

<p>STA – Segadães Tavares & Associados - Engenheiros e Arquitectos Consultores, Lda</p> <p>Largo de Santos, 9 – 3º 1200-808 LISBOA Tel.: (351) 21 393 28 90 Fax: (351) 21 393 28 98 E-mail: sta@sta-eng.com Web site: www.sta-eng.com</p>	<p>Corporation Form Limited Liability Company</p> <p>Registered Capital 780.000 Euros</p> <p>Board of Directors A. Segadães Tavares, Civil Eng. José A. Prazeres Ferreira, Civil Eng. Manuel A. Pereira, Civil Eng.</p> <p>Permanent Personnel Total: 14 Graduates: 8 Other Technicians: 4 Administrativa Staff: 2</p> <p>Turnover (2009) 1.048.000 Euros</p> <p>Main Associations • APPC – Portuguese Assoc. of Engineering and Management Consultants • FIB – Fédération Internationale du Béton • GPBE – Grupo Português de Betão Estrutural (Structural Concrete) • IABSE – International Association for Bridge and Structural Engineering • Sociedade Portuguesa de Geotecnia (Portuguese Geotechnical Society)</p>	 <p>Segadães Tavares & Associados Engenheiros e Arquitectos Consultores, Lda.</p>
 <p>PORTUGUESE ASSOCIATION OF ENGINEERING AND MANAGEMENT CONSULTANTS</p> <p>Last update: 11-01-2012</p>	<p>General Description STA – Segadães Tavares & Associados, Lda, founded in 1986, is one of the most renowned Engineering companies in Portugal, with an extensive history of working experience in several parts of the world, in different intervention areas: Buildings and Equipments; Bridges, Viaducts and Special Structures; Consultancy. STA has assumed as its main objective keeping the highest standards of quality in its practice, which results in better solutions for the clients and continuous motivation of its collaborators: surpassing the expectations of our clients; maintaining motivated and qualified staff. The success of STA is based exclusively in its human resources: motivated skilled professionals, with ambition and committed to a rigorous and responsible professional conduct. This way, STA creates the conditions required for its professionals to feel as a part of the company and enables them to learn, become more responsible and achieve professional fulfilment. In order to keep on being regarded as a reference in the market, STA invests as much in training (performing internal training and promoting and financing external training), as in innovation (focusing in the development of owner software and research activities). Over the years STA has received many prizes, namely: IABSE Outstanding Structure Award of 2004, attributed to Mr. Segadães Tavares (engineer) for the Funchal Airport extension project design; Secil Award 2001, also for the Funchal Airport project; LECA Award 1998, for the roofing design of the Ceremonial Plaza, known as “pala”, adjacent to Portugal Pavilion of EXPO’98; Secil Universities Award 2007 – attributed to Hugo Sousa, one of our youngest structures engineers for the best final graduation project; Secil Universities Award 2006 – attributed to João Lavos, one of our structures engineers, for the best final graduation project.</p> <p>Main Expertise</p> <ul style="list-style-type: none"> Structures and Foundations Engineering Bridges and Viaducts Special Structures Industrial Facilities Consultancy. <p>Services</p> <ul style="list-style-type: none"> Public and Private Buildings and Equipments Bridges and Viaducts Design Special Structures Design: <ul style="list-style-type: none"> tunnels; chimneys; silos and depots; telecommunications towers; wind energy towers; hydraulic structures; stadiums; sports installations. <p>Significant Last Works</p> <ul style="list-style-type: none"> Public Buildings Portugal Pavilion - EXPO’98: structures, foundations and special installations design for building with an area of 20.000 m², having adjacent to it a plaza covered by an inverted thin concrete roofing with an approximated area of 3.700 m²; Belém Cultural Centre – Lisbon: structures and foundations design of building with 5 blocks, encompassing 1 meetings centre, 1 entertainment centre, 1 exhibition centre, hotel and complementary assistance equipment. Area: 140.000 m²; Veterinary Medicine Faculty – Lisbon: global design (general and architectural design, structure, foundations and technical and special installations design) for complex of buildings destined to education areas, auditoriums, laboratorial, research and technological development spaces and also healthcare facilities. Area: 30.000 m²; Carvão Quay Complex – Funchal: structures and foundations design of several buildings, encompassing 1 Oceanographic Aquarium, 1 Maritime Biology Research Centre and 1 Welcome Centre; Luís Camões Theatre - EXPO’98: structures and foundations design of concert hall for around 800 spectators, including a stage compartment that can be used in opera shows. Private Buildings Dolce Vita Tejo Shopping Centre – Amadora: structures and foundations design for centre, with construction floor area of 455.000 m², and for an office building with a floor area of 15.000 m² (the shopping centre building has the particularity of having a 300 m length without expansion joints); Vasco Gama Shopping Centre – Lisbon: structures and foundations design of centre, with a quadrangular implantation area of around 200 m in the flank (monolithic). Area: 225.000 m²; Luz Hospital, Lisbon: structures, foundations, electric installations and water and sewer networks design of 2 buildings, one for a hospital and the other for elderly home (these buildings were the first in Portugal to have a seismic isolation system). Area: 90.000 m²; Antas Première Building – Oporto: structures and foundations design of residential and commercial building. Area: 40.000 m²; Altis Belém Hotel – Lisbon: peripheral contention, structures and foundations design of luxury hotel. Area: 10.000 m². Bridges, Viaducts and Special Structures Funchal Airport Enlargement: structures and foundations design for runway extension (1st and 2nd stages), portico bridge structure, with length of 1.000 m and 200 m wide; Viaduct in roads IP5/A25 (sub-stretch IC2/Talhadas): design of road bridge over River Vouga, with 268 m length and a double deck around 30 m wide; Motorway A2 Viaducts – Coima/Palmela: structures and foundations design of 5 viaducts over motorway A2 for Brisa (different structural solutions were adopted, incl. innovative conception with a mixed section encompassing metallic beams); Rossio Tunnel Rehabilitation: consolidation, reinforcement and rehabilitation basic design, between Rossio and Campolide train stations, incl. special installations and emergency plan; Santa Apolónia Cruise Ships Quay Rehabilitation and Reinforcement, Lisbon: project design of the quays between Doca Marinha and Sta. Apolónia, in order to allow the docking of cruise ships with over 300 m length; Vila do Bispo Wind Energy Power Station: structures design of the power station with a 11 MW capacity. Consultancy Viaducts of road connection Vasco Gil – Fundoa, Madeira: structural analysis and geometry control of 4 multiple spans (includes rigorous counter-arrow calculation, taking into account the concrete’s fluency and hardening, in order to assure the correct geometry during construction); LNG Tank Seismic Insolation, Sines: seismic insulation system sizing of a 150.000 m³ LNG Tank in the preliminary study stage; Colombo Shopping Centre - Lisbon: analysis and revision of the foundations and structures design of the centre and office buildings complex, with an area of 400.000 m²; Chiado Damaged Area – Lisbon: consultancy assignment encompassing buildings stability analysis after the fire and technical assistance to the reconstruction works. Global area: 60.000 m². <p>International Experience</p> <p>Head-office of BESA - Banco Espírito Santo Angola, Luanda – Angola: structures and foundations design for a bank head-office building (its slenderness and height, over 112 m, posed several challenges regarding global stability, dynamic effects and sensibility to the construction phasing). Area: 34.000 m²; Serena Building, Luanda - Angola: structures and foundations design for office and residential building, with 24 floors (due to its height, over 90 m, the structural analysis implied specific requirements, namely in what regards construction phasing). Construction Area: 40.000 m²; Kinaxixi Building, Luanda, Angola: structures and foundations design for residential building; Office, Commercial and Residential Buildings, Maputo – Mozambique: structures and foundations design for commerce, services and residential buildings; Bissau Powerstation – Guinea-Bissau; Queensway Quay Development – Gibraltar: prefabricated and foundations design for the development; Mozambique Glass Plant: structures and foundations design for plant enlargement; Karl Marx Institute, Luanda – Angola: structures and foundations design for the Library building.</p>	