210416

The worlds safest secure cell.

The world’s most technologically advanced, rapidly deployable, flexible, modular custodial cell which passively protects the patient, staff and the asset whilst comprehensively enhancing rehabilitation.

SKYCUBE

By Neill Laurenson

La cellule sécurisée la plus sûre au monde.

La cellule de garde modulaire la plus avancée sur le plan technologique, la plus rapidement déployable, la plus flexible et la plus modulaire au monde, qui protège passivement le patient, le personnel et l’actif tout en améliorant complètement la réadaptation.

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SKYCUBE
By Neill Laurenson

Two potential parts to this opportunity:

1. The SkyCube as a standalone deployable Greenfields project or a retrofit solution into existing / traditional environments.

2. Utilising the SkyCube concept in a far more far-reaching overall custodial grounds and environment design philosophy.

This presentation explains the SkyCube first and then touches on the more far-reaching rehabilitation centric design opportunity.

SKYCUBE
By Neill Laurenson

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SKYCUBE
By Whakaaro-Kingsman

The SkyCube has been designed to assist custodial related organisations, including designers and Governments globally involved in mental health, permanent and temporary confinement scenarios and prisons of any scale.
The SkyCube and its wider philosophy will change the nature of future custodial design and management.
This is the worlds most technologically advanced, rapidly deployable modular cell which passively protects the patient, staff and the asset whilst comprehensively enhancing patient rehabilitation.

The overall design philosophy will also accelerate construction times, save money not just on programme but on the physical built environment too.

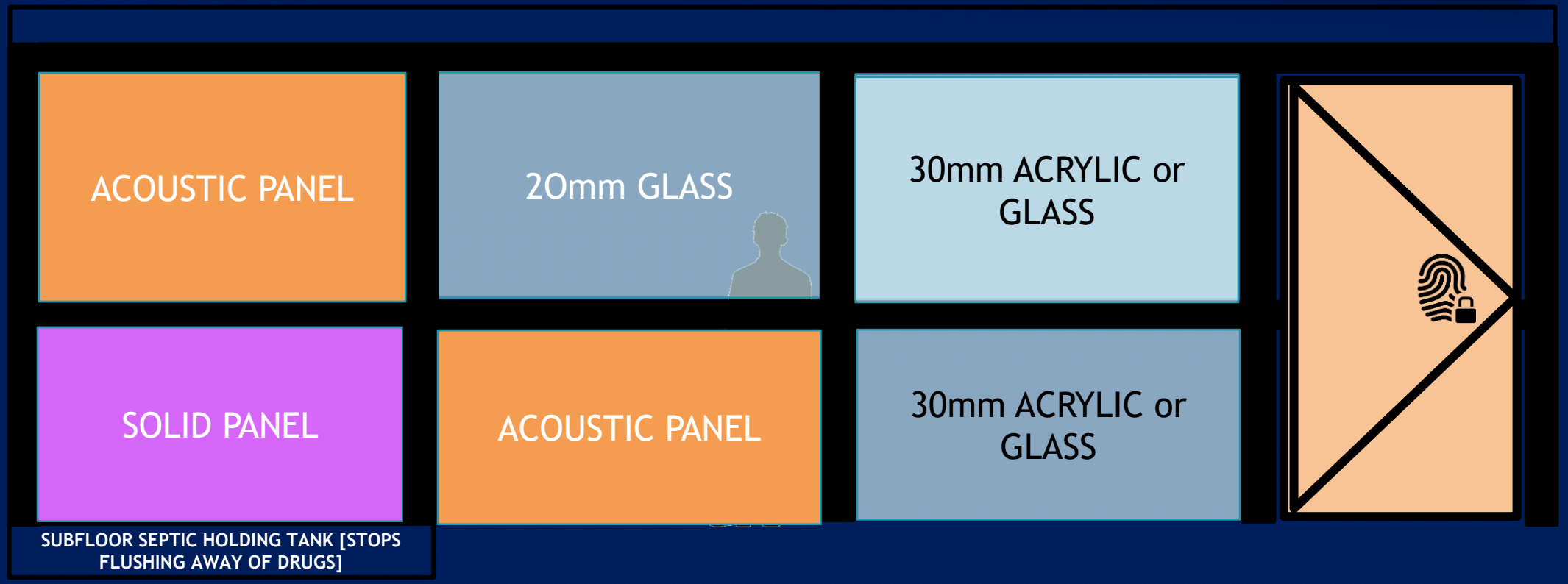
SKYCUBE – User & Project Flexibility with modular deployability

SKYCUBE
By Neill Laurenson

- One day assembly ✓
- Impenetrable ceiling & floor ✓
- Flexible wall structures and finishes ✓
  - OPTIONS:
    - Hard or soft finish panels for acoustic absorption on ceiling and walls
    - 20mm Safety glazing / 30mm Acrylic walls [Fire rating dependant]
    - The clear panel options for monitoring of patients is required.
    - Privacy provided by automated dual blind system
- All electronics are on the outside of the cube including lighting and Tv/Monitor ✓
- Voice / motion / touch activation through the ‘glazing’ ✓
- Option - Meth Sensor/Cell Phone detector / Smoke Alarm / Microphone single unit ✓
- Option - Independent septic tank with drug sensor ✓
- Cubes can be stacked & customised ✓

SKYCUBE - Wall finish flexibility

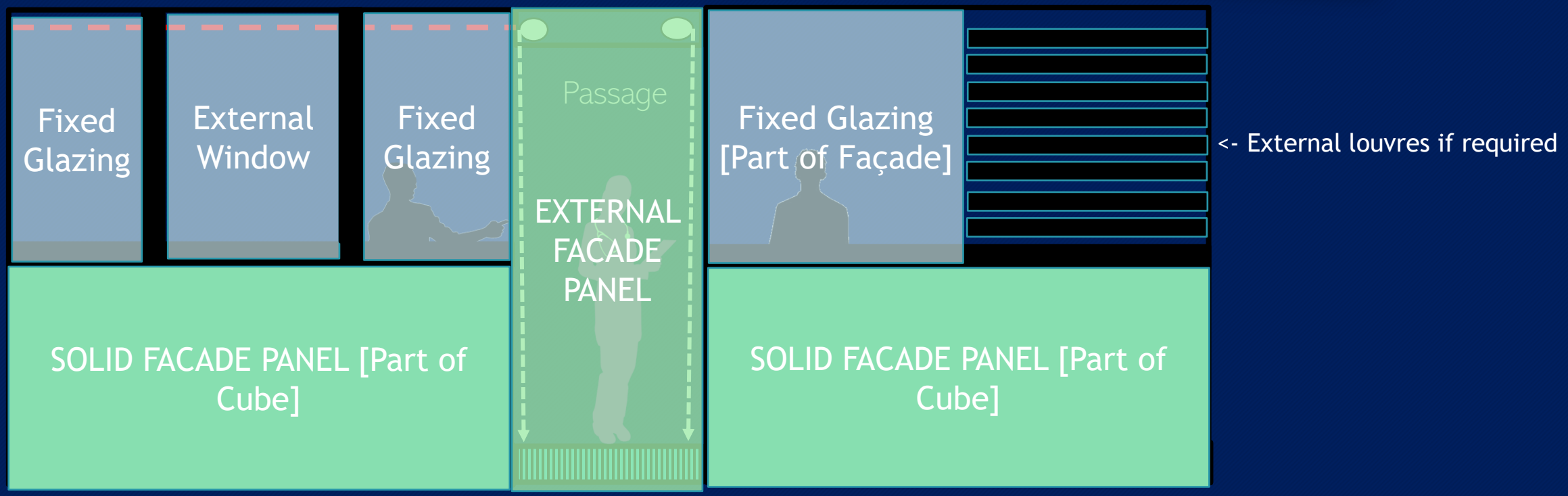
SKYCUBE
By Neill Laurenson



The SkyCube can be customized in relation to wall finishes to meet any required acoustic, social , health or security needs. It can still be assembled in a very short time and panels are easily interchanged if need be. [External façade panels can also be changed but with planning]

SKYCUBE – External facing façade options

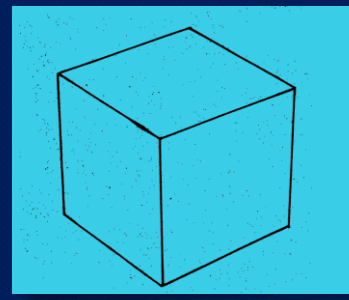
SKYCUBE
By Neill Laurenson



The SkyCube end panel, can be utilised as an outside facing façade, providing both opening and fixed windows as required. This approach would speed up the build time on multi-level projects too. Early engagement with a client's façade contractor is crucial.

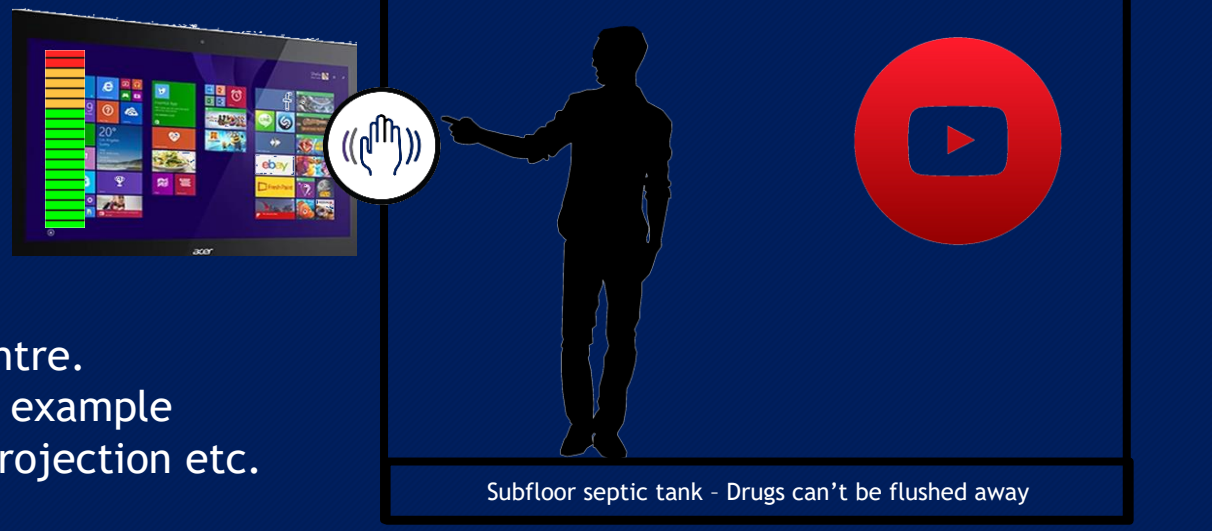
The ‘Tech’ in the SKYCUBE

SKYCUBE
By Neill Laurenson



All the systems noted below are controlled through the glazing of the SKYCUBE by swipe-motion or touch detection on the outside of the glazing. The system can also detect colour so functions can be expanded and disabled / visually impaired can be accommodated by means of textured & coloured cards. Voice activation of certain functions can be included / activated too.

- ❑ Blinds - Up/Down – Imagery on blind included if requested
- ❑ Patient communications – Private VoIP/ Population
- ❑ Patient personal photo album
- ❑ Patient personal music collection
- ❑ Patient video conferencing with family / judiciary.
- ❑ Intercom – Two-way video intercom
- ❑ Lighting On - Off
- ❑ Shower on [Timer shuts off]
- ❑ Toilet flush [Set number of flushes per hour]
- ❑ TV/Monitor - On/off & volume up/down



- ❑ All these functions able to be overridden from the control centre.
- ❑ Many more functions can be incorporated into this system for example behavioral monitoring [scale bar], tutoring and games, rear projection etc.

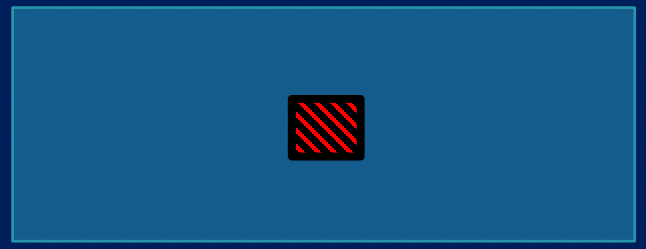
The ‘Tech’ options in the SKYCUBE

SKYCUBE
By Neill Laurenson

There are two options for the interactive patient function, but they can be swapped out very easily from the A type or the B type.

A

Type A provides a fully integrated glass touch screen to operate a TV, music., lights etc. as per the previous page notes, having approximately 15 or more functions available.



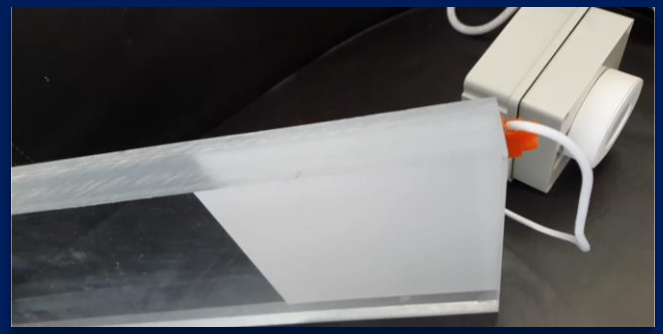
B

Type B provides a movement sensor with no TV monitor. This allows the patient to have approximately 4 or 5 basic functions that control lights, blinds, toilet, shower. See notes re colour recognition on the previous page.

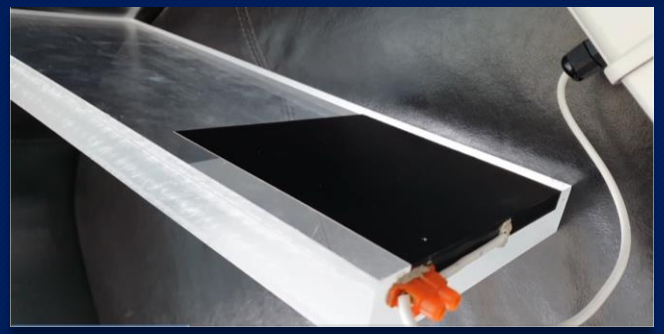
C

Type C provides a Smart Touch ‘thru glass’ touch sensitive membrane that can be cut to any functional size and programmed to do up to eight functions for each ‘panel’. See video on next slide.

Third option - ‘Smart Touch’ Thru-Glass activation system



Demonstration control box with activation demonstration light



Application membrane on outside of the panel

A soft ‘double tap’ to activate the light.

The system can be fully customised as far as sensitivity and function goes with an App. The membrane can be cut and customised to operate as different ‘buttons’ for different functions too if need be.

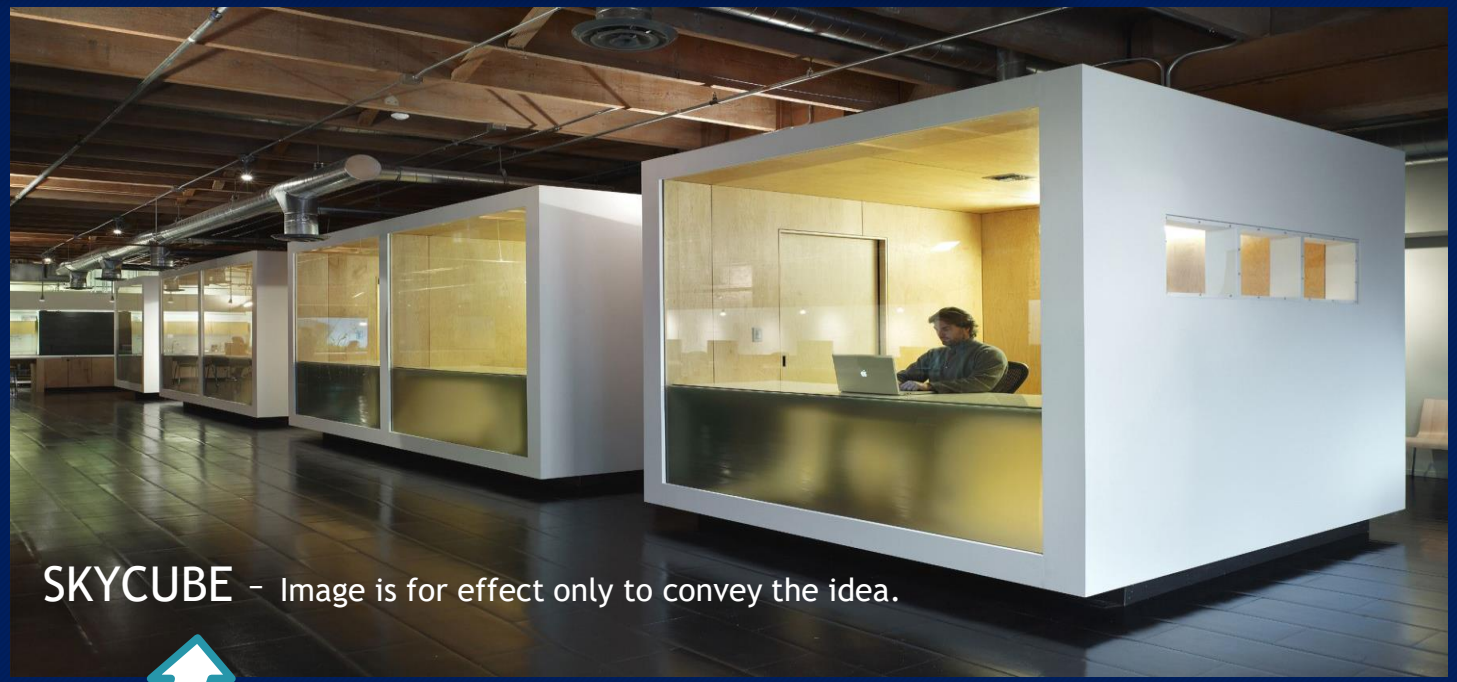
Behavior communication

SKYCUBE
By Neill Laurenson

Option - Patient or patient behavior and attitude is passively measured by the facility staff and levels of functionality of the interactive system is added to or curtailed depending on their behavior.

The patient is kept informed all the time of the staffs' passive measurement of their behavior by the green to red bar on their monitor. If functionality is taken away, they can reflect on why. This process must be fair, transparent and reasonable.

SKYCUBE
By Neill Laurenson



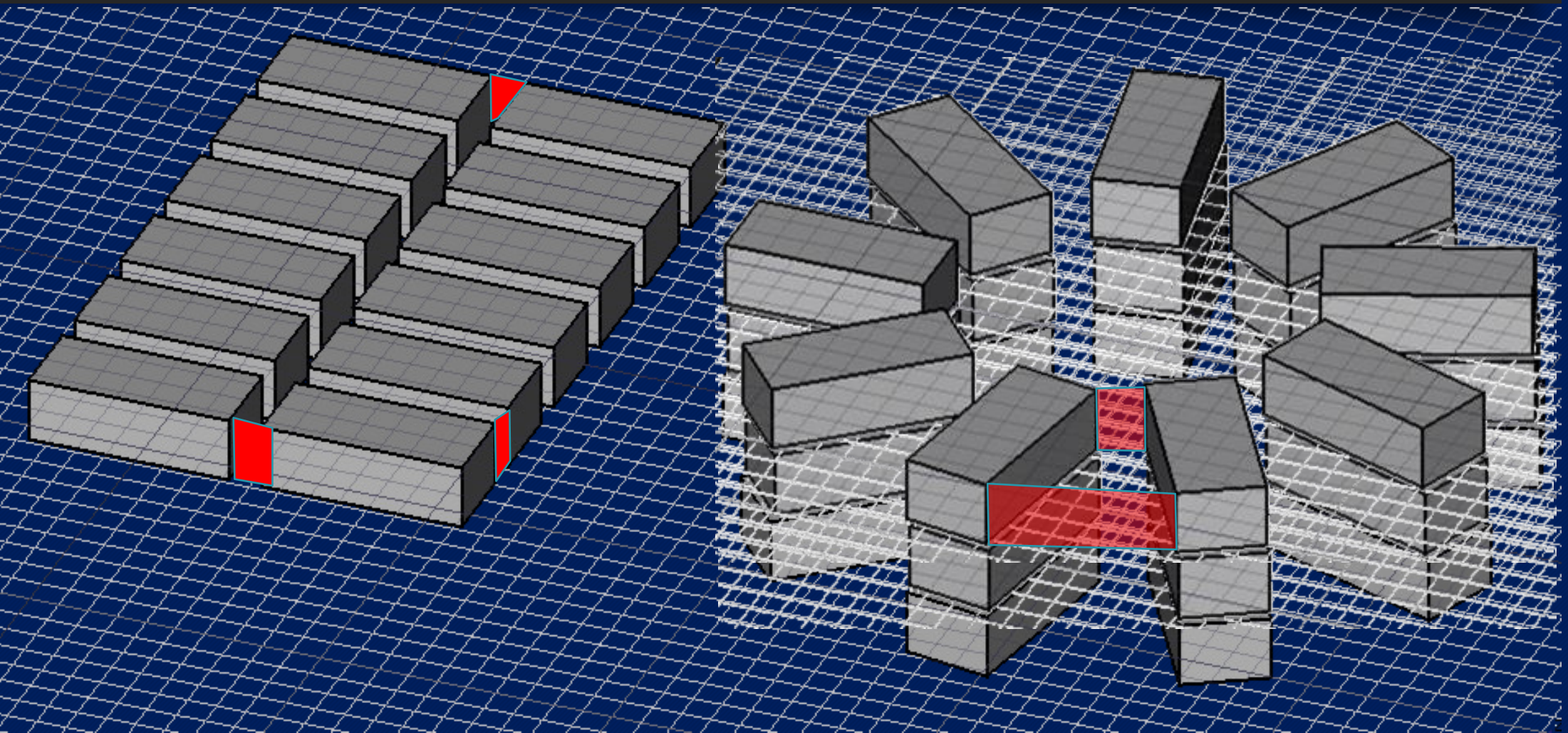
SKYCUBE – Image is for effect only to convey the idea.

From this to this

SKYCUBE - By Neill Laurenson

SKYCUBE – ASSEMBLY FLEXIBILITY

SKYCUBE
By Neill Laurenson



SkyCubes can be arranged within a given area in any way a client requests and changed later, which is not possible traditionally.

Red ‘barriers can be gates or IR sensors.

SKYCUBE
By Whakaaro-Kingsman

2

SKYCUBE
By Whakaaro-Kingsman

Utilising the SkyCube concept in a far-reaching custodial environmental design philosophy.

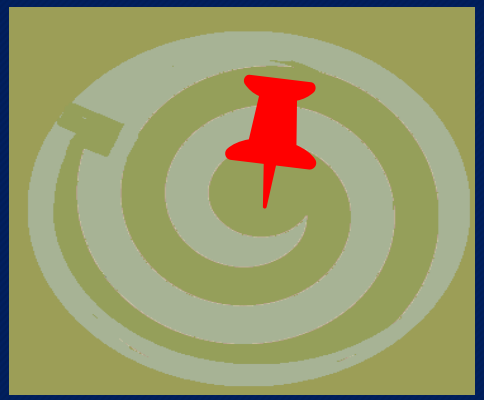
SKYCUBE
By Whakaaro-Kingsman

From this to this

SKYCUBE
By Whakaaro-Kingsman

Using compact, easily constructable, visually pleasant & unobtrusive landscape methodologies to provide tried & true security barriers.

SKYCUBE
By Whakaaro-Kingsman

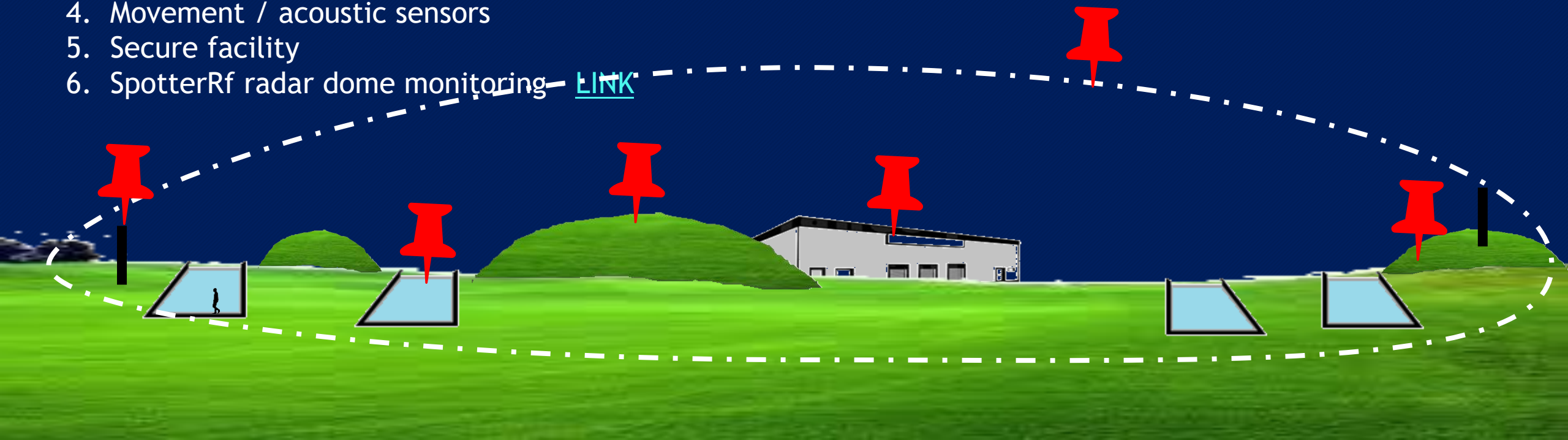


Our design philosophy for a modern custodial complex is to use minimal vertical ‘eyesore’ type walls etc. but instead construct below ground impassable obstacles with a single route to the centre of the spiral. The closer you are to the centre of the spiral, the more barriers are in your path, hence a simple advancement of security grades can be achieved by simply having the highest security requirement environment in the centre of the spiral. Gates at various intervals around the spiral, can for example also separate low, medium and high security areas.

A lift-up bridge at the only access onto the facility’s ‘island’ area is an age-old fail safe which could be considered. By the nature of the design, plentiful outdoor opportunities for safe, separated gardening and other activities in a landscaped environment can be provided. The entire design philosophy would also use renewable energy as a standard, with an off-grid ideal goal. The excavated spiral is a concrete channel, either dry with a layer of rock or even flooded, with overhanging tops and options for hidden electric fences and monitors.

SKYCUBE
By Whakaaro-Kingsman

1. Landscaped terrain [Bunds formed from cut of trenches so nil cartage away]
2. Security fence – low visibility backed up with sensors
3. Non-scalable concrete trenches/ moat, approx. 4m deep x 9m wide, bottom with a layer of rough small boulders.
4. Movement / acoustic sensors
5. Secure facility
6. SpotterRf radar dome monitoring – LINK



SKYCUBE – SUMMARY

"SKYCUBE allows a re-think of the entire nature of what designs to allow for, for various categories of secure health and custodial environments.

There will always be a requirement for the worst of the worst to be in a 'Supermax', but this design offers most other categories of patients, to be handled in a different manner.

The speed and simplicity of what we are proposing WILL have an extremely large impact on traditional costs of custodial projects globally, without compromising security but rather enhancing it."

Neill Laurenson

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