



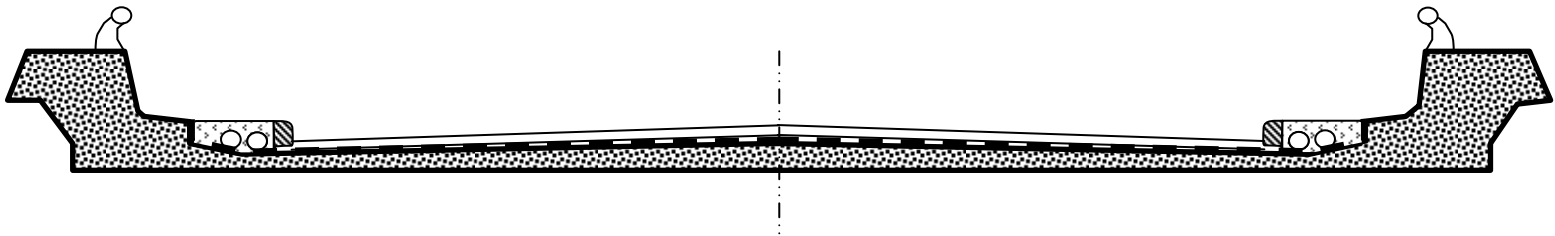
**FREYSSINET**  
SUSTAINABLE TECHNOLOGY

# OVER PASS PRE-CAST U SHAPE BRIDGE

*Mr. NGUYEN Ton Viet, marketing manger*

# SUMMARY

- **What is criteria to select structural solution for over pass bridge in the city ?**
- Why U-shape bridge ( channel bridge)?
- Construction sequences
- Freyssinet proposal

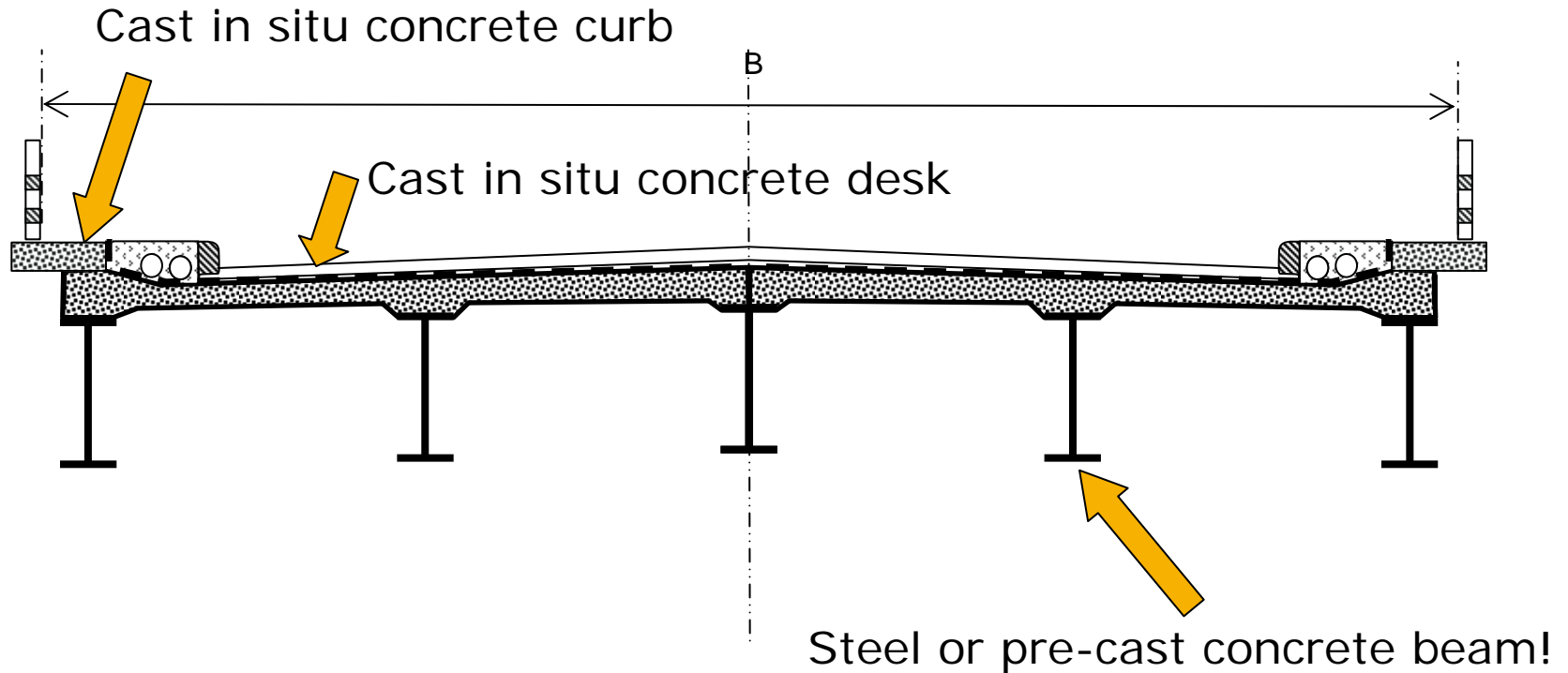


# What is criteria to select structural solution for over pass bridge in the city ?



- Minimize the bridge deck elevation while keep under clearance 4.5m
- Minimize the construction period
- Minimize effect on traffic flow
- Harmony with the master plan
- Aesthetic value of the bridge.
- Reduce the cost of construction.

# What is our current choice?





# Ring road No.3 pre-cast Super T beam with cast in situ deck





# NGUYEN CHI THANH Overpass\_ steel beam and cast in situ concrete deck



- Question?
- Can we improve more ?



*“ Excellence is the gradual result of always striving to do better” Pat Riley*



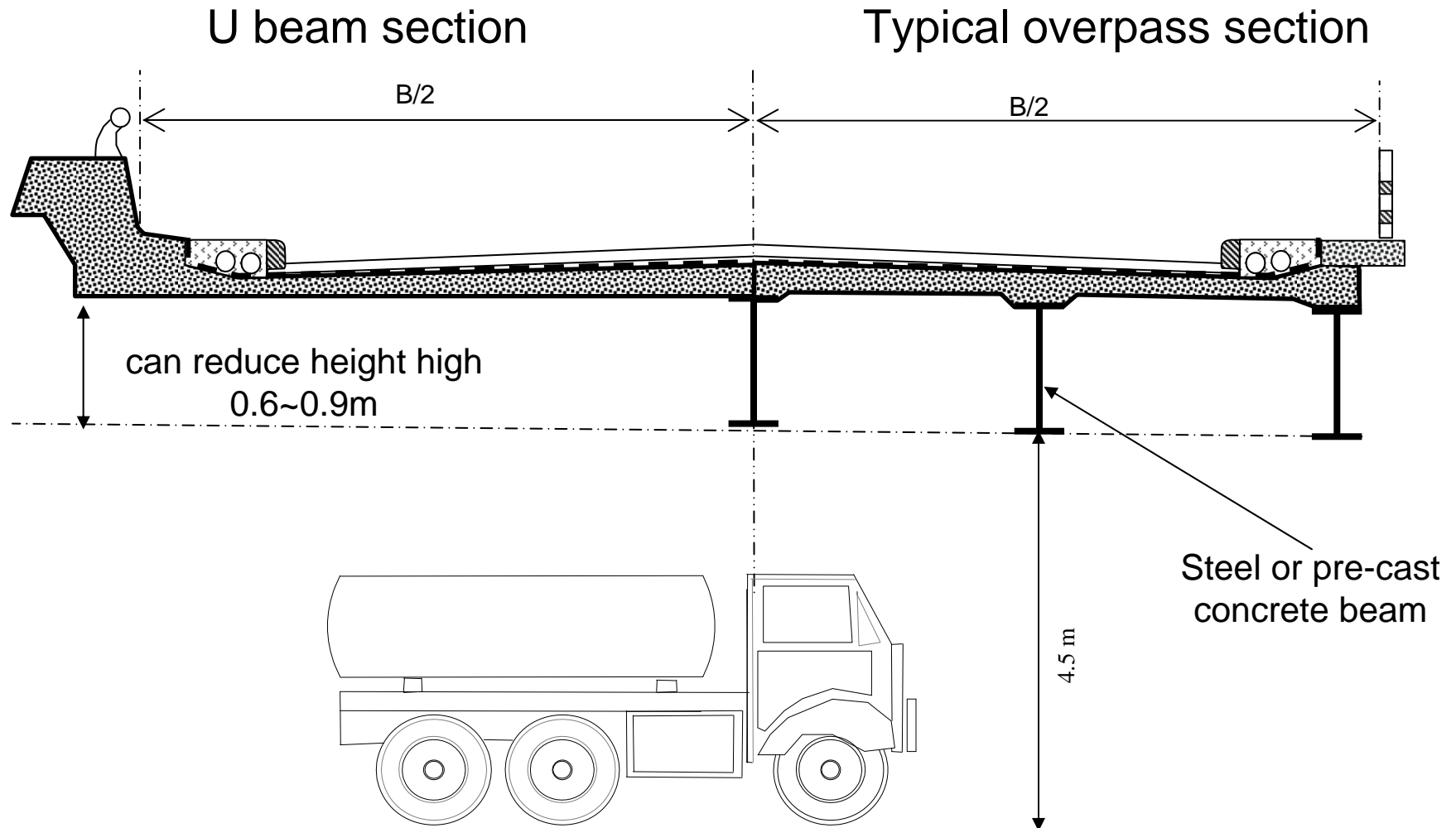


# WHY U-SHAPE BRIDGE ?

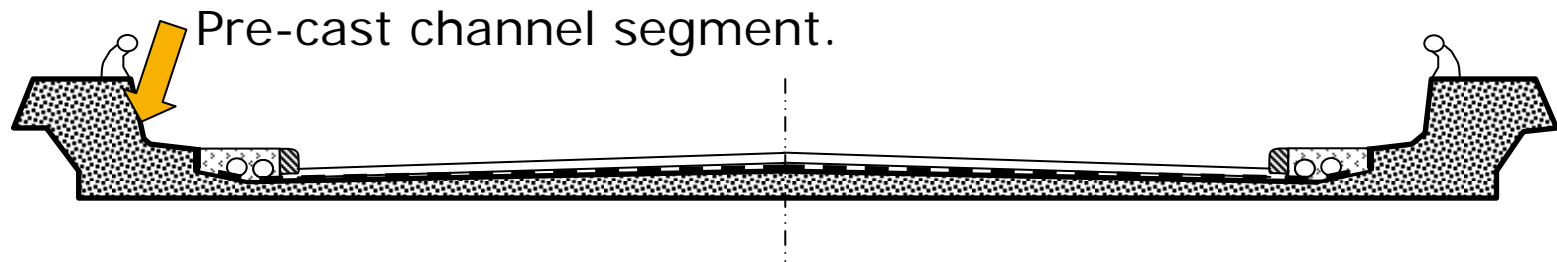




# WHY U-SHAPE BRIDGE ?



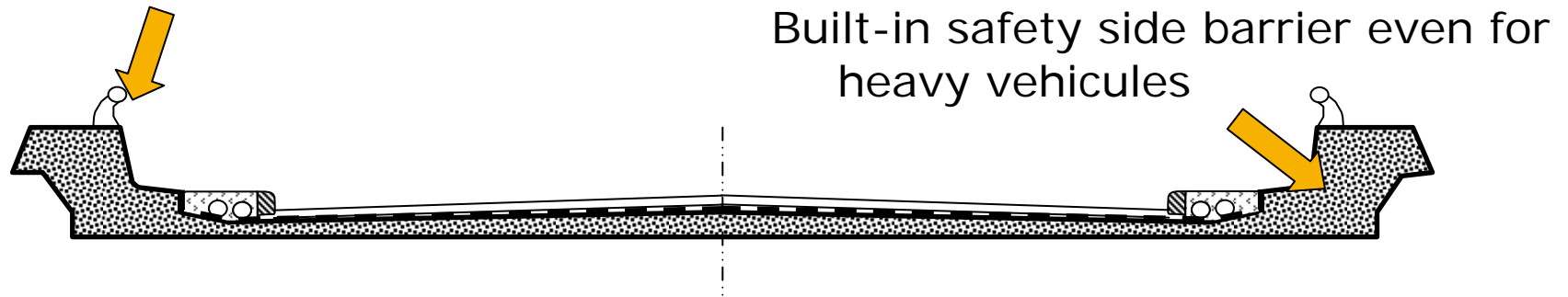
# WHY U-SHAPE BRIDGE ?



- No concrete cast in place thus reduce slab construction time
- Precast segment can be fabricated during foundation work => erection of one span 30m can be in 1days

# WHY U-SHAPE BRIDGE ?

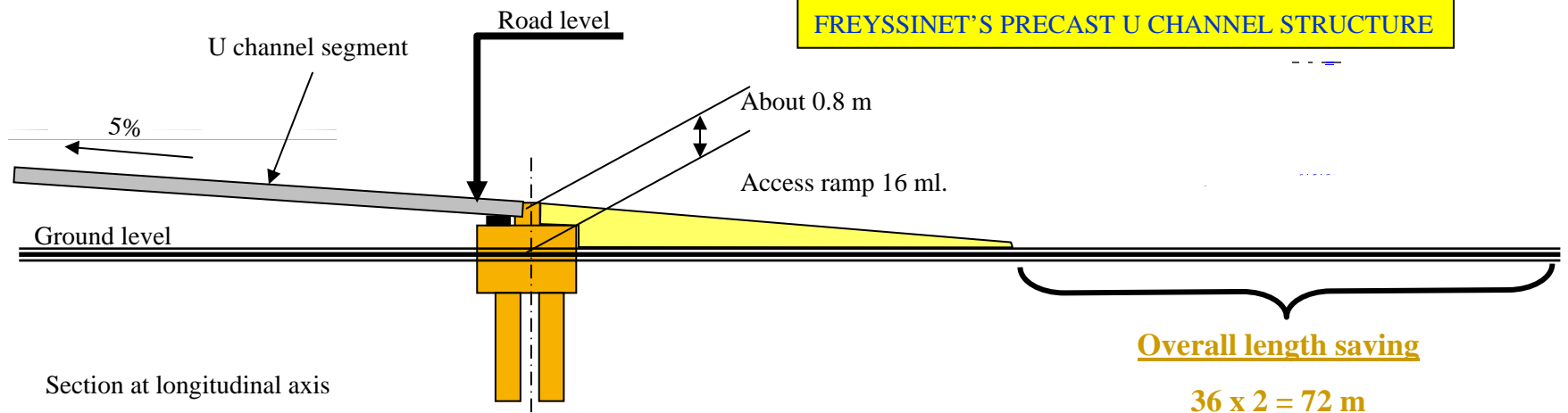
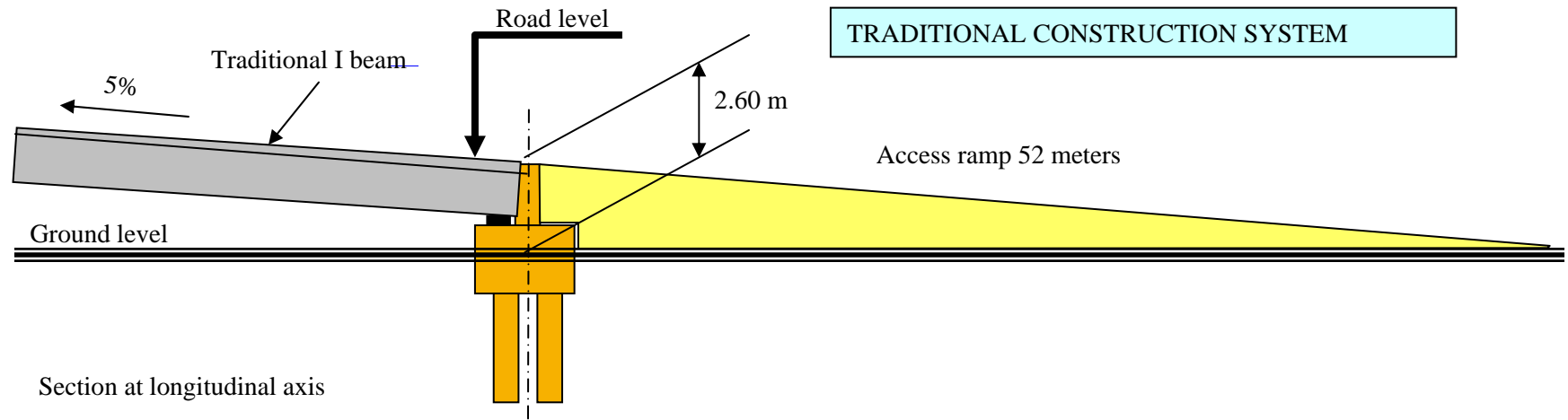
Saving on hand rail supply.





# WHY U-SHAPE BRIDGE ?

## REDUCTION OF THE LENGTH OF THE ACCESS RAMPS



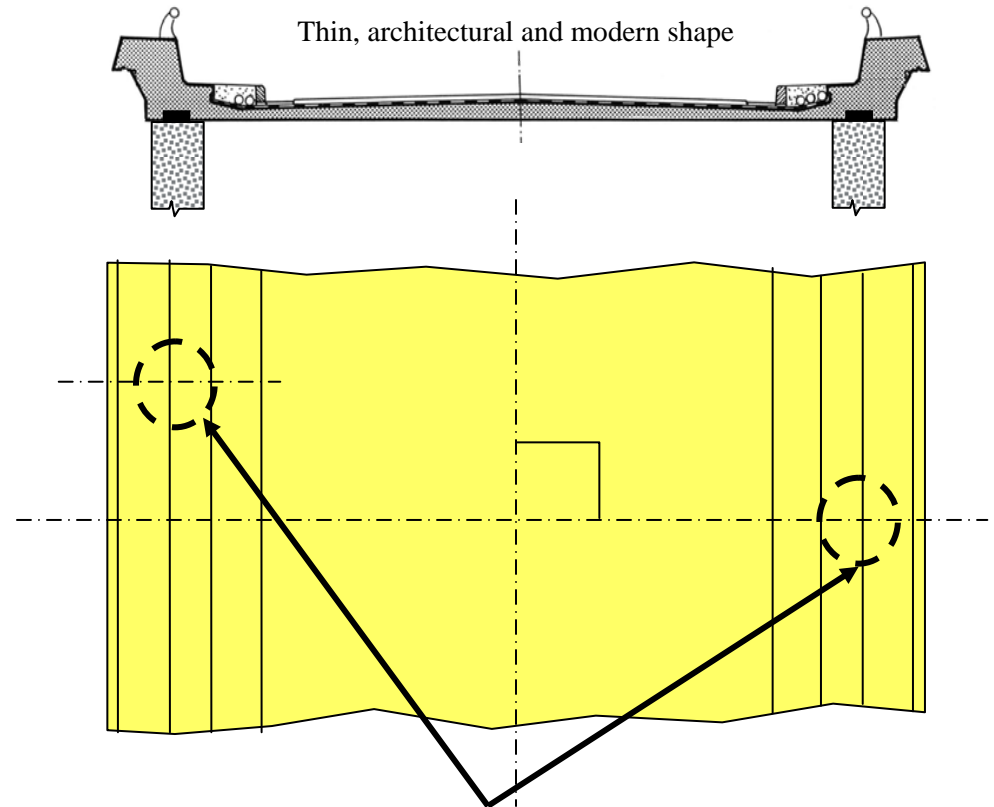
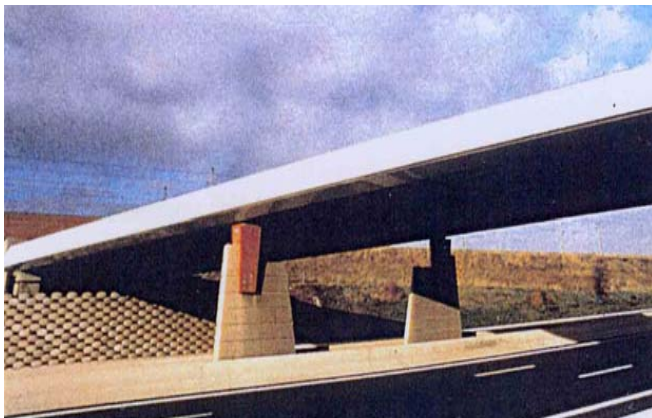
# WHY U-SHAPE BRIDGE ?

## MODERN & AESTHETIC DESIGN



U channel structure does not requires cross beams on top of piers:

General aspect more “light”



Piers can be shifted out of perpendicular axis to the bridge.

Improve adaptation to local configuration.

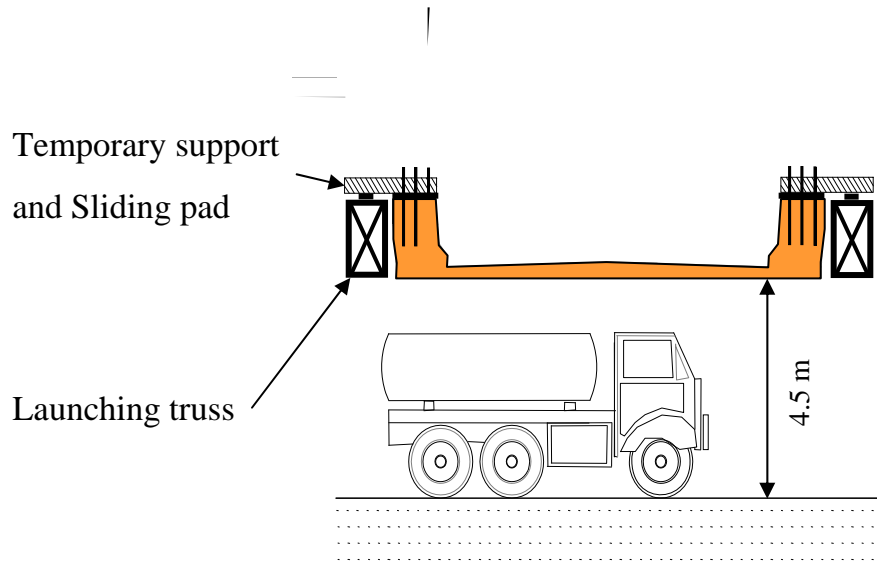
# WHY U-SHAPE BRIDGE ?



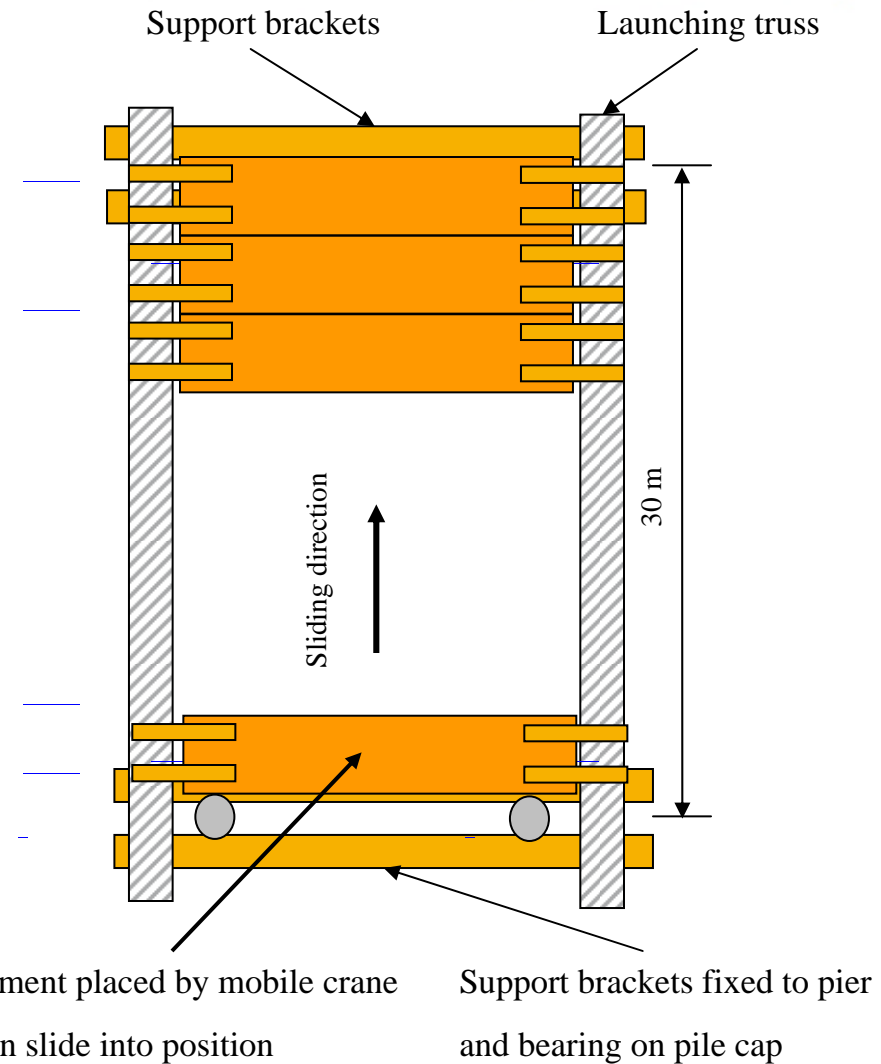
- **Visible height (structure and safety equipment) to span length is approximately 1 to 25, which results in a slimmer looking structure than usual bridges**



# WHY U-SHAPE BRIDGE ?



Traffic remaining open during construction of deck



# Construction sequences



Prefabrication of segments in casting yard

# Construction sequences



Prefabrication of segments in casting yard



# Construction sequences



Transversal stressing in casting yard

# Construction sequences



Segment ready to move to site for erection



# Construction sequences



Segment transport on standard 25T truck



# Construction sequences

*bridge deck erection without traffic interruption*



*Champfeuillet (France) :*

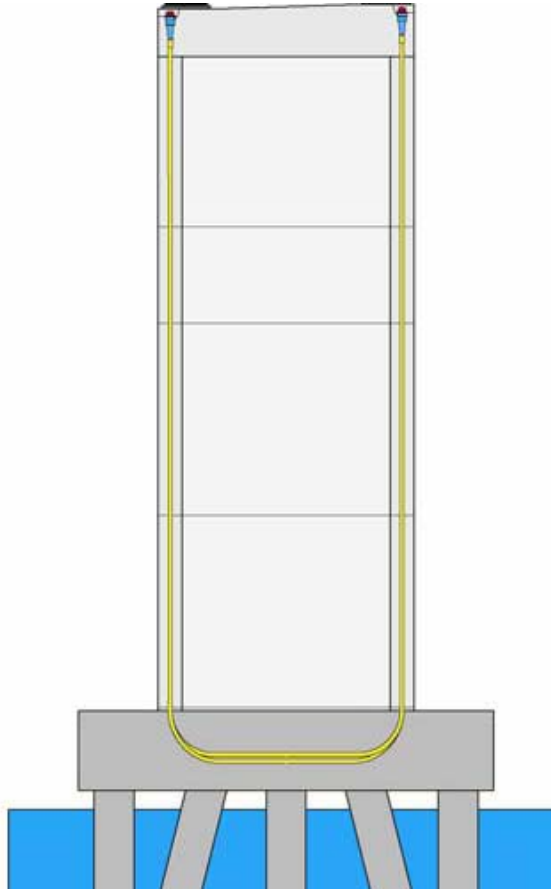
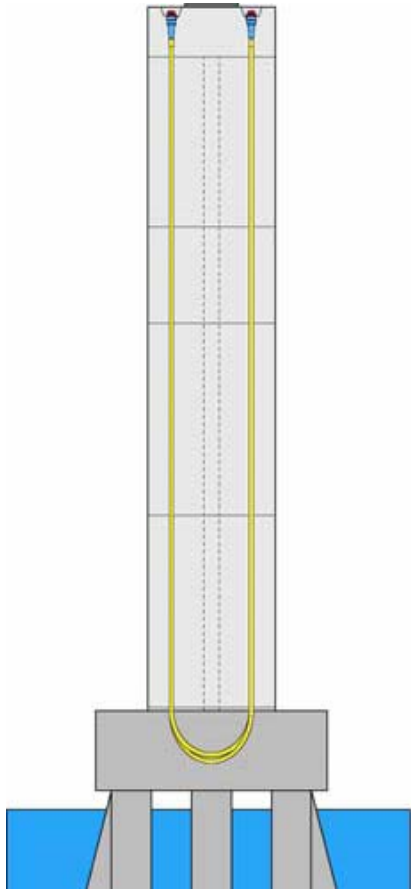


# WHAT IS FREYSSINET PROPOSAL?

- Design and specification of superstructure
- Prefabricate, Method and Construction the superstructure.

CAN WE PROPOSE FURTHER ?

# HOW ABOUT PRECAST ALSO THE PIER?



- Pre-cast also the pier => only pilling work on situ.

# CAN WE PROPOSE FURTHER ?

How about pre-cast MSE Wall for access ramp ?





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SUSTAINABLE TECHNOLOGY

YOU KNOW WHAT IS THE BEST FOR YOUR PROJECT!

THANK YOU!