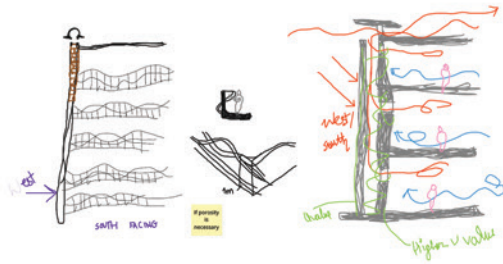


Preparation

GENERAL PREPERATION

Preparation - Facade



if possible, in necessary

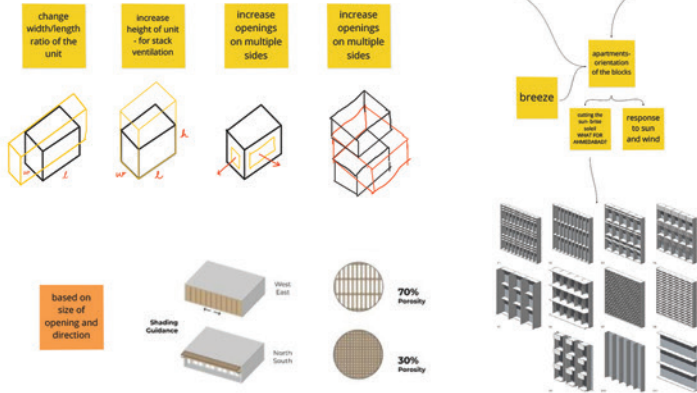
which of these seem more interesting? and why?



for thermal comfort

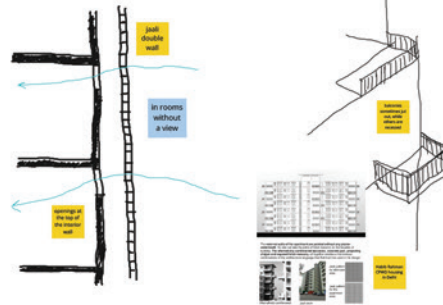
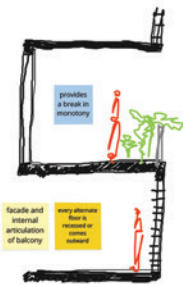
breaking visual monotony

based on unit form and organisation



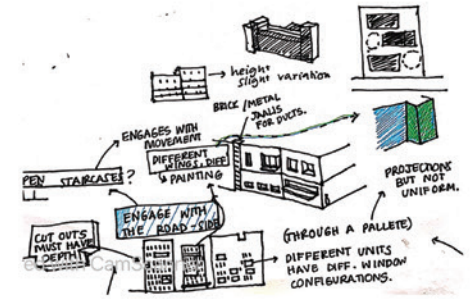
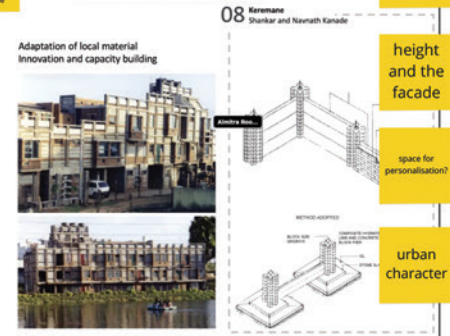
based on size of opening and direction

ideas of facade organisation - modular/variable



- scale breaking strategies
- consolidating the building out of the unit logic
- Visual monotony
- idea of neighborhood or community
- can be aesthetic as well
- height and the facade
- space for personalisation?
- urban character

structural system determining facade



Preparation - Trees

important data

link to data for trees

https://docs.google.com/spreadsheets/d/1VbX6LJcqssL Nm187Z455zHCpr2Z4_eAURbPnkgbTwoA/edit#gid=0

link to CAD file for trees

<https://drive.google.com/file/d/1zdXk2PSejF2ZOUhq qHkdgzO0vParcD1/view?usp=sharing>

extra info of tree density in Ahmedabad

Table-14: Zone-wise status of tree cover

Zone/Area	Number of trees
1. Central zone	23,518
2. East zone	75,497
3. West zone	84,035
4. North zone	60,677
5. South zone	89,863
6. New west zone	84,189
7. Parks and garden	25,290
8. Cantonment and other areas	174,979
Total	618,048

Table-15: Zone-wise status of tree density

Zone	Area (in ha)	Tree density
Central zone	1,650	18.5
East zone	7,852	10.9
West zone	5,653	10.8
New west zone	17,906	7.8
North zone	4,157	20.8
South zone	9,205	11.4
Cantonment	562	103.0
Total	46,985	13.1

Table-16: The population of important trees in order of population

Tree species	Botanical name	No of trees (in Lakh)	Tree species	Botanical name	No of trees (in Lakh)
1. Neem	<i>Azadirachta indica</i>	1.43	8. Peltroforum	<i>Peltroforum ferruginieum</i>	0.19
2. Asopalav	<i>Polyalthia longifolia</i>	0.71	9. Garmado	<i>Casia fistula</i>	0.17
3. Kanji	<i>Holoptelia Integrifolia</i>	0.42	10. Su-bavad	<i>Leucaena leucocephala</i>	0.15
4. Gulmohar	<i>Delonix regia</i>	0.40	11. Pipad	<i>Ficus tsila</i>	0.13
5. Deshi bavad	<i>A. nilotica</i>	0.40	12. Champo	<i>Michalia champaca</i>	0.08
6. Peepal/ Pipado	<i>Ficus religiosa</i>	0.20	13. Others		1.72
7. Kasid	<i>Casia siamea</i>	0.20	Total		6.18

17.4 Tree Plantation

4. Trees should be preferably be shade giving and from the specis listed:

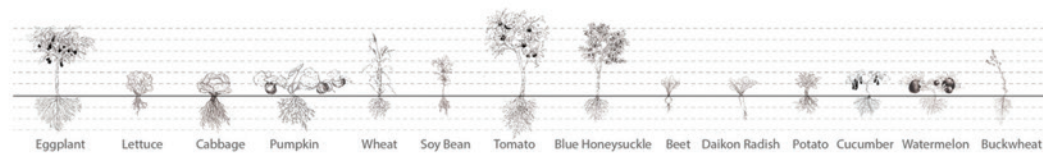
Kalosaras, Siris, MotiHardi	Kachnar
Saptaparni	Spethodia
Limdo or Neem	Getasedia
Java ki Rani	Baknim
Pink Cassia	Gulmohar
Urimedi	Keliapinata
Kasid	Garmalo
Sisam	Billi
MotoSisam	TebubiaRosia
Sevan	TebubiaGaykem
Borsalli	Kapok
Jambu	Kalgeria
Khatiamli	Pipal
RagatRohido, Rayan	Rain Tree
Baheda	Silver Oak
Peltofarm	DesiAsopalav
Meletia	Badam

5. The requirement of the trees shall be reduced if the existing trees on the site are conserved.

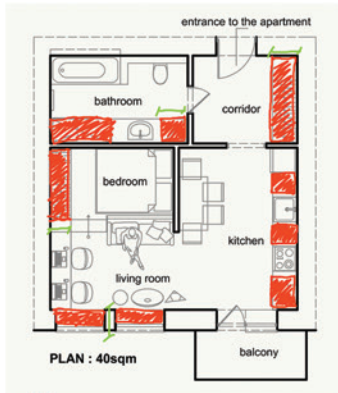
6. Trees planted on site shall be guarded by the tree guards and shall be maintained properly.

7. Trees shall be planted without causing obstruction to easy movement for fire fighter vehicles in case of emergencies.

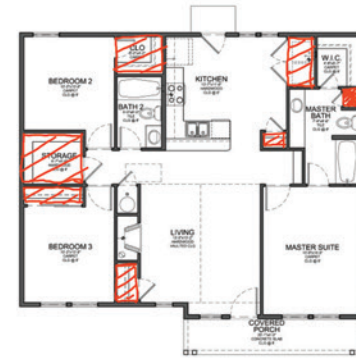
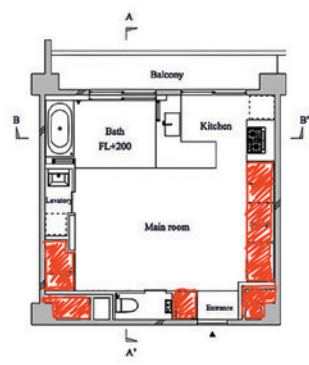
8. A person applying to carry out any development shall have to pay tree plantation deposit to the competent authority at the rates decided. This deposit shall be refundable after 5 years if the trees on the site are fully grown and maintained properly.



Preparation - Storage



THICKENING OF THE WALLS
(dispersed storage)



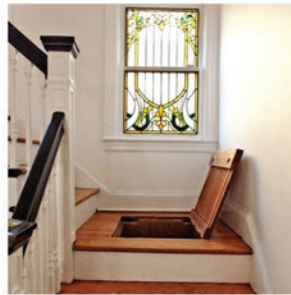
STORAGE AS ANOTHER SPACE.
(somewhat concentrated)



SECTIONAL PARTITIONING - LOFTS
(will change the scale)



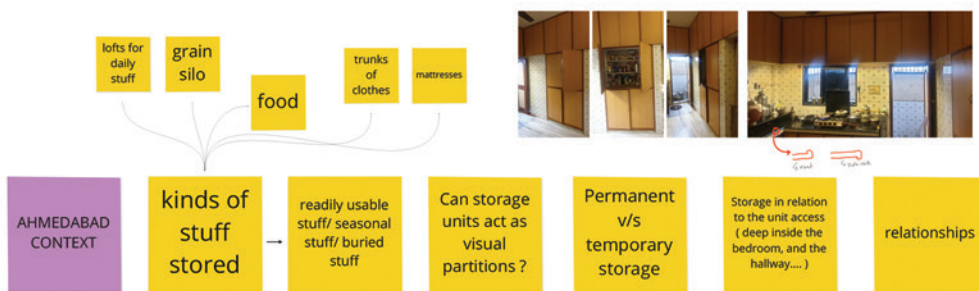
THICKENING OF THE FLOOR
(will change the scale, layouts)



THICKENING OF THE PARTITIONS



USING VOIDS IN THE DESIGN
(hidden storages)
(dispersed storage)




- sizes of the boxes?
- Min storage area?
- raised platform on the slab?
- minimum cupboard space / person

Preparation - Flooring

granite

200 x 200 to 1200x1200 square/rectangle

denser and have more compressive strength when compared to marble, darker shades more maintenance displays unique gradations and changes in color and pattern.



marble

300 x 300, 400 x 400, 600 x 600, 300 x 450, 300 x 600

shiny, glossy feel, reflects light easy to clean long lasting joints not clearly visible

Carrara marble: white, gray or blue-gray - linear veining

Statuary marble: uniform background and light gray tones - dramatic veining

Calcutta marble: generally white with dark veining in large, thick patterns



Vitrified tiles

300 x 300, 300 x 600, 600 x 600, 610 x 610, 800 x 800


scratch and stain resistant variety of styles, patterns and colours easy to clean & maintain joints seen consistent design, pattern and texture

GLAZED BODY: extra shine - more stain resistant

SOLUBLE SALT: colour options - patterns

DOUBLE CHARGED: extra strong - high traffic areas


FULL BODY: homogeneous and colored throughout



ceramic tile

200 x 200 to 1200x1200

extremely durable impervious to water and stains popular choice in wet areas and high humidity environments. does not hold heat well (cold flooring) does not attract or hold onto dirt




linoleum/ Vinyl

Roll 2m width

tile (planking) 91 x 15, 1220 x 183, 607 x 303


wood like look / stone like look waterproof, scratch and stain resistant versatile click-lock installation a warm material - replicating appearance of cold flooring materials like hardwood and stone not that long lasting



hardwood / laminate


numerous of width from 38 to 200 mm

natural beauty of wood and its warmth in look long lasting comparatively different shade in each plank, gives a non monotonous look easy to clean can be affected by humidity and temperature variation




IPS Flooring

generally homogeneous & continuous - needs breaks in between (glass or brass strips) variety of colors and customization - textures quite durable & economical



stone in-lay / terrazo

time consuming to personalize long lasting variety in patterns/textures/colors resists against water damage, fire damage, chemical spillage, and other stain risks.



reflective surface

surface temperature

Texture (rough/smooth)

hard or carpeted

Tile sizes, and it's impact on the visual expanse

kandla grey stone

mandana stone flooring (red hues)

kota stone

outdoor

keep on adding some not so main-stream examples of flooring in houses



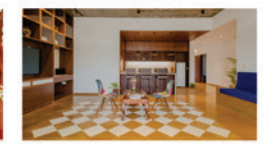
Dr. Nene's Residence / Dipen Gada and Associates



V5 House in Ahmedabad - Saravah architects



5 Awesome Traditional Flooring Ideas for Indian Homes



House in A.Grove by STOMP Architects



Do you terrazzo?

On entering the front foyer of the National Gallery of Modern Art in Bombay, I have always felt like I was not in an art gallery but in someone's house. Though the NGMA building is structurally designed as a gallery space, its very familiar terrazzo flooring, so popular in the 1960s across Delhi houses, would confuse me of its purpose.

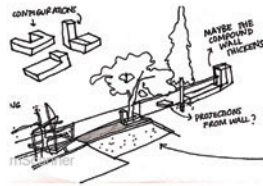
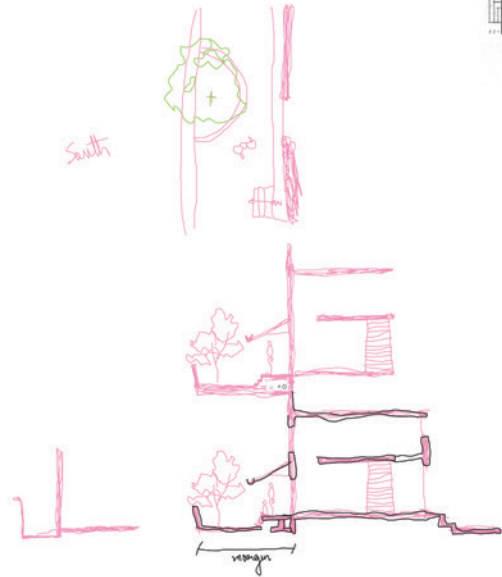
Terrazzo flooring can be traced back to fifteenth-century Venetian flooring techniques and further back to the mosaic tradition of ancient Egypt, but it has a ubiquitous manifestation in modernist architecture. I can recall playing on terrazzo floors as a child, finding designs and patterns, Ursula Major and Ursula Minor, sometimes seeing chipped marble faces, sometimes just a soft blur of specks under the feet. With its silent presence across different houses I have lived in, terrazzo has become for me the comfort skin of a house. It felt cool in summers, while durrries laid over it made it warm in winters. A painter friend reminds me that terrazzo will always feel softer and warmer as a floor, as the human hand has gone into laying it. Traditionally laid terrazzo floors used marble scraps mixed with concrete, laid with glass partitions, while today, tiles are made to mimic this form.

I recently moved houses, from one DDA apartment to another in a south Delhi neighbourhood. These 2BHK apartments, built in the 1980s, had the exact same floor plan and seemed to be the same family planning formula of 'three do humans do'. Though the new house had the same layout and direction as the previous one, it felt strangely alienating to me. The flooring in the new house comprised machine-made ceramic tiles, unlike the terrazzo flooring of the earlier house. The property broker showing me the house had explained that the tiles give a clean look to the house unlike terrazzo flooring that always appears unclean and old. A neighbour who also has tile flooring in her house explains, 'They give a neat look, so we all get them done, but it's also more work for us to keep it clean because you can see every speck of dust and hair on it.' There has been an observation with what looks 'clean' in South Asia. The movement from kacha flooring to pucca flooring more often than not follows a trajectory of cement-cast floors, terrazzo flooring to eventually the post-liberalization middle-class aesthetics of shiny, slippery, more 'clean-looking' tile or even marble flooring.

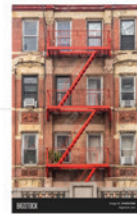
In my new apartments, I sometimes wonder how I am supposed to differentiate where the bathroom ends and the room begins when everything is cast under the same spell of white tiles. My body too is reimagining to walking on these floors—a slippery terrain where every step has to be cautiously taken. I cover the floors with durrries and mats, try to keep them dry and clean, yet, they don't warm up to me. They have some of the warm familiarity that comes with terrazzo floors, which instantaneously change the way my durrries fall on them and the way my feet walk on them. A fundamental location of 'homeing' for me has been the familiarity of the body with terrazzo flooring. In my earlier house, I would walk numerous times from the bathroom to the hallway to water the plants. I could do yoga more easily on the floor, as the durrries didn't slip off them; the ground beneath my feet was intimate, cooler and stable, like an old beloved. The tiles in the new house, though shinier, are taking quite some adapting to.



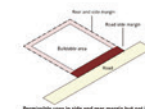
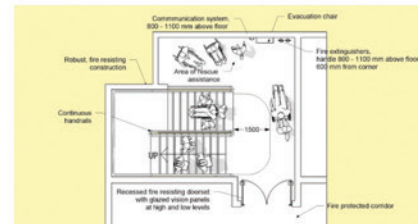
Preparation - Margins



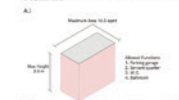
interesting play for facade



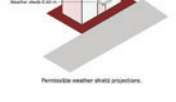
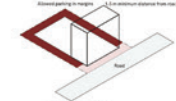
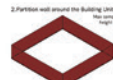
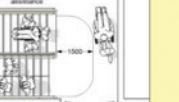
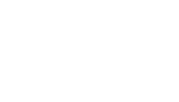
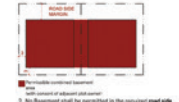
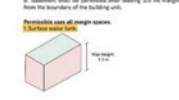
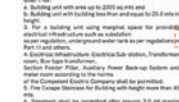
refuge areas can be cantilevered in margin areas



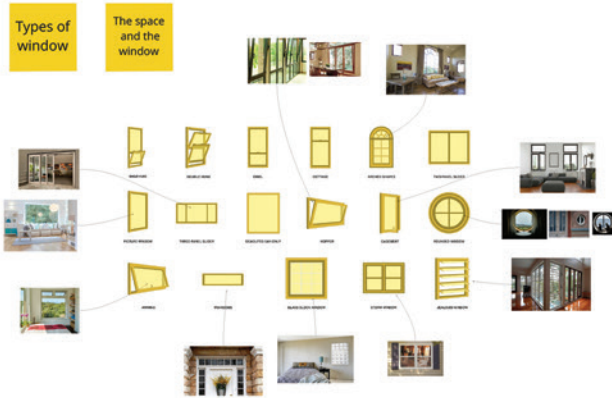
Partition wall around the Building Unit



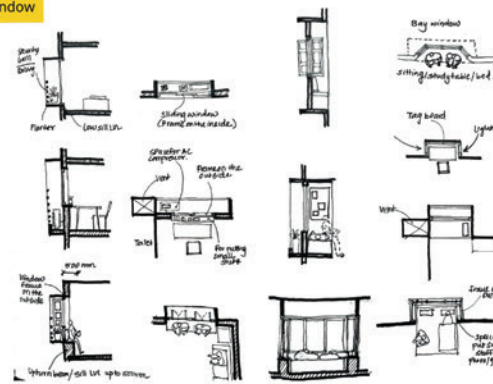
Partition wall around the Building Unit



Preparation - Openings



Multiple use of a window



20. Window
 A window should be able to offer a range of shading in order to allow sunlight during summer but allow a view through in winter. The window should be able to be opened in a variety of ways so that it can be used for different purposes. There are several design possibilities which the space for each case, window shading devices are provided.

Fig. 19. Window

External shading devices should be designed according to the orientation of window. For instance, in North hemisphere windows on an easterly or westerly aspect, the best orientation is vertical blinds. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds.

21. A RANGE OF WINDOW TYPES SHOULD BE USED
 The window that has access to the outside of the house, large glass windows and doors, such as a maximum glass height of view, the window should be designed according to the orientation of the window. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds.

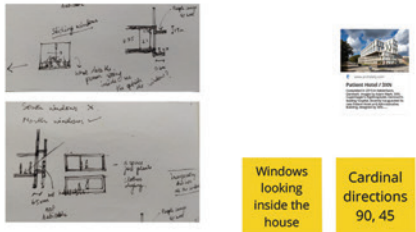
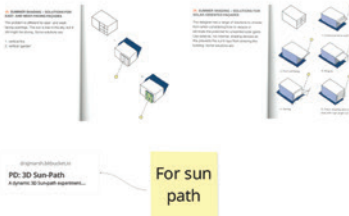
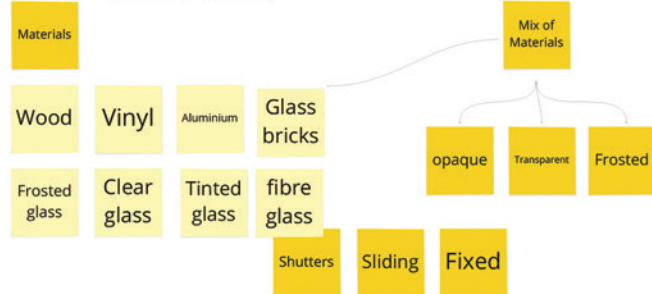
Fig. 20. Window

External shading devices should be designed according to the orientation of window. For instance, in North hemisphere windows on an easterly or westerly aspect, the best orientation is vertical blinds. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds. On a southerly aspect, the best orientation is horizontal blinds.



Colours

Furniture and framing the window

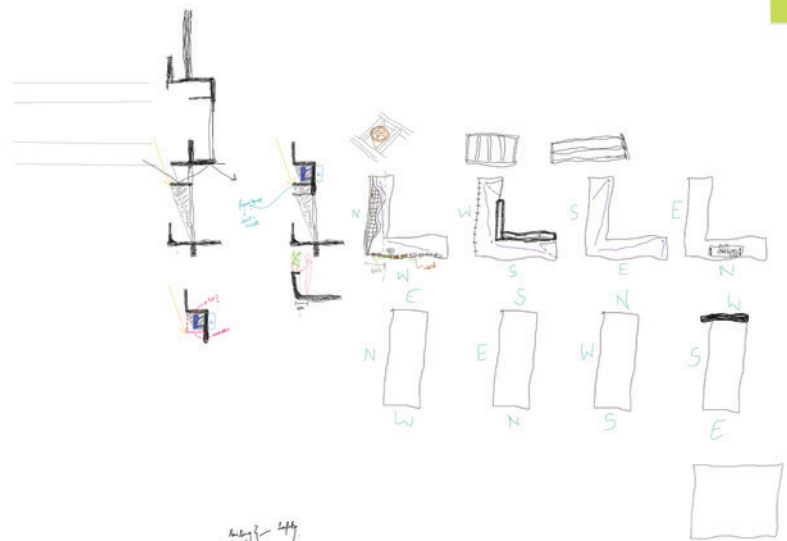


Preparation - Railings

balcony vs. storage space/indoor space?

how can your balcony be part of both inside and outside

fully openable enclosures



TRANSPARENT Partitions
 B/w 2 adjacent units
 segregating the terrace balcony.



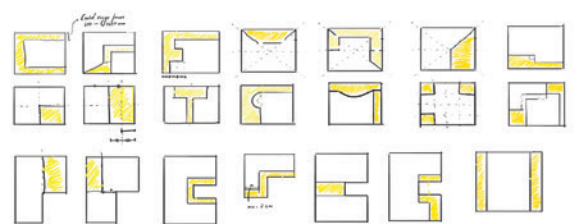
It's proportion wrt to the unit.
 How far inside the balcony located? access?

View of the balcony from inside the unit
 Providing a water source and a water trap- area for washing, clothes, watering plants.

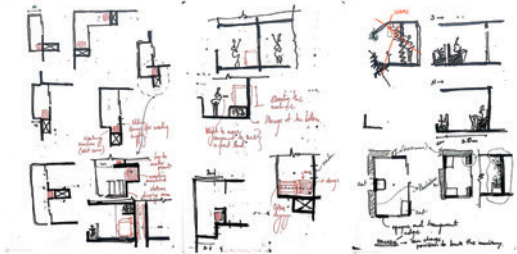
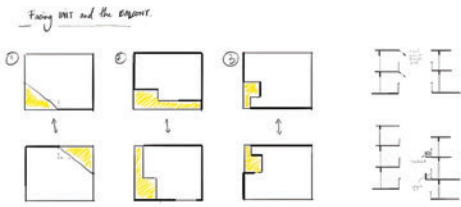
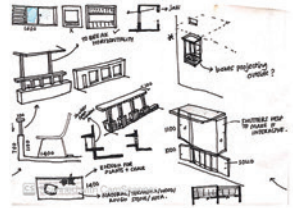
Any projection to prevent excess rain water?
 The balcony door

Difference in flooring?
 providing some storage space? utility

Any permanent seat provided?
 Any temporary partitions in the balcony - integrating the utility spaces from the other



PROPORTION BALCONY VS. THE UNIT AREA
 ACCESS AND DESIGN



Railing Materials

Stainless steel

- PROS**
- 1. Easy to maintain
 - 2. Rust proof
- CONS**
- 1. Quite expensive
 - 2. Fewer possibilities in finishing

Mild steel

- PROS**
- 1. Easy to maintain
 - 2. Affordable
 - 3. Can be painted over easily
- CONS**
- 1. Must protect through paint and other finishes (can prevent it)

Aluminium

- PROS**
- 1. Easy to maintain
 - 2. Affordable
 - 3. Can be powder coated in different colours easily
- CONS**
- 1. Not ideal in coastal regions, as aluminium corrodes significantly due to salt
 - 2. Can be dentable as steel

Glass

- PROS**
- 1. Total transparency
- CONS**
- 1. High maintenance (cleaning and scratches)
 - 2. High heat safety concerns (safety glass)

Wooden

- PROS**
- 1. High maintenance available
 - 2. Lower or furniture available
 - 3. Durable
 - 4. Installation time is longer
 - 5. Doesn't hold up like the steel (rustless)
- CONS**
- 1. Can dent
 - 2. Termites and other weather factors become an issue (high maintenance)

Concrete

- PROS**
- 1. Quite durable
 - 2. Affordable
 - 3. Can be painted easily (if done in concrete)
- CONS**
- 1. Heavy (might increase the dead weight)

60 Balcony preparation may be permitted to a maximum 50 cm, projecting within 2 meters or more with respect to the BALCONY may be permitted on ground floor provided it projects to the left side of the room.

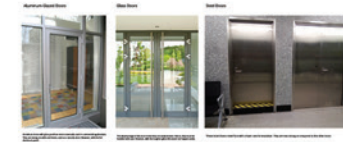
4. A parapet wall with a minimum height of 1.00m from the finished floor level shall be provided to ensure safety of all accessible edges of a balcony with its railing, otherwise, a 100mm parapet wall shall be provided on the edge of the balcony and at the door openings.

1. balcony cannot be a habitable space
2. Therefore, above or below slab level
3. 0.6m projection is free of FSI

Preparation - Doors

(B) Based on Materials

03. Wooden or Timber Doors
04. Glass Doors
05. Steel Doors
06. PVC Doors
07. Fiberglass Doors
08. Aluminum Glazed Doors
09. Fiber Reinforced Plastic Doors /FRP Doors
10. UPVC doors



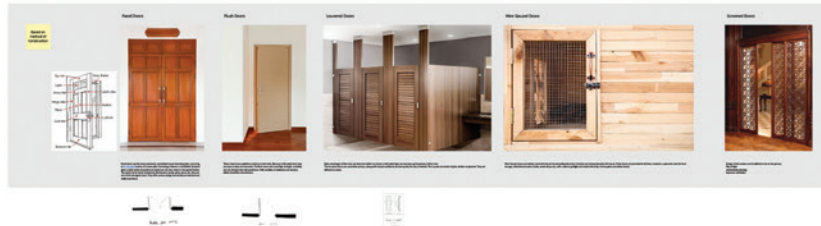
(C) Based on Operation of Door Shutter

11. Folding Doors
12. Sliding Doors
13. Swinging Doors
14. Revolving Doors
15. Collapsible Doors
16. Pivot Doors



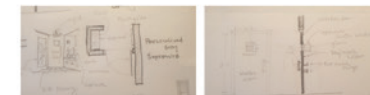
(D) Based on Method of Construction

17. Panel Doors
18. Flush Doors
19. Louvered Doors
20. Wire Gauzed Doors



(E) Door ideas

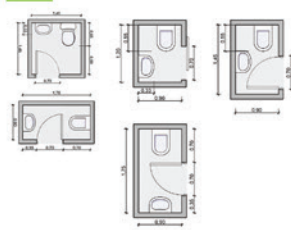
21. Storage + doors
22. Hidden doors
23. Door + window



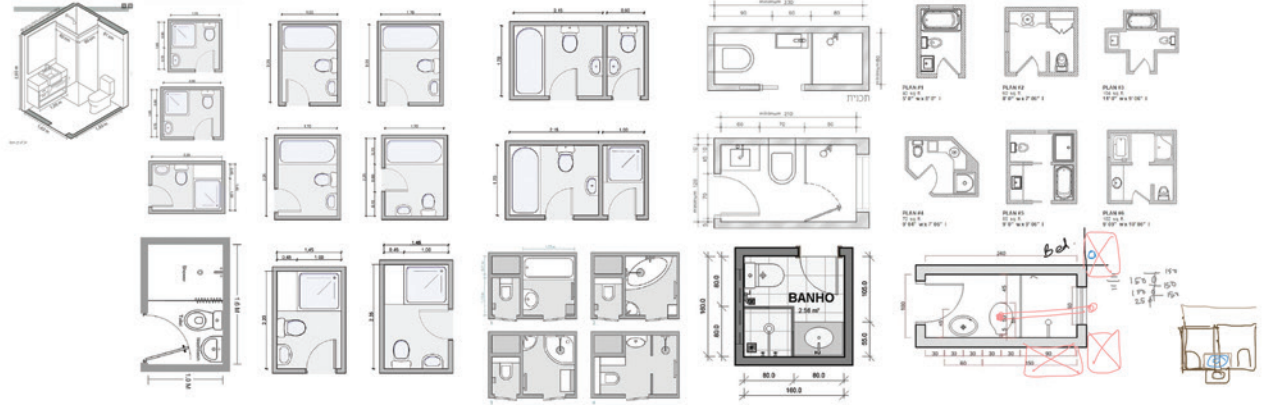
Preparation - Toilet

toilet systems

Wc + Basin



Bathing + Wc + Basin



12

In bathrooms, we need this for 4 different functions - Toilets, walls, shower area and back splash. Here is your guide to selecting this for each of these functions in the bathroom.

BATHROOM FLOOR TILE

Your bathroom floor has to stand up to wet conditions and frequent cleaning, and needs to look good while doing it. Thick porcelain and ceramic tiles are most suited for floors. Based on the theme of your bathroom choose tiles that are non-slip, are resistant to acid and accumulate water. Digitally printed stone tiles look great on the floor.

BATHROOM SHOWER TILE

The shower area in the bathroom faces maximum moisture and water and thus the tiles need to be not just wet but highly temperature sensitive. You might choose to use the same tile as the rest of the bathroom in the shower area, or highlight it with a different tile. But make sure the tile used in the shower area doesn't slip when too long and thin has minimum bacterial growth. Colours like grey and brown are really in for shower areas. Mosaics are also a good option.

BATHROOM WALL TILE

Wall tiles add a touch of glam to your bathroom and can be used in various finishes or showing designs and patterns to achieve the desired look. For natural look, one can opt for stone look tiles or natural stone tiles. Besides a design statement, one can opt for tiles with hygrometers and barometers inbuilt that help with the look. Luckily wall tiles are of standard size (30x45) and shower tiles four times, but one can opt for custom size mosaic, or differently shaped tiles for the bathroom.

BATHROOM BACKSPASH TILE

Backsplash in the area near your washbasin that has maximum chances of water splashing. This tile for this space needs to have minimal water absorption and should be preferably anti-bacterial. However, it's always a good idea to get creative when designing with tiles and backspashes are a great way to create a focal element or add colour or pattern to your bathroom.

Main six types of Tiles used in Indian Bathroom:

1. Granite Tiles
2. Marble Tiles
3. Stone Tiles
4. Ceramic Tiles
5. Porcelain Tiles
6. Travertine



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12



Single horizontal wall niche

Single vertical wall niche with doors

multiple wall niche

Shelves on the wall

Stepped wall

Extra

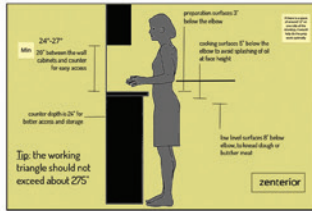


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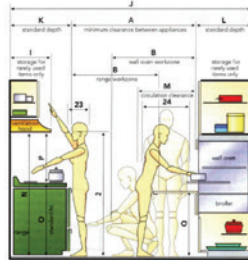
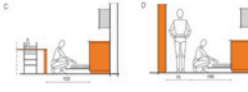
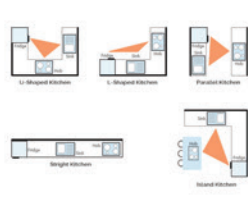
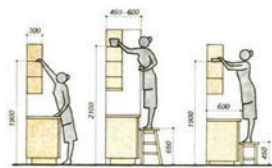
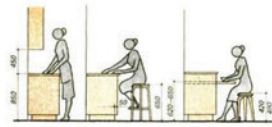
Also, this design allows homeowners with space to place indoor plants (Video) in 2020 1. Windows grid design, modern, Modern windows and doors, House window design How to design windows and doors for your house? 15 Common window and door styles for your house.



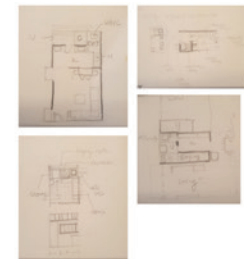
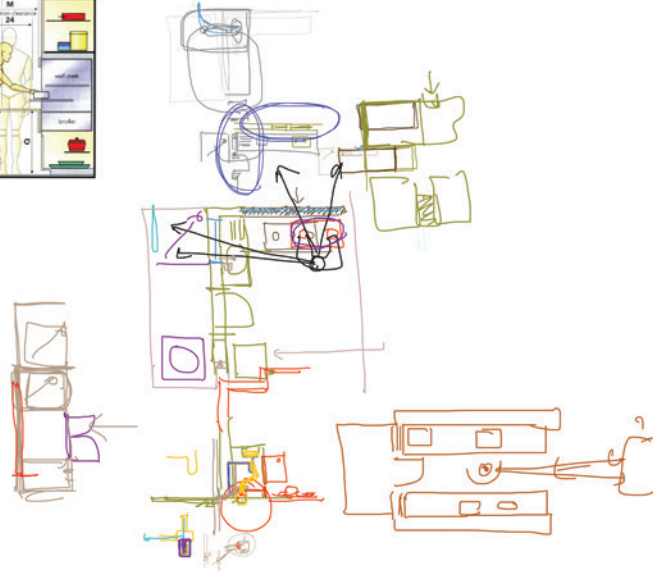
Preparation - Kitchen



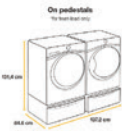
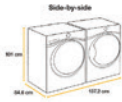
- **Preparation Surface:** The height of this surface is a little more than 34", which is around 3" to 4" below the elbow. This is primarily used to cut vegetables and do the prep work.
- **Cooking Surface:** This is the height at which the cooking happens. It is around 2" less than the preparation surface and 5" below the elbow, around 34". This is to make sure that the hot oil does not splatter at the face height.
- **Low-level Surface:** This surface is around 8" below the elbow. This is primarily used for intensive tasks where you want to be on top of things, literally. These include kneading dough, butchering meat etc. These measurements are given for an average Indian woman's height.



- Important aspects to keep in mind while designing the kitchen:
1. **Height of kitchen countertop**
 2. **Depth of kitchen countertop** - 24" is standard, it can vary based on the appliances, sink, etc.
 3. **Depth of overhead cabinets** - 12"-15"
 4. **Minimum width for circulation:** When planning the kitchen layout, ensure that the circulation-cum-working space between two countertops is at least 4 feet wide. Any less, and it will be too narrow, making it difficult for two people to work together.
 5. **Kitchen sink clearance:** Most sinks come with a drainboard on one side of the sink. There should be a gap of at least 3 feet on the other side to comfortably dry the utensils. Additionally, this helps in proper segregation of soiled and clean vessels.
 6. **Width of panels of upper and lower cabinets:** The most common way to demarcate upper and lower cabinet sections is by dividing them equally (as in this image) such that the width of a double-door cabinet ranges between 30 and 36 inches. Sliding panels can go up to 2 feet per panel. Tip: Consider creating organized storage in the lower cabinets with modular accessories. In such a case the dimensions of the shelves of the lower cabinets and of the drawers will be as per the size of the modular accessories.
 7. **Distance between stove and chimney:** The distance between the bottom of the chimney and the gas stove should be about 26-30 inches. If this distance is more than 30 inches, it will compromise the performance of the chimney.
 8. **Dimensions for refrigerator:** Make sure there's a clearance of at least 2 inches between the fridge and the wall and of 2 inches above the refrigerator, to allow adequate ventilation and dissipation of waste heat that will be produced while it is working.
 9. **Maximum height of microwave:** For efficient working, the base of the microwave should be 13-15 inches higher than the countertop.
- Note:** For an island kitchen, should be at least 4 feet long and 3 feet wide so that two people can work on the island countertop standing at the two longer sides, facing each other across the width for the depth of the island, there should be enough space around the countertop for circulation (if).
Suggestion: Consider a kitchen island only if you have a big kitchen with a minimum depth of 12 to 15 feet.



Preparation - Laundry



WASHING MACHINE SIZE GUIDE

Drum Capacity	Wash Load	Suitable House Size
5kg	25 T-Shirts	Individual
6kg	30 T-Shirts or a Single Duvet	Couple
7kg	35 T-Shirts or a Double Duvet	Small Family
8kg	40 T-Shirts or a Queen Size Duvet	Medium Family
9kg	45 T-Shirts or a Medium King Size Duvet	Large Family
10kg	50 T-Shirts or a Heavy King Size Duvet	Large Family
11kg	55 T-Shirts or a Heavy King Size Duvet	Very Large Family
12kg	60 T-Shirts or a Heavy King Size Duvet	Very Large Family

chowkdi-

accessed from outside in bungalows

connect to neighbors

holi clothes

washing hands and feet depending on where it is located.

AHMEDABAD CONTEXT

clothes drying?

chowkdi-kitchen-machine relationships

where is the machine kept? chowkdi? washroom? balcony?

what happens to the pipelines?

what happens when you wash the clothes without the machine?

drying-washing-utensils

washing machine standard sizes

6kg load- couple

7-8 kg load- small family

9-10kg load- large family

minimum laundry space in a house



foldable ironing table
folding table
drying stand
laundry baskets



Ahmedabad



Mumbai, flexible space use



preventing pigeon poop issue (maybe)

