

# Design Documentation Guidelines

## Architecture

### Concept Design Phase

Design Process	Deliverables	Commentary
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>• Client brief, including budget and time schedule. <input type="checkbox"/></li> <li>• Client advice in respect to structure of design process. <input type="checkbox"/></li> <li>• Data Collection including: <input type="checkbox"/> <ul style="list-style-type: none"> <li>– topographical survey. <input type="checkbox"/></li> <li>– existing structures and services. <input type="checkbox"/></li> <li>– certificate of title. <input type="checkbox"/></li> <li>– other legal Information. <input type="checkbox"/></li> <li>– geotechnical information. <input type="checkbox"/></li> <li>– as-built measure of existing structures where additions or alterations are involved. <input type="checkbox"/></li> <li>– engineering reports on existing structures. <input type="checkbox"/></li> <li>– district plan rules and objectives including any existing resource consent, LIM and PIM. <input type="checkbox"/></li> <li>– other design constraints. <input type="checkbox"/></li> </ul> </li> </ul> <p><b>Tasks:</b></p> <ul style="list-style-type: none"> <li>• Attend regular design phase meetings with relevant parties. <input type="checkbox"/></li> <li>• Inspect site and prepare site analysis. <input type="checkbox"/></li> <li>• Prepare schedule of accommodation. Agree with client. Distribute. <input type="checkbox"/></li> <li>• Prepare document register. <input type="checkbox"/></li> <li>• Inspect the site and prepare site analysis diagrams. <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>• Agreed design brief and schedule of accommodation. <input type="checkbox"/></li> <li>• Report on existing facilities and engineering systems if applicable. <input type="checkbox"/></li> <li>• Options studies report. <input type="checkbox"/></li> <li>• Conceptual drawings including: <input type="checkbox"/> <ul style="list-style-type: none"> <li>– overall site plan. <input type="checkbox"/></li> <li>– floor plans. <input type="checkbox"/></li> <li>– elevations. <input type="checkbox"/></li> <li>– sketches. <input type="checkbox"/></li> <li>– sections (indicative sufficient to illustrate overall concept.). <input type="checkbox"/></li> </ul> </li> <li>• Model. <input type="checkbox"/></li> <li>• Preliminary cost estimate (prepared by quantity surveyor). <input type="checkbox"/></li> <li>• Concept schedule of materials and finishes. <input type="checkbox"/></li> </ul>	<ol style="list-style-type: none"> <li>1. Confirm conditions of engagement at outset of commission.</li> <li>2. Note that the preparation of brief is not part of architect's standard service.</li> <li>3. Agree roles and responsibilities for all participants in building procurement process particularly responsibility for obtaining resource consents.</li> <li>4. Agree with client the requirements and programme for client information and approvals.</li> <li>5. Costing may be only on square metre rate basis – quantity surveyor should provide concept cost plan to accompany deliverables.</li> <li>6. Concept and preliminary design phases may be combined.</li> <li>7. The approved design may be submitted for a PIM at this stage to identify resource consent issues and to obtain existing conditions/services information.</li> <li>8. Agree the scale of drawing deliverables for each phase according to project type.</li> <li>9. Dimensioning and co-ordination is often the responsibility of the architect but this will vary with commission.</li> <li>10. Advise client on the advantages in maintaining consultant advice at every stage, and the risks incurred where this is not commissioned.</li> </ol>

# Design Documentation Guidelines

## Architecture

### Concept Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Discuss and agree with client the additional separate or sub-consultants that are to be retained and by whom, i.e., geotechnical consultant, surveyor, planning consultant, civil, structural, fire, services and acoustic engineers; quantity surveyors, interior designer, landscape architect, specialised project management services, health and safety consultant, others. <input type="checkbox"/></li> <li>• Select and recommend to client appointment of other consultants or sub-consultants: confirm fees. <input type="checkbox"/></li> <li>• Identify responsibility for dimensional control. <input type="checkbox"/></li> <li>• Identify responsibility for design coordination. <input type="checkbox"/></li> <li>• Identify responsibility for design management. <input type="checkbox"/></li> <li>• Investigate district plan requirements, analyse, review with client. <input type="checkbox"/></li> <li>• Prepare formal/functional diagrams, develop viable options, review with client. <input type="checkbox"/></li> <li>• Analyse brief against design constraints. <input type="checkbox"/></li> <li>• Prepare concept design. <input type="checkbox"/></li> <li>• Study siting options and climatic influences; develop massing models; evaluate relationships to site context. <input type="checkbox"/></li> <li>• Test massing options against preferred functional arrangement and brief; review with client. Select model. <input type="checkbox"/></li> <li>• Evaluate provisional concepts for accommodation of systems with structural engineer and building services engineer. <input type="checkbox"/></li> </ul>		<ol style="list-style-type: none"> <li>11. If a partial service is commissioned, confirm whether the deliverables for the commissioned phase are affected.</li> <li>12. Confirm with the client whether design management services are included in the design commission, or whether another party will manage the design process.</li> <li>13. It may be necessary to obtain from the services engineer a schedule of notional requirements.</li> <li>14. Refer to separate co-ordination checklist documents.</li> </ol>

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### Concept Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Evaluate provisional concepts for accommodation of parking and traffic requirements. <input type="checkbox"/></li> <li>• Prepare architecture concept drawings. <input type="checkbox"/></li> <li>• Prepare feasibility report. <input type="checkbox"/></li> <li>• Prepare concept schedule of internal and external materials and finishes, confirm with client, distribute to quantity surveyor. <input type="checkbox"/></li> <li>• Check disabled access requirements. <input type="checkbox"/></li> <li>• Check concept against planning and survey requirements. <input type="checkbox"/></li> <li>• Review concepts for significant health and safety risks relevant to the design. <input type="checkbox"/></li> <li>• Review scheme with territorial authority planners. <input type="checkbox"/></li> <li>• Liaise with quantity surveyor to prepare concept design cost estimate. <input type="checkbox"/></li> <li>• Check concept design for conformity with fire and egress requirements. <input type="checkbox"/></li> <li>• Establish provisional beam depths, duct crossovers, and floor-to-floor heights. <input type="checkbox"/></li> <li>• Establish energy conservation design criteria. <input type="checkbox"/></li> <li>• Prepare energy study. <input type="checkbox"/></li> <li>• Determine if environmental studies are required if so, prepare and submit. <input type="checkbox"/></li> <li>• Co-ordinate all design information between disciplines. <input type="checkbox"/></li> </ul>		

# Design Documentation Guidelines

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## Preliminary Design Phase

Design Process	Deliverables	Commentary
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>• Client approval of concept design. <input type="checkbox"/></li> <li>• Approved concept cost plan. <input type="checkbox"/></li> <li>• Confirmed site topographical, geotech and legal surveys. <input type="checkbox"/></li> <li>• Confirmed district plan analysis and development rules. <input type="checkbox"/></li> <li>• Concept civil and structural engineering constraints. <input type="checkbox"/></li> <li>• Concept services engineering and infrastructural constraints. <input type="checkbox"/></li> <li>• Concept fire engineering. <input type="checkbox"/></li> <li>• Concept environmental studies. <input type="checkbox"/></li> <li>• Concept acoustic advice. <input type="checkbox"/></li> <li>• Project time schedule. <input type="checkbox"/></li> </ul> <p><b>Tasks:</b></p> <ul style="list-style-type: none"> <li>• Attend regular design phase meetings with relevant parties. <input type="checkbox"/></li> <li>• Revise preliminary design brief from concept design including all up-to-date information; confirm with client. <input type="checkbox"/></li> <li>• Update document register. <input type="checkbox"/></li> <li>• Develop list of questions affecting Preliminary Design pertinent to each external discipline; circulate. <input type="checkbox"/></li> </ul>	<p><b>Drawings:</b></p> <ul style="list-style-type: none"> <li>• Overall site plan. <input type="checkbox"/></li> <li>• Floor plans. <input type="checkbox"/></li> <li>• Elevations. <input type="checkbox"/></li> <li>• Sections. <input type="checkbox"/></li> <li>• Sketches/perspectives exterior. <input type="checkbox"/></li> <li>• Sketches/perspectives interior. <input type="checkbox"/></li> <li>• Model(s). <input type="checkbox"/></li> <li>• Materials and finishes presentation. <input type="checkbox"/></li> <li>• Other defined marketing material. <input type="checkbox"/></li> </ul> <p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Preliminary schedule of internal and external materials and finishes. <input type="checkbox"/></li> </ul> <p><b>Reports:</b></p> <ul style="list-style-type: none"> <li>• Updated design brief, schedule of accommodation and project time schedule. <input type="checkbox"/></li> <li>• Schedule of areas (net and gross as applicable). <input type="checkbox"/></li> <li>• Design features (options) report (with recommended option to take to developed design). <input type="checkbox"/></li> </ul>	<ol style="list-style-type: none"> <li>1. Consultation with territorial authority is recommended on key aspects of the design that may be considered outside the 'Acceptable Solution' regime, and unusual/contentious issues.</li> <li>2. Cost estimates at this stage generally cannot be on a full elemental basis, as secondary elements are not well defined, but ensure independent professional cost advice is provided to the client.</li> <li>3. Contribution to value management sessions may be required.</li> <li>4. Preliminary design may provide a level of documentation appropriate for a resource consent application for less complex projects.</li> <li>5. It may be relevant to review structural engineer's preliminary report and effect on external façade systems, including deflections, seismic impact, and weathering implications.</li> </ol>

# Design Documentation Guidelines

# Architecture

## Preliminary Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Review preliminary design for significant or unusual health and safety risks the design may present during construction and maintenance. <input type="checkbox"/></li> <li>• Prepare preliminary design work time schedule. <input type="checkbox"/></li> <li>• Review town planning analysis and implications. <input type="checkbox"/></li> <li>• Establish primary reference grids and dimensions <input type="checkbox"/></li> <li>• Evaluate provisional concepts for accommodation of structural systems with structural engineer. <input type="checkbox"/></li> <li>• Evaluate provisional concepts for accommodation of services systems with building services engineer. <input type="checkbox"/></li> <li>• Revise schedule of internal and external materials and finishes; evaluate lifecycle durability and maintenance implications; confirm with client and submit to quantity surveyor. <input type="checkbox"/></li> <li>• Confirm compliance with fire and egress requirements. <input type="checkbox"/></li> <li>• Confirm compliance with disabled access requirements. <input type="checkbox"/></li> <li>• Confirm compliance with sanitary facilities code. <input type="checkbox"/></li> <li>• Confirm compliance with development rules. <input type="checkbox"/></li> <li>• Confirm revisions; request updated cost plan from quantity surveyor. <input type="checkbox"/></li> <li>• Establish provisional lift shaft sizes, air duct sizes, raised floor requirements, plant room sizes/mechanical requirements, and egress requirements. <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>• Outline of elements not covered in preliminary design. <input type="checkbox"/></li> <li>• Define assumed construction methodology governing design. <input type="checkbox"/></li> <li>• Highlight 'significant' or unusual buildability and health and safety issues. <input type="checkbox"/></li> <li>• Highlight 'special' project risks. <input type="checkbox"/></li> <li>• Report on façade options and weathering issues. <input type="checkbox"/></li> </ul>	

# Design Documentation Guidelines

## Architecture

### Preliminary Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Prepare architectural preliminary design drawings. <input type="checkbox"/></li> <li>• Determine if specific town planning studies are required, prepare, and submit. <input type="checkbox"/></li> <li>• Review with town planner and territorial authority personnel for advice/comment. <input type="checkbox"/></li> <li>• Review design with client's marketing/real estate advisors, including plan for presentation materials. <input type="checkbox"/></li> <li>• Co-ordinate all design information between disciplines. <input type="checkbox"/></li> </ul>		

# Design Documentation Guidelines

## Architecture

### Developed Design Phase

Design Process	Deliverables	Commentary
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>• Client approval of preliminary design. <input type="checkbox"/></li> <li>• Client approval of preliminary cost plan. <input type="checkbox"/></li> <li>• Client approval of feasibility report. <input type="checkbox"/></li> <li>• Reviewed and revised preliminary design. <input type="checkbox"/></li> <li>• District plan analysis. <input type="checkbox"/></li> <li>• Preliminary civil/structural engineering. <input type="checkbox"/></li> <li>• Preliminary services engineering and infrastructural constraints. <input type="checkbox"/></li> <li>• Preliminary fire engineering. <input type="checkbox"/></li> <li>• Preliminary environmental studies. <input type="checkbox"/></li> <li>• Preliminary acoustic advice. <input type="checkbox"/></li> <li>• Preliminary drawing register. <input type="checkbox"/></li> <li>• Current project programme. <input type="checkbox"/></li> </ul> <p><b>Tasks:</b></p> <ul style="list-style-type: none"> <li>• Attend regular design phase meetings with relevant parties. <input type="checkbox"/></li> <li>• Update developed design brief; confirm with client. Distribute. <input type="checkbox"/></li> <li>• Update document register. <input type="checkbox"/></li> <li>• Review each sub-consultant's and other consultant's schematics to architectural, verify match. <input type="checkbox"/></li> </ul>	<p><b>Drawings:</b></p> <ul style="list-style-type: none"> <li>• Overall site plan including parking/landscaping. <input type="checkbox"/></li> <li>• Floor plans (dimensioned). <input type="checkbox"/></li> <li>• Elevations (confirmed floor-to-floor heights); sections. <input type="checkbox"/></li> <li>• Sketches of critical and typical details. <input type="checkbox"/></li> <li>• Perspective. <input type="checkbox"/></li> <li>• Typical reflected ceiling plans. <input type="checkbox"/></li> </ul> <p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Developed schedule of internal and external materials and finishes. <input type="checkbox"/></li> </ul> <p><b>Reports:</b></p> <ul style="list-style-type: none"> <li>• Updated design brief, schedule of accommodation and project programme. <input type="checkbox"/></li> <li>• Revised schedule of areas (net and gross as applicable). <input type="checkbox"/></li> <li>• Updated design features (options) report (with recommended option to take to detailed design), including serviceability issues. <input type="checkbox"/></li> <li>• Outline of elements not covered in developed design. <input type="checkbox"/></li> <li>• Define assumed construction methodology governing design. <input type="checkbox"/></li> <li>• Highlight significant or unusual buildability and health and safety issues. <input type="checkbox"/></li> <li>• Highlight weathering/façade issues. <input type="checkbox"/></li> </ul>	<ol style="list-style-type: none"> <li>1. Cost estimates at this stage can be produced by quantity surveyor on elemental basis, with secondary elements estimated on typical details.</li> <li>2. Developed design generally provides the minimum level of documentation to clearly define the scope of all architectural elements.</li> <li>3. Developed design generally provides the minimum level of documentation appropriate for a resource consent application for complex projects.</li> <li>4. Refer to separate co-ordination checklist documents.</li> </ol>

# Design Documentation Guidelines

## Architecture

### Developed Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Verify that all questions from the preliminary design brief relating to engineering disciplines have been resolved. <input type="checkbox"/></li> <li>• Verify significant or unusual health and safety issues have been addressed in the design. <input type="checkbox"/></li> <li>• Confirm any revisions to preliminary cost plan. <input type="checkbox"/></li> <li>• Confirm primary reference grids datum, and dimensions. <input type="checkbox"/></li> <li>• Check preliminary internal and external finishes schedule; revise if necessary. Distribute. <input type="checkbox"/></li> <li>• Prepare architectural developed design drawings incorporating amendments into plans, elevations, and sections. Distribute. <input type="checkbox"/></li> <li>• Test structural design against other criteria; including impact on weathering systems, confirm/amend provisional structural system selection. <input type="checkbox"/></li> <li>• Confirm lift shaft dimensions, overrun and pit requirements, plant room sizes, sheave beam requirements, etc. <input type="checkbox"/></li> <li>• Confirm acceptability of access to fireman's lift and fire control panel. <input type="checkbox"/></li> <li>• Confirm final detail requirements for lifts and escalators. <input type="checkbox"/></li> <li>• Confirm typical floor beam depths, maximum duct depth requirements, floor-to-floor heights. <input type="checkbox"/></li> <li>• Prepare options complying with reflectance, heat gain/loss requirements, glass shading co-efficients; ventilation, energy conservation systems, solar shading systems, review with client and building services engineers. Select. <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>• Highlight 'special' project risks. <input type="checkbox"/></li> <li>• Material/colour boards. <input type="checkbox"/></li> </ul>	

# Design Documentation Guidelines

## Architecture

### Developed Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Test mechanical design against other criteria; confirm/amend provisional building services system selections. <input type="checkbox"/></li> <li>• Confirm that sanitary fixture count meets statutory requirements. <input type="checkbox"/></li> <li>• Establish location and provisional size of electrical sub-station, if required; consult power supply authority. <input type="checkbox"/></li> <li>• Prepare/commission energy management study. <input type="checkbox"/></li> <li>• Prepare computer floor options study. Review with client. <input type="checkbox"/></li> <li>• Prepare options study for building maintenance unit; review with client. <input type="checkbox"/></li> <li>• Verify exterior glazing design compatibility with structure and HVAC. <input type="checkbox"/></li> <li>• Confirm ceiling module dimensions and advise. <input type="checkbox"/></li> <li>• Confirm all service utility entry points, sizes, and requirements. <input type="checkbox"/></li> <li>• Confirm fire rating requirements for all building elements. <input type="checkbox"/></li> <li>• Confirm compliance with all development rules. <input type="checkbox"/></li> <li>• Review all plans elevations and sections, prepare details of typical construction. <input type="checkbox"/></li> <li>• Submit developed design to quantity surveyor for review of cost plan. <input type="checkbox"/></li> <li>• Review and revise project programme. <input type="checkbox"/></li> <li>• Co-ordinate all design information between disciplines. <input type="checkbox"/></li> </ul>		

# Design Documentation Guidelines

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### Detailed Design Phase

Design Process	Deliverables	Commentary
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>• Client approval of developed design. <input type="checkbox"/></li> <li>• Client approval of developed cost plan and feasibility analysis. <input type="checkbox"/></li> <li>• Reviewed district plan analysis. <input type="checkbox"/></li> <li>• Review and revise developed design. <input type="checkbox"/></li> <li>• Developed structural engineering. <input type="checkbox"/></li> <li>• Developed services engineering. <input type="checkbox"/></li> <li>• Developed fire engineering. <input type="checkbox"/></li> <li>• Developed environmental studies. <input type="checkbox"/></li> <li>• Developed acoustic advice. <input type="checkbox"/></li> <li>• Current project programme. <input type="checkbox"/></li> </ul> <p><b>Tasks:</b></p> <ul style="list-style-type: none"> <li>• Attend regular design phase meetings with relevant parties. <input type="checkbox"/></li> <li>• Co-ordinate and check each sub-consultant and other consultants' design and drawings with the architectural drawings at regular intervals. <input type="checkbox"/></li> <li>• Update document register. <input type="checkbox"/></li> <li>• Confirm project drawing, CAD, website, and communication standards. <input type="checkbox"/></li> <li>• Consider buildability constraints and implications. <input type="checkbox"/></li> <li>• Highlight significant or unusual health and safety risks that were identified in the design process. <input type="checkbox"/></li> </ul>	<p><b>Drawings:</b></p> <ul style="list-style-type: none"> <li>• Full set of drawings as per drawing register including: <input type="checkbox"/></li> <li>• Site plan including datum, boundary definition and orientation associated earthworks, landscaping and carparking, inground and overhead services, drainage, and all statutory legal title information. <input type="checkbox"/></li> <li>• Key plans to building zoning. <input type="checkbox"/></li> <li>• Floor plans at each level. <input type="checkbox"/></li> <li>• Reflected ceiling plans at each level including coordinated lighting and services fixtures. <input type="checkbox"/></li> <li>• External elevations. <input type="checkbox"/></li> <li>• Interior elevations. <input type="checkbox"/></li> <li>• Cross sections and longitudinal sections. <input type="checkbox"/></li> <li>• Roof plan with falls, gutters, rainwater heads and downpipes. <input type="checkbox"/></li> <li>• Electrical/lighting outlet and switching plan. <input type="checkbox"/></li> <li>• Plumbing layout and schematics. <input type="checkbox"/></li> <li>• Construction details at all typical and atypical locations cross referenced to plans and sections. <input type="checkbox"/></li> <li>• Plans, sections of access stairs, ramps, balustrades, barriers and handrails, including plant access. <input type="checkbox"/></li> <li>• Interior fitout including wall elevations and joinery details. <input type="checkbox"/></li> </ul>	<ol style="list-style-type: none"> <li>1. It is important to understand the means by which a construction contract is to be procured as this will inevitably impact on the format of the documentation produced and the design quality of the construction achieved. It may also be advantageous to the achieved design quality to have input into the prospective contractors/tender list. Consequently, in the detailed design phase, or any phase in which it is intended to procure a tender, the design consultants may need to: <ul style="list-style-type: none"> <li>• determine method of construction contract procurement.</li> <li>• determine form of conditions of construction contract .</li> <li>• prepare contract documents for client and contractor's signatures.</li> <li>• review and prepare documentation for tender with client, including insurance details, method of tender, bond, liquidated damages and tender protocols (where required).</li> <li>• review tenders for compliance with tender documents and respond to technical options offered.</li> </ul> </li> <li>2. Design of secondary architectural elements is sufficiently developed to consult the structural engineer on any specific design required.</li> </ol>

# Design Documentation Guidelines

## Architecture

### Detailed Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Confirm and respond to revisions to cost plan. <input type="checkbox"/></li> <li>• Review all plans elevations and sections, prepare details of typical and atypical construction. <input type="checkbox"/></li> <li>• Review tolerances established for all surfaces and materials, co-ordinate with specification. <input type="checkbox"/></li> <li>• Fully dimension all elements and datum. <input type="checkbox"/></li> <li>• Request list of 'Builders Work' items from other consultants, incorporate with architectural details. <input type="checkbox"/></li> <li>• Prepare architectural detailed design drawings. <input type="checkbox"/></li> <li>• Determine form of conditions of contract and incorporate into specification. <input type="checkbox"/></li> <li>• Prepare preliminaries and architecture trade sections to specification and co-ordinate trade sections with other sub-consultants or consultants. <input type="checkbox"/></li> <li>• Confirm finishes schedule against specification and schedule of monetary provisions. <input type="checkbox"/></li> <li>• Obtain client agreement on contingency sum allowances. <input type="checkbox"/></li> <li>• Co-ordinate all design information between disciplines as per separate co-ordination checklist. <input type="checkbox"/></li> <li>• Finalise glazing selection in consultation with building services engineer; confirm against requirements of authorities. <input type="checkbox"/></li> <li>• Review provisions for PABX with Telecom and client's real estate advisers. <input type="checkbox"/></li> <li>• Review and confirm security system provisions with client and building services engineer. <input type="checkbox"/></li> </ul>	<p><b>Schedules:</b></p> <ul style="list-style-type: none"> <li>• Schedule of internal and exterior finishes. <input type="checkbox"/></li> <li>• Schedule of internal and external opening joinery. <input type="checkbox"/></li> <li>• Schedule of hardware. <input type="checkbox"/></li> <li>• Schedule of sanitary fittings and tapware. <input type="checkbox"/></li> <li>• Schedule of joinery fittings. <input type="checkbox"/></li> <li>• Schedule of nett sums. <input type="checkbox"/></li> </ul> <p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Building specification including preliminaries and all trade sections. <input type="checkbox"/></li> <li>• Performance specifications for any works involving constructor design. <input type="checkbox"/></li> </ul> <p><b>Contractor Procurement:</b></p> <ul style="list-style-type: none"> <li>• Registration and short listing of contractors. <input type="checkbox"/></li> <li>• Conditions of tender, notices to tenderers and general conditions of contract. <input type="checkbox"/></li> <li>• Contract documents. <input type="checkbox"/></li> </ul>	<ol style="list-style-type: none"> <li>3. Where appropriate carry out discussion with a 'preferred' contractor on construction methodology.</li> <li>4. Design may be sufficient to lodge for building consent part way through this process.</li> <li>5. Detailed design generally provides a level of documentation that clearly defines all architectural elements. Design details should be co-ordinated with other disciplines. However, the documents produced in this phase may not be able to be directly built from.</li> <li>6. Identify in the specification the significant or unusual health and safety risks that were identified in the design.</li> <li>7. Refer to separate co-ordination checklist documents.</li> </ol>

# Design Documentation Guidelines

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### Detailed Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Review and confirm communications and PA system provisions with client and building services engineer. <input type="checkbox"/></li> <li>• Review and confirm cleaning, refuse and waste paper removal system provisions with client and building services engineer <input type="checkbox"/></li> <li>• Confirm if energy management system is to be employed; establish brief. <input type="checkbox"/></li> <li>• Confirm details and compliance of thermal envelope including glazing with code requirements and/or mechanical design with relevant consultants. <input type="checkbox"/></li> <li>• Confirm expansion and control joint details with structural engineer; verify that precast panel design and jointing conforms to thermal and other movement criteria, review impact on weathering. <input type="checkbox"/></li> <li>• Confirm requirements with structural engineer for attaching of cladding systems to edge beams; check details, including fire rating and acoustic requirements. <input type="checkbox"/></li> <li>• Carry out architectural check on architectural drawings as per checklist. <input type="checkbox"/></li> <li>• Submit drawings to quantity surveyor for final adjustment of cost plan. <input type="checkbox"/></li> <li>• Analyse tenders and report recommendations to client. <input type="checkbox"/></li> <li>• Advise client of maintenance and durability responsibilities. <input type="checkbox"/></li> <li>• Obtain client approval and sign off for completed drawings and specification. <input type="checkbox"/></li> </ul>		

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### Construction Design Phase

Design Process	Deliverables	Commentary
<p><b>Inputs:</b></p> <ul style="list-style-type: none"> <li>• Client approval of detailed design incorporating changes resulting from contract agreement process. <input type="checkbox"/></li> <li>• Building consent issues register. <input type="checkbox"/></li> <li>• Construction programme and sequencing. <input type="checkbox"/></li> <li>• Contract documents defined in sufficient detail for sub-trades to produce fabrication documents. <input type="checkbox"/></li> <li>• Craneage or access restrictions defined. <input type="checkbox"/></li> </ul> <p><b>Tasks:</b></p> <ul style="list-style-type: none"> <li>• Attend regular design phase meetings with relevant parties. <input type="checkbox"/></li> <li>• Update document register. <input type="checkbox"/></li> <li>• Prepare architectural construction design drawings incorporating changes agreed as a result of tender process and negotiations. <input type="checkbox"/></li> <li>• Site safety programme issued to all parties. <input type="checkbox"/></li> <li>• Issue shop drawings to consultants for review. <input type="checkbox"/></li> <li>• Coordinate interface between trades and receive, review and coordinate detailed 'shop drawings' for:               <ul style="list-style-type: none"> <li>– windows/façade systems. <input type="checkbox"/></li> <li>– pre-cast elements – wall and flow systems. <input type="checkbox"/></li> <li>– pre-cut timber framing. <input type="checkbox"/></li> <li>– steel shop drawings. <input type="checkbox"/></li> <li>– proprietary items. <input type="checkbox"/></li> <li>– other fabricated items. <input type="checkbox"/></li> </ul> </li> </ul>	<p><b>General:</b></p> <ul style="list-style-type: none"> <li>• Review or supply of technical specifications for contractor designed items or alternative designs. <input type="checkbox"/></li> <li>• Revisions of drawings, details and specifications as required by contract agreement process. <input type="checkbox"/></li> <li>• Revisions of drawings, details and specifications as required by building consent process. <input type="checkbox"/></li> <li>• Revisions of drawings, details and specifications as required by construction process. <input type="checkbox"/></li> </ul> <p><b>Shop Drawings:</b></p> <ul style="list-style-type: none"> <li>• Production of construction/fabrication/shop drawings for selected items. <input type="checkbox"/></li> <li>• Review of construction/fabrication/shop drawings for selected items. <input type="checkbox"/></li> </ul>	<ol style="list-style-type: none"> <li>1. Construction design is perceived as separate from construction phase observation/monitoring or contract administration services.</li> <li>2. At conclusion of construction design, it should be possible to construct the works without further recourse to the design consultant for design information.</li> <li>3. Construction phase services need to be defined in the engagement agreement.</li> <li>4. Refer to separate co-ordination checklist documents.</li> <li>5. The site safety management plan prepared by contractor should be circulated to all parties.</li> <li>6. The supply of supplementary information as required during the construction process occurs in the construction phase.</li> <li>7. Refer to the relevant discipline guidelines for engineering shop drawing requirements.</li> </ol>

# Design Documentation Guidelines

# Architecture

## Construction Design Phase continued

Design Process	Deliverables	Commentary
<ul style="list-style-type: none"> <li>• Prepare shop drawings for:               <ul style="list-style-type: none"> <li>– windows/façade systems. <input type="checkbox"/></li> <li>– pre-cast elements – wall and flow systems. <input type="checkbox"/></li> <li>– pre-cut timber framing. <input type="checkbox"/></li> <li>– as built drainage drawings. <input type="checkbox"/></li> <li>– steel shop drawings. <input type="checkbox"/></li> <li>– proprietary items. <input type="checkbox"/></li> </ul> </li> <li>• Other fabricated items. <input type="checkbox"/></li> <li>• Co-ordinate the design with detailed shop drawings required by other disciplines:               <ul style="list-style-type: none"> <li>– HVAC – duct layout, plant selection and technical data. <input type="checkbox"/></li> <li>– hydraulics – schematics, duct layout, plant selection and technical data. <input type="checkbox"/></li> <li>– fire Protection. <input type="checkbox"/></li> <li>– electrical services including layouts and elevations of MSSB. <input type="checkbox"/></li> <li>– lift and escalators – confirmed shaft sizes, car platform sizes, car interiors, setout. <input type="checkbox"/></li> <li>– security systems. <input type="checkbox"/></li> <li>– schedules for sanitary fittings, hardware. <input type="checkbox"/></li> </ul> </li> <li>• Review performance specifications. <input type="checkbox"/></li> </ul>		