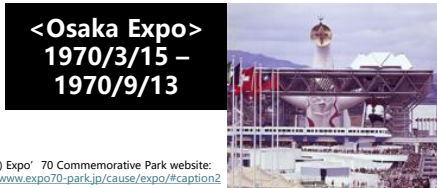


# Chugoku Expressway Renewal Project

## Projet de renouvellement de l'autoroute Chugoku



- ❑ This section was constructed just **before the 1970 Osaka Expo** (about 50 years old).
- ❑ This area has been urbanized in the last 50 years, and our bridges became deteriorated.
- ❑ Development of motorization has led to an increase in large-vehicle traffic, and deregulation has led to an increase in the total weight of vehicles.
- ❑ Additionally, highways are exposed to harsh conditions, such as salt damage caused by anti-icing agents (sodium chloride) sprayed on road surfaces.



(Source) Expo'70 Commemorative Park website:  
<https://www.expo70-park.jp/cause/expo/#caption2>



(Source) Geospatial Information Authority of Japan website:  
<https://mapps.gsi.go.jp/contents/ImageDisplay.do?specificationId=418437&isDetail=true>

50 years



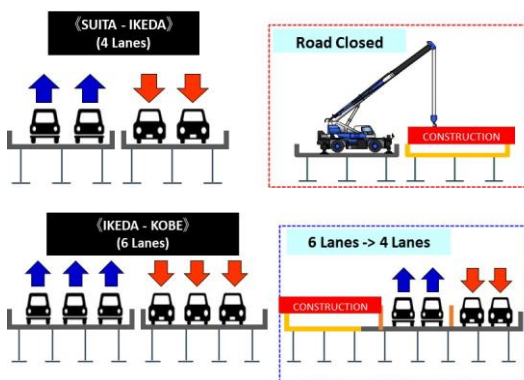
### Chugoku Expressway (Current)



### Bridge Deterioration



- ❑ Waited for the completion of the **parallel Shin-Meishin Expressway** before proceeding with the Chugoku Expressway Renewal project **to secure an alternate route.**



- ❑ Conventional deck replacement methods would cause **serious traffic congestion.**
- ❑ **100-day road closures** between Suita IC and Ikeda IC were performed for 2 years, while the Shin-Meishin Expressway and local road parallel to Chugoku Expressway served as **detour routes.**
- ❑ For a 6-lane section between Ikeda and Kobe cities, **two lanes for each direction** were secured during the construction.

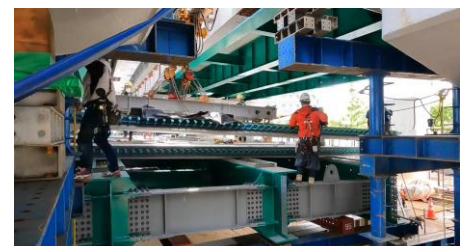
- ❑ Several countermeasures to reduce traffic regulation time were implemented.



Deck Replacement by a Gantry Crane (at Low Clearance)



Erection by a Crane



Jack-up Erection Method

