	INF_203.07	Walways	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_204	Ramps, Staircases and Landings	INF_204.01	Staircases	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_204	Ramps, Staircases and Landings	INF_204.02	Landings & Half Landings	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_204	Ramps, Staircases and Landings	INF_204.03	Ramps	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_204	Ramps, Staircases and Landings	INF_204.04	Balustrades & Handrail	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_204	Ramps, Staircases and Landings	INF_204.05	Access Ladders	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.01	Foundations	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.02	Abutments & Piers	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.03	Deck	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.04	Walkways & Landings	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.05	Pavement	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.06	Parapets	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.07	Furniture	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.08	Drainage (to structures)	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_205	Bridges & Viaducts	INF_205.09	Approaches	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.01	Foundations	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.02	Abutments & Piers	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.03	Deck	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.04	Walkways & Landings	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.05	Pavement	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.06	Parapets	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.07	Furniture	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.08	Drainage	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_206	Footbridge & Cycle Bridge	INF_206.09	Approaches	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.01	Foundations	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.02	Deck & Supporting Structure	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.03	Access Structures	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.04	Pavement	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.05	Roof & Canopy Structure	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.06	Platform Fittings & Furniture	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_207	Platforms	INF_207.07	Drainage & Ducts	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.01	Foundation	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.02	Posts	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.03	Walls	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.04	Crib Walling	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.05	Gabions	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.06	Anchors	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.07	Sleepers/Beams	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.08	Barriers	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_208	Retaining Walls	INF_208.09	Drain	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_209	Fencing & Enclosures	INF_209.01	Fencing & Railings	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_209	Fencing & Enclosures	INF_209.02	Barriers & Guard Rails	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_210	General Drainage System	INF_210.01	Drain	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_210	General Drainage System	INF_210.02	Pipe	1
2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and AuthorisationINF_200_AD	INF_210	General Drainage System	INF_210.03	Valves	1

	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.04	Chambers	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.05	Separator	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.06	Channels	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.07	Catchpit	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.08	Siphon	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.09	Water Retention Tank	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.10	Pumps	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_210	General Drainage System	INF_210.11	Treatment Plant	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_211	Roads	INF_211.01	Vehicular Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_211	Roads	INF_211.02	Pedestrian Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_211	Roads	INF_211.03	Ducts, Through, and Drainage	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_211	Roads	INF_211.04	Kerbs, Channels, and Edging	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_212	Hardstandings & Carparks	INF_212.01	Vehicular Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_212	Hardstandings & Carparks	INF_212.02	Pedestrian Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_212	Hardstandings & Carparks	INF_212.03	Ducts, Through, and Drainage	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_212	Hardstandings & Carparks	INF_212.04	Kerbs, Channels, and Edging	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_213	Pavements and Walkways	INF_213.01	Vehicular Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_213	Pavements and Walkways	INF_213.02	Pedestrian Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_213	Pavements and Walkways	INF_213.03	Ducts, Through, and Drainage	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_213	Pavements and Walkways	INF_213.04	Kerbs, Channels, and Edging	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_214	Track Asset Walkways	INF_214.01	Vehicular Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_214	Track Asset Walkways	INF_214.02	Pedestrian Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_214	Track Asset Walkways	INF_214.03	Ducts, Through, and Drainage	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_214	Track Asset Walkways	INF_214.04	Kerbs, Channels, and Edging	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_215	Cycle Lane	INF_215.01	Cycle Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_215	Cycle Lane	INF_215.02	Pedestrian Access Way	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_215	Cycle Lane	INF_215.03	Kerbs, Channels, and Edging	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_216	Street Furniture	INF_216.01	Street Furniture	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_216	Street Furniture	INF_216.02	Ornamental Furniture	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_216	Street Furniture	INF_216.03	Other Furniture	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_217	Landscaping and Irrigation Systems	INF_217.01	External Plants	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_217	Landscaping and Irrigation Systems	INF_217.02	Irrigation Systems	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_217	Landscaping and Irrigation Systems	INF_217.03	Ecological Items	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_218	Troughts	INF_218.01	Concrete Trough	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_218	Troughts	INF_218.02	Non-Cementitious Trough	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_218	Troughts	INF_218.03	Transition Unit	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_218	Troughts	INF_218.04	"T" Trough	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_219	Crossings & Ductways	INF_219.01	Ducts	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_219	Crossings & Ductways	INF_219.02	Drawpits	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_219	Crossings & Ductways	INF_219.03	Chambers	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_219	Crossings & Ductways	INF_219.04	Cable Bridge	1
	2	INF	Infrastructure	INF_200	Civil & Structures	INF_200_CA Consents and Authorisation	INF_200_AD	INF_220	Miscellaneous Structures	INF_220.01	Miscellaneous Civil/Structures	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.01	Base	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.02	Enclosure	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.03	Compound	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.04	Electric Switchboard	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.05	Distribution Board	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.06	Circuit Breaker	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.07	Power Transformers	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.08	Transformer Rectifier	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.09	Electricity meters	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.10	Electrical relays	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.11	Electrical switches	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.12	Batteries, Chargers and Auxiliary supplies	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.13	Cabling and Containment within Substation	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.14	Power Inverters	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.15	Protection & Control Equipment	1
	2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and Authorisation	INF_300_AD	INF_301	Main Grid Substation	INF_301.16	Network connection	1

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2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.01	General Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.02	Workshop Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.03	Cleaning Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.04	Lifting Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.05	De-icing Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.06	Overhead Trolley	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.07	Access Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.08	Battery Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.09	Compressed Air Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.10	Calibrated Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.11	Calibration Gauge Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.12	Train Test Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.13	Train Monitoring Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.14	Welding Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.15	Safety Equipment	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.16	Wheel Lathe	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_308	Maintenance Equipment	INF_308.17	Electrical Portable Appliances	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_309	Operational Equipment	INF_309.01	Controlled Emission toilet (CET) Point	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_309	Operational Equipment	INF_309.02	Carriage Washing Plant	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_309	Operational Equipment	INF_309.03	Carriage Watering System Point	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_309	Operational Equipment	INF_309.04	Sanding System Point	1
2	INF	Infrastructure	INF_300	Electrical Power and Plant	INF_300_CA Consents and AuthorisationINF_300_AD	INF_309	Operational Equipment	INF_309.05	Diesel Fueling Point	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_101	Substructure	BP_101.01	Foundations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_101	Substructure	BP_101.02	Retaining Walls	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_101	Substructure	BP_101.03	External Structure (D-Walls)	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_101	Substructure	BP_101.04	Internal Structure	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.01	Columns	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.02	Slabs	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.03	Frame	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.04	Roof	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.05	Stairs & Ramp	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.06	External Walls	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.07	Internal Walls & Partitions	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.08	Windows & Partitions	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_102	Superstructure	BP_102.09	Internal Doors	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_103	Internal Finishing Equipment	BP_103.01	Wall Finishes Elements	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_103	Internal Finishing Equipment	BP_103.02	Floor Finishes Elements	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_103	Internal Finishing Equipment	BP_103.03	Ceiling Finishes Elements	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.01	General Fittings, furnishings, And Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.02	Domestic Kicthen Fittings, and Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.03	Special Purpose Fittings, Furnishings, and Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.04	Works of Art	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.05	Non-Mechanical and Non-Electrical Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_104	Fittings, Furnishing Equipment	BP_104.06	Internal Plants	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_105	Sanitary Facilities	BP_105.01	Sanitary Appliances	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_105	Sanitary Facilities	BP_105.02	Sanitary Ancillaries	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_106	Services Equipment	BP_106.01	Catering Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_106	Services Equipment	BP_106.02	Miscellaneous Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_107	Disposal Equipment	BP_107.01	Surface Foul Drainage	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_107	Disposal Equipment	BP_107.02	Special Liquid Waste Drainage	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_107	Disposal Equipment	BP_107.03	Refuse Disposal	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.01	Mains Water Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.02	Cold Water Distribution	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.03	Hot Water Distribution	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_108	Water Facility	BP_108.04	Steam & Condensate Dictribution	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_109	Heat Facility Source	BP_109.01	Radiators	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_109	Heat Facility Source	BP_109.02	Heating Floor	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_109	Heat Facility Source	BP_109.03	Infra-Red Heaters	1

3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.01	Central Heating Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.02	Local Heating Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.03	Central Cooling Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.04	Local Cooling Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.05	Central Air Conditioning Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_110	Space Heating & Air Conditioning	BP_110.06	Local Air Conditioning Unit	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_111	Ventilation System	BP_111.01	Central Ventilation System	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_111	Ventilation System	BP_111.02	Local & Special Ventilation	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_111	Ventilation System	BP_111.03	Smoke Extraction and Control System	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.01	Electrical Mains & Sub-mains Distribution	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.02	Power Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.03	Lighting Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.04	Specialist Lighting Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.05	Local Electricity Generation Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.06	Earthing & Bonding Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_112	Electrical System	BP_112.07	Station Signange Illumination	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_113	Fuel Services	BP_113.01	Fuel Storage	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_113	Fuel Services	BP_113.02	Fuel Distribution System	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.01	Lifts & Enclosed Hoists	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.02	Escalators	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.03	Moving Pavements	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.04	Powered Stairlifts	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.05	Conveyors	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.06	Dorck Levellers & Scissor Lifts	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.07	Cranes & Unenclosed Hoists	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.08	Car Lifts & Stacking Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.09	Document Handling Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_114	Lift and Conveyor	BP_114.10	Other Lift & Conveyor Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_115	Fire and Lightning Protection	BP_115.01	Fire Fighting Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_115	Fire and Lightning Protection	BP_115.02	Fire Suppression Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_115	Fire and Lightning Protection	BP_115.03	Lightning Protection	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_116	Control and Communication Systems	BP_116.01	Central Control & Building Management Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_117	Specialist Equipment	BP_117.01	Specialist Piped Supply Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_117	Specialist Equipment	BP_117.02	Specialist Refrigeration Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_117	Specialist Equipment	BP_117.03	Specialist Mechanical Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_117	Specialist Equipment	BP_117.04	Specialist Electrical / Electronic Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_117	Specialist Equipment	BP_117.05	Water Features	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_117	Specialist Equipment	BP_117.06	Specialist Station Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.01	Water Mains Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.02	Electrical Mains Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.03	External Transformation Devices	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.04	Electricity Distribution to External Plant & Equipment	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.05	Gas Mains Supply	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.06	Telecommunications & Other Communication System Connections	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.07	External Fuel Storage and Piped Distribution Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.08	External Security Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.09	External / Street Lighting Systems	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_118	External Services	BP_118.10	Local / District Heating Installations	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_119	Pre-Fabricated Buildings	BP_119.01	Complete Buildings	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_119	Pre-Fabricated Buildings	BP_119.02	Building Units	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_119	Pre-Fabricated Buildings	BP_119.03	Pods	1
3	BP	Buildings & Property	BP_100	Buildings (incl. Stations)	BP_100_CA Consents and AuthorisationBP_100_AD A	BP_119	Pre-Fabricated Buildings	BP_119.04	Bike Stores	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_201	Bus Garage	BP_201.01	Foundations	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_201	Bus Garage	BP_201.02	Parking Surface	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_201	Bus Garage	BP_201.03	Warehouse / Buildings Structure	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_201	Bus Garage	BP_201.04	Floor Marking / Signalling	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.01	Foundations	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.02	Bus Shelter	1

	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.03	Furniture	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.04	Bus Stop Posts	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_202	Bus Station and Stands	BP_202.05	Floor Marking / Signalling	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.01	Foundations	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.02	Bus Shelter	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.03	Furniture	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.04	Bus Stop Posts	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_203	Bus Stops and Shelters	BP_203.05	Floor Marking / Signalling	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_204	Pumping Stations	BP_204.01	Fuel Pumping Stations	1
3	BP	Buildings & Property	BP_200	Operation and Other Properties	BP_200_CA Consents and AuthorisationBP_200_AD A	BP_204	Pumping Stations	BP_204.02	Vehicle Cleaning Water Pumping Stations	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.07	Traction System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_101	Passenger Rolling Stock	VS_101.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.07	Traction System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_102	Freight Rolling Stock	VS_102.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.07	Traction System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_103	Engineering Rolling Stock	VS_103.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_104	Signalling Interface Systems	VS_104.01	Train Borne Signalling Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_105	Cab Simulators	VS_105.01	Driver Display Units	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_105	Cab Simulators	VS_105.02	Audio System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_105	Cab Simulators	VS_105.03	Video System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_105	Cab Simulators	VS_105.04	Ventilation System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.01	Bus Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD A	VS_106	Buses	VS_106.07	Traction System	1

	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_106	Buses	VS_106.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.01	Coach Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.07	Traction System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_107	Coaches	VS_107.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_108	Cycles	VS_108.01	Gears and drivetrain	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_108	Cycles	VS_108.02	Frames and Forks	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_108	Cycles	VS_108.03	Wheels & Tyres	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_108	Cycles	VS_108.04	Brakes & Pads	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_108	Cycles	VS_108.05	Power Meters	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.07	Traction System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_109	Ferries	VS_109.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.01	Car Body (Shell)	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.02	Interior Fit Out Elements	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.03	Windows	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.04	Bogies	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.05	Braking System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.06	Articulation & Suspension System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.07	Traction System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.08	Coupling system	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.09	Control and Communication System	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.10	Auxiliary Equipment and Batteries	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.11	Heating, Ventilation and AirConditioning	1
4	VS	Vehicle Systems	VS_100	Rolling Stock & Vehicles	VS_100_CA Consents and AuthorisationVS_100_AD As	VS_110	Other vehicles	VS_110.12	Driver's Console and Cab Equipment	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.01	Auto Transformer Site (ATS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.02	Auto Transformer Feeder Site (ATFS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.03	Mid Point Auto Transformer Site (MPATS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.04	Sectioning Auto Transformer Site (SATS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.05	Main Grid Traction Supply Substation (Feeder Station)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.06	Track Sectioning Switch (TSS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.07	Direct Current (DC) Substation	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.08	Track Paralleling Hut	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.09	Structure Mounted Outdoor Switchgear (SMOS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.10	Containerised Switchgear	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.11	Booster Transformer	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.12	Auxiliary Equipment Enclosure	1

4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_201	Power Distribution	VS_201.13	Cables and Containment	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_202	Overhead Line Equipment	VS_202.01	OLE Support Structures	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_202	Overhead Line Equipment	VS_202.02	Small Part Steelwork (SPS)	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_202	Overhead Line Equipment	VS_202.03	Wiring	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_202	Overhead Line Equipment	VS_202.04	Depot Traction	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_202	Overhead Line Equipment	VS_202.05	Earthing & Bonding	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_203	Conductor Rail	VS_203.01	Conductor Rail Contact system	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_203	Conductor Rail	VS_203.02	Earthing & Bonding	1
4	VS	Vehicle Systems	VS_200	Power Systems	VS_200_CA Consents and AuthorisationVS_200_AD As	VS_204	Road Charging Stations	VS_204.01	Road Charging Stations	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_101	Controls and Monitoring Systems	RCS_101.01	Consoles & Panels	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_101	Controls and Monitoring Systems	RCS_101.02	Lever Frames	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_101	Controls and Monitoring Systems	RCS_101.03	Ground Frames	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_101	Controls and Monitoring Systems	RCS_101.04	Train Describers	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_101	Controls and Monitoring Systems	RCS_101.05	Supervisory Items	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_101	Controls and Monitoring Systems	RCS_101.06	Signalling Simulator	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_102	Interlocking System	RCS_102.01	Mirco-Processor Based System	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_102	Interlocking System	RCS_102.02	Electro-Mechanical Interlocking	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_102	Interlocking System	RCS_102.03	Mechanical System	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_102	Interlocking System	RCS_102.04	Trackside Interlocking Interface Unit	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_102	Interlocking System	RCS_102.05	Tokenless Block	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_103	Point Mechanisms	RCS_103.01	Electrical Point Mechanisms	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_103	Point Mechanisms	RCS_103.02	Hydraulic Points Mechanisms	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_103	Point Mechanisms	RCS_103.03	Electro-Pneumatic Point Mechanisms	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_103	Point Mechanisms	RCS_103.04	Air Point Mechanisms	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_103	Point Mechanisms	RCS_103.05	Mechanical Point Mechanisms	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.01	Colour Light Signal	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.02	Banner Repeaters	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.03	Position Light Signal	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.04	Route Indicators	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.05	Mechanical Signal	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.06	Operational Signs and Noticeboards	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_104	Signals and Indicators	RCS_104.07	Other Signals & Indicators	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.01	Track Circuits	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.02	Axle Counters	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.03	Treadle	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.04	Balise	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.05	Insulated Block Joints	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.06	Impedance Bonds	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_105	Train Detection Systems	RCS_105.07	Hot Axle Box Detectors	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_106	Train Protection Systems	RCS_106.01	Automatic Warning System (AWS)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_106	Train Protection Systems	RCS_106.02	Train Protection Warning System (TPWS)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_106	Train Protection Systems	RCS_106.03	Automatic Train Control (ATC)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_106	Train Protection Systems	RCS_106.04	Automatic Train Protection (ATP)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_107	Remote Control Systems	RCS_107.01	Time Division Data Transmission Systems (TDM)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_107	Remote Control Systems	RCS_107.02	Frequency Division Data Transmission Systems (FDM)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_107	Remote Control Systems	RCS_107.03	Radio Electronic Tokenless Block (RETB)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_107	Remote Control Systems	RCS_107.04	Lockout Device (LOD)	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_107	Remote Control Systems	RCS_107.05	Alarms, Warnings, and Controls	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_107	Remote Control Systems	RCS_107.06	Other Remote Control Systems	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_108	Signal Support Structures	RCS_108.01	Cables	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_108	Signal Support Structures	RCS_108.02	Containment devices	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_108	Signal Support Structures	RCS_108.03	Theft Protection devices	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_109	Cables and Containment Structures	RCS_109.01	Freestanding Single Post	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_109	Cables and Containment Structures	RCS_109.02	Structural Ancillaries	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_109	Cables and Containment Structures	RCS_109.03	Cantilevers	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_109	Cables and Containment Structures	RCS_109.04	Gantry / Portal	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_110	Signalling Equipment Housing, Platforms	RCS_110.01	Location Case - Racking and Equipment	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_110	Signalling Equipment Housing, Platforms	RCS_110.02	Portable Building - REB Container	1

5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_110	Signalling Equipment Housing, Platforms	RCS_110.03	Trackside Equipment	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_111	Level Crossings	RCS_111.01	Highway	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_111	Level Crossings	RCS_111.02	Barriers	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_111	Level Crossings	RCS_111.03	Signalling & Traffic Protection	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_111	Level Crossings	RCS_111.04	Control and Operating Systems	1
5	RCS	Systems	RCS_100	Signalling Systems	RCS_100_CA Consents and AuthorisationRCS_100_AD	RCS_112	Other Signalling Systems (digital or non-d	RCS_112.01	Other Signalling Systems Components (digital or non-digital)	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_201	Supervisory Control	RCS_201.01	Hardware Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_201	Supervisory Control	RCS_201.02	Software Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_202	Incident Management Systems	RCS_202.01	Hardware Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_202	Incident Management Systems	RCS_202.02	Software Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_203	Stock and Crew Systems	RCS_203.01	Hardware Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_203	Stock and Crew Systems	RCS_203.02	Software Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_204	Safe Track Worker Access	RCS_204.01	Hardware Components	1
5	RCS	Systems	RCS_200	Traffic Management Systems	RCS_200_CA Consents and AuthorisationRCS_200_AD	RCS_204	Safe Track Worker Access	RCS_204.02	Software Components	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_301	Operational Control Centre	RCS_301.01	Visual Display Units	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_301	Operational Control Centre	RCS_301.02	Signal Box Control Panel	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_302	Operational Radio	RCS_302.01	Masts	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_302	Operational Radio	RCS_302.02	Aerials	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_302	Operational Radio	RCS_302.03	Base Stations	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_303	Data Transmission	RCS_303.01	Transmission Network	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_303	Data Transmission	RCS_303.02	Transmission Equipment	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_304	Communication Cabling	RCS_304.01	Communication Cables and Containment	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_305	Concentrator Equipment	RCS_305.01	Telephone Concentrators	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_305	Concentrator Equipment	RCS_305.02	Operational Radio	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_305	Concentrator Equipment	RCS_305.03	Zone Control Communication Systems	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_305	Concentrator Equipment	RCS_305.04	Other Stated Concentrators	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.01	Access Point	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.02	Direct Line	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.03	Emergency	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.04	Lineside Plug	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.05	Emergency Telephone Devices (ETD)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.06	Signal Post Telephone (SPT)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.07	Point Zone Telephone (PZT)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.08	Ground Frame Circuit	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.09	Tunnel Emergency Circuit	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_306	Operational Telephone	RCS_306.10	Level Crossing Public Emergency Telephone System (PETS)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.01	CCTV Cameras	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.02	Monitors	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.03	Mirrors	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.04	Control Panels	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.05	Microphones and Speaking Points	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.06	Recorders	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.07	Amplifiers	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.08	Primary Object Detectors (POD)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_307	Audio-Visual Management Systems	RCS_307.09	Complementary Object Detectors (COD)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_308	Positioning Equipment	RCS_308.01	Automatic Train Reporting (ATR)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_308	Positioning Equipment	RCS_308.02	Station Information VDU stepping (SIVS)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_308	Positioning Equipment	RCS_308.03	Train Running Under System TOPS (TRUST)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_309	Remote Asset Monitoring Systems (SCAD	RCS_309.01	Point Heaters	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_309	Remote Asset Monitoring Systems (SCAD	RCS_309.02	Standby Generators	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_309	Remote Asset Monitoring Systems (SCAD	RCS_309.03	Pumps	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_309	Remote Asset Monitoring Systems (SCAD	RCS_309.04	SCADA Equipment	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_309	Remote Asset Monitoring Systems (SCAD	RCS_309.05	Relocatable Equipment Buildings (REB)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.01	Speakers	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.02	Microphones and Speaking Points	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.03	Amplifiers	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.04	Ambient Noise Sensor	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.05	Audio & Video Control Panels	1

5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.06	Video Display Units	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_310	Customer Information System	RCS_310.07	Recorders	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_311	Communication Equipment Housing, Plat	RCS_311.01	Racking Equipment Location Case	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_311	Communication Equipment Housing, Plat	RCS_311.02	Relocatable Equipment Buildings (REB)	1
5	RCS	Systems	RCS_300	Telecommunications Systems	RCS_300_CA Consents and AuthorisationRCS_300_AD	RCS_311	Communication Equipment Housing, Plat	RCS_311.03	Trackside Equipment	1

Level 1		Level 2		Level 3		Level 4		Level 5		
Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Discipline ID	Discipline/Phase	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element/Component - this level will not be standardised for client-side schedules	No.
GEN	General	GEN_100	Programme/Project Management	GEN_100_P&GM	Project & Governance Management	INF_101	Ballast Track	INF_101.01	Rails	1
INF	Infrastructure	INF_100	Track (Permanent Way)	GEN_100_CP&EM	Cost Planning & Estimating Management	INF_102	Slab Track	INF_101.02	Sleepers	1
BP	Buildings & Property	INF_200	Civil & Structures	GEN_100_PCON	Project Controls	INF_103	Longitudinal Bearer Track	INF_101.03	Tampers	1
VS	Vehicles Systems	INF_300	Electrical Power and Plant	GEN_100_CA	General Consents & Authorisation	INF_104	Deep Tube Track	INF_101.04	Switches & Crossings	1
RCS	Rail & Road Control Systems	BP_100	Buildings (incl. Stations)	GEN_100_SI	System Integration	INF_105	Embedded Rail	INF_101.05	Rail Fishplate	1
		BP_200	Operation and Other Properties	GEN_100_HSQE	Health, Safety, Quality and Environment (HSQE)	INF_106	Points & Crossings (P&C)	INF_101.06	Ballast	1
		VS_100	Rolling Stock & Vehicles	GEN_100_R&D	Research and Development	INF_107	Ancillaries	INF_101.07	Fasteners	1
		VS_200	Power Systems	GEN_100_R&VM	Risk & Value Management	INF_201	Cuttings & Embankments	INF_101.08	Cabling	1
		RCS_100	Signalling Systems	GEN_100_ENGM	Engineering Management	INF_202	Coastal & Estuarial Defences	INF_102.01	Rails	1
		RCS_200	Traffic Management Systems	GEN_100_CONM	Construction Management	INF_203	Tunnels & Shafts	INF_102.02	Sleepers	1
		RCS_300	Telecommunications Systems	GEN_100_MIS	Miscellaneous	INF_204	Ramps, Staircases and Landings	INF_102.03	Tampers	1
				INF_100_CA	Consents and Authorisation	INF_205	Bridges & Viaducts	INF_102.04	Switches & Crossings	1
				INF_100_AD	Asset Disruption	INF_206	Footbridge & Cycle Bridge	INF_102.05	Rail Fishplate	1
				INF_100_FES	Feasibility Design & Early Studies	INF_207	Platforms	INF_102.06	Fasteners	1
				INF_100_CD	Concept Design	INF_208	Retaining Walls	INF_102.07	Cabling	1
				INF_100_DD	Detailed Design	INF_209	Fencing & Enclosures	INF_103.01	Longitudinal Bearer	1
				INF_100_CM	Commercial Management (incl. Procurement)	INF_210	General Drainage System	INF_103.02	Sleepers	1
				INF_100_MAN	Manufacturing/Fabrication/Delivery on Site	INF_211	Roads	INF_103.03	Running Rails	1
				INF_100_PLW	Preliminary Works	INF_212	Hardstandings & Carparks	INF_104.01	Rails	1
				INF_100_EW	Enabling Works	INF_213	Pavements and Walkways	INF_104.02	Sleepers	1
				INF_100_CW	Construction/Installation Works	INF_214	Track Asset Walkways	INF_104.03	Tampers	1
				INF_100_COM	Testing & Commissioning	INF_215	Cycle Lane	INF_104.04	Switches & Crossings	1
				INF_100_HCO	Handover & Close-out	INF_216	Street Furniture	INF_104.05	Rail Fishplate	1
				INF_200_CA	Consents and Authorisation	INF_217	Landscaping and Irrigation Systems	INF_104.06	Ballast	1
				INF_200_AD	Asset Disruption	INF_218	Troughs	INF_104.07	Fasteners	1
				INF_200_FES	Feasibility Design & Early Studies	INF_219	Crossings & Ductways	INF_104.08	Cabling	1
				INF_200_CD	Concept Design	INF_220	Miscellaneous Structures	INF_105.01	Rails	1
				INF_200_DD	Detailed Design	INF_301	Main Grid Substation	INF_105.02	Sleepers	1
				INF_200_CM	Commercial Management (incl. Procurement)	INF_302	Distribution Network Operator (DNO) Substation	INF_105.03	Tampers	1
				INF_200_MAN	Manufacturing/Fabrication/Delivery on Site	INF_303	Private Electricity Generation	INF_105.04	Switches & Crossings	1
				INF_200_PLW	Preliminary Works	INF_304	Power Transformation Device	INF_105.05	Rail Fishplate	1
				INF_200_EW	Enabling Works	INF_305	Earthing & Bonding Devices	INF_105.06	Ballast	1
				INF_200_CW	Construction/Installation Works	INF_306	Cables and Containment Structures	INF_105.07	Fasteners	1
				INF_200_COM	Testing & Commissioning	INF_307	Lineside Equipment	INF_105.08	Cabling	1
				INF_200_HCO	Handover & Close-out	INF_308	Maintenance Equipment	INF_106.01	Rails	1
				INF_300_CA	Consents and Authorisation	INF_309	Operational Equipment	INF_106.02	Stretchers	1
				INF_300_AD	Asset Disruption	BP_101	Substructure	INF_106.03	Heel Blocks	1
				INF_300_FES	Feasibility Design & Early Studies	BP_102	Superstructure	INF_106.04	Switch tie plates	1
				INF_300_CD	Concept Design	BP_103	Internal Finishing Equipment	INF_106.05	Slide Chairs	1
				INF_300_DD	Detailed Design	BP_104	Fittings, Furnishing Equipment	INF_106.06	Fasteners	1
				INF_300_CM	Commercial Management (incl. Procurement)	BP_105	Sanitary Facilities	INF_107.01	Buffer Stops	1
				INF_300_MAN	Manufacturing/Fabrication/Delivery on Site	BP_106	Services Equipment	INF_107.02	Retarders	1
				INF_300_PLW	Preliminary Works	BP_107	Disposal Equipment	INF_107.03	Sundries	1
				INF_300_EW	Enabling Works	BP_108	Water Facility	INF_107.04	Other Ancillaries	1
				INF_300_CW	Construction/Installation Works	BP_109	Heat Facility Source	INF_201.01	Concrete Piles	1
				INF_300_COM	Testing & Commissioning	BP_110	Space Heating & Air Conditioning	INF_201.02	Beams	1
				INF_300_HCO	Handover & Close-out	BP_111	Ventilation System	INF_201.03	Netting	1
				BP_100_CA	Consents and Authorisation	BP_112	Electrical System	INF_201.04	Grounds anchors	1
				BP_100_AD	Asset Disruption	BP_113	Fuel Services	INF_201.05	Barriers	1
				BP_100_FES	Feasibility Design & Early Studies	BP_114	Lift and Conveyor	INF_201.06	Fence	1
				BP_100_CD	Concept Design	BP_115	Fire and Lightning Protection	INF_201.07	Ram Wall	1
				BP_100_DD	Detailed Design	BP_116	Control and Communication Systems	INF_201.08	Crest Walkway	1
				BP_100_CM	Commercial Management (incl. Procurement)	BP_117	Specialist Equipment	INF_201.09	French Drain	1
				BP_100_MAN	Manufacturing/Fabrication/Delivery on Site	BP_118	External Services	INF_201.10	Drainage Blanket	1
				BP_100_PLW	Preliminary Works	BP_119	Pre-Fabricated Buildings	INF_201.11	Embankments	1
				BP_100_EW	Enabling Works	BP_201	Bus Garage	INF_201.12	Landscape	1
				BP_100_CW	Construction/Installation Works	BP_202	Bus Station and Stands	INF_201.13	Ecological items	1
				BP_100_COM	Testing & Commissioning	BP_203	Bus Stops and Shelters	INF_202.01	Diaphrag Walls & Anchors	1
				BP_100_HCO	Handover & Close-out	BP_204	Pumping Stations	INF_202.02	Groynes	1
				BP_200_CA	Consents and Authorisation	VS_101	Passenger Rolling Stock	INF_202.03	Walls & Revetments	1
				BP_200_AD	Asset Disruption	VS_102	Freight Rolling Stock	INF_203.01	Tunnels (Segments & Lining)	1
				BP_200_FES	Feasibility Design & Early Studies	VS_103	Engineering Rolling Stock	INF_203.02	Adits	1
				BP_200_CD	Concept Design	VS_104	Signalling Interface Systems	INF_203.03	Supports	1
				BP_200_DD	Detailed Design	VS_105	Cab Simulators	INF_203.04	Portals	1
				BP_200_CM	Commercial Management (incl. Procurement)	VS_106	Buses	INF_203.05	Shaft	1
				BP_200_MAN	Manufacturing/Fabrication/Delivery on Site	VS_107	Coaches	INF_203.06	Furniture	1
				BP_200_PLW	Preliminary Works	VS_108	Cycles	INF_203.07	Walkways	1
				BP_200_EW	Enabling Works	VS_109	Ferries	INF_204.01	Staircases	1
				BP_200_CW	Construction/Installation Works	VS_110	Other vehicles	INF_204.02	Landings & Half Landings	1
				BP_200_COM	Testing & Commissioning	VS_201	Power Distribution	INF_204.03	Ramps	1
				BP_200_HCO	Handover & Close-out	VS_202	Overhead Line Equipment	INF_204.04	Balustrades & Handrail	1
				VS_100_CA	Consents and Authorisation	VS_203	Conductor Rail	INF_204.05	Access Ladders	1
				VS_100_AD	Asset Disruption	VS_204	Road Charging Stations	INF_205.01	Foundations	1
				VS_100_FES	Feasibility Design & Early Studies	RCS_101	Controls and Monitoring Systems	INF_205.02	Abutments & Piers	1
				VS_100_CD	Concept Design	RCS_102	Interlocking System	INF_205.03	Deck	1
				VS_100_DD	Detailed Design	RCS_103	Point Mechanisms	INF_205.04	Walkways & Landings	1
				VS_100_CM	Commercial Management (incl. Procurement)	RCS_104	Signals and Indicators	INF_205.05	Pavement	1
				VS_100_MAN	Manufacturing/Fabrication/Delivery on Site	RCS_105	Train Detection Systems	INF_205.06	Parapets	1
				VS_100_PLW	Preliminary Works	RCS_106	Train Protection Systems	INF_205.07	Furniture	1
				VS_100_EW	Enabling Works	RCS_107	Remote Control Systems	INF_205.08	Drainage (to structures)	1
				VS_100_CW	Construction/Installation Works	RCS_108	Signal Support Structures	INF_205.09	Approaches	1
				VS_100_COM	Testing & Commissioning	RCS_109	Cables and Containment Structures	INF_206.01	Foundations	1
				VS_100_HCO	Handover & Close-out	RCS_110	Signalling Equipment Housing, Platforms	INF_206.02	Abutments & Piers	1
				VS_200_CA	Consents and Authorisation	RCS_111	Level Crossings	INF_206.03	Deck	1
				VS_200_AD	Asset Disruption	RCS_112	Other Signalling Systems (digital or non-digital)	INF_206.04	Walkways & Landings	1
				VS_200_FES	Feasibility Design & Early Studies	RCS_201	Supervisory Control	INF_206.05	Pavement	1
				VS_200_CD	Concept Design	RCS_202	Incident Management Systems	INF_206.06	Parapets	1
				VS_200_DD	Detailed Design	RCS_203	Stock and Crew Systems	INF_206.07	Furniture	1
				VS_200_CM	Commercial Management (incl. Procurement)	RCS_204	Safe Track Worker Access	INF_206.08	Drainage	1
				VS_200_MAN	Manufacturing/Fabrication/Delivery on Site	RCS_301	Operational Control Centre	INF_206.09	Approaches	1
				VS_200_PLW	Preliminary Works	RCS_302	Operational Radio	INF_207.01	Foundations	1
				VS_200_EW	Enabling Works	RCS_303	Data Transmission	INF_207.02	Deck & Supporting Structure	1
				VS_200_CW	Construction/Installation Works	RCS_304	Communication Cabling	INF_207.03	Access Structures	1
				VS_200_COM	Testing & Commissioning	RCS_305	Concentrator Equipment	INF_207.04	Pavement	1
				VS_200_HCO	Handover & Close-out	RCS_306	Operational Telephone	INF_207.05	Roof & Canopy Structure	1
				RCS_100_CA	Consents and Authorisation	RCS_307	Audio-Visual Management Systems	INF_207.06	Platform Fittings & Furniture	1
				RCS_100_AD	Asset Disruption	RCS_308	Positioning Equipment	INF_207.07	Drainage & Ducts	1
				RCS_100_FES	Feasibility Design & Early Studies	RCS_309	Remote Asset Monitoring Systems (SCADA)	INF_208.01	Foundation	1
				RCS_100_CD	Concept Design	RCS_310	Customer Information System	INF_208.02	Posts	1
				RCS_100_DD	Detailed Design	RCS_311	Communication Equipment Housing, Platforms	INF_208.03	Walls	1
				RCS_100_CM	Commercial Management (incl. Procurement)			INF_208.04	Crib Walling	1
				RCS_100_MAN	Manufacturing/Fabrication/Delivery on Site			INF_208.05	Cablions	1
				RCS_100_PLW	Preliminary Works			INF_208.06	Anchors	1
				RCS_100_EW	Enabling Works			INF_208.07	Sleepers/Beams	1
				RCS_100_CW	Construction/Installation Works			INF_208.08	Barriers	1
				RCS_100_COM	Testing & Commissioning			INF_208.09	Drain	1
				RCS_100_HCO	Handover & Close-out			INF_209.01	Fencing & Railings	1
				RCS_200_CA	Consents and Authorisation			INF_209.02	Barriers & Guard Rails	1
				RCS_200_AD	Asset Disruption			INF_210.01	Drain	1
				RCS_200_FES	Feasibility Design & Early Studies			INF_210.02	Pipe	1
				RCS_200_CD	Concept Design			INF_210.03	Valves	1
				RCS_200_DD	Detailed Design			INF_210.04	Chambers	1
				RCS_200_CM	Commercial Management (incl. Procurement)			INF_210.05	Separator	1
				RCS_200_MAN	Manufacturing/Fabrication/Delivery on Site			INF_210.06	Channels	1
				RCS_200_PLW	Preliminary Works			INF_210.07	Catchpit	1
				RCS_200_EW	Enabling Works			INF_210.08	Siphon	1
				RCS_200_CW	Construction/Installation Works			INF_210.09	Water Retention Tank	1
				RCS_200_COM	Testing & Commissioning			INF_210.10	Pumps	1
				RCS_200_HCO	Handover & Close-out			INF_210.11	Treatment Plant	1
				RCS_300_CA	Consents and Authorisation			INF_211.01	Vehicular Access Way	1
				RCS_300_AD	Asset Disruption			INF_211.02	Pedestrian Access Way	1
				RCS_300_FES	Feasibility Design & Early Studies			INF_211.03	Ducts, Through, and Drainage	1
				RCS_300_CD	Concept Design			INF_211.04	Kerbs, Channels, and Edging	1
				RCS_300_DD	Detailed Design			INF_212.01	Vehicular Access Way	1
				RCS_300_CM	Commercial Management (incl. Procurement)			INF_212.02	Pedestrian Access Way	1
				RCS_300_MAN	Manufacturing/Fabrication/Delivery on Site			INF_212.03	Ducts, Through, and Drainage	1
				RCS_300_PLW	Preliminary Works			INF_212.04	Kerbs, Channels, and Edging	1
				RCS_300_EW	Enabling Works			INF_213.01	Vehicular Access Way	1
				RCS_300_CW	Construction/Installation Works			INF_213.02	Pedestrian Access Way	1
				RCS_300_COM	Testing & Commissioning			INF_213.03	Ducts, Through, and Drainage	1
				RCS_300_HCO	Handover & Close-out			INF_213.04	Kerbs, Channels, and Edging	1
								INF_214.01	Vehicular Access Way	1
								INF_214.02	Pedestrian Access Way	1
								INF_214.03	Ducts, Through, and Drainage	1
								INF_214.04	Kerbs, Channels, and Edging	1
								INF_215.01	Cycle Access Way	1
								INF_215.02	Pedestrian Access Way	1
								INF_215.03	Kerbs, Channels, and Edging	1
								INF_216.01	Street Furniture	1
								INF_216.02	Ornamental Furniture	1
								INF_216.03	Other Furniture	1
								INF_		

Level 1		Level 2		Level 3		Level 4		Level 5		
Asset/Deliverable s Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Discipline ID	Discipline/Phase	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element/Component - this level will not be standardised for client-side schedules	No.
								INF_302.10	Electrical relays	1
								INF_302.11	Electrical switches	1
								INF_302.12	Batteries, Chargers and Auxiliary supplies	1
								INF_302.13	Cabling and Containment within Substation	1
								INF_302.14	Power Inverters	1
								INF_302.15	Protection & Control Equipment	1
								INF_302.16	Network connection	1
								INF_303.01	Base	1
								INF_303.02	Enclosure	1
								INF_303.03	Compound	1
								INF_303.04	Electric Switchboard	1
								INF_303.05	Distribution Board	1
								INF_303.06	Circuit Breaker	1
								INF_303.07	Power Transformers	1
								INF_303.08	Transformer Rectifier	1
								INF_303.09	Electricity meters	1
								INF_303.10	Electrical relays	1
								INF_303.11	Electrical switches	1
								INF_303.12	Batteries, Chargers and Auxiliary supplies	1
								INF_303.13	Cabling and Containment within Substation	1
								INF_303.14	Power Inverters	1
								INF_303.15	Protection & Control Equipment	1
								INF_303.16	Network connection	1
								INF_304.01	Base	1
								INF_304.02	Enclosure	1
								INF_304.03	Compound	1
								INF_304.04	Electric Switchboard	1
								INF_304.05	Distribution Board	1
								INF_304.06	Circuit Breaker	1
								INF_304.07	Power Transformers	1
								INF_304.08	Transformer Rectifier	1
								INF_304.09	Electricity meters	1
								INF_304.10	Electrical relays	1
								INF_304.11	Electrical switches	1
								INF_304.12	Batteries, Chargers and Auxiliary supplies	1
								INF_304.13	Cabling and Containment within Substation	1
								INF_304.14	Power Inverters	1
								INF_304.15	Protection & Control Equipment	1
								INF_304.16	Network connection	1
								INF_305.01	Isolation Devices	1
								INF_305.02	Insulators	1
								INF_305.03	Earthing Devices	1
								INF_305.04	Lightning Protection	1
								INF_305.05	Bonding Conductors	1
								INF_306.01	Cable Containments (Trays)	1
								INF_306.02	Cables	1
								INF_307.01	Rail Heaters	1
								INF_307.02	Points Heater	1
								INF_307.03	Junction Lighting	1
								INF_308.01	General Equipment	1
								INF_308.02	Workshop Equipment	1
								INF_308.03	Cleaning Equipment	1
								INF_308.04	Lifting Equipment	1
								INF_308.05	De-icing Equipment	1
								INF_308.06	Overhead Trolley	1
								INF_308.07	Access Equipment	1
								INF_308.08	Battery Equipment	1
								INF_308.09	Compressed Air Equipment	1
								INF_308.10	Calibrated Equipment	1
								INF_308.11	Calibration Gauge Equipment	1
								INF_308.12	Train Test Equipment	1
								INF_308.13	Train Monitoring Equipment	1
								INF_308.14	Welding Equipment	1
								INF_308.15	Safety Equipment	1
								INF_308.16	Wheel Lathe	1
								INF_308.17	Electrical Portable Appliances	1
								INF_309.01	Controlled Emission toilet (CET) Point	1
								INF_309.02	Carriage Washing Plant	1
								INF_309.03	Carriage Watering System Point	1
								INF_309.04	Sanding System Point	1
								INF_309.05	Diesel Fueling Point	1
								BP_101.01	Foundations	1
								BP_101.02	Retaining Walls	1
								BP_101.03	External Structure (D-Walls)	1
								BP_101.04	Internal Structure	1
								BP_102.01	Columns	1
								BP_102.02	Slabs	1
								BP_102.03	Frame	1
								BP_102.04	Roof	1
								BP_102.05	Stairs & Ramp	1
								BP_102.06	External Walls	1
								BP_102.07	Internal Walls & Partitions	1
								BP_102.08	Windows & Partitions	1
								BP_102.09	Internal Doors	1
								BP_103.01	Wall Finishes Elements	1
								BP_103.02	Floor Finishes Elements	1
								BP_103.03	Ceiling Finishes Elements	1
								BP_104.01	General Fittings, furnishings, And Equipment	1
								BP_104.02	Domestic Kitchen Fittings, and Equipment	1
								BP_104.03	Special Purpose Fittings, Furnishings, and Equipm	1
								BP_104.04	Works of Art	1
								BP_104.05	Non-Mechanical and Non-Electrical Equipment	1
								BP_104.06	Internal Plants	1
								BP_105.01	Sanitary Appliances	1
								BP_105.02	Sanitary Ancillaries	1
								BP_106.01	Catering Equipment	1
								BP_106.02	Miscellaneous Equipment	1
								BP_107.01	Surface Foul Drainage	1
								BP_107.02	Special Liquid Waste Drainage	1
								BP_107.03	Refuse Disposal	1
								BP_108.01	Mains Water Supply	1
								BP_108.02	Cold Water Distribution	1
								BP_108.03	Hot Water Distribution	1
								BP_108.04	Steam & Condensate Distribution	1
								BP_109.01	Radiators	1
								BP_109.02	Heating Floor	1
								BP_109.03	Infra-Red Heaters	1
								BP_110.01	Central Heating Unit	1
								BP_110.02	Local Heating Unit	1
								BP_110.03	Central Cooling Unit	1
								BP_110.04	Local Cooling Unit	1
								BP_110.05	Central Air Conditioning Unit	1
								BP_110.06	Local Air Conditioning Unit	1
								BP_111.01	Central Ventilation System	1
								BP_111.02	Local & Special Ventilation	1
								BP_111.03	Smoke Extraction and Control System	1
								BP_112.01	Electrical Mains & Sub-mains Distribution	1
								BP_112.02	Power Installations	1
								BP_112.03	Lighting Installations	1
								BP_112.04	Specialist Lighting Installations	1
								BP_112.05	Local Electricity Generation Systems	1
								BP_112.06	Earthing & Bonding Systems	1
								BP_112.07	Station Signange Illumination	1
								BP_113.01	Fuel Storage	1
								BP_113.02	Fuel Distribution System	1
								BP_114.01	Lifts & Enclosed Hoists	1
								BP_114.02	Escalators	1
								BP_114.03	Moving Pavements	1
								BP_114.04	Powered Stairlifts	1
								BP_114.05	Conveyors	1

Level 1		Level 2		Level 3		Level 4		Level 5		
Asset/Deliverable s Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Discipline ID	Discipline/Phase	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element/Component - this level will not be standardised for client-side schedules	No.
								VS_101.04	Bogies	1
								VS_101.05	Braking System	1
								VS_101.06	Articulation & Suspension System	1
								VS_101.07	Traction System	1
								VS_101.08	Coupling system	1
								VS_101.09	Control and Communication System	1
								VS_101.10	Auxiliary Equipment and Batteries	1
								VS_101.11	Heating, Ventilation and AirConditioning	1
								VS_101.12	Driver's Console and Cab Equipment	1
								VS_102.01	Car Body (Shell)	1
								VS_102.02	Interior Fit Out Elements	1
								VS_102.03	Windows	1
								VS_102.04	Bogies	1
								VS_102.05	Braking System	1
								VS_102.06	Articulation & Suspension System	1
								VS_102.07	Traction System	1
								VS_102.08	Coupling system	1
								VS_102.09	Control and Communication System	1
								VS_102.10	Auxiliary Equipment and Batteries	1
								VS_102.11	Heating, Ventilation and AirConditioning	1
								VS_102.12	Driver's Console and Cab Equipment	1
								VS_103.01	Car Body (Shell)	1
								VS_103.02	Interior Fit Out Elements	1
								VS_103.03	Windows	1
								VS_103.04	Bogies	1
								VS_103.05	Braking System	1
								VS_103.06	Articulation & Suspension System	1
								VS_103.07	Traction System	1
								VS_103.08	Coupling system	1
								VS_103.09	Control and Communication System	1
								VS_103.10	Auxiliary Equipment and Batteries	1
								VS_103.11	Heating, Ventilation and AirConditioning	1
								VS_103.12	Driver's Console and Cab Equipment	1
								VS_104.01	Train Borne Signalling Equipment	1
								VS_105.01	Driver Display Units	1
								VS_105.02	Audio System	1
								VS_105.03	Video System	1
								VS_105.04	Ventilation System	1
								VS_106.01	Bus Body (Shell)	1
								VS_106.02	Interior Fit Out Elements	1
								VS_106.03	Windows	1
								VS_106.04	Bogies	1
								VS_106.05	Braking System	1
								VS_106.06	Articulation & Suspension System	1
								VS_106.07	Traction System	1
								VS_106.08	Coupling system	1
								VS_106.09	Control and Communication System	1
								VS_106.10	Auxiliary Equipment and Batteries	1
								VS_106.11	Heating, Ventilation and AirConditioning	1
								VS_106.12	Driver's Console and Cab Equipment	1
								VS_107.01	Coach Body (Shell)	1
								VS_107.02	Interior Fit Out Elements	1
								VS_107.03	Windows	1
								VS_107.04	Bogies	1
								VS_107.05	Braking System	1
								VS_107.06	Articulation & Suspension System	1
								VS_107.07	Traction System	1
								VS_107.08	Coupling system	1
								VS_107.09	Control and Communication System	1
								VS_107.10	Auxiliary Equipment and Batteries	1
								VS_107.11	Heating, Ventilation and AirConditioning	1
								VS_107.12	Driver's Console and Cab Equipment	1
								VS_108.01	Gears and drivetrain	1
								VS_108.02	Frames and Forks	1
								VS_108.03	Wheels & Tyres	1
								VS_108.04	Brakes & Pads	1
								VS_108.05	Power Meters	1
								VS_109.01	Car Body (Shell)	1
								VS_109.02	Interior Fit Out Elements	1
								VS_109.03	Windows	1
								VS_109.04	Bogies	1
								VS_109.05	Braking System	1
								VS_109.06	Articulation & Suspension System	1
								VS_109.07	Traction System	1
								VS_109.08	Coupling system	1
								VS_109.09	Control and Communication System	1
								VS_109.10	Auxiliary Equipment and Batteries	1
								VS_109.11	Heating, Ventilation and AirConditioning	1
								VS_109.12	Driver's Console and Cab Equipment	1
								VS_110.01	Car Body (Shell)	1
								VS_110.02	Interior Fit Out Elements	1
								VS_110.03	Windows	1
								VS_110.04	Bogies	1
								VS_110.05	Braking System	1
								VS_110.06	Articulation & Suspension System	1
								VS_110.07	Traction System	1
								VS_110.08	Coupling system	1
								VS_110.09	Control and Communication System	1
								VS_110.10	Auxiliary Equipment and Batteries	1
								VS_110.11	Heating, Ventilation and AirConditioning	1
								VS_110.12	Driver's Console and Cab Equipment	1
								VS_201.01	Auto Transformer Site (ATs)	1
								VS_201.02	Auto Transformer Feeder Site (ATFS)	1
								VS_201.03	Mid Point Auto Transformer Site (MPAts)	1
								VS_201.04	Sectioning Auto Transformer Site (SAts)	1
								VS_201.05	Main Grid Traction Supply Substation (Feeder St	1
								VS_201.06	Track Sectioning Switch (tss)	1
								VS_201.07	Direct Current (DC) Substation	1
								VS_201.08	Track Parallelling Hut	1
								VS_201.09	Structure Mounted Outdoor Switchgear (SMOS)	1
								VS_201.10	Containerised Switchgear	1
								VS_201.11	Booster Transformer	1
								VS_201.12	Auxiliary Equipment Enclosure	1
								VS_201.13	Cables and Containment	1
								VS_202.01	OLE Support Structures	1
								VS_202.02	Small Part Steelwork (SPS)	1
								VS_202.03	Wiring	1
								VS_202.04	Depot Traction	1
								VS_202.05	Earthing & Bonding	1
								VS_203.01	Conductor Rail Contact system	1
								VS_203.02	Earthing & Bonding	1
								VS_204.01	Road Charging Stations	1
								RCS_101.01	Consoles & Panels	1
								RCS_101.02	Lever Frames	1
								RCS_101.03	Ground Frames	1
								RCS_101.04	Train Describers	1
								RCS_101.05	Supervisory Items	1
								RCS_101.06	Signalling Simulator	1
								RCS_102.01	Mirco-Processor Based System	1
								RCS_102.02	Electro-Mechanical Interlocking	1
								RCS_102.03	Mechanical System	1
								RCS_102.04	Trackside Interlocking Interface Unit	1
								RCS_102.05	Tokenless Block	1
								RCS_103.01	Electrical Point Mechanisms	1
								RCS_103.02	Hydraulic Points Mechanisms	1
								RCS_103.03	Electro-Pneumatic Point Mechanisms	1
								RCS_103.04	Air Point Mechanisms	1

Level 1		Level 2		Level 3		Level 4		Level 5		
Asset/Deliverables Group ID	Asset/Deliverables Group	Asset ID	Asset Name	Discipline ID	Discipline/Phase	Asset Repeatable Work Item ID	Asset Repeatable Work Item	Asset Repeatable Work Item Element ID	Asset Repeatable Work Item Element/Component - this level will not be standardised for client-side schedules	No.
								RCS_302.02	Aerials	1
								RCS_302.03	Base Stations	1
								RCS_303.01	Transmission Network	1
								RCS_303.02	Transmission Equipment	1
								RCS_304.01	Communication Cables and Containment	1
								RCS_305.01	Telephone Concentrators	1
								RCS_305.02	Operational Radio	1
								RCS_305.03	Zone Control Communication Systems	1
								RCS_305.04	Other Stated Concentrators	1
								RCS_306.01	Access Point	1
								RCS_306.02	Direct Line	1
								RCS_306.03	Emergency	1
								RCS_306.04	Lineside Plug	1
								RCS_306.05	Emergency Telephone Devices (ETD)	1
								RCS_306.06	Signal Post Telephone (SPT)	1
								RCS_306.07	Point Zone Telephone (PZT)	1
								RCS_306.08	Ground Frame Circuit	1
								RCS_306.09	Tunnel Emergency Circuit	1
								RCS_306.10	Level Crossing Public Emergency Telephone System	1
								RCS_307.01	CCTV Cameras	1
								RCS_307.02	Monitors	1
								RCS_307.03	Mirrors	1
								RCS_307.04	Control Panels	1
								RCS_307.05	Microphones and Speaking Points	1
								RCS_307.06	Recorders	1
								RCS_307.07	Amplifiers	1
								RCS_307.08	Primary Object Detectors (POD)	1
								RCS_307.09	Complementary Object Detectors (COD)	1
								RCS_308.01	Automatic Train Reporting (ATR)	1
								RCS_308.02	Station Information VDU stepping (Sits)	1
								RCS_308.03	Train Running Under System TOPS (TRUST)	1
								RCS_309.01	Point Heaters	1
								RCS_309.02	Standby Generators	1
								RCS_309.03	Pumps	1
								RCS_309.04	SCADA Equipment	1
								RCS_309.05	Relocatable Equipment Buildings (REB)	1
								RCS_310.01	Speakers	1
								RCS_310.02	Microphones and Speaking Points	1
								RCS_310.03	Amplifiers	1
								RCS_310.04	Ambient Noise Sensor	1
								RCS_310.05	Audio & Video Control Panels	1
								RCS_310.06	Video Display Units	1
								RCS_310.07	Recorders	1
								RCS_311.01	Racking Equipment Location Case	1
								RCS_311.02	Relocatable Equipment Buildings (REB)	1
								RCS_311.03	Trackside Equipment	1

Type	Current RMM Level 1	Current WBS Level Name	Current WBS Correspondent Level	Comments	RMM Cost Estimate Tables
Direct Construction Works	Railway Control System	Rail & Road Control System	Level 1		<p>3.2.5 Tables for Cost Estimates and Cost Plans</p> <p>Group Element 1.01 Railway Control Systems</p> <p>Group Element 1.02 Train Power Systems</p> <p>Group Element 1.03 Electric Power and Plant</p> <p>Group Element 1.04 Permanent Way</p> <p>Group Element 1.05 Operational Telecommunications Systems</p> <p>Group Element 1.06 Buildings and Property</p> <p>Group Element 1.07 Civil Engineering</p> <p>Group Element 1.08 Enabling Works</p> <p>Group Element 1.09 Rolling Stock</p> <p>Group Element 2.01 Main Contractor's Preliminaries</p> <p>Group Element 2.02 Main Contractor's Overheads and Profit</p> <p>Group Element 3.01 Design</p> <p>Group Element 3.02 Project Management</p> <p>Group Element 3.03 Other Project Costs</p> <p>Group Element 4.01 Risk</p> <p>Group Element 5.01 Inflation</p> <p>Group Element 6.01 Taxation and Grants</p>
	Train Power System	Power Systems	Level 2		
	Electric Power and Plant	Electric Power and Plant	Level 2		
	Permanent Way	Track (Permanent Way)	Level 2		
	Operational Telecommunications Systems	Telecommunications Systems	Level 2		
	Buildings and Property	Buildings and Property	Level 1		
	Civil Engineering	Civil & Structures	Level 2		
	Enabling Works	Enabling Works	Level 3		
	Rolling Stock	Rolling Stock & Vehicles	Level 2		
Indirect Construction Works	Main Contractors Preliminaries	Preliminary Works	Level 3		
	Main Contractors Overheads and Profit	N/A	N/A	Not related to a specific asset	
Design, Project Management and other costs	Design	Feasibility Design & Early Studies/Concept/Detailed Design	Level 3		
	Project Management	Project/Programme Management	Level 2		
	Other Costs	N/A	Level 3	Not related to a specific scope (Land, statutory and public bodies is captured under Consents and Authorisations)	
Risk	Risk Allowance	Risk & Value Management	Level 3		
Inflation	Inflation	N/A	N/A	Not related to a specific scope	
Taxation and Grants	Tax Allowance and Grants	N/A	N/A	Not related to a specific scope	

**TRANSPORT for LONDON – COMMERCIAL
SURFACE TRANSPORT**

**Major Asset Renewals Programme (MARP)
- Brent Cross Structures Feasibility Study**

Scope Appendix F

Cost Estimate Scope

Project Reference Number: tfl_scp_001845

COMMERCIAL SURFACE TRANSPORT

Brent Cross Structures Cost Estimate Scope and Specification

DRAFT REVISION 1

(Services Delivery) Agreement between Surface Transport
PPD and *(Consultant name here)*

Project Reference Number: ST-PJ529C

Transport for London
Palestra
197 Blackfriars Road
London SE1 8NJ

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Cost Estimate Scope and Specification **2**

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Brent Cross Structures

Cost Estimate Scope and Specification Scope

The Consultant is to provide estimating support to the Brent Cross Structures project. This is to include:-

- Preparing a comprehensive estimate for the works, based upon the outline/reference design
- Development of and information gathering for the estimate based upon the outline/reference design during the preparation of the design
- Provision of costings to support option selection/refinement
- Provision of life cycle cost for the proposed works, including gathering input from others, including asset managers and experts within Transport for London and externally
- Estimating support to the project as required and instructed by the Project Manager.

Works are to be carried out in accordance with the specification set out below.

Specification

1. Purpose

The consultant is to produce estimates for the works forming the Brent Cross Structures including all temporary and permanent works costs, client costs, land and legal fees, licence fees, charges, statutory costs, compensations and the like. The outline/reference design estimate is to include:-

- An estimate and estimate summary in the format set out within TfL's Estimate Template, a copy of which is attached to this brief.
- A supporting detailed bill of quantities
- An estimate report
- All supporting information necessary to demonstrate the derivation of the estimate, including take-off sheets, quotations, assumptions and the like
- Presenting the estimate to TfL, including preparing any presentation material to enable the estimate, its basis and its preparation to be fully understood and evaluated



2. Summary Estimate

- The estimate is to be prepared using TfL's standard estimate template, a copy of which is attached to this specification.
- The estimate should be set out in accordance with TfL's Cost Feedback Structure.

3. Bill of Quantities

The consultant is to prepare a full Bill of Quantities for the works at a level appropriate to the level of design information available. The following describe requirements for the bill:-

- The bill should be measured and presented in a manner consistent with the Cost Feedback Structure and the Estimate template. **[Note:** the estimate template may be subject to change. Prior to populating the template, the Consultant should check with TfL to ensure that the latest version of the template is used.]
- It should utilise a recognised method of measurement (e.g. MCHW for highways or CESMM4 for civils/ structural engineering works) for detailed measurements where insufficient detail is available within the Cost Feedback Structure. However, all detailed measurement should fit within the overall cost feedback structure and all items forming each high level cost feedback structure item should be clearly identifiable.
- Each item should have a cost breakdown/ method of measurement code representing its classification within the method of measurement.
- It should incorporate all elements required for the works whether shown within the design information or not. The design team shall be consulted during the preparation of the bill of quantities to ensure that the full extent of works is understood.
- It should be fully quantified and reflect the requirements of the project. Where necessary, the consultant shall engage with appropriate specialists to properly interpret all the data available and ensure that quantities accurately reflect the works required.

Measurement used to prepare the bill of quantities should always use the most accurate available information. Where marked dimensions are not provided on drawings, electronic measurements from a BIM model or directly from CAD should be used wherever these are available.

A clear audit trail should be provided of the production of all measurement including the transfer from the measurement to the summary of the quantities in the bill of quantities. A quality assurance check should be carried out to demonstrate that the measurement has been cross checked by an independent checker (see also section 6, below).

4. Source Information

The information upon which the estimate is based should be appropriate to the Pathway stage for which the estimate is being prepared (Stage 3 for the principal estimate being sought via this specification, although the Consultant should also refer to information produced at Pathway Stage 2 in order to provide context and clarification of design information.).



As a minimum, the Consultant should ensure it has all of the “core” products required for the Pathway stage, in order to inform the estimate. The Consultant should work with other members of its design team and other members of the wider project team to obtain this information.

In the event that the Consultant uses its best efforts to obtain the correct information but that elements of the information remain unavailable, due account of the level of information available should be taken in the preparation of the estimate and, in particular, in the assessment of risk and estimating uncertainty. The level of information available should be stated within the estimate report and any concerns or advice regarding the suitability of the estimate for the proposed Pathway stage should also be stated.

5. Estimating

The consultant is to provide an Estimate for the works based upon the bill of quantities. The estimate is to:-

Have a base date of 2nd Quarter 2021

Reflect accurate current prices, at the time of preparing the estimate, based upon:-

- Quotations and other advice from contractors, subcontractors and other industry specialists

- Known, accurate, industry data

- Outturn costs of comparable projects

- Any other information which may more accurately inform current pricing

The prices shall take account of prevailing market and economic conditions. Where it is anticipated that plant, materials or other resources will be obtained from outside the United Kingdom, this shall include taking account of appropriate currency exchange rates.

The estimate is to include all direct and indirect construction costs and all client's costs including design and other consultancy costs, all project management costs, all compensation payments and statutory undertakers' costs, appropriate allowance for risk, contingency and uncertainty and any other costs needed to deliver the works.

6. Risk

A robust allowance for risk and uncertainty shall be included within the estimate and shall be appropriate to the level of information available to inform the estimate. The risk and uncertainty allowance is to be prepared in consultation with TfL's risk managers and shall follow appropriate guidance from them.

7. Life Cycle Cost

In addition to the capital cost estimate, the Consultant is to prepare a Life Cycle Cost assessment for the scheme.

The Life Cycle Cost assessment should assume a lifespan of 120 years for the asset. The assessment should include all capital and subsequent costs including operation, maintenance and renewals of all elements of the scheme.



The Consultant shall ensure that appropriate input is provided by asset managers and other key stakeholders within TfL and shall co-ordinate this activity.

8. Estimate Report

The estimate is to be accompanied by a report that should fully explain the background to the estimate, its context and the methodology used in its creation. As a minimum it shall include:-

Details of the scheme being delivered

A summary of the estimate (in the form set out in the estimate template)

A comparison between the current cost estimate and the previous cost estimate for the proposed option under the main construction elements on an elemental basis and commentary on the source of these changes.

Details of all drawings, specifications, reports and other documents used in the preparation of the estimate

Details of all estimator's allowances made in the estimate, the reason for which each allowance has been made and the rationale for the quantum of each allowance

A full list of all assumptions made in the preparation of the estimate, qualifications to the estimate and exclusions from the estimate

Analysis of the estimate including details of key repeatable work items and proportions of the overall cost represented by each cost category

Details of the source of cost data for the items (eg. previous projects, known rates, quotations, etc.)

Benchmarking of the estimate against previous similar projects and against known rates for various work types and repeatable work items

Estimate of the Life Cycle Cost for the scheme, in accordance with section 6, above, and details of how this has been calculated

9. Personnel

Personnel involved in the preparation of the estimate will be appropriately experienced and qualified for the work being undertaken. The consultant will provide copies of proposed estimators' CVs to TfL for agreement prior to their working on the project.

10. Quality Assurance

Before the estimate is issued to TfL, a full internal review (QA) should be carried out by the consultant. The QA process should be made visible, once completed and it should include the estimate being signed by the reviewers noted below.



The estimate is to be checked to ensure it is free from arithmetic errors (including formula errors in spreadsheets) and that quantity measures are correct.

The estimate shall be reviewed by a senior member of the Consultant Staff (experienced in the type of work to be reviewed) who needs to be satisfied the estimate has been prepared and checked by suitably skilled staff. Final review and sign-off will be provided by a minimum of two directors.

The reviewers' signatures shall be taken to indicate that they believe the estimate to be accurately measured, appropriately priced and therefore represents a realistic assessment of the most likely project cost and that the product is thoroughly auditable.

11. Sign-off

Following completion of the consultant's own Quality Assurance processes, the estimate should be signed-off by appropriate members of the TfL project team, including the project manager, the commercial manager, the senior commercial manager, the estimator, the estimating manager and the sponsor, in accordance with TfL's "Pathway" procedures and Estimating guidance.

12. Communication

The consultant will liaise closely with the TfL Estimating team to ensure that the work being carried out is in line with TfL's requirements. The consultant will provide updates on the progress on the production of the cost estimate at intervals of no more than one week.

13. Option Costings and Ad-hoc Advice

As part of the scope, the Consultant is required to prepare costings to inform option refinement and may also be requested to provide other estimating support to the project. Unless specifically requested, neither an estimate report nor a presentation will be required to describe these costings. They should also be undertaken to a level of detail that reflects the level of information available and timescales required for completion. However, the same principles of using the best available data shall apply to these ad-hoc exercises as to the detailed outline/reference design estimate and these shall also be checked and their quality assured to a similar standard.

**TRANSPORT for LONDON – COMMERCIAL
SURFACE TRANSPORT**

**Major Asset Renewals Programme (MARP)
- Brent Cross Structures Feasibility Study**

Scope Appendix G

BIM

Project Reference Number: tfl_scp_001845

Execution Plan

Project * Programme *	Name of Project or Programme			
Reference	Recognised reference code (e.g. profit centre, UIP, etc.)			
Stage	Pathway Stage			
Responsible	Project / Programme* Manager		Name	
	Signature		Date	
Accountable	Head of Delivery / Director of Delivery*		Name	
	Signature		Date	
Product History	Version	Date	Author	Summary of changes
	0.1	dd/mm/yy	Insert Name	First draft

This document must be filed in accordance with the [document filing structure](#)

* Delete as appropriate (the Accountable person should always be at least one management level higher than the Responsible person).

Product Context

Purpose	<p>The Execution Plan acts as the central reference document for managing all aspects of the execution of the project or programme – including project management, engineering / technical management, construction management, health, safety, environment and sustainability management, procurement, maintenance readiness, operational readiness and stakeholders.</p> <p>This product supports compliance with the Construction (Design and Management) Regulations. Therefore, it is mandatory that the supplied template must be used.</p>
----------------	---

Applicability	Project	The Execution Plan is a core Pathway Product and must be produced for all projects. If the project is part of a programme, do not duplicate information contained in the programme level Execution Plan, cross reference to it instead.
	Programme	The Execution Plan is a core Pathway Product and must be produced for all programmes (which may either be to deliver a set of projects or to deliver a collection of renewals / enhancement work activities that are usually agreed on an annual basis).

Consult Consider these roles when developing this document	Role	Detail
	Sponsor	To ensure that the business case can be satisfied and the benefits can be delivered using this plan
	Project Engineer	To ensure that engineering and technical content is adequately covered and correct.
	Asset Owner / Operator	To ensure that user requirement content is adequately covered and correct.
	Commercial Lead	To ensure that procurement content is adequately covered and correct.
	Subject Matter Experts	To ensure that the overall contents are adequately covered and correct.
	Consents Specialist	To ensure that consents content is adequately covered and correct.
	HSE Adviser	To ensure that health, safety and environment content is adequately covered and correct.
	People Change Manager	To ensure that impacts to people content is adequately covered and correct.

Inform	N/A	N/A
---------------	-----	-----



Characterisation Table	Category Level			
	Simple	Standard	Significant	Major
1 Scope	Required at all levels			
2 Governance	Required at all levels			
3 Interfaces	Required at all levels			
4 Change Impact	Required at all levels			
5 Delivery Approach	Required at all levels			
A. CDM Duties & Responsible Person	Required at all levels ⁽¹⁾			
B. Acceptance Schedule	Required at all levels ⁽²⁾			
C. Benefits Management Strategy	Append here	Required ⁽³⁾	Required ⁽³⁾	Required ⁽³⁾
D. Estimate Strategy	Append here	Append here	Required ⁽³⁾	Required ⁽³⁾
E. Risk Management Strategy	Append here	Required ⁽³⁾	Required ⁽³⁾	Required ⁽³⁾
F. Stakeholder Engagement & Communications Plan	Append here	Required ⁽³⁾	Required ⁽³⁾	Required ⁽³⁾
G. Progress Reporting Plan	Append here	Append here	Required ⁽³⁾	Required ⁽³⁾
H. Next Stage Plan	Required	Required	Required ⁽⁴⁾	Required ⁽⁴⁾

Characterisation Notes:

- What is Characterisation? Find out [here](#).
- The amount of effort applied in the production of this product should be proportionate to the size, scale, risk and complexity of the project / programme. The Characterisation Table above states which sections are required to be completed based on the level at which the project / programme was categorised at. A guide to the amount of effort applied is as follows:
 - Simple – one to two sentences per sub-heading.
 - Standard – one to two paragraphs per sub-heading.
 - Significant – one to two pages per sub-heading.
 - Major – greater than two pages per sub-heading to separate documents per heading.
- ⁽¹⁾ Appendix must be completed when CDM is applicable to the works.
- ⁽²⁾ Section / Appendix only needs to be completed for LU projects and programmes.
- ⁽³⁾ Separate Pathway Products are required.
- ⁽⁴⁾ Can be broken out into separate documents, if necessary.

General Notes:

- It may be appropriate to create standalone Execution Plans for sub-projects or specific elements of the programme or project.



- Headings shouldn't be deleted in the Execution Plan; if the section is not required, write 'not applicable' beneath the heading to show that professional judgement has been applied.
- The Execution Plan must align with scope and requirements as set out in the Requirements Product.
- Please refer to the [Pathway Manual](#) before completing this Execution Plan.

Business Area Specific Notes:

The following are specific requirements of this product by business area:

- London Underground: This product is used to discharge part of the requirements for a Change Assurance Plan under [LUL Category 1 Standard 1538](#). As a consequence, it is mandatory that this template is used.
- Rail and Underground: Please note [Guidance Note - Timesheet Policy and Process](#).
- Technology & Data: Append the Project Estimating Tool (PET) summary page to this product.

If you have any queries, feedback or improvement suggestions about this product, then please contact tflpathway@tfl.gov.uk.



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DELETE BLUE TEXT AS THIS IS FOR GUIDANCE ONLY

1.0 Scope

1.1 Key Documents

Complete the following table. These six documents (in the majority of cases) form the scope of the work being delivered, upon which, this Execution Plan is being written.

Note that if this Execution Plan is being written for a project, but if any key documents are produced only at the programme level (for example, the Business Case), then reference needs to be made to those programme level products.

Do not repeat or summarise the scope and objective(s) in this document.

The project / programme is categorised as [Characterisation Score].

Baseline Item	Document Reference
Requirements	Enter document name and link to the latest version.
Business Case	Enter document name and link to the latest version.
Benefits Management Strategy	For 'Simple' projects / programmes, refer to Appendix C, otherwise, enter document name and link to the latest version.
Authority Submission	Enter document name and link to the latest version.
Estimate	Enter document name and link to the latest version.
Schedule	Enter document name and link to the latest version.

1.2 Key Milestones

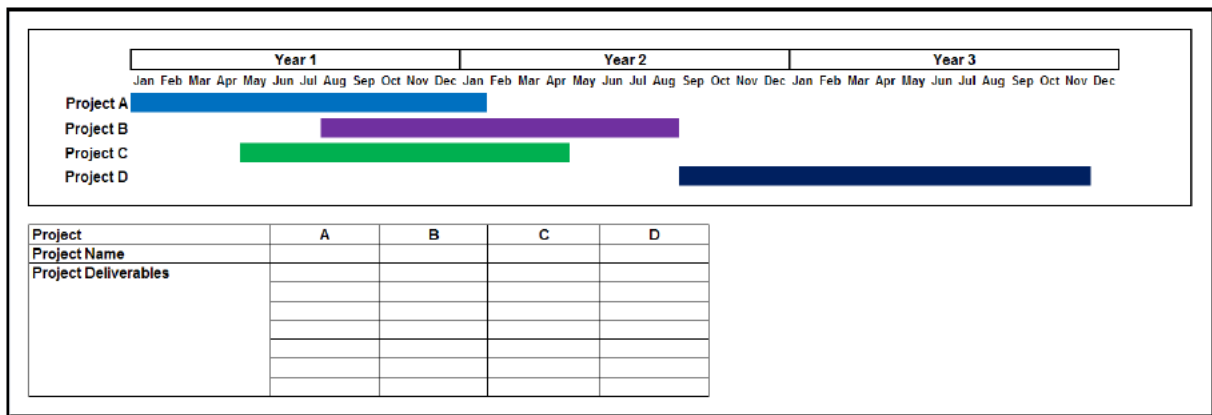
If the Execution Plan is being written for a project:

- Provide a summary of the key milestones from the Schedule.

If the Execution Plan is being written for a programme:

- Provide an overview of the particular projects (tranches) of work that will make up the programme and how they contribute to the programme overall. The principles should be explained here and developed in the Schedule, structured according to the agreed work breakdown structure (WBS).
- For programmes, it is also important to show when the capabilities (outputs) will be made available from each completed project (tranche) so that the benefits can be realised - this should also link with the Benefits Map (if applicable).





Example diagram of programme tranches

2.0 Governance

2.1 Governance Arrangements

If the Execution Plan is being written for a project:

- Provide a summary of the governance arrangements, including (a) applicable project / programme meetings, (b) project / programme management reviews. Provide a link to any terms of reference.

If the Execution Plan is being written for a programme:

- Provide a summary of the governance arrangements, including (a) programme meetings that affect this programme, (b) programme management reviews, (c) other programme level meetings. Provide a link to the terms of reference.
- Key decisions should be set out in this section and a preliminary view provided of what programme versus project level governance products and stage gate arrangements are to be used.
- Details should be included on who will make up the programme meeting. The programme meeting resolves issues that cannot be resolved by the internal controlling mechanisms of the programme itself.
- Details of Programme Evaluation Reviews (to complement project and programme stage gates) should be described here. These reviews should be chaired by the Sponsor and it is recommended that they are conducted on a periodic basis. The Sponsor and potentially other significant stakeholders are entitled to request information or conduct a review in addition to the governance processes already described.
- Sponsor's Instructions: The Sponsor may issue a number of requests or directions to the Programme. Where these are complex or potentially resource intensive, the Sponsor will discuss them in draft form with the relevant stakeholders before issue. Typically they could be:
 - Clarifications of requirements of scope.



- Decisions on specific scope or design issues resulting from trade off between capital cost or cost and benefits.
- New or revised Sponsor documents.
- Requests for estimates of impacts on time, costs and deliverables resulting from potential changes in funding or requirements.

2.1.1 Pathway Gates

Where the project / programme estimated final cost is less than £1million complete the following table to display which Gates will be undertaken:

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
[insert approximate date for each stage]						

Provide clear reasoning, consultation and agreements are in place to support this approach.

Where the project / programme estimated final cost is over £1million, then an Integrated Assurance Plan (IAP) is required.

2.1.2 Next Stage Plan

Careful consideration for what needs to be undertaken in the subsequent lifecycle stage will act as a mechanism for providing evidence of first line assurance, not only to demonstrate that there is a thoughtful plan in place for what comes next (which can be used to help develop the **Schedule**) but can be used as a backwards review to demonstrate that all the previously planned key activities and tasks were undertaken (or with justification if not). The **Next Stage Plan** is therefore the key element at each gate to provide confidence and assurance to the gate panel.

The activities and tasks to be undertaken for the project/programme should use the standardised Pathway **Lifecycle Stage Activities & Tasks** diagrams as a reference/ benchmark, then (if necessary) and using professional judgement to scale/tailor as appropriate. Record the final intention of what activities and tasks will be undertaken in Appendix H to this Execution Plan, remembering to state how they will be undertaken. If any tailoring is proposed, or any activity/task not planned to be undertaken, reasons as to why should also be recorded.

2.2 Organisation

2.2.1 Core roles and resourcing

Complete the following table. Where any of the TfL Pathway roles are not required then insert the words “not required” rather than deleting the row. Alongside each role, list the planned resource requirements which the project will need in order to meet the schedule. Additional roles may be added to the table.



Include from where the resources will be sourced and any specific skills / training requirements foreseen. Also identify any special equipment, tools or other requirements needed by each resource.

TfL Pathway core roles and other roles are indicated by the guidance in the table below for whether the Execution Plan is being written for a project or programme.

Role	Person	Directorate / Organisation	Commitment (hours/week)
Head of Delivery / Director of Delivery* <i>delete as appropriate</i>			
Sponsor Project core role Programme core role			
Programme Manager Project core role Programme core role			
Project Manager Project core role Programme role			
Project Engineer Project core role			
Programme Engineer Programme role			
Project Controls Manager Project core role			
Subject Matter Expert Project core role			
HSE Adviser Project core role Programme role			
Commercial Lead Project core role Programme role			
People Change Manager Project core role			



Operations Representative Project core role			
Maintenance Representative Project core role			
Finance (Business Accountant) Project core role			
Construction Manager Project role Programme role			
<add additional roles as appropriate – e.g. Environment Manager, BREEAM or CEEQUAL Assessor, Customer Insight, Strategy and Experience>>			

2.2.2 CDM Applicability, Appointments and Notifications

This section must be completed for:

- All projects that involve construction.
- All programmes that involve construction, unless produced at project level.

State the outcome of the CDM applicability assessment from the Pathway Product Management Plan questionnaire.

The following organisations have been appointed to undertake CDM roles for this project:

Role	Organisation
Client	
Principal Designer	
Designer(s)	
Principal Contractor	
Contractor(s)	



The plan for appointments of CDM duty holders, i.e. when will CDM appointments be made if not already in place? Projects considering taking on the Principal Designer or Principal Contractor roles must complete the CDM Role Optimisation Tool.

Also describe any planned transfer of CDM roles between organisations during the life of the project/programme and how the transfer of CDM responsibilities will be managed.

For programmes, define how Principal Designer responsibilities are structured below programme level between specific Principal Designer roles or individual projects (or groups of projects). Define how this structure is endorsed through design governance structure for the programme (e.g. Design Authority Panel – see section 5.10.1)

Identify if the project is not handing over assets into operations and maintenance on completion, but is instead delivering assets (together with operations, maintenance and CDM Health and Safety File information) for use by another project/programme/organisation and how the transfer of CDM responsibilities will be managed.

For all CDM duties to be undertaken, use the [Allocation of CDM Duties Matrix](#), identifying the specific role within the project / programme team that will be discharging each duty.

For all construction projects, provide a link to the Team HSE Competency Assessment.

For guidance refer to the HSE Handbook

Under CDM, this project is notifiable / not notifiable (delete as appropriate). Note: CDM is applicable for all construction works, even if NOT notifiable.

If the work is notifiable, provide a link to the F10 (HSE/ORR notification).

The team carries out its duties by compliance with Pathway and undertaking of risk based verification activities.

For programmes, define how Principal Designer responsibilities are structured below programme level between specific Principal Designer roles on individual projects (or groups of projects). Define how this structure is endorsed through the design governance structure for the programme (e.g. Design Authority Panel for MPD only programmes – see section 5.10.1).

[For programmes where a number of projects are undertaking similar types of work at numerous locations and the same individuals undertake the same CDM duties at each location, it is acceptable for a single Allocation of CDM Duties Matrix to be produced for multiple projects, and for this to be referenced in the corresponding PEP.]

2.2.3 Other construction roles

This section must be completed for all programmes that involve construction. Complete the following table as necessary, including any other significant roles not identified above.

Role	Directorate / Organisation
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2.2.4 Organisation chart

Include an organisation chart. If appropriate, append the chart at the back of this product and refer to it from here or provide a link to where it is held in the filing structure.

2.3 Controls

The following elements need to be considered (providing links to other products if appropriate). If not described in other products, describe here how controls will be implemented within the specific setting.

Further guidance is provided within the Project Controls Handbook.

2.3.1 Estimating

This should be captured in the Estimate Strategy. When the project / programme has been Characterised as either 'Simple' or 'Standard', then the Estimate Strategy can be appended as Appendix D to this Execution Plan, rather than a standalone Product.

2.3.2 Risk Management

This should be captured in the Risk Management Strategy. When the project / programme has been Characterised as 'Simple', then only the Risk Strategy Matrix from the Risk Management Strategy is required and this can be appended as Appendix E to this Execution Plan and no other standalone Products are required.

Provide links to the Risk Register and the Issue Register.

2.3.3 Reporting Progress and Performance

This should be captured in the Progress Reporting Plan. When the project / programme has been Characterised as either 'Simple' or 'Standard', then only the 'Local Progress Reporting' section of the Progress Reporting Plan is required and can be appended as Appendix G to this Execution Plan and no other standalone Products are required.

2.3.4 Planning and Scheduling

Describe here the strategic approach being taken to planning, the choice of system chosen and the reporting requirements.

2.3.5 Document Management

The document management system should be set up under the standard TfL model (SharePoint for Work in Progress, Asite for collaboration and publishing, and Livelink for archive).

Folder structures should be set up utilising the standard **document filing structure**.

2.3.6 Cost Management

Describe here the approach being taken to cost management.

- Controls Resource (responsibilities for project / programme controls).

2.3.7 Change Control



Describe here the approach being taken to Baseline Management, Scope Management and Design Change Control.

2.3.8 Data Governance (where relevant)

Where relevant, describe the approach being taken to manage the information and records.

View [Managing TfL's information and records if required.](#)

2.3.9 Programme/Project Relationship (where relevant)

For programmes; provide a diagram illustrating how the programme is divided into projects (or types of projects) or refer to where this is defined. Provide an outline for the rationale.

For projects; identify which programme the project forms part of, or alternatively identify if it is a standalone project.

3.0 Interfaces

3.1 Sharing of Information, Co-ordination and Co-operation Arrangements

3.1.1 Privacy and Data Protection

Complete the self-assessment flowchart within **Project & Programme Privacy by Default and Design / Data Protection Assurance Plan** to assess if a Data Protection Impact Assessment (DPIA) is needed to assess GDPR / Privacy compliance risk, and ensure these risks are identified and mitigated at an early stage.

The project / programme must comply with;

- [The Data Protection Act](#)
- [The Freedom of Information Act](#)
- [The Human Rights Act](#)
- [TfL Privacy & Data Protection Policy](#)
- [TfL Cyber Security Framework and Policies](#)

Include a link to the project folder / filing site (e.g. Asite, SharePoint site or Livelink area). Confirm that the standard filing structure is being used.

Provide details of (or link to) the Project Exchange Information Requirements.

3.1.2 CDM Information, Coordination and Cooperation

This section must be completed for:

- All projects that involve construction.
- All programmes that involve construction, unless produced at project level.



This section shall include the arrangements for how to meet the information requirements of CDM. Provide details of how information will be shared with team members, principal designer, designers, principal contractor, contractor(s), suppliers, operations, stakeholders, interfacing projects / programmes and projects / programmes on adjacent sites in a timely manner. Include details regarding what type of information will be shared and when. Consider different arrangements / requirements for the different stages of the project / programme life-cycle.

This section shall include the arrangements for how to meet the coordination and cooperation requirements of CDM. Provide details of the arrangements for ensuring coordination and cooperation between team members, principal designer, designers, principal contractor, contractor(s), suppliers, operators, stakeholders, interfacing projects / programmes and projects / programmes on adjacent sites. Include details of how the project / programme will interface, coordinate its activities with and cooperate with other parts of TfL to ensure that risks from and to those parts of TfL are understood and managed.

3.1.3 Project Environment Appraisals

Complete this section for all projects / programmes that meet the criteria described on Working at TfL – Project Environment Appraisals.

The Requirements will mandate the appropriate appraisal method(s) to be used (e.g. CEEQUAL, BREEAM or both), award type and rating to be achieved. Outline these in this section.

This section shall define the arrangements for how the projects / programmes will deliver the appraisal method, award type and rating. Consider how and who will deliver Client and Contractor roles and responsibilities for the different stages of the project / programme life-cycle (refer to section 2.2.1 Core roles and resourcing).

Consider what stage of the project / programme life-cycle pre-assessment, interim assessment and final assessments are needed, and how many interim assessments are required to support delivery. (Refer to section 1.2 Key Milestones and the Schedule) and note them here with reasons for decision.

Define governance arrangements for monitoring delivery of the appraisal method, award type and progress towards delivery of the desired rating.

3.2 Stakeholder Engagement and Communication

Appropriate to the size, risk and complexity of the project / programme, either a stand alone Stakeholder Engagement and Communication Plan should be produced; or for 'Simple' Characterised projects / programmes, only the Initial Stakeholder List table is needed and can be appended to this Execution Plan.

3.3 Customer Requirements

Appropriate to the size, risk and complexity of the project / programme, projects that directly affect customer experience should consult with the Customer Insight, Strategy and Experience team (<mailto:CISE@tfl.gov.uk>) for guidance how to optimise their project outputs. This might be done by referring to past customer



research and analysis, conducting Customer Acceptance Testing, and/or ensuring customer requirements are met as fully as possible.

3.4 Dependencies

Provide details on the following dependencies:

- Internal project / programme dependencies.
- Internal TfL organisational dependencies.
- External project / programme dependencies.
- Other dependencies.

3.5 Key Assumptions

State the key assumptions that have been made in producing this Execution Plan and how these will be tested.

4.0 Business and Asset Change Impact

Project Managers and People Change Managers need to be certain that everybody is ready for the change(s) that are being delivered and that action plans are in place to ensure that any impact will be minimised and managed during the transition to the new ways of working.

For additional guidance on Business Change, please refer to [TfL's Business Change Framework](#).

The level of business change effort may vary across project / programme.

For projects that are part of a wider programme, it is recommended that the change effort is managed at the highest level to ensure synergies, consistency, reduced duplication, effective engagement and communication.

4.1 People Change

4.1.1 People Change Impact

Provide a link to the project's People Change Plan or, for 'Simple' Characterised projects / programmes, in this section describe the activities to be undertaken to facilitate successful adoption, commitment to and embedding of change by all affected groups.

This change may include (but is not limited to) aspects such as ways of working, processes and procedures, organisational structures, roles and responsibilities, new equipment / technology, rosters, location, etc. Describe who will lead and enable the change both at a senior level and locally. Include reference to actions which will be taken to communicate and achieve buy-in to the case for change, support people through it and respond to issues arising. Identify interventions to ensure communications and engagement, involvement, training and rewards/incentives for the change as appropriate.

4.1.2 Training



Describe the training activities that are required to take place for those affected by the changes, when the training will be completed and by whom.

Provide any links to training strategy and/or plans (if applicable).

4.1.3 Transition

Broadly describe the activities needed to support transition to any new ways of working.

4.2 Infrastructure / Asset Change

Identify all functions and / or asset areas on which the project / programme will have an impact - state 'Yes' to all the boxes below that apply. Add the asset type or function if not already outlined.

Primary: The main assets that will be affected by this project / programme.

Secondary: Other assets that will also be affected by this project / programme.

Asset Areas and Functions	Primary Impact	Secondary Impact
Highway	Yes / No	Yes / No
T&D / Information Communication Technology (ICT) <small>see note below</small>	Yes / No	Yes / No
Track	Yes / No	Yes / No
Civils	Yes / No	Yes / No
Premises	Yes / No	Yes / No
Fire	Yes / No	Yes / No
Electrical & Mechanical	Yes / No	Yes / No
Power	Yes / No	Yes / No
Lifts & Escalators	Yes / No	Yes / No
Rolling Stock	Yes / No	Yes / No
Signalling	Yes / No	Yes / No
Communications & Information Technology	Yes / No	Yes / No
Systems Integration	Yes / No	Yes / No
Human Factors	Yes / No	Yes / No
Electro-Magnetic Compatibility	Yes / No	Yes / No



Station Planning	Yes / No	Yes / No
Operations	Yes / No	Yes / No
Maintenance	Yes / No	Yes / No
Other assets as required	Yes / No	Yes / No

Note: ICT is anything that has both data processing capability and telecommunication capability. Typically, this involves systems containing: data processing, data storage and retrieval, software, telecommunication, person-system interfaces, machine-system interfaces, environment-system interfaces covering a huge range of systems, including: “classic IT”; telephony and radio systems; remote monitoring; remote control; semi-autonomous systems; un-real time systems; real-time systems; embedded systems under remote monitoring or supervision.

For LU Only: If the project / programme has an ICT requirement, for clarity, assistance or guidance, please email: ICTAssetStrategyl@tfl.gov.uk

4.3 Verification of Change

This sub-section is not required for a programme Execution Plan.

Provide a plan of activities that TfL will undertake to verify assurances given by those delivering assets, projects, changes or contracts for service, that risks are controlled and requirements are met. This should specify clearly how changes are managed throughout the lifecycle including the construction phase.

It covers delivery by Suppliers or TfL itself and covers all activities by all Business Units. It does not apply solely to external Suppliers.

Indicate the type of deliverable and the governance authority or named individual who will be consulted to undertake verification.

For LU Only: Provide details of (or a link to) the Verification Activity Plan.

4.4 Acceptance Schedule – LU Only

Provide an Acceptance Schedule based on the Verification Activity Plan.

For a project / programme that follows a single linear lifecycle (i.e. it goes through each assurance stage once), the following wording and table can be used.

Deliverable	For Checking by Project (Date)	Verification (Name & Date)
Options Development Report		
Scope Baseline (created in Stage 2)		
Conceptual Design Statement(s) (CDS)		
Concept Documentation		



Compliance Documentation		
Compliance Declaration		
Completion Documentation		
Completion Certificate		
Add or delete items as required		

For a project / programme that follows a complex lifecycle that may be divided into multiple sub-stages of deliverables due to geographic work sites, migration phases or the number of assets being changed, the project / programme should produce a deliverables Acceptance Schedule, based on the table above or as appropriate and be attached to this Execution Plan as Appendix B. Between updates of this Execution Plan, the Acceptance Schedule may be kept up-to-date as a standalone document that reflects the current schedule for gaining acceptance of assurance deliverables. The Acceptance Schedule will be used by the Accredited Assurers as a look-ahead tool for planning their workload. To describe this approach, the table above should be deleted, and the following wording added:

“The complexity of providing assurance for this project / programme requires that a detailed Acceptance Schedule be provided and kept up-to-date as the project / programme progresses through its lifecycle. The following outlines the reasons for subdividing the lifecycle and the requirement for an Acceptance Schedule;

{for example}

- *Conceptual or detailed designs based on several options*
- *Detailed designs for each site*
- *Specific designs for each asset provided by different suppliers or contractors*
- *Commissioning of the works in specific geographical areas*
- *The current version of the Acceptance Schedule at the time of issue of this plan can be found in or referenced from Appendix B.”*

5.0 Delivery Approach

5.1 Approach Description

Provide a description of the approach being used to deliver the project / programme, which should include the following;

5.1.1 Sourcing and Resourcing

Describe how is the solution will be sourced and resourced; will it be by internal TfL staff, hiring in contracted expertise or a combination? Are we going to contract it out or are we purchasing a ready-made solution?



For CDM applicable projects arrangements for CDM roles should be included in section 2.2.2. Projects considering taking on the Principal Designer or Principal Contractor roles must first complete the CDM Role Optimisation Tool and the recommendation report must be submitted to the relevant Delivery Director for approval. A list of approved signatories can be found on [Pathway](#)

5.1.2 Novelty

Describe the delivery approach, will this be done in a tried and tested way? Will it be an adaption of an existing TfL solution or will it incorporate technology/features which are new to TfL or being used in a different application? Are we designing something from scratch or bespoke?

5.1.3 Implementation/Migration Strategy

Describe the implementation / migration strategy that the project / programme will be adopting. Is the solution planned to be delivered in one physical / geographical stage or several? Will all construction work be undertaken on site or will elements be pre-fabricated off-site and lifted in?

Is all functionality and performance planned to be delivered in a single stage or will it be delivered incrementally?

Will there be an impact on operational service delivery, e.g. are service affecting closures planned or will the work be carried out in a way that does not affect service delivery e.g. in Engineering Hours.

Reference should be made to the baseline schedule. A Table for Tier 1 delivery milestones should also be captured here.

Reference should also be made to the Benefits Management Strategy (Appendix C) with a brief explanation as how the planned delivery of benefits relates to the proposed implementation phases and/or delivery milestones. Will the benefits be realised immediately when the project is delivered, or is a business change beyond the scope of the project (e.g. new timetable, contract or organisational change) required in order to realise the benefits?

Where the implementation strategy has not yet been fully developed, identify what assumptions have been made for estimating and planning purposes with respect to elements above.

This section should also be used to identify where this project is delivering assets to enable another project to be undertaken, rather than delivering assets directly into operational service and how this will be undertaken.

5.2 Approach Reason

Explain why the selected approach is considered optimal.

Projects considering taking on the Principal Designer or Principal Contractor roles must first complete the CDM Role Optimisation Tool.

5.3 Procurement

5.3.1 Procurement Strategy and Contract Award Recommendation



Provide a link to (or insert details of) the Procurement Strategy and Contract Award Recommendation. Note that where an approved Procurement Strategy / Contract Award Recommendation is required, a separate document must be produced and details must not be included in this Execution Plan. More than one Procurement Strategy / Contract Award Recommendation may be required for the project / programme – so all Procurement Strategies should be referenced here.

5.3.2 Responsible Procurement

Responsible Procurement must be considered for all Projects, see Responsible Procurement Guidance Document for guidance and Commercial Handbook for further details.

5.3.3 Contract Management Plan

A separate Contract Management Plan is required for Contracts over £5 million. For smaller value contracts the below template can be utilised, if required.

Contract Name / Title	Summary of Contract	
Key Dates	Type of Contract	Key Personnel
Key Clauses		
Key Performance Indicators (KPI's) and measurement regime		
Performance against KPI's and Contract on a periodic basis		

5.3.4 Supplier Assurance

Where an external Supplier is being used to deliver aspects of the project / programme, outline how assurance will be obtained from the Supplier.

For LU Only: The default position is that an 'Assurance Plan' is produced by a Supplier and assurance is provided in accordance with that plan. However, there may be circumstances where alternative arrangements are more appropriate. For example, the supplies of a pre-fabricated building from a standard catalogue or deliverables are non-asset related.

Service	Supplier	Assurance Mechanism
[list all services to be provided]	[to be completed on appointment of service provider]	[e.g. Assurance Plan to be produced, or assurance to be obtained by another mechanism] [if not required, state "not required"]

5.4 Site Access

For non LU: Provide details of any required approvals for site access.

For LU Only: Provide details of (or a link to) the project / programme Access Plan.



5.5 Remote Site Set Up

If the Execution Plan is being written for a project, provide details of any remote site setup requirements. For LU Only, refer to the Remote Site Office Setup Guidance.

This sub-section is not required for a programme Execution Plan.

5.6 Operational Readiness

If the Execution Plan is being written for a project, provide details of (or a link to) the Operational Readiness Plan.

This sub-section is not required for a programme Execution Plan.

5.7 Maintenance Readiness

If the Execution Plan is being written for a project, provide details of (or a link to) the Maintenance Readiness Plan.

This sub-section is not required for a programme Execution Plan.

5.8 Consents Management

Provide details of or a link to, the Consents Strategy and the Consents Plan.

5.9 Health, Safety, Environmental and Sustainability Management

Provide details of the project / programme Health, Safety & Environment (HS&E) objectives and the targets throughout the lifecycle. Environmental targets used to fulfil compliance obligations are within the TfL Corporate Environmental Framework; these are translated into to annual Environmental Improvement Programme (EIP) and scorecards measure. The HSE Adviser will be able to provide all.

Provide details of the overall Sustainability principles and objectives of the project / programme, including target rating for relevant environmental appraisal method.

Detail the HS&E management arrangements for the project / programme providing reference to any supporting documents / plans. The HS&E management arrangements shall include arrangements for both office and site locations and cover all relevant HS&E topics, including but not limited to: TfL employee workplace risk assessments, display screen equipment (DSE), fatigue, first aid, fire safety, planned HSE monitoring, incident reporting and investigation and health (e.g. age medicals). See the pages of Working at TfL 'Health, Safety and Environment' section for more information. For large projects or programmes these arrangements shall cover all sub projects and activities. The arrangements can be described in this section or in a separate document with a link placed in this section to the separate document. In addition, where no specific arrangements are put into place locally / specifically for the programme/project team reference can be made to arrangements at department level.

State how roles and responsibilities for delivering HS&E requirements will be discharged by the project / programme team if different from the roles and responsibilities as stated in the TfL Pathway Manual and within the TfL Pathway Products and Working at TfL.



Include the results of the [HSE RBI tool assessment](#) and the impact this will have on the level of HSE verification that will be undertaken on the project.

Include reference to verification activities with regards to site monitoring activities, performance reporting, review of Safe System of Work, etc.

Specify how consultation with operatives regarding health and safety matters will be carried out.

For construction projects also include details of how the HSE Pre-Construction Information and the Health and Safety File Information will be collated and managed.

5.10 Design Governance

5.10.1 Design Structure

Define the structure and accountability for making design decisions so as to ensure application of the Principles of Prevention and the ALARP principle, taking into account all aspects of health and safety risk (covering both system safety and construction/CDM risks as applicable).

Define how co-ordination of design with interfacing projects (both internal and external to the programme) will be managed.

[For CDM applicable projects these functions will normally be discharged in conjunction with the Principal Designer role. For MPD only programmes it is recommended that this function is discharged by a Design Authority Panel, established at programme level.]

5.10.2 Management Plans

Define the management plans which will be put in place to manage the technical/engineering activities.

For non LU Business Units: Detail the local practices for technical / engineering including management of design changes during the construction phase and provide details of (or a link to) the project / programme Design Management Plan.

For LU Business Units: Provide details of (or a link to) the project / programme Design Management Plan and the Systems Engineering Management Plan (SEMP). The programme manager must decide, depending on the size, scale, complexity and risk of the programme, whether it is necessary to have a SEMP at the programme level. The project manager must decide, depending on the size, scale, complexity and risk of the project / programme, whether it is necessary to have the following products or combine the requirements into a single SEMP:

- The TfL Corporate Requirements Management Process
- Human Factors Integration Plan (HFIP)
- Reliability, Availability & Maintainability (RAM) Plan
- Interface Management Plan



- EMC Control Plan
- Verification & Validation Plan
- Configuration Management Plan

If the Execution Plan is being written for a project, provide details of (or a link to) the:

- Exchange Information Requirements (EIR)
- BIM Execution Plan (BEP)

For LU Business Units: Provide details of (or a link to) the project / programme Engineering Safety Management Plan and the Inspection & Testing Plan. Provide details of (or link to) Production Drawings, Red Line Information and As-Built Drawings (refer to guidance [G1353](#)).

5.11 Construction Management

Provide details of (or a link to) the Construction Phase and Environmental Management Plan and / or the Construction Management Plan.

This sub-section must be completed for all construction projects and programmes.

5.12 Equality Impact Assessment (EqIA)

Provide details of (or a link to) the Equality Impact Assessment (EqIA). The EqIA must be produced by all projects / programmes that have been identified to have a potential impact on members of staff or customers.

Its purpose is to assess the impact the project may have upon the TfL equality target groups, ensuring that everyone who lives in, work in, or visits London has equal access to transport services and to ensure TfL complies with the Equality Act 2010.



Appendix A - Not Used

This appendix is no longer used. The Allocation of CDM Duties Matrix product is now a standalone product on the Product Matrix to ensure greater visibility, rather than an embedded link within this Execution Plan.



Appendix B – Acceptance Schedule (LU Only)

LU Business Units: Referenced from this Execution Plan Section 4.4

Non-LU Business Unites: This appendix can be deleted if not a LU project / programme.



Appendix C – Benefits Management Strategy

Referenced from the Benefits Management Strategy Characterisation.

The Benefits Realisation Plan section of the Benefits Management Strategy should only be included in this appendix if the project / programme has been characterised as Simple.

If the project / programme has been characterised as Standard, Significant or Major, then the Benefits Realisation Plan should be included in a separate Benefits Management Strategy, and this appendix in this Execution Plan can be deleted.



Appendix D – Estimate Strategy

Referenced from the Execution Plan Section 2.3.1 and the Estimate Strategy Characterisation table.

The Estimate Strategy should only be included in this appendix if the project / programme has been characterised as Simple or Standard.

If the project / programme has been characterised as Significant or Major, then a separate Estimate Strategy should be produced, and this appendix in this Execution Plan can be deleted.



Appendix E – Risk Management Strategy

Referenced from the Execution Plan Section 2.3.2 and the Risk Management Strategy Characterisation table.

The Risk Strategy Matrix section of the Risk Management Strategy should only be included in this appendix if the project / programme has been characterised as Simple.

If the project / programme has been characterised as Standard, Significant or Major, then the Risk Strategy Matrix should be included in a separate Risk Management Strategy, and this appendix in this Execution Plan can be deleted.

