

Scope of Architectural Services and FeesCCA International Conference

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Ordem dos Arquitectos

Architect is a regulated profession.

- Compulsory registration at Ordem dos Arquitectos;
- Regulation of title.

Only architects registered with the Order of Architects may practice the activities proper to the profession.

(Statutes of Ordem dos Arquitectos)

Reserved and exclusive activities

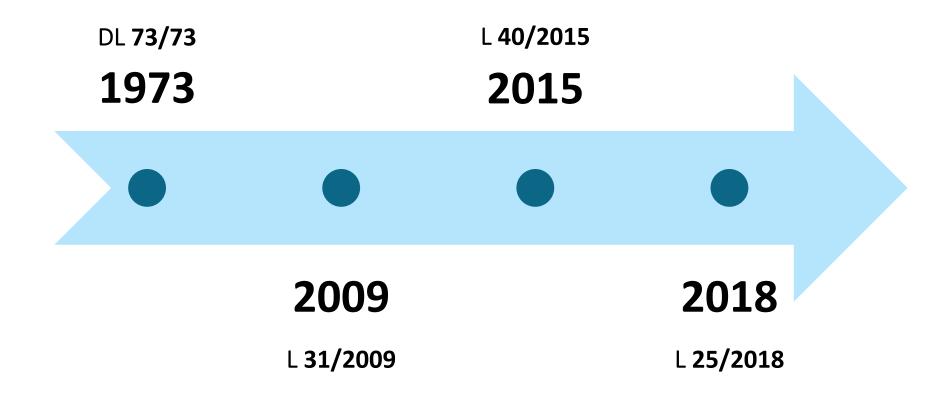
- elaboration of studies, projects and architectural plans;
- appreciation of studies, projects and architectural plans;
- other activities identified in special legislation.

Reserved and exclusive activities

Studies, projects, plans and consultancy, management, supervision and direction of works, planning, coordination and evaluation activities related to building, urbanism, conception and design.

(according to the Statutes of Ordem dos Arquitectos)







Law 31/2009 Establishes the professional qualifications required of the technicians responsible for the elaboration and subscription of projects, for the supervision of works and for the direction of works.

- considers both project and construction services;
- Considers both public and private works;
- establishes the project as a coordinated set of written and drawn documents made by a team of professionals;
- Establishes qualifications and competences of the project coordinator, the director for the construction works and the director for supervision.

Law 40/2015

First amendment to Law 31/2009.

reduction of the scope of activities of architects.

Law 25/2018

Second amendment to Law 31/2009.

- Portuguese engineers, through alleged acquired rights, to do and subscribe architectural projects;
- Further reduction of the scope of activities of architects.



Reserved activities of architects (exclusive or shared)

- elaboration and appreciation of studies, projects and architectural plans;
- Studies, projects, plans and consultancy, management, supervision and direction of works, planning, coordination and evaluation;
- project coordination;
- construction supervision
- construction direction;
- thermal behaviour studies;
- Fire Saphety projects and self-protection measures;
- safety and health plans;
- prevention and management of construction and demolition waste plans;
- universal accessibility plans.



Standards and fees are closely connected.

1972: diploma containing the instructions for calculating fees for public works projects.

Included:

- method for calculating fees;
- definitions of the various project phases;
- Definition of the documents prepared at each phase;
- payment conditions.

Phases of the project and fees:

- Signature of the contract 10 %.
- Approval of the Base Programme 10%
- Approval of Schematic Design 15%
- Approval of Design Development and Planning Application 25%
- Approval of **Detailed Design** (construction documents) 30%
- Technical Assistance during construction 10%



Fees equaled the sum of the amounts due for the preparation of each of

the project parts, namely the following:

- General project;
- Foundations and structures;
- Electrical installations and equipment;
- Mechanical installations and equipment;
- Water and sewage installations and equipment;
- Furniture;
- Exterior and landscape.



p = percentage for the calculation of fees

C = value of the work, in thousand escudos (prior to EUR).

Works up to PTE 1,200,000:

 $Ip = 12,78476 - 2,31474 \times log (C/12) + 3,75302 \times [1/log (C/12)] + 0,000 01 \times C/12$

III p = $8,97879 - 1,49598 \times \log(C/12) + 13,44813 \times [1/\log(C/12)] + 0,000 005 \times C/12$

IV p = 7,28506 - 1,12781x log (C/12) + 17,87619 x [1/ log (C/12)] + 0,000 003 x C/12

p = percentage for the calculation of fees

C = value of the work, in thousand escudos (prior to EUR).

Works over PTE 1,200,000:

$$| p = 1.03 + 2.00 \times \sqrt{1200000} / C$$

$$II p = 1.21 + 2.50 \times \sqrt{(1 200 000 / C)}$$

III
$$p = 1.50 + 3.20 \times V(1\ 200\ 000\ /\ C)$$

IV
$$p = 1,68 + 3,80 \times V(1\ 200\ 000\ /\ C)$$



2008: Public Procurement Code (CCP – Código de Contratos Públicos)

P 701-h/ 2008

- fee scales for public works project were revoked;
- mandatory content of the programme and execution project;
- procedures and standards to be adopted in the preparation and phasing of public works project;
- amendments to the project phases and their contents.

Phases of the project:

- Base Programme 10%
- Schematic Design 20%
- Design Development 35%
- **Detailed Design** (construction documents) 35%
- Technical Assistance 15%

Base Programme

Provides the owner with a clear understanding of the solutions proposed by the architect, based on the indications expressed in the preliminary programme.

Includes:

- a) Scheme of the works and programming of the various operations to be carried out;
- b) Definition of the general sizing criteria;
- c) Indication of the main constraints on site occupation (legal, topographic, urbanistic, geotechnical, environmental, particularly thermal and acoustic constraints);
- d) Written and drawn parts and other informative elements necessary for the perfect;
- e) General estimate of the cost of the work;
- f) Summary description of the options related to the performance, operation, exploitation and conservation of the work;
- g) Information on the need to obtain topographical, geological, geotechnical, hydrological, climatic elements, characteristics of the acoustic component of the environment, infrastructure networks or of any other nature of interest for the preparation of the project, as well as studies on models, tests, models, research work and any other activities or formalities that may be required for the preparation of the project or for the execution of the work.

Schematic Design

Develops the solutions approved in the Base Programme, consisting of written and drawn parts and other informative elements, in order to allow the owner to easily assess the solutions proposed by the architect and compare them with the elements contained in the Base Programme.

It includes

- a) Description;
- b) Graphic elements (plans, elevations, sections, profiles, principle diagrams and other elements) in appropriate scale;
- c) Approximate dimensioning and main characteristics of the fundamental elements of the work;
- d) General definition of the construction processes and of the nature of the most significant materials and equipment;
- e) Prospective analysis of thermal and energy performance and indoor air quality of buildings as a whole and of the different active systems in particular;
- f) Prospective analysis of acoustic performance concerning, namely, airborne and structural sound propagation between spaces and towards the exterior;
- g) Estimated cost of the work and its execution period.

Design Development

Develops the solution of the approved preliminary study, consisting of written and drawn parts and other elements of informative nature that allow the convenient definition and dimensioning of the work, as well as the clarification of its execution method.

It includes

- a) Description;
- b) Evaluation of the quantities of work to be carried out per major items and respective maps;
- c) Updated cost estimate;
- d) Drawings at convenient scales and other graphic elements that explain the location of the work, the planimetry and altimetry of its different component parts and their dimensioning, as well as the detailed principle diagrams for each of the Technical Installations, guaranteeing their compatibility;
- e) Identification of technical, central indoor and outdoor locations, as well as vertical and horizontal technical space
- f) The study elements that served as a basis for the options taken, preferably constituting individualized annexes or volumes identified in the description;
- g) General work programme.

Detailed Design (construction documents)

Develops the approved base project, consisting of a coordinated set of written and drawn information of easy and unequivocal interpretation by the entities involved in the execution of the work, complying with the applicable legislation and regulations.

It includes:

- a) Description, including the layout and general description, evidencing integration in the existing or planned local constraints; generic description of the solution adopted in order to satisfy the legal and regulatory provisions in force; indication of the characteristics of the materials, construction elements, systems, equipment and networks associated to the Technical Installations;
- b) Calculations related to the different parts of the work presented in order to define, at least, the elements referred to in the applicable regulations for each type of work and justify the solutions adopted;
- c) Measurements and work quantity charts;
- d) Budget;
- e) Drawings in accordance with the applicable regulations for each type of work; they must contain the indispensable numerical indications and represent all the details necessary for the perfect understanding, implantation and execution of the work;
- f) Technical, general and special conditions of the specifications.

Technical Assistance

In the phase of the contract formation procedure, and until the award of the work includes:

- (a) Clarification of doubts regarding the project during the preparation of the tender process for awarding the contract or supply;
- b) Providing information and clarifications requested by candidates to competitors, in written form and exclusively through the Project Owner, about problems related to the interpretation of the written and drawn parts of the project;
- c) To support the Client in the assessment and comparison of the quality conditions of the technical solutions of the proposals in order to allow its correct consideration, including the assessment of the compatibility of variants or alterations that are presented, with the execution project, as stated in the specifications.

Technical Assistance

During the execution of the work, the technical assistance includes:

- a) Clarification of doubts of interpretation of complementary information regarding ambiguities or omissions of the project, as well as preparation of the project alteration parts necessary for the respective correction and full and correct characterization of the works to be performed within the scope of the referred correction;
- b) Assess the technical documents presented by the contractor or Owner, including, when appropriate, their compatibility with the project;
- c) Proceed, once the execution of the work is finished, to the preparation of the Final Screens, verifying their conformity with the execution project and any alterations made to it, in accordance with the information provided by the project owner.

Special Technical Assistance

Includes:

- (a) Technical-economic assessment of variant projects submitted to tender, without prejudice to the provisions of the previous article;
- b) Technical-economic appraisal of alternatives that may be proposed by contractors, without prejudice to the provisions of the previous article;
- c) Verification of the quality of the materials, the quality of execution of the relevant works, the supply and assembly of equipment and installations, as well as the preparation of the respective opinions;
- d) Drawing up the monitoring and maintenance plans or projects;
- e) Drawing up work preparation drawings, when these are not prepared by the contractor;
- f) Participation in the testing and acceptance of the works.

P 113/2015

Architectural project, including:

- (i) Plans on a scale of 1:50 or 1:100 containing the dimensions and areas and uses of all compartments, as well as the representation of fixed furniture and sanitary equipment;
- (ii) Elevations on a scale of 1:50 or 1:100 with the indication of colours and materials of the elements constituting the façades and roof, as well as the adjacent constructions, if any;
- (iii) Cross-sections and longitudinal sections at scale 1:50 or 1:100 covering the terrain, with indication of the existing and the proposed profile, as well as the elevations of the various storeys, the level of the ground floor and accesses to the parking area
- (iv) Construction details, at the appropriate scale, showing the construction solution adopted for the outer walls of the building and their articulation with the roof, lighting/ventilation and access openings, as well as with the surrounding pavement
- (v) Discrimination of the parts of the building corresponding to the several fractions and common parts, relative value of each fraction, expressed in percentage or per share, of the total value of the building, if the building is to be subjected to the regime of horizontal property.

Portuguese Standard NP 4526,

regarding the services provided by the architect and landscape architect in construction.

It is a comprehensive document.

It goes beyond the project scope and covers all the architect's services throughout the whole life cycle of the construction.

NP 4526	Project design services		Certification and management services	
Stages	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services
Initiative				X
Beginning	X	X		X
Project	X	X	X	X
Competition	X	X		X
Construction	X	X	X	X
Use			X	X
End of life		X	X	X

			Project design services		Certification and management services	
Stages		Phases	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services
Initiative	Strategic Orientation					X
	Evaluation of existent					X
	Business Plan					
Beginning	Start the project		Х			
		Scouting for site				X
	Pheasability study		X	X		X
	Preliminary program		X			X
		Cost estimation		X		
		Finantial assitance				X

		Project design services		Certification and management services	
Stages	Phases	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services

Project	Base Programme		Х		Х	Х
		Cost estimation		X		
		Complementary studies		Х		
		Communication elements		X		
	Schematic Design		Х		Х	X
		Studies and topographic elements		X		
		Cost estimation		Х		
		Sustainability studies		X		
		Specialists consultancies				X
		Communication elements		Х		

		Project design services		Certification and management services	
Stages	Phases	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services

Design Development		X			X
	Cost estimation		X		
	Sustainability studies		Х	Х	
	Administrative controls			Х	
	Specialists consultancies				Х
	Communication elements		Х		
Detailed Design		Х			
	Measurements and cost estimation		X		
	Sustainability studies		X		
	Health and security		Х		
	Project revision			Х	
	Project certification			Х	
	Specialists consultancies				Х
	Communication elements		Х		

		Project design services		Certification and management services	
Stages	Phases	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services

Competition	Pre-Competition				
		Consultancies			X
		Technical Assistance	Х		
	Competition				
		Technical Assistance	Х		
		Analysis of proposals		Х	

			Project design services		Certification and management services	
Stages		Phases	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services
Construction	Pre-construction					
		Construction management				X
		Construction direction			Х	
		Construction supervision			Х	
	Construction					
		Construction direction			Х	
		Construction supervision			Х	
		Security coordenation			Х	
		Technical Assistance	Х			
		Special Technical Assistance		X		
		Certification			X	
	End of construction					
		Construction direction			X	
		Construction supervision			X	
		Technical Assistance			X	
		Certification			Х	

				Project design services		nd management vices
Stages		Phases	Design services	Complementary services and studies	Certification and validation services	Consultancy and management services
Use	Operations					
		Managment				Х
		Certification			Х	
	Maintenance					
		Managment				X
		Certification			X	
End of life	Renovation					
		Assessment				X
		Remodeling				X
	Dismantle					X
		Project		Х	Х	
		Secutity and health		Х	Х	
		Construction direction			Х	
		Construction supervision			Х	
		Security Coordination			Х	
		Certification			Х	



No fees references in Portugal.

Many architects still use the calculation method from 1972.

Competition with single price criterion has increased.

Deficient management of public procurement:

- lack of time, technical and financial means;
- difficulty in fixing the base price for the procedures;
- residual use of quality-oriented procedures;
- design competition is perceived as bureaucratically complex;
- setting of qualitative award criteria is seen as a cause for litigation;
- time spent in administrative procedures exceeds time provided to develop architectural proposals;
- high demand on the deliverables with high investment of the competitors;
- no monetary compensation for the majority of competitors.



The competition authority is not opened to references for the calculation of fees.

The Portuguese Order of Architects has developed a tool for the calculation of project costs, not about the calculation of fees.

It has been developed according to the Portuguese Norm NP 4526.



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Thank you.

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