**WAIKATO ENGINEERING DESIGN LTD**

**Quality Management Check List and Record**

**Revision 1 - 01/12/00**

**PROJECT NAME:- ..............................................................................................................................**

**PROJECT DATE:- ..............................................................................................................................**

**Drawing Series:- .................................... Calcs Ref:- ............................... Job No:- ...................**

**CONTENTS**

**Section**

1. Information regarding Client, Project, Timeline

2. Contact Names

3. Preliminary Brief, Project Suitability

4. Final Brief, Confirmation, Agreements

5. Design

6. Specification

7. Drawings

8. Peer Review, Consent Check List, Design Review, Contract and Tender Documents

9. Construction Monitoring

10. Contract Management

11. Practice Goals

12. Costs of Building and Design

**SECTION 1 - INFORMATION RE CLIENT, PROJECT AND OFFICE RECORD INFORMATION**

**Client Contact Information**

Contact Name:

Client Company Name:

Address/Street:

P O Box:

Town:

Phone Number:

Fax Number:

Mobile:

Email:

Date/Time of first contact:

Notes

**Project Information**

Project Name:

Project Description:

Project Location:

Local Authority:

Property Number:

Valuation Number:

Legal Description:

**Office Information and Record of Job Progress**

Job Number:

Drawing Series Number:

First Contact:

Start Design Drawing:

Finish Design Drawing:

Tenders Open:

Tenders Closed:

Contract Let:

Start Construction:

Finished Construction:

End Maintenance Period:

Archived File:

**SECTION 2 - CONTACTS' NAMES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name/Firm/Address** | **Ph. No** | **Fax No** | **Mobile** |
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**SECTION 3a - CLIENT BRIEF**

Is the client brief clear, accurate and of sufficient scope?

Is the client aware of the extent of his/her requirements?

When does s/he want the design/drawing work finished?

When does s/he want the building work to start?

When does s/he want the building work to finish?

What are the lines of communication?

Pricing Constraints?

Budget Limits?

Does proposal comply with District Scheme?

Who is responsible for Resource Consents for building?

Who is responsible for Resource Consent for water usage?

Who is responsible for PIM Application?

Who is responsible for Producer Statement?

Who is responsible for Building Consent Application?

Who is responsible for Observation?

Who is responsible for Site Instruction?

What arrangements for variations?

Does client understand requirements under OSH Act?

Is full specification and Conditions of Contract Required?

**SECTION 3b - PROJECT SUITABILITY**

Is project within your area of expertise and experience?

Does the design work fall within the terms of the P.I Insurance?

Can the work be completed on time?

Is the client a regular customer?

Could it lead to more work?

Do you have a moral responsibility to do the work?

Do you have a financial need to do the work?

Can you do the work in the time required without delaying projects that you are already committed to?

Is project within your area of expertise and experience?

Does the design work fall within the terms of the P.I Insurance?

Can the work be completed on time?

Is the client a regular customer?

Could it lead to more work?

Do you have a moral responsibility to do the work?

Do you have a financial need to do the work?

Can you do the work in the time required without delaying projects that you are already committed to?

Are you competent to do the work?

Have you done similar work before?

If in doubt, give an answer the next day.

**SECTION 4a - LETTER OF CONFIRMATION**

Visit site to confirm client’s brief.

Describe extent of design brief, the service and its scope?

Describe extent of documentation?

Describe extent of contract observation?

List associated professional services required?

Who pays secondary consultants?

Advise start and finish dates?

Advise fee structure?

Advise payment arrangements?

Request signing of standard agreement?

Outline any requirements under OSH

**SECTION 4b - RECEIPT OF SIGNED AGREEMENT**

Date agreement received

Agreement fully signed and AOK

Agreement includes everything

**SECTION 5 - DESIGN CHECKS**

**a.** **Existing conditions**

Assumed Soil Condition

Soil Conditions advised by:

Soil tests required:

Soil test filed as:

Extent of excavation

Retaining structures

Services

Levels

Nearest level datum

Adjacent properties

Adjacent structures interaction

Wind zoning conditions

Seismic zoning

Soil type for seismic zoning

Fault line

Flood potential and levels

Erosion potential

Tsunami potential

**b. General Design Requirements**

Resource Management

Territorial Authority

Boundary set backs

Local authority services

**c. Fire and Egress Requirements**

Fire Philosophy Required?

Fire Consultant Required?

General Egress and Access?

Is access required for disabled?

**d. Specific and Detailed Design Requirements**

Are all current design codes complied with?

Is NZBC complied with?

Stability under all loading conditions?

Load paths checked?

Do sizes look right?

Stormwater design?

Gutter and spouting design?

**e. Scheme Plans**

Approved by T.A?

Approved by Client?

**f. Client Check of Scheme Plans**

Are estimates required?

Are detailed costings required?

Costs approved?

Is cost related design review needed?

**g. Engagement of Secondary Consultants**

Architect?

Soils Engineer?

Fire Engineer?

Quantity Surveyor?

Mechanical Engineer?

Electrical Engineer?

**SECTION 6 - SPECIFICATION CHECK LIST (INCLUDING P & G)**

Correct job and address

Are all relevant sections included

Are special clauses relevant to this job

Is the Spec up to date

Does it comply with NZS 3910:1998

Include P & G items

Cross check against drawings

Retention

Public liability

All items relevant to the job

Note on variations fully priced and approved prior to proceeding

OSH reference

Progress payments

**SECTION 7 - DRAWINGS CHECK LIST**

a. **General**

Correct job and address

Are drawings complete

Cross check against specification

Cross check against design

Are important details fully drawn up?

Are all member sizes documented?

Are sufficient details provided?

Plan Existing Area

Plan and Elevation sufficient for T.A.

Foundation Plan

Floor Plan

Wall Details

Roof Details

Always show full dimensioned length if under your control

Level datum

Check dimensions

**b. Site and Site Works**

Soil profiles and information

Locations Plan

Boundary distances

Check existing features

North point

Vehicle parking

Roading

**c. Drainage**

Check existing drains and levels

SW drain, details

Sewer drain and details - NZS 3500

Trade Effluent drains and details - NZS 3500

Provide drainage long sections

Provide isometric where required

**d. Egress and Access**

Comply with fire philosophy

Egress signage

Disabled access

Disabled facilities

**e. Floors and Foundations**

Concrete strength

Reinforcing cover

Reinforcing grades

Reinforcing intersections and intermeshing

Floor joint spacing and detail

Slip membrane and sand blinding

Door rebates

Levels and level datum

Sealant details

Floor falls

Concrete finishes

**f Tilt Panels/Precast Panels**

Concrete strength

Lifting

Dimensions

Sealants

Reinforcing

Trim bars

Fixings

**g Blockwork**

Reinforcing

Control joint details

Control joint spacing

Extent of grouting

Sealants

Bolts

**h Structural Steel**

Only dimension once

Pre camber

HD bolts cross check with foundations

Painting, preparation

Welds

Bolts type and finish

Dimensions to grid centres

Cross check with architectural

Bolts edge and other distances check

Kiln Dried or machine gauge

**i Timber**

Grade and treatment

Moisture content

Check nom / act sizes

Shrinkage provisions

Propping

S/S required in some areas

Bolt clearances check

Kiln dried or machine gauge

**j Electrical and cabling**

Electrical lights and switches

Electrical pp

Electrical switchboard

Electrical mains cables

Electrical supply source

Is supply adequate?

Telephone main line

Telephones location

Telephone numbers allocation

Computer cabling

**k Water Supply**

Mains

Heating

Hwb

Toilets

Valving - Non return

**l HVAC**

Equipment located

F.A to NZBC G4

Lines run shown

Power supplies shown

**SECTION 8a - PEER REVIEW**

Is it required?

Does it comply with Code requirements

Verification method or acceptable

Clear and adequate brief

**SECTION 8b - BUILDING CONSENT CHECK LIST**

Make appointment with T.A.

QA Checklist major buildings

QA Checklist minor buildings

Blue cardboard cover

Drawings

Specification

Certificate of Title

Soil report

Calculations

HCC Producer Statement

Letter of Observation

**SECTION 8c - DESIGN REVIEW**

Is tender price acceptable?

Is a review of the project required?

**SECTION 8d - CONTRACT AND TENDER DOCUMENTS (SEE ALSO SECTION B)**

What standard conditions apply?

Do special conditions apply?

Are the S.C. acceptable to the Client?

Tenders closing time

Tender analysed and client notified

Client's authority to proceed.

**SECTION 9 - CONSTRUCTION MONITORING**

Ref CEAS paper (Construction Monitoring)

Decide on level of monitoring, circle appropriate level

CM1, CM2, CM3, CM4, CM5

K factor

Monitoring frequency

All instructions in writing

All copies on file

Note and record relevant conversations

Record and distribute site visit notes

Record and distribute client meetings

**SECTION 10a - CONTRACT MANAGEMENT**

Contract No...................... for?

Tenders close (time, date & place)?

Tender analysis and recommendation by?

Client's Authority to accept tender received?

Acceptance of tender notified?

Contract document original sets prepared?

Documents forwarded to Contractor for signing?

Documents forwarded to Principal for signing?

Insurance cover notes sighted?

Insurance cover expires on (date)?

Order to commence work issued on (date)?

Project timetable approved by Client?

Review timetable every ....... weeks?

Required completion date?

Extension of time to ......................................... awarded?

Substantial completion inspection and certification?

Maintenance Period expires on?

Defects notified to Contractor and client?

Final inspection of work?

Neighbours & local authorities satisfied?

Contractor's completion claim received?

Defects Liability certificate issued?

Compliance Certificate?

Financial summary report of contract prepared?

Health and Safety Plan sighted?

Notes on Contractor's performance (complete at end of Maintenance Period):

Advice on Completion of Building Work to TA

Completion Certified by TA

**SECTION 10b - CONTRACT COMPLETION**

As built drawings

Project summary

Defects Liability Certificate

Guarantees

Warranties

List of names of Contractor & Sub Contractors - see Section 19

**SECTION 10c - GENERAL CHECK AND PAPER TRAIL**

Record all discussions

Document all instructions

Document all decisions

Keep diary / file notes

Photocopy important faxes

Check documents before they leave the office

Ensure site location on all documents

Ensure site soil conditions notes on drawings

**SECTION 11 - PRACTICE GOALS**

Primary goals : client satisfaction with service and fees

* professional studs. & ethics
* continual improvement

Client Communication and Relationship:

* Listen to them. Keep them informed. Be clear in communications.

**SECTION 12 - COSTS OF BUILDING AND DESIGN**

**Building Information**

Type of Building:

External Gross Area: **m²**

**Costs of Building under Engineering Brief $ $/m²**

a. Land

b. Building Contract

c. Extras during Contract

d. Equipment, Furniture etc.

e.

f.

g.

h. Total Cost of Building & Furniture under brief

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Costing Analysis of Design and Supervision** | **Quoted**  **$** | **Actual**  **$** | **Actual**  **% h.** |
| i | Preliminary work, cost estimates etc |  |  |  |
| j | Primary design |  |  |  |
| k | Preliminary Drawing |  |  |  |
| l | Final Design |  |  |  |
| m | Final Drawing |  |  |  |
| n | Documents |  |  |  |
| o | Consents |  |  |  |
| p | Supervision |  |  |  |
| q | Contract Management |  |  |  |
| r | Drawings & Documents |  |  |  |
| s | Secretarial |  |  |  |
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|  | **TOTAL** |  |  |  |