SHEIKH KAMAL INTERNATIONAL CRICKET STADIUM

Adaptation with the Tourist's City, Cox's Bazar



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Abstract

In the last couple of decades due to continuous success of Bangladesh cricket team, peoples' fascination about cricket has been booming rapidly. The infrastructure necessary for the growth and development of cricket has been building up gradually, and with the enormous success of the Bengal tigers the demand for a better infrastructure is also increasing. Moreover within these past 2-3 decades, Bangladesh received worldwide exposure for its passionate fans and a colorful cricketing culture.

There has been a massive progress in several stadiums of our country in the receding couple of decades. Approximately 6-7 stadiums have achieved the minimum requirements to host international matches. But the capacity of these stadiums is not sufficient. According to one of the senior managers of BCB (Bangladesh Cricket Board), in Dhaka there are more than 2 lak spectators who are avid fans of international matches; however the capacity is only 25,000! Therefore under current circumstances these stadiums are not satisfactory for Bangladesh. Moreover Cox's Bazar is Bangladesh's most popular tourist destination as it is the world's longest stretch of sandy beach. It has the abundance of space that is needed to accommodate an international hub for sports. And so forth there will come a time when even a small country like Bangladesh can organize world cup and similar events as a single host.

So this project has a great opportunity to increase Bangladesh's tourism.

Keyword: Cricket, stadium, cox's bazar, Sea beach, urban, sampan, sea boat, fishing boat, sheikh kamal.

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CHAPTER 01: INTRODUCTION

Sports and stadium has a relationship of showcasing the heroic essence of the player. However after the first modern stadium appeared in Victorian Britain stadium has evolved into one of the great public building forms of the 12th century as an essential element of civic life. (John, sheaard-2007)

The stadium is sometime only dedicated for a focus community or sometimes it can be the national or international pride. Stadium is not always a place of performance sometimes it can hold the mass people for leisure or other entertainment. As a civic space it also promotes certain commercial activity around it. As a huge structure it can even ensure different stages of connectivity in people.

1.1 BACKGROUND OF THE PROJECT

We have passed more than 4 decade as a free nation. In these years we had lots of ups and down and great development in every sector. However after liberation war there were very few things which actually promoted by the entire population. There are very few things that can promote the nation towards the global audience.

Within the small country we have the longest sea beach of the world, we have the largest mangrove forest, and we have hundreds of historical site which showcase the glorious history of this subcontinent. So our government felt the necessity to increase tourist exposure towards our country and for that 2016 is declared as tourist year.

Cricket in Bangladesh is growing in a slow but steady rate. The catalysts that took Bangladesh into the world level were the winning of the ICC trophy in 1997, winning a world cup match against Pakistan in 1999 world cup, getting the test status in 2000, and finally successfully hosting the world cup cricket in 2011. Bangladesh has proven its potential of being a future super power of cricket in the not so distant future. The 2014 T20 cricket world cup is also going to be held in Bangladesh.

Currently Bangladesh has more or less 5 stadiums that have hosted one day international cricket matches. But the facilities in those stadiums, (except Mirpur Sher E Bangla Stadium) are not up to the mark, thus not giving those stadiums the recognition of being a test venue. The Bangladesh Cricket Board (BCB), in collaboration with the Government has taken steps to increase the number of international standard cricket stadiums, and have strategically proposed 2 new stadium sites, one at Purbachal, Gazipur, and the other at Cox's Bazar.

1.2 PRESENT STADIUM OF BANGLADESH

With adaptive facility of International matches following stadiums have the potential to host international matches. BCB believes that if this public interest for cricket sustains one day Bangladesh will host a world cup as a single host and this is the high time to be prepared for that. For that reason the capacity of this stadium is declared 1 lak to create an icon.

Shere Bangla National Stadium	Mirpur, Dhaka Capacity 25,000 Floodlights Yes
MA Aziz Stadium	Chittagong, Bangladesh Capacity 30,000 Floodlights Yes
Zahur Ahmed Chowdhury Stadium	Chittagong, Bangladesh Capacity 22,000 Floodlights Yes,
Sylhet International Cricket Stadium	Sylhet, Bangladesh Capacity 13,533 Floodlights Yes,
Sheikh Abu Naser Stadium	Khulna, Bangladesh Capacity 15,000 Floodlights Yes,
Shaheed Chandu Stadium	Bogra, Bangladesh Capacity 15,000 Floodlights Yes,
Khan Shaheb Osman Ali Stadium	Fatullah, Narayanganj , Bangladesh Capacity 25,000 Floodlights Yes,

1.3 OBJECTIVES OF THE PROJECT

The stadium will have a great impact on countries cricket fascination and tourism.

Functionally the stadium will help create a new test cricket venue at a very promising location. Because of the huge capacity the stadium will hold huge crowd which will be a positive point to ensure big cricket matches in our country.

The multi-purpose usage of the project will help to develop the coastal area as a whole.

As a major tourist attraction revenues from tourism will tend to rise and increase due to the establishment of an international sports facility.

An iconic value will be added to the area where the proposed stadium will be built. People's interest will increase about tourism. An urban platform will be created which can house various native cultural festivities.

Lastly a stable structure as the stadium could act as a shelter for refugees in situations of natural calamity

1.4 Client

The owner of the project is Bangladesh cricket board, BCB. They want to develop an international standard cricket stadium and eventually a cricket academy in cox's bazar.

CHAPTER 02: SITE APPRAISAL

2.1 Site

The proposed site is 33.5 acres of land beside Laboni beach, in the main town of Cox's Bazar. The site is located just beside the sea beach on the west and a flat sandy landscape on the eastern side. The land was owned by the civil aviation authority of the Peoples' Republic of Bangladesh. This land was gifted to BCB 13 years back to develop a international level stadium. First they thought about a stadium of 40 thousands capacity but afterwards they are incising the number to 1 lak due to public interest.

2.2 Site surroundings

The site is located adjacent to the major tourist point of coxs bazar. Beside labony beach a walk around 48 acres of land is allocated for the stadium.



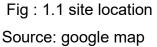




Fig: 1.2 site image Source: Argha saha

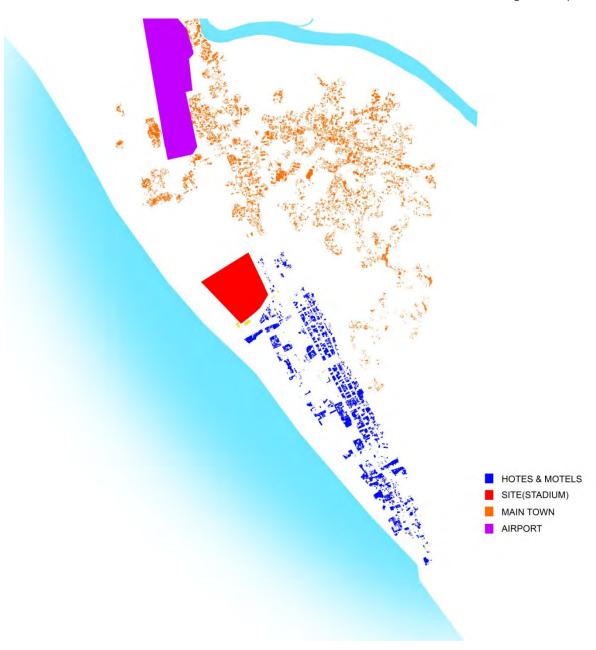


Fig: 1.3 building type

Source :argha

2.3 Connecting roads

The allocated site is surrounded by road in south and east side, and the sea is in the west side. There are lots of high standard hotels in eastern area of the site.

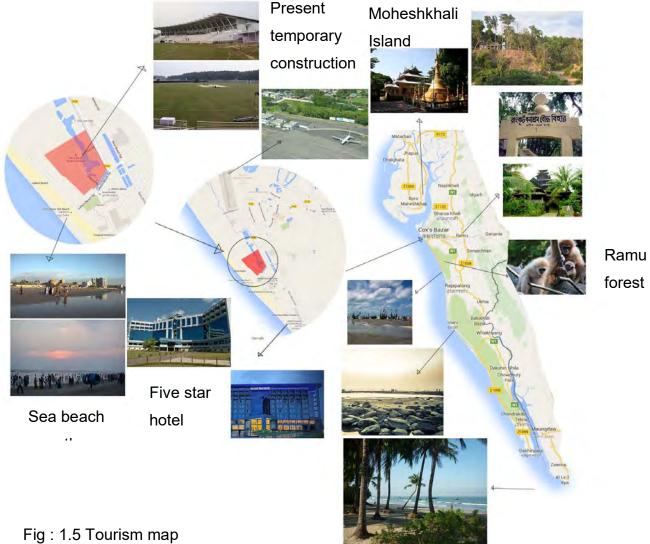


Fig: 1.4 connecting roads

Source argha

2.4 Tourist interest near site

There are several tourist spot surrounding the site. So the major stadium will also push the people towards that natural and man-manmade lifestyle. As the location is exactly beside the sea, while international match's cox's bazar will have a global exposure as well as the adjacent tourism sites will be more live and economically vibrant.



Source: National Tourism Organization

2.3 Topography

Topographically the land is fully flat. The ground level is about 30'-35' high from the sea level. There is some natural water body within the site. As the site is adjacent to the sea beach, sand content is higher in the soil. However at present the whole ground is grown with nice and soft grass, which is appropriate for the play.

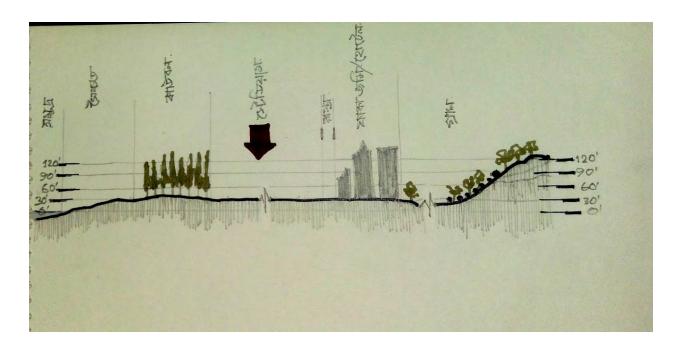
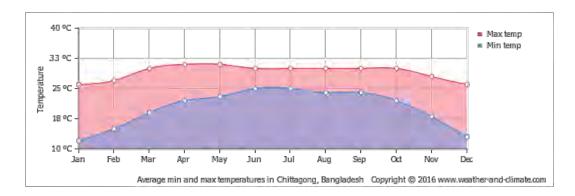


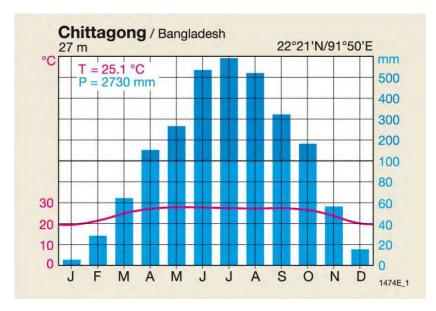
Fig: 1.6 site section

Source: Argha saha

2.4 Climate

Due to huge water body the humidity is a bit higher. Graph 3.1, this graph shows the max and minimum temperature of the area all over the year.





Graph 3.2 shows the amount of rainfall in the area with the comparison of average temperature

Fig: 1.7 climate condition yearly

2.5 Social background

The main earning source of this locality is highly dependable on the sea. There are a huge number of people connected to fishing and tool making of fishing. Another portion of people are earning by dry fish. There is another major occupancy in Sault production. However as the tourist presence increases lots of the people is making their life by providing facilities and a new way of life is introducing.



Fig: 2.1 fishing Source: afzal



Fig: 2.2 salt field Source: afzal



Fig: 2.3 snail shell joulary



Fig: 2.4 dried fish worker

2.6 SWOT Analysis

2.6.1 Strength

- · Good soil content for creating play area
- Site is adjoining the main road
- Enough land for accommodating all facilities
- Easy transportation
- Excellent scenic beauty

2.6.2 Weakness

- Too near to the city
- Inside city

2.6.3 Opportunity

- Scope for extending centralized tourist attraction in Cox's Bazar
- Nucleus for new development
- Platform for display of tribal festivity
- Proper usage of existing scenic beauty in new masterplan
- Using natural resources (wind, sun, rain) to create energy efficiency

2.6.4 Threat

- Danger to natural settings
- Security

CHAPTER 03: LITERATURE REVIEW

The term cricket is variously thought to be derived from the target aimed at and the implement used to defend it. In the former case it is argued that the word is related to german words which mean something related to the wickets. Others believe the word has an English origin. (Farbrother, 2001) The game had started off in England, so the inception of the word is more probable to be coming from an English background.

Cricket in Bangladesh and Bangladeshi cricket are two totally different entities. The first is a thriving, throbbing, vibrant passion with a people that only came into existence in 1947 as part of East Pakistan following India's bloody partition, and then became an independent nation in 1971 following another bloody war. But if cricket is just a sport, and is to be evaluated as just that, Bangladesh is where it's at. The nation lived, breathed and slept football until some years back, but today, a politically and socially divided set of people come together as one in the name of the game, even if the team it supports does close to nothing in the international arena. Cricketers who would struggle to make a reserve side in an English county are feted as national heroes, their every move is followed and people wait for judgment day – the day Bangladesh as a cricketplaying nation will rub shoulders with the best in the business. And the past – well, it's quite a story! A story that could well serve as the plot for a thriller, with high drama, Eisenstein-like protests, glorious moments, accidents that shook the world and, above all, a socio-cultural milieu that needs to be understood and comprehended.

3.1 CRICKET FIELD ELEMENTS

The entire field has to be covered by grass and the play area should be marked. The 'pitch' is marked with comparatively harder and grass less ground in the central area with stamps in opposite sides. (Steven Lynch, Wisden 2006, p 100).

The area of ground between two sets of stumps is called a cricket pitch. It has length of 22 yards. The surface of the pitch is made up of clay. It is the main play area of cricket where the batsman stands. (Geraint John, Rod Sheard and Ben Vickery, STADIA, 2007)

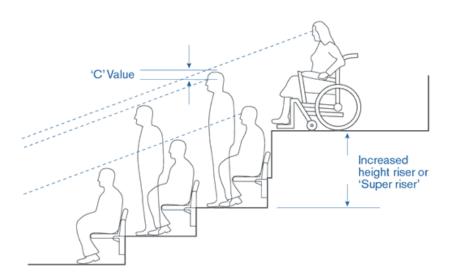
The cricket pitch orientation is extremely important because the game cannot be played across the direction of the wind. In order to play along the wind direction, the pith is oriented in the north-south direction, with a maximum deviation up to 15 degrees.

A device used for displaying a concurrent record of the score of the game which will be visible to both players and spectators. In the early days of cricket, before the introduction of scoreboards, it was traditional for the scorers to stand up when the scores of the two sides drew level, as an indication to players and spectators that the batting side needed only one run to win. Scoreboards: originally known as 'telegraph boards', began to appear at the major grounds in the mid- nineteenth century.

A movable structure with a large flat surface typically made of slatted wood but occasionally of other materials such as canvas, which is placed just outside the boundary directly behind either of the wickets in order to assist the batsman by enhancing the visibility of the bowled ball. Sightscreens are traditionally white, but black sightscreens are used for day-night games played with white balls. Some modern sightscreens have surfaces that can be changed between over's, showing advertisements when the bowler is opening from the other end. (Geraint John, Rod Sheard and Ben Vickery, STADIA,2007)

Either of the two (or four in case of international matches) whose function is to ensure that a cricket matches is conducted in accordance of the laws and spirit of the game or to adjudicate on any point submitted to them by the players. There are usually two on field umpires, a third umpire (TV umpire) and a fourth or reserve umpire in case of emergency.

Seating view should be ensured in every possible situation.



Note: Designers should consider potential problems for other spectators when viewing from the sides and at high levels

For reasons of clarity, all handrails have been omitted from the diagrams

Toilets and other ablutionary facilities may be needed for several individual types of stadium users in addition to those for the mass spectators. These facilities should be thought of if in conjunction with spectator toilets so as to minimize the number of sanitary appliances and drainage stacks in the stadium while still making adequate provision for all types of users. (Farbrother, 2001)

Facilities for media are an integral part of stadium design, not least because of the large sums of money that are now-a-days entered from the media rights for sporting events.

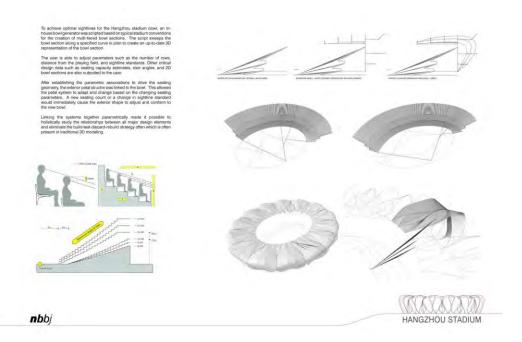
These facilities involve the three main categories of public information and entertainment services- the press (including newspapers and magazines), radio and television. Clubs may also have their own media requirements club TV and websites.

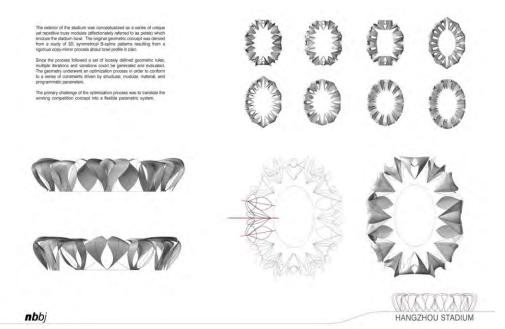
(Geraint John, Rod Sheard and Ben Vickery, STADIA, 2007)

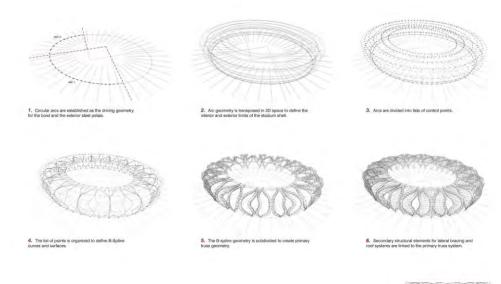
The entry and exit timing has to be strictly controlled so that the spectators and all other people can be evacuated from the stadium within a limited given time. The standard timing for emergency exit to safety zones, i.e the ground level opening is a maximum of 8 minutes. This measurement is made from the basic walking velocities of the people through various modes of circulations such as horizontal and vertical circulation. This velocity, together with the unit width of the exit routes are calculated to form the efficient circulation system where the evacuation time of maximum 8 minutes is designed.

CHAPTER 4: Case study

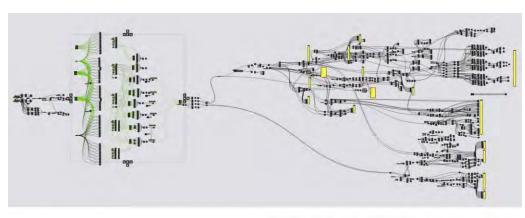
4.1 HANGZHOU STADIUM







HANGZHOU STADIUM **nb**bj















nbbj

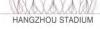




Fig: 4.1hangzou stadium

Source : arcdaily

4.2 Shere Bangla National Cricket Stadium, Mirpur, Dhaka, Bangladesh

The Sere Bangla National Cricket Stadium is named after AK Fazlul Haque, one of the country's most renowned leaders and freedom fighter in the 1940's. The stadium is situated 10 kilometers outside the center of Dhaka. This stadium was not built for cricket. It was for soccer field and other athletic as made was rectangular in shape. Later on it was successfully converted to the country's one of the major cricket stadium and main office of BCB.



Fig: 4.2 3d render

Source: BCB

4.3 Structure

The stadium is made of typical concrete structure. They will go for the high tech looks for VIP gallery covers. This will be made of some type of poly-carbonate sheets, suspended from steel cables. The whole player's viewing area, media center, VIPs gallery president suite will be double layered glass and fully air conditioned.



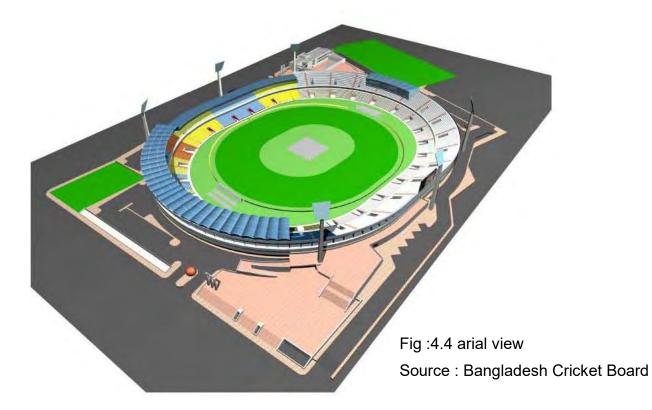
Fig: 4.3 inside gallery

Source: BCB



Fig: 4.4 VIP gallery plan

Source: BCB



CHAPTER 5: PROGRAMME DEVELOPMENT

5.1 International Cricket Stadium Required Area (regarding context)

Play area (Ground area for Cricket)	71518-138545 sft
[Taking a circle of 46 meter radius minimum	
i.e. 151' as standard or # 210' maximum]	
Gallery space(100,000 Spectators)	450,000 sft
Space occupied /person is 3'-0M x 1'-6" = 4.5	
sft (Including circulation area)	
Total area needed for 100,000 spectators	
(330 weel chair gallery)	
Ticket Room (40 Nos.) approximate	10,000 sft
Public toilet 600 male + 400 female	30,000 sft
approximate	
40% added circulation as a rough	
estimate	
40% circulation	200,000 sft

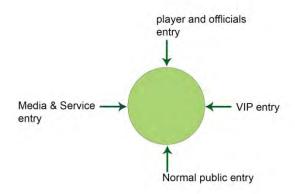
Pavilion Building Adjoined with Gallery	
player lounge (25x2) x 15 sft	750 sft
player lourige (25x2) x 15 Sit	750 Sit
umpires + other officials' (10 x 2) x 15 sft	300 sft
Store	250 sft
dressing room + lockers (25 x2) x 20 sft	1,000 sft
Shower room	450 sft
Shower room	400 Sit
Toweling room	450 sft
Toilet	400 sft
Medical examination room	300 sft
x-Ray room	300 sft
Resident Doctors room	200 sft
40 % Circulation	1,740 sft
40 70 Girculation	1,740 Sit
	6,100 sft
VIP FACILITIES	

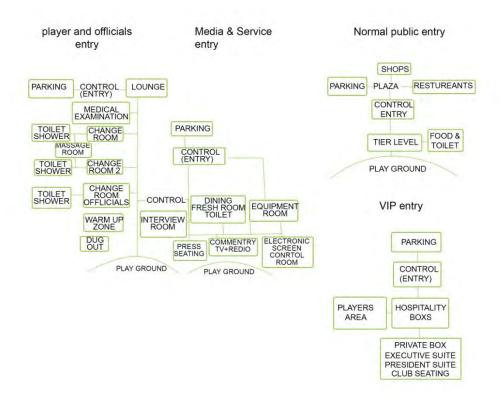
Private box (100 nos) 300 sft per box	30,000 sft
Total private box 100 (300 x 100)	
(including toilet)	
Restaurant	2,600 sft
Kitchen	600 sft
Toilets 10nos (6 men + 4 woman)	12,500 sft
Executive suites (16 nose)	
Total Executive suites 25 (500 x 25)	
President suites (10 nose) 500 sft	5,000 sft
Total president suites _ 10 (500 x 10)	
Restaurants overlooking the pitch	5,000 sft
(200 nose)	
Kitchen	800 sft
	3800
Media	
Written Press seats 150 nose x 6 sft	900 sft
TV	
commentary room including phone /fax /telex	4,000 sft
facilities /internet	
(at least 4 booth holding 50 person)	
(mechanical / Electrical room) (500 x 4)	2,000 sft
Radio commentary room including phone /fax	1,600 sft
/telex facilities /internet	

(at least 2 booth holding 30 person)	
Interview room 2 nose (600 x2)	1,200 sft
Restaurant	2,600 sft
Kitchen	600 sft
Toilet	400 sft
	13,300 sft
Service Room	
Video electronic screen control room	1,200 sft
Ground man Room	800 sft
Equipment Room	1,500 sft
Generator Room	2,000 sft
	5,500
Stadium administration	
President's room	200 sft
Gs Room	200 sft
Staff room	500 sft
Meeting room	200 sft

Waiting room	1,500 sft	
Event organizer Room	300 sft	
Decad Decad	000 -#	
Board Room	200 sft	
Stadium Control room	500 sft	
Computer/ record archive	500 sft	
Toilet (2 nos)	400 sft	
Parking		
raikiig		
10 large equipment car		
17000 car approximate		
800 bus parking		

5.2 MAZOR FUNCTIONAL LAYOUT AND RELATION

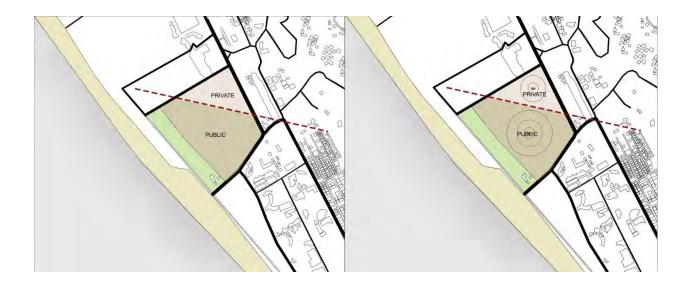


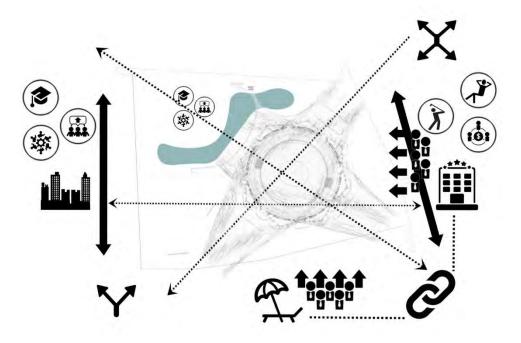


CHAPTER 6: DESIGN DEVELOPMENT

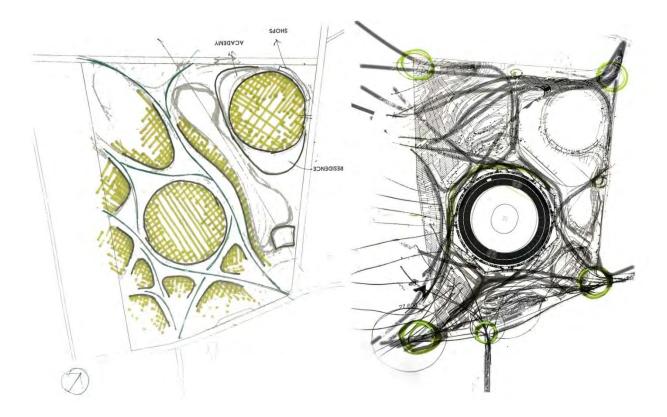
6.1 Concept, inspiration and form generation

As the site is located beside the beach and adjacent to the Laboni point(a major node marked in the coxes bazar sea beach) a huge number of tourist is expected. According to parjatan corporation report in a season coxs bazar accommodates more or less 15 lak tourist from Bangladesh and abroad. So the main design concern was focused on the tourist facility which further developed to an interactive platform for local and tourist.

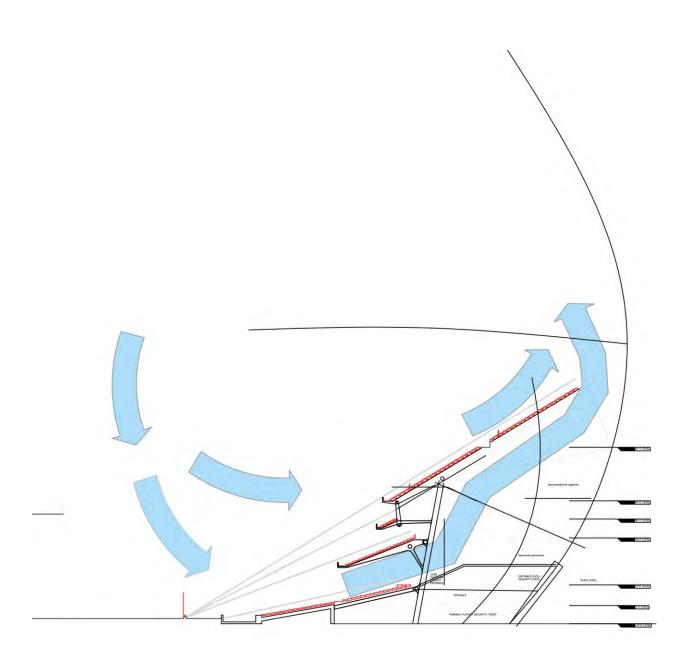


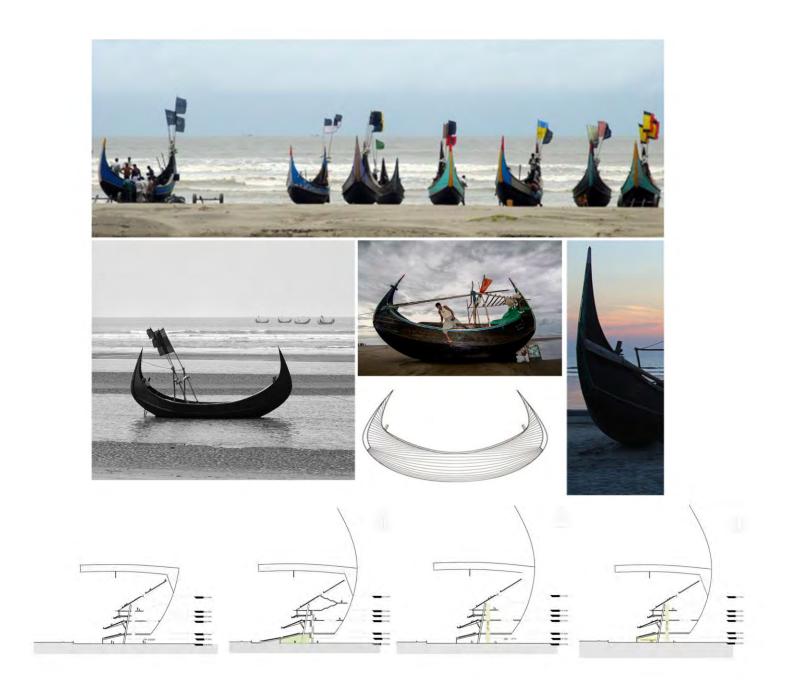


Site context



Landscape and form placement according to human movement

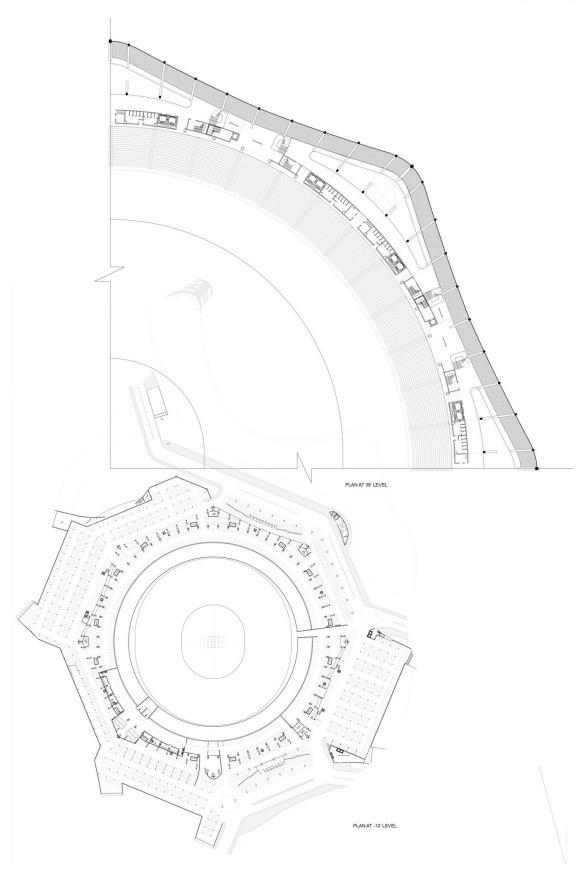


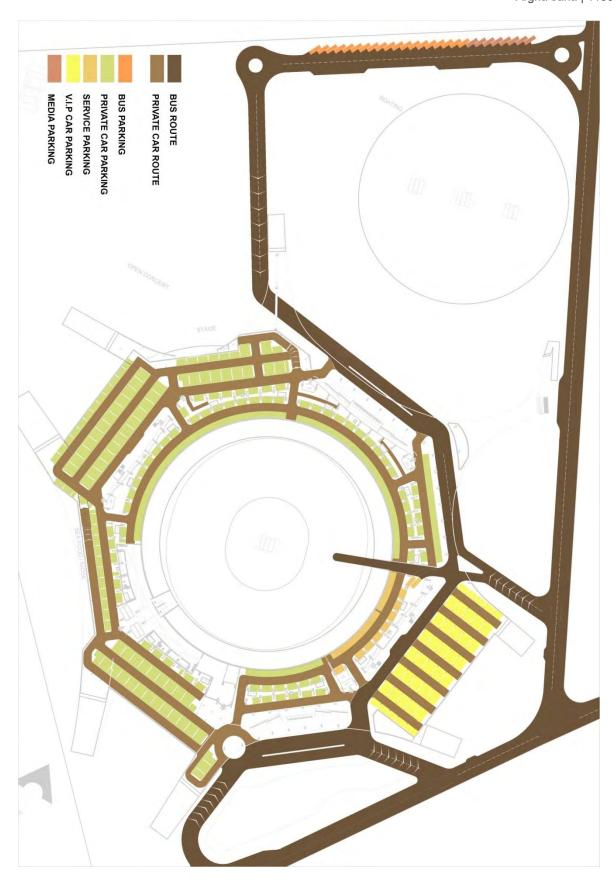


6.2 Final design



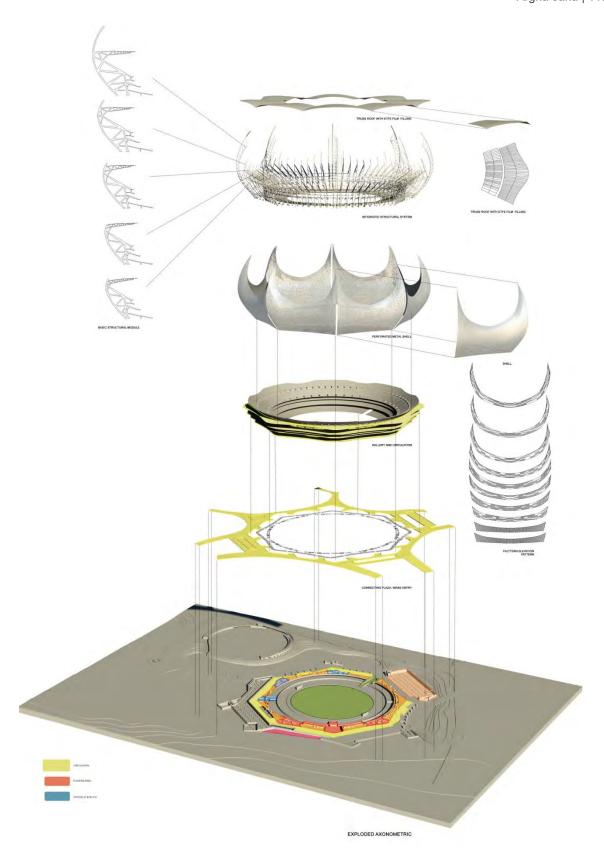








ELEVATION









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