



TWPI
Healthcare Planning



SGP
Architects + Masterplanners



Following a longstanding association between the principals, international health planning firm **TAHPI** and UK architecture and planning firm **Stephen George + Partners** have created a Joint Venture in the form of **TAHPI + SGP**. The Joint Venture welds together the wide-ranging experience and expertise of TAHPI, from master/service planning to health facility briefing, guidelines and design, with that of Stephen George + Partners in the UK within the sectors of healthcare, housing, masterplanning and other related fields. Synergies between the firms' research and development components are also being utilised to serve the UK healthcare market.

Stephen George + Partners, an AJ 100 architectural practice with an award-winning creative and technical team, is all about Quality, Reliability and Integrity.

We respond rapidly to client requirements, applying technical expertise and commercial realism to resolve complex issues effectively and produce well-designed, innovative and deliverable buildings.

The key to our success is that we have built **long-term relationships with clients** in both the private and public sectors. We believe that good architecture is built on strong relationships.

At Stephen George + Partners, we work with clients and listen to their needs to deliver best design and to deliver better buildings.

TAHPI is one of the oldest and largest health planning firms in the world. TAHPI is well established in Australasia and the Middle East and committed to long term, reliable service delivery to private and public clients.

TAHPI is one of the most prolific authors of **International Standards and Guidelines** in Healthcare Design, recently customised specifically for Asia and the Middle East. In addition to our own guidelines, TAHPI regularly works with Australian, British and American guidelines in providing design services in over 30 countries.

TAHPI is also the largest developer of software and web-based tools for healthcare facility briefing, planning and design for the entire industry.

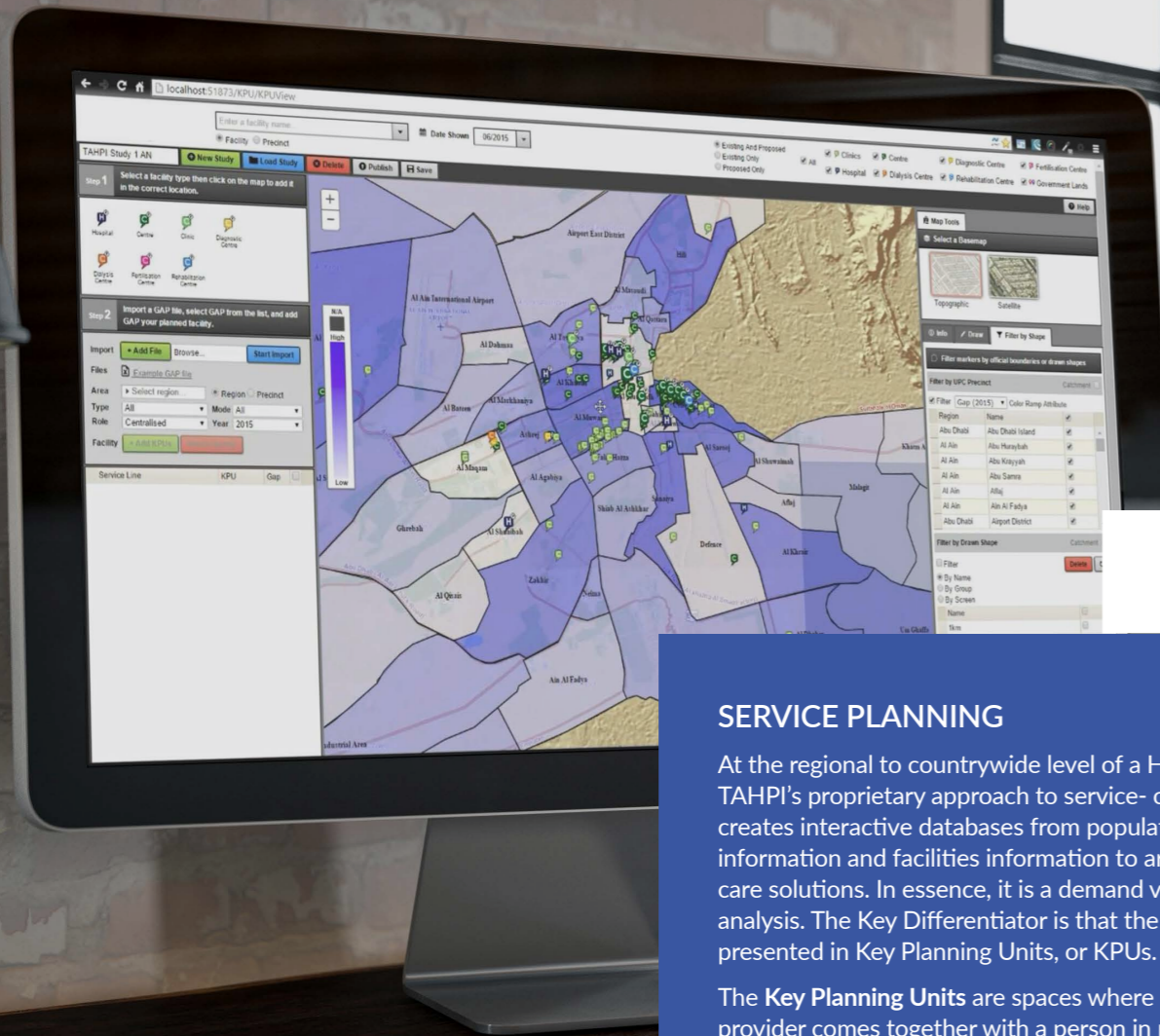
We combine our extensive **Research and Development** capability with excellence in Healthcare Architecture to deliver optimal solutions through 10 offices, covering from Australasia to the Middle East, UK / Europe and Africa.





Through its 30 year history, TAHPI has built up the ability to address the issues of health planning from the macro level of service- or capacity planning to briefing to strategic optioneering to facility design. Together with Stephen George + Partners, these services are now available in the UK market. Utilising a suite of software components, TAHPI+SGP can seamlessly analyse anticipated facilities needs – upgrades of existing campuses, new facilities, strategic redeployemnet of services. Gathered under the interactive banner of the Health Facilities Briefing System – HFBS – these analytical tools are being expanded as well as tailored for the UK market to create a powerful offering of analytical and design services.

The vast majority of healthcare projects are additions to and modifications of existing facilities. Over time, with the best of incremental intentions, these facilities can become encumbered by a history of incremental solutions. Through HFBS, TAHPI+SGP can analyse and recommend options for restructategising of the healthcare of the future.



SERVICE PLANNING

At the regional to countrywide level of a Health Authority, TAHPI's proprietary approach to service- or capacity planning creates interactive databases from population health information and facilities information to arrive at integrated care solutions. In essence, it is a demand versus supply analysis. The Key Differentiator is that the 'gap' analysis is presented in Key Planning Units, or KPUs.

The **Key Planning Units** are spaces where a healthcare provider comes together with a person in need – a consult/ exam room, an OR, a CT scan room, an inpatient bed, etc. It distills the complex information of an entire population into 'units' that put the patient in the centre.

Together with our architects, these 'units' are compared to existing facilities and population dispersal, and, with the Client, decisions are made at a desktop masterplanning level for new facilities or facilities upgrades and expansions. Heat maps (above) help to visualize over- and undersupply of services, both now and into the future.

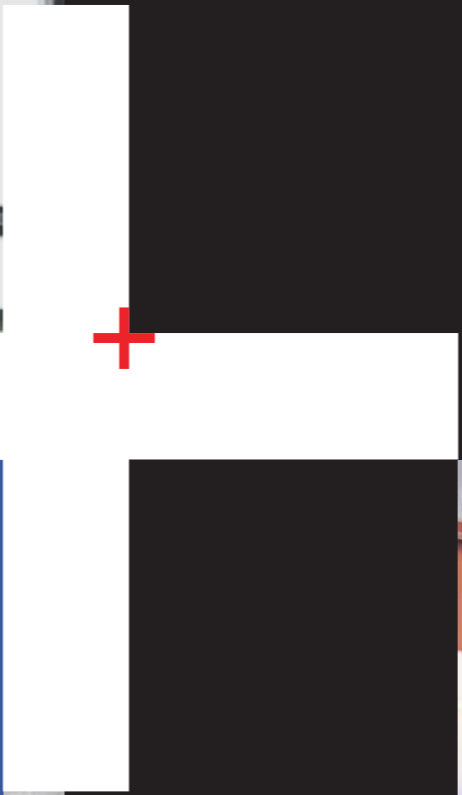
FACILITIES BRIEFING

As specific rooms, all Key Planning Units require support functions either immediately in the department, or elsewhere. The HFBS Briefing Module is used to build up the entire brief for the project – be it an alteration, an addition or a new facility. Standardised databases or previous projects are used as starting points.

As briefs are built up, standardised, typical (repeatable) room information based on relevant codes (e.g., HBN, HTM) is also built up in the form of Room Data Sheets and Room Layout Sheets.

Areas are also aggregated, giving overall Project Summaries as well as more detailed department Schedules of Accommodation.

The HFBS Budgeting module can be used in parallel to check project fixed costs. Recurrent Cost and HR modules can also be used as checks at any time during the process.



MEDICAL PLANNING

More than any other building type, hospital design requires close coordination of medical functional planning and architectural design considerations. With over 30 years' experience working with cutting-edge, world leaders in hospital operations, the medical planning architects with TAHPI+SGP bring innovative ideas to every project.

From overall planning to department design to innovations at room level, TAHPI+SGP's architects work closely with client user groups, sharing and learning innovative approaches to best patient-centric planning



ARCHITECTURAL MASTERPLANNING & DESIGN

Within any scale, context or budget, TAHPI+SGP architects create place-appropriate buildings that are well-considered for future developments and inevitable changes of use. Clear planning principles make for clearly organised, navigable buildings that contribute to both efficiency and a sense of serenity in a healing environment.



SPECIALIST HEALTHCARE INTERIOR DESIGN

As both place-defining and orientating strategies, as well as contributors to a sense of well-being, the choice and use of colours is of great importance in the creation of healing spaces in healthcare design. TAHPI+SGP interior designers have vast experience working with large and complex healthcare environments as well as small clinics.

As part of the common theme running through all of our healthcare projects, the functionality of the rooms and room relationships is informed by the clinical planning, equipment planning and a thorough understanding of how the spaces are used by staff and experienced by patients and their visitors.



MEDICAL EQUIPMENT PLANNING

Healthcare Equipment Planning is a specialized process and requires not only a clear understanding of the clinical need, but also an intricate knowledge of budgeting, architectural design and building process.

Effective project planning can only be achieved through a successful team process. This cohesive team generally consists of user groups, project managers, architects and other associated healthcare planners such as equipment planners, whose responsibility is to balance the requirements of the clinical users and their clients against available healthcare technology, budgetary targets and the realities of the design and construction process.

A high-level department by department Medical Technology report details the types and complexity of the medical equipment technology intended to be used to meet the project's current and future requirements.

Once the medical equipment requirements are determined, detailed room by room Equipment Schedules are developed, allowing Bill of Quantity reports and Budget Estimates to be made. The equipment schedule is used later to verify any room dimensional deficiencies, providing the basis for Medical Gas Schedules as well as Mechanical, Electrical and Plumbing Schedules.



MODULAR DESIGN ENABLING MMC

Soft Modular is about the compartmentation of the knowledge of healthcare design into units of planning from Departments and Services down to Rooms, Content, Finishes and Specifications. TAHPI+SGP utilise an information catalogue of 50 Functional Units of planning plus 500 unique repeatable room types, each fully specified, pre-designed and engineered with multiple permutations to create Hospitals or Clinics of any size or specialisation. These form the raw components of rapid design. Each component would be fully audited to comply with all the relevant standards and guidelines out-of-the-box.

These elements could then be used for healthcare projects from refurbishments and extensions to entirely new facilities. It would be a matter of choosing the right elements rather than re-inventing every element every time for every project.

This design methodology follows logically into construction in offsite Unit Modular as well as Component Modularisation, both of which TAHPI pursues abroad including a new 500 bed hospital in Kerala being constructed in two stages, each around 250 beds, with approximately 70% of construction performed offsite with a high level of robotics.



INFORMATION MANAGEMENT

Delivering Digital Twins alongside their physical assets through the utilisation of Design for Manufacture (DfMA) & MMC to meet the requirements of the Digital Blueprint...

Saving time and money, giving increased certainty, enabling more informed strategic decisions, delivering better outcomes...

The needs and requirements for delivering built assets are changing and the importance of digital transformation is growing. Information management is accepted as part of the solution to long-standing issues in the healthcare environment, such as improving productivity and reducing the performance gap between a building's design and its operation, as well as a way of facilitating the sector's sustainability agenda and the increased interest in the cost of a building across its lifetime (Totex). The transformation has received additional impetus from more acute concerns, such as the Grenfell Enquiry and COVID-19.

Organisations that exist within this domain need to be able to meet these changing requirements and a large proportion of them will need assistance to do so.

As proponents of and experts in OpenBIM and Government mandated industry data standards, TAHPI + SGP has the experience and technical knowledge to deliver complete engagement in the information management process, increasing efficiencies and maximising performance as well as ensuring compliance with relevant standards and risk management protocols, and achieving best practice throughout the project.

Members of TAHPI + SGP also sit on the UK&I chapter of BuildingSMART and relevant BSI and CEN committees, whose collective aim is to help to shape future standards in the digital transformation arena.

HEALTH FACILITY BRIEFING SYSTEM – HFBS

HFBS is a web-based 'rapid briefing, design and management tool' that streamlines the delivery of healthcare projects by capturing information in a such a way that it is used directly from briefing through design to construction of the project. It is a unique no-gap system giving clients the peace of mind that all aspects of the project are well controlled and managed.

HFBS provides a wide range of Standard Briefing and Design Components for immediate use. It generates all project data including Room Data Sheets, Room Layout Sheets, Equipment Schedules, Fitting and Furnishing Schedules, Finishes Schedules, Budget Costing, etc. in one centralised location. The HFBS information can be kept for maintenance and future changes. The HFBS system currently manages 364 hospital projects and 1022 completed hospital sites representing over 3000 buildings worldwide. In the UK, the software will be made available through IHEEM.



KEY DIFFERENTIATORS

- An A to Z of services in healthcare
- Service Planning for healthcare regions or whole countries
- Facilities Briefing
- Medical Planning
- Architectural Master Planning & Design
- Specialist Healthcare Interior Design
- Medical Equipment Planning
- Modular Design
- Specialist software for the UK Healthcare market
- All services gathered into the Health Facility Briefing System



RICK SHANDS
DIRECTOR, TAHPI UK

Originally from the United States, where he practiced architecture in New York City for ten years, Rick Shands has spent the past 30+ years on this side of the Atlantic, working in London, Stockholm, Malta, and the UAE, with shorter project-related sojourns in Jeddah, Kuwait and Riyadh. In a total of eight countries he has been in senior roles in healthcare facility design of over 2 million square meters, from a 5,000 sq. m. oncology clinic in Croatia to a 500,000 sq. m. hospital in Saudi Arabia. Rick works closely with TAHPI's service planning team at the strategic planning level, as well as the full range of services within TAHPI for the detailed completion of projects.

Rick is now Director of TAHPI UK and located in London, from where he directs projects across Europe, while still working with projects in the Middle East and Africa. Rick has spoken at conferences on the HFBS system and TAHPI's approach to holistic design for healthcare.

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STEVE BATSON
STUDIO DIRECTOR, SGP

For the past two decades, Steve has focused his career on designing and delivering high quality healthcare and social care environments that enhance the patient experience and focus on improved health outcomes.

Steve has led a dedicated team in the successful completion of a range of acute, primary, mental health and specialist care facilities throughout the UK. Steve believes in affordable and accessible healthcare for all and this has led to his overseas work in India and Africa. Recently Steve presented in Istanbul about why the patient journey is important when designing healthcare facilities.

Always at the forefront of healthcare innovation and debate, Steve is currently a Director of Institute of Healthcare Engineering and Estate Management IHEEM Ltd and is the co-founder of the Health BIM group working alongside the Department of Health, NHS and private sector partners on the Integrated Health Information Model.

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