

D. Contemporary Best Practices and Studies

Recycle the prisoners

About

visionary prison model
design research
phased detention
human regime
talent utilization

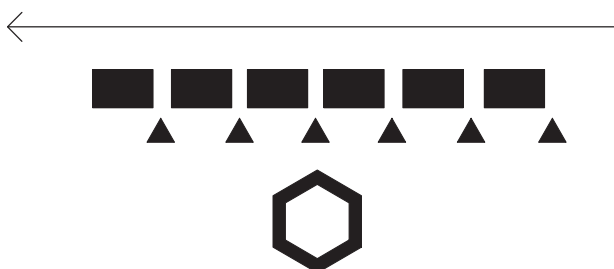
33

Recycle the prisoners

Fie Vandamme

— Fie Vandamme has designed a visionary prison model in an adapted urban environment. The model was drawn up after consultations were held with various users of prisons, namely prisoners, directors and staff. In accordance with the Belgian Prison Act of 2005 (Basiswet) the design allows the prisoners opportunities for development in as far as this is possible without compromising security.

— Fie Vandamme conducted a design study as part of the Advanced Architectural Design course under Arnout Van Vaerenbergh and Gideon Boie at the faculty of Architecture, KU Leuven (LUCA). This booklet is produced by Ruta Valiunaite.



The present study shows a visionary prison model in which the deprivation of freedom is not synonymous with being deprived of one's dignity as a human being. The design study explores how to humanise prison architecture and surroundings. The human principle and vision behind the Belgian Prison Act of 2005 (Basiswet) is the starting point for the design.

Prison space as we currently know it in Belgium is a pure, formal interpretation of a functional plan, such as the so-called humane prison in Beveren, which is based on the 19th century Ducpétiaux model. The prisoner remains a pure abstraction within such a design process. The question is how can a humane prison be conceivable if the people using it have no say in the design process?

The key to a humane prison lies in the prisoner's approach to his or her material existence. An intelligent design transcends functional government specifications and the myths that circulate in the popular imagination. Once prisoners have been defined as people with human longings and needs, it is no longer impossible to design a humane living environment for them.

Users have a say

The design study drew inspiration from the 2006 art project 'Ik ben wie ik ben' (I am who I am) by Mariska De Mey in collaboration with Leuven Centraal prison and the University of Leuven. ¹ Mariska De Mey organised a concrete dialogue between prisoners and students of the University of Leuven via internet. The correspondence explored several basic principles of contemporary prisons: undisturbed, individuality, utilising talents, responsibility, borders, helping, receiving/welcoming, remorse, grip, Lejeune Act, usefulness, preparation and finally trajectory.

Today, these principles operate only in the negative sense. The first task that lay ahead of the study was to reinterpret these terms. The principles were then given positive meanings: freedom, privacy, means, independence, punishment, friendship, visits, forgiveness, faith, Belgian Prison Act (unconditionally), time, future and cell. Sources of inspiration were T. (ex-detainee), Guido Verschueren (prison director), Paul Dauwe (prison director), Luk Vervaet (prison teacher) and Lieven De Cauter (philosopher).

T. is a former prisoner who has spent time in various Belgian prisons. The conversations with T. dealt with life inside and life after prison. Today, T. lives together with his wife and is the proud father of his first child. T. works 14 hours per day to make up for his 'time'. But he is participating fully in life and looking to

¹ Mariska De Mey, 'Ik ben wie ik ben (2)' (2006) disponible at the library of Leuven Centraal prison.



the future. Thanks to his experience, T. is able to point out the faults in contemporary prison life and suggest ways to avoid them.

Open doors

The design study went on to explore contemporary prison architecture, using Leuven Centraal prison as an example. This facility accommodates approximately 300 detainees who are serving long-term sentences in addition to 50 suspects who have been sent there because of overcrowding in Sint-Gillis prison. The summer strike of 1976 was a turning point that persuaded the prison directors to initiate an open door regime for most of the convicts. This

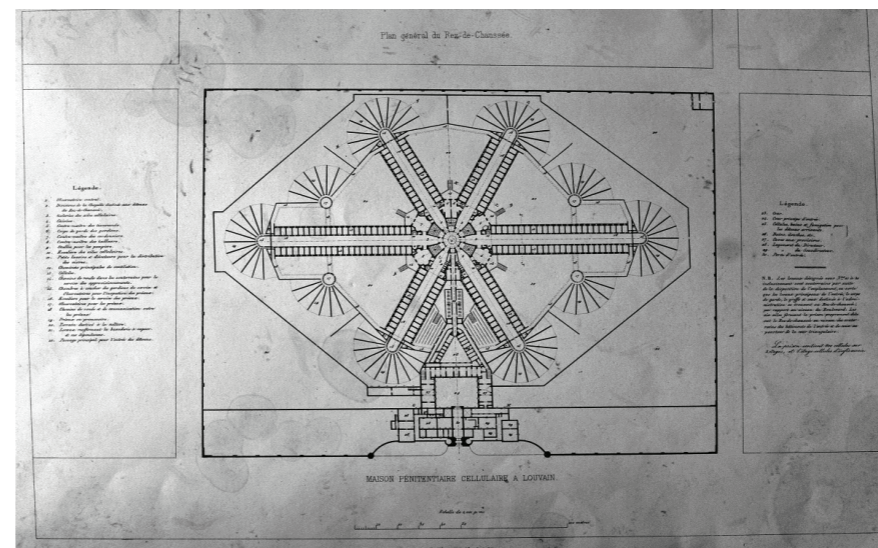
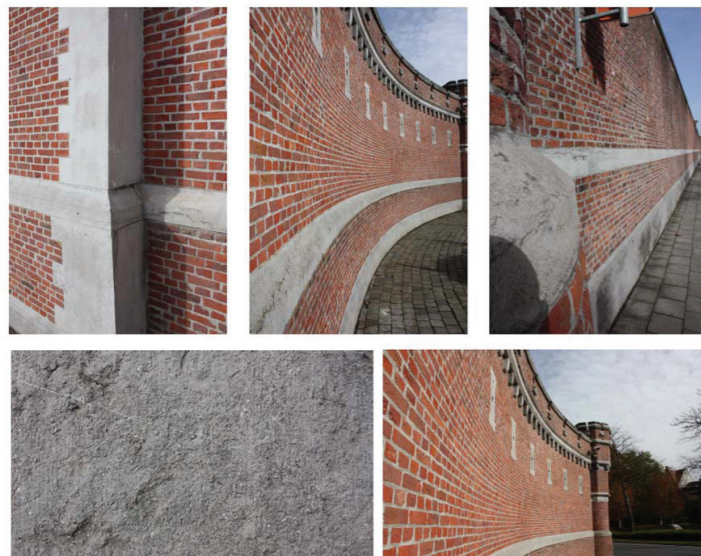
means that detainees are given the opportunity to move freely in the wing where their cell is located and to visit each other in their cells – as long as no more than 3 people are present at one location.

Director Guido Verschueren explained how the open door regime in Leuven Centraal simulates a normal living pattern with work, day-time education and leisure opportunities within the prison walls. The most important motivation for doing so was the human dignity of the prisoners. These daily activities give prisoners the opportunity to develop themselves and encourage their zest for living. They also place detention within the context of resocialisation. A meaningful detention does not make someone a better person, but it does prevent prisoners from returning to society with feelings of resentment, in as far as this is possible.

The mirror image of the open door regime is maximum commitment from society. According to Guido Verschueren, it is important that the outside world is aware of what is happening within the prison walls. A nuanced picture forms the foundation for a positive rehabilitation climate.

Basic principles

The new regime in Leuven Centraal is a response to the inhuman and antisocial character of



seclusion. A moral life that is enclosed in such a narrow context has nothing to do with social morality.”²

An open regime and social commitment may bring comfort, but they do nothing to alter the actual building.

The design study developed six basic principles that can act as guidelines for designing a humane prison:

1. Set limits to the deprivation of liberty. (Belgian Prison Act 2005)

2. Maintain a healthy mind. Responsibility (independence) and the ability to make choices prevent frustration, incomprehension, flippancy, recklessness, rash and irresponsible behaviour, escapist behaviour, ... Nowadays, prison sentences do not make for better people, but they do make for better criminals. Prison has a momentous impact on the detainee's personality, leading to so-called 'prison damage'.

3. The generic prison model must be replaced by goal-oriented care centres. This will also prevent overcrowding thanks to the use of phasing and opportunities to progress through the system.

4. Prisons must be easy to reach and they must not be daunting. Security paranoia has led governments to isolate prisons far outside the city. This makes it difficult for care workers,

teachers, therapists, lawyers, and above all family, friends and children to reach prisons. The prison design may not hinder the latter group from maintaining social contact with family members and friends in prison. An urban context is the only logical option.

5. Prison must offer detainees spatial motivation. Escape attempts, most of which are futile, illustrate the abnormal and inhumane character of contemporary prisons. Escape is the only perspective that is left to the prisoner.

6. Re-integration must begin during the prison sentence. Detainees must not be isolated, but brought into contact with the outside world within a phased regime from the beginning.

Architectural programme

The following basic principles form the spatial guidelines for the new prison.

1. Spatial stimulation: prisons must offer prisoners spatial stimuli to take responsibility and attain independence. The quality of life in prison is an important and valuable component of differentiated imprisonment. Extra spatial qualities can offer perspective to prisoners, motivate them and make them willing to make sacrifices. This situates spatial quality within an internal system of reward and punishment.

2. Healthy mind: prisons must have a decent infrastructure for films, theatre, sport and games. This will allow prisoners the opportunity to relax and forget their worries. It is necessary to prevent them looking for alternative ways

to 'forget everything for a while'. Furthermore, prisoners must work on their physical condition. A healthy mind is not possible without a healthy body. Both are important to both prisoners and prison staff. Guards and counsellors also need sport and relaxation so that they can forget their difficult working conditions and onerous responsibilities for a while. Sport also provides opportunities for reverse integration by means of competing with visiting teams.

3. Mobility within the system: prisons must provide space for both individual and communal areas. The communal areas are divided into fixed and variable areas. Prisoners who need personalised help will be placed in different sections that operate autonomously. According to specific needs, these sections are variably engaged or disengaged within the functioning of the total prison complex.

4. Easy to come and go: in the future, the design of a prison must reflect the function it fulfils. It is obvious that a control tower should be designed in the form of a cylinder shaped building with a 360 degree view. Progress through the system can also be made visible in the design of a prison complex. The entrance for prisoners must be separated from the public entrance for visitors and staff. In this way, the public entrance can also be used as an exit for prisoners. It is also important that prisoners never return to the place where they were admitted to prison. This linear progress symbolises a clear starting point and finishing point of the passage through detention. Prison must not only be daunting, as in the case of the 19th century gates, but it must also offer perspective.

5. Security, guidance and mediation: today's prisons are completely focused on control and security. These central activities cast a shadow over all other activities. This focus on custody is no longer tenable within the context of humane detention. In the design, each section also provides space for counselling, in the form of rooms for group and individual conversations. This is based on the Dutch example, where counselling is structurally vested in prison staff with the so-called Penitentiary Facility Workers (Penitentiaire Inrichtingwerkers). These are approachable people who are close to the prisoners and who monitor their everyday conduct. While guards stand for maintaining order, counsellors are there to detect and help solve problem situations. Finally, the design provides for a third, intermediary party that makes the double impact on detainees less direct. After all, a counsellor can still harm the rights of prisoners. An intermediary can act in the interest of the prisoner in the event of mutual conflicts and distorted power relationships.

6. Re-integration: according to the design, life within prison walls is similar and equal to life outside. The two worlds interconnect. The fading of these boundaries facilitates the transition back to society. Within the prison walls, the detainees progress through an individual and personal programme. Prisoners are not isolated from the normal world which is often characterised by inequality and injustice. This confrontation with the normal world teaches prisoners to deal with real life, which is imperfect. Some people have to work hard to buy things that others can easily afford. Others

² Lode Van Outrive, 'De gevangenis: een systeem op drift' (Davidsfonds, Leuven, 1978)

perform better in a certain sport and are given the right to a special time schedule that allows them to participate in an important match. Personal detention programmes are not all about preferential treatment, but about giving people the opportunity to develop their talents. This enables each individual to stand out from the colourless and anonymous prison mass. The question is whether the current anonymous, individualistic prison system is capable of making room for exceptions.

Functioning of the cell

Another important element of designing humane prisons is dynamism and mobility within the prison system. Prisoners always look forward to the next phase – and in this design, each phase has a different architectural form. Good behaviour earns prisoners extra living space. This makes an end to the customary disciplinary measures in prison, such as the solitary confinement cell and sedatives. Discipline is not nurtured by resentment and aggression, but by freedom and responsibility.

The design redistributes the customary scope and capacity of the prison. A capacity of 360 cells is divided across 6 separate, purpose-oriented units, each with 60 cells. The unit forms a specific part of a phased detention regime and embodies a personal trajectory. Each unit is subdivided into autonomous groups with 10 cells situated around a communal space.

The 6 different cell types represent the trajectory of the programme. Remand prisoners are held in a separate cell, Cell 1, which connects

in two directions. During remand it is important that detainees do not influence the legal investigation and are not influenced themselves. Remand prisoners are therefore held in a zone where they can survive independently in a compact cell with all the necessary facilities.

After sentencing, prisoners are referred to an area, depending on the length of their sentence, personal requirements (such as care) and desired level of social interaction. Their spatial trajectory commences in this new unit. Detainees start off in Cells 2 and 3 with sleeping and washing facilities. If they behave well, they may be assigned extra living space, such as a kitchenette, dining area, visitor's room and finally, a private outdoor space. The sections are linked in a linear configuration (Cell 2) or a configuration around an outdoor space (Cell 3).

As their living space expands, so do their responsibilities. Objectives and challenges replace mind-numbing measures such as solitary confinement cells and sedatives. Once the prisoner has acquired all of the spatial possibilities, they will move on to Cell 4 or 5. This makes space for new people at the start of their detention trajectory. The spatial configuration of Cells 4 and 5 are fixed. Opportunities for variety lie in extra functions and mutual links around a communal living area.

Cell 6 is the final destination. It is a residential tower where 4 prisoners live together within a normal daily schedule of work and leisure time. The prisoners' behaviour is closely monitored through an electronic tagging system. Groups are composed in joint consultation,

taking account of individual possibilities, social background and chain of causation.

Functioning of security

Finally, a humane prison is not necessarily an unsafe situation. On the contrary, in the design study decentralised control and access points optimise the security system. Prisons see a lot of comings and goings due to the different users, such as prisoners, visitors, family and friends, judges, lawyers, 'undisturbed' visitors, counsellors, psychologists, social workers, students and other interested persons. In the standard Ducpétiaux model, all these flows are centralised in a linear flow of movement through the Panopticon. This results in unnecessary confrontations between conflicting users, a build-up of queues, etc.

Dividing the flows of movement prevents conflicting groups from coming into contact with each other unnecessarily. 8 access and control points are located in the corners of the dodecagon-shaped perimeter. The entrance hall is always located at the beginning of the sections in the prison, such as the staff section, the sport section, the visitors' section and the relaxation section. The general reception area is located in the administrative section. Except for the first time they report, everyone reports directly to the decentralised entrance points. This makes visits more discrete and prevents queues.

5 of the 12 entrance points are suitable for taking prisoners and goods to and from the area accompanied by security guards. The entrance points for motorised traffic adjoin directly to meeting areas (visits from family, friends, and lawyers), the sports infrastructure (for reverse integration), the administrative section (facility management) and workplaces (movement of goods).

These access points are also the most important control points. All movements of persons and goods are subjected to a scanner. Visitors must leave all their belongings in the lockers. Prisoners are given a body search after contact with visitors. The decentralised reception area makes it possible to adjust the level of security according to the target group.

The outer ring leads directly to the normal urban fabric. The prison is guarded by a complex of locks. Also the in-between sections are connected with a system of locks. No space can be accessed without reporting to and registering at a control post. This makes it possible to manage all flows of movement without placing a desolate no mans' land around the prison. Another advantage is that prisoners can then move relatively freely within a specific space.

The spaces in the outermost ring are flanked by two corridors that encircle the entire prison. The corridor on the inside of the outermost ring is used by guards and prisoners. This corridor makes it possible for security staff to move quickly through the visitors' area. The corridor along the outer ring is intended for visitors. This system of double corridors gives double access to each space, thereby facilitating swift interventions.

Facts and figures

Area site: 3 ha 50 a
Area prison (bruto): 27.100 m²
Diameter prison: 210 m (parking included), 186 m (parking excluded)
Capacity: 360 cells divided over 6 units with 6 autonomous groups of 10 detainees
Surplus capacity: 90 places maximum in every unit
Location: urban area
Entrance: multiple, in connection with primary road structure
Typology: dodecagon with 6 cell-types, 90 places maximum per unit (one extra storey)
- Cell 1 and 2: 1 storey, eventually stacked up with a second storey
- Cell 3, 4 and 5: 2 storeys maximum
- Cell 6: 5 storeys (cellar excluded)

Comparison

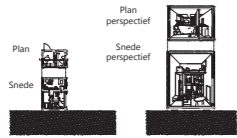
Leuven Centraal prison

Year of construction: 1856-1859
Area site: 4 ha 30 a 47 ca
Area prison: -
Capacity: 274 places
Occupancy: 300 detainees (in open door regime) and 50 suspects
Location: urban area
Entrance: single, in connection with inner city ring road
Typology: Ducpétiaux (6 cellular wings, 3 storeys)

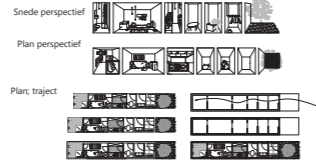
Poort van Beveren prison

Year of construction: 2012-2014
Area site: 12 ha 14 a 21 ca
Area prison (bruto) : 29.000 m²
Capacity: 300 places
Location: rural area (along E17 highway)
Entrance: single, in connection with local road
Typology: Ducpétiaux (4 cellular wings, 3 storeys)

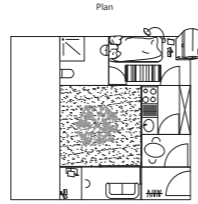
Living unit for 1 detainee. All functions are available in the shell of the unit. The central patio remains open.



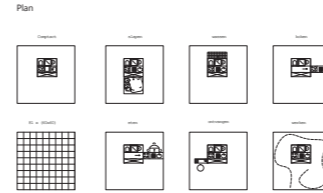
Living unit for 1 detainee in a linear spatial trajectory. Sleeping and washing facilities to begin with. Extra living spaces can be added.



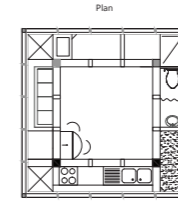
Living unit for 1 detainee in a linear spatial trajectory around a central patio. Sleeping and washing facilities to begin with. Extra living spaces can be added.



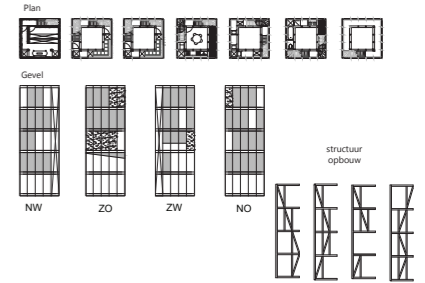
Living unit for 1 detainee. All functions are available in the core of the unit. Extra living spaces remain open.



Living unit for 1 detainee. All functions are available in the shell of the unit. The central patio remains open.

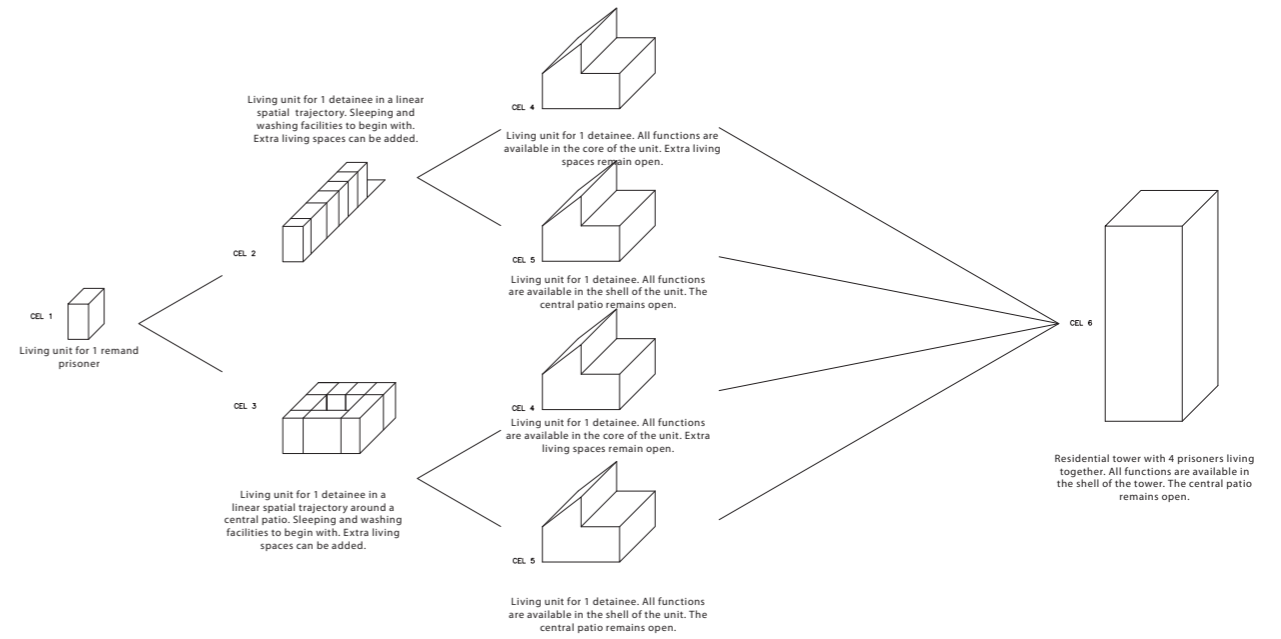
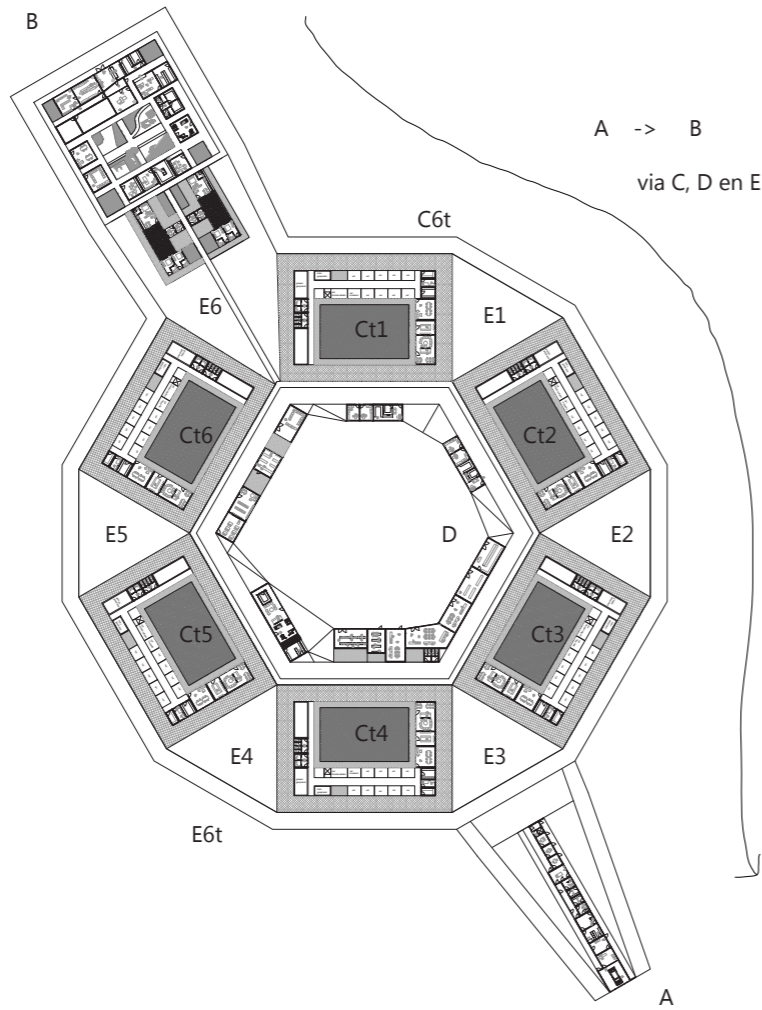


Residential tower with 4 prisoners living together. All functions are available in the shell of the tower. The central patio remains open.



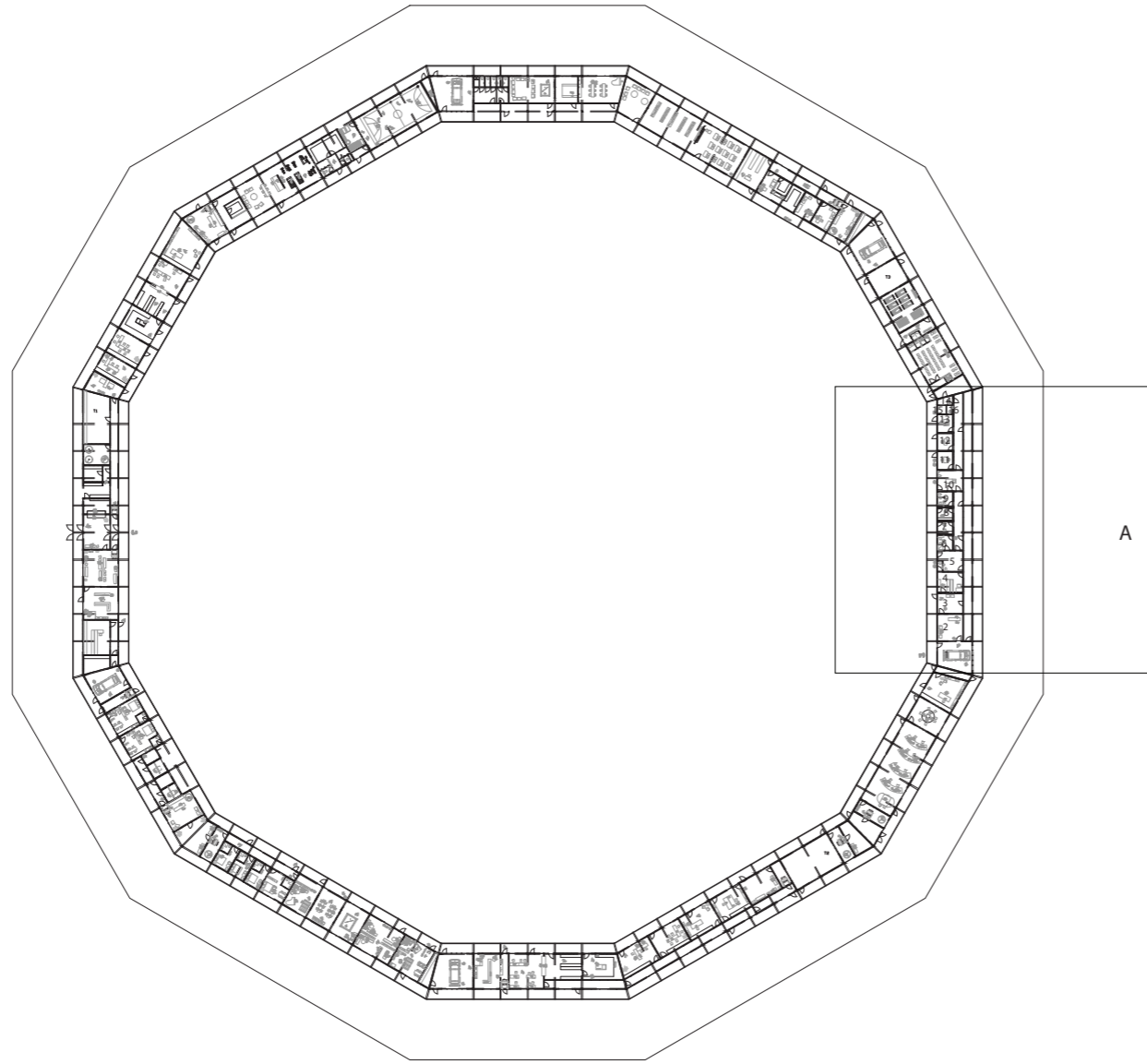
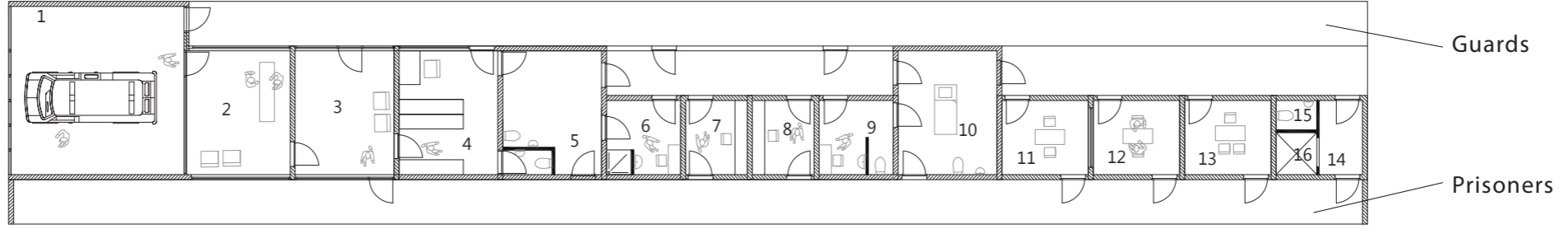
1. LIMIT OF THE DEPRIVATION OF FREEDOM A differentiated regime offers perspective to prisoners

Basic Model
First model based upon the research and the spatial programme with different sections:
A: Screening section
B: Section with reception, personnel rooms, management, visitors centre, and technical equipment
C: Cellular section (6 types)
D: Section for prisoners, guards and leisure time
E: 6 outdoor spaces, sport fields and leisure rooms



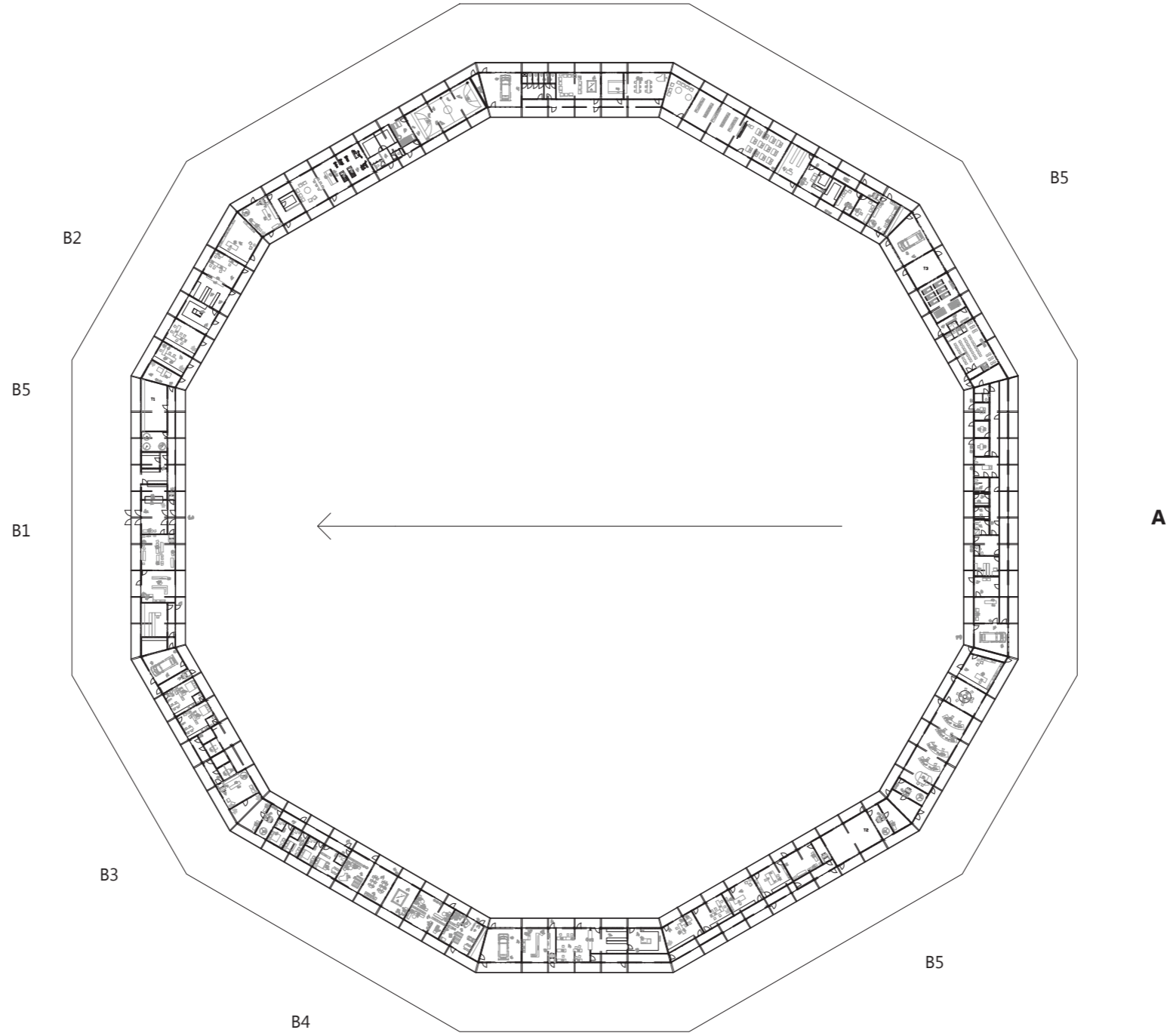
A: Section for screening

- 1. Space for a security vehicle to enter; 2. Reception room; 3. Waiting room; 4. Luggage storage; 5. Research room; 6. Bathroom with shower; 7. Waiting room; 8. Waiting room; 9. Urinalysis-lab; 10. Safety cell; 11. Interrogation rooms separated by glass; 12. Interrogation rooms separated by glass; 13. Visitors centre; 14. Lock; 15. WC; 16. Lift (optional)



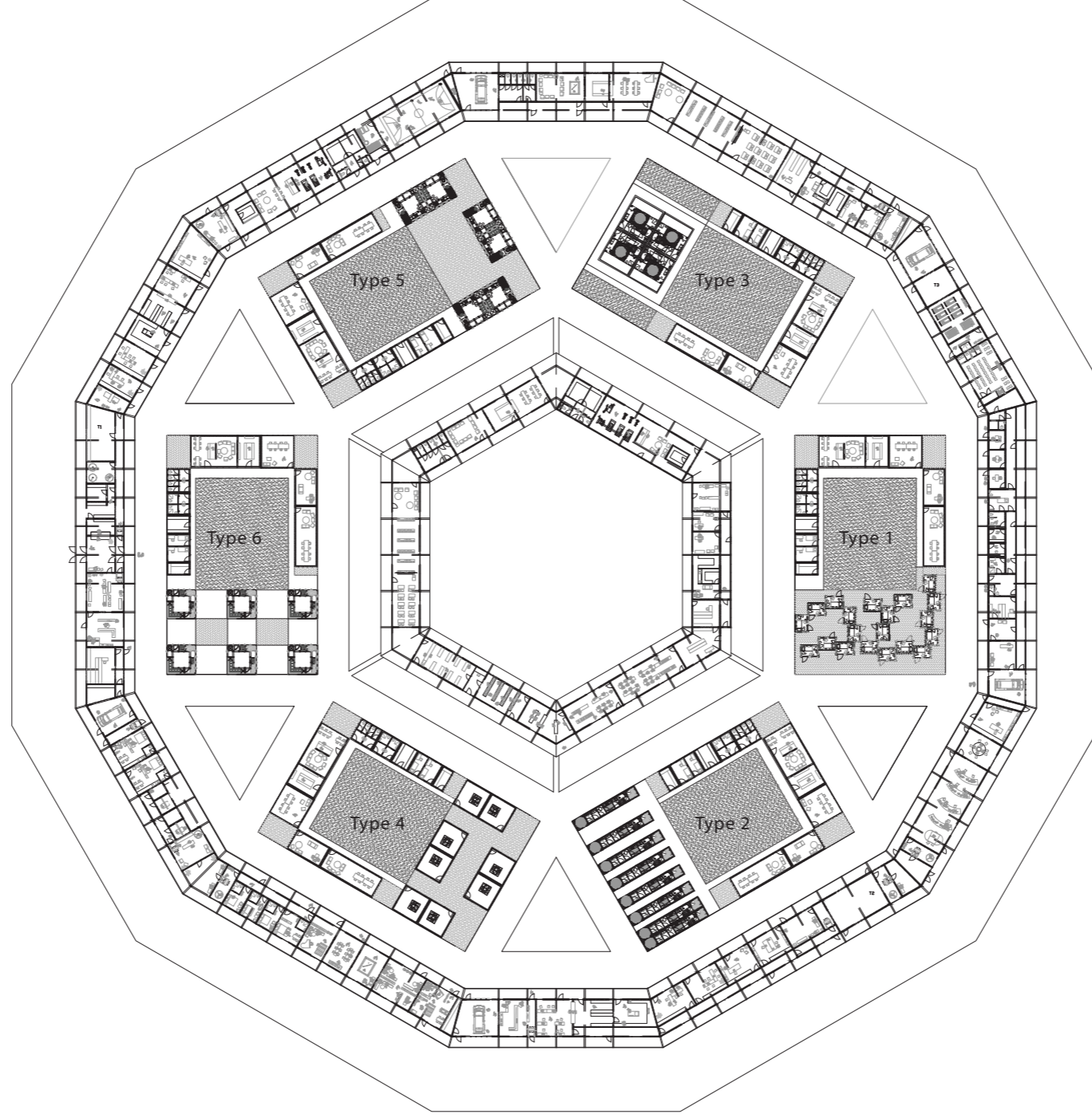
B: Section with reception, personnel rooms, management, visitors centre, and technical equipment

- B1: Section for reception; B2: Section for management; B3: Section for visitors (formal);
- B4: Section for visitors (informal); B5: Section for techniques
- B5: Section for technical equipment



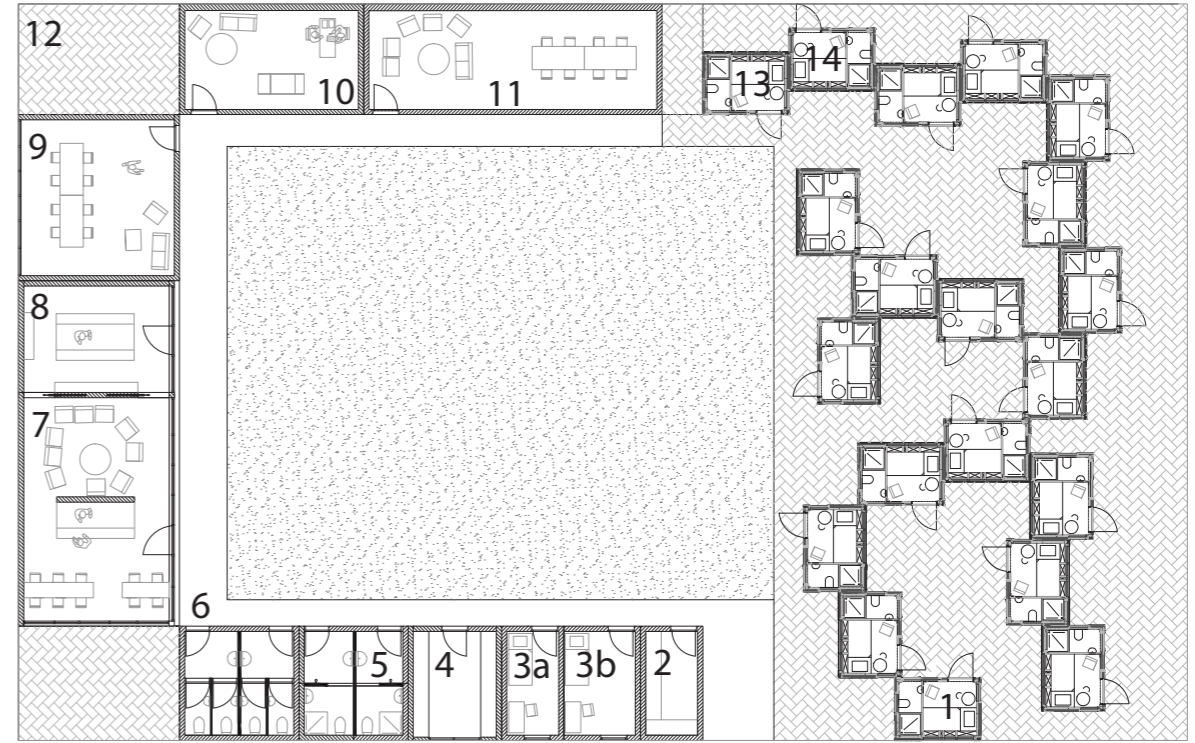
C: Cellular section (6 types)

Ct1_cell_type_1: remand cell; Ct2_cell_type_2: spatial trajectory (linear); Ct3_cell_type_3: spatial trajectory (patio);
Ct4_cell_type_4: individual cell, possibility for appropriation, variant 1 (central core functions); Ct5_cell_type_5: individual
cell, possibility for appropriation, variant 2 (central patio); Ct6_cell_type_6: living tower with common facilities



C: Cellular section

1. Remand cell; 2. Linen room; 3. Medical and first aid care cell; 4. Storage room; 5. Showers; 6. WC; 7. Lounge, dining room, bar; 8. Kitchen; 9. Multipurpose room; 10. Individual chat room; 11. Chat room for groups; 12. Smoking room; 13. Cell for disabled people; 14. Cell for mothers/fathers



C Type 1 Variant 1 Ct1, v1, g

Type 1

Type 2

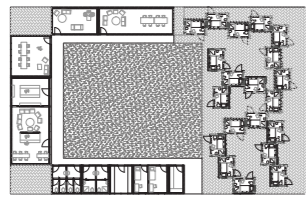
Type 3

Type 4

Type 5

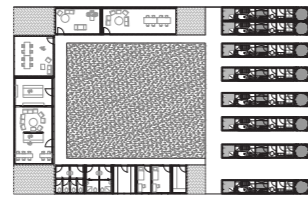
Type 6

Variant 1



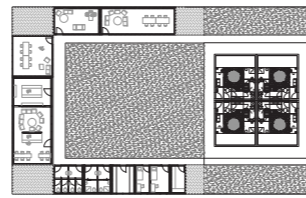
Ct1,v1,g

min 20 cellen, max 40



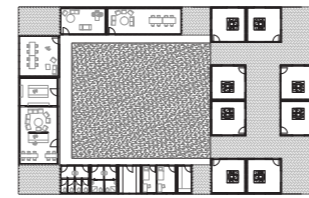
Ct2,v1,g

min 8 cellen, max 16



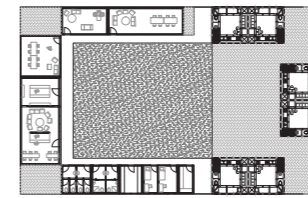
Ct3,v1,g

min 4 cellen, max 12



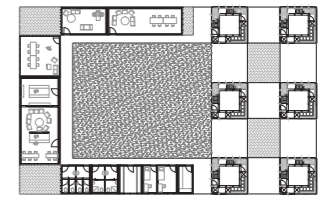
Ct4,v1,g

min 8 cellen, max 12



Ct5,v1,g

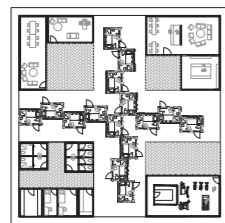
min 6 cellen, max 9



Ct6,v1,g

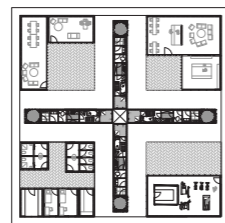
min 24 cellen, max 32

Variant 2



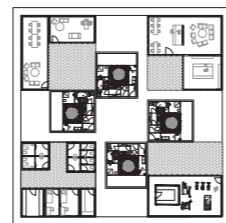
Ct1,v2,g

min 15 cellen, max 30



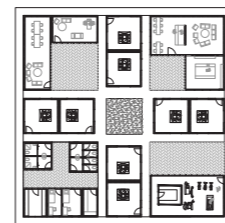
Ct2,v2,g

min 4 cellen, max 12



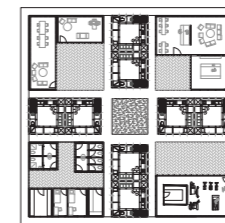
Ct3,v2,g

min 4 cellen, max 12



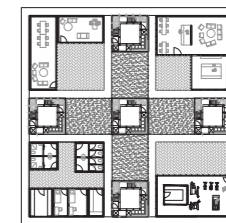
Ct4,v2,g

min 8 cellen, max 12



Ct5,v2,g

min 8 cellen, max 12

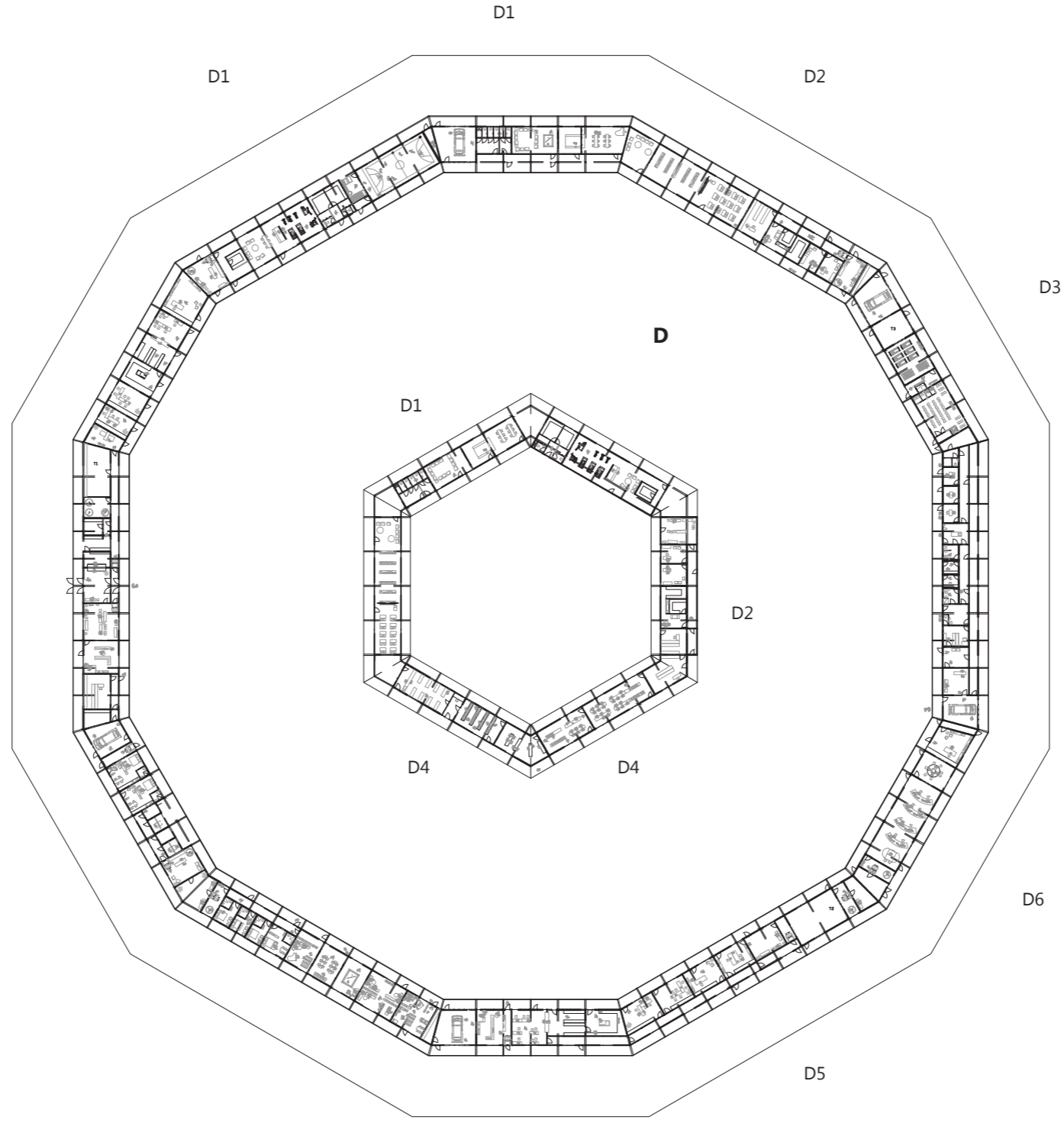


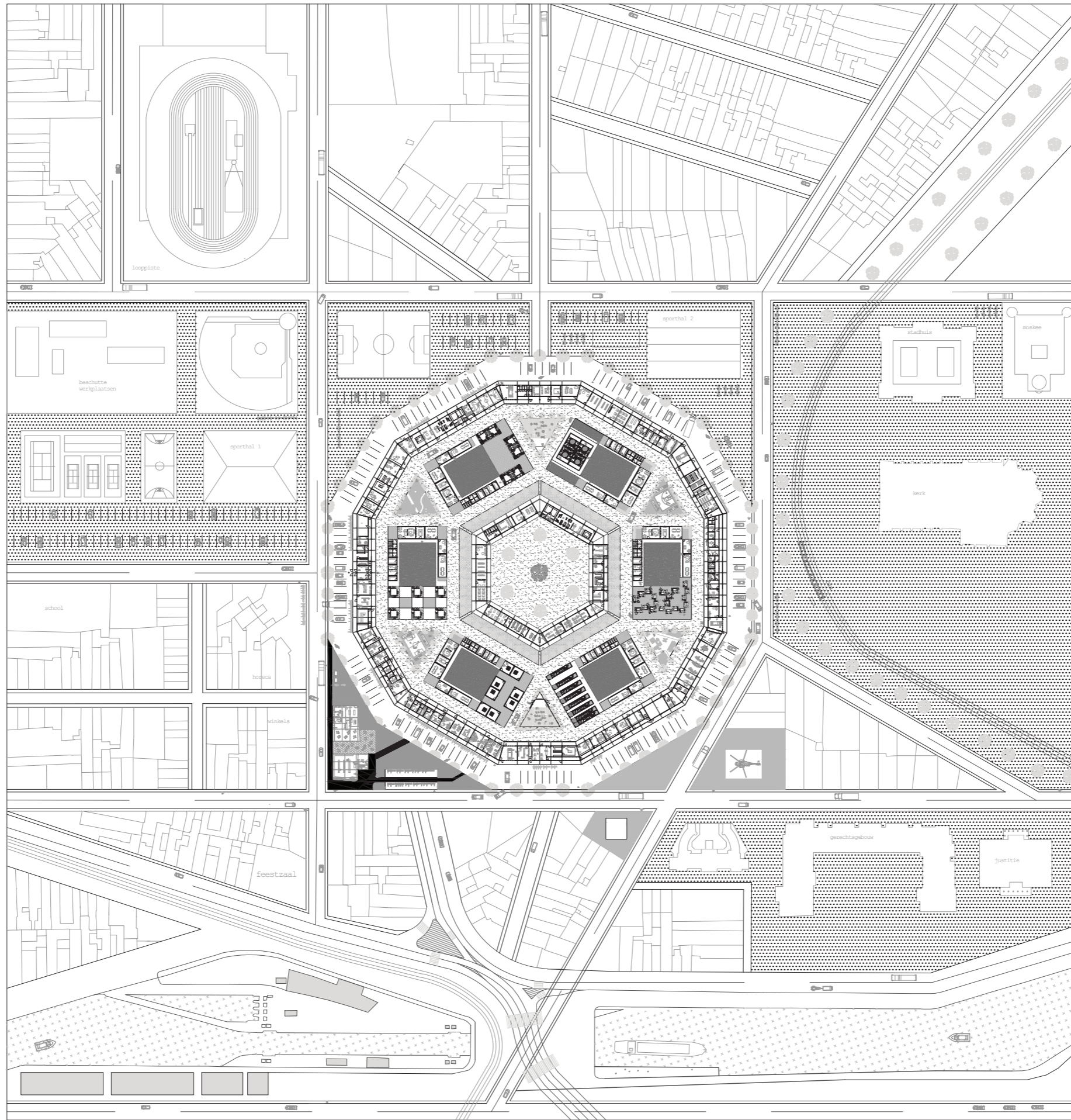
Ct6,v2,g

min 16 cellen, max 20

D: Common area for labour, counselling and leisure (section for prisoners, prison guards and personnel)

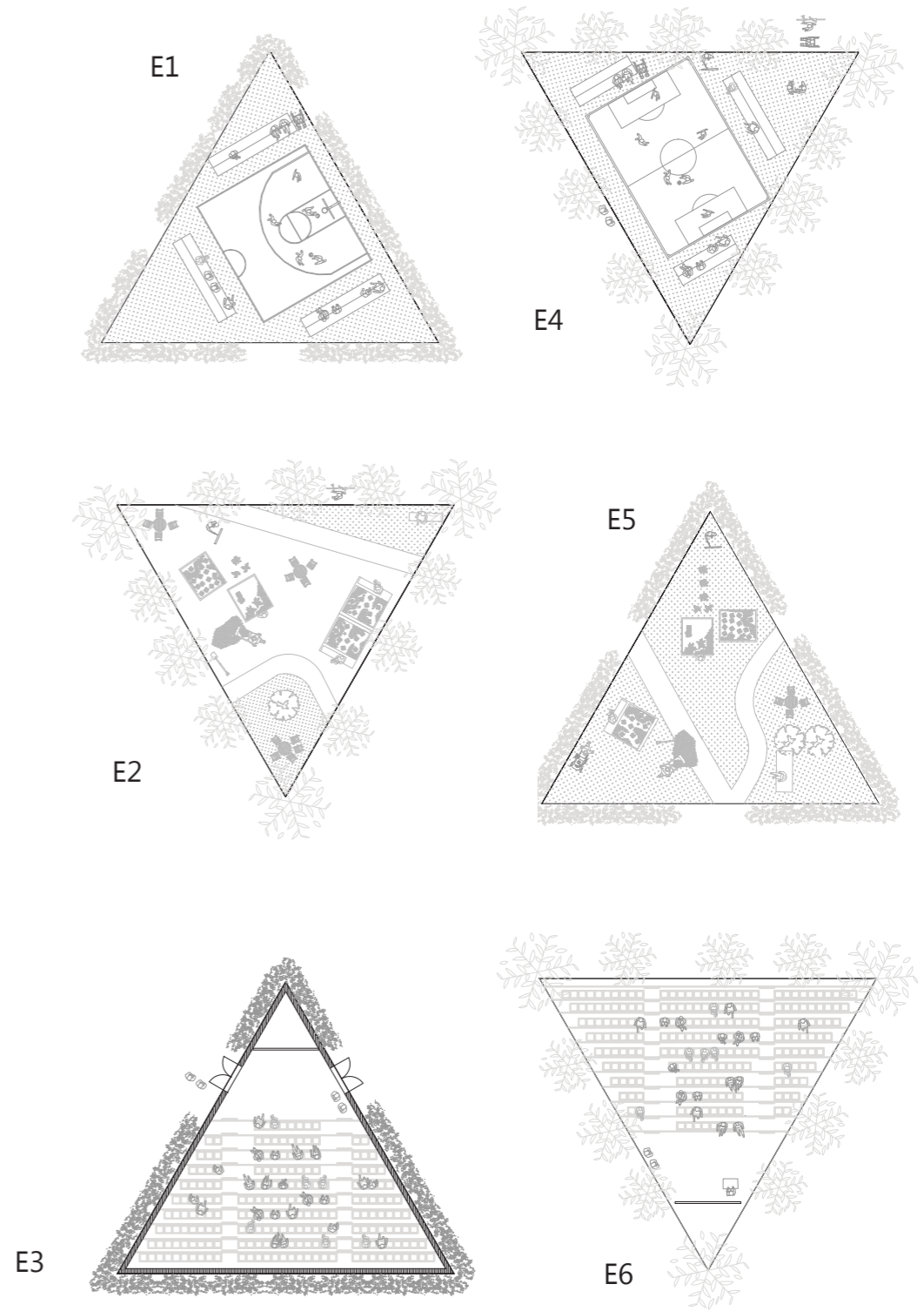
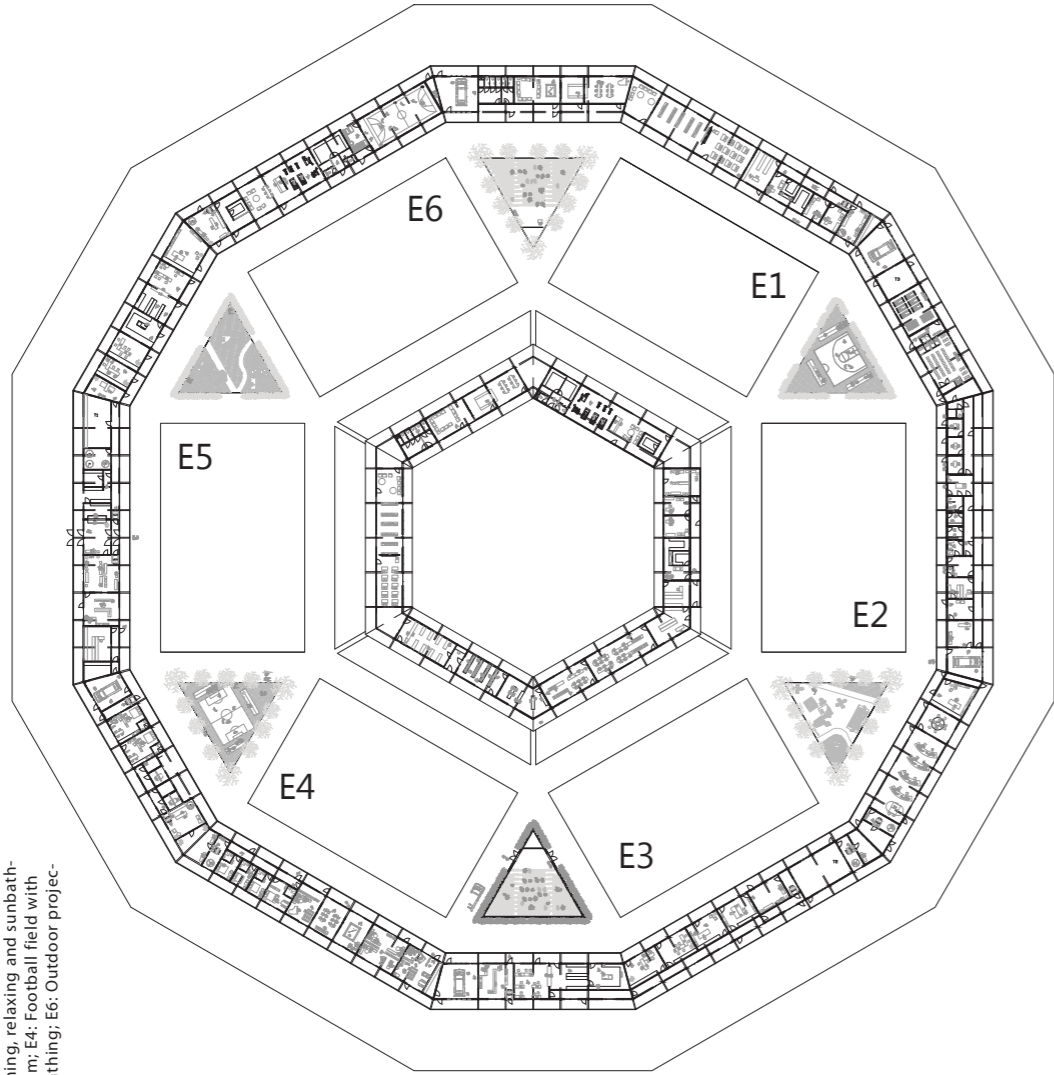
D1: Section for recreation and leisure: a) Fitness and sports (basketball, football, etc.); b) Day and evening activities (multipurpose space); D2: Care section: a) Waiting room and reception area; b) Physical practice; c) Storage; D3: Section for religious exercises: a) Church; b) Mosque; D4: Workshops; D5: Psycho-social service; D6: Checkpoint

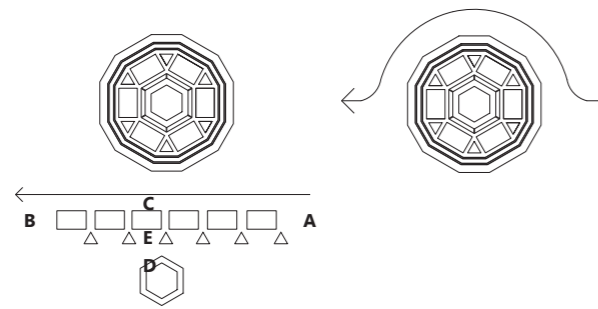




2. FOR A HEALTHY MIND IN A HEALTHY BODY
Good infrastructure for film, theatre, sports and games
E: Six outdoor spaces for sports and recreation

E1: Basketball field with benches; E2: Place for gardening, relaxing and sunbathing; E3: Multipurpose hall for concerts, theatre and film; E4: Football field with benches; E5: Place for gardening, relaxing and sun-bathing; E6: Outdoor projection stand (watching movies together)





Fourth variation on the Basic Model

= Fourth alternative model based upon the research and the spatial programme with different sections:

A: Screening section

B: Section with reception, personnel rooms, management, visitors centre, and technical equipment

- B1 Reception section
- B2 Management section
- B3 Visitors centre (formal)
- B4 Visitors centre (informal)
- B5 Section for technical equipment

C: Cellular section (6 types)

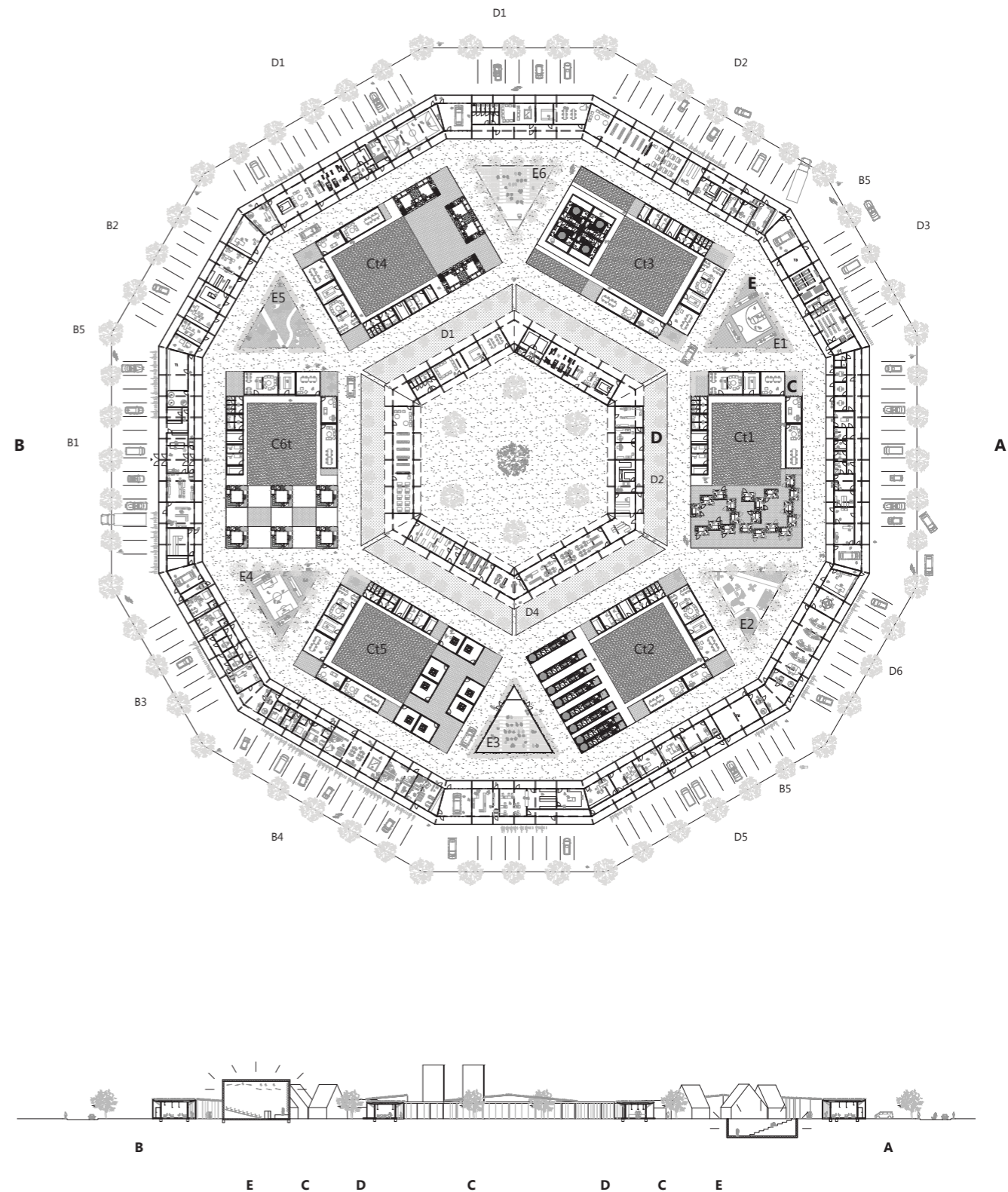
- Ct1 cell type 1: remand cell
- Ct2 cell type 2: spatial trajectory (linear)
- Ct3 cell type 3: spatial trajectory (patio)
- Ct4 cell type 4: individual cell, possibility for appropriation, variant 1 (central core functions)
- Ct5 cell type 5: individual cell, possibility for appropriation, variant 2 (central patio)
- Ct6 cell type 6: living tower with common facilities

D: Common spaces for labour, counselling and leisure

- D1: Section for recreation and leisure: a) Fitness and sports (basketball, football, etc.); b) Day and evening activities (multipurpose space)
- D2: Care section: a) Waiting room and reception area; b) Physical practice; c) Storage
- D3: Section for religious exercises: a) Church; b) Mosque
- D4 Workshops
- D5 Psycho-social service
- D6 Checkpoint

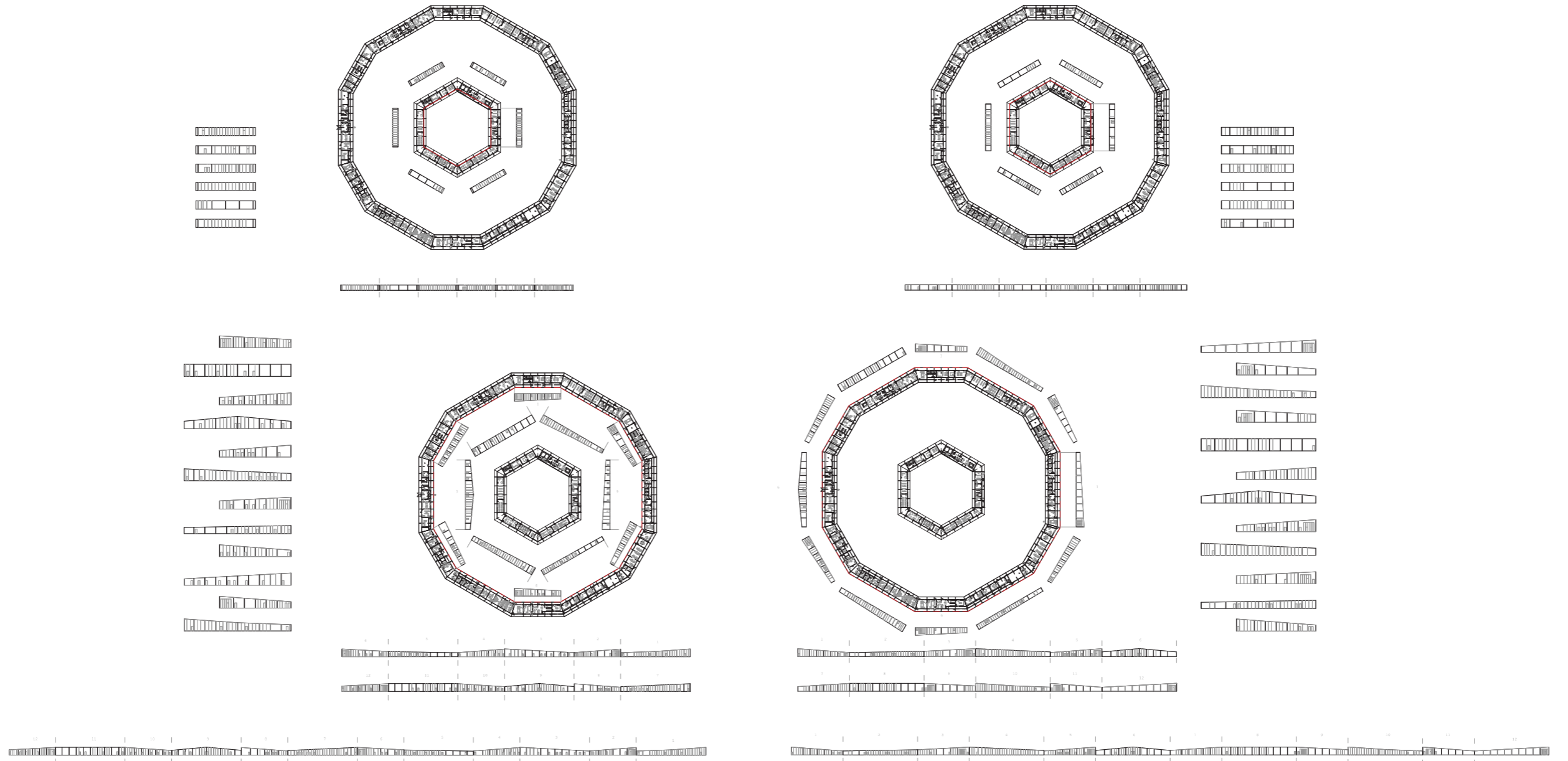
E: Six outdoor spaces, sport fields and leisure rooms

- E1: Basketball field with benches
- E2: Place for gardening, relaxing and sunbathing;
- E3: Multipurpose hall for concerts, theatre and film
- E4: Football field with benches
- E5: Place for gardening, relaxing and sun-bathing
- E6: Outdoor projection stand (watching movies together)



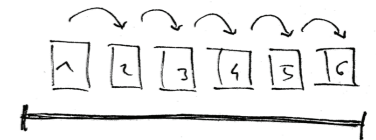
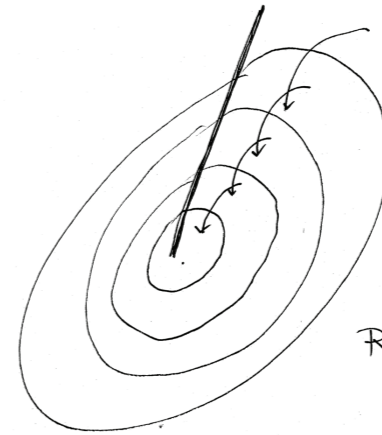
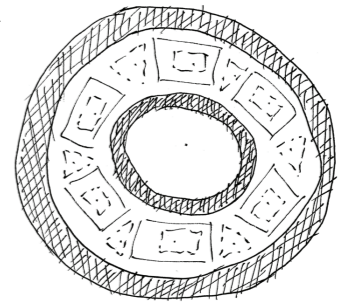
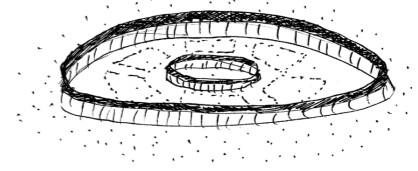
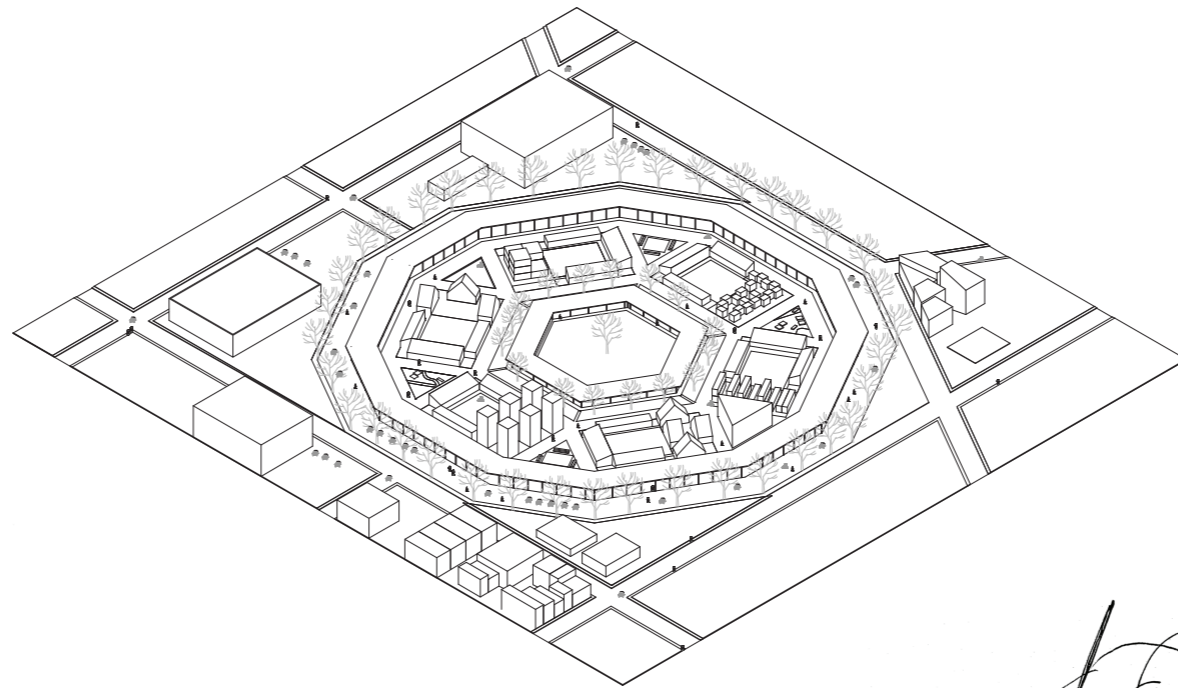
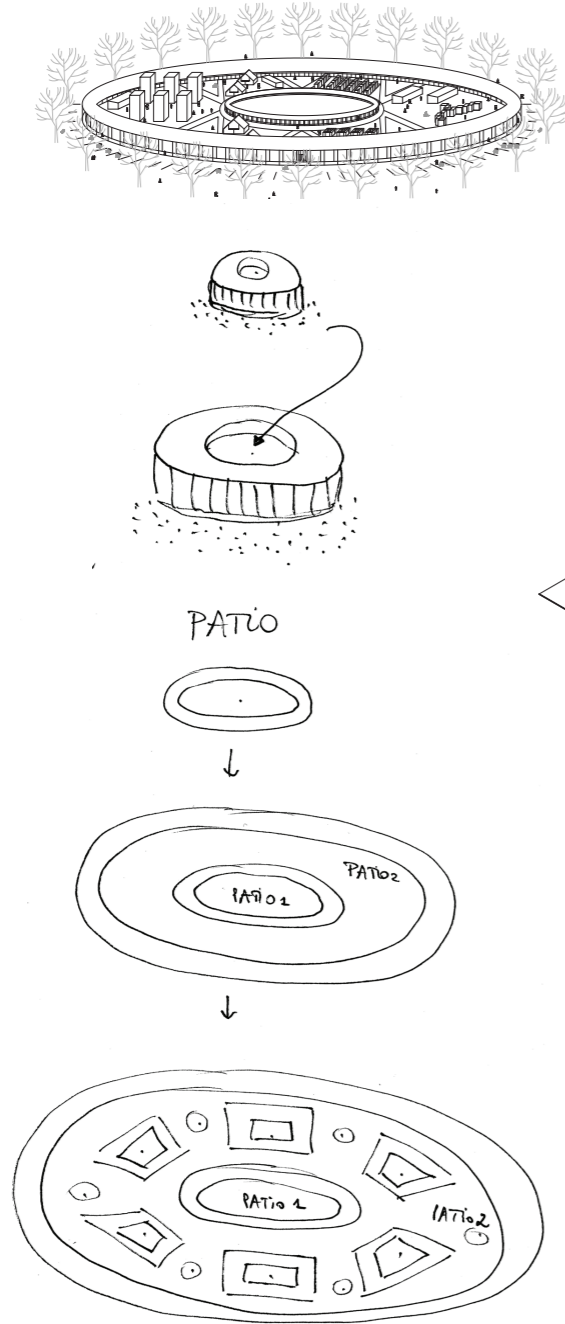
3. COUNTER OVERPOPULATION
Working with (autonomous) sections, fixed & variable areas,
individual & common spaces

Facades: wavy on the outside and straight at the inside



4. EASY TO COME AND TO GO

- a) Easy access for service providers (internal & external)
- b) Less horrifying for users (prisoners), local residents and visitors (friends, family, and children)



RUIMTELIJK TRAJECT / PROCES.

5. SECURITY, GUIDANCE AND MEDIATION

C. Cellular section

- 1. Cell 6: Tower with common living spaces; 2. Linen room; 3. Medical and first aid care cell; 4. Storage room; 5. Showers; 6. WC; 7. Lounge, dining room, bar; 8. Kitchen; 9. Multipurpose room; 10. Individual chat room; 11. Chat room for groups; 12. Smoking room; 13. Cell for disabled people; 14. Cell for mothers/fathers

24 cells minimum, 32 cells maximum



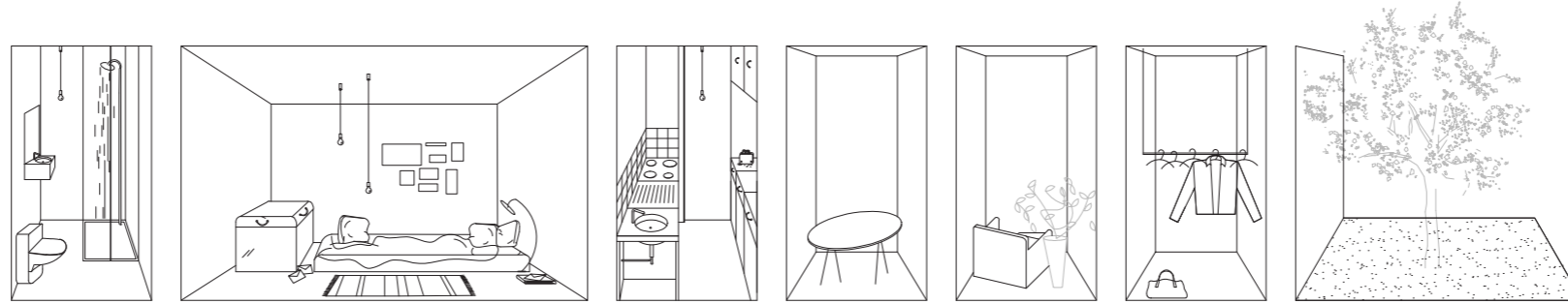
6. RE-INTEGRATION INTO SOCIETY
Differentiated regime and stimuli for contact with the outside world

A. Individual trajectories provide variety among prisoners

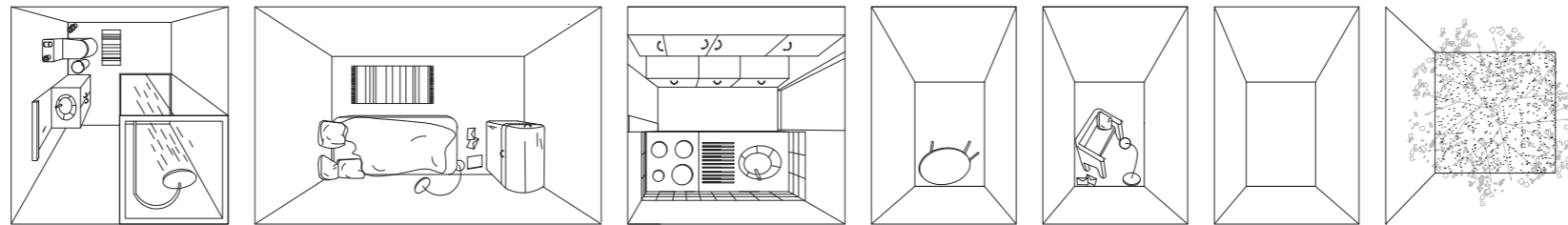
Aspecten uit onderzoek en na lezen van boek 'Ik ben wie ik ben'	Noodzakelijke Functies v/e cel gebleken uit onderzoek	Noodzakelijke Aantal Bouwstenen 60cm x 60cm voor deze Functies	Noodzakelijke Dimensionering van de ruimte voor functies	Ruimtes afhankelijk van de functies	Ruimtes in plan perspectief	Ruimtes in snede perspectief	Alle Ruimtes samen geconfigureerd in een cel
De Vrijheid; ONGESTOORD - Rust - Bezinnen	Slapen	□ X 15	5,4 m ² 				
De Privacy; INDIVIDUELE - Toilet - Douche	Wassen	□ X 9	3,24 m ² 				
De Middelen; TALENTBENUTTING De Zelfstandigheid; VERANTWOORDELIJKHEID	Koken	□ X 9	3,24 m ² 				
De Straf; GRENZEN - kiezen wat je eet - (On)Gezond eten	Eten	□ X 6	2.16 m ² 				
De Vriendschap; HELPEN Het Bezoek; ONTVANGEN	Ontvangen	□ X 6	2.16 m ² 				
De Vrijheid; ONGESTOORD Buitenlucht happen	Ademen	□ X 16	5.76 m ² 				
De Middelen; TALENTBENUTTING De Tijd; NUTTIG De Toekomst; VOORBEREIDING	Werken	□ X ???	MINIMUM 2.16 m ² 	<input type="checkbox"/> bureauwerk <input type="checkbox"/> Fotografie <input type="checkbox"/> Muziek maken <input type="checkbox"/> Beeldhouwenwerken <input type="checkbox"/> Schrijven <input type="checkbox"/> Schilderen <input type="checkbox"/> Architectuur <input type="checkbox"/> Tekenen <input type="checkbox"/> Metsen <input type="checkbox"/> Dakwerken <input type="checkbox"/> Kleemaken <input type="checkbox"/> ...	 	 	

Individual living unit with a linear spatial trajectory
Sleeping and washing facilities to begin with. Extra living spaces can be added.

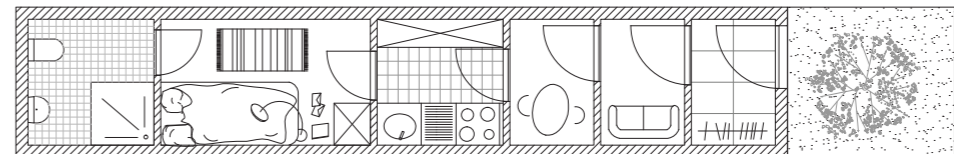
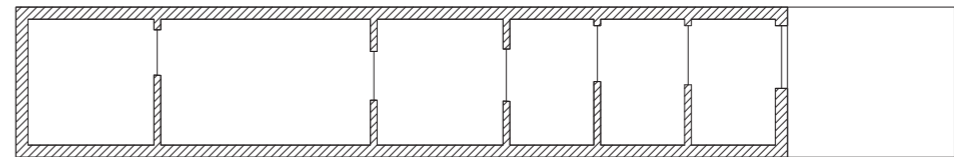
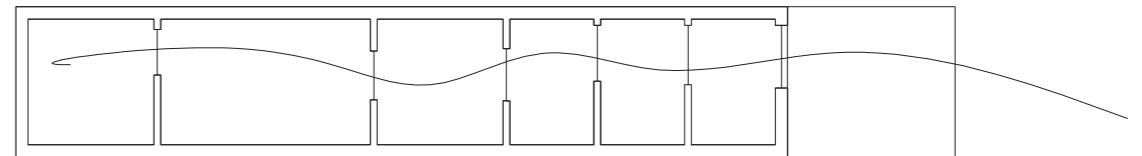
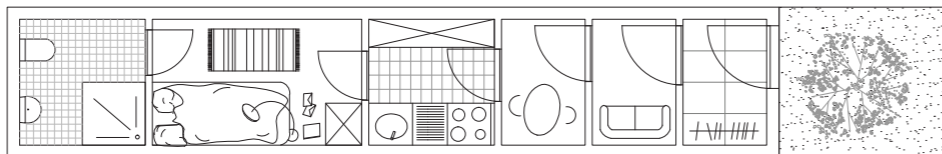
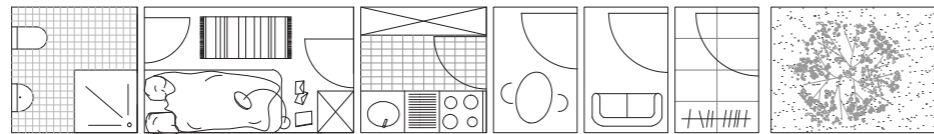
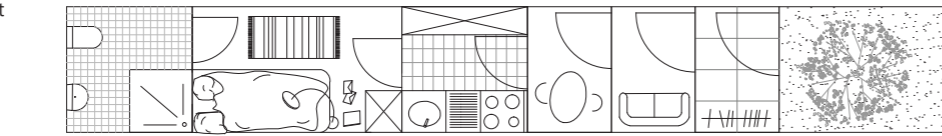
Snede perspectief



Plan perspectief

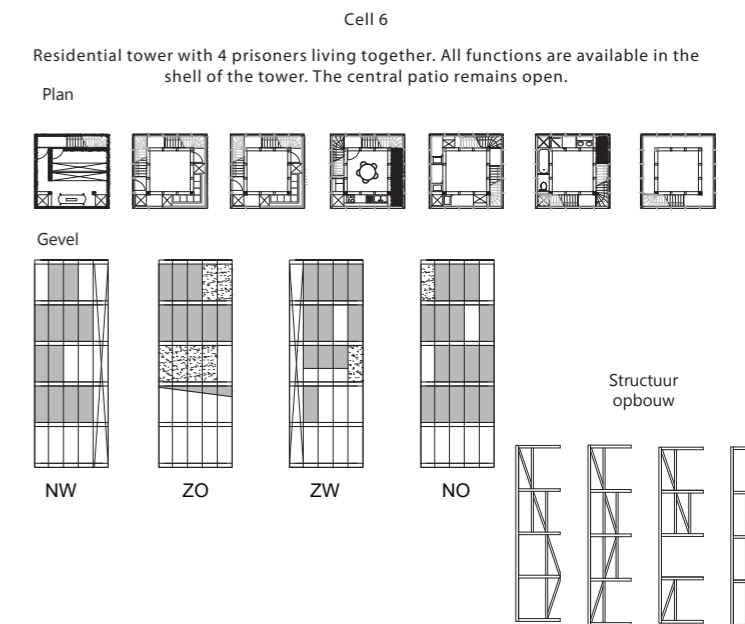
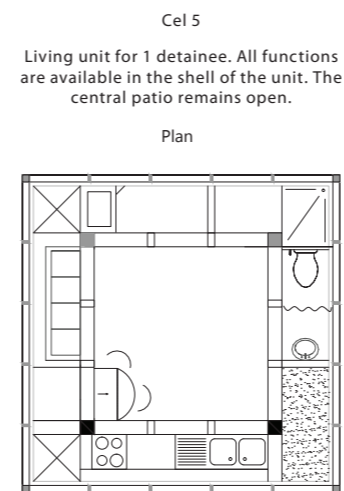
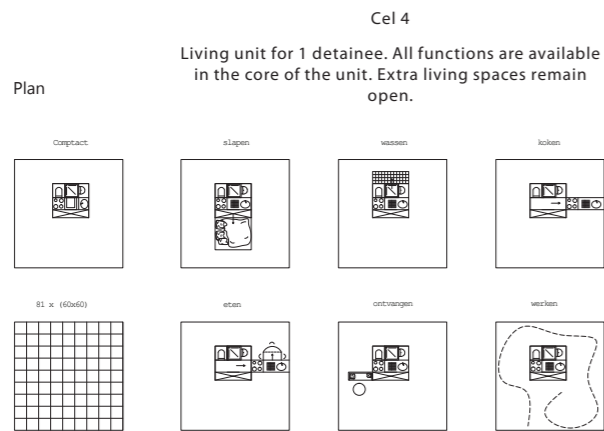
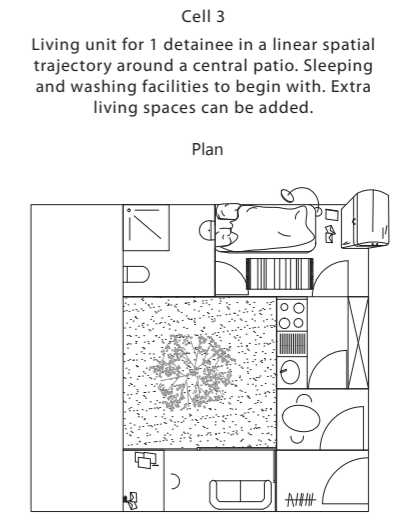
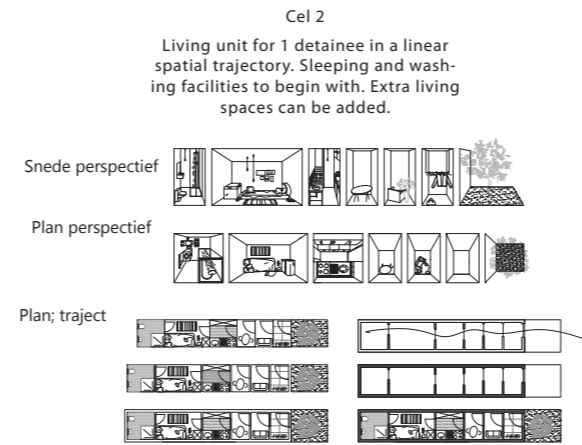
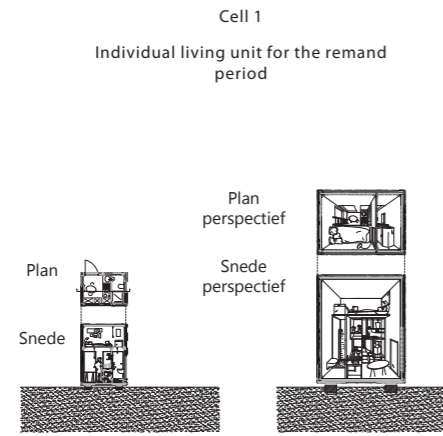


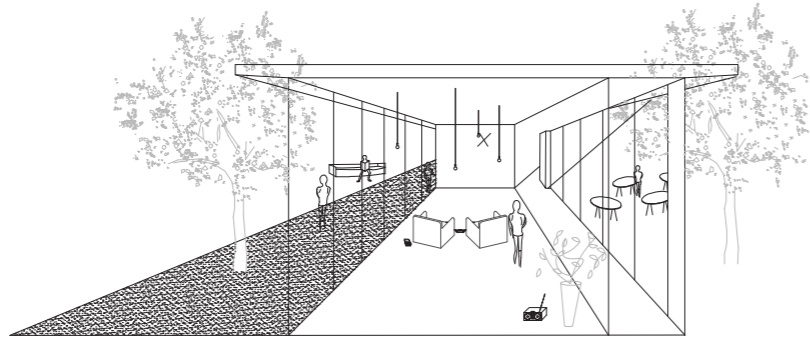
Plan traject



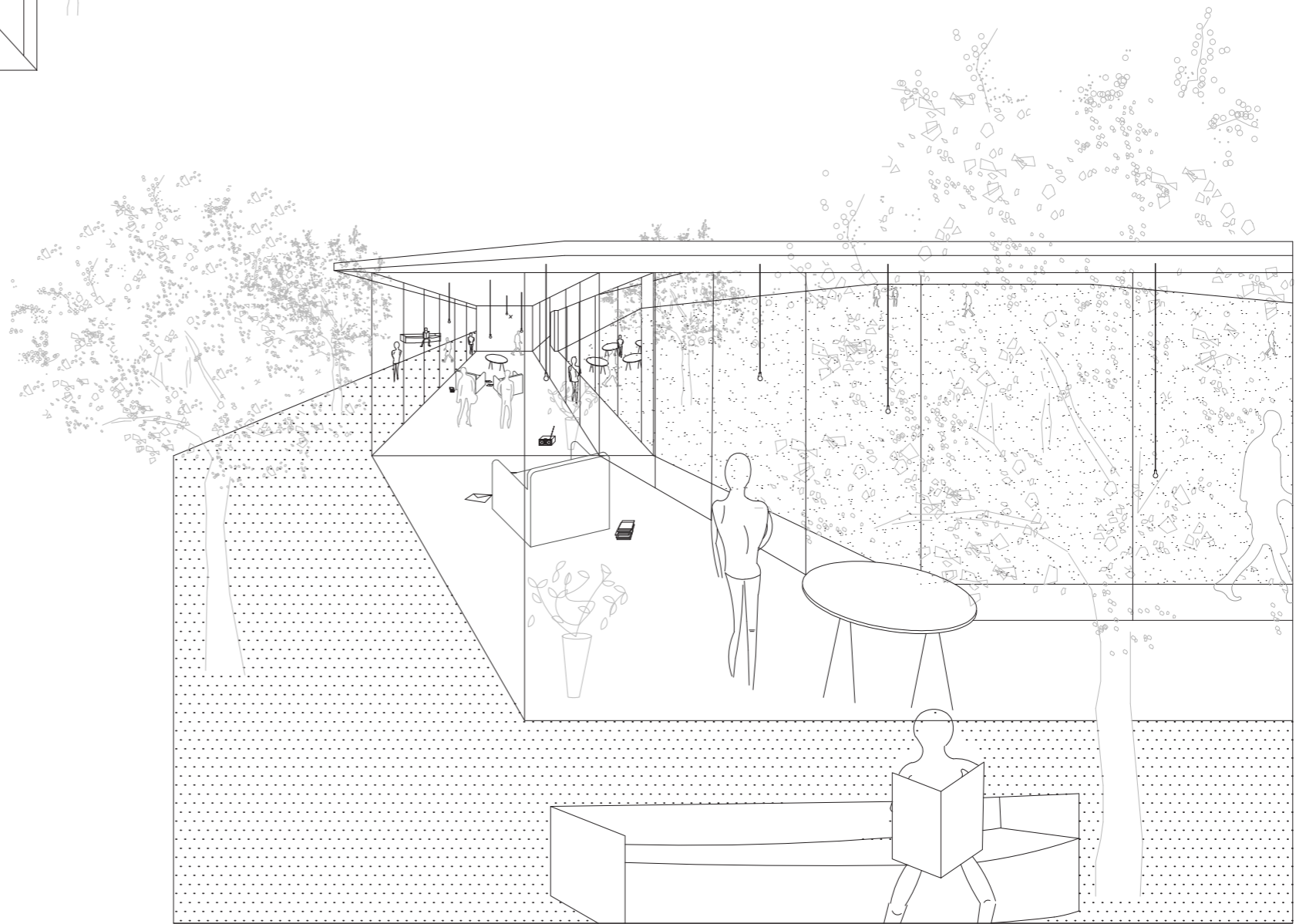
Variations in the development of the cell throughout the different stages
(functional expansion)

		Variant 1	Variant 2	Variant 3	Variant 4
Ruimtes in plan	Fase 1: slapen				
Slapen	Fase 2: slapen wassen				
Wassen	Fase 3: slapen wassen koken				
Koken	Fase 4: slapen wassen koken eten				
Eten	Fase 5: slapen wassen koken eten ademen				
Ontvangen	Fase 6: alle ruimtes samen in gebruik				
Ademen					

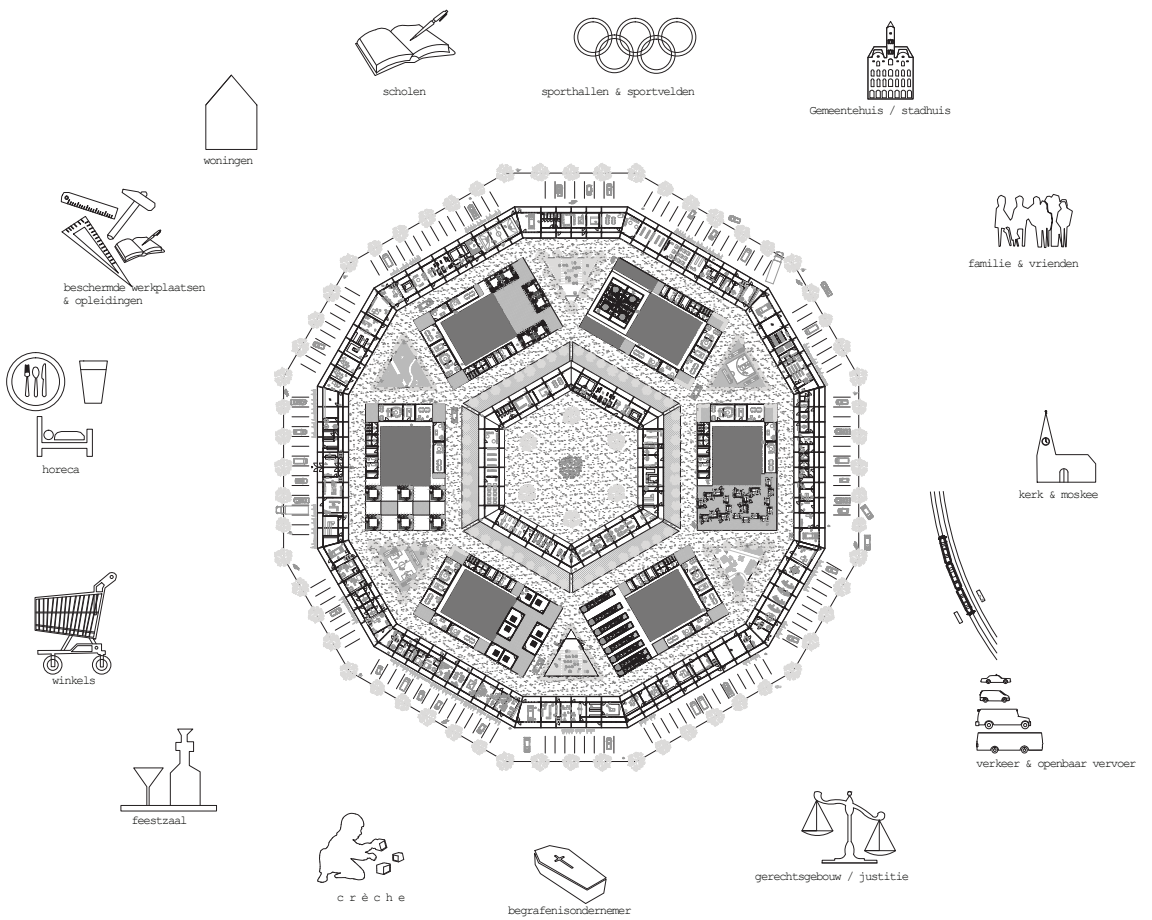




B. Limits are fading (literally and metaphorically)



C. Important environmental conditions





PRISON GEAR

KENNISPLATFORM
VOOR HUMANE
GEVANGENIS
ARCHITECTUUR

 With support of
the Flemish Authorities

KU LEUVEN **LUCA**