

TAKING  
**COOPERATION**  
FORWARD



YOUMOBIL course  
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**RAILWAY STATIONS DESIGN, FUNCTIONS  
AND REINVENTION PROCESS - Part 1**



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# CONTENT

RAILWAY  
TRANSPORT

STATION HALTS  
AND RAILWAY  
STATIONS

STATION  
BUILDINGS



The process of moving people/material/information in space and time.



# RAILWAY TRANSPORT

## Significant attributes:

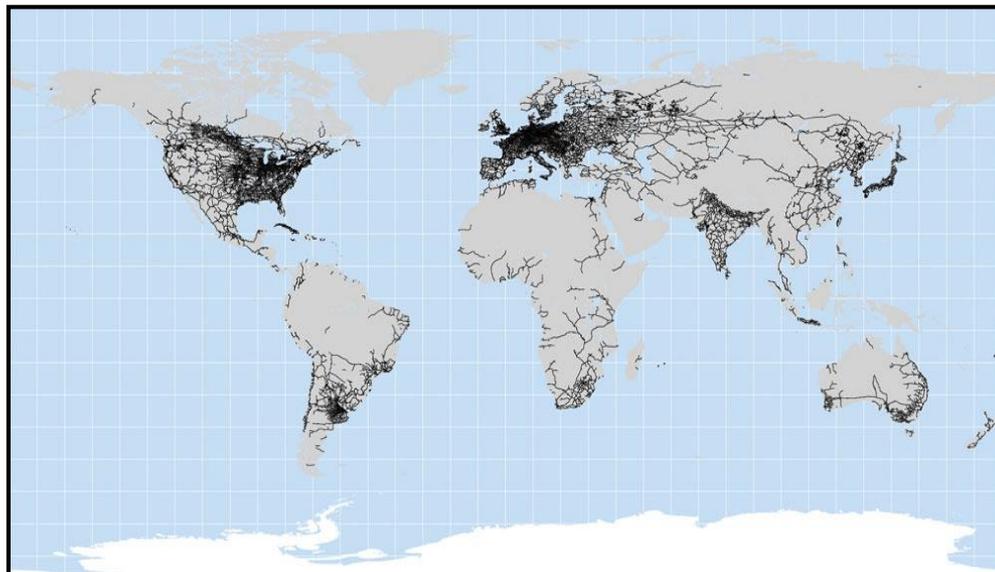
- type of transport,
- subject of transport,
- traction,
- structure of roadway,
- gauge.

## Carriage outputs:

- boarding or exit the train,
- loading and unloading of shipments.

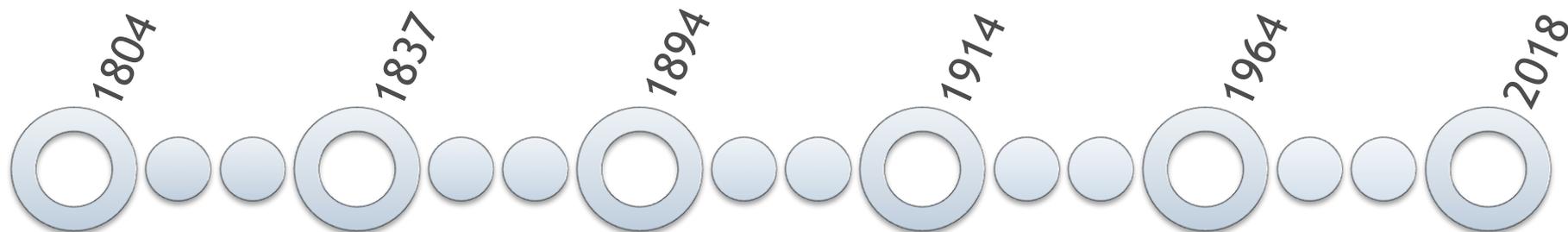
## Transport outputs:

- management of trains sequence,
- crossing and overtaking of trains,
- operation of industrial tracks.



# HISTORY

Perception in terms of track structure and traction of rolling stock.



# HISTORY



Wooden  
or Stone  
Blocks

Wooden  
Ties

Concrete  
Sleepers

Steel  
Sleepers

Ballastless  
Track

Plastic  
Sleepers



# STATION HALT / STOP

Place in plain line or in area of railway station which is adapted for:

- boarding and exit of passengers,
- loading and unloading of luggage.



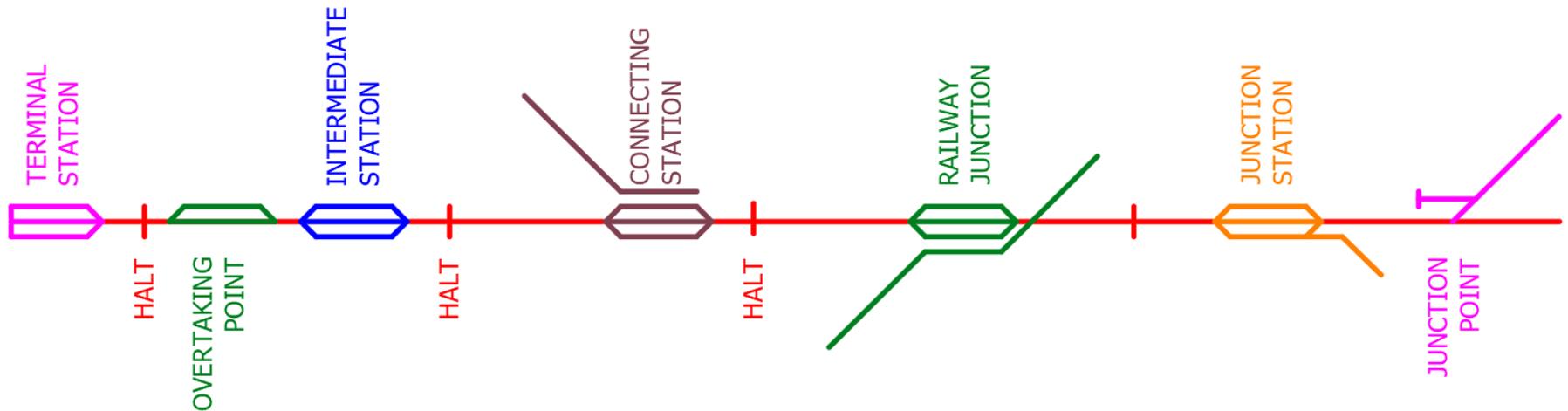
# STATION HALTS / STOPS



# OPERATING CONTROL POSTS

Places in railroad which are set for traffic control.

- junction points,
- overtaking stations,
- railway stations,
- ...



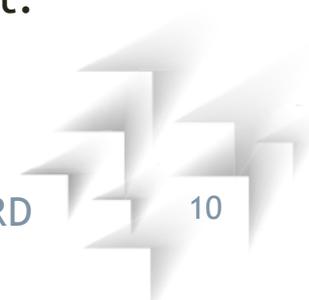
Only carriage functions: transportation of passengers, luggage, postal...

Work technology:

- service for passengers (tickets sale, safe boarding and exit, waiting areas, luggage offices),
- railway operating for transit, ending and outgoing trains.

Other equipment:

- station building with halls, rooms, offices and facilities for passengers and to carry out railway operation,
- platforms, shelters, stairways, ramps, tunnels, overpasses, footbridges, lifts,
- station forecourt area for to connect with other types of transport.

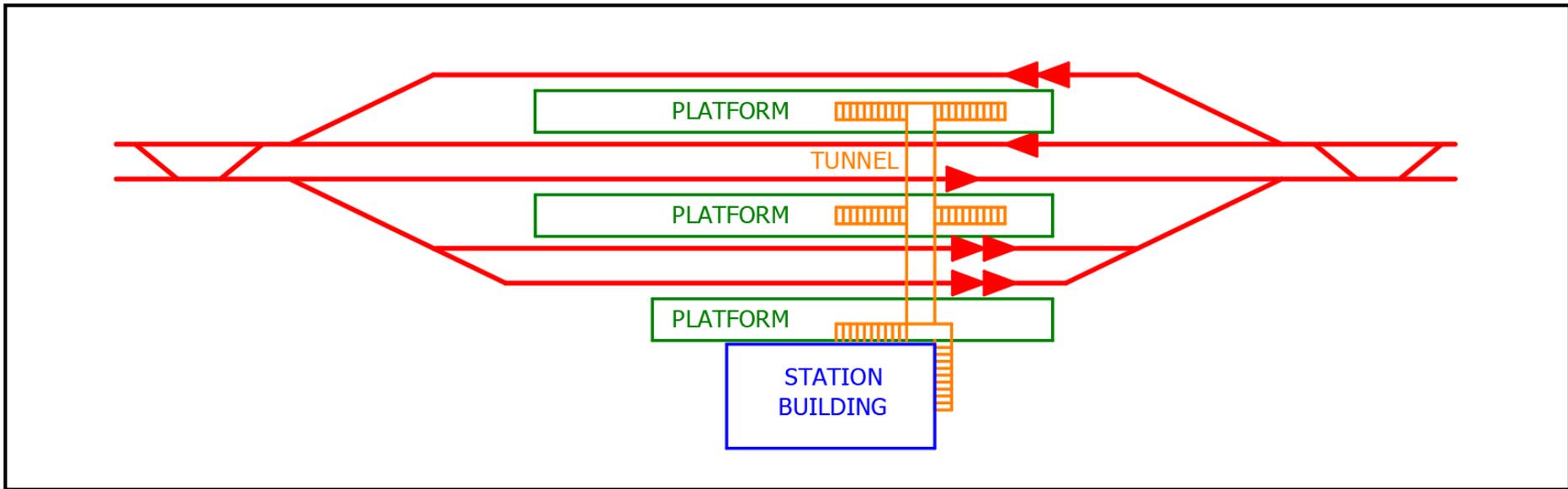


# EQUIPMENT OF PASSENGER STATION

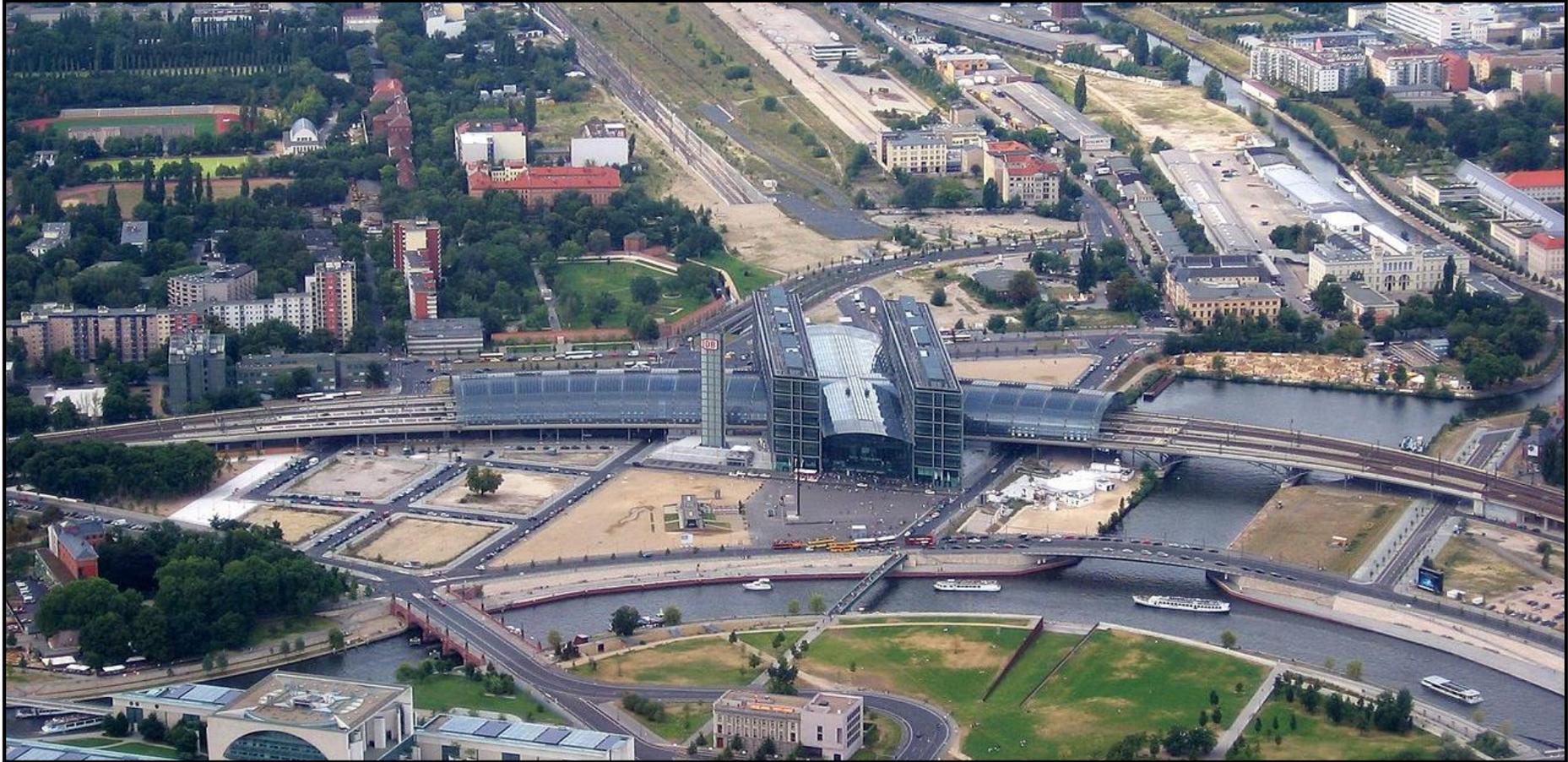
- platforms,
- shelters,
- stairways,
- ramps,
- tunnels,
- overpasses,
- footbridges,
- lifts.



# THROUGH STATION



# THROUGH STATION

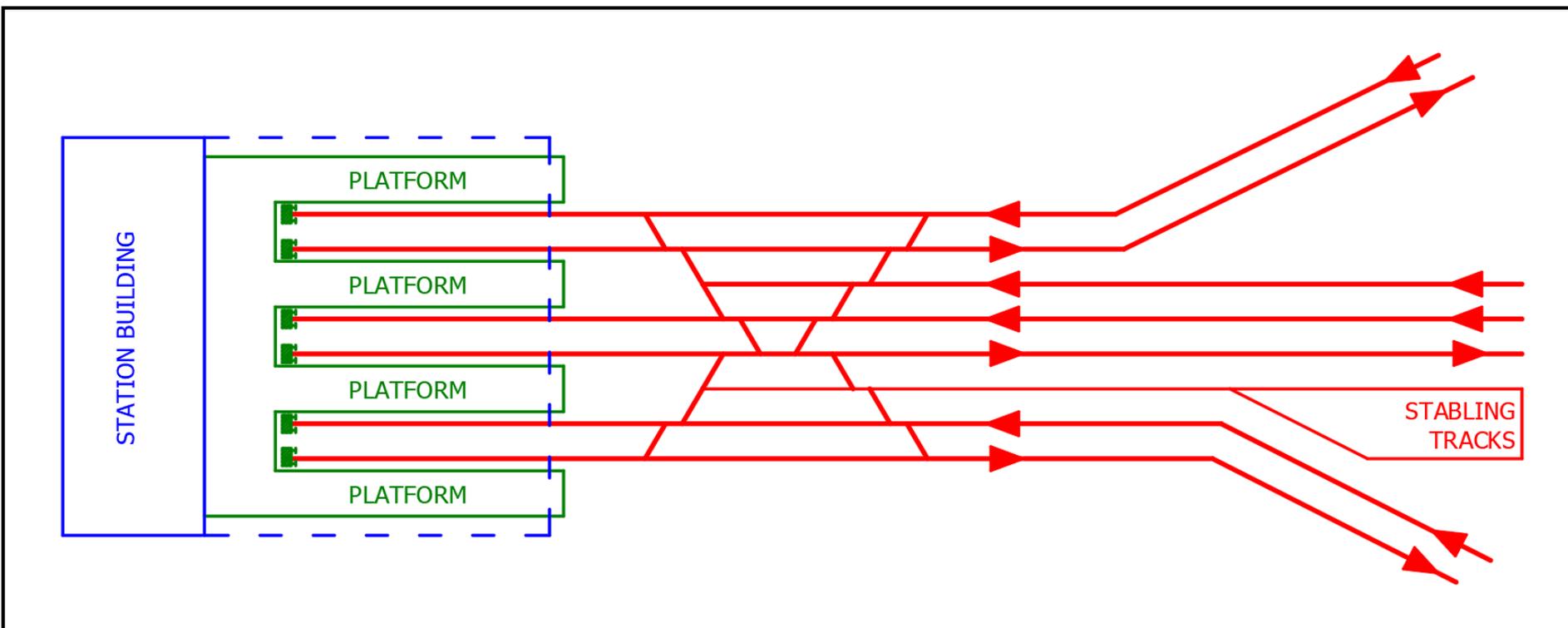


Source: [www.wikiwand.com/de/Berlin\\_Hauptbahnhof](http://www.wikiwand.com/de/Berlin_Hauptbahnhof)

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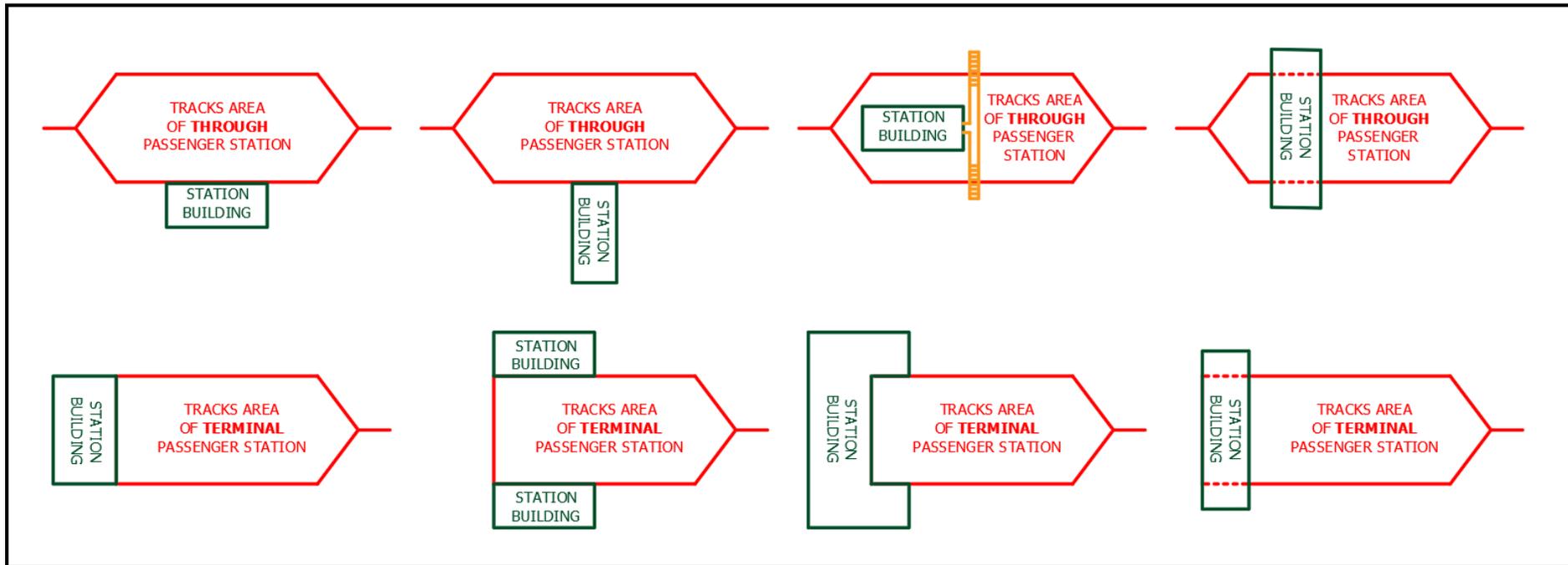
# TERMINAL STATION



# TERMINAL STATION



# STATION BUILDING AND TRACKS AREA



## Layout:

- the shortest and most comfortable way for passengers to board or exit the train,
- sequence of passenger activities:
  - activities with a time sequence (basic): entrance to the building - ticket purchase - registration of luggage - moving to the platform,
  - non-sequential activities (other): waiting for the train, refreshments, shopping ...

## Number of passengers:

- peak frequency (maximum number of passengers within 1 hour) = total number of boarding, exiting and accompanying persons,
- transition frequency (passengers using prepaid tickets).

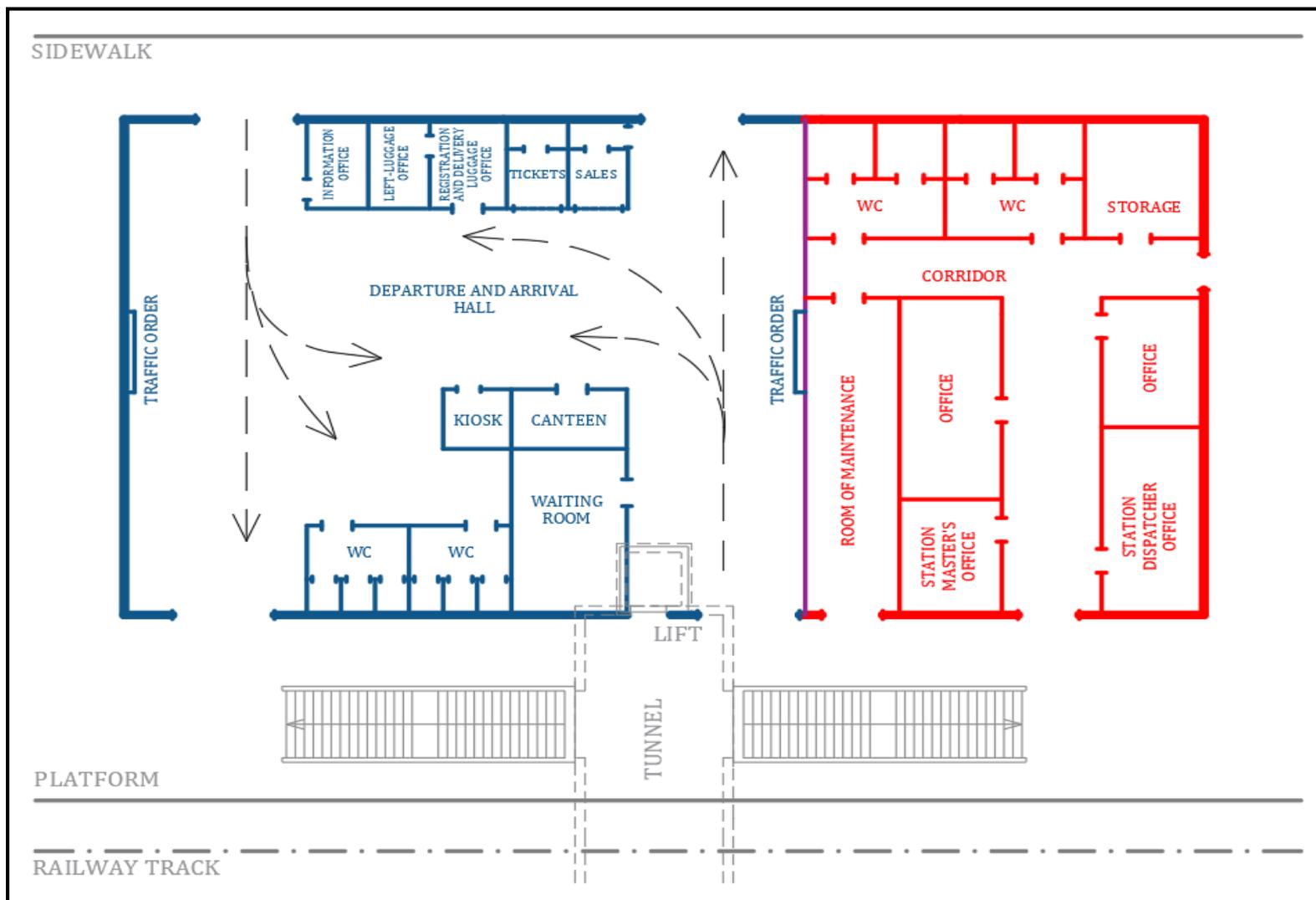


# LAYOUT OF STATION BUILDINGS AREA

		peak frequency (passengers per hour)			
		low	medium	high	
		to 500	to 1 500	over 1 500	
public part	departure hall	✓	✓	✓	service for passengers
	arrival hall			✓	
	tickets sales	✓	✓	✓	
	registration and delivery luggage office	✓	✓	✓	
	left-luggage office	✓	✓	✓	
	waiting room		✓	✓	waiting for trains, travel dispatch
	information office		✓	✓	
	canteen		✓	✓	
	restaurant			✓	
	restrooms	✓	✓	✓	
	kiosk		✓	✓	
	post office			✓	
	commercial services			✓	other services
	shops			✓	
	medical service			✓	
railway police			✓		
cleaning rooms	✓	✓	✓		
unpublic part	space for cleaning machines			✓	railway operating
	space for battery trolleys	✓	✓	✓	
	station dispatcher room	✓	✓	✓	
	service offices	✓	✓	✓	
	restrooms	✓	✓	✓	



# LAYOUT OF STATION BUILDING



# PUBLIC PART OF STATION BUILDING



# STATION FORECOURT AREA

Place for the fluent continuity of the flow of passengers from (to) the railway transport area to (from):

- public transport and suburban transport,
- car transport,
- pedestrian paths.

Created organized flows of passengers on arrival at the station building.

Safe access to individual types of transport.

Clear orientation and the shortest possible passenger ways.

Defined and clearly marked positions of individual types of transport.





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