
Union Internationale des Architectes • International Union of Architects

**Recommended Guidelines for the UIA Accord
On Recommended International Standards of Professionalism in
Architectural Practice**

Recommended Guidelines on Building Project Delivery Systems

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ACCORD POLICY ON BUILDING PROJECT DELIVERY SYSTEMS

Accord Policy

Architects should maintain high standards of professionalism and service under all forms of building project delivery systems.

1. Definitions

The following definitions have been adopted for the purpose of these Guidelines;

Building project delivery systems:	The contractual relationships between building owners and the other parties involved in the design, documentation and construction buildings.
Project client:	The party for whom the building is designed and constructed.
Architects' client:	The party that commissions the architect.
Novation:	An arrangement under which the rights and obligations of a party to a contract is transferred to a third party.
Professional adviser:	The party appointed by the building owner undertaking a multi-party or alliance building delivery system. In the case of building projects normally an architect with specialist skills in building or project procurement systems.

2. Introduction

The education and training of architects has, until recently, been oriented towards the traditional relationship between architect, project client and builder, and the lump sum contract. That is, the project client directly commissions and briefs the architect; the architect prepares contract documents; the builder prices and builds from the contract documents. During construction the architect acts as the project client's agent and as certifier of quality etc. However, this traditional method has regularly been challenged, rightly or wrongly, and when other methods are used the role of the architect may change.

Alternative building project delivery systems have evolved, which can, in some cases have advantages over traditional methods, and architects are likely to encounter the situation in which:

- The clients requests, or the architect perceives the need for, an alternative method in order to fulfill particular requirements of the project;
- The architect is offered a commission within the framework of an alternative method (i.e. with a different relationship between architect, project client and builder).

In order to maintain an effective professional role, the architect must:

- In the first case, be able to clearly advise the clients of the advantages and disadvantages of each of the alternatives;
- In the second, have a full understanding of the organizational structure of the delivery method, clearly defined responsibilities and a full understanding of the lines of communication; and
- In all cases the architect should assess the risks associated with the alternative method in relation to the commercial position of the practice and the architect's role as a professional adviser with expertise in building design.

3. The Alternative Methods

Most methods can be categorized into one of the following major groupings:

- variations on the traditional building contract;
- construction management;
- design and construct; and
- multi-party contracts; and
- public private partnerships

3.1 Variations on the traditional building contract

(a) Negotiated price contract

The traditional relationship, in which the project client commissions the architect, contract documentation is substantially or fully completed and a tender is negotiated with one or more selected builders. A contract, between the project client and the builder, is signed when a satisfactory price is achieved and the architect administers the contract.

(b) Cost-plus contract

The traditional project client/architect relationship is maintained, contract documentation is substantially or fully completed and a management fee covering overheads and profit is negotiated with one or more selected builders. The successful builder builds the project using in-house and sub-contracted labor. A modified contract is signed and the architect administers the contract. It is usual for the sub-contract tendering to be administered by the builder but vetted and approved by the project client and/or the architect.

(c) Two stage tender

The traditional project client/architect relationship is maintained. The first stage tender is sought using sketch plans and an outline specification and the selection of the builder is based on the overhead and profit rate, resources and site and management facilities offered. Documentation is developed with the builder and principal sub-contractors as part of the design team. The price is built up progressively from elemental sub-contract prices prepared by the sub-contractors. The design will be 'tailored' throughout the process to meet the project client's budget and other requirements. The design input from the builder can be valuable, allowing a thorough analysis of buildability and providing a realistic basis for assessing the cost benefit of various aspects of the design.

3.2 Construction management

A construction manager has expertise in both building and management and is contracted to the project client to manage the construction of the building. The provision of materials and labor is through a series of separate contracts between individual suppliers and contractors and the project client. The construction management organization acts as the project client's agent to administer the separate contracts, plan and supervise construction and manage the services provided during construction by the design consultants, including the architect.

While the construction manager may be engaged when all design and documentation is complete, they are more often engaged during the design or documentation process to assess buildability and to assist, ensuring that the design is 'tailored' to meet the client's budget and other requirements. As a single overall tender is not necessary before work begins, an early start on site is possible by completing the documentation, tendering and letting contracts for the early trades while documentation for later trades is still in progress.

The construction manager is paid on a fee for service basis and has no vested interest in project finances and can provide independent advice to the project client as a consultant. The construction manager is not bound by the project budget and all risks are borne by the project client and the separate contractors.

The role of the architect and the relationship with the project client and the construction manager may be much the same as in traditional contracts between architect, project client and builder. It is more common, however, for the construction manager to take over some of the architect's traditional roles during construction, such as certification. It is increasingly common for the architect and other design consultants to be novated to the construction manager.

Construction management may be an advantage for very large projects, where an early start on site is necessary or where part or all of the project is occupied (i.e. shopping centers).

3.3 Design and construct

In design and construct arrangements the project client enters into one contract for the design and construction of a building or project with an organization, generally based on a building company which provides both design and building services. A 'guaranteed price' is negotiated between the builder and the project client based on the project brief or requirements, previous projects of a similar nature, a risk assessment by both parties and a building margin. The builder's project priorities, minimum cost, minimum time and maximum profit are often in conflict with the project client's priorities.

The design team functions as a normal design team, but with the builder effectively acting as the architect's client, interpreting the project client's requirements against the known maximum cost. Both the design and construction will be 'tailored' by the builder to fit within the 'guaranteed price'. In most cases the architect's client is the builder and it is the architect's duty to put the interests of that client (the builder) in front of the interests of the project client.

This building delivery system lacks independent assessment or monitoring of the works by the architect, who is often unable to deal directly with the project client. Except in the case of very simple or repetitive buildings, design and construct project delivery provides project clients with little assurance that they will receive an end product that fully satisfies their needs or expectations and unreasonably exposes architects and other design consultants to depressed fees with little or no reduction in liability.

3.4 Multi-party contracts

These procurement methods are referred to sometimes as Integrated Supply Chain Team Management, Alliancing, Project Team Partnering or Integrated Project Process Procurement. They involve the formation of a project team made up of representatives of the project client, the consultants, contractors and key sub-contractors and suppliers. The project team acts as a "virtual company" dedicated to achieving the agreed project objectives.

The project client appoints a Project Advisor who assists in developing the project brief, budget and program. A selection panel is appointed to work with the project client and the Project Advisor in selecting and appointing the Project Team members on the basis of quality and not price. This integrated team then signs a multi-party partnering contract.

The multi-party contract defines the roles and responsibilities of team members and mechanisms to ensure Value Management and Value Engineering, Risk Management, the fair sharing of rewards and continuous improvement measured against Key Performance Indicators. A key feature of these types of contract is the problem solving and dispute provisions which bind the team members to cooperative, rather than adversarial, resolution of issues that arise on the project.

3.5 Public Private Partnerships

Under this procurement method a private developer, often in the form of a consortium or joint venture, takes responsibility for the design, documentation, construction, ongoing operation (usually for a defined period), facilities management and maintenance and financing of the project.

The common reason given for delivering a project by this methodology is that the combination of private and public skills, abilities and resources will deliver improved value for money and thus result in wise investment by the proponent (usually Government) to achieve the desired level of service.

Improved value for money may comprise finance, risk transfer, operational service outcomes, design amenity and/or sustainability.

The risks associated with this procurement method include an inadequate design brief, a lack of direct access to the client or end user of the facility, the role of the architect may be that of a sub-consultant and design is often constrained by the financial considerations of the bid. Innovation is often discouraged and rather than the client or user of the facility the design decisions may be made by the building contractor or the financier.

4. Aspects critical to the success of alternative methods

It is assumed in this Guideline that different building project delivery systems can be appropriate for many projects, but that some detail aspects of the particular systems are critical to the success of the process. The project client should be made aware of these critical aspects when alternative arrangements are being considered.

4.1 Independent assessment

The degree of protection of the project client's interests, as opposed to the vested interests of the other parties to the contract, rely on the facility for independent assessment. This depends on many aspects including:

- (a) Method of payment – are the fees for professional services separated from or influenced by the builder's profitability?
- (b) Design independence – is there a clear hierarchical relationship between the design team, the management organization and the building organization?
- (c) During construction – is there a degree of independence of the design team during the building process?
- (d) Communication – are there clear lines of communication and does the architect have the capacity to deal directly with the project client?
- (e) Liability – is responsibility and liability clearly defined?

4.2 Experience and expertise of the management service offered

Organizations offering construction management services must have a proven record, appropriate background and training, suitably experienced resources and a demonstrable capacity to balance the project client's requirements with the project budget and brief.

Management should not interfere with the design process, but add to it in a positive way. It should not isolate the client from the process or the design team, but provide another level of advice and reassurance to the project client. It should not assume roles better undertaken by other members of the team (i.e. co-ordination), but assist in the process. Finally, a good construction manager, on the right project, should be part of a team, not the director of it.

4.3 The value of a builder on the design team

One of the principal advantages of the participation of a builder in the design and documentation process is to provide a continuing buildability assessment of the project and an early warning of design or construction problems. The participation of an experienced builder on the design team, with an understanding of the design process and the contribution that can be made, can provide some project client with greater confidence in the outcome.

4.4 The risks of an early start

The most significant risks in an early start on site to reduce overall construction time lie in unrealistically shortened design times, hasty design or documentation decisions and the potential for a lack of thorough co-ordination of the work of the design team before the implications of the total design have been discovered. This can result in the need for modification to the early works or unfortunate limitations on the later design —build in haste; repent at leisure. These risks are present, to varying degrees, in any fast track method of delivery, but can be minimized through careful design team co-ordination and monitoring.

4.5 Effectiveness of time and cost control

This can be one of the most important advantages of the alternative methods, as they can allow a thorough analysis of the design and documentation as they progress, in relation to time and cost. Independent management resources in close monitoring of the design and construction program can:

- facilitate decision making by all parties including the client in a timely way;
- relate the implication of decisions to time and cost; and
- encourage all parties to contribute to meeting the program.

The same controls can be applied to a fully documented and tendered project with value management.

4.6 Extent of documentation

While the nature of documentation under the alternative methods may vary considerably from traditional contract documentation, it is possible that the final extent of documentation will be greater, particularly with packaged projects. In other cases, shop drawings will be developed from design sketches and often co-ordination may be more difficult with fragmented documentation. It is important that the extent and nature of documentation is clear and that the methodology and responsibility for co-ordination is clearly defined.

5. Conclusion

Architects should be able to operate within a variety of client, architect, management and builder relationships in an effective and professional way, as alternative methods of project design and delivery become established within the building and construction industry.

It should be understood however, that some project and building delivery methods constrain the ability of architects to impartially apply their professional knowledge and skill. Under these contractual arrangements architects are prevented from acting as independent agents and advisers protecting the interest of the project clients and building owners. Some building delivery systems also make it difficult for architects to fulfill their professional and ethical obligations to consumers and the general public.

Therefore, in the public interest, these constraints must be recognized and understood by those that use the services of architects, the communities they serve and the governments that regulate the markets within which architectural services are provided.

6. Appendices

A – Checklist for architects giving advice

B – Checklist for architects considering their own involvement in non-traditional methods

C – Responsibilities of the parties

Appendix A

Checklist for architects giving advice

1. What other methods, if any, may serve the project client's interests better?
2. Are there any cost penalties involved for the project client?
3. Are there any penalties in terms of quality?
4. Will the project client receive impartial and expert advice during both design and construction?
5. Who will certify payments, quality, time and completion?
6. Will the project client be required to enter into multiple contracts?
7. Who will be liable for defects?
8. Who will be liable for failure to meet the program?
9. Will the project client receive the benefit of competitive tendering?
10. Will the project client's decision making process be restricted?
11. Who will authorize variations and extensions of time?

Appendix B

Checklist for architects considering their own involvement in non-traditional methods

1. Who will be the client?
2. What will the relationship be with the user?
3. What will the relationship be with the other consultants?
4. Who will be the prime consultant?
5. What is the extent of legal liability?
6. Does the professional indemnity insurance cover the extent of liability?
7. Will the architect be able to impartially apply their professional knowledge and skill, and fulfill their professional as well as ethical obligations to the society",
8. Who will be responsible for setting and controlling the budget?
9. What are the terms of engagement?
10. Are the design team members to be novated to another party and if so how will this affect their interests and their liability?
11. What is the fee?

12. Will there be a head contract, a builder and sub-contractors?
13. Who will certify payments for building work?
14. Who will inspect the building work for conformity with design?
15. Who will inspect the work for certification?
16. What are the arrangements for agreeing to and carrying out changes to design?
17. How will disputes be resolved?
18. Should there be any limitations to the architect's contractual liability?
19. Will the certifier be able to act impartially?
20. Who will instruct the persons performing the building work?
21. Are there any special program requirements?
22. Are the program requirements realistic?
23. Who will authorize extensions of time?
24. Which form of contract will be used for the works?

Appendix C

Responsibilities of the parties

Building Delivery Method	Brief and Research	Schematic Design	Estimate and Cost Plan	Design Development	Documentation	Construction Management	Inspection of Work	Certification of Payment
Traditional	Project client Architect	Architect, Sub-consultants	Architect, Sub-Consultants, Quantity Surveyor	Architect, Sub-consultants	Architect, Sub-consultants, Quantity Surveyor	Builder	Builder, Architect, Sub-consultants	Architect, Quantity Surveyor
Two stage tendering	Project client, Architect	Architect, Sub-consultants	Architect, Sub-Consultants, Quantity Surveyor	Architect, Sub-consultants, Builder, Sub-contractors, Quantity Surveyor	Architect, Sub-consultants, Quantity Surveyor	Builder	Builder, Architect, Sub-consultants	Architect, Quantity Surveyor
Construction Management	Project Client Architect	Architect, Sub-consultants	Architect, Sub-Consultantst, Quantity Surveyor	Architect, Sub consultants, Construction Manager, Contractor, Quantity Surveyor	Architect, Sub consultants, Subcontractors (shop drawings)	Construction Manager	Construction Manager, Architect, Sub-consultants	Construction Manager, Quantity Surveyor
Design & Construct	D&C Manager (Project Client)	D&C Manager (Architect Sub-consultants)	D&C Manager	D&C Manager (Architect Sub consultants)	D&C Manager (Architect Sub consultants)	D&C Manager	D&C Manager	D&C Manager
Multi-Party contracts	Project client and Project Advisor	Project Team led by Architect	Project Team led by Quantity Surveyor	Project Team led by Architect	Project Team led by Architect	Project Team led by Builder	Project Team led by Builder	Project Team led by Architect
Project Management	Project client with Project Manager	Architect	Project Manager	Architect	Architect	Builder	Builder Architect Sub – consultants	Project Manager

NOTE: Brackets indicate that the activity is undertaken by the group outside the brackets, who controls the input of those within the brackets.

Appendix D

Further reading;

1. *Which Contract?*
Choosing the Appropriate Building Contract - Cox and Clamp
Published by RIBA Enterprises Ltd ISBN 1 85946 042 9
1-3 Dufferin Street, London EC1Y 8NA United Kingdom

2. *Handbook on Project Delivery*
Published by American Institute of Architects – California Council
1303 J Street, Suite 200, Sacramento, CA 95814 U.S.A.
3. *A Guide to Integrated Project Procurement*
Published by RAIA Practice Services
41 Exhibition Street, Melbourne, Victoria 3000, Australia
4. *Guide to Project Team Partnering*
Published by the Construction Industry Council, ISBN 1898671 2 4, United Kingdom, Tel. 00
44 20 7637 86 92