CHAPTER V

ARCHITECTURE THEORY

5.1 Design Accentuation Study

5.1.1 Interpretation and Elaboration

The design will try to create a paradox of a monastery, while the spirit of Cistercians monastery should be maintained and the requirements have to be studied and applied, the forms itself remain highly qualified as a source of exploration. In order to be able to implement this idea, the approach has to be completely different from typical monastery. The result itself may highly inappropriate, but the factors that provoke comments and remain an intrigue are highly anticipated, and *people may interpret and create their own perception of this monastery,* but the spirit will always remain.

a. *Spirit of Cistercians monastery attitude:*
   - Theo centrism (God as the central of all activities).
   - Faith of God existence.
   - Traditional, strict, and stable.
   - Almost completely mechanical.

Theological Principle:

In the mid-12th century, one of the leading churchmen of his day, the Benedictine Abbot Suger of Saint-Denis, united elements of Norman architecture with elements of Burgundian architecture (rib vaults and pointed

arches respectively), creating the new style of Gothic architecture[1]. This new "architecture of light" was intended to raise the observer "from the material to the immaterial"[2], it was, according to the 20th century French historian Georges Duby, a "monument of applied theology"[3]. St. Bernard saw much of church decoration as a distraction from piety[4], and in one of his letters he condemned the more vigorous forms of early 12th century decoration.

Cistercian Architecture
by Abbot Thomas X. Davis, OCSO

http://www.newclairvaux.org/cistercian-architecture.html

What gives meaning and importance to Cistercian architecture is the fact that this architecture is a product of the Order's spiritual teaching. The monk spends his entire life in his monastery, which becomes his whole horizon. If buildings bear the imprint of the Order's and the community's spirituality, their architecture cannot fail to exercise a formative influence on those living in them. Imperceptible as it may seem, this influence is profound.

The priority of early Cistercians was to build monasteries to provide the community with an environment suited to the monastic way of life as set forth in The Rule of St. Benedict. Their monastic buildings clearly expressed their faith. They translated this Rule into spatial terms by the use of architecture.

Cistercians believe prayer involves listening as much as asking, and so Cistercian architectural principles, applied either to Romanesque or Gothic, are conducive to this type of prayer, emphasizing simplicity and an inner sense of quiet. Cistercian architecture uses a combination of proportion, form, space, and light that fosters pure contemplative prayer. Its spacious, simple design without images or statues promotes a simplicity and stillness in which a monk sees a distant reflection of the simplicity and stillness of the Divine.

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[1] *Toman, Rolf, ed (2007). The Art of Gothic: Architecture, Sculpture, Painting. photography by Achim Bednorz. Tandem Verlag GmbH. ISBN 978-3-8331-4676-3. Page 8-9.*
[2] Ibid. page 9.
[3] Ibid. page 14.
[4] Ibid. page 10.

- *Proportion:*

  Cistercian proportion incorporates the concept of the *golden ratio*. The effect on a person is that one's spirit resonates with integration. The monks built into their buildings an effectiveness that would call forth from persons living in them a spiritual "awe." Proportion, along with form, space, and light touch the human spirit with awe. Without elements that foster curiosity and cupidity, only an awe inspiring sense of beauty and harmony remain. Harmonious proportion produces a sense of structural and regulated integration. The harmony coming from proportion in Cistercian architecture tends to place focus on what is authentic and suggests a centering on the true self. This direction inward, toward the true self opens the possibility for a vision of God that the true self gives. A theme in Cistercian spirituality is that a vision of the authentic self is a vision of God.

- *Form:*

  Early Cistercian churches were a constant architectural reminder of heaven intimately joined to earth. Height in churches lifts the mind to God and bears witness to the teaching that the monk is not bent over but stands upright before God. The arches in the church rise up from the foundation of the earth and ascend to heaven. Often, this effect was achieved by the use of corbels and supports. The pointed barrel or groined vaulting suggests the vast vault of heaven. The visual effect was to give the impression of the upper section of the church (the church triumphant) hovering over the lower section (the church living on earth). The form of the church also expresses aspects of

salvation as demonstrated by the ancient cruciform plan that symbolizes the mystery of the cross.

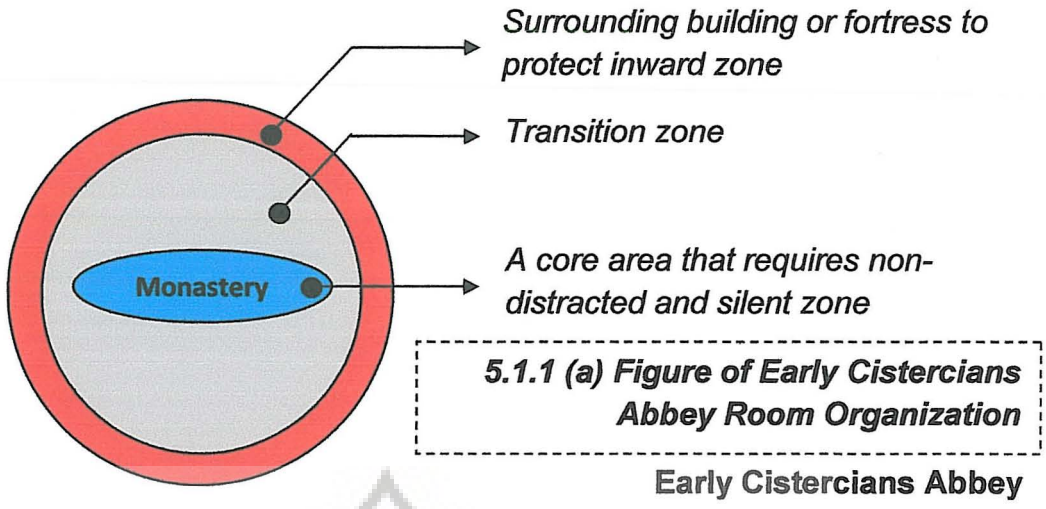
- *Space*

  The ample space within a Cistercian building communicates a sense of transformation along with an experience of integrity and integration. Space accents this architecture's simplicity of form. It is more than emptiness and a blank area. It is more than a minimalist approach conducive to calm, quiet and serenity important to meditation. It is an element of Cistercian architecture essential to the "awe" experience of what God must be like.

- *Light*

  Light is another principal and prominent element in Cistercian architecture. Windows have always held a unique place in Cistercian buildings and were symbols of God both in terms of light's coming through them and their numerical arrangement. This light is not to be understood as ordinary daylight that illumines the world, but a non-created light that existed before Creation. The windows in Cistercian churches, chapter houses, and refectories are symbols of uncreated Divine Light that Christ manifests. Round, circular windows were viewed as symbols for the divine light of Christ's transfiguration, a vision of peace. The goal of a monk's prayer was to see the glory of God shining through the transfigured Christ.

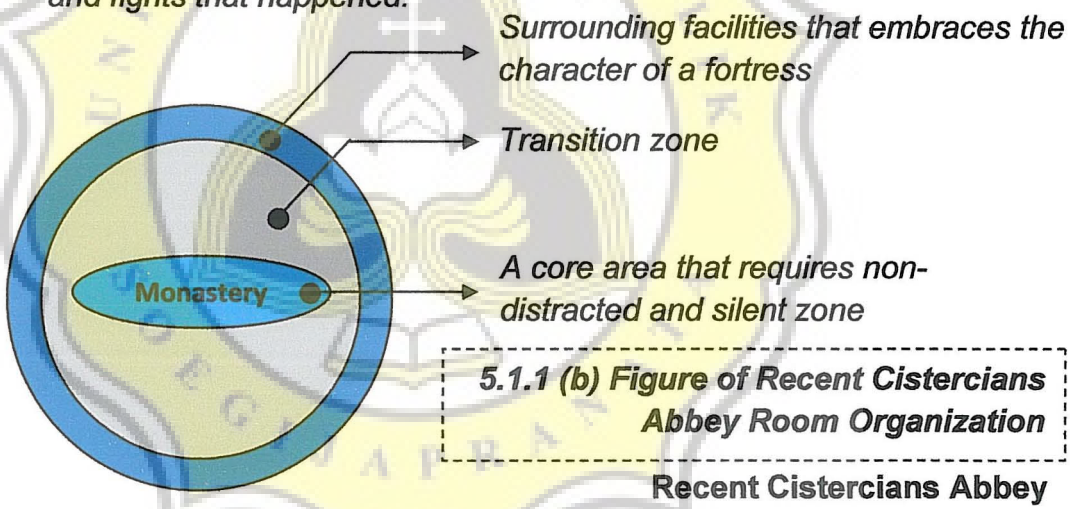
- *Room Organization*



5.1.1 (a) Figure of Early Cistercians Abbey Room Organization

Early Cistercians Abbey

In early Cistercians monastery, the Abbey (building complex) was often protected or surrounded by fortress-like buildings to protect the inside of the monastery, mostly due to the frequent number of wars and fights that happened.



5.1.1 (b) Figure of Recent Cistercians Abbey Room Organization

Recent Cistercians Abbey

In recent Cistercians monastery, the Abbey (building complex) is still surrounded and protected, but with facilities that can keep the non-private outside and so not distracts the inside of the monastery.

The main typology or character of a Cistercians Abbey is authentic, pure, and strong integrity shows tranquil and contemplative atmosphere.

b. *Spirit of new contradictory Architecture (Contemporary Architecture) attitude:*

- Logo centrism (reasons as the foundation of clarity)
- Openness to change of interpretation and understanding based on reasons or logic, and believes "God" is actually the existence of supreme reasoning, the universe is too big, too powerful and too complex to be all understandable for human minds. In other words, admitting the ignorance of human perceptions.
- Ambiguous, ambivalence, and constantly changing.
- Artistically enhanced

Key words are indeterminacy, paradoxical, and contradictory. Those terms are intended for anything that contains both true and false aspects joined or contained together in one unity. These values are elaborated in *two* aspects:

1. In terms of room organization, separating two rooms with a completely different requirement in one complex, without actually distracting one and another, with a form of control, such as partition, distance, or time management.
2. In terms of structure, creating a strong and contemplative atmosphere with clean geometry but formed with advanced structure, and even perhaps non geometrical as long as non-distracting to the monks, also combinations of materials, unlike the precedent monastery that commonly built with typical materials such as stone, wood and metal.

Quotations regarding the free imagery and communication in Architecture language:

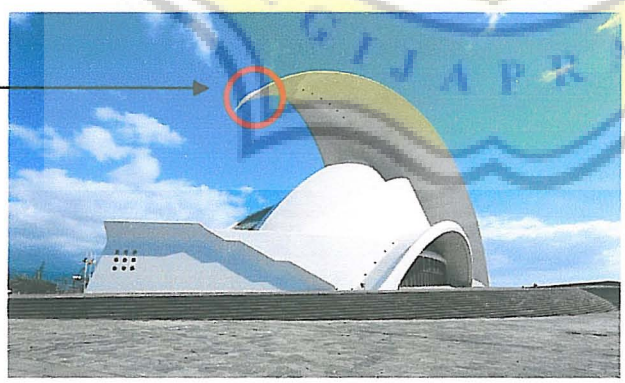
- "I taught myself to contradict myself in order to avoid conforming my own taste",(Marcel Duchamp)[5]
- "No absolute truth"[6], Jacques Derrida has proposed that life itself is a text and there is no meaning outside of this test.
- "I like complexity and contradiction in architecture. I like elements which are hybrid rather than 'pure', compromising rather than 'clean'". (Robert Venturi)[7].

Purpose:

- Blending art, philosophy, technology, and nature's integrated system.
- Re-learning how to intuitively, organically, and cosmologically live on its terms.
- Embracing the concept of indeterminacy and chance, but still creating Architecture that qualifies as ecologically responsible art.

5.1.2 Precedent Study

Auditorio de Tenerife Seitlich[8]



5.1.2 (a) Auditorio de Tenerife Seitlich

http://en.wikipedia.org/wiki/File:Auditorio_de_Tenerife_Seitlich.jpg

[5] *Wines, James. 2000. Green Architecture. London: Taschen.(pg. 216)*

[6] *Ibid. (pg. 221)*

[7] *Venturi, Robert.1966.Complexity and Contradiction in Architecture. New York: The Museum of modern Art.*

[8] *http://en.wikipedia.org/wiki/Auditorio_de_Tenerife#cite_ref-4*

Auditorio de Tenerife was designed by architect Santiago Calatrava. It is located on the Avenue of the Constitution in the Canarian capital, Santa Cruz de Tenerife (Canary Islands, Spain), and next to the Atlantic Ocean in the southern part of Port of Santa cruz de Tenerife.

Analysis (forms):

The design of the roof is not particularly useful in terms of insulation, sun shading, or ventilation, the roof forms itself is clean and formed by advanced structure, the architect is just expressing his interpretation of his own architecture, and people may have different perceptions and opinions, and the fact that this building become a tourist attraction, is proving that the values of artistically architecture language remain irrational, inconstant, and indeterminate. This incomprehensible value is the foundation of architecture designing.

5.1.3 Accentuation Theory Implementation Possibilities

Creating new perceptions to create forms by:

- By implementing unconventional material.
- By removing common ornaments.
- By avoiding one main basic form (triangle, cube, or circle) as the only functional form maker.
- By compromising ideals with concrete conditions.
- By searching unusual shape.

5.2 Core Issue Study

5.2.1 Interpretation and Elaboration

The main problem is to maintain advantages from existing conditions and eliminate disadvantages by improving buildings and environmental conditions, while deconstructing a new form of pure and austere-contemporary architecture that still fits the ideal of a monastery. Among those problems, there is one problem that remains the highest priority, which is the level of silence, it is a crucial aspect that inseparable from a monastery. It supports the 'exclusion from the world' character that monks have to live each day.

The elaboration of silence in Monastery:

- Noise pollutants in such extent do not interfere or distracting praying activities.
- Noise pollutants in such extent do not create a crowded atmosphere to preserve the contemplative conditions that are vital to monastery life.

5.2.2 Precedent Study

Abdij O.L.Vrouw van Koningshoeven[9]

This is the mother abbey that found the Cistercians Santa Maria Rawaseneng Hermitage (1953). The history is:

1881: The monastery of Mont-des-Cats undertook the foundation of O.L. of Koningshoeven; the foundation was officially made in March 1881 by Dom Dominique Lacaes, abbot of Mont-des-Cats who, ably assisted by Fr. Sebastien Wyart, originally intended to create a refuge for his monastery. The

[9] *http://www.ocso.org/index.php?option=com_mtree&task=viewlink&link_id=2472&Itemid=88&lang=en*

General Chapter (*Congregationis antiquioris reformationis de Septem Fontibus*) assembled in 1881in Paris, approved it as such.

1883: The General Chapter gave its official approval to the monastery with the rank of priory.

1894: Consecration of the church: On the occasion of the General Chapter of 12 September, held at Tilburg, Mgr. Wilhelmus van de Ven, bishop of Bois-le-Duc, consecrated the church on 17 September, in the presence of most of the capitulants.

1953: 4 monks leave for Java, where a priest was already assessing the possibility of a foundation.

5.2.2 (a) Abdij O.L.Vrouw van Koningshoeven

http://www.ocso.org/index.php?option=com_mtree&task=viewlink&link_id=2472&Itemid=88&lang=en

Retrieved 2/16/2011 8:12 AM

Comparison Analysis to Rawaseneng Hermitage:

- This Tilburg monastery is bigger compared to Rawaseneng hermitage, and the room organization seem to be centered in the middle while remain separated from surrounding environments with landscape, where vehicles are not allowed to enter. By this way the privacy and level of silence in Tilburg monastery will always remain.

5.2.2 (b) Parking space;it is directly outside the Rawaseneng monastery without buffering layer if compared to Koningshoeven Monastery.

5.2.3 Core Issue Implementation Possibilities

- By separating high noise producer from the main area where the monks are praying and doing meditation.
- By creating special place or area where monks can have a tranquility in any conditions.
- By creating an insulated special area that will be the refuge when the high noise level is inevitable.
- The main principle of reducing noise level where the requirements of low noise level is high are:

  1. Shutting down noise source

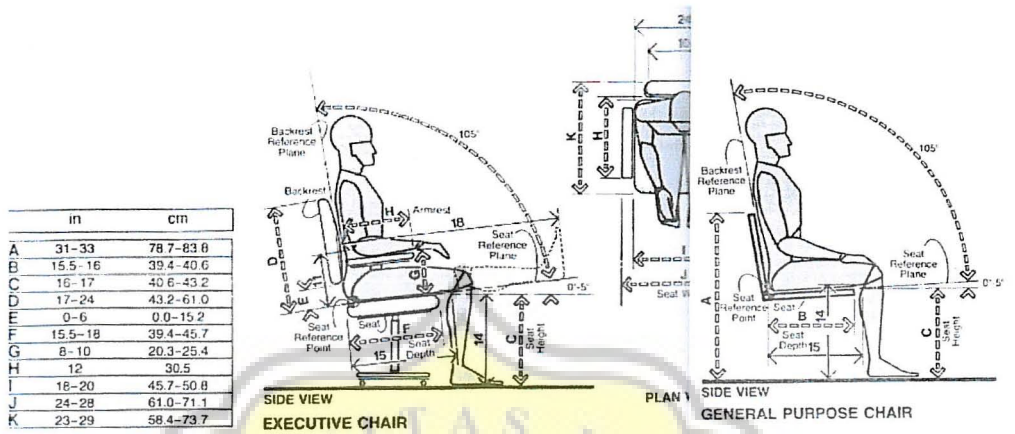
  2. Protection from noise (Insulation)

  3. Separation (distance).

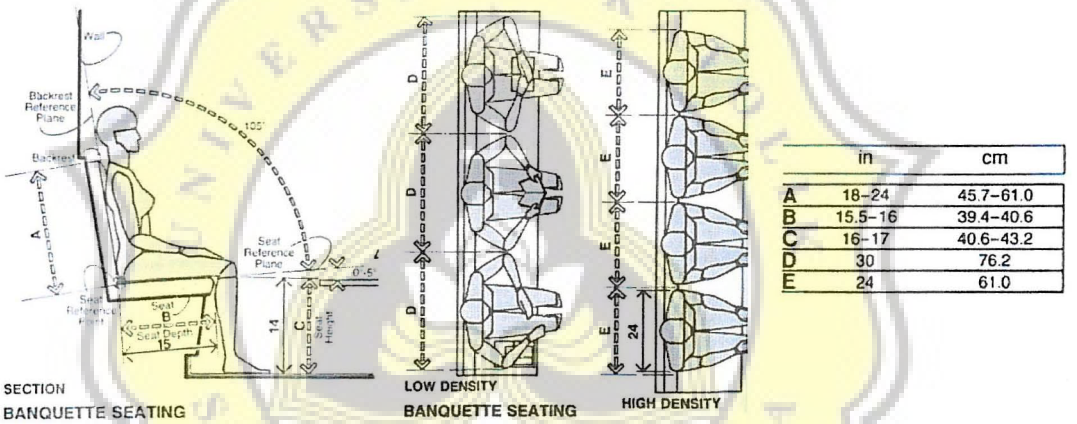
APPENDIX

Space requirements study[10]:

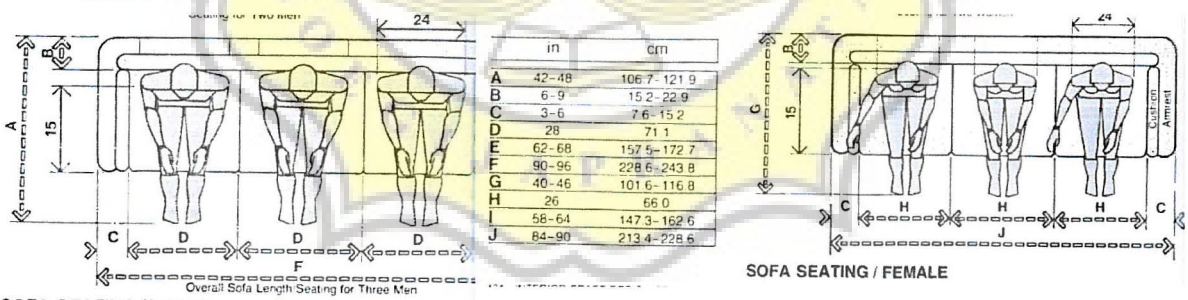
- Seating Space:



	in	cm
A	31–33	78.7–83.8
B	15.5–16	39.4–40.6
C	16–17	40.6–43.2
D	17–24	43.2–61.0
E	0–6	0.0–15.2
F	15.5–18	39.4–45.7
G	8–10	20.3–25.4
H	12	30.5
I	18–20	45.7–50.8
J	24–28	61.0–71.1
K	23–29	58.4–73.7



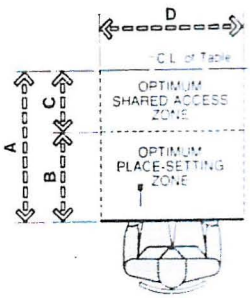
	in	cm
A	18–24	45.7–61.0
B	15.5–16	39.4–40.6
C	16–17	40.6–43.2
D	30	76.2
E	24	61.0



	in	cm
A	42–48	106.7–121.9
B	6–9	15.2–22.9
C	3–6	7.6–15.2
D	28	71.1
E	62–68	157.5–172.7
F	90–96	228.6–243.8
G	40–46	101.6–116.8
H	26	66.0
I	58–64	147.3–162.6
J	84–90	213.4–228.6

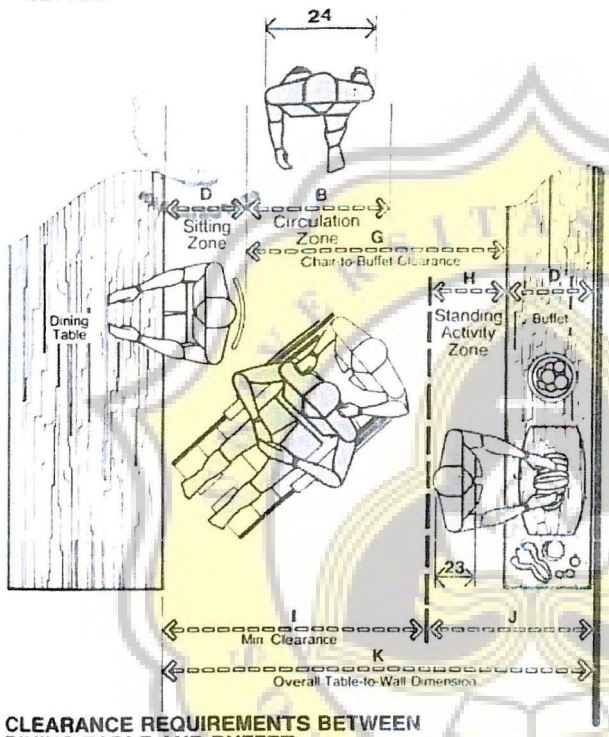
[10] *Human dimension & interior space By Julius Panero and Martin Zelnik, AIA ASID. Architectural Press Ltd. Great Britain.*

- Dining Space:



	in	cm
A	27	68.6
B	18	45.7
C	9	22.9
D	30	76.2
E	21	53.3
F	16	40.6
G	5	12.7
H	24	61.0
I	90	228.6
J	72	182.9

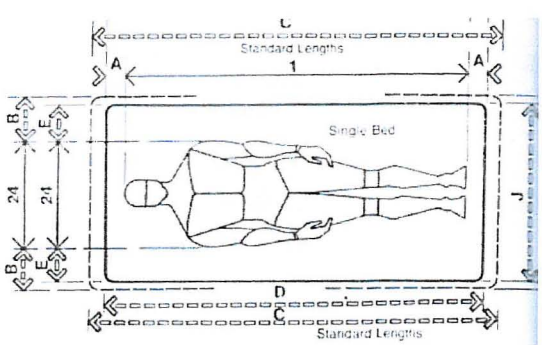
OPTIMUM PLACE SETTING



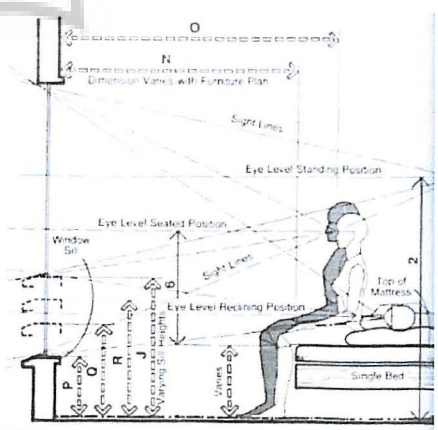
CLEARANCE REQUIREMENTS BETWEEN DINING TABLE AND BUFFET

	in	cm
A	132–144	335.3–365.8
B	30–36	76.2–91.4
C	72	182.9
D	18–24	45.7–61.0
E	12	30.5
F	24	61.0
G	50–54	127.0–137.2
H	50–60	127.0–152.4
I	54	137.2
J	86–102	218.4–259.1
K	90–96	228.6–243.8

- Sleeping Space:

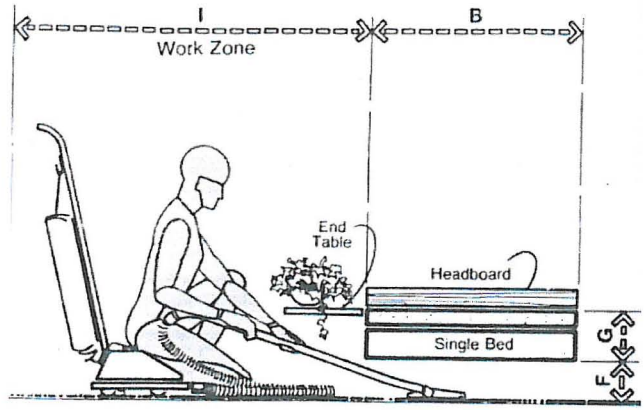


	in	cm
A	2.5	6.4
B	7.5	19.1
C	84	213.4
D	78	198.1
E	6	15.2
F	7–8	17.8–20.3
G	44–46	111.8–116.8
H	4–5	10.2–12.7
I	1–2	2.5–5.1
J	36	91.4
K	48	121.9
L	39	99.1
M	54	137.2
N	60	152.4
O	70	177.8
P	16	40.6
Q	22	55.9
R	30	76.2

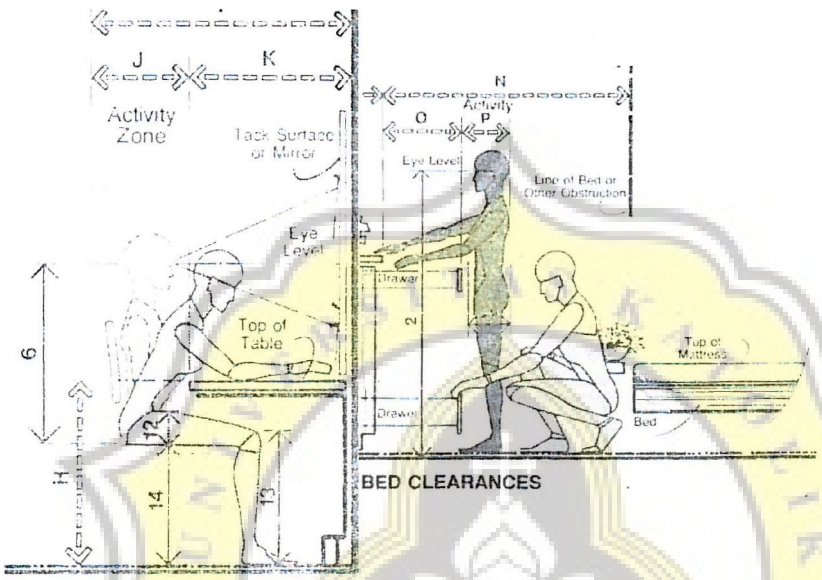


BEDROOM / VISION AND SIGHT LINES

	in	cm
A	16	40.6
B	36–39	91.4–99.1
C	37–39	94.0–99.1
D	26–30	66.0–76.2
E	24	61.0
F	6–8	15.2–20.3
G	12–16	30.5–40.6
H	18–24	45.7–61.0
I	48–54	121.9–137.2



CLEANING REQUIREMENTS

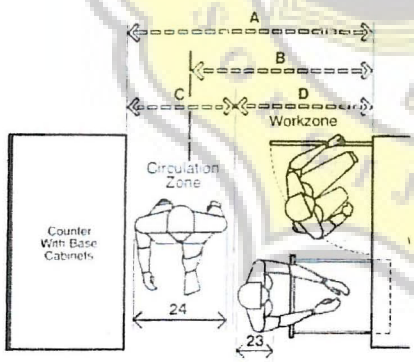


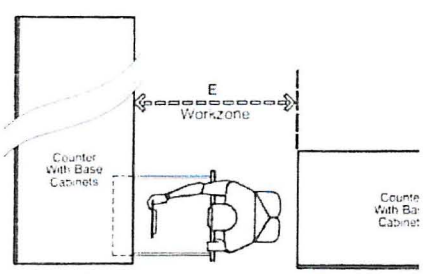
BED CLEARANCES

	in	cm
A	24–28	61.0–71.1
B	12–16	30.5–40.6
C	30	76.2
D	16–24	40.6–61.0
E	42–46	106.7–116.8
F	28–40	71.1–101.6
G	7 min.	17.8 min.
H	28–30	71.1–76.2
I	42–54	106.7–137.2
J	18–24	45.7–61.0
K	24–30	61.0–76.2
L	62–72	157.5–182.9
M	20–24	50.8–61.0
N	42–48	106.7–121.9
O	15–20	40.6–50.8
P	18	45.7
Q	42	106.7

DESK OR DRESSING TABLE

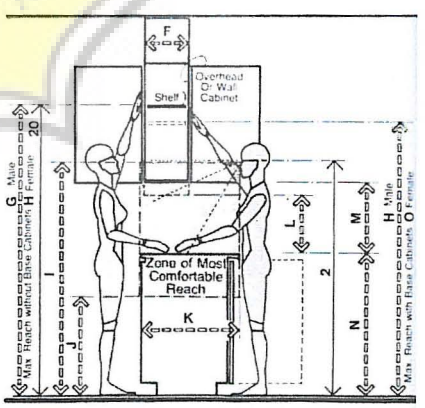
- Cooking Space:



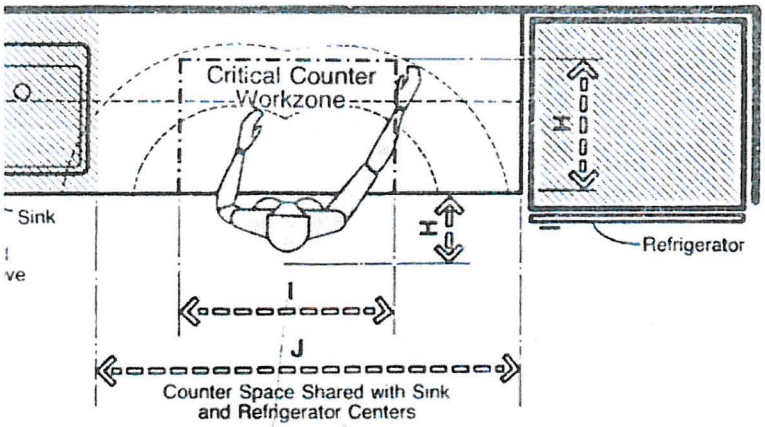


COUNTER AND BASE CABINETS/ GENERAL CLEARANCE

	in	cm
A	60–66	152.4–167.6
B	48 min.	121.9 min.
C	24–30	61.0–76.2
D	36	91.4
E	48	121.9
F	12–13	30.5–33.0
G	76 max	193.0 max
H	72 max	482.9 max
I	59	149.9
J	25.5	64.8
K	24–26	61.0–66.0
L	15 min.	38.1 min.
M	18	45.7
N	35–36	88.9–91.4
O	69 max	175.3 max

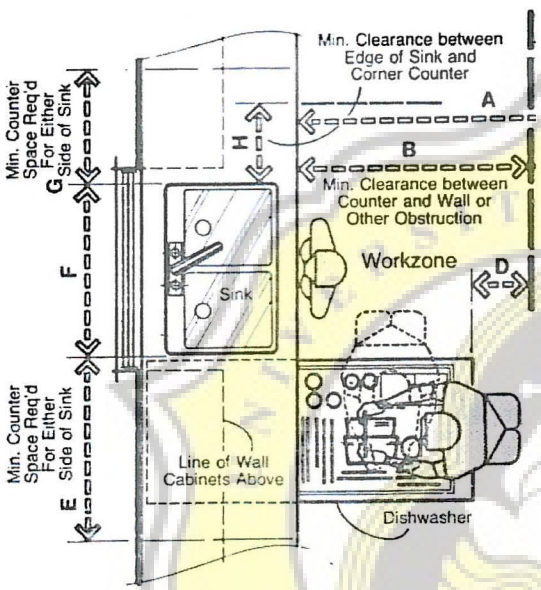


CABINET REACH COMPARISONS



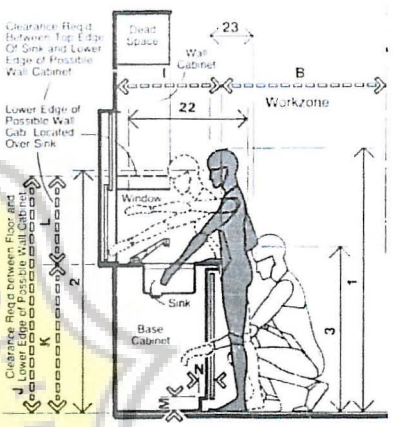
	in	cm
A	18 min.	45.7 min.
B	7.5 min	19.1 min.
C	32	81.3
D	30	76.2
E	4 max.	10.2 max.
F	4	10.2
G	22–24.5	55.9–62.2
H	18	45.7
I	36	91.4
J	42	106.7

PREPARATION CENTER



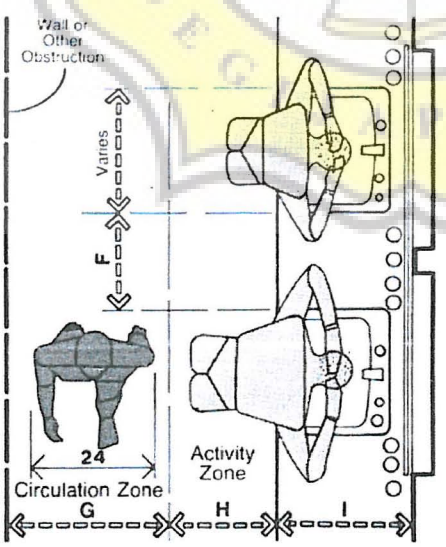
	in	cm
A	70–76	177.8–193.0
B	40 min.	101.6 min.
C	30–36	76.2–91.4
D	18	45.7
E	24 min.	61.0 min.
F	28–42	71.1–106.7
G	18 min.	45.7 min.
H	12 min.	30.5 min.
I	24–26	61.0–66.0
J	57 min.	144.8 min.
K	35–36	88.9–91.4
L	22 min.	55.9 min.
M	3	7.6
N	4	10.2

SINK CENTER



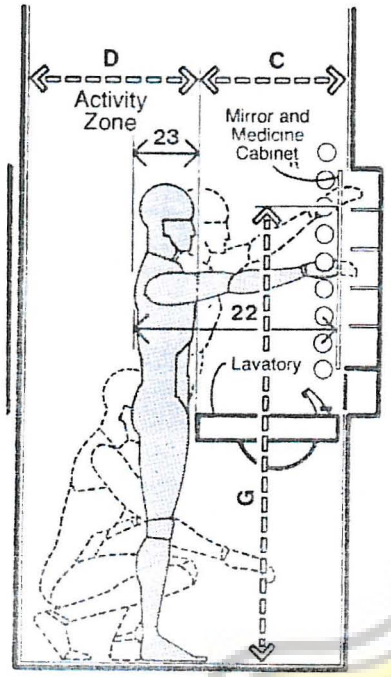
SINK CENTER

- Bathroom:

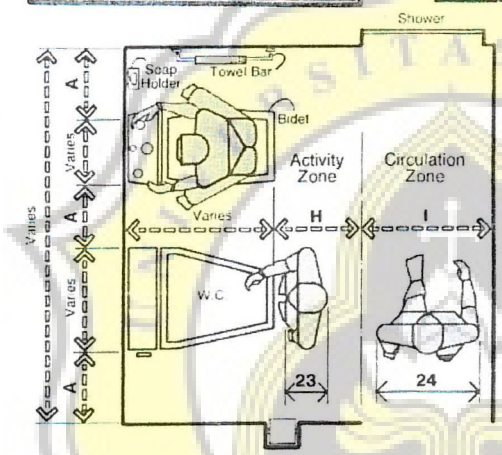


	in	cm
A	15–18	38.1–45.7
B	28–30	71.1–76.2
C	37–43	94.0–109.2
D	32–36	81.3–91.4
E	26–32	66.0–81.3
F	14–16	35.6–40.6
G	30	76.2
H	18	45.7
I	21–26	53.3–66.0

DOUBLE LAVATORY CLEARANCES

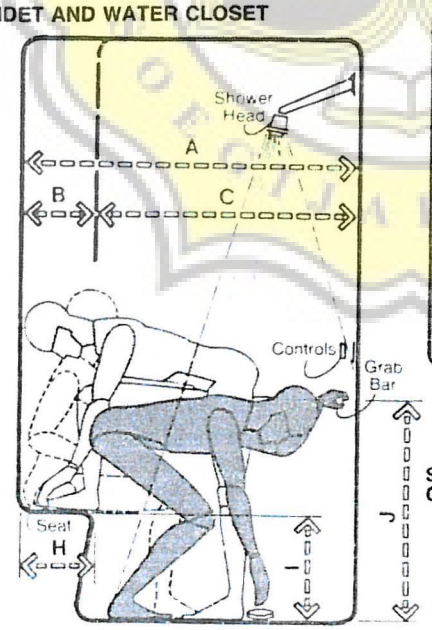


	in	cm
A	48	121.9
B	30	76.2
C	19–24	48.3–61.0
D	27 min.	68.6 min.
E	18	45.7
F	37–43	94.0–109.2
G	72 max.	182.9 max.
H	32–36	81.3–91.4
I	69 max.	175.3 max.
J	16–18	40.6–45.7
K	26–32	66.0–81.3
L	32	81.3
M	20–24	50.8–61.0

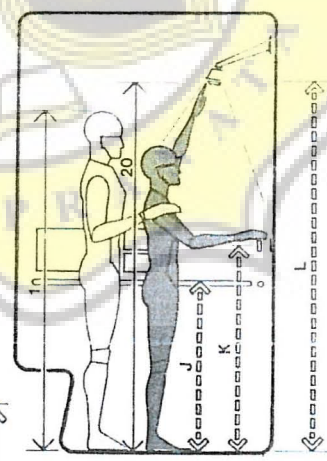


	in	cm
A	12 min.	30.5 min
B	28 min.	71.1 min.
C	24 min.	61.0 min.
D	52 min.	132.1 min.
E	12–18	30.5–45.7
F	12	30.5
G	40	101.6
H	18	45.7
I	30	76.2

BIDET AND WATER CLOSET



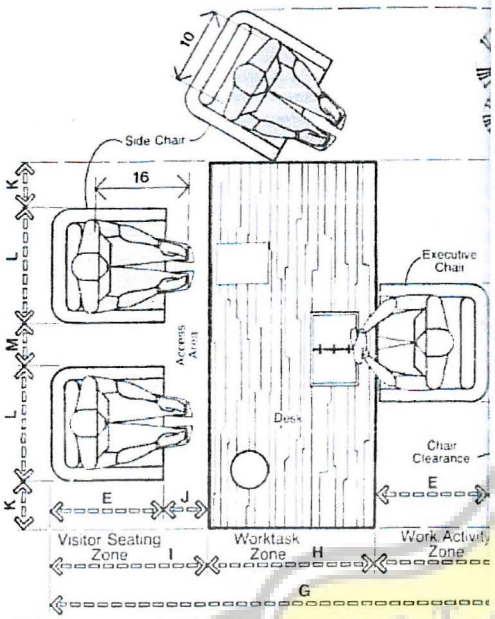
MINIMUM SHOWER CLEARANCES



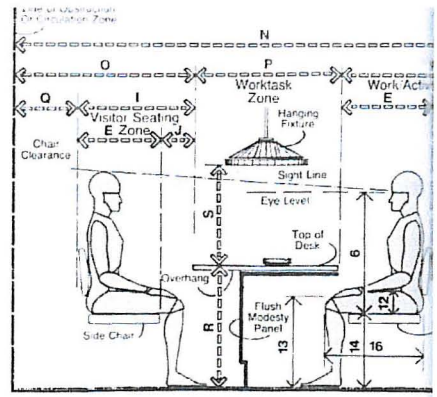
SHOWER / REACH AND CLEARANCE

	in	cm
A	54	137.2
B	12	30.5
C	42 min.	106.7 min.
D	18	45.7
E	36 min.	91.4 min.
F	30	76.2
G	24	61.0
H	12 min.	30.5 min.
I	15	38.1
J	40–48	101.6–121.9
K	40–50	101.6–127.0
L	72 min.	182.9 min.

- **Office:**

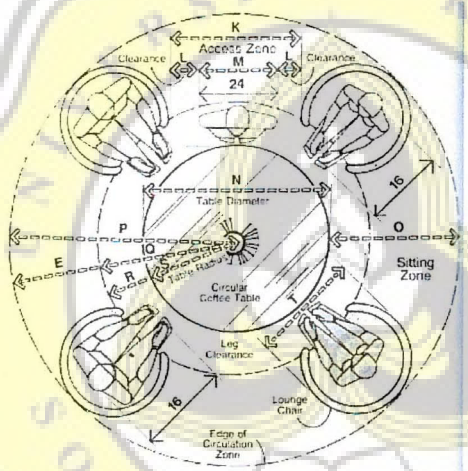


	in	cm
A	30–39	76.2–99.1
B	66–84	167.6–213.4
C	21–28	53.3–71.1
D	24–28	61.0–71.1
E	23–29	58.4–73.7
F	42 min.	106.7 min.
G	105–130	266.7–330.2
H	30–45	76.2–114.3
I	33–43	83.8–109.2
J	10–14	25.4–35.6
K	6–16	15.2–40.6
L	20–26	50.8–66.0
M	12–15	30.5–38.1
N	117–148	297.2–375.9
O	45–61	114.3–154.9
P	30–45	76.2–114.3
Q	12–18	30.5–45.7
R	29–30	73.7–76.2
S	22–32	55.9–81.3



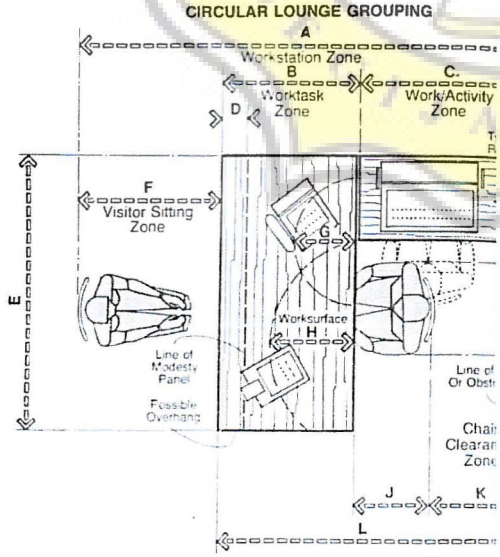
EXECUTIVE DESK / BASIC CLEARANCES

EXECUTIVE DESK / VISITOR SEATING



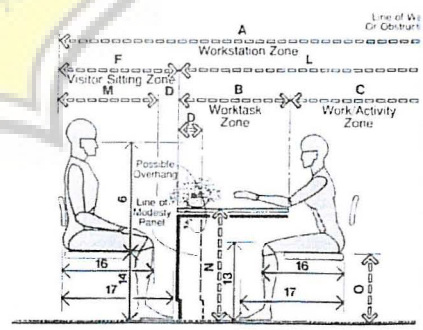
	in	cm
A	77–88	195.6–223.5
B	30	76.2
C	46–58	116.8–147.3
D	22–28	55.9–71.1
E	24–30	61.0–91.4
F	24–28	61.0–71.1
G	2–3	5.1–7.6
H	20–22	50.8–55.9
I	48–60	121.9–152.4
J	92–116	233.7–294.6
K	36–42	91.4–106.7
L	6–9	15.2–22.9
M	24	61.0
N	42–60	106.7–152.4
O	36–48	91.4–121.9
P	57–78	144.8–198.1
Q	33–48	83.8–121.9
R	12–18	30.5–45.7
S	21–30	53.3–76.2
T	24–32	61.0–81.3

CIRCULAR LOUNGE GROUPING

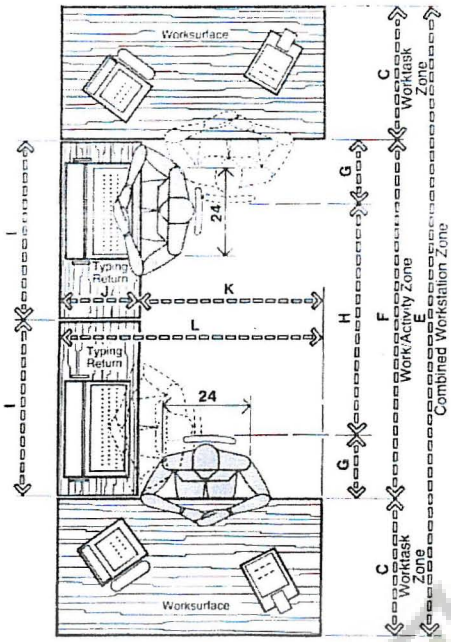


	in	cm
A	90–126	228.6–320.0
B	30–36	76.2–91.4
C	30–48	76.2–121.9
D	6–12	15.2–30.5
E	60–72	152.4–182.9
F	30–42	76.2–106.7
G	14–18	35.6–45.7
H	16–20	40.6–50.8
I	18–22	45.7–55.9
J	18–24	45.7–61.0
K	6–24	15.2–61.0
L	60–84	152.4–213.4
M	24–30	61.0–76.2
N	29–30	73.7–76.2
O	15–18	38.1–45.7

BASIC WORKSTATION WITH VISITOR SEATING

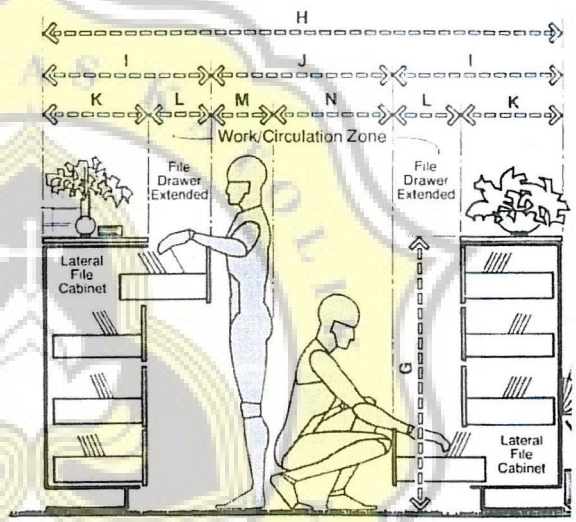


BASIC WORKSTATION WITH VISITOR SEATING



	in	cm
A	120–144	304.8–365.8
B	60–72	152.4–182.9
C	30–36	76.2–91.4
D	29–30	73.7–76.2
E	120–168	304.8–426.7
F	60–96	152.4–243.8
G	18–24	45.7–61.0
H	24–48	61.0–121.9
I	30–48	76.2–121.9
J	18–22	45.7–55.9
K	42–50	106.7–127.0
L	60–72	152.4–182.9

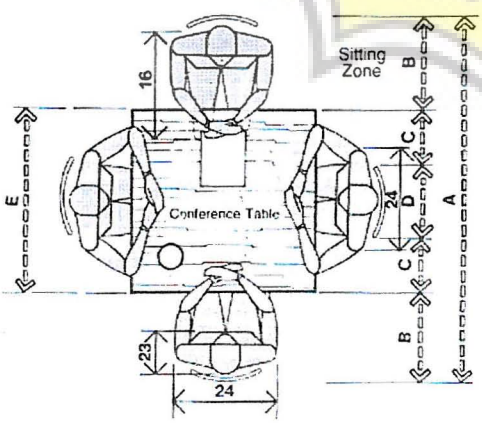
ADJACENT WORKSTATIONS/U-SHAPE

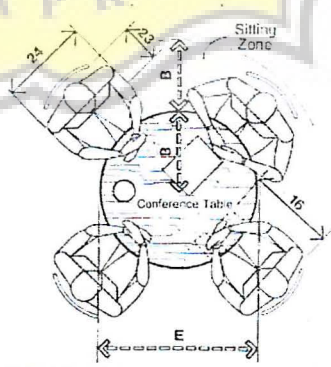


	in	cm
A	106–138	269.2–350.5
B	20–28	50.8–71.1
C	66–82	167.6–208.3
D	18–26	45.7–66.0
E	48–56	121.9–142.2
F	30	76.2
G	54–58	137.2–147.3
H	122–138	309.9–350.5
I	34–42	86.4–106.7
J	40–54	101.6–137.2
K	18–22	45.7–55.9
L	16–20	40.6–50.8
M	18	45.7
N	22–36	55.9–91.4

FILING ACCESS CLEARANCES

- Conference Room:

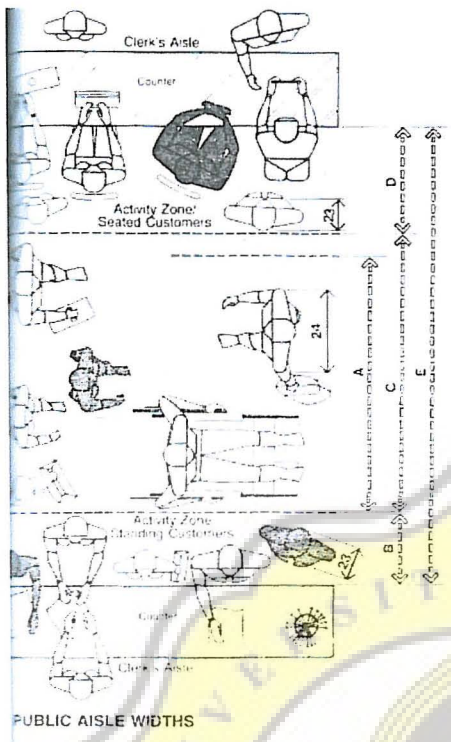




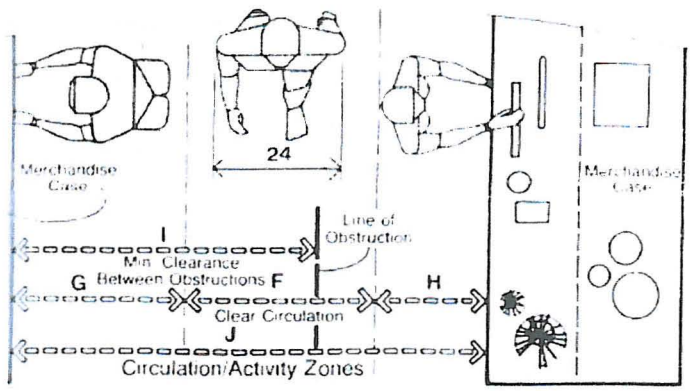
	in	cm
A	72–96	182.9–243.8
B	18–24	45.7–61.0
C	8–12	20.3–30.5
D	20–24	50.8–61.0
E	36–48	91.4–121.9
F	72–102	182.9–259.1
G	36–54	91.4–137.2
H	29–30	73.7–76.2
I	16–17	40.6–43.2

CONFERENCE TABLES / SQUARE AND CIRCULAR

- Retail Space (shop):

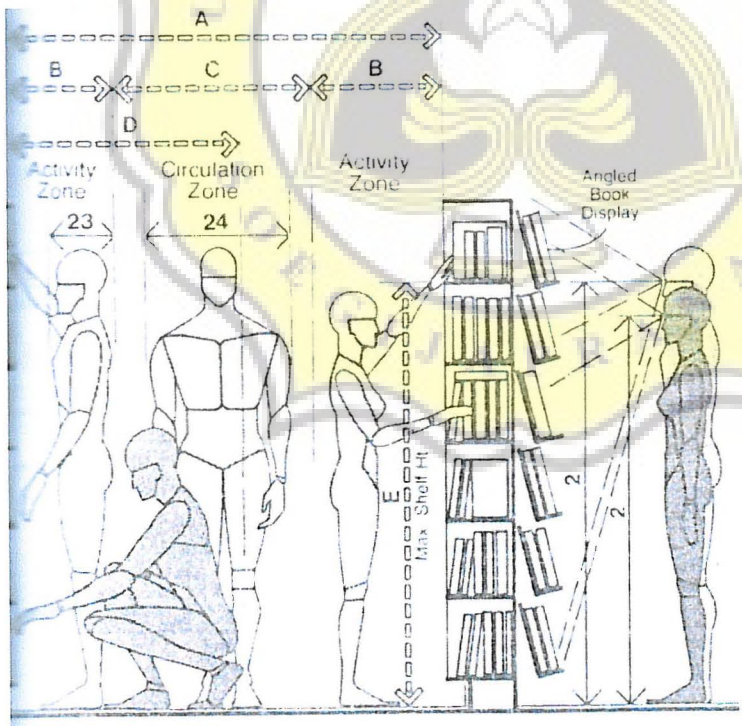


PUBLIC AISLE WIDTHS



	in	cm
A	66 min.	167.6 min.
B	18	45.7
C	72	182.9
D	26–30	66.0–76.2
E	116–120	294.6–304.8
F	30–36	76.2–91.4
G	18–36	45.7–91.4
H	18 min.	45.7 min.
I	51 min.	129.5 min.
J	66–90	167.6–228.6

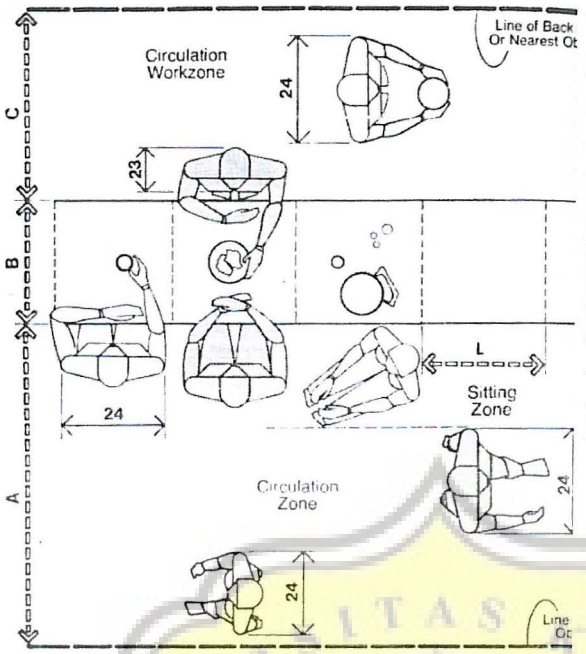
- Library:



STORE / DISPLAY AREA

	in	cm
A	66 min.	167.6 min.
B	18 min.	45.7 min.
C	30 min.	76.2 min.
D	36	91.4
E	68	172.7
F	48	121.9
G	36 min.	91.4 min.
H	66	167.6
I	72	182.9
J	60–66	152.4–167.6

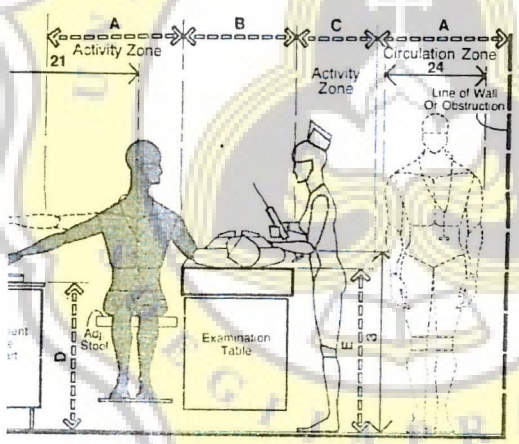
- Lunch Counter:



	in	cm
A	60–66	152.4–167.6
B	18–24	45.7–61.0
C	36	91.4
D	24	61.0
E	12–18	30.5–45.7
F	35–36	88.9–91.4
G	42	106.7
H	30–31	76.2–78.7
I	11–12	27.9–30.5
J	10	25.4
K	12–13	30.5–33.0

LUNCH COUNTER

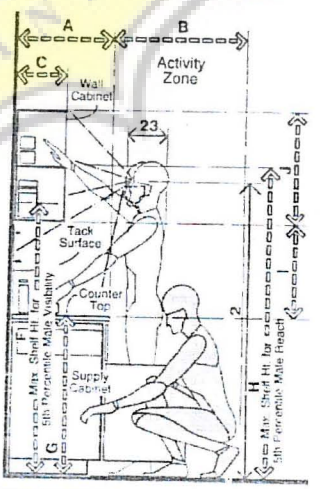
- Infirmary (medical treatment):



AREA/REACH AND CLEARANCE

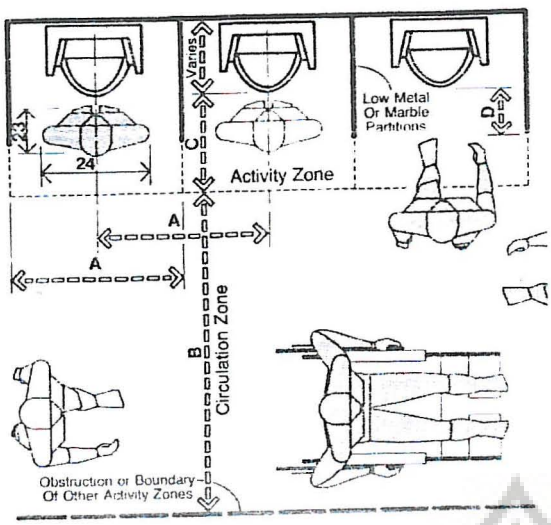
	in	cm
A	30	76.2
B	24	61.0
C	18	45.7
D	30–36	76.2–91.4
E	34–38	86.4–96.5
F	27	68.6
G	12–15	30.5–38.1
H	39 max.	99.1 max.
I	42 max.	106.7 max.

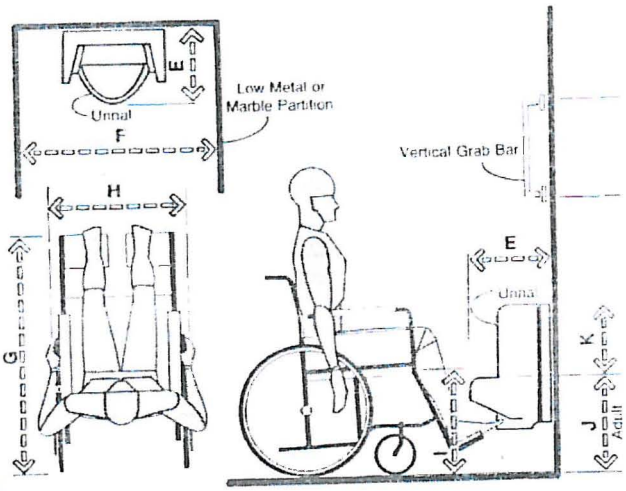
	in	cm
A	18–22	45.7–55.9
B	36–40	91.4–101.6
C	12–18	30.5–45.7
D	18–21	45.7–53.3
E	18	45.7
F	60 max.	152.4 max.
G	35–36	88.9–91.4
H	72 max.	182.9 max.
I	21	53.3
J	18–24	45.7–61.0
K	37–43	94.0–109.2
L	54 max.	137.2 max.
M	24	61.0
N	30–36	76.2–91.4
O	56 max.	142.2 max.
P	69 max.	175.3 max.
Q	32–36	81.3–91.4
R	48 max.	121.9 max.



INSTRUMENT AND SUPPLY CABINET / MALE CONSIDERATIONS

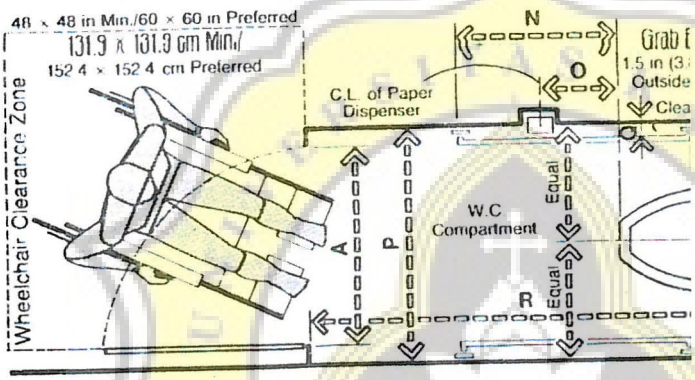
- **Public Bathroom:**





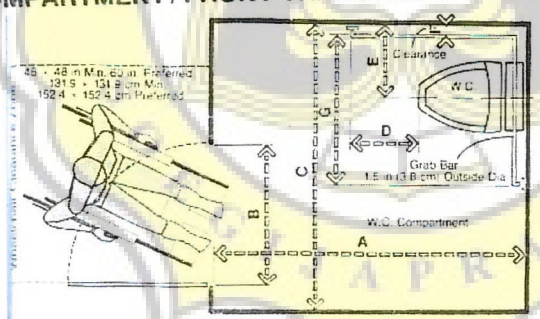
URINAL LAYOUT

URINAL LAYOUT / CHAIRBOUND USER



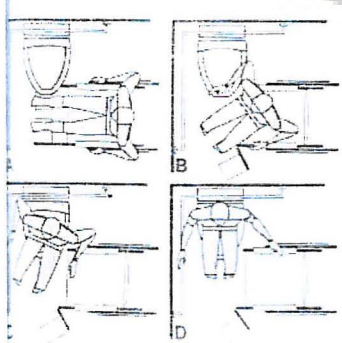
W.C. COMPARTMENT / FRONT TRANSFER APPROACH

	in	cm
A	32	81.3
B	54	137.2
C	18	45.7
D	8–10	20.3–25.4
E	14 min.	35.6 min.
F	36 min.	91.4 min.
G	42	106.7
H	25	63.5
I	19	48.3
J	17 max.	43.2 max.
K	12 min.	30.5 min.
L	14 max.	35.6 max.
M	48	121.9
N	18 min.	45.7 min.
O	12	30.5
P	42 min.	106.7 min.
Q	1.5 min.	3.8 min.
R	72 min.	182.9 min.



ATER CLOSET COMPARTMENT/
DE APPROACH TRANSFER

	in	cm
A	72 min.	182.9 min.
B	32	81.3
C	66 min.	167.6 min.
D	18 min.	45.7 min.
E	18	45.7
F	1.5 min.	3.8 min.
G	36	91.4
H	54 min.	137.2 min.
I	58	147.3
J	12	30.5
K	30 max.	76.2 max.
L	10	25.4
M	14–15	35.6–38.1



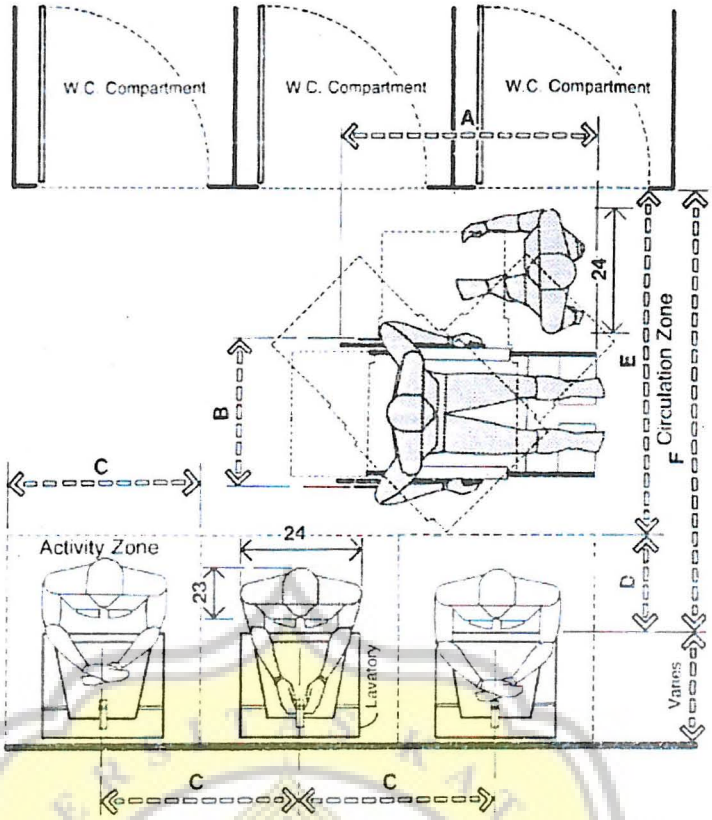
A User Approaches W.C. From the Side

B Chair Armrest Is Removed and Footrest Is Swung to Side for Clearance. For Stability and Leverage, One Hand Is Placed on W.C. Seat or Grab Bar and the Other on Chair. Transfer Movement Begins

C User Lifts, Slides, and Rotates onto W.C. Seat

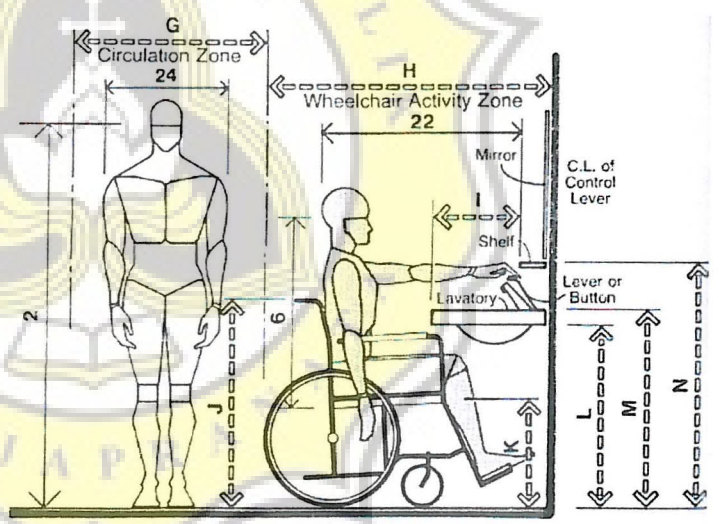
D Transfer Is Complete. Body Stability Is Maintained by Grasping Grab Bar and Seat of Chair

ECHNIQUE FOR SIDE APPROACH TRANSFER



LAVATORY LAYOUT

	in	cm
A	42	106.7
B	25	63.5
C	32	81.3
D	18	45.7
E	54	137.2
F	72	182.9
G	30 min.	76.2 min.
H	48	121.9
I	18 max.	45.7 max.
J	36	91.4
K	19	48.3
L	30 min.	76.2 min.
M	34 max.	86.4 max.
N	40 max.	101.6 max.



LAVATORY/ WHEELCHAIR USER

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