

DAT101 Concept Design Assessment 1

Weighting

25%

Learning outcomes

- LO 1 Identify client requirements for a residential building project.
- LO 2 Identify physical site requirements and constraints for a building project.
- LO 3 Describe regulatory requirements for a building project, based on the Resource Management Act and a district plan.

Instructions

Complete and submit your assessment according to the Open Polytechnic's [Assessments webpage](#). This includes information on academic integrity, formatting, word limits and referencing.

Submission

- Submit your assessment in one file.
- Submit your work through your iQualify course.
- Emailed assessments will not be accepted.
- You will receive an automated notice advising you of your successful submission.

By submitting your assessment, you confirm that it is your own, original work.

Scenario

A prospective client would like to obtain your architectural services to design a new home on their newly purchased plot of land in Green Bay, Auckland.

At the meeting that you have arranged in your office, you introduce them to your company and show them examples of your previously completed projects. They are impressed with your work and design approach and would like you to design their new home.

Their overall budget for this infill house is \$750,000 including the costs for site preparations. According to their timeline, they plan to start the construction on site in four months and move into the house within eight months from the commencement of construction.

Client brief

The clients provide you with the following brief with their main requirements and inspiration photographs of the design styles they prefer. They also give an approximate idea of the site.

The clients are a family of four including two teenage kids. They have extended family that visits them often during the holidays. The family loves the outdoors, and they have a lot of outdoor gear that they use frequently.

The clients want the house to be well insulated to keep the heating costs at a minimum and to have ample sun access during winter. Also, they are keen to have a sunroom adjacent to the dining area.

Their requirements are:

- four bedrooms including the guest bedroom
- two bathrooms and ensuite for master bedroom
- open plan family room, dining, and kitchen
- a separate living room
- a small home office space
- a laundry and storage room closer to the garage
- two car garaging and space for one additional car
- bike storage with charging points
- a deck or a patio with access to mid-day/evening sun with a BBQ bench.

Site details

The site is in Green Bay, Auckland in the 'Mixed housing urban Zone' in the very high wind zone.

The section is approximately 500 m² and has a 2-3 m slope.

Inspiration photos



1. The Project brief and architectural services proposal

Tasks:

- a. Based on the client brief, prepare a draft project brief for the above project that covers:
 - the client's requirements with an outline design guide
 - a review of the project scope against the budget and timeline (for both design and construction)
 - regulatory constraints of the site.

- b. Draft an outline of contract of engagement that includes only the following:
 - architectural scope of work and deliverables
 - project timeline
 - indication of services from other consultants that may be required in the project.

(35 marks)

2. Site requirements and constraints

Task:

Prepare a site plan for the project. The plan can be CAD or hand drawn, with a 1:100 scale on A3 paper.

- To complete this task, you will need to access a site near you resembling the one in Green Bay, with approximately 500 m² and has a 2-3m slope. This can be:
 - the site of your current home
 - a site of a friend or whanau
 - a nearby park or public area, or part of one.
- All the relevant physical and environmental conditions **around your chosen site** need to be applied for the design.
- Use local **authority or land information websites** to gather the relevant site topography information.
- **Only the regulatory constraints relevant to Green Bay** need to be applied to the site you measure.

- Your site plan **must** incorporate:
 - site dimensions
 - contours
 - all the physical and environmental characteristics including existing structures. Take photos, sketches and measurements of the chosen site to show the environmental and physical characteristics (for example, trees, existing buildings, natural reserves and so on)
 - relevant regulatory details (for example, setbacks/buildable areas)
 - any noticeable service (for example, stormwater, wastewater and so on) connections marked on the site plan
 - sun path and winter and summer sun charts
 - a minimum of three cross-sections through the site showing regulatory constraints and levels.

(40 marks)

3. Regulations and district plan

Task:

Write a brief description of the regulatory requirements that are relevant to your project according to:

- The Resource Management Act 1991
- The District Plan (relevant to Green Bay, Auckland).

(25 marks)

Marking schedule

	29-35 marks	22-28 marks	15-21 marks	8-14 marks	1-7 marks
1. The Project brief and architectural services proposal.	<p>The project brief is well written to identify client requirements and precise project scope with construction and design options.</p> <p>The timeline and budget have been calculated, and their achievability has been evaluated with reference to project scope.</p> <p>The site regulatory constraints are well defined and noted with references.</p> <p>The architectural scope of work and deliverables are noted accurately.</p> <p>The project timeline is realistic with approximate times for deliverables.</p> <p>A good indication of the consultants required in the project and which stage.</p>	<p>The project brief is written with minor errors and some client requirement details are missing.</p> <p>The project scope and design options are listed with minor omissions.</p> <p>The site regulatory constraints don't contain any references.</p> <p>The architectural scope of work and deliverables have minor omissions.</p> <p>The timeline and budget are not realistic and have not been evaluated accurately.</p> <p>List of other consultants are noted with minor omissions and stage of involvement is missing.</p>	<p>The project brief is written with errors and does not capture all the aspects required.</p> <p>The client's requirement details are incomplete.</p> <p>The project scope and site regulatory constraints are incomplete.</p> <p>The architectural scope of works is incomplete with no deliverables noted.</p> <p>The project timeline and budget evaluation incomplete.</p> <p>Other consultants are not accurately identified or noted.</p>	<p>The project brief has errors and does not capture the client requirements well.</p> <p>Two or more of the following are not included.</p> <p>The architectural scope Deliverables Project timeline Project budget Other consultants.</p>	<p>A poor attempt at the Project brief and it does not capture the client requirements.</p> <p>Minimum effort to present the following; (majority are missing).</p> <p>The architectural scope Deliverables Project timeline Project budget Other consultants.</p>

	33-40 marks	25-32 marks	17-24 marks	9-16 marks	1-8 marks
2. Site requirements and constraints	<p>The site contains 3m or more slope.</p> <p>Site measurements, photos, and sketches clearly and precisely show the environmental and physical constraints.</p> <p>Site dimensions, contours, sun charts and wind information are shown accurately.</p> <p>Hand-drawn or computer-drawn drawing of professional quality: at the correct scale; contains accurate information; linework, notes, dimensions and referencing are flawless.</p> <p>Labels on the drawing are clear and easy to follow.</p> <p>3 or more cross sections drawn accurately</p> <p>Regulations are identified precisely and noted on drawings.</p>	<p>The site contains 3m or more slope.</p> <p>Site measurements, photos, and sketches show environmental and physical constraints</p> <p>Site dimensions, contours, sun charts and wind information are shown with minor errors.</p> <p>Hand-drawn or computer-drawn drawing of good quality but may contain errors. The scale may have minor errors.</p> <p>Information is generally accurate; linework, notes, dimensions and referencing are good quality but may contain errors.</p> <p>3 or more cross sections with minor errors.</p> <p>Regulations are partly identified and noted.</p>	<p>The site contains 2-3m slope.</p> <p>Drawing shows site dimensions, contours and sun charts with errors.</p> <p>Wind information not included.</p> <p>Hand-drawn or computer-drawn sketch is of acceptable quality, linework conveys the right shape, but may not be well-executed; information might not be accurate.</p> <p>Some labels may be missing and the scale is inaccurate.</p> <p>3 cross sections with errors or incomplete (not showing regulations)</p>	<p>The site has a slope less than 2m.</p> <p>One or more of the following pieces of information is missing: Site dimensions Contours Sun charts</p> <p>Drawing is poor quality, wrong scale, missing labels, poor linework, no notes, inaccurate dimensions.</p> <p>Two or less cross sections with significant errors.</p>	<p>The site has a slope less than 2m.</p> <p>Inadequate site information. Most of the following pieces of information is missing: Site dimensions Contours Sun charts</p> <p>Either no drawing, or it is of inadequate quality, wrong scale, missing labels, poor linework, no notes, inaccurate dimensions.</p> <p>Cross sections not drawn.</p>

	21-25 marks	16-20 marks	11-15 marks	6-10 marks	1-5 marks
3. Regulations and district plan	<p>Clear, accurate report describing the regulatory requirements for the building project from the District Plan and Resource Management Act.</p> <p>Clear and easy to follow in the student's own words.</p> <p>Relevant references used.</p>	<p>Accurate research with minor mistakes describing the regulatory requirements for the building project from the District Plan and Resource Management Act.</p> <p>References may have minor mistakes.</p>	<p>Acceptable research describing the regulatory requirements for the building project from the District Plan and Resource Management Act.</p> <p>Relevant information may only be lightly covered or is hard to follow.</p> <p>No references.</p>	<p>Incomplete descriptions of the regulatory requirements for the building project from the District Plan and Resource Management Act</p>	<p>No descriptions or poor descriptions of the regulatory requirements for the building project from the District Plan and Resource Management Act.</p>