



Protection of Transport Infrastructures at the Stages of Design, Construction and Operation

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- ❖ Definition of Critical infrastructures
- ❖ Protection measures taken during
 - “Design Phase”
 - “Construction Phase”
 - “Operation Phase”



What is Critical Infrastructure?

The whole of networks, assets, systems and structures covering sectors such as transportation, communication, energy, water, finance, where the sustainability of the social order or the provision of public services will be adversely affected when they cannot fulfill their functions partially or completely



- ❖ Approximately **183 billion dollars** of investment in the last 20 years
- ❖ An ambitious process shaped by holistic development-oriented mobility, digitalization and logistics dynamics
- ❖ Not only disaster and emergency management needs, but also terrorist activities and interventions via Internet pose a serious threat to the protection of infrastructure projects





During Design Phase

- ❖ Confidentiality agreement signed with companies responsible for construction,
- ❖ Design criteria,
 - internationally accepted standards (EN, TSE, VDE etc.)
- ❖ In terms of cyber security,
 - hardware & software firewalls
 - different IP blocks and WLANs
- ❖ Coordination meetings with the Provincial Military Police Commands and Provincial Police Departments in charge,
- ❖ Consultations on how to ensure construction safety in the works carried out,
- ❖ Alternative plans prepared,





During Construction Phase

- ❖ Private security personnel employed
- ❖ Construction site entrances and exits : monitored, controlled & recorded
- ❖ Only personnel who undergo the security investigation are employed
- ❖ Law enforcement checkpoints on the route
- ❖ Physical measures: blocker walls, barriers & wire fences





- ❖ ↓ response time to incident = charts of areas of responsibility of the law enforcement officers on the basis of area
- ❖ In these charts; which police / military police stations will intervene, and the phone numbers of the Police Stations are given to the security personnel in the field
- ❖ Cooperation & coordination between the security personnel of the company and the law enforcement officers



Some precautions against fire and sabotage

- ❖ Fire hydrant cabinets placed at regular intervals
- ❖ Bridge towers coated with fire resistant paint
- ❖ Bridge piers reinforced against ship crashes or explosions that may come from the sea
- ❖ Water curtain system and a fire barrier installed to protect the main cable
- ❖ “Special Bridge Control Center”
→ maintenance & operation of bridges



- ❖ 24-hour monitoring with CCTV cameras
- ❖ Only personnel with a bridge access card allowed to pass
- ❖ Before bridges are put into operation, security units responsible for protection during operation are informed concerning sensitive sections of bridges (rope, anchorage, etc.)



During Operation Phase

- ❖ A "security and cooperation protocol" is signed
- ❖ Within the scope of the protocol, "Bridge Protection Branch Directorate" established.
- ❖ This Protection Branch is monitoring with police cameras installed on the bridge
- ❖ Security forces physically located in explosion-proof watch boxes located at separate points on bridges
- ❖ On the Highway Route, patrol activities by the security / traffic teams



- ❖ Fishermen approaching the anchorage areas and the tower foundations are warned with the audio alarm system
- ❖ In case of non-compliance, maritime police and coast guard intervene
- ❖ Personnel of the 'Bridge Protection Branch Directorate' are given regular training of access points to constructions of bridges' such as towers, foundation and inspection roads.





Thank you!

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