

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

Last updated: 2024-04-23 Version 6.15

The assortment schedule aims to show where the supplier (technical consultant, contractor) or, where applicable, the client, of Trafikverkets's assignments/projects should search for material when investigating and planning (design) and procure material that is needed for the construction works in investments, reinvestments and maintenance. The tabs in the assortment schedule follow Trafikverkets's facility structure for railway and show decided supply routes for materials to the facility.

Materials which is classified as *technically approved material* (TGM) according to TDOK 2014:0307 follows from the columns "Material to be acquired from Trafikverket Logistik" and "Material to be acquired from a supplier based on a nationally procured framework agreement", and is always to be used. Technically approved material consists predominantly of rail- and IT related materials for Trafikverket's projects within railway and, in some cases, roads, which are supplied via Trafikverket Logistik. Terms for purchase and supplies from Trafikverket Logistik follows from *Förutsättningar vid beställning och leverans av tekniskt godkänt material* (TDOK 2012:195).

Material that is classified as *regulatory-controlled units* according to TDOK 2014:0307 and is published in TDOK/TRVINFRA follows the column "The project procures materials based on requirements". This material is procured by the project through requirements being set in procurement by the consultant and contractor respectively.

### Version 6.15. means...

2024-04-23 Assortment schedule revised, previous middle column removed.

### Version 6.14. means...

2023-12-04 New assortment 12.1 Property: Fresh air valves

Supply model for road paving in level crossings changed from 1st January 2024, see 6.1 Track and 10.2 Level crossing.

Explanatory text revised.

### Version 6.13. means...

2023-06-21 Panel fence added to 12.2 Fencing.

### Version 6.12. means...

2023-02-23 Correction of information 9.5 Outbound 16.7 Hz medium voltage switchgear.

### Version 6.11. means...

2022-10-07 Supply model changed, new assortment 8.3 Shunting yard braking system, 9.4 Converter/Transformer station, 9.5-9.7 Connection centre, Transformer station house, Switching station

### Version 6.10. means...

2022-09-12 Supply model for road paving in level crossings changed, see 6.1 and 10.2.

### Version 6.9. means...

2021-08-31 Supply model for station control system changed.

### Version 6.8. means...

2021-06-28 Name of column three changed.

New assortment within electrical installations, 16.7 Hz Medium Voltage Switchgear.

Clarification station control system, electrical installations.

### Version 6.7. means...

2020-06-09 Correction track, check rail removed.

### Version 6.6. means...

2020-04-28 Correction supply model for track points.

### Version 6.5. means...

2020-02-14 Clarification remote control system 9.10

### Version 6.4. means...

2019-11-04 Anti trespass panels added to shunting-yard facilities

### Version 6.3. means...

2019-10-19 Clarification how to handle missing assortment. Clarification Autotransformer.

### Version 6.2. means...

2019-05-03 New assortment within electrical installations, 50 Hz Medium Voltage Switchgear for converter/transformation station, distribution centre and network station.

Clarifications 9.1 and 9.2. Clarifications 9.4-9.18. Clarification track without ballast 6.1.

### Version 6.1. means...

2018-06-12 Corrected cable installation.

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

### TGM

New or modified material is to be developed is to developed according to TDOK 2014:0307

### Regulatory-controlled units

New or modified requirements specification is to be developed according to TDOK 2014:0307

			Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments
<b>6</b>	<b>Track superstructure</b>				
6.1	Track	Rail	x		Determined supply model for rail is from Trafikverket with distribution via rail workshop in Sannahed as standard solution. Mobile flash-welding is primarily used when there is undercapacity at Sannahed or other reasons exist. Trafikverket shall always be contacted before mobile flash-welding is used.
		Sleeper	x		
		Attachment	x		For track without ballast, please contact Underhåll Teknik och Miljö.
		Joints	x		Rails with glued joints: To be selected before joints for field mounting. Joints for field installation: Unglued joints selected before glued.
		Road paving in level crossings	x		Valid from 1st January 2024.
		Rail creep obstructions	x		
		Ballast		x	
		Thermite welding kit		x	
6.2	Points	Determined supply model for track points is prefabrication as standard solution.			
		Ballast		x	
		Attachment	x		
		Rail	x		
		Joint	x		
		Sleeper	x		
		Heavy unit	x		
		Intermediate section	x		
		Check rail	x		
		Crossing	x		
		Relaying device	x		
		Inspection device	x		

	Locking device	x		
	Points heater	x		
	Rail creep obstruction	x		
	Snow protection	x		
	Thermite welding kit		x	

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

### TGM

New or modified material is to be developed is to developed according to TDOK 2014:0307

### Regulatory-controlled units

New or modified requirements specification is to be developed according to TDOK 2014:0307

			Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments
<b>7</b>	<b>Track substructure</b>				
7.1	Embankment			x	
7.2	Cutting			x	
7.3	Culvert			x	
7.4	Bridge			x	
7.5	Tunnel			x	

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

**TGM**  
New or modified material is to be developed according to TDOK 2014:0307

**Regulatory-controlled units**  
New or modified requirements specification is to be developed according to TDOK 2014:0307

			Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments
<b>8</b>	<b>Shunting-yard facilities</b>				
8.1	Platform and loading quay			x	
8.2	Platform crossing	Surfacing		x	
		Substructure		x	
		Superstructure		x	
		Gate/Stile		x	
		Control equipment	x		
		Power supply	x		
		Control and inspection	x		
		Transmission (cable)	x		
		Lifting barrier device	x		
		Signal for passenger/truck traffic	x		
8.3	Shunting yard braking system	Beam rail brake		x	
		Spiral brake	x		Reparations included.
		Piston brake	x*	x**	* Applies when the maintenance contract for Hallsberg shunting yard is next procured, preliminary contract start 2025-04-01. ** Expires when the maintenance contract for Hallsberg shunting yard is next procured.
8.4	Track barrier		x		
8.5	Buffer	Concrete		x	

		Other	x		
8.6	Brake testing facility			x	
8.7	Wagon weighbridge			x	
8.8	Turnplate			x	
8.9	Anti trespass panels		x		

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

<b>TGM</b>	<b>Regulatory-controlled units</b>
New or modified material is to be developed is to developed according to TDOK 2014:0307	New or modified requirements specification is to be developed according to TDOK 2014:0307

			Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments
<b>9</b>	<b>Electrical installations</b>				
9.1	Catenary	Tensioning	x		
		Line circuit-breaker	x		
		Insulator	x		
		Cable	x		
		Line bridge	x		
		Pole	x		
		Autotransformer including footing and building	x		3, 5 & 6 MVA transformer, building AT including selectable options, also hoists for footing.
		Booster transformer	x		100,5 & 158 kVA
		Wire, line	x		
		Cantilever	x		Agreement for prefabrication exists, non-manadatory. Sub-ordering via Trafikverket Logistik.
		Footing for pole	x	x	For projects and measures with minor requirements, footings (1 - 5 pcs depending on item number) can be purchased from Trafikverket Logistik. Larger quantities to be purchased by the contractor directly.
9.2	Auxiliary power line		x		
		Distribution transformer	x		10 - 500 kVA
9.3	Supply line			x	
9.4	Converter/Transformer station	Spare parts	x		
		Outbound 16.7 Hz single-phase Medium Voltage Switchgear	x		Also see 9.5-9.7.
		Incoming 50 Hz Medium Voltage Switchgear	x		
		Station control system		x	
		Batteries	x		

		Standby power plant	x		Also see 9.11.
		UPS	x		
		Rectifier frame, direct current-system, power supply (DC)	x		
		Catenary test device	x		
		Binders	x		
		Emergency disconnecter over ethernet	x		
9.5 - 9.7	Connection centre Transformer station house Switching station	Outbound 16.7 Hz single-phase Medium Voltage Switchgear	x		Also applies to spare parts for switchgear H2000 and MH switchgear.
		Station control system		x	
		Batteries	x		
		Standby power plant	x		Also see 9.11.
		UPS	x		
		Rectifier frame, direct current-system, power supply (DC)	x		
		Catenary test device	x		
		Binders	x		
		Emergency disconnecter over ethernet	x		
9.8 - 9.9	Distribution centre Network station	Incoming 50 Hz Medium Voltage Switchgear	x		
		Medium voltage distribution transformer	x		2 MVA
		Batteries	x		
		Standby power plant	x		Also see 9.11.
		UPS	x		
		Rectifier frame, direct current-system, power supply (DC)	x		
9.10	Remote control system	RTU	x		
9.11	Technical building	Batteries	x		
		Standby power plant	x		Power plants up to and including 120 kVA are covered. Standby power plants larger than 120 kVA may be procured externally, but must meet "TDOK 2014:0785 BVS 543.14610 Elkraftanläggningar Kravspecifikation för reservkraftstationer".
		UPS	x		
		Rectifier frame, direct current-system, power supply (DC)	x		
9.12	Train and locomotive heating plant 16.7 Hz		x		

9.13	Lighting installations	Batteries	x			
		Shunting-yard lightning	x			
		Tunnel lightning		x		
		Platform lightning		x		
9.14	Points heater		x			
9.15	Distribution network <1000 V			x		
9.16	Operational control centre, - power supply Standby power plant Computer centre, power supply	Batteries	x			
9.18		Standby power plant	x		Also see 9.11.	
		UPS	x			
		Rectifier frame, direct current-system, power supply (DC)	x			

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

### TGM

New or modified material is to be developed is to developed according to TDOK 2014:0307

### Regulatory-controlled units

New or modified requirements specification is to be developed according to TDOK 2014:0307

				Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments	
<b>10</b>	<b>Signal installations</b>						
10.1	Track coil (beacon) group			x			
10.2	Level crossing	Substructure			x		
		Road paving		x		Valid from 1st January 2024.	
		Surfacing				x	
		Portal				x	
		Control equipment		x			
		Power supply		x			
		Control and inspection		x			
		Transmission (cable)		x			
		Lifting barrier device		x			
	Signal and board		x				
10.3	Positioning system	Rectifier-track line		x			
10.4	Signal			x			
10.5	Switchgear RBC and line blocking			x (maintenance)		Switchgear for <u>new construction</u> is ordered internally within Trafikverket.	

10.6	Shunting switchgear			x (maintenance)		Shunting switchgear for <u>new construction</u> is ordered internally within Trafikverket.		
		AlisterCargo						
		NovoCargo		x (maintenance)				
		BV PLC, 3A, 3B		x (maintenance)				
10.7	Board			x				
10.8-11	Train control system	ARGUS				x		
		EBICOS TMS				x		
		EBICOS 900 & EBICOS NT						
			PC platform				x	
			APN platform		x			Not new construction
		Sub-station						
			EBISAT 890		x			
			Siemens S5		x			Not new construction
			Siemens S7		x			
			JZA 700				x	
			JZA 41				x	
	RTU				x			

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

<b>TGM</b>	<b>Regulatory-controlled units</b>
New or modified material is to be developed according to TDOK 2014:0307	New or modified requirements specification is to be developed according to TDOK 2014:0307

				Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments
<b>11</b>	<b>Telecom&amp;IT installations</b>					
11.1	Detectors	FUES, Servo, SATT, Schenck, KIKA and other detektors.		x (maintenance)		Detectors for <u>new construction</u> is ordered internally within Trafikverket.
		Detector presentation DPC II			x	
		Detector kiosk		x		Power supply for technical buildings intended for radio base stations and detector installations.
11.2	Cable installation	Metal cable, fibre-optic cable, control cable, pair cable, KOAX, single conductor incl. accessories as microduct assemblies, splicingbox/cabinet, fiber joint closure, patch cable, connectors etc.		x		Product that are item-identified in the Material catalogue are purchased via Trafikverket. The project organisation is free to choose other products for supply solutions on the basis of specifications.
11.3	Radio installation	Radio mast		x		Radio mast is ordered interally within Trafikverket.
		Radio base station		x		
		Other radio equipment			x	
		Antennae, cables, contacts			x	

			Radio link	x		
			Tunnel radio repeater	x (maintenance)		Tunnel radio repeater for <u>new construction</u> is ordered internally within Trafikverket.
11.4	Signal telephone				x	
11.5	Telecom centre				x	
11.6	Telecom station facility			x (maintenance)	x (new building)	
11.7	Telecom transmission facility		Pressure protection equipment	x		
			Pressure protection monitoring equipment	x		Pressure protection monitoring equipment is ordered internally within Trafikverket.
11.8	Dynamic and fixed sign		Mitron signs	x		
			TFT signs	x		
			RGB-signs	x		
			Terminals and prator units	x		
11.9	Loudspeaker system			x		
11.10	Clocks			x		

## Assortment Schedule of Technically Approved Material to the road and railway infrastructure

### TGM

New or modified material is to be developed according to TDOK 2014:0307

### Regulatory-controlled units

New or modified requirements specification is to be developed according to TDOK 2014:0307

				Material to be acquired from a supplier based on a nationally procured framework agreement (from Trafikverket Logistik unless otherwise stated).	The project procures materials based on a requirement.	Comments
<b>12</b>	<b>Other installations</b>					
12.1	Property	Building				
			Cabinet	x		
			Technical building, kiosk, hut	x (detector)	x (maintenance)	
			Fire safety equipment		x	
			Fresh air valves	x		Used for noise protection measures in properties along Trafikverket's facility.
12.2	Fencing				x	
			Panel fence	x		
12.3	Ductwork				x	
12.4	Rail lubrication device				x	
12.5	Snow fence				x	
12.6	Road				x	
12.7	Dewatering, pump system				x	
12.8	Surveillance cameras			x		

12.9	Cable installation	Metal cable, fibre-optic cable, control cable, pair cable, KOAX, single conductor incl. accessories as microduct assemblies, splicingbox/cabinet, fiber joint closure, patch cable, connectors etc.		x		Product that are item-identified in the Material catalogue are purchased via Trafikverket. The project organisation is free to choose other products for supply solutions on the basis of specifications.
------	--------------------	---	--	---	--	---