

European Parliament



European Parliament Building Athens—Greece

Project:

Restoration of the damage to the
European Parliament Building.
After the earthquake of September 1999

Study:

Grigoris Hatzidimitriou—Architect
Nikos Hatzikiriakos—Architect

Civil Engineers:

H. Kirpotin & Co. Consultants

Engineer:

Manolis Kokkinakis

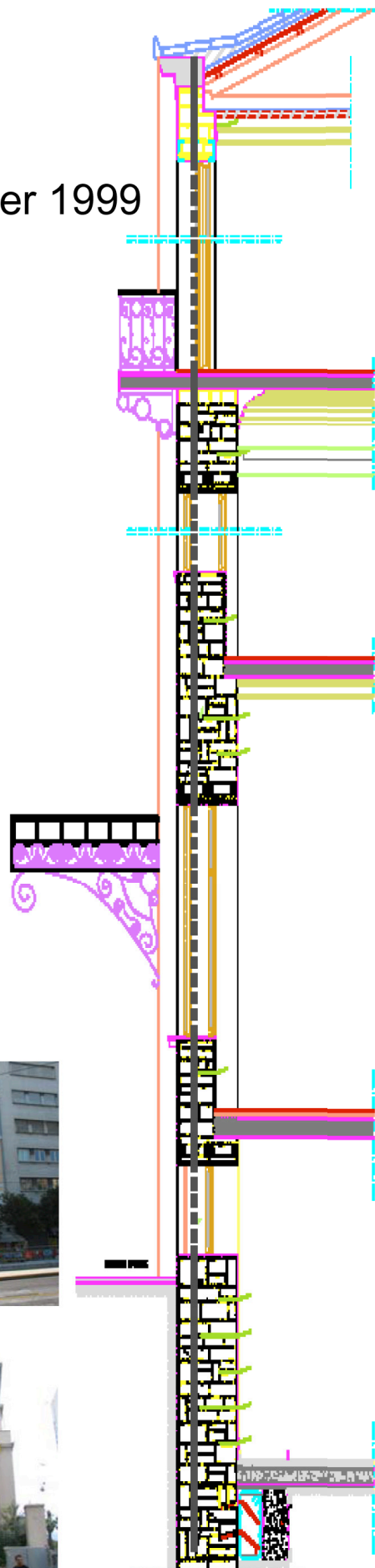
Main Contractor:

Edrasis - C. Psallidas S.A.

Drilling & Installation Contractor:

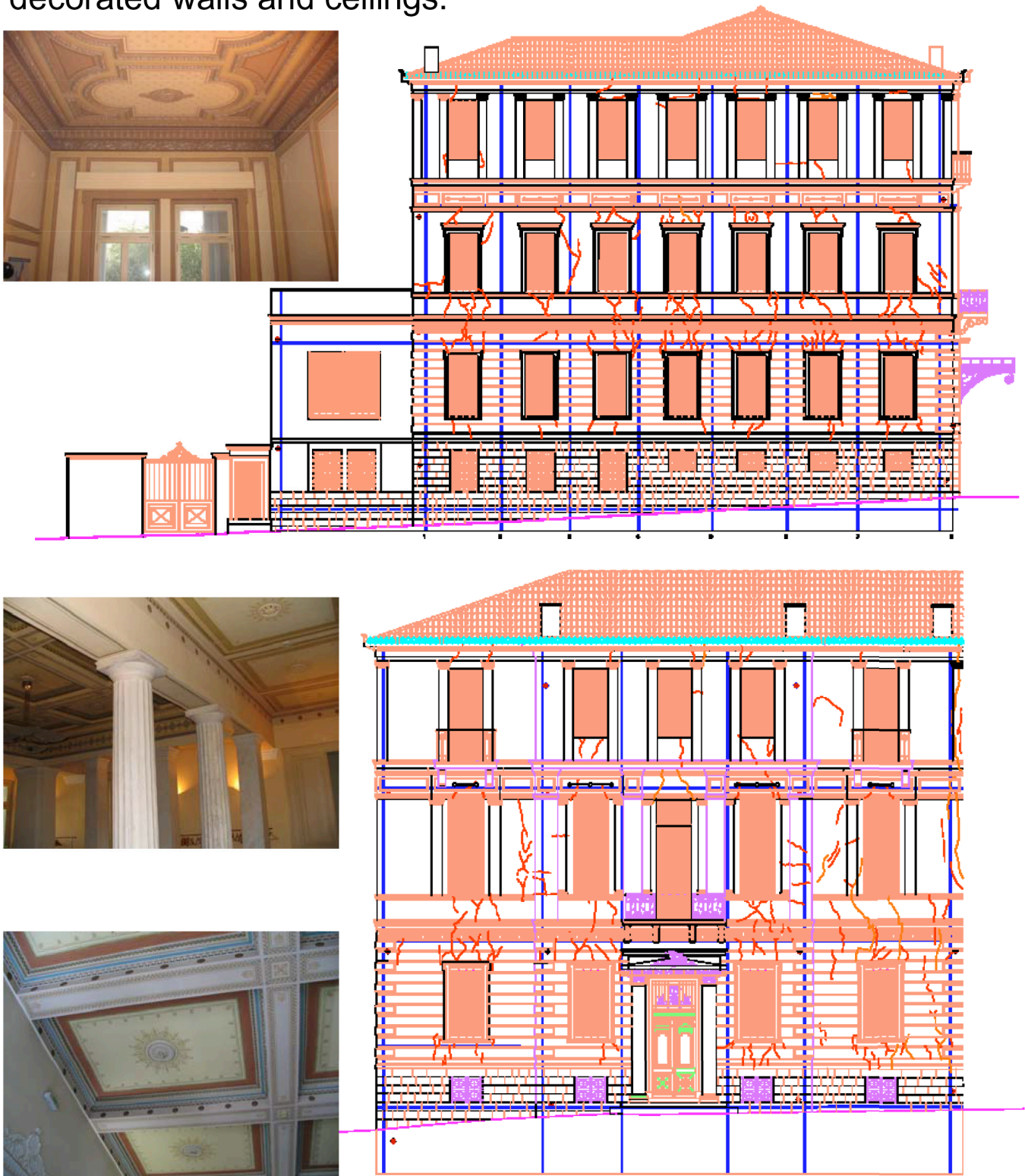
Cintec International Limited

Project Manager: Dennis Lee



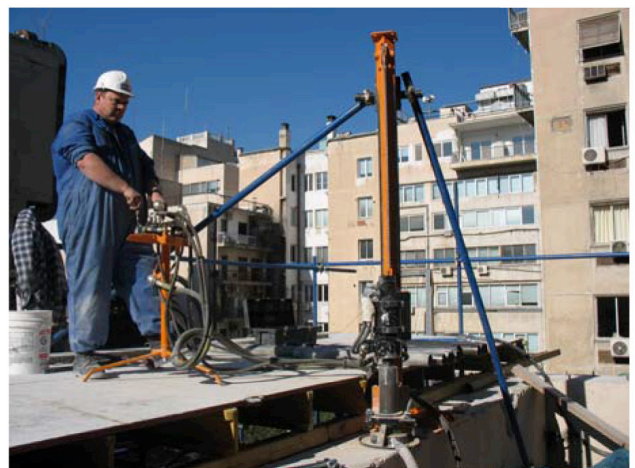
101mm diameter vertical holes were dry diamond drilled to a depth of 23 metres from the roof line into the foundations. 32mm diameter stainless steel ribbed bar Cintec anchors were then installed. These were combined with horizontal Multibar 25mm ribbed anchors at each floor level, to form an internal reinforcing steel framework.

The Cintec socked system prevented grout penetrating the building through numerous cracks and damaging the ornately decorated walls and ceilings.





Horizontal holes were dry drilled through hard limestone random rubble walls using 86mm core barrels on lengths up to 10mts and 101mm core barrels for the longer lengths, these were reinserted after drilling to facilitate the anchor installation.

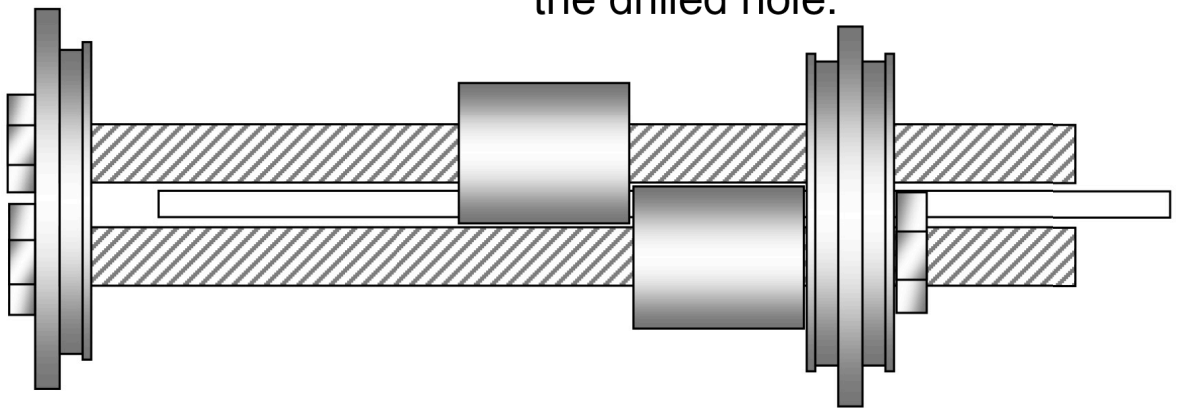


The dry drilling used compressed air as the cooling and flushing medium. Heavy duty vacuum extractors were used to minimise dust levels, both internally and externally.

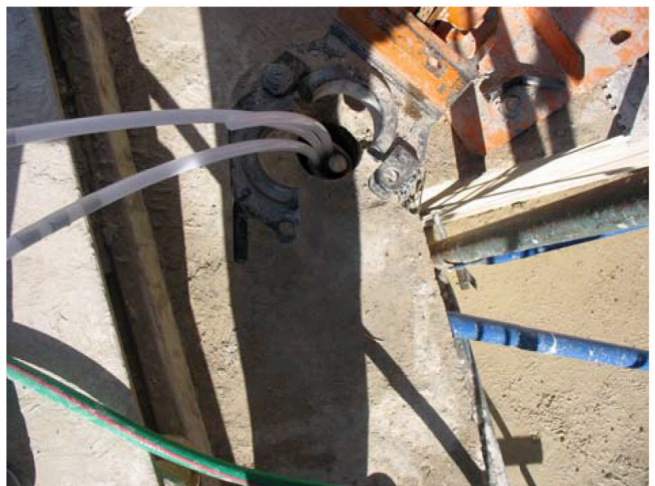


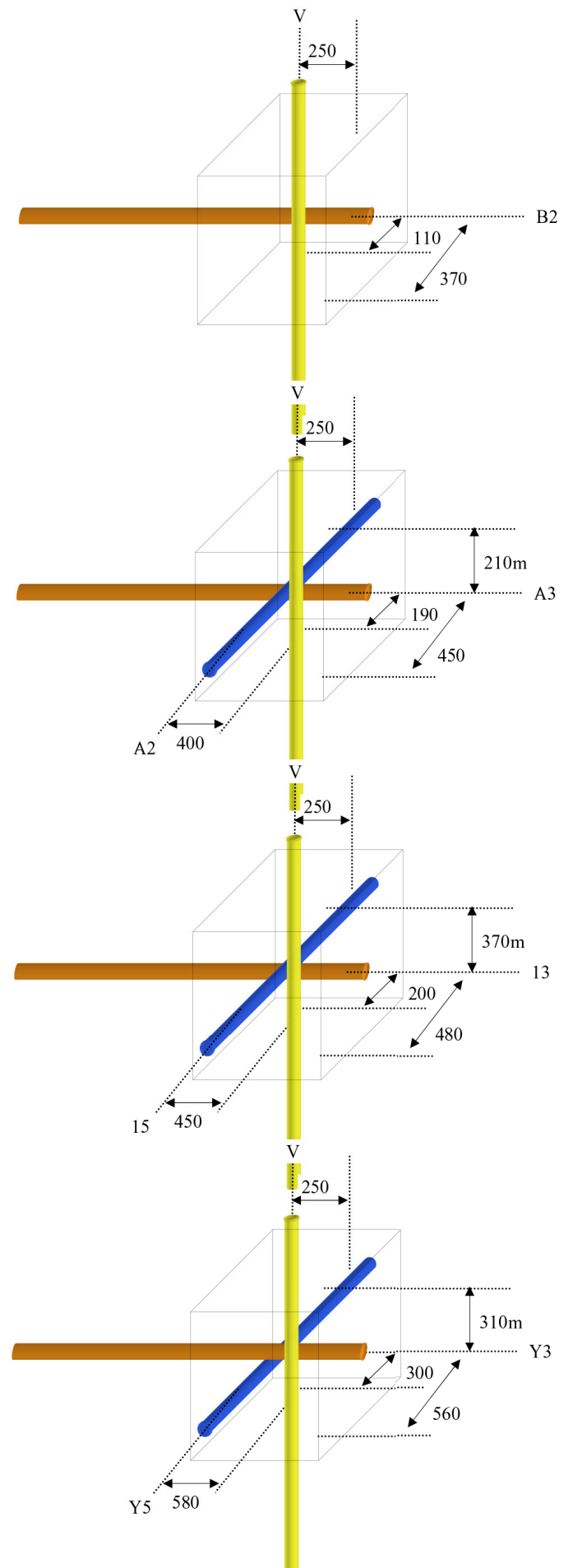


Cintec Multibar anchors
Comprising two 25mm ribbed stainless steel bars were assembled in sections to achieve anchor lengths up to 29 metres. Each anchor had integral plastic spacers, to ensure centralisation of the anchor along its length, within the drilled hole.



Vertical holes dry diamond drilled.





Anchor positions were carefully marked out and drilled with extreme precision to avoid intersecting anchors.

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