

Correctional facility

ARCH 772 DESIGN THESIS SPRING SEMESTER 2012
INSTRUCTOR BAKR ALY AHMED

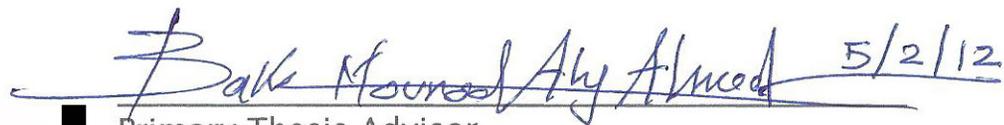
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Can Recidivism be Influenced by Architecture?

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

By
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In Partial Fulfillment of the Requirements
for the Degree of
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Thesis Abstract

This thesis will focus on an investigation of the question, **can recidivism be influenced by architecture?** The typology for this examination will be a large **113,460 sq. ft.** multi county **correctional facility** for convicted criminals, Located 7 miles south of **Devils Lake, ND**, on Highway 57.

Theoretical Premise that guides the research is, the ability to influence the rehabilitation of the inmates, a mechanism to change the environment in which prisoners live to lower the level of violence while providing a safe work environment for the law officers that supervise the rehabilitation while inmates are incarcerated.

The Project Justification use the built environment to support the psychological and physical needs of the inmates to encourage a lower level of violence and healthy rehabilitation.

Key Words: Recidivism
Rehabilitation
Psychological
Physical
Healthy

Problem Statement

Can **Recidivism** be Influenced by **Architecture**?

Statement of Intent

Statement of Intent

I believe that architecture can influence and reduce the return to crime.

- Who is the actor? Architect and inmates
- What is the action? Rehabilitation
- What or who is the object? Inmates

The Project Typology

A correctional center for convicted criminals.

Theoretical Premise/Unifying Idea

Developing the premises:

How is the actor related to the claim?

Ability to influence the rehabilitation of the inmates.

How is the action related to the claim?

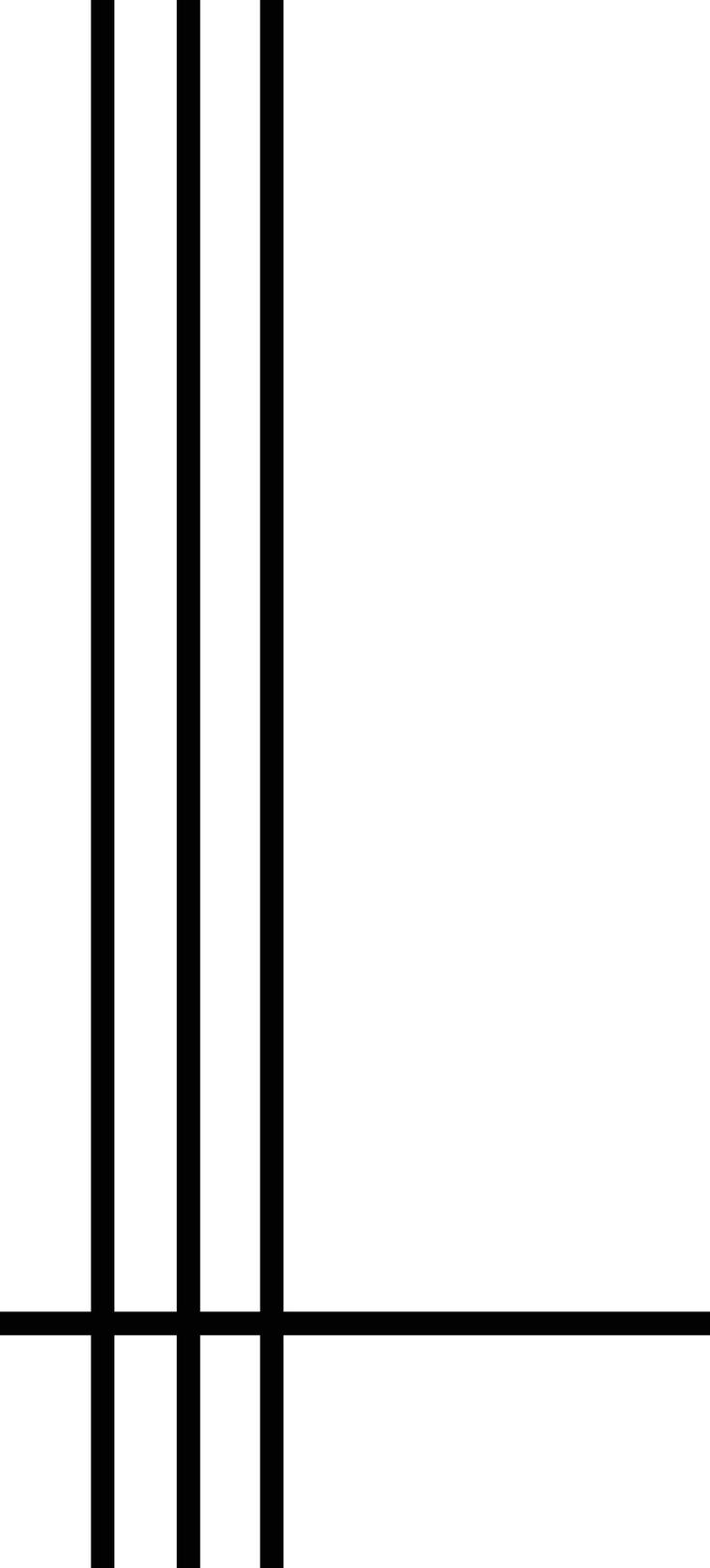
Mechanism to change the environment in which prisoners live and work.

How is the object related to the claim?

Lower the level of violence and provide a safe work environment for the law officers that supervise the rehabilitation while inmates are incarcerated.

Project Justification

Architecture can be a mechanism for change in the environment for incarcerated prisoners while providing a safe atmosphere for the employees of the jail.



The Proposal

The Narrative:

My interest in this particular typology is personal, being raised in a law enforcement family, my concerns are not only for the needs of the incarcerated, but also for the safety of the officers and employees that deal with the inmates as they transition through the rehabilitation process. An individual recently told me that they thought jails were “too depressing to think about.” I, on the other hand, find them fascinating. Architects and non-architects alike have struggled with the challenge of what to do with this particular group of individuals since the beginning of humans and their wrongdoing. Fortunately for the general population, there have been individuals willing to take the challenge and create an environment for convicted criminals to serve their time. I do feel the opinion is shared by most individuals in any community. As long as we are protected from the incarcerated and don’t have them in our backyard we, unfortunately, don’t give them much thought.

I have carefully chosen a site that has been reclaimed. The original steep topography has been excavated in the last 10 years to provide clay to be used in the raising of the roads in the surrounding lake region, which have been devastated by flood water from Devils Lake. What remains is a beautiful, level piece of ground, lined with mature trees and a spectacular view of the lake. Located seven miles south of Devils Lake, ND, the site provides exceptional access on highway 57, is centrally located to surrounding regional communities that will use the facility, is in close proximity to needed services, but maintains distance from the general population.

Although an extreme example, Charles Manson is quoted in the book *Manson In His Own Words*, as told to Nuel Emmons in 1986, “For every person whose heart is in the right place, for every person who is dedicated to constructive rehabilitation, there are ten status-seekers out to prove something to themselves” (pg 39-40). The thoughts and beliefs of any inmate can be scary and unpredictable. It is essential that a safe and secure environment be created for all the inmates and law enforcement alike. Not all criminals have the thought process of Charles Manson, but he too at one time would have been detained in a regional facility!

User/Client Description

As the rural population declines, so does the funding available to individual counties for the high cost of housing and rehabilitating the criminals who reside there.

The Lake Region Correctional Facility will be a facility that shares the financial commitment with surrounding counties and brings together their individual correctional housing needs under one roof. This multi-jurisdictional facility will utilize resources from both criminal justice systems and social services as a cost-effective way of handling individuals from arrest to pre-trial housing as well as individuals who have been convicted of a crime and the housing needs thereafter.

This unique facility will be owned and operated by the City of Devils Lake, under the strict regulations of the federal government. Trained correctional officers will be hired to manage the daily operations.

The nature of this specific facility dictates minimal presence from the outside public. It will, however, offer safe and secure areas for the range of professionals who are required to service the inmates.

User/Client Description

Based on information gathered by the National Advising Commission of Criminal Justice Standards and Goals, there should be no more than 290 inmates housed in the Lake Region Correctional Facility.

It is essential that men and women are separated entirely during their incarceration. This starts immediately with intake into the facility through their rehabilitation. In addition, secure areas are needed to isolate maximum security inmates from lower risk offenders, as well as special needs offenders.

Universal design will be implemented in every aspect of the design, as the physical restrictions for inmates and visitors are uncertain on any given day.

Space for program support and evaluations will be available as will a small infirmary to help with initial evaluations and daily concerns with inmates and staff. More extensive medical services will be handled at the local hospital in Devils Lake.

Parking for visitors will be minimal, with separate parking available for officers, court officials and personnel.

Specific users:

- Law enforcement Inmates
- Jail staff
- Inmates
- Lawyers
- Judge
- Clerical staff
- Jury
- Kitchen staff
- Maintenance

Major Project Elements

The primary use of this facility is to provide adequate care and housing for individuals who have been detained and/are serving a conviction sentence, while rehabilitating and promoting a less violent atmosphere in the built design.

Intake:	4010 sq.ft	Public Area:	
Booking		Lobby/Reception	4300 sq.ft
Temporary holding		Visiting/ waiting	2500 sq.ft
Search		Residential:	
Identification		Housing avg 70 sq. ft. per	
Assessment		inmate x 290	
Sally Port/ Garage	4250 sq.ft	secure pods	3700 sq.ft
		Common area 4000x7	28000 sq. ft
Administration:		Recreation:	
Staff 360 x 6	1920 sq. ft	Exercise 3300x2	6600 sq.ft
Clerical 500x 4	2000 sq. ft	Game room 1000x 7	7000 sq.ft
Record Storage			
Conference/meeting		Dining: no more than 60-75	3000 sq. ft
		inmates at a time	
Security Control:	500 sq. ft	Food Prep: 10 sq.ft/inmate	
		Kitchen	5700 sq.ft
Staff Support:		Storage	
Offices 1000x3	3000 sq.ft	Laundry:	4200 sq.ft
Locker/dressing		Exterior Recreation:	
Weapon Control	250 sq.ft	3000x 5	1,5000 sq ft
Training/classroom		Circulation (20% gross)	<u>2,200 sq. ft</u>
Program Support:			
Offices visiting staff 360x6	1920 sq. ft	TOTAL Square Footage	113,460 sq. ft
Program Delivery:	400 sq.ft		
Classrooms/seminars			
Group Counseling			
Mechanical: (12% of gross)	14010 sq. ft		

Project Emphasis

This thesis will examine various issues relating to the needs of incarcerated prisoners and what alterations to the built environment might influence and change the behaviors of the inmates as residents and in the future. The project will also examine the safety needs of the employees who supervise the rehabilitation.

The project will attempt to understand the inner workings of an environment that is usually inaccessible and foreign.

A Plan for Proceeding

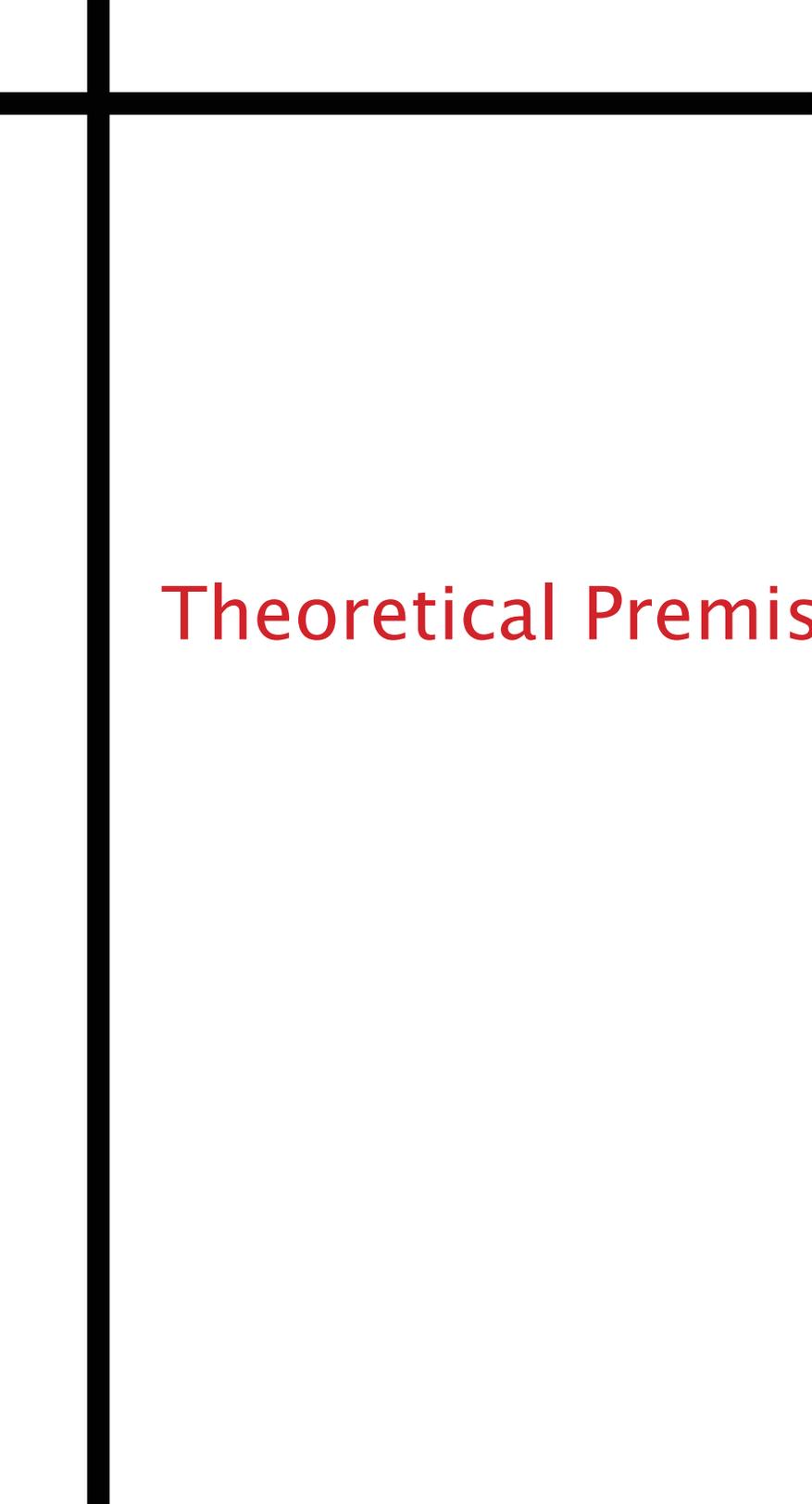
Research for this thesis will be done in the following categories:

- The Unifying Idea
- Project Typology
- Historical Context
- Site Analysis
- Programmatic Requirements

The methodology for approaching this thesis is to gather information from many sources. I intend to do research into the psyche of the prisoner while detained and after release. I will study the psychological benefits of color and shape. I will try to understand what the life of the prisoner is like and the needs of the law enforcement officers who assist in their rehabilitation. I will conduct many personal interviews with individuals in the profession to understand what is needed in their environments to make their work safer and more pleasant. The purpose of the facility is detaining people, but all who occupy the space are detained, so what can be done to combine the two?

Plan for Documenting the Design Process

I intend to document my process and final products digitally and copy them onto a CD. I will format my collection of findings into categories and finished work that will be easy to follow.



Theoretical Premise/Unifying Idea Research

The Theoretical Premise that has been guiding me through this investigation is; can architecture have the ability to influence the rehabilitation of convicted criminals, and be a mechanism to change the environment in which they live, as well as lower the level of violence while providing a safe work environment for the law officers that supervise the rehabilitation.

My interest in this particular typology is personal; my father was a captain of the North Dakota Highway Patrol. As a trooper, he dealt with many life threatening situations thru the years. I learned pride and respect for his job at an early age. My primary direction that is driving my research is the respectful handling of the inmates as they move through the criminal detention process, but also, investigating the development of space, to ensure a safe working environment for the men and women who put their lives on the line on a daily basis to apprehend, detain, and help guide the prisoners as they transition through the incarceration process.

As I began my research by visiting with individuals about their personal thoughts and ideas concerning the detention of prisoners in their respective communities, I was a little surprised how many people had an instant response that it was a “depressing topic” and they really had no thoughts to share, other than they would rather not think about it. Unfortunately, for most individuals, unless there is a possibility of a new jail or detention center being placed in their backyards, they don’t really care where it is located. As long as the individual criminals we see on the news are securely locked away in someone else’s backyard.

Architects and non-architects alike have struggled with the challenge of what to do with criminals since the beginning of human wrongdoing. Originally, criminals were placed in dark, damp, cavernous spaces in the farthest depths of abandoned fortresses. The conditions were inhumane, and the best one could hope for was to survive to see the light of day again. One would think this might be a life-altering experience, but it seemed in my research that, unfortunately, many criminals were repeat offenders.

We as designers have come a long way since that time in history. Fortunately for the general population, there have been individuals willing to take on the challenge and have created environments for convicted criminals to serve their time in a much more humane way. Like anything else, there have been designs that have functioned better than others, and the proven ones have stood the test of time. Today, many facilities are unrecognizable as an institution from the outside.

I was able to tour the Alcatraz Prison in San Francisco several years ago. As I stepped off the boat onto the island, I knew my decision to research prisons was the right choice. With the massive fortress looming over my head, it was hard not to get chills. As we moved methodically through the facility, I could envision the site as it had originally been. I could envision the inmates as they moved through the complex and the guards maintaining order. But what impacted me most was the realization that the staff raised their families on that island too. Many of the photos that were on display showed guards and staff personnel with their children. I realized that they also had sons and daughters waiting for them when they got home, just as I had done as a child, waiting for my dad!

My focus is a regional multi-jurisdictional facility that will house prisoners from several counties. In the large metropolitan areas of the country, as crime continues to escalate and more criminals are apprehended and convicted, overcrowding of our prisons and detention centers is an on going, huge problem. Criminals are forced to share living quarters that were originally meant for a single occupant. Criminals are serving less time for their crimes to make room for new criminals to enter. Although this may be true in larger populated areas, in the rural areas of the country, as the population decreases, so does the number of criminals. Correctional facilities in the upper Midwest have experienced the opposite trend. Smaller facilities that were once financially sound, now, due to the population decrease and a lower number of criminals, struggle with the number of inmates and are becoming a financial burden on the city budget. Inmate numbers equal financial dollars.

My intention is to combine the services of several individual counties from their respective correctional facilities into one larger facility that is centrally located. I have chosen Devils Lake, ND, as the central location. It is a regional hub for the surrounding area. The financial burden on the counties would be eased by sharing the cost. The inmate numbers would stabilize, avoiding costly overhead that occurs at a facility that is not at capacity. Social services that overlap in the counties would now be shared.

Transportation to and from court hearing would be eliminated, as courtroom space would be included. A small infirmary would take care of the needs that arise during the intake process and booking, and also any needs that arise on a daily basis. Larger medical issues would be handled at the hospital located in Devils Lake.

Site selection for a correctional facility can be a complicated, political nightmare. Most, if not all, residents of a community will agree that a facility to detain and reform criminals is necessary. That, however, is where the agreement ends. The guidelines directed by the federal government and the anticipated outcry from the community make the possible options minimal.

I have chosen a location that is a piece of reclaimed land. The site, previously a hill, is now a beautiful meadow lined with mature trees and a spectacular view of the shores of Devils Lake. It is located seven miles south of the city limits of Devils Lake, on a major highway. This site is removed from the community, yet close enough to provide any additional services that are needed but not available on location.

I envision a facility carefully placed on the site, allowing for a view for the staff and visitors to enjoy. Outside views will be incorporated into the inmate holding areas as well. A system of skylights will also allow for natural lighting in the area that requires additional security measures. I feel strongly that natural lighting is important to the rehabilitation process and a needed physical boost.

Due to the nature of the facility, public access will be limited. A lobby and visitation space will be provided, as will a space for the children of inmates to enjoy as they spend time there. An area for payment of fines will be the extent of the public access.

It is essential for the apprehended suspect to be escorted into the facility through a garage out of view from the general public.

As my research continues, I feel I have a good foundation to work with and have encountered many law enforcement individuals who are willing to help me to design a workable correctional facility in the Devils Lake area.

According to the book written by Phillips and Greibel, (2003) there are “five primary building security objectives for justice facilities.” (pg.11-28):

1. Deter: actual/potential threats
2. Detect: security breaks
3. Delay: to allow staff/systems to respond
4. Halt: and control event
5. Minimize: or eliminate danger



Security in general requires integrating architecture, operations, and technology. There are a wide range of threats that are a possibility every day in this type of facility, and they need to be addressed as the design process begins and readdressed as it progresses. Any possible risks that can be anticipated beforehand will help lessen or even eliminate the risk to the inmates or staff. Some of the risks that must be addressed are: assault against the staff and inmates, suicide, vandalism, weapons, and escape.

The main focus for my design will be to provide state-of-the-art security for the overall facility, but to also provide distinct separation of security needed for the safety of the law enforcement staff in their offices and duties not directly associated with the prisoners. It is essential for the apprehended suspects to be escorted into the facility through a garage, out of view from the general public.

Theoretical Premise/Unifying Idea Research

Summary

I believe that recidivism can be influenced by architecture. An atmosphere that encourages change and reform will help prisoners with their rehabilitation and help guide them as they re-socialize into the communities they reside in. I believe that somethings as small as color and texture can make an impact on an inmate by creating a calming effect.

“...to reform, prisoners need a sense of self” (Maruna, 2000, pg.17).

Many of the problems and challenges faced by the criminal can be associated with poverty, lower education, lack of jobs, addiction and dependencies, and a long-term pattern of criminal behavior. None of these will be corrected in a jail facility, but a change in one's self worth could be improved. For example, by using direct supervision in a minimal risk situation, the correctional officer is a consistent presence in the day area. There is one-on-one regular contact between the staff and inmates. A mutual respect can be achieved and the inmate has an opportunity to share and interact with the staff.

Summary

The situation facing recidivist offenders is something like a brick wall. It is surmountable but is enough of an obstacle to make most turn around and 'head back': in this scenario, back refers to back to crime, back to the life they are familiar with, but mostly, back to prison- where recidivism offenders seem to go again and again.
(Maruna, 2000, pg.55)

I find this a sad quote, but probably true.

My intention is to use the information gathered in my research and continue to photograph county jails. The firsthand knowledge I have acquired through my photography is a priceless form of documentation for me. The "feeling" of actually being in the cell and photographing from the prisoners' point of view is something not achieved with a book. Many of the design choices I make will be based on that feeling of confinement and uneasiness. Hopefully my design of a correctional facility will encourage inmates to try and better their situation and by doing so, better themselves and the lives of their families.

Case studies

Cass County Jail
FARGO, NORTH DAKOTA

Federal Correctional Institution
ESTILL, SOUTH CAROLINA

West Valley Juvenile Hall
RANCHERO CUCAMONGO, CALIFORNIA

Prison Design Briefing System (PDBS)

Case Study Introductory Statement:

Cass County Jail

Fargo, North Dakota

This case study has been the most beneficial to me in my research. I was fortunate to be able to photograph this jail as part of my thesis research. This facility is located in the same geographical region as the site I have proposed. The construction of this correctional facility was completed in 2002 and is the newest available. The officer escorting me through the facility informed me that they are

providing a safe and secure confinement for lawfully committed inmates or detainees in compliance with standards set forth by the North Dakota Century Code and the North Dakota Administrative Jail Rules. Based on their Mission Statement: The primary goal of the jail will be to provide for the safety of Cass County citizens by detaining lawfully committed inmates in the most efficient and cost effective manner as possible, foster a positive atmosphere between the staff and inmate population with the expectation that mutual respect will be displayed at all times.”(cass county)

My safety and that of the inmates was of utmost importance to myself and the officer. I moved through the facility easily. No photos could be taken of an inmate, I could not even be in the hallway if an inmate was being escorted to another location. Security was impressive. Not a single move on my part was unseen, and entrance to any location in the facility was transmitted to the security headquarters for access to be granted or denied. A color coding system is incorporated into the tile floor to distinguish levels of security risk. A specific color is prominent at the entrances of pods and identifies the level of security risk. That same color is repeated on the doors and in the interior. The linear grid that is used for the organization of spaces is not unique, and appears in other case studies of older construction.

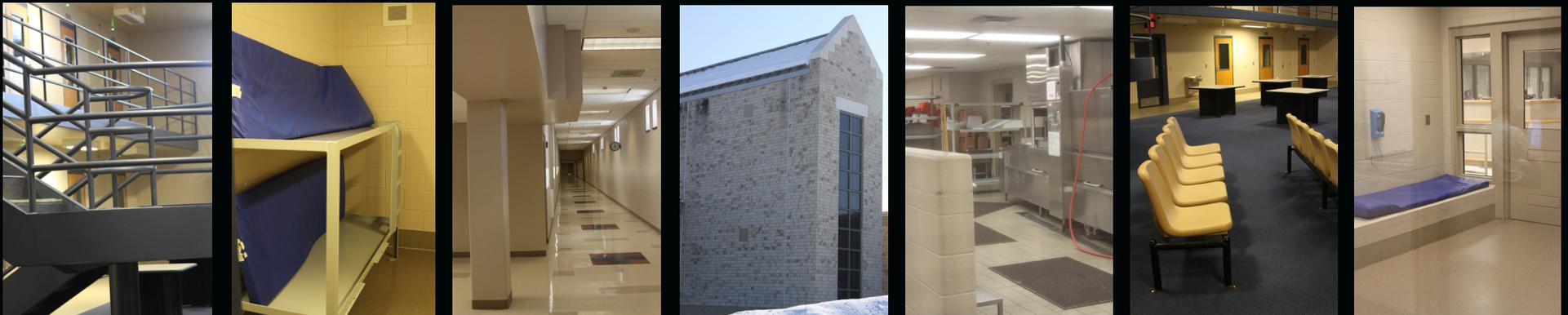




figure 33.1

The first courthouse was built in 1874-1883 Cass County was organized in 1873 and Fargo was selected as the county seat, located at the present site of the Northern Pacific Depot. The building was moved to First Avenue South between Seventh and Eighth Streets and used as a YMCA and then a boarding house until it was torn down in 1883.

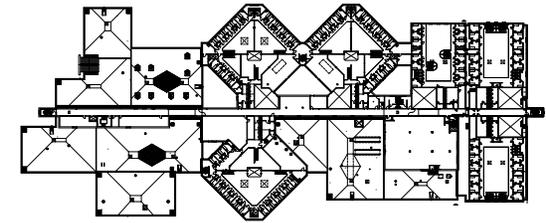


figure 33.5

Second Floor

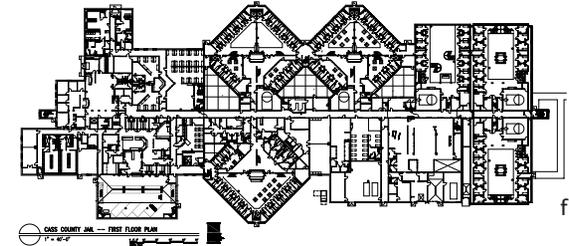


figure 33.6

First Floor



figure 33.2

The second county courthouse was built on Third Avenue South between Ninth and Tenth Streets. The estimated cost was \$50,000. It burned down in 1903. (1883-1903)

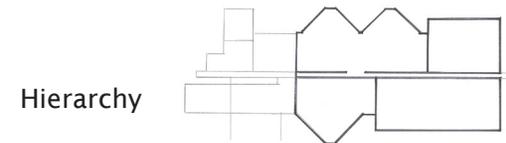


figure 33.7



figure 33.3

The Cass County Jail was built directly behind the Cass County Court house at Third Avenue South between Ninth and Tenth Streets. The Court House was built in 1906 and the Jail built in 1913. It can be seen behind the courthouse. It was designed to hold 65 inmates. The jail was remodeled in 1975 and expanded (via bunk beds) to double the inmate capacity.

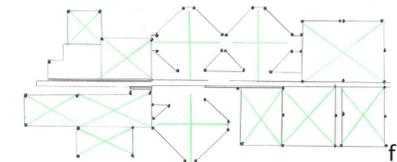


figure 33.8

Structure / Geometry

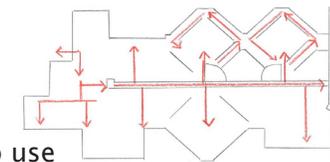


figure 33.9

Circulation to use



figure 33.4

In June 2000, ground was broken for a new jail on Fargo's south side. The new jail was dedicated in August 2002. In the spring of 2003, the county decided to raze the old jail building.

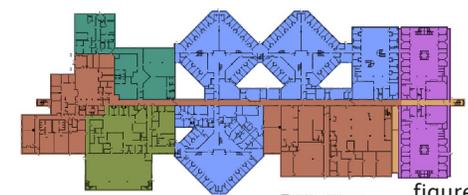


figure 33.10

First Floor Plan

- Administration/Support
- Administration/Support
- Working/Support
- Work Release
- Housing Population
- Additional Housing Population

Cass County Jail

Case Study Introductory Statement:

Federal Correctional Institution

Estill, South Carolina

The Federal Correctional Institution (FCI), in Estill, South Carolina, is a medium-security facility housing male inmates. It also has an adjacent satellite camp that houses minimum security male inmates. I chose this facility as an example of a medium security facility where only one gender of offender is housed and all detainees have committed similar crimes. Based on the information acquired from *Building Type Basics for Justice Facilities*,

in recent years the majority of medium security institutions housing general inmate populations have adopted a podular housing approach. Single and double occupancy rooms for inmates are clustered together around a shared open area, the 'day room' space. The inmates rooms are often stacked in two tiers with a mezzanine. The pod is managed by correctional staff via direct or indirect supervision." (Phillips&Creibel, 2003, pg122)

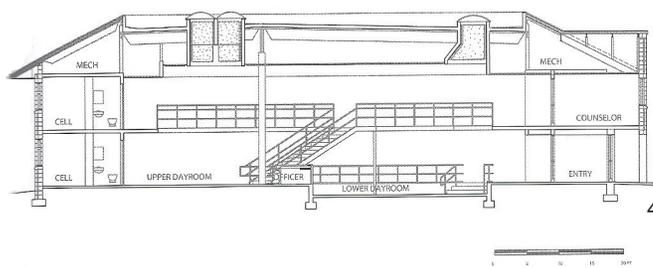
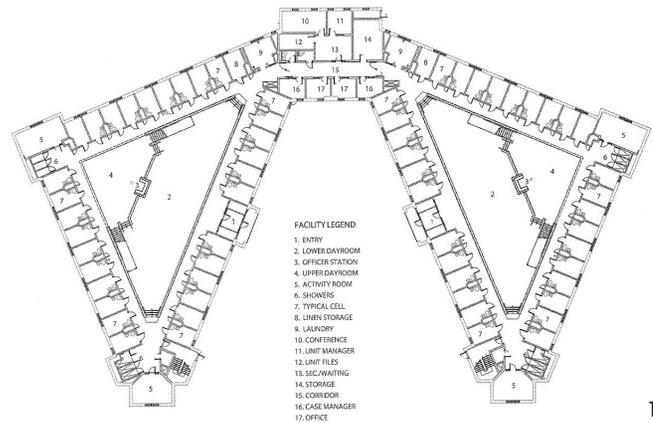
I find it interesting that with the level of incarceration comes the privilege of having a security window or visual space to the exterior in the rooms for natural light. In a medium security facility all sleeping rooms have a view, or at the very least borrowed light from the day room through a window on the door. In a minimum security facility, it would not be unusual to have the staff sitting outside the control room and in a station inside the pod. "There are no barriers between the officer and the inmates." (Phillips&Creibel, 2003, pg119).



figure 34.1

Federal Correctional Institution

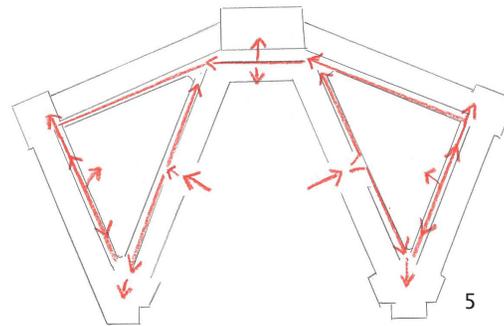
Estill, South Carolina



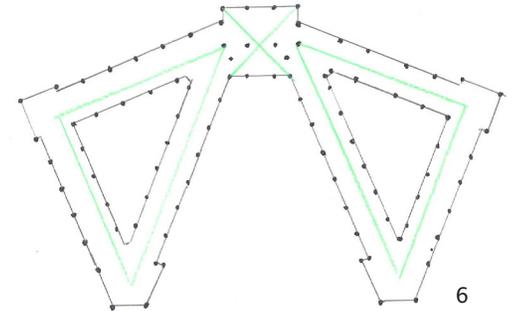
LS3P Architects

figure 35.1-4

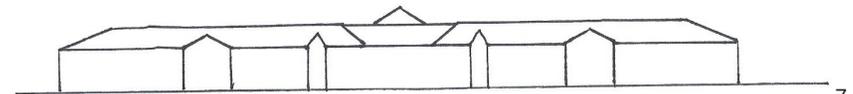
Graphic Analysis



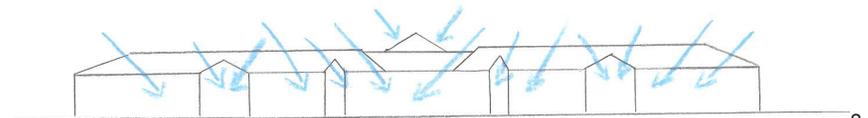
Circulation to Use



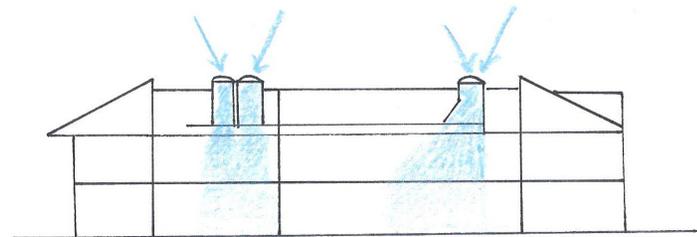
Structure / Geometry



Massing



Natural Light



Natural Light

figure 35.5-9

Case Study Introductory Statement:

West Valley Juvenile Hall

Rancho Cucamongo, California

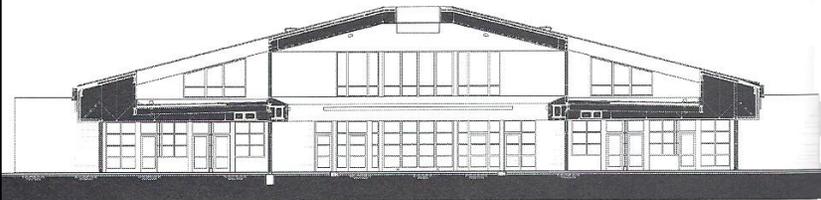
San Bernadino County Probation Department runs the operation for the West Valley Juvenile Hall along with San Bernadino Central Juvenile Hall and High Desert Juvenile Hall. Officially opening its doors in 2003, the facility accommodates approximately 182 minors. I chose this facility to investigate the juvenile population that find themselves in the court system.

Throughout the 1970s and 1980s, the design of many juvenile detention and training school facilities reflected an emphasis on educational and training programs designed to teach the skills required to reenter society successfully. This goal remains. Since the 1990s, however, older juveniles, 14-16 years of age, have often been considered to be more serious offenders. Some of these youth are more likely to have committed more serious offenses than those in earlier years. These trends, combined with stiffer 'three-strikes' sentencing in some courts and overcrowding in some places, have underscored security issues in the design of juvenile facilities." (Phillips&Creibel, 2003, pg148)

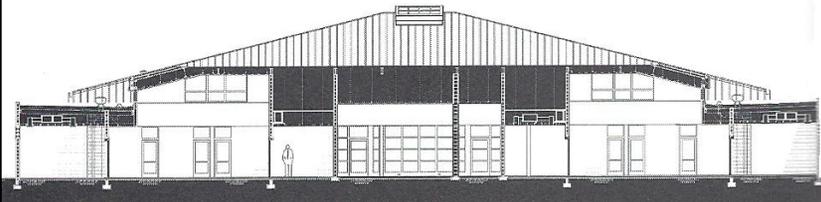
There are some distinct differences in how a juvenile case is handled; the "proceedings have traditionally been 'closed' access to files and court records are restricted. Security requirements are high, as court proceedings are emotionally charged, involving very personal issues and intense emotions, and thus increased risk" (Phillips&Creibel, 2003, pg149). This facility, although for juveniles, is designed on a linear path as we've seen in previous case studies.



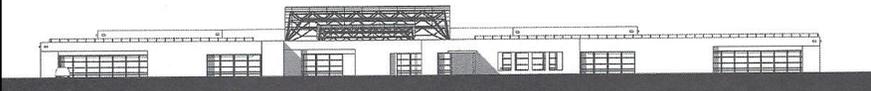
figure 36.1



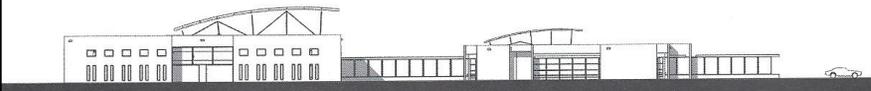
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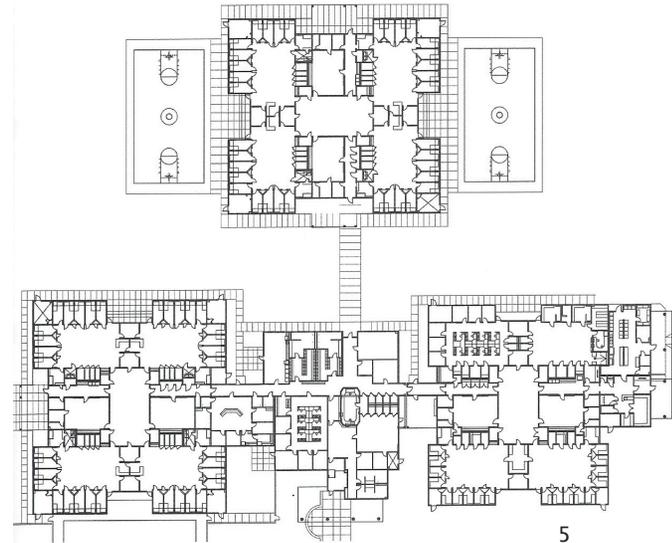


3

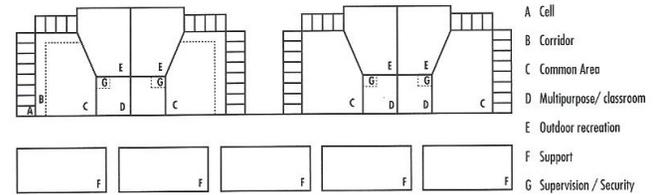


4

figure 37.1-4

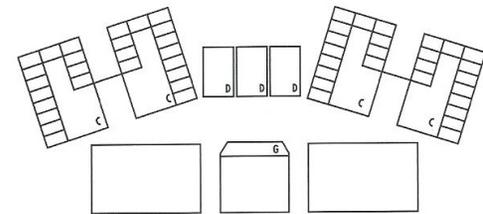


5



Linear

6



Podular

7

figure 37.5-7

West Valley Juvenile Hall

Ranchero Cucamongo, California

Case Study Introductory Statement:

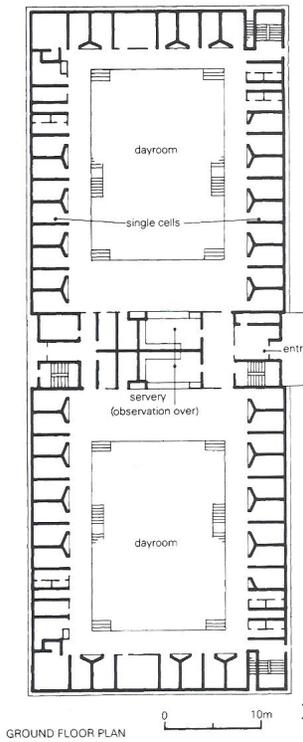
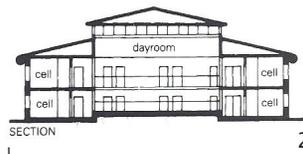
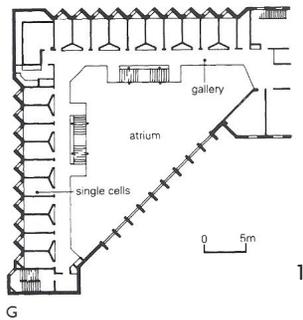
Prison Design Briefing System (PDBS)

“In 1987 the Prison Building Board was set up, and a start was made on producing the Prison Design Briefing System (PDBS). This set aside the previously published design guidelines of earlier and started completely from scratch” (Fairweather & McConville, 2000, pg. 25).

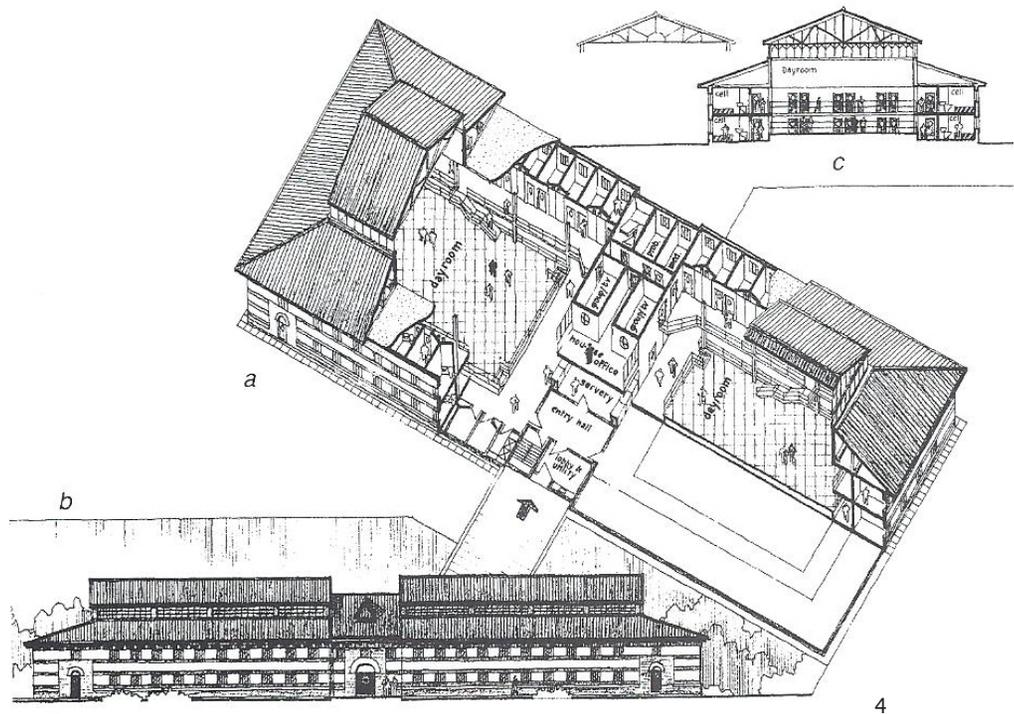
I looked at this proposed facility since it is the oldest design I used for my case studies, and it is also an English design. There were many changes happening at this time; riots were forcing law enforcement officials in Europe to become aware of prison conditions.

“Changes were being signalled by the Criminal Justice Act of 1991, one of those goals was to achieve a significant reduction in the numbers of offenders in custody. The government of the time acknowledged that prisons were an expensive way of making bad people worse.” (Fairweather & McConville, 2000, pg. 26).

That being said, the similarities in the design from the early 1990s in Europe are still implemented in the design process of today.

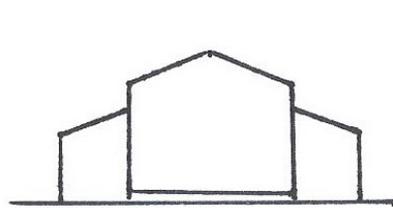


Prison Design Briefing System (PDBS)

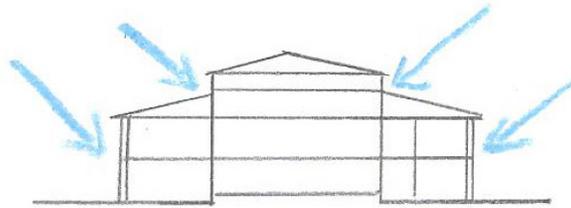


Prison Design Briefing System (PDBS)

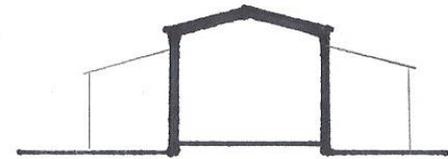
Graphic Analysis



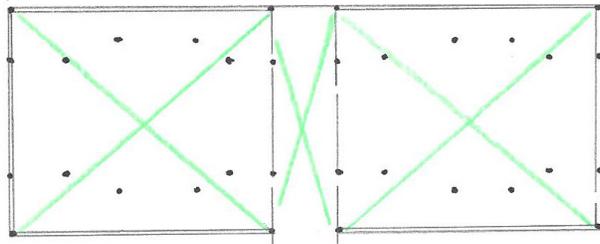
MASSING 1



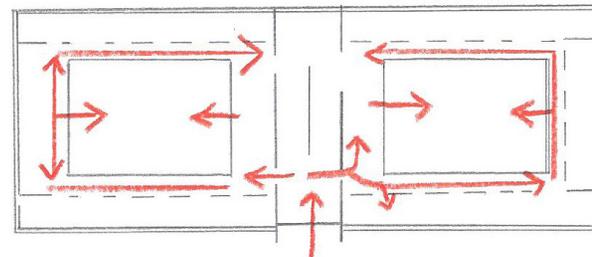
NATURAL LIGHT 2



HIERARCHY 3



STRUCTURE / GEOMETRY 4



CIRCULATION TO USE 5

Case Study Summary

As I began to try and locate adequate information for case studies in the correctional facility typology, I found the information available was somewhat limited. I believe it is an area of study that most individuals would rather not be a part of, unless of course there is the possibility of a new facility planned in one's neighborhood. As long as we are protected from the incarcerated and don't have a correctional facility in our backyard, we unfortunately don't give them much thought.

As I searched more I was able to find an assortment of facilities that had a lot in common, even though the structures were in different geographical areas of the country and built at different times.

There are three residential program levels: (Foss,1975, pg. 15)

1. Partial Release Program
2. Community Residential Programs
3. High Security Residential Programs

I chose to research primarily the community residential program facility. That is what I believe most people are familiar with, and may be in their own community. All the studies showed the primary goal to "protect society from criminals, it should return offenders to society with an increased understanding of their social responsibilities and better equipped with skills for success. With this as the primary objective of corrections,

it is the architect's task to create an environment that supports the attainment of that objective."(Foss,1975, pg. 31)

The facilities I looked at had many interesting aspects. The Cass County Jail is the newest, and I assumed it would have new design features, but my research has suggested that long linear hallways that are in this facility should be avoided to bring the scale down and not be so over-whelming to inmates. It is suggested that scale can be de-humanizing. I'm not sure I agree with that, but as I photographed the hall, it was overwhelming.



figure 41.1

Case Study Summary

figure 42.1



figure 42.2

The pod arrangement in all the facilities was interesting. I thought it was a newer concept, but it was evident in the designs from the mid 1980s. One unique feature to the Cass County facility is the ability to enter the individual sleeping cells from a hallway on the back side. If maintenance is required, staff can enter without disturbing the community day-area of the pod.

Direct supervision in lower security level facilities is making the contact inmates have with the officers more of a trust issue. The inmates are able to earn the respect of the officers on duty. If there is a security issue, the indirect option of the past is still a viable alternative even in a regional facility.

The Intake part of the facilities all appear to be similar. This is considered a temporary holding area for searching and identification. I was unable to find the manner of separation in some cases. It is essential that males and females have separate intake areas. All areas should be screened from public view and access. This also needs to be considered in the site plan and building orientation.

Effective design of the residential components of the facility is one of the most important considerations in terms of attitudes and opportunities for the residents, since a major portion of their time is spent here. Designed to minimize confinement and maximize individual opportunities for a choice of activities and the pursuit of rehabilitation programs” (Foss, 1975, pg 48-52).

It is also suggested that

Depending on the facility, a dining room is suggested over meals being eaten in ones cell. The re socialization activity reinforces offenders opportunities for positive behavior. (Foss, 1975, pg 48-52).

Historical Context

As I started researching information for the historical context of the obscure world of confinement facilities, I spoke with individuals who were quite uncomfortable with the subject of prisons in general. I found this interesting, but true. The confinement of individuals who have broken the law is something most people would rather not concern themselves with. We all try to stay on the right side of the law, and tend to not want to be concerned with those who choose differently. One of the first quotes I came across was taken from a book by Norman Johnston, titled *Forms of Constraint*:

The involuntary confinement of individuals as punishment- as distinct from slavery, also a deprivation of liberty- by some constituted authority, has certainly existed in most societies at most times” (Johnston, 2000, pg 5).

With that being said, we have all seen criminals in the news and may even know someone who has broken the law, and maybe served time in a correctional facility. So why does the topic make us all so uncomfortable? For good reason: prisons, jails, and detention facilities, have, historically not had a favorable image.

Johnston (2000) also explains four principle functions for criminal law:

To enact justice

To incapacitate the criminal

To deter crime by making society aware of the punitive consequences of wrong doing

To reform the criminal or to modify his or her subsequent behavior out of fear or further sanction.

There seems to be no plans or drawings of prisons from ancient times. Because early settlements have been completely

covered over or reduced to sand, destroyed by vegetation, or, in the case of Rome and other major cities, buried beneath succeeding layers of buildings. The only Roman carcer about which much is known is the Mamertine Prison, near the Forum; although a portion survives, it is not certain when the oldest parts of the prison were built. Apparently it was constructed in stages between the third and fourth centuries B.C.E.”

(Johnston, 2000, pg 6).

Prisons were generally located in pre-existing structures, which had at one time been used as fortresses against enemies. Basically, the structure provided a secure custody for small groups of prisoners at one time. If they survived the conditions of the fortress, there was hope that they would never return. Unfortunately, prisoners did return. The conditions were miserable; there was no concern for the health and well-being of the prisoners, just that they be separated from law-abiding citizens.

Exemplary prisons in terms of architecture and programs were rare before the late eighteenth century. It was not until around 1780 that a strong prison reform movement began to develop in some European countries, and later in other parts of the world. The reformers demanded more from prisons than that they simply punish criminals in a structure that was secure against external intrusion and escape. Prisons were now expected to reform!" (Johnston, 2000 ,pg 42)

In the 1770s the use of cast iron became very popular in the design of prisons. By the turn of the century, cast iron columns were in all new prison construction. With the decreasing cost of iron, it was the material of choice for the construction of bars, doors, and floors. Wall construction out of iron was used for the first time. Some of the earliest known applications of plumbing and heating were experimented with in the prisons that were constructed in the early 19th century.

"William Blackburn (1750-1790) is credited with being the first architect of prison design" (Johnston, 2000, pg 47). He was designing prisons in a rectangular pattern and introduced single cells for sleeping quarters. The use of a courtyard in the center was something no one had seen until this time.

The last two decades of the 18th century introduced design forms that had been used in other types of construction. Circular, polygonal and radial forms were now being seen in prison design. More interest was being paid to the façade or front of the buildings, since that's what was visible to the public.

The external appearance of prisons was to send a message to both the inmates and the public concerning the punishment process itself, conveying an object lesson in the purpose of the law. What had originally been elements of military architecture- towers, castellated parapets, massive walls, narrow or blind windows, and a secure entry way-were chosen for prisons in order to impress, perhaps frighten, or at least intimidate, and to be harmonious with some of the goals of the law and of imprisonment itself." (Johnston, 2000, pg 85)

During the Great Depression, construction in general was at a bare minimum. There were specifically no prisons being built during this time, but as it ended, the momentum in the United States to start building again flourished in the construction of prisons.

In the mid 1940s, there was a shift in the process of prison design. Significant modifications were being made to older forms of layout.

Immediately after World War II, it became important to consider the possibility of reforming the prisoners. There was now an emergence of areas in prisons dedicated to schooling, vocational training, recreation, and clinical services of social workers and other areas of service. A movement had started to "soften and humanize prisons" (Johnston, 2000, pg 148). At the same time, younger prisoners were forming gangs and victimizing guards and inmates alike. So, what could be done?

Prison reform had made huge strides to create a more humane atmosphere for its prisoners and guards. In the 1970s it was obvious to most that some of the reforms were ineffective. The general public did not believe criminals could be reformed and once again was taking a hard-line approach to anyone committing a crime.

This was about the same time that of classifying the risk of incoming prisoners as they were entering the prison become common. This has resulted in new prisons being built that have been designed toward a specific degree of security, or having multiple degrees in one facility.

Degrees of security still in use today:

- Maximum degree
- Medium degree
- Minimum degree

In the 1970s, the prison population expanded and satellite institutions that we still see today were introduced. Minimum security risk prisoners were the individuals who resided in the facilities, which have always been built adjacent to a prison housing a higher level of confinement. The cost associated with housing a lower level risk prisoner is substantially less than that of a higher risk prisoner, so financially, it made sense. An attempt was made to soften the prisoner's environment; cell windows equipped with security glass replaced bars. The bars that had historically divided the spaces were replaced with doors and walls, and massive security walls were replaced with fences and electronic devices. It was almost hard to distinguish between a prison and any other ordinary structure being built at that time.

Color has been introduced into the design of facilities and has become an important staple in prison interiors. The use of warm, muted color has added a softer effect to a harsh environment.

Current construction of prisons and correctional facilities are being built for a smaller capacity. The large-scale structures of the past that housed a huge prison population were too massive in size. The large cell blocks were a recipe for disturbances and riots. Today, a dining unit will comfortably seat 60 to 70 inmates. This allows for a more conducive atmosphere for re-socialization than the mass confusion and security concerns that have plagued dining areas in past prisons.

Johnston (2000) has compiled a guide for creating prisons:

1. Prisons should be designed with a realistic understanding of the pressures and consequences of group-living in institutions.
2. An architectural environment must be created that minimizes the physical and psychological risks to both prisoner and guards.
3. Within the constraints of preventing escape, the physical setting should provide a stimulating and humane environment through the use of varied colors, textures, and spaces.
4. Prisons should be modest in size.

Project Goals

My Academic Goals:

The goals I have set for myself with this thesis project is the same as any other assignments I have completed at North Dakota State University. I will do my best to produce the highest quality project I can, which demonstrates the skills and knowledge I have acquired during my college career. I want it to be a project I can be proud of. I have strived to be a good role model to my peers and have been fortunate enough to have been accepted as an equal among the students and have earned their respect. I have set out to achieve a goal of “making-it-through” one day at a time to finish an unfinished dream that many students of any age will never have the opportunity to achieve. I thank my family for sacrifices they have made and the encouragement they have given me. And a special thank you to everyone at the school for helping me along the way. I will cherish the number of friendships I have developed.

Project Goals

My Professional Goals:

My professional goals are to strive to continue doing my best work for myself and/or someone who realizes and appreciates the benefits of a person with “lots” of past experiences, dedication, and time management skills that are essential in any successful career.

My Personal Goals:

My personal goals are to continue to strive to do my best at whatever task is at hand, to never stop learning, and to appreciate every day to its fullest extent.

Site Analysis

Site Types and Information

I have carefully chosen a site that has recently been reclaimed. The original steep topography has been excavated in the last 10 years to provide clay to be used in the raising of the roads in the surrounding lake region, which have been devastated by flood water from the Devils Lake. What remains today after careful excavation is a beautiful, scenic, level piece of land, lined with mature trees and a spectacular view of the lake. Based on my research from the National Sheriffs' Association, "locations must be chosen to allow for maximum potential for correctional benefits, which will help to lower both recidivism and crime ratio".

Located just seven miles south of Devils Lake, ND, in Benson County, this site provides exceptional access on highway 57, which is a major axis through the lake region area and connect to additional counties that will also use the facility. The close proximity to needed services is essential, while maintaining an acceptable distance from the general population.



Latitude: 4.99841 'N
Longitude: 98.91738 "W

Barnes

Landforms: Knolls
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy
Other vegetative classification: Loam

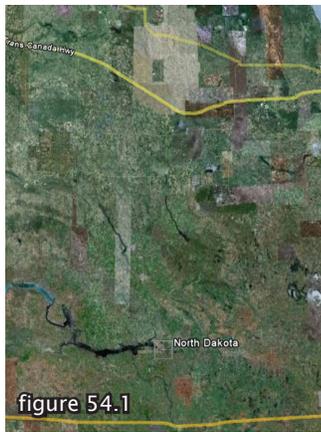
Udorthents, steep

Sioux

Landform: Ridges on hills
Landform position (two-dimensional): Shoulder, summit
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Very shallow

Renshaw

Landform: Rises
Down-slope shape: Convex
Across-slope shape: Linear



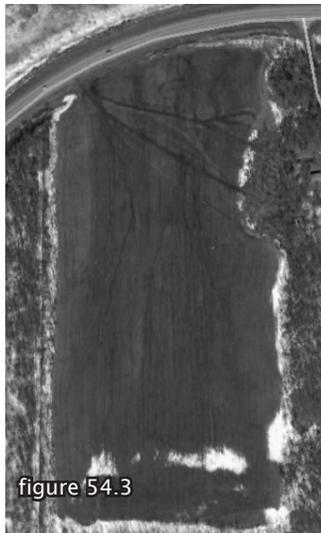
Macro-Region

The site is located in the state of North Dakota in the upper Mid west of the United States. This area is often noted for its beautiful views of the lake, geography, and landscapes. It is this character that makes this site unique in comparison to other areas.



Macro-City

Just over 7,222 people call Devils Lake home. It is an agricultural community of hardworking individuals. It is ranked 12th in population in the state.



Micro-Site

This site is located seven miles directly south of Devils Lake. The seclusion from existing infrastructure makes this an ideal selection. The site, while secluded, offers beautiful scenery and lake views for visitors and employees to enjoy.

Climate Data

- Average Air Temperature
- Average Solar Radiation
- Average Wind Speed
- Average Wind Chill
- Average Dew Point
- Total Rainfall
- Windrose

AVERAGE AIR TEMP (°F)

AVERAGES: 40
 MAX: 42
 MIN: 37
 STD. DEV: 2

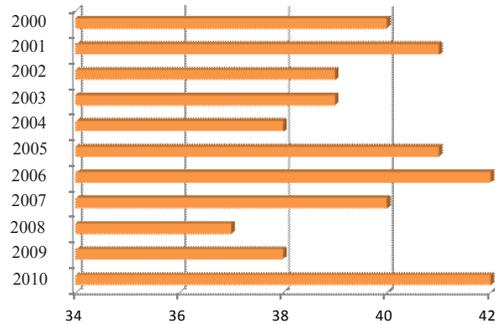


figure 56.1

AVERAGE WIND SPEED (MPH)

AVERAGES: 10.0
 MAX: 10.3
 MIN: 9.5
 STD. DEV: 0.3

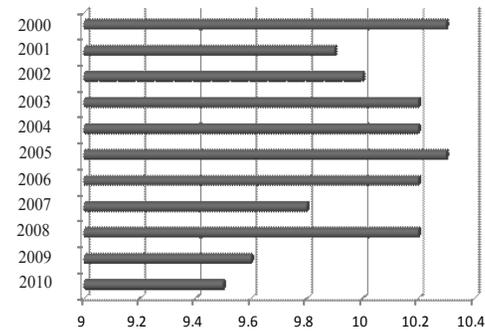


figure 56.2

AVERAGE SOLAR RADIATION (Lys)

AVERAGES: 320
 MAX: 343
 MIN: 298
 STD. DEV: 16

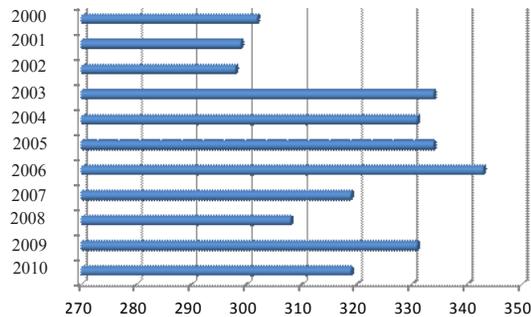


figure 56.3

AVERAGE WIND CHILL (°F)

AVERAGES: 33
 MAX: 36
 MIN: 30
 STD. DEV: 2

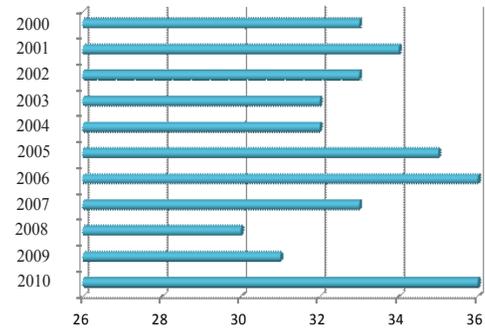


figure 56.4

Statistical information: <http://ndawn.ndsu.nodak.edu>

Statistical information: <http://ndawn.ndsu.nodak.edu>

AVERAGE DEW POINT (°F)

AVERAGES: 32
 MAX: 34
 MIN: 29
 STD. DEV: 2

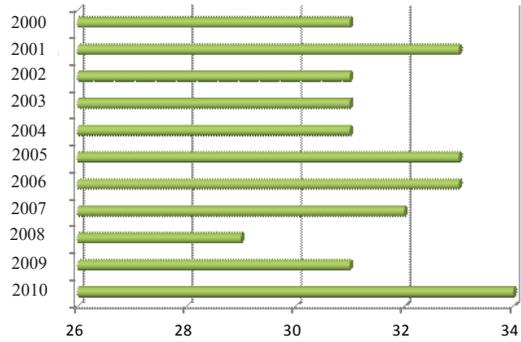
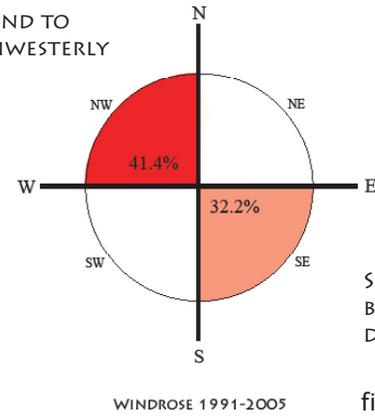


figure 57.1

WINTER WINDS TEND TO BLOW IN A NORTHWESTERLY DIRECTION.



SUMMER WINDS TEND TO BLOW IN A SOUTHEASTERN DIRECTION.

figure 57.2

TOTAL RAINFALL (INCHES)

TOTALS: 176.74
 MAX: 19.99
 MIN: 10.15

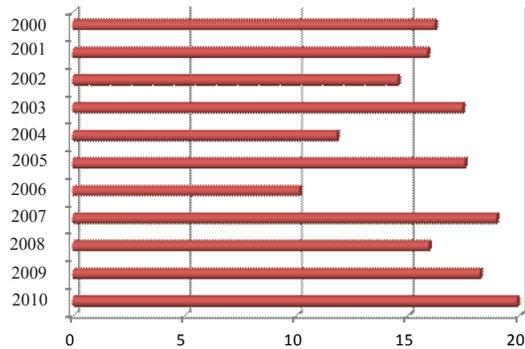
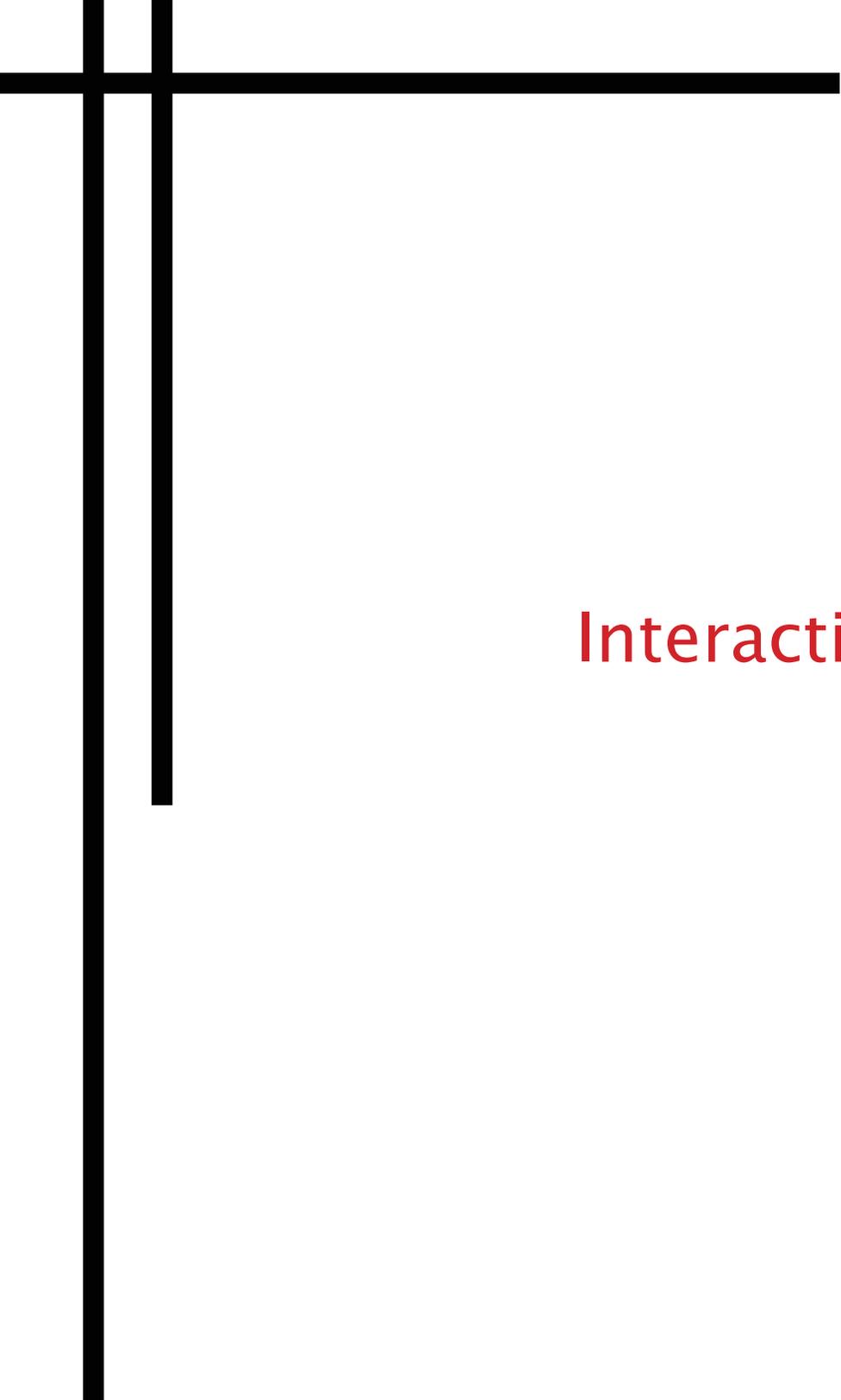
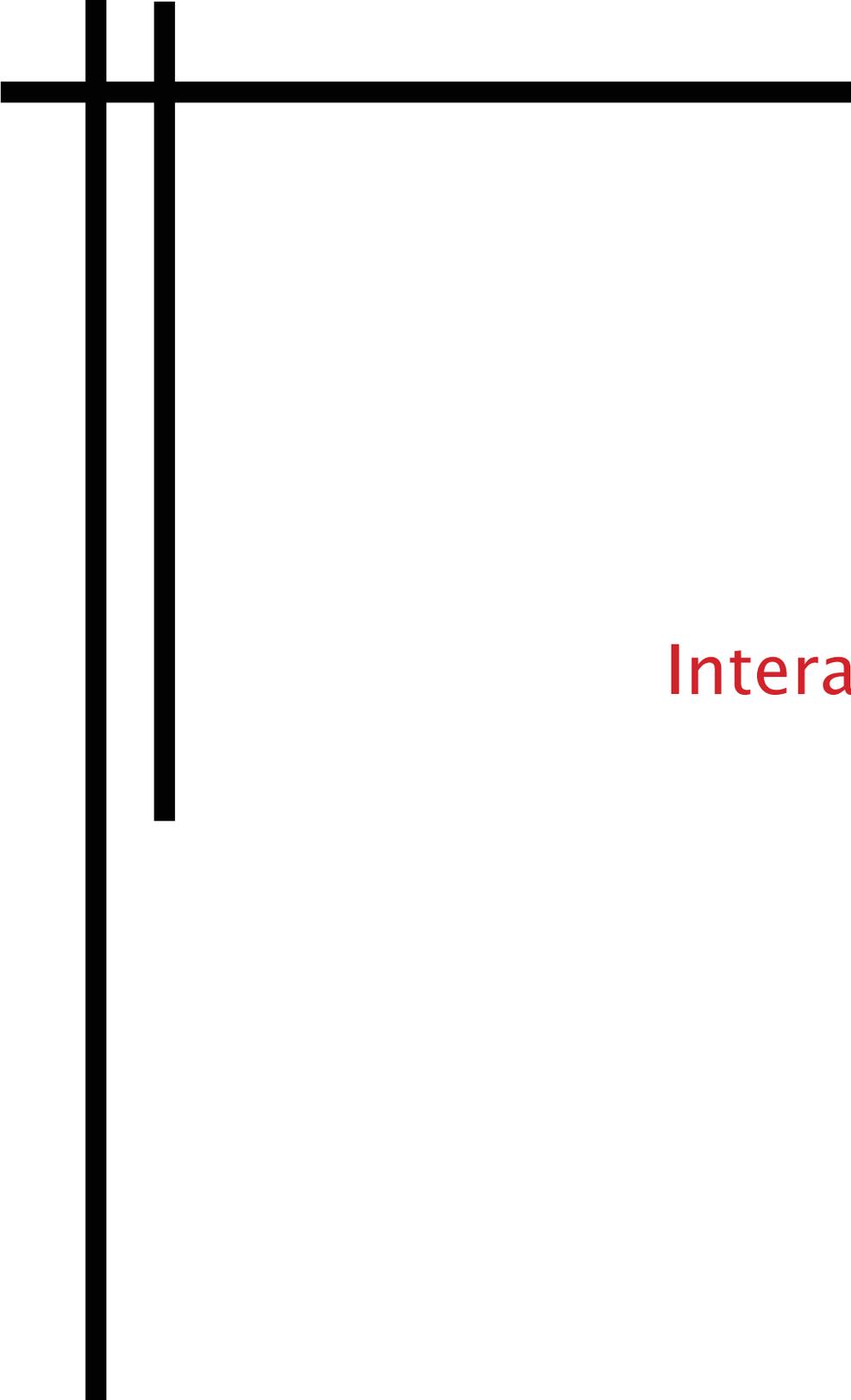


figure 57.3

Statistical information: <http://ndawn.ndsu.nodak.edu>



Interactive Matrix



Interactive Net

INTERACTIVE NET: DETENTION CENTER

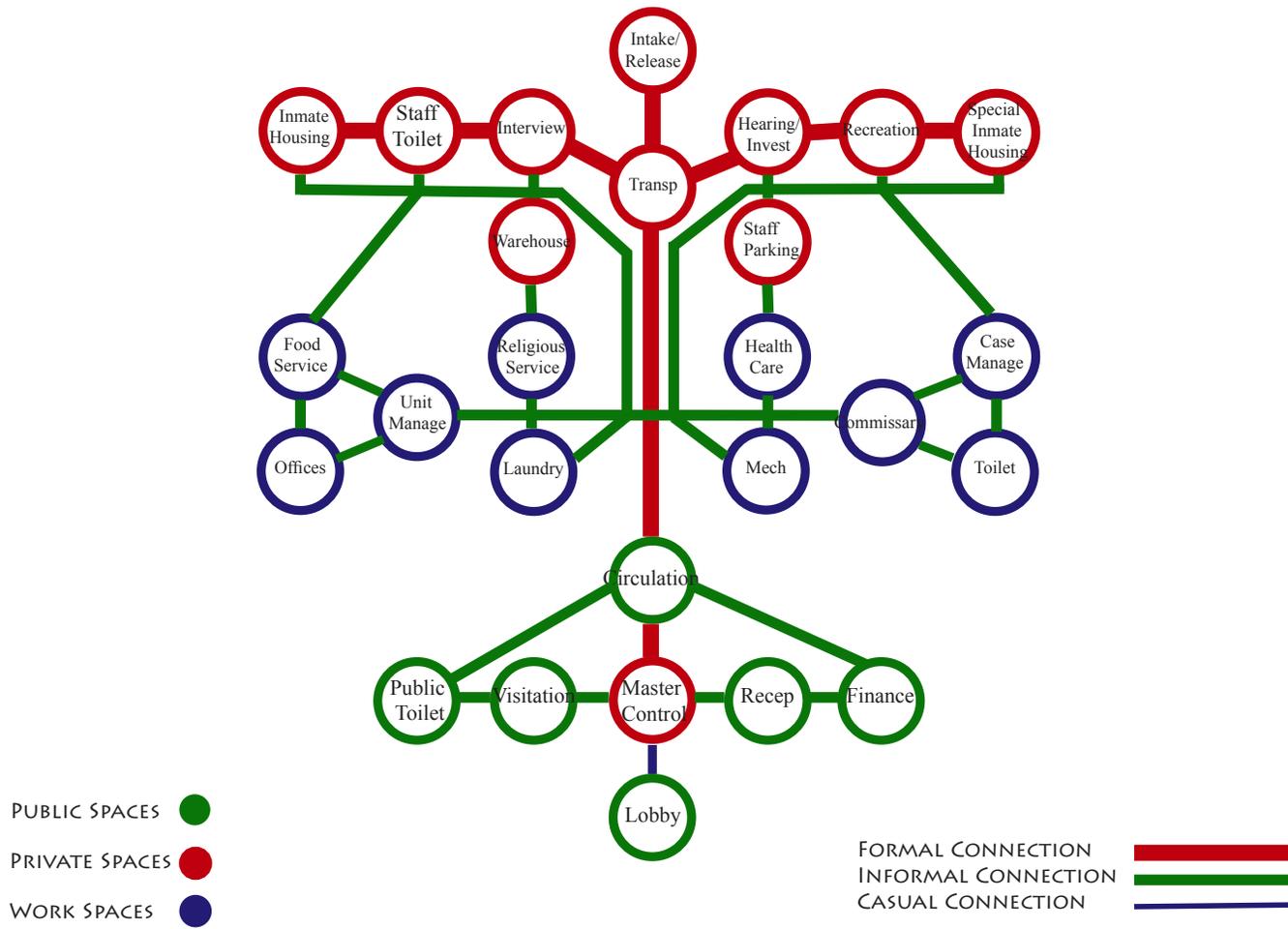
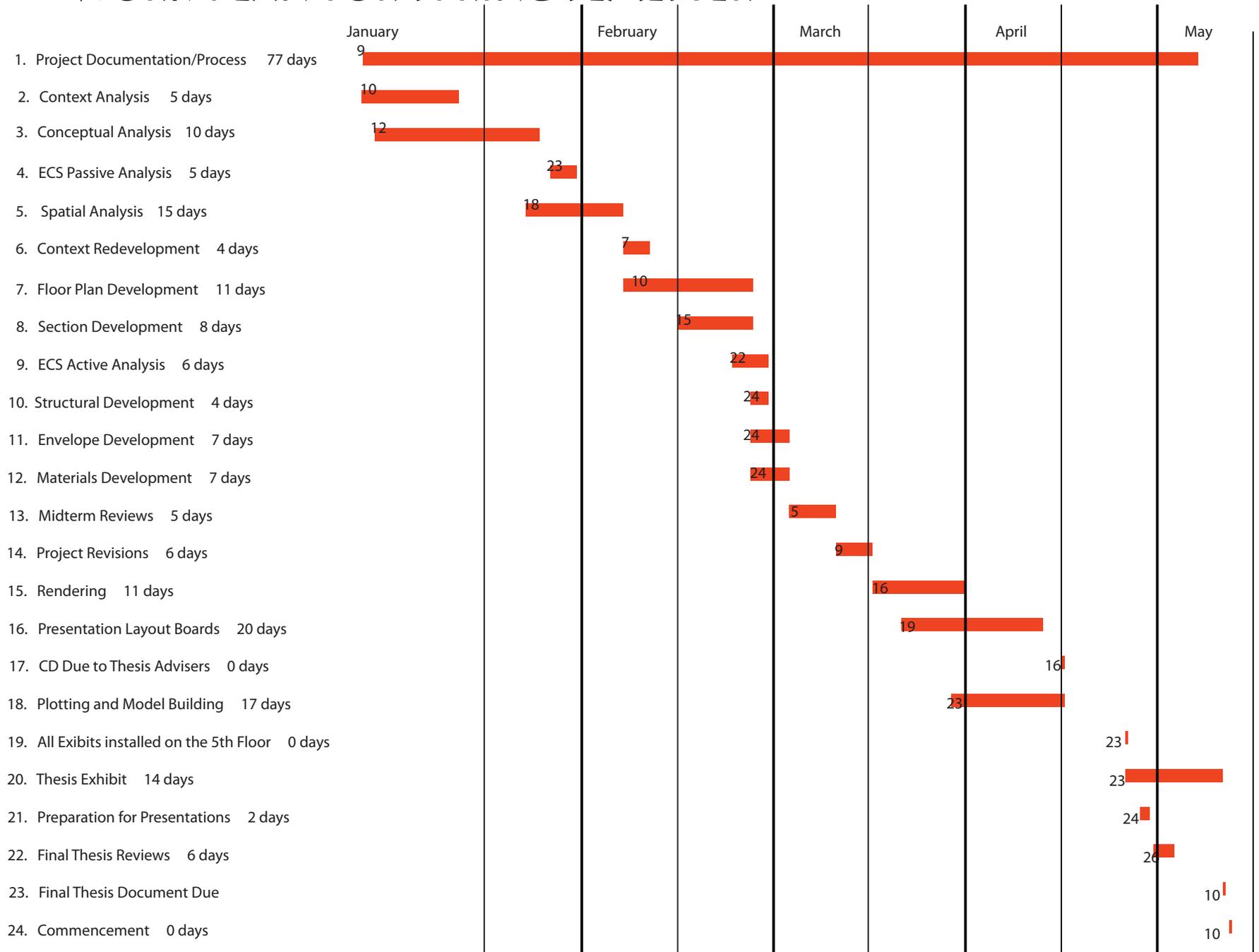


figure 61.1

WORK PLAN FOR SPRING SEMESTER:



Final Documentation

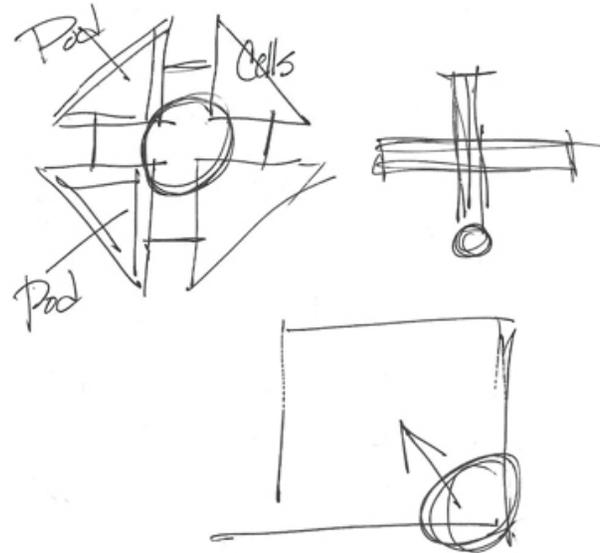
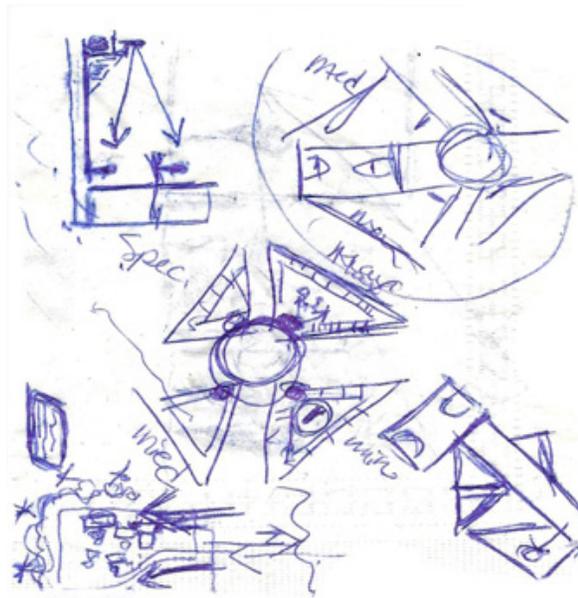
the design process.....64-66

the solution.....67-76

digital documentation..... 77-78

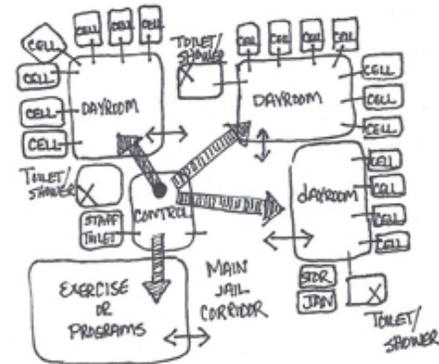
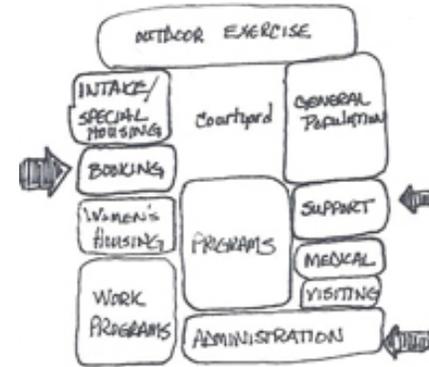
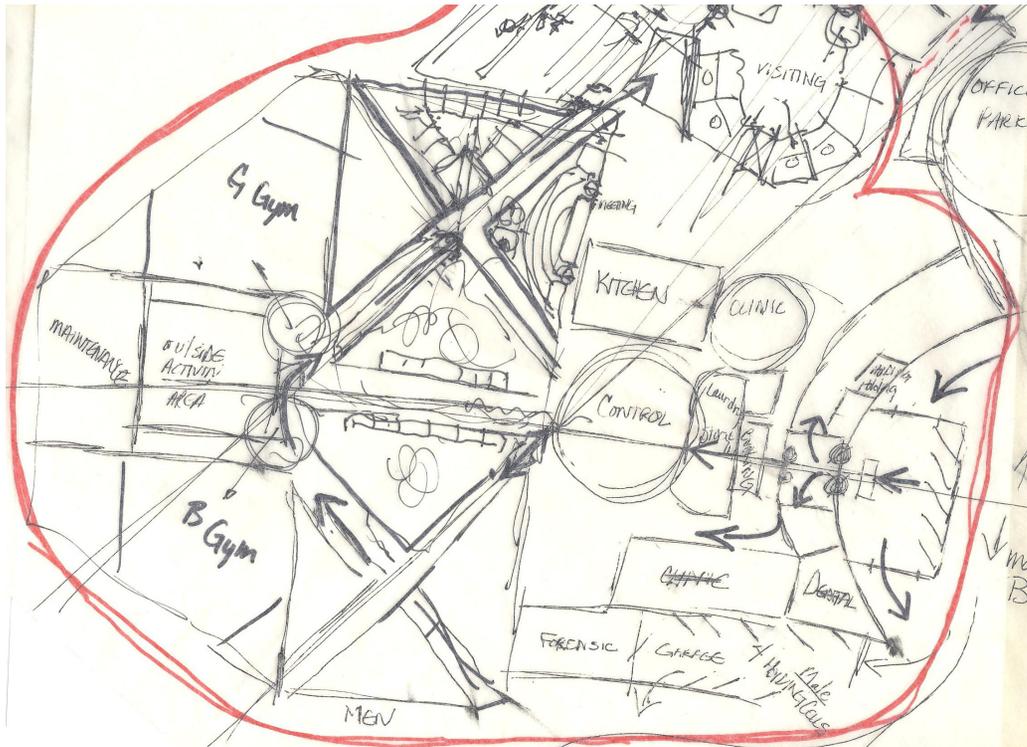
Documentation

the design process



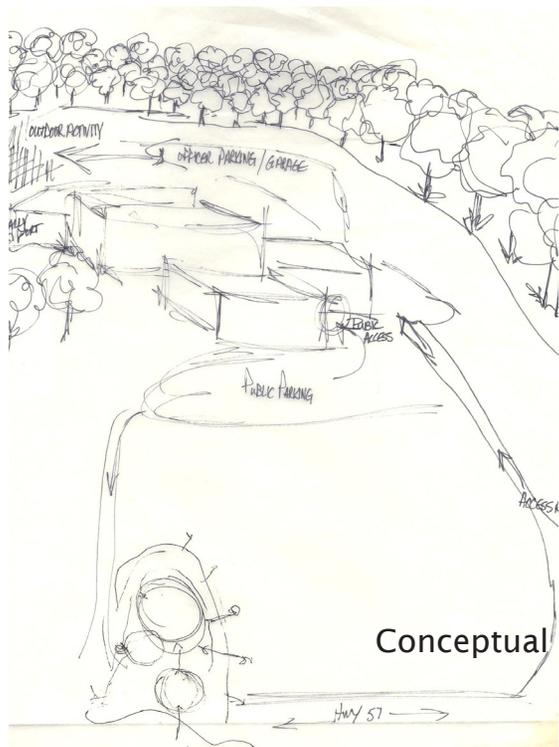
Documentation

the design process

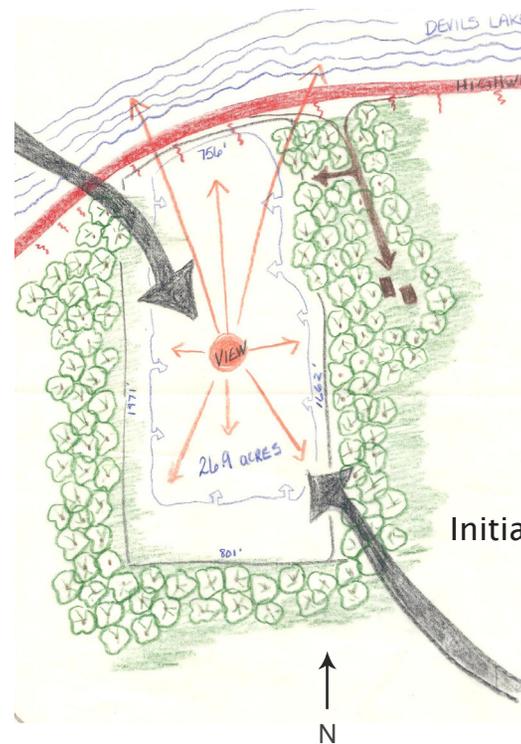


Documentation

the design process



Conceptual vision



Initial site analysis

Documentation

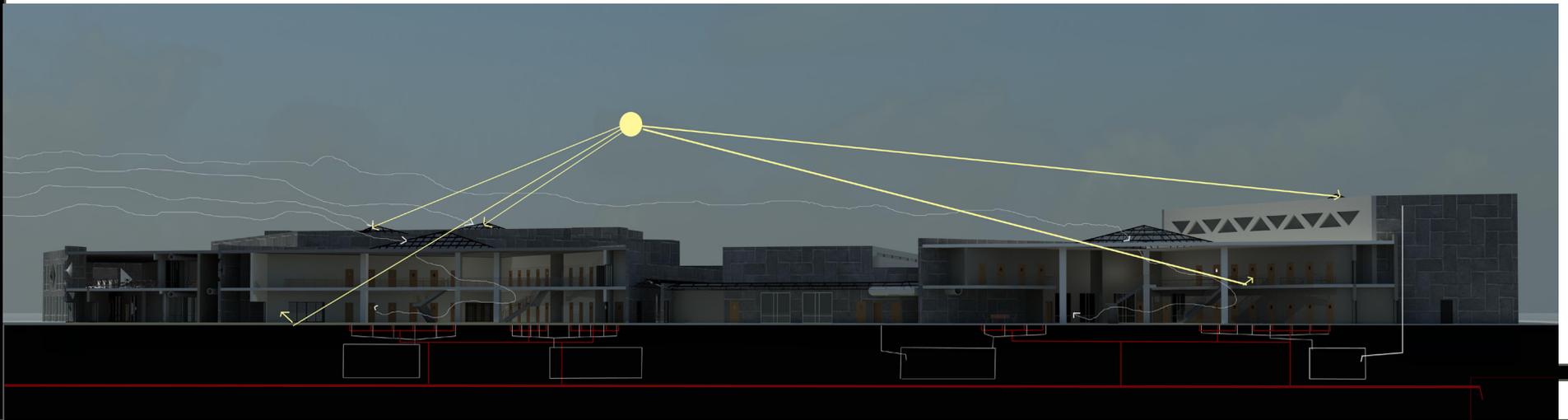
the solution



Public Access

Documentation

the solution



Transverse Section and Systems

Documentation

the solution



Inmate Access

Documentation

the solution



Secure Visitor Waiting Area

Documentation

the solution



Secure Cell Pod

Documentation

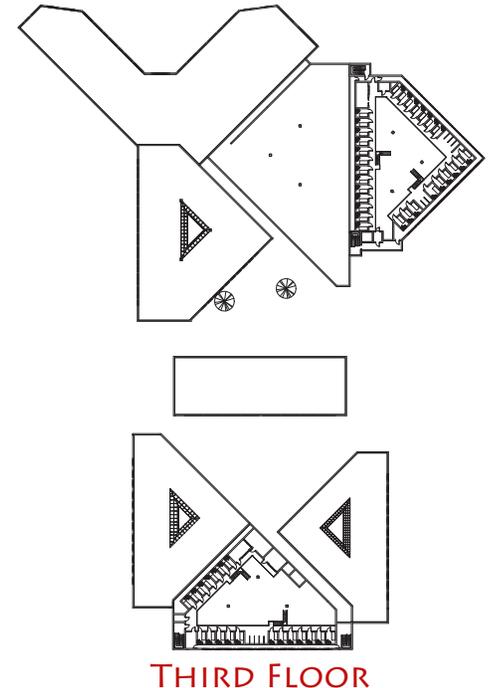
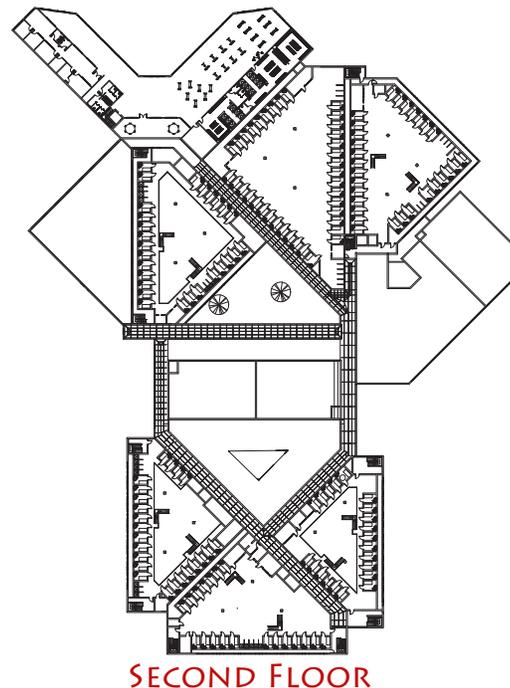
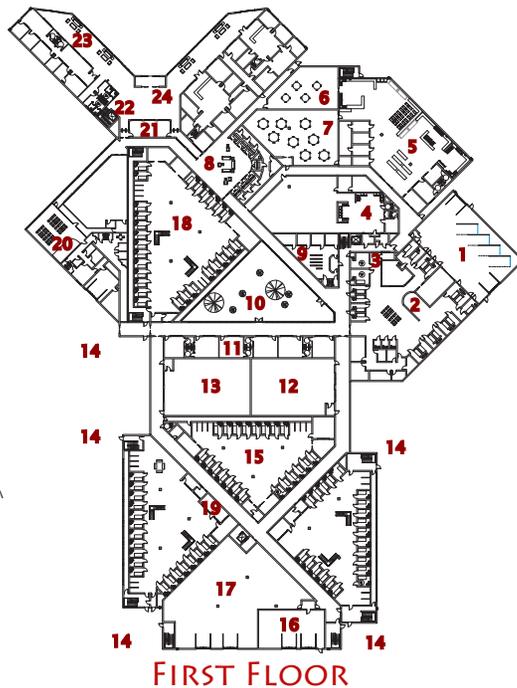
the solution



Material

Documentation

the solution



LEGEND:

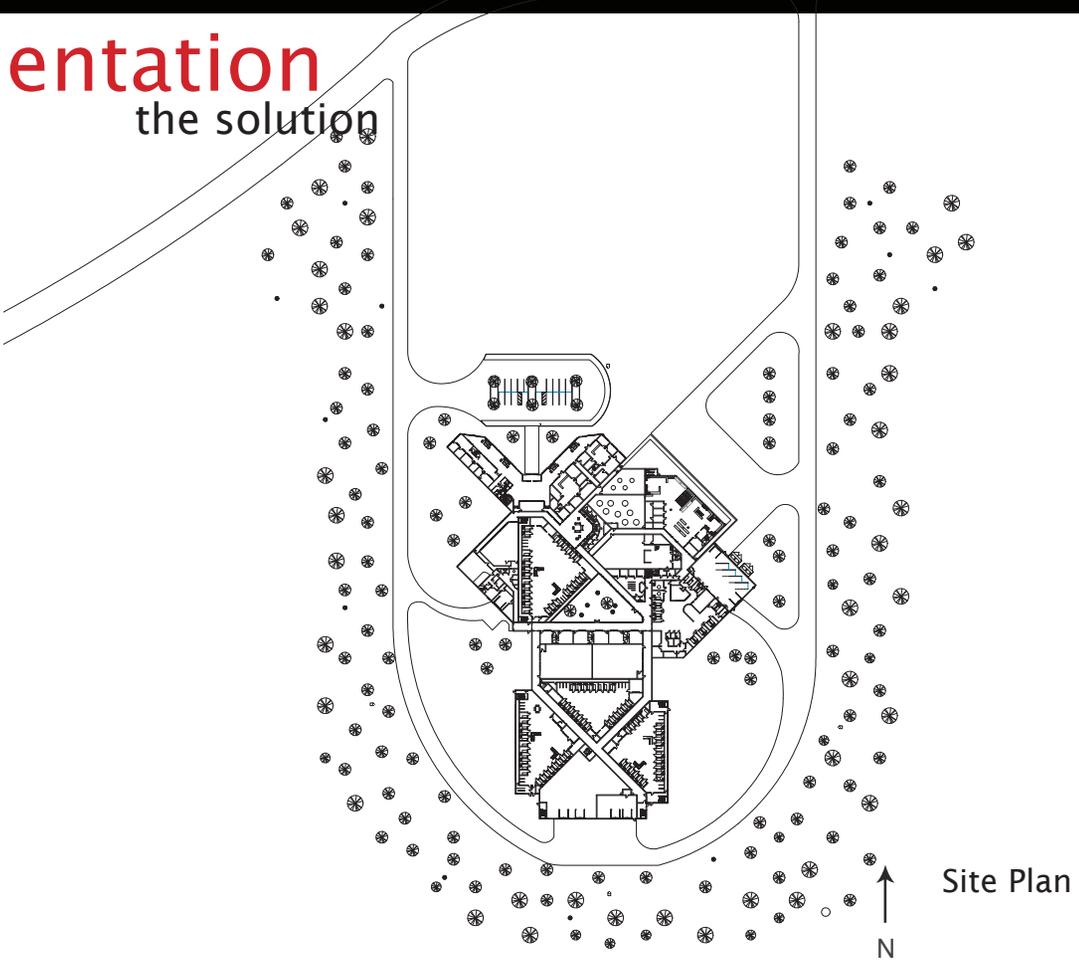
1. GARAGE/ARRIVAL
2. BOOKING/HOLDING
3. CLOTHING EXCHANGE
4. LAUNDRY
5. KITCHEN
6. STAFF BREAK AREA
7. MINIMUM SECURITY LUNCHROOM
8. VISITATION
9. LIBRARY
10. COURTYARD
11. SUPPORT STAFF OFFICES
12. MENS GYM
13. WOMENS GYM
14. YARD
15. SECURE HOUSING POD MALE
16. FORENSIC GARAGE
17. MECHANICAL
18. SECURE HOUSING FEMALE
19. SALLY PORT
20. COURT
21. SECURITY
22. PUBLIC TOILETS
23. OFFICE SPACE
24. LOBBY





Documentation

the solution



Documentation

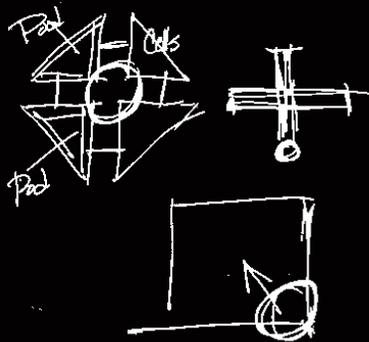
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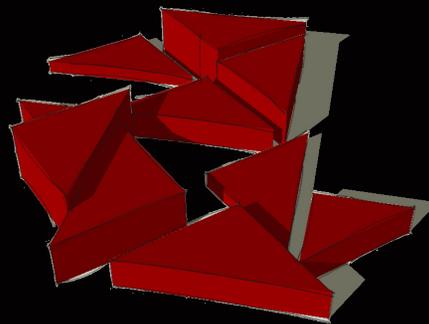
Documentation

the solution

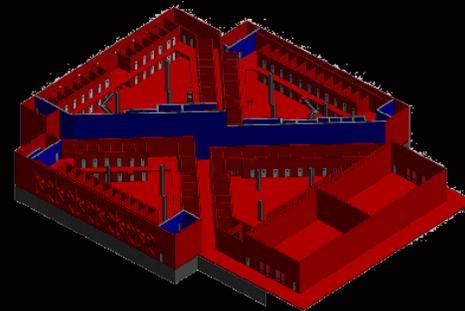
CAN RECIDIVISM BE INFLUENCED BY ARCHITECTURE?



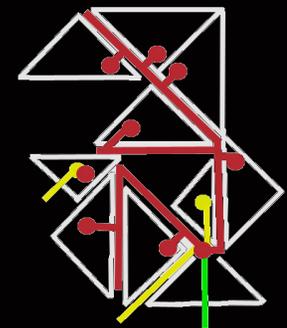
CONCEPT SKETCH



SHAPE ANALYSIS



STRUCTURAL DIAGRAM

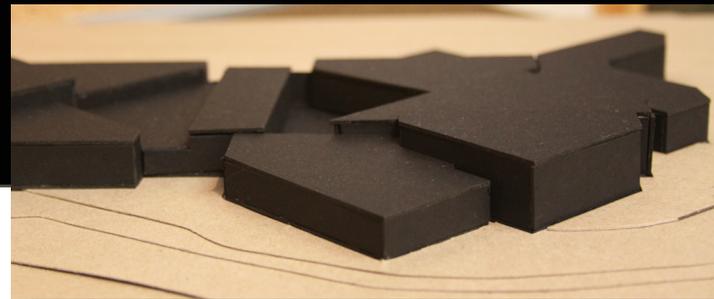


CIRCULATION STUDY

Analysis

Documentation

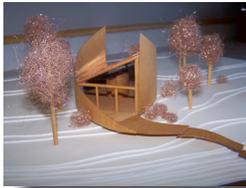
digital documentation



Massing Model

Previous Studio Experience

2nd year:

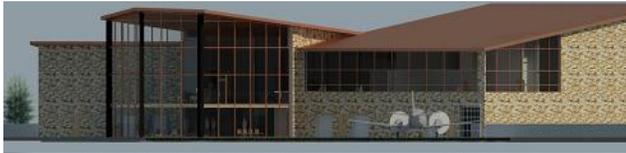


Fall: Heather Fischer/Meghan Duda
Design project: Tea House
Small Boathouse

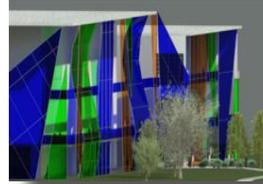


Spring: Darryl Booker
Design project: Unconventional Dwelling
Dance Studio

3rd year:



Fall: Steve Martens
Design project: Airport



Spring: David Crutchfield/Mike Christianson
Design project: Music Academy
Reiterations of Structures

4th year:



Fall: Don Faulkner
Design project: High rise



Spring: Frank Kratky
Design project:
Redevelopment of
Stanley, ND

5th year:



Fall: Mark Barnhouse
Design project: Water Resource Center



Marvin Window Project

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- figure 54.1-3 Retrieved from Google Earth
- figure 56.1-4 Authors personal analysis
- figure 57.1-3 Authors personal analysis
- figure 59.1 Authors personal analysis
- figure 61.1 Authors personal analysis
- figure 62.1 Authors personal analysis
- figure 82.1 Elka, J. (2006). Portraits by the sea.

Personal Identification



figure 82.1

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