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Masterplan study process

A master plan study should also undertake the following activities:

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<th>Activity</th>
<th>Description</th>
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<td>1</td>
<td>Role and Function Review</td>
<td>Review the Planning Brief, Service Plan and Business Plan and document any changes and reasons for approval by DHS and the Health Service/Agency. Changes to the planning brief should be documented and approved.</td>
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<tr>
<td>2</td>
<td>Area Allocation</td>
<td>Functional area requirements are to be developed utilising DHS benchmark data and existing floor area data.</td>
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<td>3</td>
<td>Assessment of Existing Assets</td>
<td>Assess the existing physical condition, statutory compliance, suitability to perform required function and operational efficiency in delivering the required service outcomes.</td>
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<td>4</td>
<td>Site Investigation</td>
<td>Record and assess the relevant information and influences affecting planning and development on the site.</td>
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<td>5</td>
<td>Development of Options</td>
<td>Identify and examine development options, management and capital works options with consideration to the planning brief and previous steps.</td>
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<td>6</td>
<td>Evaluation of Options</td>
<td>Develop a matrix that details the evaluation criteria agreed by the PCG and the performance of each of the options.</td>
</tr>
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<td>7</td>
<td>Action Plan</td>
<td>Assess and recommend an action plan that reflects the priorities and strategy plans.</td>
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<tr>
<td>8</td>
<td>Drawings/Report</td>
<td>The Master Plan identifies buildings and site development features including movement systems. The report assesses and describes the existing facilities in-line with the Asset Assessment Guidelines and the indicative costs of Cost Plan A. The Engineering Services Master Plan identifies major plant and equipment and the trunk reticulation systems.</td>
</tr>
<tr>
<td>9</td>
<td>Approval</td>
<td>The PCG endorses the Master Plan for approval by the Capital Management Branch.</td>
</tr>
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</table>

Step 1: Role and function review

Review the planning brief, service plan and business plan to develop a comprehensive understanding of the services and functions to be provided and the manner in which they are to be delivered. Any changes to the planning brief that may arise during the master plan study should be documented, including reasons, and approved by the Department of Health and Human Services (program and region) and the health service/agency. Such amendments may be due to changes in things such as demographics, government policy, and/or private developments.

Step 2: Area allocation

In accordance with the service plan and planning brief, functional area requirements are to be developed utilising department benchmark data and are to include data on existing floor areas occupied by the respective functional area. Refer to the Figure: Example of area allocation by facility or department.
The master plan study will also include relationship diagrams that identify the physical and functional links between units, hours of use and public accessibility. Requirements for vehicles, goods and people movement systems, car parking and any special external requirements as identified in the planning brief are to be incorporated into this document.

Ensure that consideration is given to the area implications of any changes in the delivery of engineering services.

Example of area allocation by facility or department.

<table>
<thead>
<tr>
<th>Existing facilities</th>
<th>Existing services</th>
<th>Level of service*</th>
<th>Ex. fac. location</th>
<th>Existing area (m²)</th>
<th>Proposed services</th>
<th>Level of service*</th>
<th>Proposed area required (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day procedure unit</td>
<td>1 procedure room</td>
<td>2</td>
<td>B1 - 2nd</td>
<td>120</td>
<td>Day procedure unit</td>
<td>2</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>11 trolleys</td>
<td></td>
<td>B2 - 2nd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating theatres</td>
<td>3 with 8 recovery places</td>
<td>3</td>
<td>B2 - 2nd</td>
<td>700</td>
<td>Operating theatres</td>
<td>3</td>
<td>600</td>
</tr>
<tr>
<td>CSSD</td>
<td>All hospital sterilisation</td>
<td></td>
<td>B2-2nd</td>
<td>200</td>
<td>CSSD</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Diagnostic radiology</td>
<td>1 x ultrasound</td>
<td>2</td>
<td>B31</td>
<td>505</td>
<td>Radiology</td>
<td>2</td>
<td>600</td>
</tr>
<tr>
<td>MR1</td>
<td>MRI Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Reference for level of service should be included using the state / national benchmark.

**Step 3: Assessment of existing assets**

The objectives for undertaking an asset review assessment are:

- physical assessment of condition of existing building and infrastructure
- assessment of compliance with statutory and other requirements
- assessment of the suitability of the asset to perform the required function
- assessment of the assets operational efficiency in delivering the required service outcomes.

The process required for undertaking as assessment of existing assets either as part of a master planning exercise or for some other purpose are as set out in planning and development guideline 1.3 asset assessment guideline.

**Step 4: Site investigation**

The site investigation will need to record and assess the relevant information and influences affecting planning and development on the site. A holistic approach is expected to avoid unexpected surprises later in the life of the project. This will include the analysis of general disposition of existing facilities/buildings on site to give an indication of the overall layout, eg:

- title / ownership
- circulation and goods movement systems
- orientation
- site access and egress
- views
- location and setback of buildings
- development constraints such as helicopter flightpaths
- centralised or major energy plant
- heritage issues
- site contamination
- essential engineering services
- town planning/zoning
- requirements of relevant authorities
- topography and soil conditions.
- adjoining uses / landholding

The site investigation will need to assess the capacity of the site to accommodate additional facilities, future expansion and/or identify assets.
potentially surplus to requirements.

In some projects the site investigation may entail a site selection process. In these instances the assessment of each site will need to consider items highlighted for each site.

It is essential that at this stage a qualitative and quantitative identification of any potential additional work is made which may be associated with the development of the project eg:

- landscaping
- temporary accommodation and support service
- engineering and site services
- demolition
- removal of hazardous material, e.g. asbestos removal
- condition of adjoining properties
- fire safety upgrades
- land acquisition requirements / opportunities.

**Step 5: Development of options**

In the development of options, management and capital works options need to be identified and examined. For example, schedules of activities, joint use of space and temporary or rental facilities may satisfy the service need.

These options should reflect the planning brief and acknowledge the physical and functional condition of the existing facilities as identified in the previous steps. Any provisions that needs to be made for future development needs to be clearly identified.

Options are developed in master plan form to the point that their broad physical, staging, service delivery, operational and capital and recurrent financial implications are identified and can be evaluated against one another.

Plans should be prepared at a suitable scale, no smaller than 1:200 (refer to the master plan report checklist for details regarding drawing scales), and developed to a level which clearly describes departmental floor areas, traffic circulation patterns, level of new and alteration works and future expansion.

**Step 6: Evaluation of options**

As part of master planning a matrix should be developed that details the evaluation criteria agreed by the project control group (PCG) and the performance of each of the options against each of the criteria. The consultants are to rank the options and present the evaluation to the PCG for consideration and assessment. The PCG will generally instruct the consultants to either:

- proceed with further development of one option only or
- undertake further study of two or more options or
- defer or cancel further work on the project and hence cease the study at this point.

The future work will entail activities described below.

**Engineering services**

Engineering services generally include:

- supply (e.g. gas, water, electricity, medical gases, communications)
- discharge and waste (e.g. stormwater, sewer)
- essential engineering services
- other (e.g. cogeneration, roads, central plant).

Investigate existing services and assess their adequacy and appropriateness to current and future needs. Consideration should be given to the practicality and need for maintaining or upgrading existing services and any statutory requirements (eg two sources of supply, emergency back up).

Develop options for meeting future service needs. Emphasis is placed on solutions that are cost effective, readily maintained, flexible and can be implemented with minimal disruption.

Particular attention has to be given to energy efficiency and reliability. Alternative energy systems should be examined that achieve consumption savings and reduction of greenhouse gases.

**Step 7: Action plan**

Consultants will assess and recommend an action plan to implement the recommended master plan proposal(s). This will reflect the priorities and strategy plans for the achievement of goals and objectives sought through the agreed planning brief. A value management study may be required on the preferred option(s).

This action plan will also allow for staging issues associated with relocation works and commissioning of new services.
The PCG will endorse the proposed action plan prior to undertaking further design activities.

Step 8: Drawings / report

A master plan study report summarises the master plan studies outcomes, main options, the preferred development option and the costs and benefits and issues for each option.

Master plans should anticipate changes to an agency’s physical form over an extended period. Reviews of master plans are required when that agency’s role and function are altered or evolving and / or problems are being experienced through changes in modes of service delivery or from aging building and infrastructure.

Drawings and the report are required to describe the provisions for change and show such things as location of functional and activity areas, buildings, major circulation patterns, areas and directions of growth, consolidation or shrinkage and so forth.

Master plan

The scope is to identify buildings and site development features including movement systems. The report should assess and describe the existing facilities in line with the requirements of the asset assessment guidelines. It should reflect the needs of proposed developments and future site requirements and explain how the recommended option can be accommodated with indicative costs to a cost plan A level. While adhering to the government policy, the report should indicate in broad terms the environmentally sustainable design improvements to be included in future developments emanating from the master planning exercise.

Engineering services master plan

The scope is to identify major plant and equipment and the trunk reticulation systems. This report should assess and describe the existing engineering services in terms of age, condition and capacity broadly in line with the requirements of the department’s asset assessment guideline. It should reflect the needs of proposed developments and future site requirements and indicative costs at cost plan A level. While adhering to the government policy, the report should indicate in broad terms the environmentally sustainable design improvements that should be considered in future developments emanating from the master planning exercise.

Preliminary departmental floor layouts at a scale of 1:200 and a site plan are usually sufficient, together with preliminary estimates for each discrete component in proposed new buildings and works. Areas should be tabulated for all accommodation proposed.

Cost estimates

For the preferred option(s) cost plan A is to be developed along with recurrent and operational costs.

The cost plan A should be prepared according to the department requirements and include:

- asset acquisition
- external works and services
- building works (alteration/new)
- standard equipment (typically 4% to 8%)
- fees (typically 12% to 14%)
- locality allowance
- asset realisation
- environmentally sustainable development and infrastructure allowance (5%)
- information and communication technology
- contingency (design and construction - 10%)
- prolongation costs
- special factors and equipment.

For capital projects in excess of $250,000, the department engages a quantity surveyor for cost planning services independently from other consultants. The cost plan A should reflect the anticipated total estimated investment (TEI) (refer Cost plans guidelines 2.3 for more details).

Special equipment

Any special equipment items shall be independently listed and costed (eg Linac, MRI unit, CAT scanner etc). Such costs are to include supply and fit. Imported equipment also should identify lead times and financial risk arrangements (eg fluctuation in currency exchange rates).

Development program

A timetable shall be prepared that reflects the strategy /a ction plan for the implementation of any projects and an associated cash flow projection that incorporates any timing constraints which may be imposed by associated works or other relevant factors.

The development program must incorporate the government approvals process and may entail various projects to be implemented over various stages.

Report format requirements
The complete master plan report format requirements are detailed in the consultant’s checklist, which is supplied in a word format and is to be included in the master plan report.

Quality assurance

The report is to be reviewed and quality assurance checked by the project manager prior to submission. The document is to be completed, certified and signed by the principal consultant and endorsed and signed by the consultant project manager.

Step 9 - Approval

The role of the PCG during the master plan phase is to initially consider and endorse the master plan study. This endorsement is not a commitment for the implementation of a specific capital project. This will be subject to the availability of capital funds and priority within a state, program and regional context.

Once endorsed by the PCG, the master plan study is to be submitted for evaluation and approval by the department regional, program and capital projects staff. Formal notification of the department approval is provided by the Regional Director.

In most instances, approval will enable the project to proceed with a feasibility study that utilises the preferred development strategy.