

The background of the slide is a photograph of the Golden Gate Bridge in San Francisco, California. The bridge is a suspension bridge with two large towers and numerous cables. It is painted a distinctive red-orange color. The bridge spans across a body of water, with hills visible in the background. The sky is a mix of blue and white, suggesting a clear day. The overall image has a soft, slightly blurred quality, and there are some decorative elements like faint circles and a red geometric shape in the top right corner.

Design of footing for a cable-stayed bridge

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Under supervision of

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Introduction

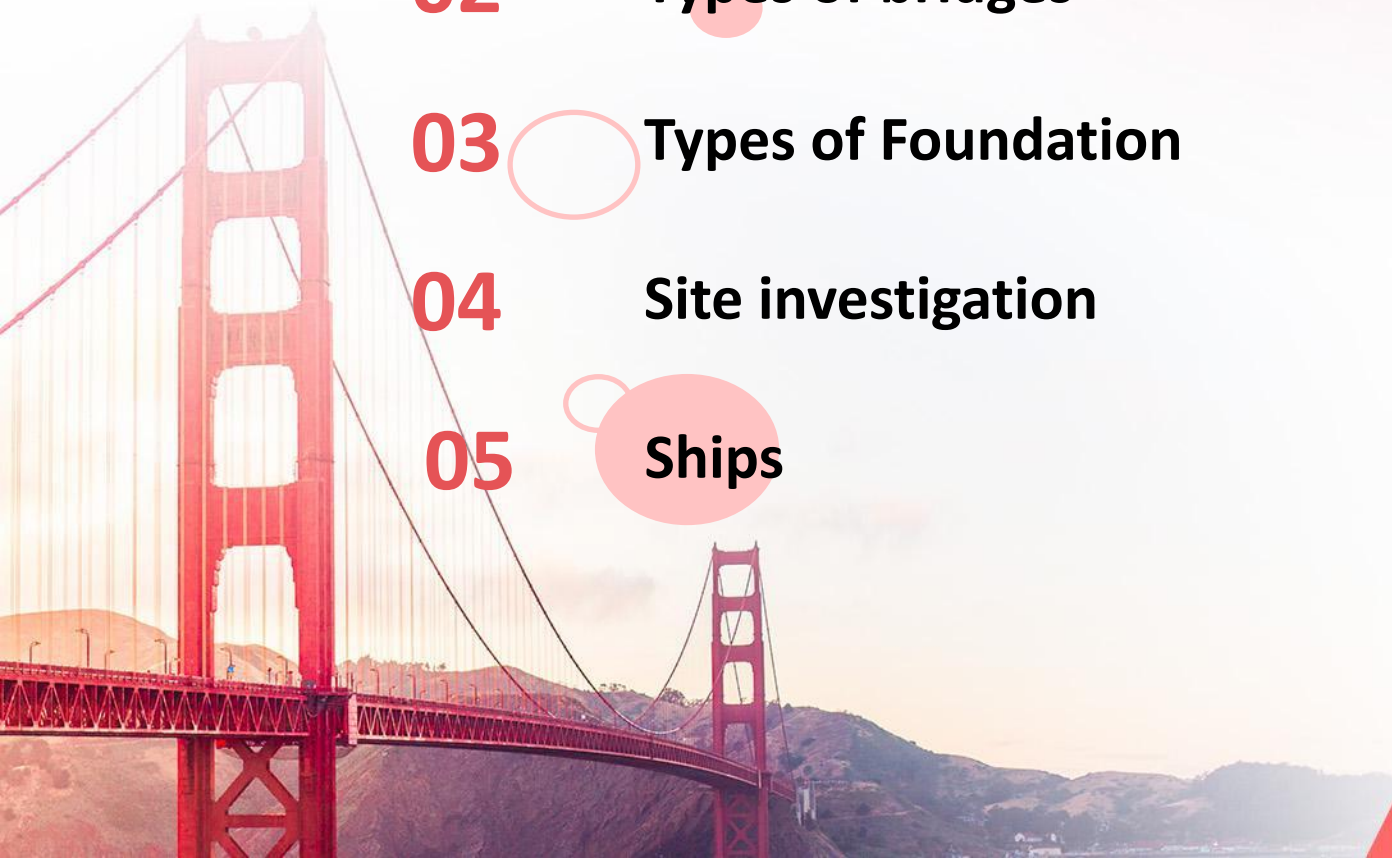
01 Location of the bridge

02 Types of bridges

03 Types of Foundation

04 Site investigation

05 Ships

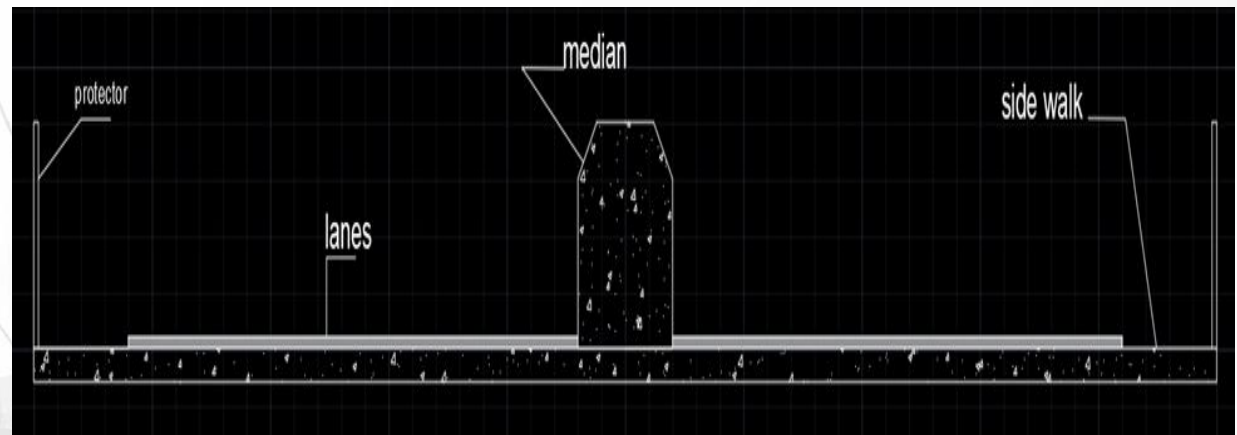
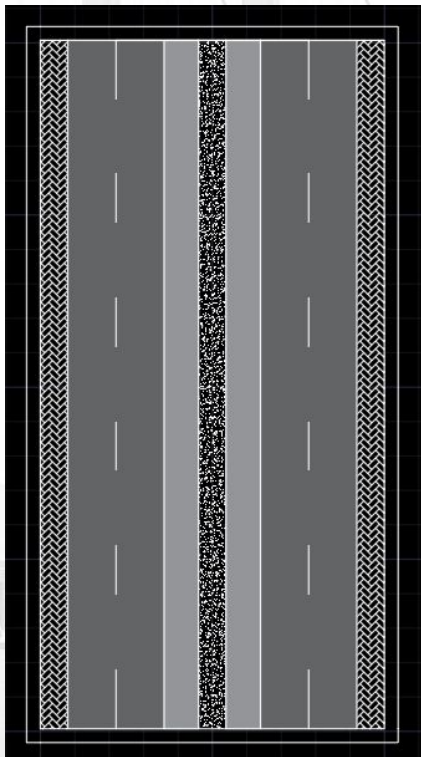
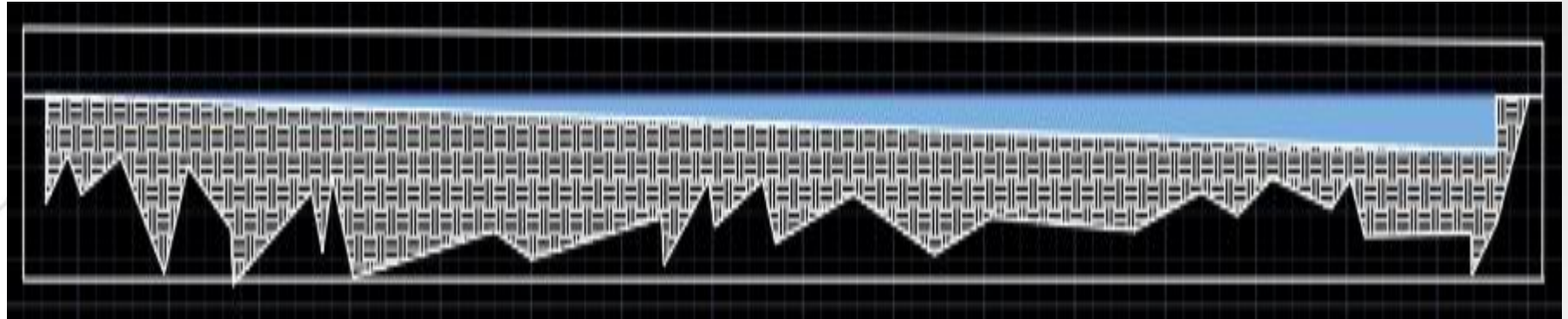


Design of the bridge

- 01 Considerations
- 02 Profile
- 03 Elements of the cross section
- 04 Loads calculations
- 05 Deflection of the bridge



Profile and Cross-section elements



loads calculations



Base Reactions

File View Edit Format-Filter-Sort Select Options

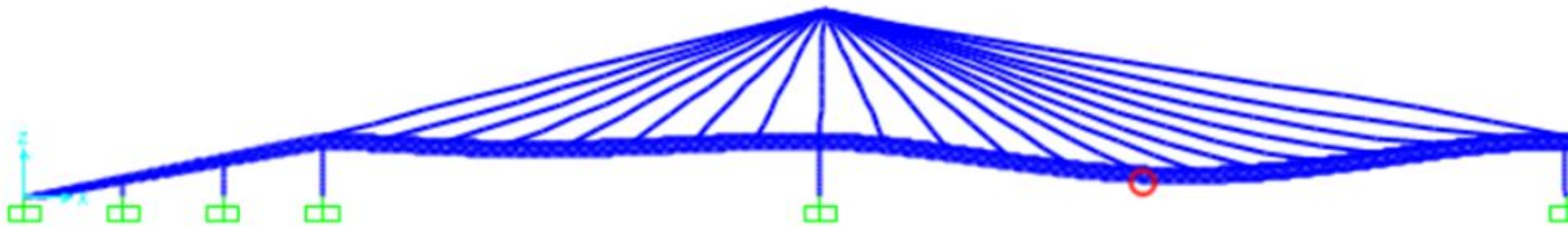
Units: As Noted

Base Reactions

Filter:

	OutputCase	CaseType Text	GlobalFX KN	GlobalFY KN	GlobalFZ KN	GlobalMX KN-m	GlobalMY KN-m	GlobalMZ KN-m
►	DEAD	LinStatic	7.345E-07	-1.096E-06	5553168.083	69494843.8	-3036251686	-0.0005408
	LIVE	LinStatic	6.86E-08	-9.569E-08	373545.904	4669323.8	-231598461	-4.691E-05
	COMB1	Combination	8.861E-07	-1.308E-06	6378704.531	79814049.4	-3548084284	-0.0006444

Deflection of the bridge

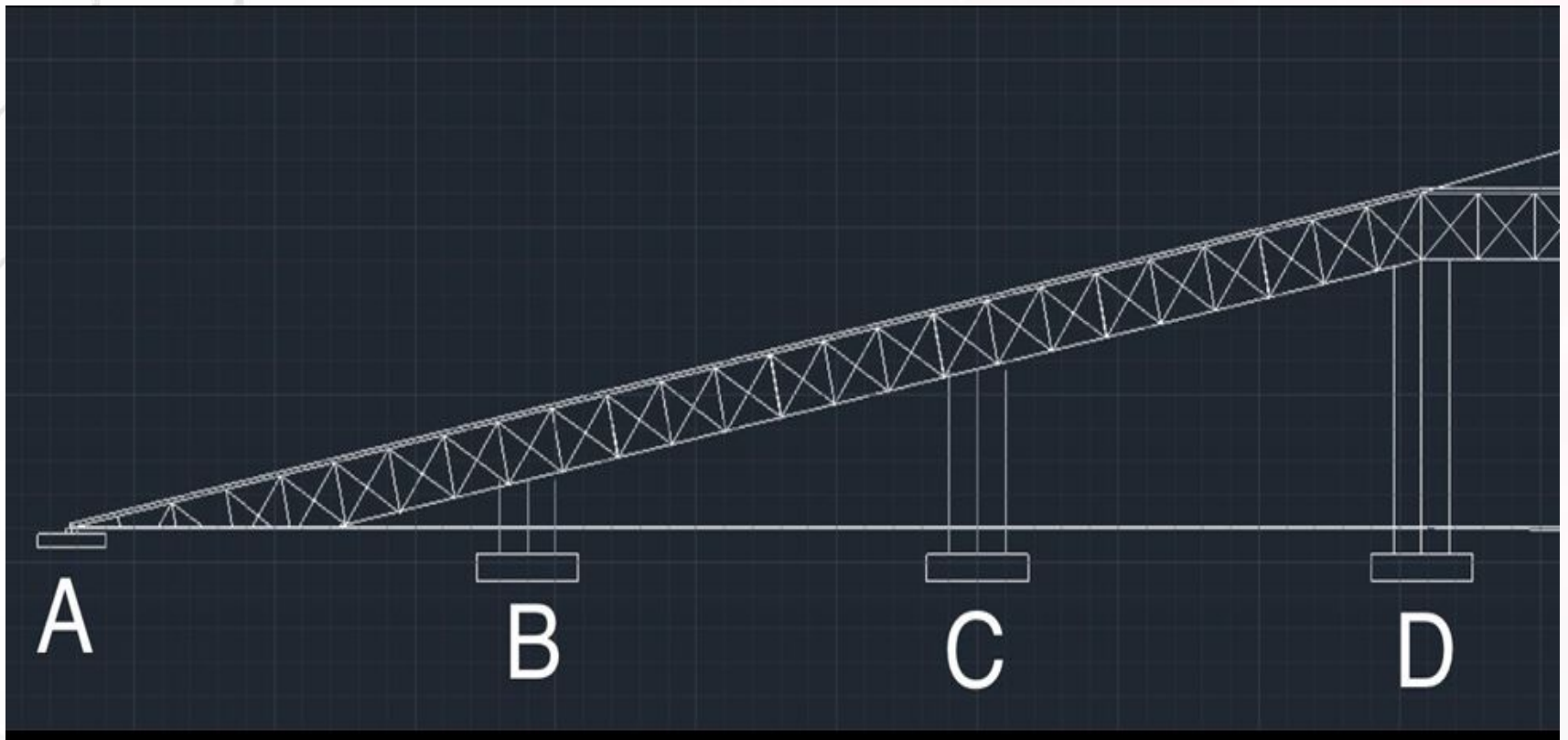


 Joint Displacements

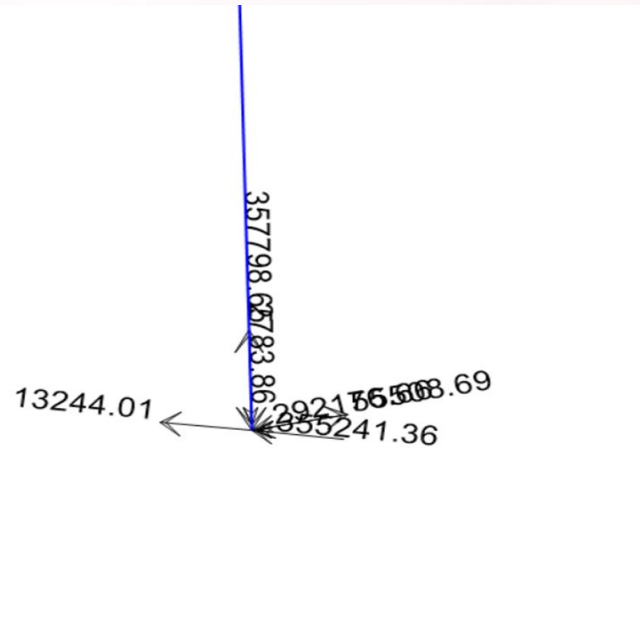


Joint	Object	2522	Joint Element	2522	
		1	2	3	
Trans		-0.00217	-7.540E-04	-0.19219	
Rotn		1.072E-04	6.235E-04	-1.022E-05	

Design of piles



Design of footing (D)



Joint Reactions in Joint Local CoordSys



Joint Object 2861

Joint Element 2861

1

2

3

Force 55508.691

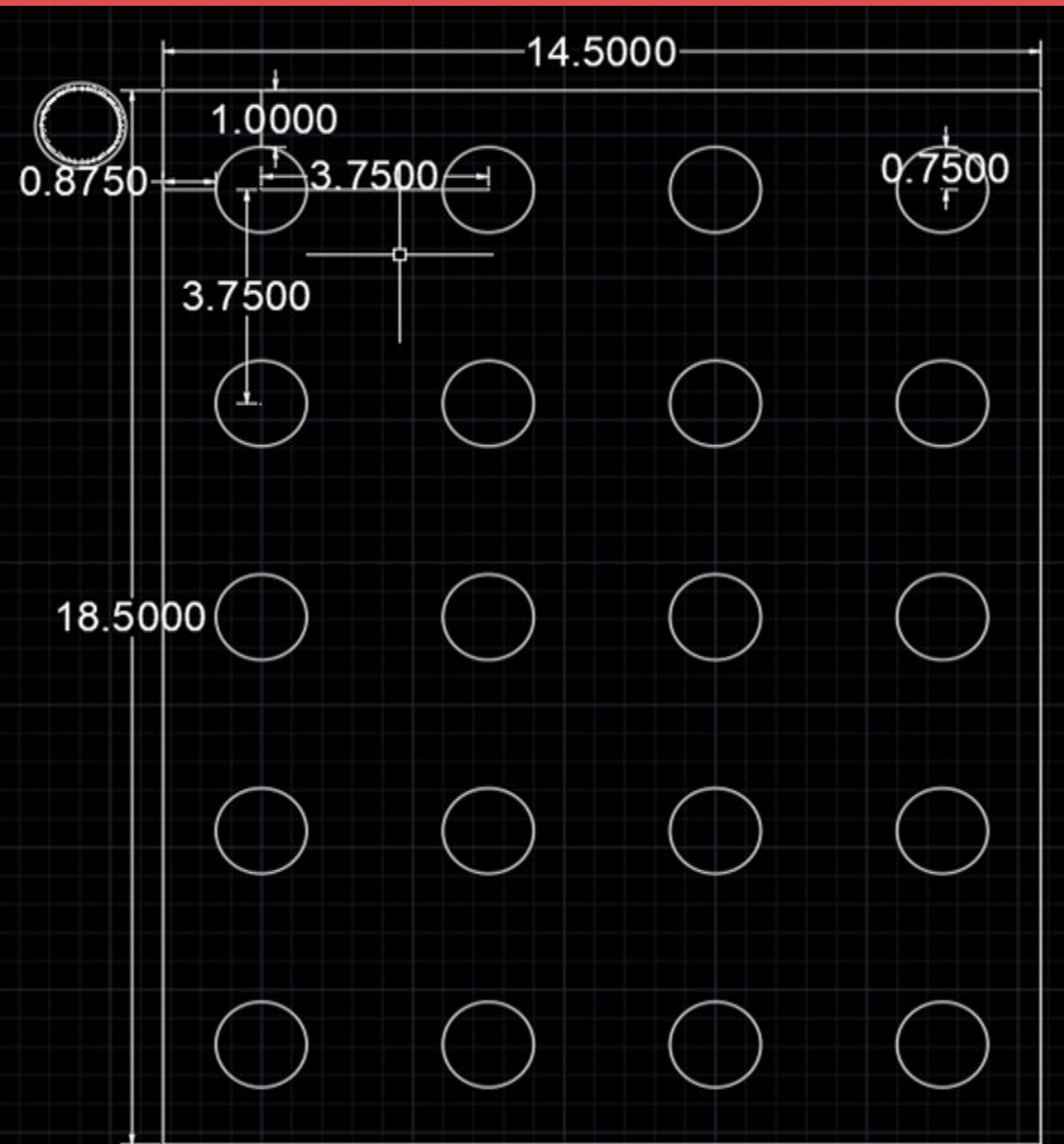
13244.006

357798.7

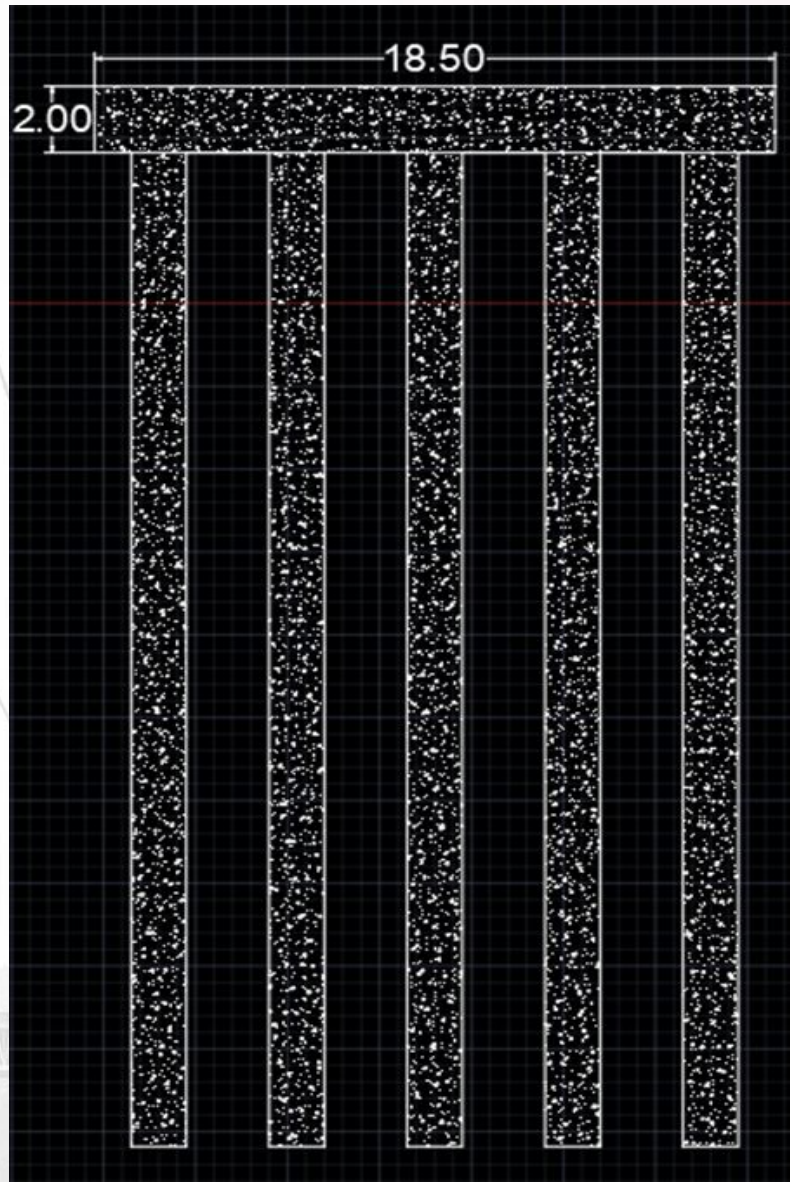
Moment -292176.7

355241.4

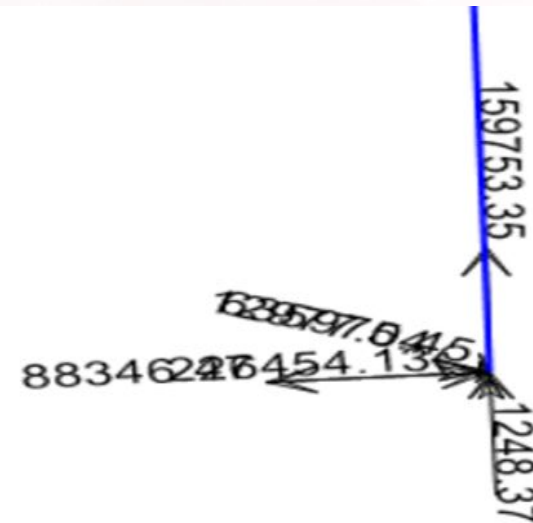
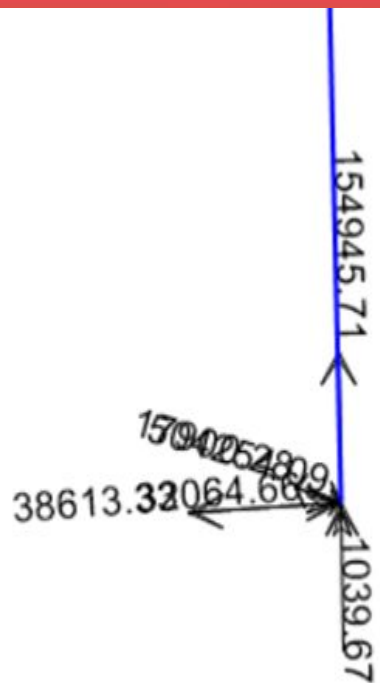
-2783.855



pile cap



Design of footing (B&C)



Joint Reactions in Joint Local CoordSys



Joint	Object	1413	Joint Element	1413
		1	2	3
Force		-88346.5	12977.043	159753.35
Moment		226454.13	-635975.	1248.371

The background of the slide features a photograph of the Golden Gate Bridge in San Francisco, California. The bridge's iconic red-orange towers and suspension cables are visible against a hazy, sunset-colored sky. The bridge spans a body of water, with hills visible in the distance. The image is partially overlaid by a semi-transparent pink and purple geometric design on the right side.

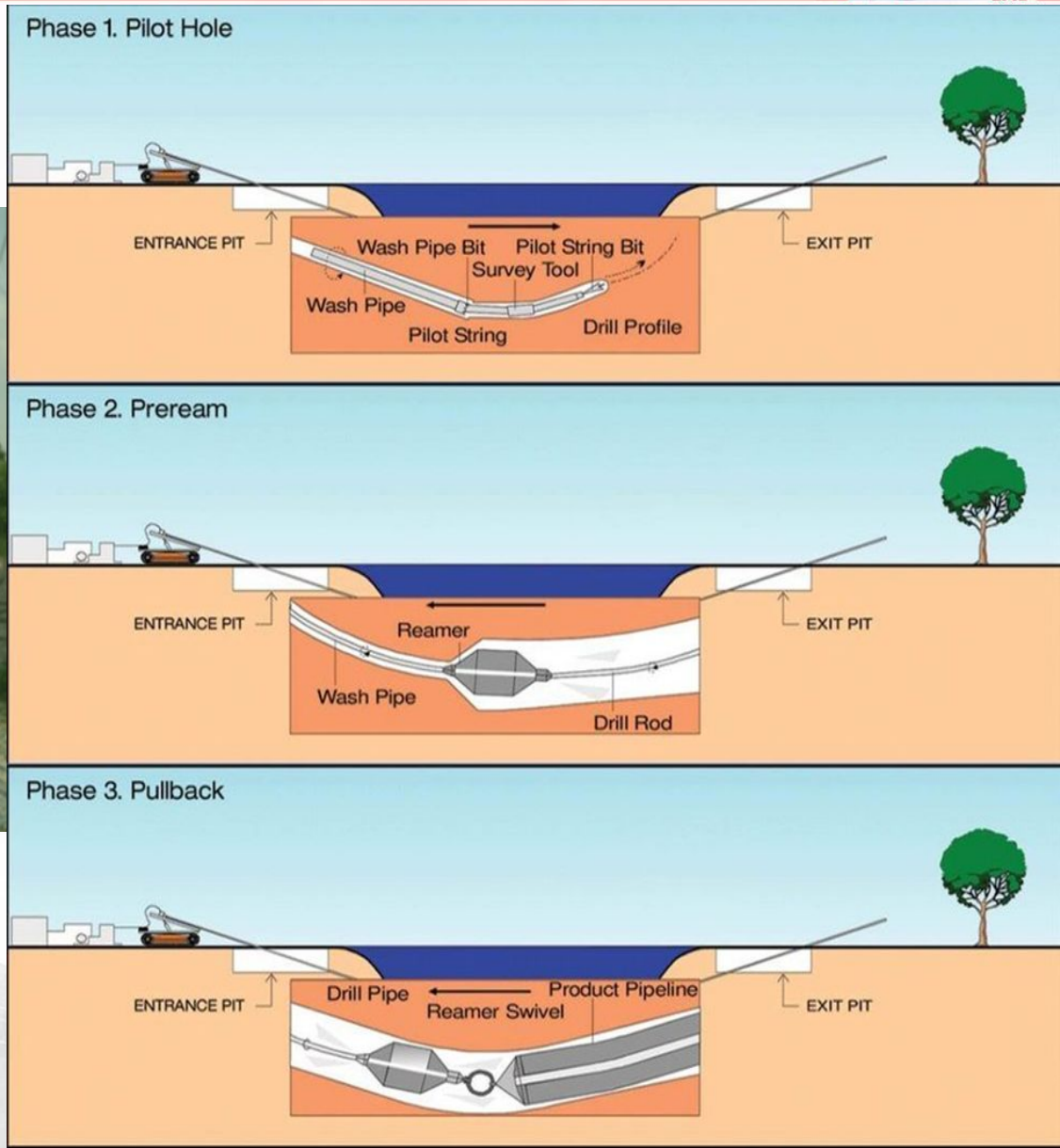
Building bridges footings

01 building bridges

02 methods of building bridge footings

03 Types of concrete forms

methods of building bridge footings



Cofferdams



Types of concrete forms





THANK
YOU