



Health Prototyping Centre



Room Data Sheets Redesign

CASE STUDY

An initiative between eHealth NSW, Health Infrastructure, HealthShare NSW and NSW Health Pathology.

Client name

Health Infrastructure,
Australasian Health Facility
Guidelines (AusHFG)

Location

NSW, statewide

Product/service delivered

The Health Prototyping Centre was used to rapidly prototype and redesign room data sheets, which is a key document in health facility infrastructure projects.

Key benefits of using the Health Prototyping Centre

- Provides a dedicated space, including a range of clinical simulation suites and equipment replicating common pathology, acute care, and home care settings
- Allows teams to focus on problem solving away from everyday working environments
- Enables the easy simulation of workflows
- Provides a team of technical and design experts to support the evaluation
- Supplies tools and technology to support the development of prototypes
- Includes replication of the NSW Health technology stack to support integration and functional testing
- Supports the recruitment of test users for projects—both patients and clinicians



The challenge

The Australasian Health Facility Guidelines (AusHFG) represent a significant set of freely available resources for health services and project teams across Australia and New Zealand. They support better planning, design, procurement, and management of health capital assets.

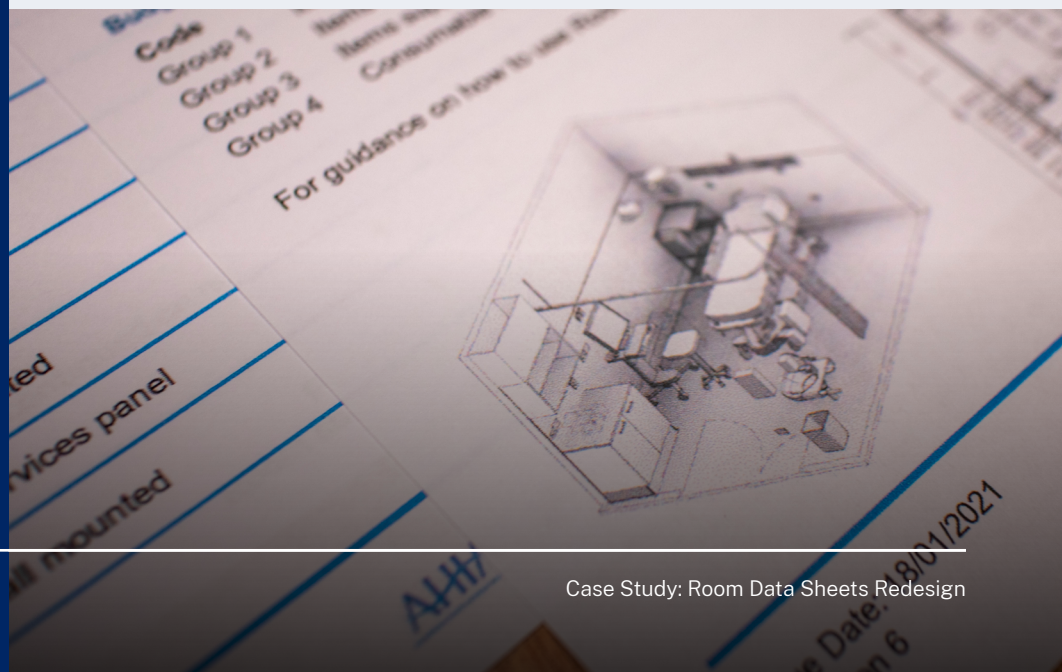
The AusHFG consists of around 230 Standard Components that provide detailed design guidance on commonly used rooms and spaces in health facilities. For example, handwashing basins, consult rooms, medical imaging rooms and operating rooms. Each Standard Component consists of two documents: Room Layout Sheet and Room Data Sheet (RDS).

The focus of this redesign project was the RDS. It details room function and requirements, finishes, fittings, furniture, equipment and services items.

The team identified several challenges with the use of current RDS, including:

- difficulty finding and understanding information in the document; the design is cluttered with many tables and figures
- some information is not included; staff often have to cross reference with other guidelines and documents
- hard to identify and test optional items for potential inclusion in the room
- difficulty meeting the needs of a wide range of users; knowledge varies in relation to health design and construction.

The new design also needed to align with existing guidelines and systems held by AusHFG.





Description	The Treatment Room provides a controlled env treatments and minor procedures.
Electrical	BODY PROTECTED <input checked="" type="checkbox"/> CARDIAC PROTECTED <input checked="" type="checkbox"/> UPS REQUIRED <input type="checkbox"/>
Air	AIRCONDITIONING: hepa filtered <input checked="" type="checkbox"/> AIRCONDITIONING: positive pressure <input checked="" type="checkbox"/> AIRCONDITIONING: negative pressure <input checked="" type="checkbox"/> EXHAUST: room exhaust <input checked="" type="checkbox"/> VENTILATION: BMS INTEGRATION <input checked="" type="checkbox"/>
Accessibility	SIGNAGE: tactile and braille <input checked="" type="checkbox"/> VISUAL: 30% door/wall contrast <input checked="" type="checkbox"/> VISUAL: glazing indicator <input checked="" type="checkbox"/> AUDIO: hearing augmentation <input checked="" type="checkbox"/>
Acoustics	NOISE SENSITIVITY: medium <input checked="" type="checkbox"/> PRIVACY: confidential <input checked="" type="checkbox"/>
Additional Considerations	An operational model for responding to calls fr and is to be determined based on service requ Extent and design of joinery/storage to meet si

Issue Date: 18/01/2021
Revision 6

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Doors and windows

CODE	DESCRIPTION
DWPR-005	DOOR PROTECTION: protection plate
DWPR-010	DOOR PROTECTION: to door frame, P
DWGL-033	DOOR: 1400mm cts, 1 1/2 leaf, observ

Finishes

CODE	DESCRIPTION
CLFS-006	CEILING: plasterboard, flush set, susper
CLCN-008	CORNICE: square set flush between wal
FLSK-010	SKIRTING: vinyl, floor vinyl covered, 150H
FLVY-007	FLOOR FINISH: vinyl, seamless, covered,
WLWA-004	WALL FINISH: paint, acrylic, washable
WLWA-007	WALL FINISH: splashback to basin
WLWA-020	WALL FINISH: vinyl, to 1500 AFFL

Joinery

CODE	DESCRIPTION
FUJO-059	BENCH TOP: 600D, joinery under, lamina
FUJO-135	CUPBOARD: underbench, double door, w
FUJO-152	CUPBOARD: wall mount, shelf unit, adj st
FUJO-212	BULKHEAD: joinery

Fittings, Furniture and Equipment

CODE	DESCRIPTION
FIDI-001	DISPENSER: alcohol based hand rub
FIDI-014	DISPENSER: disposable glove
FIDI-025	DISPENSER: paperhand towel
FIDI-030	DISPENSER: soap
FIDI-031	DISPENSER: soap antiseptic
FIRT-032	TRACK: curtain, privacy, L shaped

Issue Date: 18/01/2021
Revision 6

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CODE	DESCRIPTION	GROUP	QTY	COMMENT
FQBS-052	STOOL: mobile, high, adj height	3	1	
FQGW-016	BIN: waste, general, 20L			
FQGW-043	BIN: waste, sharps, on trolley			
FQGE-005	CLOCK: analogue, battery operated			
FQGE-010	CURTAIN: privacy screen			
HYBA-009	BASIN: handwash, Type A, scrub			
HYTP-037	TAPWARE: mixer, elbow levers			
ITNE-008	COMPUTER: for workstation on wheels			

ITNE-053	TELEPHONE: handset, wall mount, handset
LIFX-027	LIGHT: examination, ceiling mounted
MMGE-002	ADAPTER: suction
MMGE-100	SUCTION BOTTLE
MMGE-164	WORKSTATION ON WHEELS: clinical, mobile

Optional FFE Items

FIHR-026	HOOK: coat
FOCW-008	BIN: waste, clinical, 50L

ITNE-023

PRINTER: networked

Engineering services

CODE	DESCRIPTION
ELBO-015	SWITCH: light, single

ELGP-101	GPO: single, ceiling mounted
ELGP-109	GPO: single, wall mounted
ELGP-110	GPO: single, wall mounted, cleaner
ELGP-208	GPO: double, wall mounted
ELPR-006	RCD: residual current device

ITRN-016	OUTLET: data, single RJ45, wall mounted
ITRN-025	OUTLET: data, double RJ45, wall mounted
ITRN-026	OUTLET: data, double RJ45, wall mounted

Issue Date: 18/01/2021
Revision 6

Engineering services continued...

CODE	DESCRIPTION	GROUP	QTY	COMMENT
ITSE-006	BUTTON: duress, fixed	1	1	
LFX-008	LIGHT: task light, built in	1	1	under wall mounted joinery
MMGE-043	TROLLEY: patient, examination	3	1	
MMGE-031	DIAGNOSTIC SET: wall mounted	2	1	optional, may be portable/mobile on stand
MMGE-100	SUCTION BOTTLE	3	1	
MMGE-119	TROLLEY: equipment	3	1	

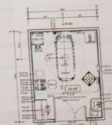
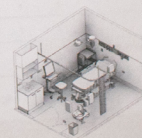
Medical services panels and pendants

CODE	DESCRIPTION	GROUP	QTY	COMMENT
MMSP-026	SERVICES PANEL: wall mounted	1	1	
ELGP-105	GPO: single, on services panel	1	3	
ELGP-122	GPO: emergency power, single, on services panel	1	2	
ITCL-004	BUTTON: nurse call, emergency	1	1	+ indicator button & light
ITCL-006	BUTTON: nurse call, patient to staff	1	1	on services panel + indicator button & light
ITCL-008	BUTTON: nurse call, staff assist	1	1	on services panel + indicator button & light
ITCL-028	HANDSET: nurse call, with patient to staff call button	1	1	on services panel, call button on the handset
MGAS-022	OUTLET: medical air (MA), on services panel	1	1	
MGAS-042	OUTLET: oxygen (O2), on services panel	1	1	
MGAS-062	OUTLET: suction, on services panel	1	1	
MGFP-002	FLOWMETER: medical air	3	1	
MGFP-004	FLOWMETER: oxygen	3	1	

Budget group key

Code	Description
Group 1	Items supplied and fixed by the contractor
Group 2	Items supplied by the client and fixed by the contractor
Group 3	Items supplied and installed by the client
Group 4	Consumable items purchased and installed by the client outside the capital budget

For guidance on how to use Room Data Sheets, please visit the "Room Data Sheet Guidelines" page on the AustHFG website.



Treatment Room Visualisation and Plan

Room Data Sheets are designed to be used in conjunction with the Room Layout Sheet, please ensure you refer to the TRMT Room Layout Sheet

Issue Date: 18/01/2021
Revision 6

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Page 4 of 4
Room code: TRMT

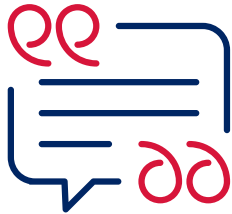
The plan

Representatives from Health Infrastructure, AusHFG and dRofus (a vendor of infrastructure planning and data management software) collaborated to redesign the Room Data Sheet. They used the Health Prototyping Centre (HPC) for their design sprint.

On the first day, the team asked three key questions from a range of RDS users. Who uses the RDS, what are they used for and when are they used in a project. They collected insights to map out common user journeys. This highlighted pain points where the redesign could have the greatest impact.

On day two, the team sourced a variety of complex documents to get design inspiration. These included bank statements, product specification sheets, invoices, and real estate listings. They used these learnings to sketch ways to make the RDS easier to use. The team started to redesign different parts of the document. They also identified new information to include.

Over the week, this design was modified and combined into two working prototype documents. These were tested with current users, including architects, engineers, health planners and project managers.



“Using the design sprint process at the HPC allowed us to undertake so much exploration and then develop a testable prototype in three days, before getting valuable feedback on it by the end of the week. We could not have progressed the project so quickly without it. Having the space and time to have ideas challenged and validated with the workshop exercises in the design sprint was so valuable and contributed to an amazing outcome.”

Shalyce Corney, AusHFG Standard Components Lead, Health Infrastructure



“I participated in a great prototyping session at the new HPC working with Gordon and our Health Infrastructure team. We spent two intensive days looking at the problem and possible solutions. This time was very well planned and structured, so no time was wasted. The process where we ‘tested’ the prototype with users through eight structured interviews was extremely valuable both in terms of improving the final product to be tested but also by using the experience and knowledge of planning and design experts.”

Jenny Green, Service and Facility Planning, Program Director, Health Infrastructure

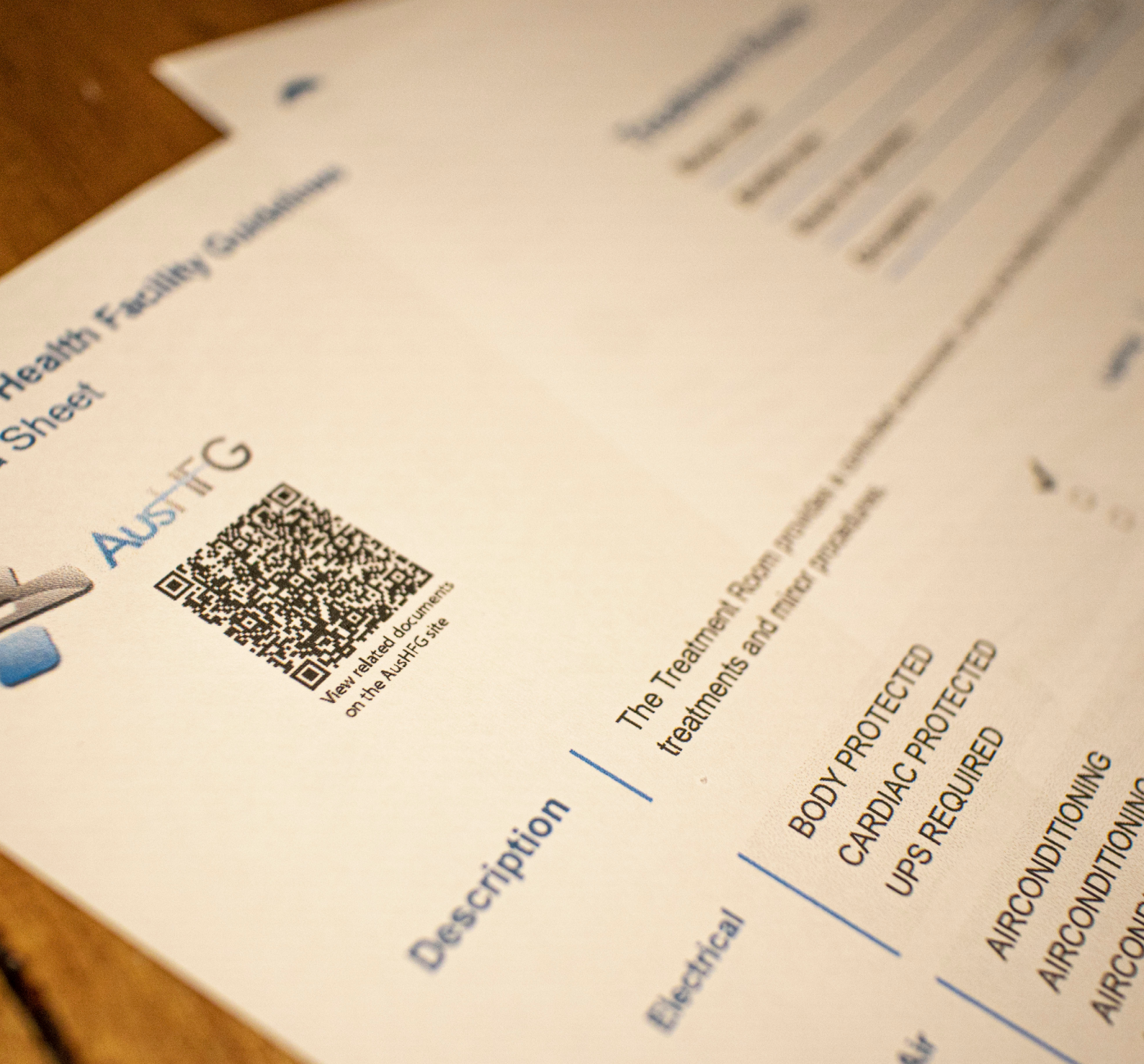
The outcome

Feedback on the prototypes was overwhelmingly positive. Participants confirmed that both documents were easier to read and scan quickly. Each used categorisation to help understanding and had a more logical flow.

The addition of graphics and colour helped reduce cognitive overload with one participant commenting, “It [the new layout] doesn’t stress me out... it’s actually quite calming.”

One user suggested a more data-orientated view. Although an Excel version is already available, the feedback did highlight the value of providing alternative formats.

Using the feedback from user testing, the team was able to revise the document again for further testing. These changes are now being reviewed by stakeholders for endorsement.



The benefits



Using the Health Prototyping Centre enabled the team to:

- facilitate collaboration between three organisations in one place (Health Infrastructure, AusHFG and dRofus)
- gather a wide range of feedback from end users
- identify problems that impact user experience
- use this information to quickly design a new document layout.



To find out more about the Health Prototyping Centre and how your project can access its facilities contact ehnsw-hpc@health.nsw.gov.au