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TRIPOLI BUS TERMINAL

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CHOICE OF SUBJECT

A - Before World War No. II, most of our transport between our main towns was made in small cars taking four to six passengers per trip. Though our cost of living was low, this way of travelling was comparatively expensive. Busses used on a very small scale, were considered by the average people as an objectionable way of travelling. This is for the following reasons:

1. The bad quality of engines used.
2. The dirty and unmaintained cars on the road.
3. The unorganised way with which busses used to leave or enter business centers, and the delay on the way caused by stopping at every place either to pick passengers up, or to unload them.

All the above mentioned reasons confined the bus service to the very poor, or to the very stingy class; which was another reason of unorganisation on one side, and of repulsion on the other.

During wartime, due to the scarcity of petrol and rubber, the majority of small car drivers were obliged either to stop their cars, or to content themselves with small trips working as taxis inside the cities, or going a short

distance only outside the city. The remaining small cars which could still travel between cities and towns, increased the fares as high as ten to twenty times the pre-war tariff, and were above all unable to provide for the demand. In these conditions, people found themselves obliged to travel in busses though they were still dirty, unefficient, and unorganised. On the other hand bus owners, seeing the rush and the big demand, bought more and more busses; others also, though strangers at first to the profession, started to own busses and competition began. It is then that we saw a vague organisation of transport service outlining itself.

And now, as the war is over, and as the country is having its independence, I saw that this important factor in the economical body of the nation, TRANSPORT, need to be well organised.

B - If in a country like ours, which is mostly and essentially a country of tourism and estivage, the roads are considered to be an important factor, I believe that the means of moving over these roads and the use of them is still more important.

C - In a small country like ours, where distances are short for airplane journeys, and where mountains are a great handicap to trains, the bus is definitely the most efficient means of travelling, if its service is properly organised.

D - The saving of public money is tremendous when we consider that the difference in cost for a journey from Tripoli to Beirut, or vice versa, is about four Lebanese Pounds per passenger on an eighty kilometer distance. At a daily average of thirty busses leaving from Beirut to Tripoli, each taking an average of twenty passengers we see that if these people were to travel the same distance in small cars, a waste of about two thousand five hundred Lebanese Pounds would have happened daily, thus losing the public money.

This consideration was made on one line only and in one direction. While extended to the whole of the country, we find that the saving is enormous.

E - Cars are all made outside this country. Import means in general that money is going outside the country. Therefore the number of cars in the country should

not be encouraged to increase. By the use of busses small cars will come to a minimum, thus preventing the country from losing a good amount of its wealth.

For the already mentioned reasons, and seeing that now, with this kind of commerce still flowering, and still to grow, it is the time for it to be organised, I decided to work on a BUS TERMINAL, endeavouring in this respect to render a service to the public of my Country.

CHOICE OF THE LOCATION

I have chosen TRIPOLI to be the place of my project for the following reasons :

1 . A personal reason; being that Tripoli is the nearest big town to my home village, and it is there where I expect to be practicing my profession as engineer.

2 . Due to the terminus of the I.P.C. pipeline, and to the existence of the oil refinery, and in view of the

many economical projects attached to them, and which are expected to take place in Tripoli, I believe that it is the town with the best future in this country.

3 . Even now Tripoli is the second largest town in the country.

4 . The access to the interior part of Syria, and to the Lebanese and Syrian coast, is direct and easy from Tripoli. This makes it a good center to suit a Bus Terminal.

With all the above stated reasons, I felt that this town, TRIPOLI , needs a modern bus terminal to help in its becoming a good commercial center.

CHOICE OF THE SITE

The bus terminal should for many purposes and thus the choice of a proper place to serve as a site needs many considerations :

1 . In general and to have good business, the bus terminal has to be situated as near as possible from the business heart of the town. Or at least it should be built in a place with easy and cheap connections to the main center of the agglomeration in question, as by

a tramway service or by a local bus service. In Tripoli, ~~this~~ this condition is not very difficult to be realised as the town is still small, and as the business main center is concentrated. In any way the future developement of the city must be taken into consideration. Sometimes if the city is expected to develop in a particular direction, the terminal should be built in such a place as to remain in the future in a good commercial center.

From this point of view the construction of a bus terminal in a town like Tripoli has its advantages when we consider that one day it will be situated in the heart of the city; though in the time being it is not exactly in the main business center. Such a condition will be very difficult to obtain in an already developed city like Beirut, without a big investment of capital.

2 . The bus terminal dealing mostly with the transportation of people and material between towns, it must, on the other hand, be connected to the main highways leading to these important towns and districts. When possible, it better be connected or directly situated on the main focus of these highway lines.

This condition if realised, saves time and money and facilitates for the travellers their business, and thus attracts them.

3 . In case an aerodrome, or an important railway station are in the same town, the terminal must have an easy connection to them, or better be as near to them as possible.

In the case of Tripoli, no aerodrome exists in the city itself or especially for the city. The one in Kleiat is at forty kilometers from Tripoli, and is by no means of any use to the city as yet. As for the railway station, Tripoli has two of them. To my estimate they are both as important to the city as any other commercial center. The one to the north is the old Orient Express terminal. Now it is connected to Beirut & Haiffa by the new line built during this war.

Taking these points into consideration, I found that the best place where I can locate my bus terminal will be in the following site :

The new Tripoli Boulevard is being built to serve as an entrance to the town from the Beirut side. This cuts the first street in Tripoli at a right angle nearly. To the west of the Boulevard, and the south of the minor street called :

It is there where I ~~chosed~~ to locate the building for my BUS TERMINAL.

ESSENTIALS IN A BUS TERMINAL

The elements which constitute such a structure are not quite definite, as the problem is not a mathematical one.

The site, the neighbouring commercial institutes, the needs of the town itself, and all the similiar conditions, as well as the taste and the wish of the owner, all these determine the different parts that a bus terminal must have.

However I have divided the elements constituting the structure into two main divisions :

1 . Essentials in a bus terminal. They come under this topic.

2 . Accessories in a bus terminal. These will be stated immediately after.

Therefore the essentials in a bus terminal are :

1 . Parking Area

In a parking area, at least, one bus should be able to stay as a substitute for every leaving one.

2 . Waiting Rooms

For the people of this country, due to the custom, and especially in Tripoli, we should think of two waiting rooms: one for ladies, and one for gentlemen.

3 . Toilet Rooms

These must consist of separate rooms for ladies and for gentlemen. Every part of the building will have its own utility wing.

4 . "Guichets"

Guichets is the usually used French word for ticket benches. Here the selling should be well organised and we will have a window for every direction.

5 . Luggage Store

This is the place where personal affairs can be handed in if necessary and delivered back where required.

6 . Telephones

Telephones are becoming more and more necessary for the commercial life as well as for everybody's current life.

I consider these six elements as the most essential in any bus terminal. They nearly exist in every one of the present existing terminals in Beirut and Tripoli, but in a bad state of organisation.

In the following, I am going to mention what seems to be according to my consideration, an essential part in a modern terminal. The necessity for these parts may not seem justified to some, but experience proves that only a well planned and a well organised enterprise may reach a good success.

1. Managing Departement

Managing departement should contain the following :

- a._ Manager's Office
- b._ Manager's Secretary Office
- c._ Clerks' Office
- d._ Cashier's and Auditor's Office.
- e._ A Waiting Room For Visitors
- f._ Information Office.

2. Employees Quarters

These contain the following rooms :

- a._ Infirmary
- b._ Rest Rooms
- c._ Lockers Room
- d._ Toilet and Showers

3 . Repairs Section

Containing the following:

- a._ Maintenance Shop
- b._ Petrol Oil And Lubricant Shop
- c._ Machine parts Store.

ACCESSORIES TO A BUS TERMINAL

I called accessories to the terminal, all that which is not in direct connection with the bus service. But those in -

cluded hereinafter are nevertheless essential for the running of the enterprise and for the facility of the service. They are, when considered from a commercial point of view, as profitable for the owner as the terminal itself. This, without considering the mutual help that these small enterprises give and take, with the main enterprise, namely, the terminal.

The following are these auxiliary or accessory elements of the terminal :

1 . Restaurant

A restaurant presupposes the following:

- a.- Main Hall
- b.- Kitchen
- c.- Pantry
- d.- Store
- e.- Toilet

2 . Shops

The number and importance of the shops depends on the locality and the amount of rent. Here I considered only shops necessary for the terminal or for the clients of the terminal.

- a.- Barber Shop
- b.- Beauty Shop For Ladies.
- c.- Cigarettes and Newspaper Shop
- d.- Sanwich and Sweets Shop
- e.- Bar
- f.- Boot Polish Shop

These parts are considered here as important for the following reasons:

1. The shops and restaurant are generally let. The rent is a good income for the owner of the terminal.
2. If they are run by the company of the terminal, they are the best paying trades and they make good profit.
3. They attract people in case the terminal is not well known. Once the work goes on they will depend on the passengers for their business.
4. They are a facility, because they provide for the urgent needs of the passengers. Moreover they are a good pass-time for those who should wait for their turn.

GENERAL ARRANGEMENT OF THE STRUCTURE

The Site

The location of the site was mentioned before on page 5. General considerations were discussed as to the choice of the lot of the land. Here I will show the advantages of the site that I chosed.

1. The land at the mentioned place is not very expensive compared to what the land in a similiar site in Beirut would cost. In fact the square metre is sold these days at about LL 100 to at most 150 LL. The cost of the lot is therefore not a big investement. Two hundred thousand pounds are enough to buy such a lot.

2. This lot is still empty and it may be purchased.

3. This is not yet the heart of the town , but it is on-ly about five hundred metres from the biggest business center of Tripoli, the Tell street.

4. Tripoli is developping to the south and south-west. In the near future this lot will be in the heart of the town.

5. The same avenue which is the beginning of the road to Beirut, joins at the Tell street near the Roxy cinema, the

the road to the north leading to the I.P.C. Terminal Pipe line, and from there to the road leading to Homs, Hama & Aleppo. A branch follows the coast leading to Lattaquieh, and Tartus.

The same road to Beirut branches at the end of Tripoli and at not more than two kilometres from this lot, up the mountain where all the summer centers are, and finishes in the Cedars. It shows that this lot is connected to all the main roads and highways, either directly or by wide streets.

6. From the way the town is developing, it seems that the business district of Tripoli is shifting southwest towards this area. Already many industrial and commercial installations, namely : Arida factory, Mufarrig and co. etc... are already established to the south near the road Tripoli-Beirut. It seems then that this place is going to be surrounded by industrial and commercial areas which it is meant to serve.

This is for as far as the site is concerned. Now every part of the structure will be taken and discussed separately

The Building

The plan was designed for a two street crossing so that it will suit the lot. It has two façades one giving to each street. This L - shaped arrangement left behind the parking area which will hold all the busses of the terminal, thus preventing any vehicles from stopping in the street, as it is now the case in all the bus garages of Beirut and all other cities. When a parking is provided, the traffic will not be jammed any more.

The different parts of the building will now be discussed in turn and separately:

1.- MAIN ENTRANCE

The main facade of the building is of course towards the two main streets. The back of the building gives to the parking area, It contains stores, toilet, access to the employees quarters, etc..

The main entrance is in the middle of the main façades and just at the crossing of the two streets. This is the entrance of the passengers and it gives directly to the general waiting room. It is 2.50 metres net width, to the outside it opens radially leaving a gross opening of 3.25 metres thus giving the idea of an even more spacious opening.

This extra thickness of the walls may be used to conceal the columns on both sides whenever it is necessary.

The wall was bent there to suit the street corner. A curve here is smoother to the eye. A corner would have appeared rough. Also two would have been necessary in that case which is objectionable.

2.- GENERAL WAITING ROOM AND CONNECTIONS

a - Ticket Benches

On both sides of the main entrance in the main hall are the guichets of ticket benches. These benches are to have glass and iron fence all around. They are 110 cms. high, so as to be used by an average man standing. The fence will be 60 cms high, so that the total of 170 cms. is sufficient to be a curtain to a man standing in front of the ticket window.

Openings are to be left at 100 cms. intervals, thus leaving enough space for one man to stand to the window without touching another. The window will be forty cms. wide.

The bench is forty cms between the fence and the man selling the tickets, leaving enough space for him to write on his ticket pad.

A twenty cms. rim of the bench is left for the man in front of the window to lean upon it, so that he will not push against the glass fence.

I chosed ~~the~~ the open rooms for tickets because they are better for the man serving in selling. They look nicer and are more attractive, they take less space and cost less.

Under the benches, closets are accomodated to take the ticket pads, pencils and any other necessary articles.

No rails are put in front of the ticket windows in the hope that people will get used to the discipline without imposing it to them. In this way space and unnecessary expence will be saved.

b - Waiting Area.

The waiting area is blocked in the middle purposely for the following reasons :

1 - The walls which are occupied by different purposes; like the information, luggage room, ticket benches, etc... can be more freely used. In fact a space of three metres was left free all around to be used by people for the different needs.

2 - The area in the middle of the general waiting room can be usefully used by the seats. For this purpose back to back seats were used which economical to manufacture and take less space. They are to be made with pipe frames and leather bottoms. they remain clean, are durable and possess an attractive look.

Leaving between two benches a clearance of sixty cms. eighty persons can be confortably accomodated.

3 . The central part of the room being blocked, there will be no rush and the way will be divided into a one way traffic system easily.

4 . With these seats and the ticket benches, the room will seem to be furnished and the big space will not look deserted and cold.

5 . I have seen in railway stations, and in some bus-garages, people wait in the middle of the room, either standing or sitting on the bare floor with all their things scattered around them. This gave a poor appearance to the place. At least, in this case, if such things happen, people will sit on the seats, and these will hide their belongings, thus saving the place from a bad and dirty scenes.

c - Telephone & Boot Polish Shops

1 . Telephones are a necessity in such a case. They should be as easily accessible to the public as possible; This is the reason why the telephone room was put in the general waiting room.

Being under the staircase, it saves on the space.

Two telephone cabins may if necessary be put in the same room.

A controller can be seated either outside or inside.

2 . The boot polish shop is also necessary because it

prevents the box carrying shoe shine boys from coming there crowding the place and creating disorder.

d - Information Office

Though small, the information office is a very important and a very essential part in the building. Passengers need always information as about the time the busses leave, directions, places to which they want to go... Its necessity is most when it comes to tourists who generally ignore all about the country. This office may also sell or distribute maps, post cards, or any other propaganda pamphlets. It also directs people and thus saves time and money. If all information was to come from ticket sellers, it will take their time and hinder the work. The place was chosen in a x showing part of the hall so as to facilitate for every one to reach it and get informed. It can be directly seen from the main entrance.

e - Luggage Store

1 . The luggage receiving office lacks in all our garages, and in general the luggage service is so badly organised that many times one is liable to lose his belongings.

Therefore the purpose of this office is to receive k the passengers' luggage against receipt; or to deliver the transported luggage back to owner when he asks for it. That is why it has a window giving to the general waiting hall.

It was provided with three wall cupboards to receive small packets which may be easily lost or damaged. There they can be kept under lock safely.

In the back it is connected to a bigger luggage store.

2. The luggage store is to deliver things to be loaded or to receive parcels from the arriving bus or lorry. Its dimensions are to provide for a certain temporary storage space. It has a big door giving to the parking area to facilitate giving and taking of luggage from the vehicle directly.

f - Shops

1. Barber Shop : it is necessary to keep clean and to throw away the journey's dust from one's self. It gives to the street and from the back, it has an access to the general waiting room, thus serving for the public and for the passengers simultaneously.

2. Ladies Hairdressing and Beauty Shop : It is next to the ladies waiting room. While waiting, ladies would like to look more beautiful if possible. This shop, may take care of that. It gives to the smaller street, and thus it has a certain privacy.

3. Cigarettes and Newspaper Shop : While waiting, before leaving, or when just arriving, this shop is very necessary. It is situated in a place so as to serve employees and passengers; as everybody needs it. People waiting their bus in the big hall can easily buy a newspaper or a cigarette packet.

4. Sandwich and Sweets Shop : same can be said of this shop. This is why it is symmetrically placed with respect to the previous one and is identical to it.

g - Ladies Waiting Room

This room has nothing special except the seats which are the same as the ones used in the general waiting room. The ones against the wall are not the back to back type, they are the same manufacture and of the same dimensions.

h - First Floor of The General Waiting Room

For better look and better aeration the general waiting room is made to extend to the height of two floors partly including a first floor depending of it. Every part will be treated separately in the following discussion. :

1. Stairways;

Internal stairways give a cosy appearance to the hall, and make the access to the first floor direct and easy. These stairways show also that the big area occupied by the general waiting room is efficiently used. They save on walls using in this case the external walls of the building only.

The steps are the ordinary $17\frac{1}{2}$ X $27\frac{1}{2}$ but 150 cms. long. The broad steps look more comfortable.

They hide in their lower part the ends of ticket benches, thus eliminating the projection of both benches and stairs.

The balustrads are in pipe railing, they are lighter and do not hide or prevent the lighting coming from the external long windows.

2. Bar and Refreshing Shop;

The stairs give each to a kind of balcony which can be used by the bar to serve both ladies and gentlemen, but separately. The bar has an access to both areas.

This space is good in winter as well as in summer for the purpose it is used for. It was also meant to hide partly the lounges.

3. Lounges and Toilet ;

Two in number, the lounges are to serve one for men and one for women. They completely separated and have each his ¹⁵ private entrance. Men's lounge is larger because they are supposed to travel more than women who do not have business trips as frequently as men.

These lounges are meant for men and women who like to wash their hands, arrange their hair, brush their clothes, they are directly connected to toilets.

Toilets can only be entered from lounges. They are then one for men and one for women. Looking at them one may believe that they are more than such a building might need. In fact they are not made for a regular constant use, which in such a case they would be more than necessary. But in a bus terminal they might be used for short intervals but by a big number at a time.

Closets in every one were made to keep toilet paper, & cleaning tools, etc...

This is all about the arrangement of the different parts of the general waiting room. It forms in itself the most important part of the terminal. It is an independent unit which if needed, may be built alone, and form a sufficient place for an ordinary bus service, restricted to the average of its line.

3.- RESTAURANT AND ACCESSORIES

I consider the restaurant as a necessity for the bus terminal for the following reasons :

a - As the bus terminal is near to the business center, people coming for a short business, and not needing to go around in town, would to have a meal at the place (is) which mostly accessible to them.

b - Those who to travel, by a bus around meal time, prefer to eat their food at such a place, and be sure of not missing their bus.

c - Passengers arriving around meal hours, would be certainly very glad to eat at the first restaurant they can find.

d - From an economical point of view, the restaurant is a good investment, and can be rented for a good sum. Being near the bus terminal, it will have a good business and on the other hand, it will be a facility for the passengers.

I - Restaurant Proper

The hall of the restaurant is placed directly near

the main street. The minor entrance is from the general waiting room; the public and most important entrance is secured by two doors giving to the main street.

The façade showing to this street has a continuous row of windows providing for enough lighting in winter and for enough ventilation in summer. These windows are also meant to give a broad view to the street, and the arrangement of the tables is made accordingly.

This is also subdivided into several areas by walls not higher than 1.25 metres. They will have flowers and green leaves growing on top to give a decorative effect and on the other hand to separate the different parts of the hall giving more privacy to every lot, and facilitate the service by these subdivisions.

The areas immediately in front of the main entrances were left free. With this arrangement the access to the inside becomes and most people do not like to have the feeling that they are eating on the street. For this reason, one would say that the restaurant should be on the first floor. In fact most of the best restaurants, whether in Beirut or in Tripoli, are on the first floor. But, in our case, the restaurant is meant for facility; and therefore an easy access to it was required.

II - Kitchen

Every restaurant needs certainly a kitchen. As in this case the building is not mainly a restaurant, and that this is a small and commercial one, the kitchen to serve it is not a spacious one. It was designed to be used by a cook and two mates, and to have free passage for a number of waiters to go in and out.

It is placed to the extreme corner where it is far from the road, and very hardly noticed by the passengers from the parking area.

Cupboards and tables for cooking and for food preparation are provided for. The big table in the middle is to serve for waiters who will take dishes in and out.

A free passage was left between the service external entrance and the door giving to the pantry. This passage is to serve for waters and other purposes without any disturbance in the work of the cook.

III - Pantry

The pantry is a kind of insulator between the kitchen and the restaurant hall. It provides an indirect entrance

to the hall and thus prevents smell and views.

The door between pantry and restaurant hall is to be a swinging door closing automatically.

The pantry contains wall cupboards to take all cutlery, dishes, napkins, etc...

IV - Store

Just near the staircase and on the first floor, is a store for the restaurant. There, ^{counted} tinned food, drinks, potatoes, etc ,,, can all be kept. It was not put on the ground floor because it is not of an urgent and immediate need for the restaurant, but nevertheless it is quite necessary.

V - Toilet

The restaurant has a private, small, double toilet. The entrance was made indirect to be hidden from the restaurant and a double door was provided for each so that the bad smell is not felt in the hall. *are smells "felt"*

Two washhand basins are fixed at the entrance and may be used by the clients of the restaurant easily because they are quite near.

*well-designed
a good battle
should not have
bad smell.*

4 . - MAINTENANCE SECTION

More in direct connection with the bus terminal proper is the maintenance section. It is composed of a shop for repairs, and of a petrol, oil, and lubricant shop. By repairs it is meant the small work of cleaning, or a change of a certain accessory unit in the engine, or just a check on the vehicle. The garage and the big repairs are not to be found here.

a. - Maintenance Shop

A relatively spacious room was left for this purpose , This shop can take two busses at a time. Wall closets are provided for a small store for machine parts.

b. - P.O.L. Shop

This is on the street side in order to serve for the public and for the terminal at the same time. It is usually accompanied by a petrol pump. This can be put at the side walk in front of the shop.

5.- THE MANAGING DEPARTEMENT

In every self respecting organization there should be a managing departement. This department is to look after the policy of the institute, as the running of the work ,

the propaganda, the financial side, etc... It is composed of the following :

a. Manager's Office

Located in the best corner of the building, this office will be the heart of the managing department.

b. Secretary's Office

This a kind of anteroom to the manager's office. The manager's office should not be accessible to everybody before passing by the secretary.

c. Clerk's Room

This room can also serve for statistics, propaganda, etc. It was put in an intermediate place between the manager and his secretary, so that this can be easily by both.

d. Waiting Room

This room is meant for the people who have any business with the manager, cashier, or any other employee of this department. Wall seats are provided here to save on chairs, these needing for such use much maintenance.

e. Cashier And Auditor's Office

This office was put near the door because when labourers come to cash, they should not interfere with the other parts of this side. The auditor's office is in the same room as

the cashier because they both deal with the same question.

f. Telephone Exchange

This telephone exchange could have been in any other corner of the building. This corner was chosen being far from any interference, and also being in a quiet place.

g. Toilet

The office toilet is small as being for the few employees of the managing office, and in urgent cases for the visitors. It also contains some lockers for those employees.

6.- EMPLOYEES & LABOURERS QUARTERS

In these days labourers and employees are the main source of trouble in a nation. One can tell how modern a country is by the standard of living of this class. Russia, England, America and all the other big countries are trying to give better and better conditions to the working classes. Even in our country now, strikes and petitions to ameliorate the labourers' conditions are very frequent, to a certain point that they become the main worry of our government. In such a time, and in view of a better labour accommodation, I saw that it was neces-

seray to have a special part of the building for the use of the labourers and employees. And knowing that now it is not an immediate necessity, and that it will be generally considered as an expensive and useless luxury, I decided to insist on its being included in my project.

This part contains :

a.- Infirmary

This is for injuries during the service. It might also serve for any injury in a bus accident as an emergency.

b.- Bus Drivers' Room

This room can accommodate for two night drivers. In a modern bus terminal, drivers are not allowed to start on a trip without being in a clean and well kept uniform. This room can also take a spare uniform for every driver to change it when needed. This is why closets were provided in this room.

c.- Labourers' Room

This is a rest room for the employees of the terminal proper and for those of the other branches of the building. It can also serve as a small dining room for the labourers who get their food with them to the job.

d.- Lockers' Room

All Labourers and employees should not go on the street with

their work clothes. They have to wash and change or at least throw away their overalls. The lockers are provided for this purpose.

e.- Showers and Toilet

This room is in direct connection with the previous one because it is a continuation of it. Showers, W.Cs., and wash hand basins were provided.

7. CONSTRUCTION OUTLINE

a.- Foundations

The subsoil in this part of Tripoli is formed by sand layers. This sand can take the foundations when of reinforced concrete. This sand can carry from 2 to 5 Kgs./Cm²

The outside walls will be used as bearing walls and thus all their foundations will be a continuous one. The internal walls or partitions being carried by beams and these by columns they will have column footing foundations.

b.- Walls

The external are from the hard limestone found in that region. The facing is a bush-hammered finish.

The partitions are in 10 Cm. concrete blocks. They are cheap to manufacture and save on the space, and also cheaply

built and rendered.

The structure, excluding the bearing ^{walls} which are the external and the two other sides of the general waiting room, is a reinforced concrete framed one. Whenever the beams come to an external wall, they should not appear to the outside. The wall being 25 Cms. thick, they can have a bearing on the wall up to 20 Cms. The other 5 Cms. should be of the same material as the face of the wall

c.- Floors

All floors are R.C. slabs. They will then be paved with the ordinary mosaic or terrazzo tiles. All rooms will have a half tile or 10 Cm. skirting .

d.- Doors

According to their width of opening the doors of the building are divided into four kinds:

- 1- Main Entrance = 2.50 Metres.
- 2- Other Shop entrances = 3.00 M. gross and 1.40 M. net.
- 3- Internal doors = 90 Cms.
- 4- Toilet and Shower Doors = 70 Cms.

According to the way they open, they are three kinds:

- 1- Two-leafed doors to main entrance and to that of shops
- 2- Single-leafed doors to all internal ordinary doors.
- 3- Single or double leaf doors opening to both sides and self closing. They are placed where a permanently closed door

is needed. All these doors are in timber, and they are provided with glass panels where needed.

e.- Windows

Jams of windows and of external doors are to finish as the external walls. The windows will not be provided with the wood shutters, but simply with timber, double glass panelled, in swinging casement.

f.- Decorations

All plastered walls will receive a colored distemper. A dado of a darker shade will be made up to a height of 1.25 M to resist dirt and use.

All ironwork and woodwork are to be painted.

The letters of the words TRIPOLI BUS TERMINAL are to be in timber or steel fixed to the wall of the general waiting room above the entrance. All signs should be in the same kind of lettering.

8. PARKING AREA

The parking area was put behind the structure so as not to have all the busses stopping on the street as it is now the case in all the bus stations in Beirut and in all the other Syrian and Lebanese towns. In this arrangement the traf-

fic will not be jammed or disturbed,

The parking area require enough surface to take enough cars at the rate of one substitute for every leaving bus.

The busses, will come by turn and stand near the sidewalk , which in this case was made zigzagged to take more busses. This way is easier for the bus to get near the sidewalk and away from it. The number of bus lines will propably as follows :

1. Tripoli-Beirut Bus
2. Tripoli-Homs "
3. Tripoli-Lattaquieh Bus
4. Tripoli-mountains "
5. Tripoli-south coast "
6. Tripoli-Akkar "
7. Tripoli-Koura "
8. Tripoli-Dannieh "

From all the above mentioned lines, not more than three or a maximum of four busses will be leaving at one time. This was provided for in the parking and in the side parking arrangement

Considering that a maximum number of busses be waiting his turn in the parking area, and let it be six. If about 25 metres of area are required for every bus approximately, the total required area will be of 150 sq. metres. The area needed to have a free road to the sidewalk in the parking should be of six M. width by the length of the parking area which is about 25 M. This area is also 150 Sq.M. The area required for all this is

therefore about 300 Sq. M. Counting for the sidewalks, parking zigzag side, and future a similiar area the total will amount to about six to seven hundred metres super. The parking area is about twenty metres by thirty metres which is about the required area.

This completes our discussion about the subject.

C O N C L U S I O N

This project represents only a little effort in the field of the general organization of this country. I believe that it is a good step towards the facilitation of transport between the different towns of our country and the neighbouring ones.

On the other hand it is a profitable business when we consider that the present bus services are paying very well with the bad organization they now have, I estimate that such a well organised enterprise should be more profitable.

THE END.

J. Brown
1946

