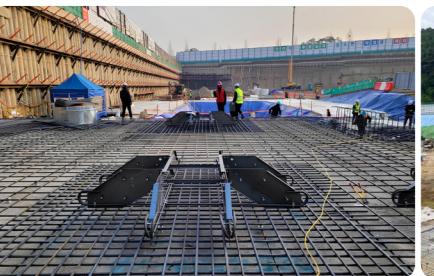
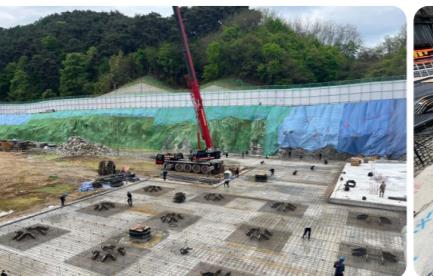


Site and Project References



Osan Segyo Station
H Construction
(2-leg Type)



Gwaneol-dong, Wonju
D construction
(2-leg Type)



H Apartment
in Daemyeong-dong, Daegu
(Isolated Foundation, 1-leg Type)

Contractor	Project	Application Year
Xai C&A	Seegene Hanam M Center Construction	2025
POSCO E&C	Busan Geumjeong The Sharp	2025
Gilbok Construction	Hanyang University 4th Engineering Building	2025
TDA	Bangbae-dong Urban Lifestyle Housing Construction	2025
Gyeryong Construction	Mia Station Area Revitalization Project	2025
Shinui Construction	Daegu Hyomok-dong Neighborhood Living Facility Construction	2024
POSCO E&C	Jeju Yeondong 261-37 Mixed-use Complex	2024
CJ Logistics	Dogok Orion Office Building	2024
SK Ecoplant	SK Hynix M15X	2024
Hanwha Construction	Goyang Samsung IT Valley Knowledge Industry Center	2024
DL E&C	National Assembly Avenue Construction	2024
Bando Construction	Yeongcheon District 2 Complex building	2024
Hanil Construction	Suwon Gyeonggi Nonghyup Bank	2024
Taeyoung Construction	Guro Idea Factory (Senggak Gongjang)	2024
Dooson Construction	Seocho-dong 1593-13 and 6 Other Parcels Office-tel	2024

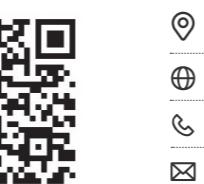
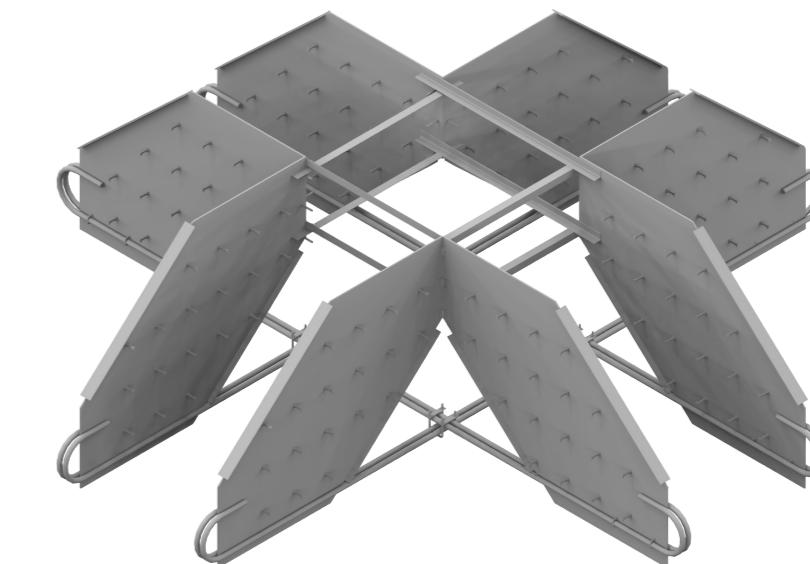
Successfully applied over 300+ construction sites

“We independently develop technologies that
can innovate construction sites.”

Barona

Thinner foundation, Stronger performance!

Foundation Reinforcement Arch Plate - Modular Type

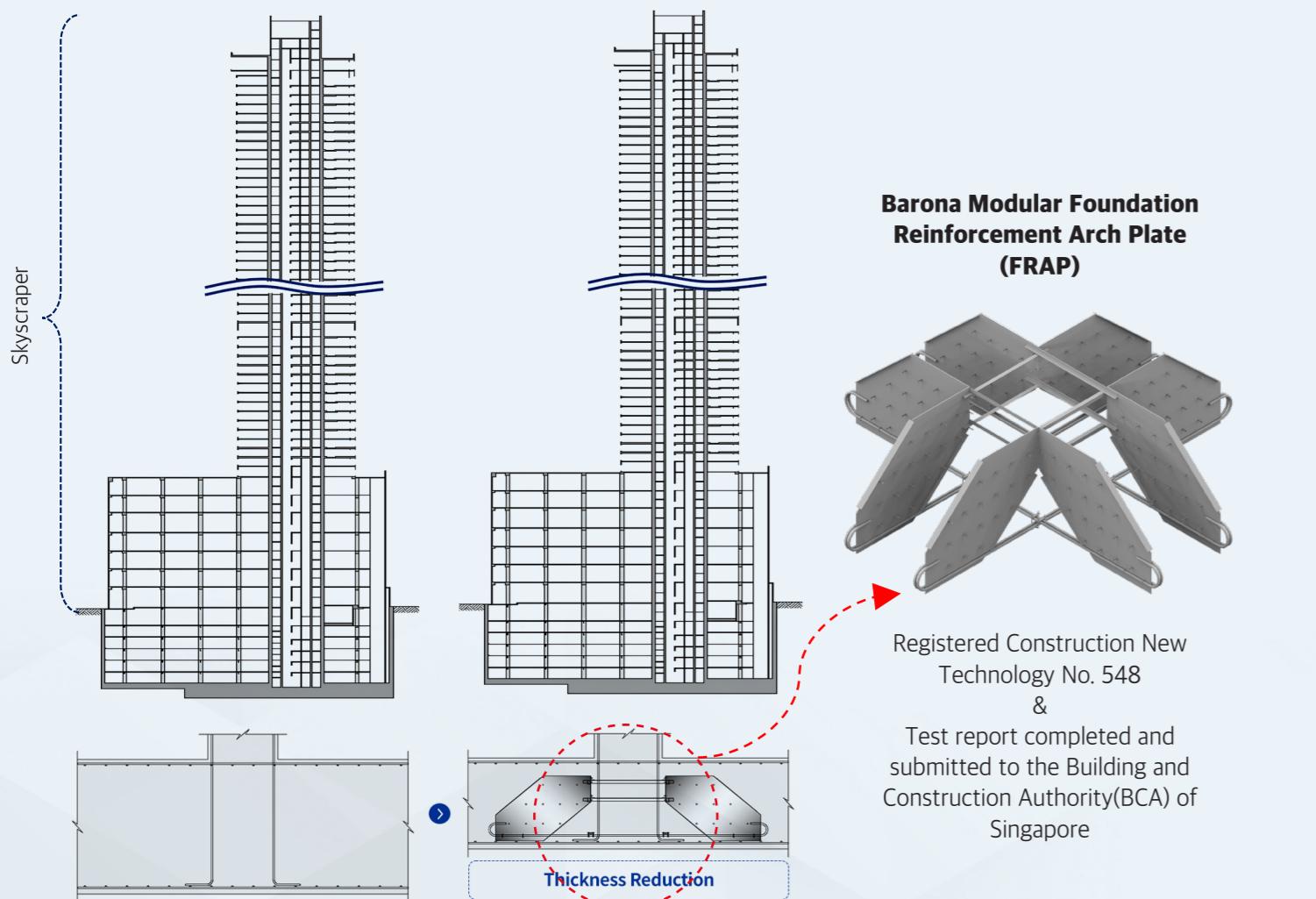


⑨ 6thF Baro Bldg. 9 Pungseong-ro 38-gil Gangdong-gu Seoul, Korea 05393
⑩ www.baro-ck.com
⑪ T/ 02.413.6503 F/ 02.413.6503
✉ baro-ck@baro-ck.com



What's Barona Foundation Reinforcement Arch Plate (Barona FRAP)?

Barona Foundation Reinforcement Arch Plate is a construction method that installs foundation reinforcement capable of Strut-Tie Action inside the footing, enabling efficient load distribution and thereby reducing foundation thickness.



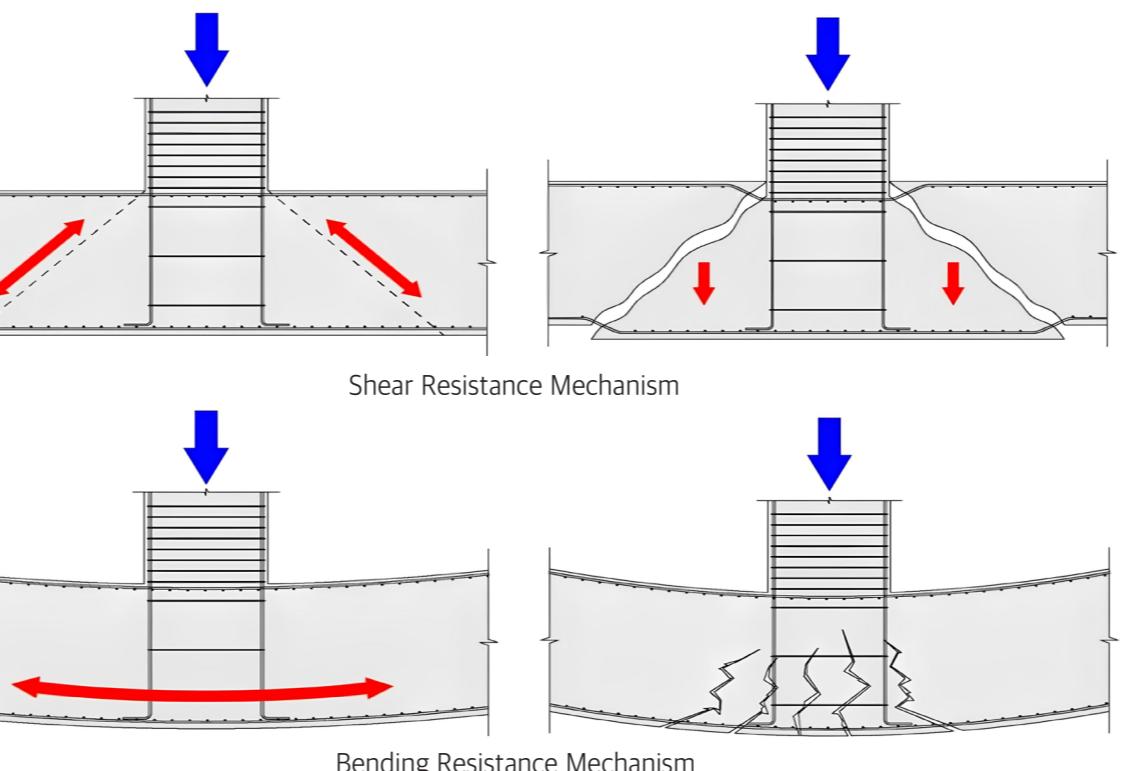
Why Barona FRAP?

- ✓ 20-30% Reduction in Foundation Thickness
- ✓ Reduced Concrete Pouring Volume
- ✓ Improved Quality due to Reduced Heat of Hydration
- ✓ Fewer Construction Joints
- ✓ Reduced excavation leads to shorter construction periods
- ✓ Minimized vibration and noise from construction equipment
- ✓ Construction costs reduced by 10~30%

Structural Principle

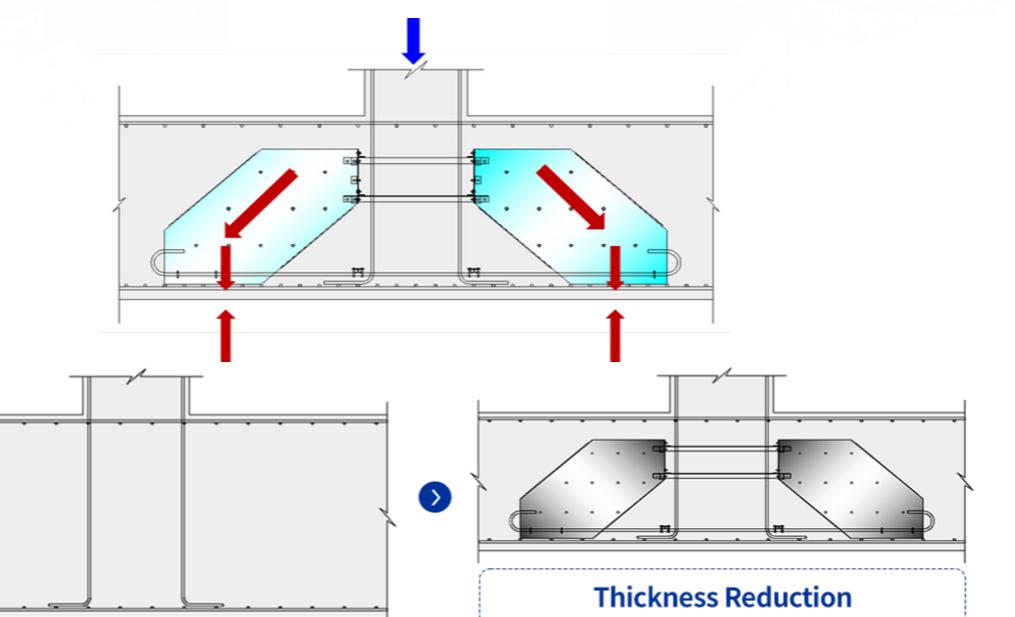
1. Foundation Stress

Foundation thickness and reinforcement quantity are determined based on shear force and bending



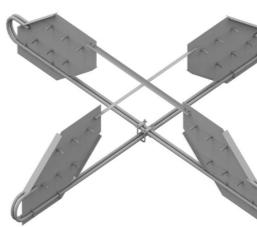
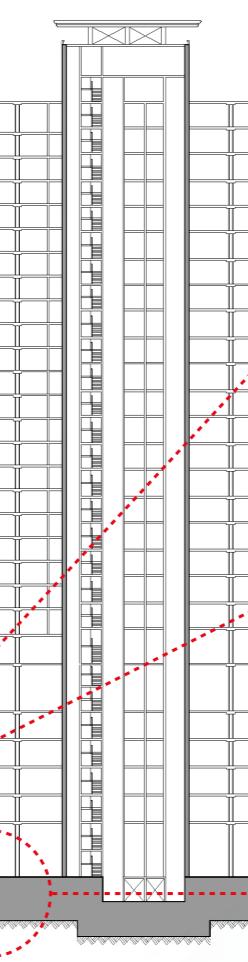
2. Strut-Tie Model Analysis (Designed according to Building Code KDS 41)

Based on this load path, the system was developed using STM (Strut-Tie Model) analysis.



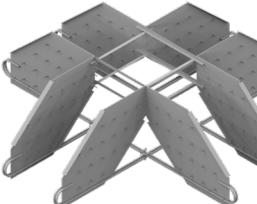
- According to test results, the foundation reinforcement showed over **155% increase in strength** compared to unreinforced foundations.
- It also demonstrated enhanced energy absorption capacity, making it **advantageous for seismic performance**.

Product type and sequence



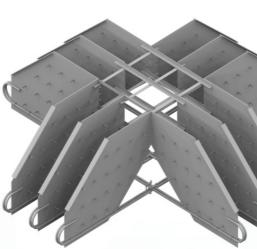
1 leg type

- Approx. 20% Reduction in Foundation Thickness
- Suitable for low-load isolated foundation
- Expansion of applicability to isolated foundations through the development of a cost-saving modular model



2 leg type

- Approx. 30% Reduction in Foundation Thickness
- Applicable for Mat foundation



3 leg type

- Approx. 40% Reduction in Foundation Thickness
- For heavy loads

Construction Sequence



1 Transport / Delivery

2 Hoisting

3 Installation

4 Column Rebar Placement

※ Preassembly and lifting may be carried out depending on site type (e.g. high-rise or top-down), or on-site assembly may be done after positioning