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# CARLOS ANTUNES KIRKOR ARCHITECTS & PLANNERS

**CARLOS ANTUNES** JOINED KIRKOR ARCHITECTS AND PLANNERS IN 1995 AND HAS BEEN PARTNER SINCE 2001.

After graduating from Ryerson Polytechnic Institute, he received a Masters degree in Architecture with distinction from the University of Michigan in 1989. He has been a member of the OAA since 1994.

As partner-in-charge and project architect for many of Kirkor's high density residential projects, Mr. Antunes' involvement begins at the stage of detailed design development towards SPA and construction documents. His excellent management style allows him to create dynamic working groups that respond well to round-table project coordination, which expedites the process, allowing Kirkor to deliver projects to clients on time and on budget.

Mr. Antunes is also the partner in charge of Kirkor's movement into Building Information Modeling (BIM). His expertise in CAD management allows him to work skillfully on complex projects, providing comprehensive, concise and co-coordinated documents with great success among project consultancies.

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#### CARLOS ANTUNES

KIRKOR ARCHITECTS & PLANNERS



#### CONDO: START TO FINISH™

#### STAGE 1 — PROJECT DESIGN + PRE-DEVELOPMENT

- 1. Site analysis and preliminary design.
- 2. Project team recommendations.

#### STAGE 2 — MARKETING + SALES

- 1. Advance design development.
- 2. Design coordination with consultants.
- 3. Prepare statistical information.
- 4. Prepare marketing black-line drawings.
- 5. Condominium documents meeting.
- 6. Municipal process requirements.

#### STAGE 3 — URBAN CONSTRUCTION

- 1. Advance design development.
- 2. Production of architectural construction documents and specifications/co-ordination with consultants.
- 3. Building permit application process and timing.
- 4. Building permit submission.
- 5. Project budget pricing/tendering.
- 6. Consultant co-ordination/issue drawings for construction.
- 7. As-built architectural drawings/specifications.

#### STAGE 4 — PLANNING + LEGAL COMPLIANCE

- 1. On-going contract administration to construction completion.
- 2. Confirm allocation of building areas for proposed ownership components.
- 3. Confirm storage locker shop drawings.
- 4. Zoning confirmation for parking spaces (minimum sizes).

## ARCHITECT'S PERSPECTIVE

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#### STAGE 5 — CONDOMINIUM PRE-REGISTRATION + OCCUPANCY

- 1. On-going contract administration to construction completion.
- 2. Assistance with draft plan of condominium and site plan conditions and certifications.
- 3. Identify shared facilities for multi-party agreements.
- 4. Issuance of occupancy clearances.
- 5. Signs and sign band drawings.
- 6. Record drawings preparation.

#### STAGE 6 — CONDOMINIUM REGISTRATION

- 1. Record drawings completion, labelling and indexing.
- 2. Schedule G building completion certificate for declaration.

#### STAGE 7 — CONDOMINIUM POST-REGISTRATION

 Architectural record drawing copies to declarant for turnover meeting.

## ARCHITECT'S PERSPECTIVE

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## SUPPLEMENTAL MATERIALS





### Joint Best Practice Statement As-Built and Record Drawings

#### Issued October 21, 2010

This document is issued jointly by the Ontario Association of Architects and the Ontario General Contractors Association and provides information relative to best practices in regard to dealing with and preparing as-built drawings and record drawings and conveys standard industry practice in regards to both.

The terms record drawings, as-built drawings and sometimes measured drawings are often confused and/or misused. Record drawings should not be mistaken for as-built drawings nor for measured drawings.

**As-built drawings** are those prepared by the contractor as it constructs the project and upon which it documents the actual locations of the building components and changes to the original contract documents. These, or a copy of same, are typically turned over to the architect or client at the completion of the project.

**Record drawings** are those drawings prepared by the architect when contracted to do so. These are usually a compendium of the original drawings, site changes known to the architect and information taken from the contractor's as-built drawings.

**Measured drawings** is the term recognized in the industry to describe the drawings prepared from on-site measurements of an existing building or space. It can be for a building to which additions or alterations will be made; or for spaces which are intended for lease and from which drawings the areas for lease purposes will be calculated.

#### PROCEDURE for Preparation of As-Built Drawings

General Contractors are responsible for creating "As Builts" from field data collected during the course of the project. Field data is defined as information collected on site while constructing the project that is not available from the contract documents, addenda, change orders, or site instructions. It is of importance that the Contractor record on the "As Builts" all field information relating to concealed conditions.

Contractors may be required by the contract documents to provide a greater degree of accuracy in some areas of the as-builts. The contractor should include adequate monies for this work in their tender price.

General Contractors are not responsible for the creation of record drawings and should advise any client or architect who requests something other than the standard industry practice that the contractor cannot accept this responsibility. The record drawings contain the intellectual property of the architect and should be respected.

Contractors who have the capacity to use auto cad may offer to do so voluntarily, but shall also be compensated appropriately for converting as-builts to this format. Contractors should raise this issue prior to tender closing with the tender authority and ensure that any additional costs that may be required are included in their bid.

#### **PROCEDURE** for Preparation of Record Drawings

Architects should arrange with their clients prior to executing contracts as to requirements for record drawings at the close of the project. Architects should be advising their clients that providing "record drawings" is an additional services and the appropriate cost should be included in their fees to the client. A per diem rate is one equitable arrangement which recognizes that the extent of this service is indeterminate at the outset of the project.

An architect, who is not engaged to provide general review services for both code and non-code related work, should advise their client that they are not in a position to prepare record drawings since they will not be aware of all changes during construction.

It is not unusual for clients to expect record drawings in electronic format and therefore it is prudent to determine whether the client requires the architect to generate the record set of drawings, how many copies will be required as well as the medium, prior to finalizing the Client/ Architect Contract rather than leaving it for discussion at the end of the project.

An Architect who is engaged for general review, should discuss with his/her client at the outset of the project whether or not the client will require record drawings, the format required, the extent of detail and degree of accuracy in specific areas if required and whether these will include:

- · transference of information from the contractor's as-built drawings
- · incorporation of known site variants not shown on as-built drawings
- · incorporation of addenda into the originals
- · incorporation of change orders into the originals
- · incorporation of site instructions into the original

Some clients may need a greater degree of accuracy in some parts of the drawings than in others. As well, verification of specific portions of the work that was changed from the original drawings may be critical to some clients.

Ensure that appropriate statements are added to the drawings to avoid misunderstanding of the purpose and intent of the record drawings.

Establish whether as-builts to be prepared by contractor will be in hard copy or electronic format prior to bidding phases. If an electronic copy is requested it is important to define clearly what format that entails (e.g. PDF vs. AutoCad). Include the required as—built format, including required software, in the bid documents to avoid disputes in this regard at a later date

It is recommended that architects remove their seal to help avoid the possibility that the drawings may be used as part of an application for a building permit without the architects knowledge and involvement.

It is important that the architect not represent that the record drawings are claiming to be the way that the building was in fact constructed. The following sample statement placed on the record drawing illustrates this principle:

"The issuance of this record drawing is a representation by the architect that the construction, enlargement or alteration of the building is in general, as opposed to precise, conformity with the design prepared and provided by the architect, but is not a representation that the construction, enlargement or alteration of the building is in conformity with a design that has been prepared or provided by others."

It is recommended that a clear statement be made prominently on the record drawing disclaiming accuracy and completeness of information transferred from the contractor's asbuilt drawings. The following statement is recommended for this use:

"The revisions to these contract documents, reflecting the significant changes in the Work made during construction, are based on data furnished by the contractor to the architect. The architect shall not be held responsible for the accuracy or completeness of the information provided by the contractor."

In some instances, the client may require the record drawings to incorporate all changes made via addenda and change orders. This can be extensive and prudence dictates that the client and architect should discuss and agree prior to execution of the contract whether or not this service will be required. Fees should be adjusted relative to the extent of service required.

Architects should explain to clients, and ensure that their contracts include, provisions in regard to client's use of record drawings, the copyright of the architect and the waiver in regard to the reliance on the contractor's as-built drawings.

#### Enquiries should be directed to:

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