

## Annex C Work Breakdown Structure – Construction Activities EXAMPLE ONLY

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
1001	SITE ESTABLISHMENT	1100	CONTRACTOR'S SITE FACILITIES AND CAMP	1101	Contractor's site facilities
				1102	Contractor's camp
1002	PROVISION FOR TRAFFIC	1200	TRAFFIC MANAGEMENT	1201	Provision for traffic
				1202	Preparation of Traffic Management Plan
				1211	Construction of side track
				1221	Supply of Portable Concrete Barrier, 1050 mm high
				1222	Supply of Portable Concrete Barrier, 500 mm high
				1223	Installation of Portable Concrete Barrier, 1050 mm high
				1224	Installation of Portable Concrete Barrier, 500 mm high
				1225	Supply of temporary barrier end treatments
				1226	Installation of temporary barrier end treatments
				1227	Supply of anti-gawking screens, if ordered (Provisional Quantity)
				1228	Installation of anti-gawking screens, if ordered (Provisional Quantity)
1003	ENVIRONMENTAL MANAGEMENT	1301	MANAGEMENT PLAN (S)	1311	Preparation of the Environmental Management Plan (Construction)
				1312	Implementation and monitoring of the Environmental Management Plan (Construction)
				1313	Erosion and sediment control management plan

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				1314	Acid sulphate soil management plan
		1302	MONITORING AND CONTROL	1315	Water quality monitoring
				1316	Control of erosion and sedimentation
				1317	Noise monitoring
				1318	Vibration monitoring
				1319	Condition survey
2001	DRAINAGE			2100	REMOVAL/ DEMOLITION
		2102	Removal or demolition of culvert end structures		
		2103	Removal or demolition of culverts, excluding end structures		
		2104	Removal or demolition of concrete kerb including kerb crossings		
		2105	Removal or demolition of concrete channel		
		2106	Removal or demolition of concrete kerb and channel including kerb crossings		
		2107	Removal or demolition of concrete slabs		
		2108	Removal or demolition of gullies		
		2109	Removal or demolition of access chambers		
		2200	SUPPLY OF CULVERTS		
				2202	Supply of concrete box culvert components, [size]
				2203	Supply of concrete spanning slabs, [size]
				2204	Supply of helical lock-seam corrugated steel pipe culvert components, [size]
				2205	Supply of helical lock-seam corrugated aluminium pipe culvert components, [size]
				2206	Supply of nestable corrugated steel pipe culvert components, [size]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				2207	Supply of multiple plate corrugated steel pipe culvert components, [size]
				2208	Supply of multiple plate corrugated steel pipe-arch culvert components, [size]
				2209	Supply of multiple plate corrugated steel arch culvert components, [size]
				2211	Supply of concrete pipe drainage trough components, [size]
				2212	Supply of concrete box trough components, [size]
				2213	Supply of nestable corrugated steel pipe drainage trough components, [size]
		2220	INSTALLATION OF CULVERTS	2221	Installation of concrete pipe culvert components, [diameter] mm diameter
				2222	Installation of fibre reinforced concrete pipe culvert components, [diameter] mm diameter
				2223	Installation of concrete box culvert components, [size]
				2224	Installation of concrete spanning slabs, [size]
				2225	Installation of helical lock-seam corrugated steel pipe culvert components, [size]
				2226	Installation of helical lock-seam corrugated aluminium pipe culvert components, [size]
				2227	Installation of nestable corrugated steel pipe culvert components, [size]
				2228	Installation of multiple plate corrugated steel pipe culvert components, [size]
				2229	Installation of multiple plate corrugated steel pipe-arch culvert components, [size]
				2231	Installation of multiple plate corrugated steel arch culvert components, [size]
				2232	Installation of concrete pipe drainage trough components, [size]
				2233	Installation of concrete box trough components, [size]
				2234	Installation of nestable corrugated steel pipe drainage trough components, [size]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				2236	Installation of pipe culvert components using jacking methods, [diameter] mm diameter
		2240	SUPPLY AND INSTALLATION OF CULVERTS	2241	Supply and installation of concrete pipe culvert components, Class [class], [diameter] mm diameter
				2242	Supply and installation of fibre reinforced concrete pipe culvert components, Class [class], [diameter] mm diameter
				2243	Supply and installation of concrete box culvert components, [size]
				2244	Supply and installation of concrete spanning slabs, [size]
				2245	Supply and installation of helical lock-seam corrugated steel pipe culvert components, [size]
				2246	Supply and installation of helical lock-seam corrugated aluminium pipe culvert components, [size]
				2247	Supply and installation of nestable corrugated steel pipe culvert components, [size]
				2248	Supply and installation of multiple plate corrugated steel pipe culvert components, [size]
				2249	Supply and installation of multiple plate corrugated steel pipe-arch culvert components, [size]
				2251	Supply and installation of multiple plate corrugated steel arch culvert components, [size]
				2252	Supply and installation of concrete pipe drainage trough components, [size]
				2253	Supply and installation of fibre reinforced concrete pipe drainage trough components, [size]
				2254	Supply and installation of concrete box trough components, [size]
				2255	Supply and installation of nestable corrugated steel pipe drainage trough components, [size]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				2256	Supply and installation of pipe culvert components using jacking methods, Class [class], [diameter] mm diameter
		2300	CONCRETE IN CULVERTS AND END STRUCTURES	2301	Concrete end plugs for culverts
				2302	Concrete bases in culverts
				2303	Concrete footings in culverts
				2304	Concrete infill floors in culverts
				2305	Concrete abutments and piers in culverts
				2306	Concrete slab decks and kerbs in culverts
				2307	Concrete unitary box culverts
				2308	End structures to culverts, reinforced concrete
				2309	End structures to culverts, unreinforced concrete
				2311	End structures to culverts, rock masonry
				2312	End structures to culverts, concrete masonry
				2313	Aprons to culverts, reinforced concrete
				2314	Aprons to culverts, unreinforced concrete
				2315	Aprons to culverts, grouted rock pitching
				2316	Aprons to culverts, steel-wire mattresses
				2317	Precast concrete end structures to culverts, [size]
		2400	PAVEMENT DRAINAGE	2401	Concrete kerb
				2402	Concrete kerb crossings
				2403	Concrete channel
				2404	Concrete kerb and channel
				2405	Concrete kerb and channel crossings

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				2406	Precast concrete kerb blocks
				2407	Precast concrete channel blocks
				2408	Precast concrete kerb and channel blocks
				2409	Shoulder dykes, concrete
				2411	Shoulder dykes, asphalt
				2412	Shoulder dykes, precast concrete blocks
				2413	Concrete gullies, [size/description]
				2414	Concrete access chambers, [size/description]
				2415	Precast concrete access chambers, [size/description]
				2416	Precast concrete side inlet gullies with precast shaft, [size/description]
				2417	Precast concrete side inlet gullies with cast-in-place pit, [size/description]
		2500	SUBSURFACE DRAINAGE	2501	Subsoil drains, Type B, [size] mm diameter
				2502	Subsoil drains, Type D
				2503	Subsoil drain outlet connection, [size] mm diameter, [type]
				2504	Subsoil drain clean-out, [size] mm diameter, [type]
				2505	Sheet filter drains
				2506	Strip filter drains
				2507	Sheet or strip filter drain outlet connection, [type]
				2511	Vertical wick filter drains, plastic core
				2512	Vertical sand drains
				2513	Granular working platform for stone columns
				2514	Supply and installation of reinforcement geosynthetic material for stone columns

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES							
Level 1		Level 2		Level 3			
2002	PROTECTIVE TREATMENTS			2515	Supply and installation of geotextile, Strength Class [strength class], Filtration Class [filtration class]		
				2516	Stone columns		
		2600	DRAINAGE LININGS	2601	Concrete paved inverts in corrugated steel/aluminium culverts, [size]		
				2611	Linings in drains and channels, unreinforced concrete		
				2612	Linings in drains and channels, reinforced concrete		
				2613	Linings in drains and channels, grouted rock pitching		
				2614	Linings in drains and channels, steel-wire mattresses		
				2615	Berm drain, [width] mm wide		
				2610	FLOODWAYS	2621	Concrete margins
						2622	Concrete batters
				2620	CONCRETE CROSSINGS	2623	Concrete rail track crossings
						2624	Concrete machinery crossings
				2630	PROTECTIVE PAVING	2631	Hand-placed concrete paving, [thickness] mm thick
						2632	Sprayed concrete paving, [thickness] mm thick
						2633	Block paving, [thickness] mm thick
		2640	PROTECTION WORKS	2641	Rock masonry		
				2642	Grouted rock pitching		
				2643	Rock protection		
				2644	Steel-wire gabion protection work		
				2645	Steel-wire mattress protection work		
		2646	Fabric encased concrete batter protection on batter faces				
		2647	Fabric encased concrete batter protection in cut-off walls				

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				2651	Bridge abutment protection Type 1 – rock spillthrough, [location] abutment
				2652	Bridge abutment protection Type 2 – reinforced concrete over road embankment spillthrough, [location] abutment
				2653	Bridge abutment protection Type 3 – rockfill at toe of road embankment spillthrough, [location] abutment
				2654	Bridge abutment protection Type 4 – rockwork over road embankment spillthrough, [location] abutment
				2656	Bridge abutment protection Type 6 – interlocking blockwork over road embankment spillthrough, [location] abutment
				2657	Shotcreting
		2660	SILT PROTECTION	2661	Silt fence
				2662	Straw bales
2003	RETAINING STRUCTURES	2700	RETAINING WALLS	2701	Concrete retaining wall, concrete in footing, [wall location / wall number]
				2702	Concrete retaining wall, concrete in wall, [wall location / wall number]
				2703	Concrete retaining wall, steel reinforcing bar, [wall location / wall number]
				2711	Concrete masonry retaining wall, concrete in footing, [wall location / wall number]
				2712	Concrete masonry retaining wall, masonry in wall, [wall location / wall number]
				2713	Concrete masonry retaining wall, steel reinforcing bar, [wall location / wall number]
				2721	Crib walls
				2731	Soil nailing (Provisional Quantity)
				2741	Passive rock dowels (Provisional Quantity)
				2751	Active rock bolts (Provisional Quantity)

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
		2780	REINFORCED SOIL STRUCTURES	2781	Design of Reinforced Soil Structure, [structure number]
				2782	Reinforced Soil Structure materials, [structure number]
				2783	Construction of Reinforced Soil Structure, [structure number]
				2784	Designer's inspection and certification, [structure number]
3001	EARTHWORKS	3100	EARTHWORKS, PREPARATION	3101	Clearing and grubbing
				3102	Bridge site preparation
				3103	Stripping of topsoil (Provisional Quantity)
				3104	Ground surface treatment under embankment, standard
				3105	Ground surface treatment, special (square metres)
				3106	Ground surface treatment, special (cubic metres)
				3107	Ground surface treatment, in situ treatment of acid sulphate soils with lime, if ordered (Provisional Quantity)
				3108	Excavation and disposal of Unsuitable Material under embankment, if ordered (Provisional Quantity)
				3111	Supply and handling of agricultural lime, if ordered (Provisional Quantity)
				3112	Quantitative laboratory testing of actual or potential acid sulphate soils, if ordered (Provisional Quantity)
				3113	Treatment of water contaminated by acid sulphate soil, if ordered (Provisional Quantity)
		3200	EARTHWORKS, EXCAVATION	3201	Road excavation, all materials
				3202	Excavation to clear waterways at bridge abutments, all materials
				3203	Excavation for culvert, pipe and conduit trenches, all materials [description]
				3204	Excavation for structures, all materials [description]
				3205	Excavation for diversion channels, all materials

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				3206	Excavation for diversion drains, all materials
				3207	Excavation for catch drains, all materials
				3208	Special excavation, all materials [description]
				3211	Excavation of non-rippable material in road excavation, rate additional to rate for Work Item 3201 (Provisional Quantity)
				3212	Excavation of non-rippable material in confined excavation, rate additional to rates for Work Items 3203 to 3207 inclusive (Provisional Quantity)
				3213	Pre-splitting batters of rock cuttings (Provisional Quantity)
				3214	Excavation and disposal of Unsuitable Material below lines of cuttings, if ordered (Provisional Quantity)
				3215	Excavation and disposal of Unsuitable Material in and below confined excavations, if ordered (Provisional Quantity)
				3216	Excavation and disposal of Unsuitable Material within lines of cuttings, rate additional to rate for Work Item 3201, if ordered (Provisional Quantity)
				3221	Blinding concrete, [thickness] mm nominal thickness
		3300	EARTHWORKS, EMBANKMENT	3301	Road embankment using general fill material from all sources
				3302	Levee, catch drain and diversion block embankment using clay fill material from all sources
				3303	Special embankment [description] from all sources
				3304	Supply of geotextile, strength class [strength class], filtration class [filtration class], if ordered (Provisional Quantity)
				3305	Addition of lime to embankment materials to stabilised acid sulphate soils, rate additional to rates for Work Items 3301 to 3303, if ordered (Provisional Quantity)
		3400	EARTHWORKS, SUBGRADE	3401	Testing of existing material below subgrade level in cuttings, if ordered (Provisional Quantity)

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				3402	Subgrade in cuttings, subgrade treatment Type A, compact existing, if ordered (Provisional Quantity)
				3403	Subgrade in cuttings, subgrade treatment Type B, replace with general fill, if ordered (Provisional Quantity)
				3404	Subgrade in cuttings, subgrade treatment Type C, replace with unbound pavement material, if ordered (Provisional Quantity)
				3405	Subgrade in cuttings, subgrade treatment Type D, in situ stabilise existing, if ordered (Provisional Quantity)
				3406	Subgrade in cuttings, subgrade treatment Type E, replace with plant-mixed stabilised material, if ordered (Provisional Quantity)
				3407	Subgrade in cuttings, subgrade treatment Type F, replace with unbound drainage layer, if ordered (Provisional Quantity)
				3408	Subgrade in cuttings, subgrade treatment Type G, replace with in situ stabilised drainage layer, if ordered (Provisional Quantity)
				3409	Subgrade in cuttings, subgrade treatment Type H, replace with plant-mixed stabilised drainage layer, if ordered (Provisional Quantity)
				3411	Subgrade in cuttings, subgrade treatment Type I, [description], if ordered (Provisional Quantity)
				3412	Excavation of non-rippable material in road excavation, rate additional to rate for Work Items 3406P, 3407P, 3408P and 3409P (Provisional Quantity)
				3413	Supply of stabilising agent, lime, if ordered (Provisional Quantity)
				3414	Supply of stabilising agent, Type GP cement and 25% fly ash, if ordered (Provisional Quantity)
				3415	Supply of geotextile, strength class [strength class], filtration class [filtration class], if ordered (Provisional Quantity)
				3421	Subgrade in embankment
		3500	EARTHWORKS,	3501	Backfill with general backfill material to [description] (Provisional Quantity)

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES							
Level 1		Level 2		Level 3			
			BACKFILL	3502	Backfill with select backfill material to [description] (Provisional Quantity)		
				3503	Backfill with free draining granular material to [description] (Provisional Quantity)		
				3504	Backfill with sand to [description] (Provisional Quantity)		
				3505	Backfill with cement stabilised pavement material to [description] (Provisional Quantity)		
				3506	Backfill with stabilised sand to [description] (Provisional Quantity)		
				3507	Backfill with lean mix concrete to [description] (Provisional Quantity)		
				3508	Backfill with rock fill to [description] (Provisional Quantity)		
				3509	Backfill with material for steel culverts to [description] (Provisional Quantity)		
				3511	Bedding of [description]		
				3512	Haunch zone for [description]		
				3513	Side zone for [description]		
				3514	Overlay zone for [description]		
				3521	Addition of lime to backfill material in Acid Sulphate Soil areas, if ordered (Provisional Quantity)		
						3600	EARTHWORKS, TURNOUTS AND ENTRANCES
3602	Entrances to private property						
3002	LANDSCAPE WORKS	3810	ESTABLISHMENT PERIOD	3801	Extension of Landscape Establishment Period (Provisional Quantity)		
				3820	PREPARATION TREATMENTS	3811	Herbicide application
						3812	Slashing
3813	Scarification						

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				3814	Tining
				3815	Deep Ripping
				3816	Cultivation
		3830	LANDSCAPING	3821	Timber garden edging
				3822	Concrete garden edging
				3823	Unit paver garden edging
				3831	Organic mulch
				3832	Inorganic mulch
				3833	Weed control matting
				3834	Tree mat
				3835	Erosion control matting
				3841	Stripped topsoil as planting media
				3842	Imported planting media
				3843	Imported planting media in planting containers
				3844	Earth mounding
				3845	Filling erosion rills
				3851	Irrigation system, design
				3852	Irrigation system, supply and installation
				3853	Irrigation system, commissioning
				3861	Hydraulic seeding and mulching, mix [mix type]
				3862	Grass seeding, mix [mix type]
				3863	Turfing, [turf type]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				3871	Planting, [container size]
				3872	Planting, ex-ground stock, [plant description], [plant size]
4001	UNBOUND PAVEMENTS	4110	UNBOUND PAVEMENTS TYPE 1	4101	Base, unbound pavement, Type 1, Subtype [subtype], [location]
				4102	Subbase, unbound pavement, Type 1, Subtype [subtype], [location]
		4120	UNBOUND PAVEMENTS TYPE 2	4103	Base, unbound pavement, Type 2, Subtype [subtype], [location]
				4104	Subbase, unbound pavement, Type 2, Subtype [subtype], [location]
		4130	UNBOUND PAVEMENTS TYPE 3	4105	Base, unbound pavement, Type 3, Subtype [subtype], [location]
				4106	Subbase, unbound pavement, Type 3, Subtype [subtype], [location]
		4140	UNBOUND PAVEMENTS TYPE 4	4107	Base, unbound pavement, Type 4, Subtype [subtype], [location]
				4108	Subbase, unbound pavement, Type 4, Subtype [subtype], [location]
4002	STABILISED PAVEMENTS	4200	INSITU STABILISED PAVEMENTS	4201	Removal and disposal of existing material
				4202	Additional material for shape correction
				4211	In situ stabilisation
				4212	In situ stabilisation, two-stage mixing
				4213	In situ stabilisation, two-stage stabilisation
				4221	Supply of stabilising agent
				4231	Moist curing
				4232	Curing coat
				4233	Cover material
		4300	PLANT-MIXED STABILISED PAVEMENTS	4301	Plant-mixed stabilised pavement
				4321	Supply of stabilising agent
4331	Moist curing				

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				4332	Curing coat
				4333	Cover material
5001	SPRAYED BITUMINOUS SURFACING	5010	SUPPLY OF COVER AGGREGATE	5011	Supply of cover aggregate [precoated   un-precoated], [nominal size] mm nominal size
				5012	Supply of cover aggregate [precoated   un-precoated], [nominal size] mm nominal size
				5013	Supply of prime cover material, [type of material]
				5021	Transport of materials, [type of material]
				5031	Construction of stockpile site
		5100	SPRAYED BITUMINOUS SURFACING (EXCLUDING EMULSION)	5101	Prime, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [including   excluding] supply of additives, [location]
				5102	Primerseal, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [including   excluding] supply of additives, [location]
				5103	Seal, class [class], spray rate [spray rate], [including   excluding] supply of binder, [including   excluding] supply of additives, [location]
				5104	Reseal, class [class], spray rate [spray rate], [including   excluding] supply of binder, [including   excluding] supply of additives, [location]
				5105	Enrichment, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [including   excluding] supply of additives, [location]
				5111	Spreading prime cover material [material], [spread rate], [location]
				5112	Spreading cover aggregate [size], [spread rate], [location]
				5121	Supply of bituminous material [material], [class / grade]
				5131	Transport of bituminous material supplied by the Principal [material], from [supply location]
5132	Transport of aggregate supplied by the Principal [material], from [supply				

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
					location]
				5141	Sprayed bituminous surfacing, [including   excluding] supply of binder, [including   excluding] supply of additives, [including   excluding] supply of cover aggregates, [location], refer to Clause 1 of Annexure MRS11.11.1
		5200	SPRAYED BITUMINOUS EMULSION SURFACING	5201	Prime, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [location]
				5202	Primerseal, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [location]
				5203	Seal, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [location]
				5204	Reseal, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [location]
				5205	Enrichment, grade [grade], spray rate [spray rate], [including   excluding] supply of binder, [location]
				5211	Spreading prime cover material [material], [spread rate], [location]
				5212	Spreading cover aggregate [size], [spread rate], [location]
				5221	Supply of bituminous emulsion [material], [class / grade]
				5231	Transport of bituminous emulsion supplied by the Principal [material], from [supply location]
				5232	Transport of aggregate supplied by the Principal [material], from [supply location]
				5241	Sprayed bituminous emulsion surfacing, [including   excluding] supply of binder, [including   excluding] supply of cover aggregates, [location], refer to Clause 1 of Annexure MRS11.12.1
		5300	BITUMINOUS SLURRY SURFACING	5301	Preparation of existing surface
				5311	Bituminous slurry seal, QS3

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				5312	Bituminous slurry seal, QS5
				5313	Bituminous slurry seal, QS7
				5314	Bituminous slurry micro-surfacing, QS5
				5315	Bituminous slurry micro-surfacing, QS7
				5316	Bituminous slurry micro-surfacing, QS10
				5317	Bituminous slurry rut-filling
5002	ASPHALT PAVEMENTS	5400	PREPARATION FOR ASPHALT PAVEMENTS	5401	Preparation of the existing surface
				5402	Crack filling (Provisional Quantity)
				5403	Stress absorbing fabric strips (Provisional Quantity)
				5404	Tack coat [application rate] litres/m2, residual bitumen
				5405	Dense graded asphalt corrector course, DG [nominal size] mix
		5500	DENSE GRADED ASPHALT PAVEMENTS	5501	Dense graded asphalt pavement, DG7 mix
				5502	Dense graded asphalt pavement, DG10 mix
				5503	Dense graded asphalt pavement, DG14 mix
				5504	Dense graded asphalt pavement, DG20 mix
				5505	Dense graded asphalt pavement, DG28 mix
		5530	STONE MASTIC ASPHALT SURFACING	5532	Stone mastic asphalt surfacing, SM10 mix
				5533	Stone mastic asphalt surfacing, SM14 mix
		5540	OPEN GRADED ASPHALT SURFACING	5542	Open graded asphalt pavement, OG10 mix
				5543	Open graded asphalt pavement, OG14 mix
		5560	FINE GAP GRADED ASPHALT PAVEMENTS	5561	Fine gap graded asphalt corrector course, FGG7 mix
				5562	Fine gap graded asphalt pavement, FGG7 mix

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES							
Level 1		Level 2		Level 3			
6001	ROAD FURNITURE	6100	REMOVAL, DEMOLITION AND RE-ERECTION	6101	Demolition of road furniture, as listed in Clause 2 of Annexure MRS11.14.1		
				6103	Removal and salvage of road furniture, as listed in Clause 3.1 of Annexure MRS11.14.1		
				6104	Removal and re-erection of road furniture, as listed in Clause 4 of Annexure MRS11.14.1		
		6110	GUIDANCE AND INFORMATION SYSTEMS			6111	Road edge guide posts
						6121	Supply of regulatory, warning and hazard sign faces, as listed in Clause 6.2 of Annexure MRS11.14.1
						6122	Supply of regulatory, warning and hazard sign faces, [sign type]
						6123	Supply of direction and information sign faces, as listed in Clause 6.4 of Annexure MRS11.14.1
						6124	Supply of direction and information sign faces, as listed in Clause 6.4 of Annexure MRS11.14.1
						6131	Installation of regulatory, warning and hazard signs, as listed in Clause 6.2 of Annexure MRS11.14.1
						6132	Installation of regulatory, warning and hazard sign, [number of posts]
						6133	Installation of direction and information signs, as listed in Clause 6.4 of Annexure MRS11.14.1
						6134	Installation of direction and information sign, [sign number]
						6135	Installation of direction and information sign, [sign size]
		6140	ROADSIDE STRUCTURES			6136	Supply, erection and removal of project signs
						6141	Grid
						6142	Grid with vermin and dog fencing
						6151	Concrete traffic barrier, [height] mm high, [with   without] conduit, [with   without dowels]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES									
Level 1		Level 2		Level 3					
				6152	Concrete traffic barrier at wall or pier, [height] mm high, [with   without] conduit, [with   without dowels]				
				6153	Concrete traffic barrier median terminal, [height] mm high, [with   without] conduit, [with   without dowels]				
				6154	Galvanised cover assembly at opening for light pole				
				6155	Galvanised cover assembly at opening for cable pit, number [pit number]				
				6161	Steel beam guardrail				
				6162	Steel beam guardrail end panel, approach side				
				6163	Steel beam guardrail end panel, departure side				
				6164	Steel beam guardrail end wall connection panel, 36.5 degrees end slope				
				6165	Steel beam guardrail concrete barrier connection panel, 6 degrees face slope				
				6166	Steel beam guardrail terminal section, type [type]				
				6167	Steel beam guardrail single drum end				
				6168	Steel beam guardrail double drum end				
				6171	Tensioned wire rope barrier system				
				6181	Fencing, [height] mm high, [type]				
				6182	Gate, [height] mm high, [width] mm wide, [type]				
						6210	NOISE BARRIERS	6211	Supply of noise barrier, [height] m high
								6212	Construction of noise barrier, [height] m high
								6213	Supply and construction of noise barrier, [height] m high
				6214	Design, supply and construction of noise barrier, [height] m high				
6002	PAVEMENT MARKING	6300	LINE MARKING	6301	Spotting only for longitudinal lines				

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6311	Separation line, [width] mm wide, [line length] mm line length, [gap length] mm gap length, colour [colour], material [material]
				6312	Barrier line, one direction, [width] mm wide each line, colour [colour], material [material]
				6313	Barrier line, both directions, [width] mm wide each line, colour [colour], material [material]
				6314	Lane line, broken, [width] mm wide, [line length] mm line length, [gap length] mm gap length, colour [colour], material [material]
				6315	Lane line, unbroken, [width] mm wide, colour [colour], material [material]
				6316	Edge line, [width] mm wide, colour [colour], material [material]
				6317	Continuity line, [width] mm wide, colour [colour], material [material]
				6318	Turn line, [width] mm wide, colour [colour], material [material]
				6319	Outline, [width] mm wide, colour [colour], material [material]
				6321	Audio-tactile profile, [width] mm wide, [rib length] mm rib length, [gap length] mm gap length, [rib height] mm rib height
				6331	Transverse lines (stop lines, holding lines, markings at Stop and Give Way signs and pedestrian crosswalk lines), colour [colour], material [material]
				6332	Transverse lines (diagonal and chevron markings, arrows, shapes, symbols, numerals, parking areas and kerb markings), colour [colour], material [material]
				6341	Removal of existing longitudinal line, by [method of removal], m
				6342	Removal of existing transverse marking or shape, by [method of removal]
		6350	RAISED PAVEMENT MARKERS	6351	Retroreflective raised pavement marker
				6352	Non-reflective raised pavement marker
				6353	Temporary raised pavement marker

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6354	Pavement bar
				6355	Removal of existing raised pavement marker, by [method of removal]
6003	ELECTRICAL CONDUIT AND PITS	6500	ELECTRICAL CONDUIT	6501	Supply of electrical conduit, [size] mm diameter, [use]
				6511	Installation of conduit in new road construction, [size] mm diameter
				6512	Installation of conduit in existing road, [size] mm diameter
				6513	Installation of conduit in existing footways, medians and islands, [surface type] surface, [size] mm diameter
				6514	Installation of conduit in concrete median barrier, [size] mm diameter
				6515	Installation of conduit, bored or jacked, [size] mm diameter
				6516	Installation of conduit onto structure, [size] mm diameter
				6521	Supply and installation of conduit in new road construction, [size] mm diameter
				6522	Supply and installation of conduit in existing road, [size] mm diameter
				6523	Supply and installation of conduit in existing footways, medians and islands, [surface type] surface, [size] mm diameter
				6524	Supply and installation of conduit in concrete median barrier, [size] mm diameter
				6525	Supply and installation of conduit, bored or jacked, [size] mm diameter
				6526	Supply and installation of conduit onto structure, [size] mm diameter
				6531	Removal of electrical conduit, [details]
		6550	ELECTRICAL PITS	6551	Supply of electrical pits, type [type]
				6552	Installation of electrical pit, type [type]
				6553	Supply and installation of electrical pit, type [type]
				6554	Construction of pit surround, pit type [type]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6561	Removal of electrical pit, [details]
6004	TRAFFIC SIGNAL AND ROAD LIGHTING FOOTINGS	6600	TRAFFIC SIGNAL FOOTINGS	6601	Traffic signal post footing
				6602	Traffic signal mast arm footing
				6603	Traffic signal mast arm footing extension for poor soil, 300 mm long, if ordered (Provisional Quantity)
				6604	Excavation in excessively hard material, rate additional to rate for Work Items 6601, 6602 and 6603P (Provisional Quantity)
				6605	Traffic signal controller base
		6700	ROAD LIGHTING FOOTINGS	6701	Road lighting pole footing, [diameter] mm diameter
				6702	Road lighting pole footing in concrete median barrier, [diameter] mm diameter
				6703	Road lighting pole footing extension in poor soil, 400 mm long, [diameter] mm diameter, if ordered (Provisional Quantity)
				6704	Excavation in excessively hard material, rate additional to rate for Work Items 6701, 6702 and 6703P (Provisional Quantity)
				6705	Construction of retaining wall around footing
				6706	Removal of road lighting pole footing
				6005	TRAFFIC SIGNALS
6612	Installation of traffic signal equipment, [description]				
6613	Supply and installation of traffic signal equipment, [description]				
6620	TRAFFIC SIGNAL POSTS AND MAST ARMS	6621	Supply of traffic signal post, [length] metres long, [with   without] hinged baseplate		
		6622	Supply of traffic signal mast arm [with   without] road lighting luminaire spigot, with [length] metres long outreach arm [without   with 1400 mm long   with 2900 mm long   with 4400 mm long] luminaire transition piece		

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6623	Supply of joint use traffic signal and road lighting pole, [length] metres long, each
				6631	Installation of traffic signal post, [length] metres long, [with   without] hinged baseplate
				6632	Installation of traffic signal mast arm [with   without] road lighting luminaire spigot, with [length] metres long outreach arm
				6633	Installation of joint use traffic signal and road lighting pole, [length] metres long
				6635	Supply and installation of traffic signal post, [length] metres long, [with   without] hinged baseplate
				6636	Supply and installation of traffic signal mast arm [with   without] road lighting luminaire spigot, with [length] metres long outreach arm [without   with 1400 mm long   with 2900 mm long   with 4400 mm long] luminaire transition piece
				6637	Supply and installation of joint use traffic signal and road lighting pole, [length] metres long, each
				6638	Supply and installation of push button post, [length] metres long, [with   without] hinged baseplate
		6640	TRAFFIC SIGNAL LANTERNS	6641	Supply of traffic signal lantern, [number of aspects] aspect, [diameter] mm aspect diameter
				6642	Supply of pedestrian lantern
				6643	Supply of target board, [single   double]
				6644	Installation of [overhead mounted   ground mounted] traffic signal lantern, [number of aspects] aspect, [diameter] mm aspect diameter
				6645	Installation of pedestrian lantern
				6646	Installation of target board, [single   double]
				6647	Supply and installation of [overhead mounted   ground mounted] traffic signal lantern, [number of aspects] aspect, [diameter] mm aspect diameter, and

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES				
Level 1		Level 2		Level 3
				[single   double] target board
		6650	PEDESTRIAN PUSH BUTTONS	6648 Supply and installation of pedestrian lantern, each
				6651 Supply of traffic signal pedestrian push button, [standard   audio-tactile]
				6652 Installation of traffic signal pedestrian push button, [standard   audio-tactile]
				6653 Supply and installation of traffic signal pedestrian push button, [standard   audio-tactile]
		6660	DETECTOR LOOPS	6661 Supply and installation of vehicle detector loops, [description]
		6670	TRAFFIC SIGNAL CONTROLLER	6671 Supply of traffic signal controller, [description of traffic signal site]
				6672 Installation of traffic signal controller, [description of traffic signal site]
				6673 Supply and installation of traffic signal controller, [description of traffic signal site]
				6674 Modification to existing traffic signal controller, [description of traffic signal site]
				6675 Supply and installation of EPROM
				6676 Commissioning and testing of EPROM
		6680	REMOVAL OF EXISTING EQUIPMENT	6681 Removal of traffic signal equipment for salvage, [description]
				6682 Removal of traffic signal equipment for disposal, [description]
6006	ROAD LIGHTING	6710	ROAD LIGHTING SUPPORT COMPONENTS	6711 Supply of [fixed base   slip base   impact absorbent] road lighting pole, [height] mm vertical height
				6712 Supply of [single   double] road lighting outreach arm, [length] mm long
				6713 Supply of road lighting outreach arm extension, 1.5 metres long
				6714 Supply of road lighting luminaire headframe, [number of spigots] way headframe
				6721 Supply of pedestrian crossing floodlight bracket, [length] mm long

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6722	Supply of underbridge road lighting bracket, [height] mm high
				6723	Supply of wall mounted road lighting bracket, [length] mm long
				6731	Supply of road lighting luminaire, [name of manufacturer], [type of luminaire]
				6732	Supply of pedestrian crossing floodlight, [with   without] louvre, [name of manufacturer], [type of luminaire]
				6741	Installation of [fixed base / slip base / impact absorbent] road lighting pole
				6742	Installation of road lighting outreach arm
				6743	Installation of road lighting outreach arm extension
				6744	Installation of road lighting luminaire headframe
				6751	Installation of pedestrian crossing floodlight mounting bracket
				6752	Installation of underbridge road lighting bracket
				6753	Installation of wall mounted road lighting bracket
				6761	Installation of road lighting luminaire
				6762	Installation of pedestrian crossing floodlight
				6771	Supply and installation of [fixed base   slip base   impact absorbent] road lighting pole, [height] mm vertical height, [length] mm long [single   double] outreach arm, [with   without] outreach arm extension [with aerial supply   with loop in loop out cabling]
				6772	Supply and installation of [fixed base   slip base   impact absorbent] high mast road lighting pole, [height] mm vertical height, [number of spigots] way headframe [with aerial supply   with loop in loop out cabling]
				6773	Supply and installation of pedestrian crossing floodlight mounting bracket
				6774	Supply and installation of underbridge road lighting bracket, [height] mm high
				6775	Supply and installation of wall mounted road lighting bracket, [length] mm long

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6776	Supply and installation of road lighting luminaire, [name of manufacturer], [type of luminaire]
				6777	Supply and installation of pedestrian crossing floodlight, [with   without] louvre, [name of manufacturer], [type of luminaire]
				6778	Supply and installation of cabling for luminaire on bridge balustrade with loop in, loop out supply
				6781	Removal of road lighting equipment for salvage, [description]
				6782	Removal of road lighting equipment for disposal, [description]
				6783	Removal of road lighting luminaire
				6784	Removal of pedestrian crossing floodlight
		6800	SWITCHBOARDS AND ANCILLIARY COMPONENTS	6801	Supply of URD pillar switchboard and ancillary components, [type]
				6802	Supply of pole mounted switchboard and ancillary components, [type]
				6803	Installation of URD pillar switchboard and ancillary components, [type]
				6804	Installation of pole mounted switchboard and ancillary components, [type]
		6810	ELECTRICAL CABLE	6811	Supply of underground road lighting cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
				6812	Supply of aerial road lighting cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material], m
				6813	Supply of traffic signal cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
				6814	Supply of loop detector cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
				6815	Supply of cable, [usage], [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
				6816	Supply of cable joint, [fused   unfused]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				6817	Supply of aerial cable strain clamp
				6818	Supply of aerial cable connector, [type]
				6819	Supply of right angle strain relief bushing (to suit 26 mm diameter hole)
				6821	Installation, jointing and termination of underground road lighting cable, [cores]
				6822	Installation, jointing and termination of traffic signal cable, [cores]
				6823	Installation, jointing and termination of loop detector cable, [cores]
				6824	Installation, jointing and termination of cable, [usage], [cores]
				6825	Installation, jointing and termination of aerial road lighting cable, [cores]
				6826	Removal of underground cable
				6827	Removal of aerial cable
		6830	MAINS CONNECTION	6831	Supply of mains connection equipment including the supply of mains connection cable, [length], [usage], [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
				6832	Installation of mains connection including mains connection cable, each
7000	BRIDGE	7100	SUPPLY OF TIMBER BRIDGE MATERIALS AND COMPONENTS	7001	Hardwood kerbs, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
				7002	Plywood kerbs, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
				7003	Hardwood decking, supply on Site, ([thickness] mm thick), [length] metres long
				7004	Plywood deck sheets, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
				7005	Plywood deck sheets including coating, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				7006	Hardwood spiking planks, supply on Site, ([width] mm wide, [thickness] mm thick)
				7007	Hardwood end spiking plank, supply on Site, ([width] mm wide, [thickness] mm thick)
				7008	Hardwood girders, round, supply on Site, ([diameter] mm diameter), [length] metres long
				7009	Hardwood girders, octagonal, supply on Site, ([width] mm wide), [length] metres long
				7010	Hardwood corbels, round, supply on Site, ([diameter] mm diameter), [length] metres long
				7011	Hardwood corbels, octagonal, supply on Site, ([width] mm wide), [length] metres long
				7012	Hardwood headstocks, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
				7013	Hardwood piles, supply on Site, ([diameter] mm diameter), [length] metres long
				7014	Hardwood wales and braces, supply on Site, ([width] mm wide, [thickness] mm thick)
				7015	Hardwood sill, round, supply on Site, ([diameter] mm diameter), [length] metres long
				7016	Hardwood sill, rectangular, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
				7017	Hardwood struts and fenders, round, supply on Site, ([diameter] mm diameter), [length] metres long
				7018	Hardwood struts and fenders, rectangular, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
				7019	Hardwood distributor planks, supply on Site, ([width] mm wide, [thickness]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
					mm thick)
				7020	Hardwood running planks, supply on Site, ([width] mm wide, [thickness] mm thick)
				7021	Hardwood ballast boards, supply on Site, ([width] mm wide, [thickness] mm thick)
				7022	Hardwood cover boards, supply on Site, ([width] mm wide, [thickness] mm thick)
				7023	Hardwood backing slabs, supply on Site, ([width] mm wide, [thickness] mm thick)
				7050	Steel bridge decking, supply on Site, ([depth] mm deep, [thickness] mm thick), [length] metres long
				7051	Steel kerb, supply on Site, ([depth] mm deep, [thickness] mm thick), [length] metres long
				7080	Precast prestressed concrete bridge decking, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long, [hand] (clockwise/anticlockwise skew/square delete as appropriate), [degrees] degrees skew
				7101	Hardwood kerbs, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
				7102	Plywood kerbs, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
				7103	Hardwood decking, transport to Site, ex Works/Stockpile [location], ([thickness] mm thick), [length] metres long
				7104	Plywood deck sheets, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
				7105	Plywood deck sheets, including coating, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				7106	Hardwood spiking planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7107	Hardwood end spiking planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7108	Hardwood girders, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
				7109	Hardwood girders, octagonal, transport to Site, ex Works/Stockpile [location], ([width] mm wide), [length] metres long
				7110	Hardwood corbels, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
				7111	Hardwood corbels, octagonal, transport to Site, ex Works/Stockpile [location], ([width] mm wide), [length] metres long
				7112	Hardwood headstocks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
				7113	Hardwood piles, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
				7114	Hardwood wales and braces, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7115	Hardwood sill, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
				7116	Hardwood sill, rectangular, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
				7117	Hardwood struts and fenders, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
				7118	Hardwood struts and fenders, rectangular, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				7119	Hardwood distributor planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7120	Hardwood running planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7121	Hardwood ballast boards, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7122	Hardwood cover boards, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7123	Hardwood backing slabs, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
				7150	Steel bridge decking, transport to Site, ex Works/Stockpile [location], ([depth] mm deep, [thickness] mm thick), [length] metres long
				7151	Steel kerb, transport to Site, ex Works/Stockpile [location], ([depth] mm deep, [thickness] mm thick), [length] metres long
				7180	Precast prestressed concrete bridge decking, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long, [hand] (clockwise/anticlockwise skew/square delete as appropriate), [degrees] degrees skew
				7190	Storage of timber bridge materials and components at Site
		7300	BRIDGE SUBSTRUCTURE	7301	Concrete Class [compressive strength] MPa/20 in pier footing
				7302	Concrete Class [compressive strength] MPa/20 in pier pile cap
				7303	Concrete Class [compressive strength] MPa/20 in pier above pile cap/cast-in-place pile/footing
				7304	Concrete Class [compressive strength] MPa/20 in pier headstock
				7305	Concrete Class [compressive strength] MPa/10 in pier pedestal
				7311	Concrete Class [compressive strength] MPa/20 in abutment footing

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				7312	Concrete Class [compressive strength] MPa/20 in abutment pile cap
				7313	Concrete Class [compressive strength] MPa/20 in abutment above cast-in-place pile / footing / pile cap excluding parapet terminal
				7314	Concrete Class [compressive strength] MPa/20 in abutment headstock excluding parapet terminal
				7315	Concrete Class [compressive strength] MPa/10 in abutment pedestal
				7321	Steel reinforcing bar in piers and abutments including parapet terminals
		7400	CAST-IN-PLACE PILES	7401	Reinforced concrete pipe liners, supply on Site [diameter]
				7402	Handling and pitching of reinforced concrete pipe liners
				7403	Sinking reinforced concrete pipe liners (Provisional Quantity)
				7404	Steel pipe liners, supply on Site [diameter]
				7405	Supply and fixing of stiffening bands
				7406	Handling and pitching of steel liners
				7407	Driving steel liners (Provisional Quantity)
				7408	Extension of steel liners (Provisional Quantity)
				7411	Excavation of liners
				7412	Excavation below toes of liners
				7413	Excavation to form bell enlargements below liners
				7414	Drilling of test holes (Provisional Quantity)
				7415	Excavation for bored piles (Provisional Quantity)
				7421	Concrete Class [compressive strength] MPa/20 in abutment lined pile (Provisional Quantity)
				7422	Concrete Class [compressive strength] MPa/20 in pier lined pile (Provisional Quantity)

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				7423	Concrete Class [compressive strength] MPa/20 in abutment bored pile (Provisional Quantity)
				7424	Concrete Class [compressive strength] MPa/20 in pier bored pile (Provisional Quantity)
				7425	Steel reinforcing bar in lined and bored piles (Provisional Quantity)
		7500	PRECAST PRESTRESSED CONCRETE PILES	7501	Prestressed concrete piles, supply on Site, [cross section size] mm [cross section shape]
				7502	Transport to Site and storage of prestressed concrete piles, ex works [location]
				7503	Handling and pitching of prestressed concrete piles, [cross section size] mm [cross section shape]
				7504	Driving prestressed concrete piles, [cross section size] mm [cross section shape] (Provisional Quantity)
				7505	Setting up for pre-boring for prestressed concrete piles, lump sum
				7506	Pre-boring for prestressed concrete piles
				7507	Setting up for jetting for prestressed concrete piles
				7508	Jetting for prestressed concrete piles
				7509	Setting up for drilling and firing for prestressed concrete piles
				7511	Drilling and firing for prestressed concrete piles
				7512	Stripping of prestressed concrete pile head, [cross section size] mm [cross section shape]
				7513	Extension of prestressed concrete piles, [cross section size] mm [cross section shape] (Provisional Quantity)
				7514	Setting up for re-driving of prestressed concrete piles (Provisional Quantity)
		7600	DRIVEN STEEL PILES	7601	Steel piles, supply on Site

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				7602	Handling and pitching of steel piles
				7603	Driving steel piles (Provisional Quantity)
				7604	Setting up for pre-boring for steel piles
				7605	Pre-boring for steel piles
				7606	Setting up for jetting for steel piles
				7607	Jetting for steel piles
				7608	Setting up for drilling and firing for steel piles
				7609	Drilling and firing for steel piles
				7611	Splicing steel piles (Provisional Quantity)
				7612	Trimming of steel pile heads including welding of bond bars
				7613	Setting up for re-driving of steel piles (Provisional Quantity)
		7700	BITUMEN SLIP LAYER ON PILES	7701	Bitumen slip layer on PSC piles
				7702	Bitumen slip layer on steel piles, m
		7800	DYNAMIC TESTING OF PILES	7801	Establishment of equipment on the Site for dynamic testing of piles (Provisional Quantity)
				7802	Dynamic testing of pile to determine load capacity (Provisional Quantity)
				7803	Dynamic testing of pile in difficult conditions to determine final set for subsequent piles (Provisional Quantity)
		8100	SUPPLY AND ERECTION OF PRESTRESSED CONCRETE DECK AND KERB UNITS	8101	Prestressed concrete deck and kerb unit, supply on Site, [depth] mm deep, [length] metres long
				8102	Transverse stressing bars, supply on Site
				8103	Transport of prestressed concrete deck and kerb units to the Site, [depth] mm deep, [length] metres long, ex works [location]
				8104	Transport of transverse stressing bars to the Site, ex works [location]

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				8111	Single layer elastomeric bearings, [length] x [breadth] x [depth]
				8112	Laminated elastomeric bearings, [length] x [breadth] x [depth]
				8121	Erection of prestressed concrete deck and kerb units, [depth] mm deep, [length] metres long
				8122	Erection of transverse stressing bars
				8131	Holding-down bolts for deck and kerb units, [length] mm long
				8132	Deck unit dowel bars, [length] mm long
				8141	Transverse prestressing of deck
		8200	SUPPLY AND ERECTION OF PRESTRESSED CONCRETE GIRDERS	8201	Prestressed concrete I girders, supply on Site, [depth] mm deep, [length] metres long
				8202	Transport of prestressed concrete I girders to the Site, [depth] mm deep, [length] metres long, ex works [location]
				8203	Erection of prestressed concrete I girders, [depth] mm deep, [length] metres long
				8211	Prestressed concrete T girders, supply on Site, [girder type], [depth] mm deep, [length] metres long
				8212	Transport of prestressed concrete T girders to the Site, [girder type], [depth] mm deep, [length] metres long, ex works [location]
				8213	Erection of prestressed concrete T girders, [girder type], [depth] mm deep, [length] metres long
				8221	Laminated elastomeric bearings, [length] x [breadth] x [depth]
				8222	Pot-type bearings, [rated load capacity], [fixed / sliding]
				8231	Girder restraints
		8250	SUPPLY AND ERECTION OF STEEL	8251	Steel girders, supply on Site, [section] / ([flange width] mm wide, [depth]) mm deep, [length] metres long

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
			GIRDERS	8252	Steel cross bracing, supply on Site
				8253	Transport of steel girders to the Site, [section] / ([flange width] mm wide, [depth]) mm deep, [length] metres long
				8254	Transport of steel cross bracing to the Site, ex works [location]
				8255	Erection of steel girders, [section] / ([flange width] mm wide, [depth]) mm deep, [length] metres long
				8256	Erection of steel cross bracing
				8257	Installation of bearings for rolled steel girders
				8261	Supply and installation of laminated elastomeric bearings, [length] x [breadth] x [depth]
				8262	Supply and installation of pot-type bearings, [rated load capacity], [fixed / sliding]
				8271	Supply and installation of girder restraints
		8300	BRIDGE DECK	8301	Concrete Class [compressive strength] Mpa/20 in cross girder
				8302	Concrete Class [compressive strength] Mpa/20 in deck
				8303	Concrete Class [compressive strength] Mpa/20 in insitu kerb
				8304	Concrete Class [compressive strength] Mpa/20 in parapet and parapet terminal
				8305	Concrete Class [compressive strength] Mpa/20 in median
				8306	Concrete Class [compressive strength] MPa/20 in relieving slab
				8311	Reinforcing steel in decks, cross girders, kerbs and parapets, excluding parapet terminals
				8312	Reinforcing steel in medians, in situ kerbs and parapets
				8313	Reinforcing steel in relieving slabs

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
				8314	Bar grip coupler fittings for future widening, [diameter] mm diameter
				8315	Bar grip coupler steel reinforcing bar, [diameter] mm diameter
				8316	Bar grip coupler for bar extension, [diameter] mm diameter
				8321	Evaporative retarding curing compound
				8331	Anchors for bridge rail
				8332	Anchors for guardrail terminals
				8333	Anchors for road lighting brackets
				8334	Sockets for expansion joint
				8341	Date plate
				8342	Permanent survey mark
				8343	PVC scupper and spout, [diameter] mm diameter
				8351	Bridging strips, compressible fillers and isolation inserts
				8352	Joint sealants
				8361	Expansion joint cover plates, stainless steel
				8362	Junction box cover plates, stainless steel
				8371	Stabilised sand in footway
				8372	Precast concrete footway slab
				8381	Electrical conduit in footway, [diameter] mm diameter, [use]
				8382	Flexible electrical conduit
				8383	Lamp standard brackets
				8384	Navigation markers
		8400	SUPPLY AND	8401	Supply and fabrication of bridge traffic rail, steel

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
			ERECTION OF STEEL BRIDGE BARRIER	8402	Supply and fabrication of bridge balustrade, steel
				8403	Supply and fabrication of bridge safety rail, steel
				8404	Transport and erection of bridge traffic rail, steel
				8405	Transport and erection of bridge balustrade, steel
				8406	Transport and erection of bridge safety rail, steel
		8410		SUPPLY AND ERECTION OF ALUMINIUM BRIDGE BARRIER	8411
			8412		Supply and fabrication of bridge balustrade, aluminium
			8413		Supply and fabrication of bridge safety rail, aluminium
			8414		Transport and erection of bridge traffic rail, aluminium
			8415		Transport and erection of bridge balustrade, aluminium
			8416		Transport and erection of bridge safety rail, aluminium
		8450	BRIDGE DECK EXPANSION JOINTS	8451	Bolted-in aluminium bridge deck expansion joints
				8452	Cast-in aluminium bridge deck expansion joints
				8453	Fibre reinforced concrete bridge deck expansion joints
		8500	ANTI-GRAFFITI PROTECTION	8501	Anti-graffiti protection coating, non-sacrificial
				8502	Anti-graffiti protection coating, sacrificial
		8600	DECK WEARING SURFACE	8601	Bituminous waterproof membrane for bridges
				8602	Dense graded asphalt corrector course, DG [nominal size] mm mix
				8603	Dense graded asphalt pavement layer, DG [nominal size] mm mix
				8604	Stone mastic asphalt surfacing layer, SM [nominal size] mm mix
				8605	Open graded asphalt surfacing layer, OG [nominal size] mm mix
				8606	Tack Coat, 0.2 litres/m2 residual bitumen

WORK BREAKDOWN STRUCTURE – CONSTRUCTION ACTIVITIES					
Level 1		Level 2		Level 3	
		8710	REPAINTING STEEL BRIDGES	8711	Micaceous iron oxide, full re-coat (Provisional Quantity)
				8712	Micaceous iron oxide, top coating (Provisional Quantity)
		8800	PREPARATION FOR BRIDGE WIDENING	8801	Removal of existing bridge rails and posts
				8802	Breaking back existing concrete
				8803	Removal of existing rubble masonry at abutments
				8804	Installation of steel reinforcing bars in existing concrete
				8805	Installation of dowel bars
				8806	Scabbling concrete faces
				8807	Temporary barrier guardrail