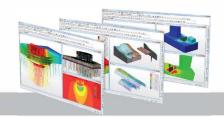


**Product Overview** 

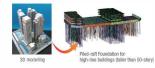


#### https://www.midasoft.com/geo/gtsnx/produds/midasgtsnx For more than last two decades, MIDAS Engineering Solutions have been used

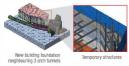
### in designing prominent landmark structures around the world

# Application Areas & Dedicated Tools for Geotechnical and Tunnel Engineers -

#### Deep Foundations and Soil-Structure Interaction



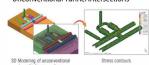
Deep Excavation and Temporary Structures



**Underground Structures** (subway, disposal facilities, etc)



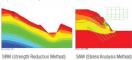
#### Unconventional Tunnel Intersections



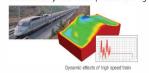
Shield TBM Analysis considering



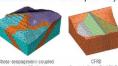
Slope Stability and Embankments



Vibration analysis for Earthquake & Blasting

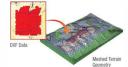


Groundwater Flow – Stress coupled Analyses



(Concrete Faced Bockfill Dam)

Terrain Geometry Maker



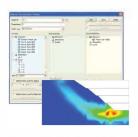
#### Enhancements

Maconial Forward Story	182000	648pm²
Modulus of Elasticity (E) Poisson's Ratto (y)		
Modulus of Rigidity(G)	70000	1/24/m ?
Modulus of Oedomelur Elesticity (Elesticity	245000	194/m <sup>2</sup>
(Init Weight (V)	24	141/m²
Unit Weight (Saturated)	25	idilm²
Cohestan (C)	50	ld4/m²
Frictional Angle (φ) Damping Ratio( For Dynamic )	30	[deg]
Duriping Raffic	0.05	
United Street Parameters		
Ko Anisotropy	1	
Thermal Parquetter		
thematicoeffcent	1e-005	1877

#### Alternative Stiffness Parameters for Ground Material

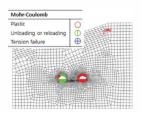
Instead of using the Young's modulus as a stiffness parameter, alternative stiffness parameters of G and Eoed can be entered.

The alternatives are influenced by the input values of E and v.



#### Slope Stability Analysis considering Construction Stages

After construction stage analysis, slope stability analysis can be performed considering stresses of each stage in which internal load's are created as per excavations or embankments.



#### **Output of Plastic Points**

Depending on the type of plasticity that has occurred, plastic stress points indicating plastic or failurestates are displayed in small symbols which have different shapes

## Tunnel & Underground Structures -



Posiva's ONKALO (Finland)

Nuclear Waste Repository Facility

Trans-Hudson Express (USA)

Stability Evaluation for Station Complex



King's Cross Station (UK)

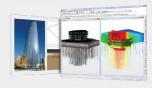
Segmental & Sprayed Concrete Shaft Construction

## Excavation & Foundation



Dubai Tower (Qatar)

Piled-raft Foundation of 84-story Building



Palazzo Versace & D1 Tower (UAE)

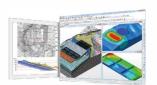
Piled-raft Foundation of 80-story Building



Odeon Tower (Monaco)

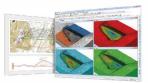
The Tallest Building in Monaco (Deep Excavation)

## Slope, Dam and Offshore Structures



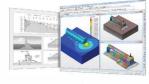
Storage Reservoir Construction (Taiwan)

3D Slope Stability Analysis and Stress Check for Retaining Wall



Buhang Dam (Korea)

Impervious Zone Stress Analysis for Gravity Dam



Navy Station's Breakwater (Japan)

Stability Check for Wave and Earthquake