As the 3rd year first project we were given the oppurtunity to do case study on commercial complex like Bhatbhateni, KL tower and international Myzeil shopping mall so that we could understand the space , its organization ,construction technique and many more. During the case study period we got the opportunity to meet Ar Sagun Sthapit and Architects of Arniko Designers and planners and know about their design concept ,construction technique and many more. It gave us chance to know in detail about circulation space, rental space, parking space.

COMMERCIAL BUILDING

A commercial building is a [building](https://en.wikipedia.org/wiki/Building) that is used for [commercial](https://en.wikipedia.org/wiki/Commerce) use. A business must be located in a [commercial area](https://en.wikipedia.org/wiki/Commercial_area) or area zoned at least partially for commerce. It is  one or more buildings forming a complex of [shops](https://en.wikipedia.org/wiki/Retailing) representing merchandisers with interconnecting [walkways](https://en.wikipedia.org/wiki/Walkway) that enable customers to walk from unit to unit.  From the late 20th century, [entertainment](https://en.wikipedia.org/wiki/Entertainment) venues such as [movietheaters](https://en.wikipedia.org/wiki/Movie_theater)  and  [restaurants](https://en.wikipedia.org/wiki/Restaurant" \o "Restaurant)  began to be added.

KL TOWER

The mall is a one-stop destination offering products ranging from apparels to jewellery and electronics to daily essentials is Situated at Chuchepati in Chabahil. It was designed by the D Architects Consultancy Ar sagun Sthapit.The mall is designed with the futuristic concept. It is 10-storey building which has a business area of around 80,000 sqft, features branded stores and a department store like Namaste nepal mart on the ground floor, clothing stores like reebok, adidas and bag shops ,electronics stores on the first floor, readymade clothes stores on the second and third floors, a gaming zone on the fourth, a food court on the fifth, a multiplex on the sixth, seventh and eighth floors and office space on the ninth and 10th floors.  The mall is air conditioned. KL Tower contains 60 stores and a department store.  The mall also features a food court, multiplex with three screens and a kids play zone. The building is south oriented with the setback of 5m from the side of road. It contain raft foundation of 3ft-4ft below while the commercial building must have used pile foundatin. It contain double basement with the two way ramp of width 19 ft .The basement area contain the separate parking space for bike and cars. In each grid it has capacity of 7 bikes and 2 cars. In total of 600 bikes and 35 cars. The column to column grid distance is 20ft 6 in and the column size is 4in \*19in. To the lower basement the access is through stairs and circular ramp.It contain lift which goes from the upper basement to the 8th floor. The basement area contain CCTV Control room, generators and Guard room. In the East it contain space for parking and there is space underground boring water of 20000 depth .In basement there are circular pillar to ease the circulation of car for turning. Shear wall has been used around the lift for the support. It contain Panaromic lift so that we can go up viewing the surrounging space. The slab thickness is 8 inch. The outside space of the building contain small space for ticket counter of Fcube cinema. The main entrance door is 10 ft long .In the ground floor rental cost is 100 per sq ft. There are use of false ceiling in the interior . In the centre space there is 2 one way escalators one going up and one going down. There are 2 stairs in east and north direction which are around 30 m distance. The Interior space is properly separated as circulation and rental space. It provide proper access for circulation around the mall.The wires are hidden in the walls by using dry walls. The flooring is done with marble and each floor is provided with 24 hrs cctv. The toilet area is near staircase and there is changing room for staff . Each floor contain different colors to give individual identity. There is use of ACP and hard glass to five a commercial look and to create a landmark in that area . Instead of blending in the surrounding it choose to be different and standard . firstly the fire escape was separated but as the problem arose it was enclosed by wall and used as rental space. . It contain tempered glass window in shops for window shopping. There is food court with different stalls with proper sitting arrangement. The main speciality of the mall is the movie theatre i.e Fcube. It is the cinema with cutting edge technology like Dolby 3 ware digital sound system and digital 2k projection view. It contain 3 Halls Q1, Q2, Q3. Q1 and Q2 are same while Q3 is of different pattern in walls and special vibrating effects in seats. The cinema is provided with fire proof doors, acoustic treatment to prevent the echo production .The cinema is provided with carpet and fiber wools in

the wall for thermal insulation. There are 10 speakers and the seat capacity is 196 in the hall. There is emergency exit of 5ft 8 in at the back of the hall.the distance between stage and first row seat is 7 ft. Curve parda is used so that the reflection of light is prevented and better quality of screen resolution is provided. For adjusting the projector room the throw distance, ratio,lens and keystone is maintained. The hall screen is 18ft \*40ft. In the hall RCC structure has been used instead of steel structure. The maintainance check is done in every 6 month. The rest room is provided in the south area with male and female .There are 17 compartments and 2 basin with a long mirror. There are meeting area and office administration area which are separated by aluminium partition in the 9th floor. The upper floor is terrace which is used for storage of water tank. Very beautiful scenaries of mountains can be seen from the top. Daily 8000-10000 water supply is required in the mall.

Instead of being a large structure , it doesn’t contain any expansion joints.

BHATBHATENI

 Bhat-Bhateni has grown from a ‘single shutter’ 120 sq. ft. cold store to become the leading supermarket and departmental store chain in Nepal, and the highest tax payer in the sector since 2008 A.D. with more than 40,000 customers daily. Bhatbhateni offers a full range of 120,000 products from almost 1000 local and international suppliers, including a wide range of groceries, fresh fruits and vegetables; a broad range of leading international liquor, toiletries and cosmetics brands; and an extensive choice of kitchenware, clothing, sports, toys and electrical items. Furthermore, both premises include excellent value Jewellery stores that offer a wide range of gold and silver ornaments in both traditional and modern styles. It is located in  Krishna Galli-Pulchowk and designed by Arniko consultancy in 2011 A.D. The owner of the supermarket is Mr Min Bahadur Gurung.

The building is South oriented with the setback of 9m in the front façade.It contain underground parking space where the grid distance between column is 7500.and the size of column is (60\*60) cm. The basement is used for water tank storage, generator storage , CCTV control centre. There are two stairs one is straight flight and other is open well in the basement . There is also a escalator which is not in operation. The slab thickness is 8inch. In each grid it has capacity to park 2 car and 10 bikes. It contain 2 way ramp of angle 14.11 which is above critical angle. The riser is 170 mm and tread is 320mm containing 9steps in each flight. There is a single service lift which goes from basement to upper floors . In the ground floor in the main façade the left side has been used as food stalls while the right side contain ATM. The main entrance door is 6.96 m. The entrance leads to the corridor space where there is mobile stall, bakery stall, watch shop and a wine shop. The left side leads to the food grocesaries. Flooring is done by tile while the floor height is 3.6m. The wire ducts are carried below the beam and are left exposed, no false ceiling is used. The escalator is placed in the right side while the stair and lift is in the southern part. The first floor is separated for kitchen ware. The floors are all open without partition except the entrance and exit. In the second floor there is clothing while in third floor there is electronics items, the fourth floor is used for furniture items. The toilet is placed in the ground floor outside the building and in the 3rd floor. The fourth floor has been rented to IT office who have taken the floor and above terrace in lease as according to the contract. A very beautiful view can be seen in the terrace.

The building is simple and functional. It has proper circulation space and easy

access . The Exterior of the building is given the commercial look by the use

of ACP cladding in all 3 side except the back side.

MYZEIL SHOPPING MALL

Architects: [Studio Fuksas - Massimiliano and Doriana Fuksas](http://www.fuksas.it/)

Interior Design: Fuksas Design

 Location: [Frankfurt](http://wp.archdaily.com/tag/frankfurt/), Germany

 Period: 2002-2009

  Client: PalaisQuartier GmBH & CO., KG

 Surface:  Built Surface – 77,000 sq.m.,

Facade – 8,500 sq.m., Cover – 13,000 sq.m.

 Engineering:  Structures – Knippers-Helbig Beratende Ingenieur   
cost: 135,000,000 euro

MyZeil is a shopping mall in the center of [Frankfurt](https://en.wikipedia.org/wiki/Frankfurt), Germanyt is part of the[PalaisQuartier](https://en.wikipedia.org/wiki/PalaisQuartier) development, with its main entrance on the [Zeil](https://en.wikipedia.org/wiki/Zeil" \o "Zeil), Frankfurt's main shopping street. It was officially opened on 26 February 2009 by the city.  The sculptural glass facade creates impressive and dynamic spaces within the public atriums, creating a unique environment for a common activity.   The 77,000 square meter structure includes shops, leisure spaces, kids areas, restaurants, fitness center and parking.

The design is inspired by geography and topography.  The facade is conceived as a river that has different depths reaching into the Earth.  The structure is inspired by the historical context of the site.  The fluid shape comes from the connection of the Zeil, the shopping boulevard in the heart of [Frankfurt](http://www.archdaily.com/tag/frankfurt), and the Thurn and Taxis palace.  The two facades on opposite ends of the building are designed to evoke the two distinct senses of the city.  The modern city on the facade running along the Zeil expresses leisure, entertainment and relaxation.  The historic-facing facade maintains a formal appearance. On the side of the Zeil the building has an internalizing quality.  The facade challenges the exterior-interior distinction with a void that is pulled into the atrium of the mall, looking very much like a vortex.  The facade is designed with alternating panels of the [glass](http://www.archdaily.com/tag/glass) and [steel](http://wp.archdaily.com/tag/steel/).  Mostly transparent, it floods all levels of the mall with natural sunlight. The shopping mall is spread over six floors and includes a square and meeting place that also has a fitness area and restaurants.  It is an interior public  plaza that is absorbed into the program of the building. Architectural highlight of the future Mall and Entertainment Center in the city centre of Frankfurt is its amorphous roof landscape which reminds of the formative conception of a Canyon. It covers the complete Building complex .The triangular structure of the roof penetrates the building inside, through light openings, and forms itself finally in the ground floor as a well-lit tunnel.  Inside fluid shaped spaces offer interesting view relations at all levels of the building. The daylight penetrates into the lower floors and creates a daylight-lit ambience.  The fully glazed main facade continues the organically formed steel-glass roof and allows the pedestrians a view through the building into the sky by an inward trumpet formed deformation. A 45m long express-escalator connects the street level directly with a Piazza in the 4th floor containing catering and the accesses to the areas of Fitness, Wellness and Kidsworld above.  The basic idea of the shopping mall is to create a vertical city by physical and visual connections inside the building, an urban shooping street with a new element – verticality.  The building contain glass and steel edifice and sculptural spirals that look like a hyper-modern gallery space or a building from a science-fiction film.  Its spectacular steel and glass façade, particularly the vortex, is the conspicuous feature that draws in potential shoppers and sets it apart as iconic. The Zeil in Frankfurt am Main has been one of Germany’s best known shopping streets for more than 100 years. The MyZeil Mall comes in as well suited addition to the richly esteemed shopping district. The value it has added to its immediate context is befitting and redefines what exactly a shopping district entails. It is a strong example of how shopping centres are being reshaped, not just in Germany but around the world. ‘The mall isn’t a space which is apart from culture and the city any more. It’s at the heart of the modern urban consumer and cultural experience,’ says Lucy Knockton, founder of Concierge de Mode, a boutique travel concierge and fashion service that works throughout Germany and in other countries in Europe. The three most distinct marvels unique to the mall, first starting with its envelope is a glass structure that is curved and partially rotated along its axis, extending in all directions from the 13,000 square metre roof. He says that this design was inspired by a canyon. The glass-metal elements run through the entire building like a river bed, thereby flooding it with daylight. Secondly, MyZeil mall boasts of the longest internal, self-supporting escalator in Germany. Its the longest internal self-supporting escalator in Germany, its definitely the longest in the world. The third and most unique feature on this building is the fact that it looks like it has a vortex in its glass facade. It is incorporated into the design in such an interesting manner. The fully glazed main facade continues the organically formed steel-glass roof and allows the pedestrians a view through the building into the sky by an inward trumpet formed deformation, the perceived vortex. It starts from the elevation of the facade, goes through the main hall and forms itself finally in the ground floor as a well-lit tunnel. The void appeares to pulled into the atrium of the mall as though being sucked by a futuristic space creature. The glass curves appear to create a vortex, a somewhat witty play on the idea of a mall as an empty, soulless and superficial space with all the things that are fashioned to keep your wallet empty. Apart from the fancy form, Fuksas also provided elaborate spaces fit for such a public building. Around 1400 parking lots are available to visitors beneath the building in the town’s largest underground car park.

The two facades on opposite ends of the building are designed to evoke the two distinct senses of the city .The historic-facing facade, though glazed too, maintains a formal rectilinear appearance. The Myzeil Shopping mall is a clear indication that architecture has become part of the shopping experience and the feeling is one of luxury. In this century, the mall is no longer just a building to go pick and pay for what you can afford but to experience and appreciate the treatment of the public space, as well as interact with and interrogate the space.

Difference between shopping mall and supermarket

Malls and supermarkets are two places that are necessary for a community. Malls the place where people go to hang out, shop, eat and just have fun, while supermarkets have their importance as the place the provides food and goods. These two places are related and not related. Malls are huge places that house many stores and activities for people, which can include supermarkets. Malls are traditionally one place where huge supermarkets are also found. On the other hand, supermarkets are not only limited to malls, they can be set up anywhere with a medium to a large space.

Shopping malls are large enclosed spaces that are often characterized with many stores that sell merchandise to the public. Malls can be medium to large in size, depending on the construction and the number of stores that it wants to hold The malls are enclosed and have centralized cooling or heating, depending on the weather and the area where the mall is located. Malls are also car-friendly and are associated with having large parking spaces in an underground parking lot or an adjoining building. The malls The malls have a variety of branded and local based stores. The prices of the stores also vary depending on the type of the store; while branded stores are quite pricy; other smaller stores offer normal prices on merchandise. Malls are also associated with having food courts, movie theatres, play area and many other attractions to draw in the public. A few malls, such as the Mall of America in Bloomington, Minnesota, have also housed an amusement park inside to mall itself. Malls are quite large and require a lot of time to try and visit every store. They have elevators, escalators, stairs and walkways to help the public get around from one place to another. Another feature of the mall is that they cannot conduct sales online, they must have a proper outlet; though they can have their own websites that state .

Supermarkets are large self-service grocery stores that offer customers a variety of foods and household supplies. The merchandise is organized into an organized aisle format, where each aisle is numbered or labeled and has only similar goods placed together. The supermarket houses fresh foods, poultry as well as canned and boxed goods.  Supermarkets are quite larger compared to traditional grocery stores, where people are available behind the counter to provide the consumer with goods and the consumer stands in front of the counter asking for the goods.Supermarkets have a special format where it allows consumers to pass through aisles using shopping carts or baskets and pick up whatever they require. Although, the early supermarkets did not house fresh grocery or meat, modern supermarkets have meats, poultry, bread, dairy products and fresh fruits and vegetables. In addition to fresh and canned food, supermarkets also keep household products such as cleaning supplies, baby goods, pet needs, medicine, kitchen appliances, crockery, etc. Supermarkets offer low prices and many deals or discounts on their products to attract consumers. Some even operate on negative profit margins sometimes to bring in customers. Supermarkets usually receive goods and merchandise in bulk from either manufacturers or large distributors in order to avail economies of scale. The profit margin is usually very small and the discounts are forwarded to the customers. Supermarkets may also be part of a huge chain system and may be closer to other supermarkets. Supermarkets closer together can save even more on costs by sharing distributors and slashing their transportation costs. Supermarkets are usually one-level brick and mortar store but may also include two floors depending on the amount of supplies that are kept.

The concept of an inexpensive food market that relies on discounts based on economies of scale was developed by Vincent Astor, who founded the Astor Market in 1915 but failed to be able to make a successful venture and shuttered it in 1917. The store become a financial success and become a franchise. Slowly, the concept started becoming popular all over the world, with many developed countries establishing their own self-service grocery stores. In the developing countries, self-service grocery stores are a recent phenomenon and have received only gained popularity in the last decade or so.Supermarkets have also started offering ready-to-eat foods as a way to provide the customer to shop as well as eat at the same time. Some supermarkets may also have banks, ATMs, coffee bar, juice bar and anything else that may attract customers. upcoming events, the number of stores or a list of the stores they have, etc.also have many different stores that sell many different kinds of merchandise, including food, jewelry, clothes, specialized stores, watches, etc.