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General Manager
CR, ER, NR, SR, SCR, WR, ECR, ECoR, NCR, SWR & WCR.
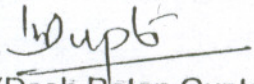
Sub.: Guidelines for development of station into world class
       station.

A copy of the guidelines for development of stations into world class stations approved by Board (ME, MT, FC & CRB) is enclosed herewith for necessary action. A list of stations identified for development as world class stations, is also enclosed. Individual Railway, with GM's approval, may incorporate/change some requirements included in the guidelines to suit local conditions. Railway should complete the preparatory work as per the guidelines in next 15 days time. Parallel action for sanctioning the work of consultancy study for identified stations has been initiated in the Board office and the sanction of the same will be communicated in due course.

In addition to the above, these guidelines should be taken into account for Mumbai CST (Carnac Bunder) where studies are being carried out by MRVC and for New Delhi Station where consultancy has already been sanctioned.

Board may be apprised of the action taken.

(Desh Ratan Gupta)
Director (Land & Amenities)
Railway Board.

Encl.: As above.

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Copy to: MD/MRVC for information & necessary action.

Stations identified for making

Sno	Railway	Name of the station
1	Central	Pune
2		Carnac Bunder *
3	Eastern	Howrah
4	Northern	Lucknow
5		Anand Vihar
6		Bijwasan
7		Amritsar
8		Chandigarh
9		New Delhi
10		Varanasi
11	Southern	Chennai
12		Thiruvanthpuram
13	South central	Secundrabad
14	Western	Ahmedabad
15	East central	Patna
16	East coast	Bhubaneshwar
17	North central	Mathura
18	South western	Bangalore
19	West central	Bhopal

* Being developed by MRVC

Guidelines for development of station in to World Class stations

1.0   Railway station are the gateways where the first taste of city pride can be asserted. World over Railway stations are undergoing a major shift. The single transportation function has given way to multifunctional use which in turn has led to complex and diverse forms. It is being seen as expression of modern technology reflected in innovative structures and use of new materials.

It has been decided to develop metro and minimetro stations in to world class stations. In the first phase 16 stations have been identified as per the enclosed list. Railways may immediately initiate action on this.

These guide lines are being given to help the railways to start the action and evolve the scheme which will be unique for each location.

2.0 Inception Report

An internal report may be prepared jointly by commercial engineering and electrical department which inter alia may bring out :

- the present level of traffic and the existing facilities
- the analysis of present position to identify the difficulties and constraints that are being felt in handling the traffic
- future projections of traffic and corresponding requirement of the facilities
- identifying the control points of development such as existence of heritage structure requiring its preservation and adaptation in the new scheme.
- The level and nature of commercial exploitation in the proposed scheme.

3.0 Aims of the development may be crystallized based on above analysis and interaction with the local authorities, NGOs taking interest in such type of developments, prominent citizens of the area etc. Some of the aims are:

- To develop world class railway station having all the modern facilities and high quality appearance.
- To ensure that the station becomes welcoming gateway to the city.
- To provide for a significant increase in passenger numbers, that may take place after development to add to the vitality and vibrancy of the area by encouraging mixed use of the development.
- To ensure a coordinated development approach to the future development of the area.
- Integration with public transport access to station.
- To ensure development respects the stations heritage.
- To ensure that station becomes part of the urban environment assessable and easy to use.
- To enable airspace development to realize the commercial potential

4.0 Engagement of Consultant

A consultancy work chargeable to revenue (demand No.2) will be sanctioned and a consultant for preparing the scheme will be appointed.

The standard guidelines and tender conditions for engaging such consultant will be circulated separately.

5.0 Recommended Features of the development plan:

The following aspects of the station design may be kept in view while finalizing the scheme.

5.1 Principles of Space planning:

- It should promote free flow of passengers through public areas and reasonable comforts in waiting areas and promote a feeling of security.
- Adequate space be provided for all activities without conflict.
- Design should naturally lead passengers past facilities (such as time table , ticketing facilities) in logical order, routes should be obvious and direct, requiring minimal walking distances.
- Capacity of routes be as uniform as possible and these should be free from constrictions and obstructions.
- It should have resilience to surges in demand or train service disruption..

5.2 Main entrance/exit:

It may be decided based on the traffic level, mode of transport being used by the passengers, local site conditions etc. as to whether entrance/exit level for arrival and departure be segregated. There should be unambiguous presentation of routes to pedestrian ways, access roads, car parks, taxi stand, bus stops, metro station etc. Adequate signage and maps be provided.

5.3 Departure Hall:

- In case there is a segregated approach, the departure hall will be at first floor level.
- The main activities here are , checking train schedule, ticketing and waiting.
- Passengers must be able to circulate freely when moving between different circulation points such as entrance, ticketing ,vending machine etc.
- Activities should not conflict. Ticket queues should not conflict with through flows, retail areas, information display vending machines.
- Ticket sale facility should be sufficient to cater for peak flows.
- Seating should also not conflict with through flows
- Travel Information System should be provided to give up to date and accurate travel information. The information should be provided in appropriate form and it needs to give decision points which allow a sufficient space for passengers to find out their desired directions.

- Waiting areas should be so designed as to provide comfort, amenity and travel information.

5.4 Arrival Hall:

- Here the main activity is meeting , greeting and waiting *departure*
- It will have all other facilities as provided for (arrival) hall except ticketing.
- Certain situation may warrant to provide a common arrival/departure hall.

5.5 Access and Interchange:

- This would involve passageways linking arrival/departure hall to platforms and platforms to one another.
- Likely traffic flow be assessed and flows should be allocated to physical routes for working out space requirements.
- Passageways and width of Foot over bridges should be of adequate width
- Lifts and escalators may be provided for efficient convenient vertical circulation. Their positioning should be integrated with passenger flows

5.6 Platforms:

Station platforms should as far as possible be free of various types of stall/structures to allow free movement of passengers. However for through trains drinking water booths and kiosks equipped with tea coffee cold drink vending machine, serving precooked meals be provided.

5.7 Parcel Handling

- Parcel handling, linen handling and pantry car loading/ unloading may be planned in the rake servicing area, where ever feasible.
- For dealing with parcels of through trains mechanized parcel handling facilities at both ends of the platforms be suitably provided.
- Parcel sheds should have easy access for vehicles with adequate parking. Shed should have mechanized handling facilities and should have adequate storage space.

5.8 Modern design Washable apron and mechanized cleaning arrangements for the stations should be planned.

5.9 Lighting

- Adequate lighting be provided to enable passengers to move about easily and create a secure welcoming environments. Lighting levels be as required for comfort, safety and monitoring. Abrupt changes in lighting levels be avoided.

- Positioning of luminairies needs to be coordinated with that of signage and information Board so that these receive greater illumination. Where CCTV are in operation lighting levels must be higher
- Proper manipulation of natural light through transparent roofs and walls blending with artificial light should be realized.

5.10 Parking:

- Adequate parking should be planned to accommodate peak demand in the circulating area/vicinity of stations separately for buses, private cars, two wheelers.
- The separate space should be planned for Taxis at a convenient location.
- Where space constraints are there Multistory car parking can be provided.
- The parking facilities should be developed in such a manner as to facilitate smooth dispersal of incoming and outgoing passengers , pedestrian and vehicular traffic, taking in to account inter-modal transfer

5.11 Access for Disabled people

- The design of the station should meet barrier free requirements through out the station area.
- The design should help them to find their way around.
- Separate facilities with suitable design be provided such as low hight ticketing window, disabled friendly toilet, reserved car parking slots etc. for disabled It may be kept in mind that disabled people using railway station are not only in wheel chairs but include blind and partially sight people with learning disabilities, elderly people etc.

5.12 Commercial Development

Similar to Airport , current trend is to take full advantage of the time passengers wait by providing commercial facilities. Major stations across the world have grown from operational to commercial in recent years. It gives opportunities to bring together restaurants, retail outlets, cafes, currency exchanges, banking facility, car rental and even movie theaters etc.

The design should properly integrate these areas with public areas of station. A direct route is also required to platforms for passengers with little time to spare.

Commercial development of the air space can provide additional revenue and can be used to generate large sums of money to finance the redevelopment. These should be planned in such a way that it does not disrupt the passenger flow.

5.13 Advertising and Public Art:

The sale of advertising space can be an important/of revenue. The location and its desgn are important considerations. Advertising and public art can be used to brighten up the

station. Besides the architecture of the stations that gives outer appearances and acts as local landmarks, artwork and graphic design inside will give stations the desired pleasant ambience.

5.14 External Circulation

Smooth connection in and out of the stations should be provided with clear routes to pedestrian ways, excess roads, car parks, taxi stand, bus stop etc. Segregation of movement between those arriving and departing is important to avoid cross flows.

Road access outside the station limit may also be assessed in order to remove any bottleneck that exist. Liaison with local authorities may be established for effective planning and development of the approaches to station.

5.15 Landscaping

Outlook, local environment and air quality may be improved by well designed landscaping. While undertaking this it may be ensured that existing vegetation is not destroyed and planning does not impede sight lines or the ultimate growth of vegetation.

5.16 Station Control Room

Station should be provided with a control room or a point from which the activities of the operations can be coordinated. This room should be easily accessible to the emergency services via a protected route and should be so designed and constructed as to be able to function during an emergency. It should have following facilities:

- An emergency procedure information system
- Means for summoning the emergency services
- Appropriately zoned public address system.
- CCTV monitoring of all public places including emergency exits not normally used.

5.17 Materials and maintenance

The choice of materials should be appropriate to give the performance required by individual application. It should offer long life and low predictable maintenance requirement and that are safe to use and maintain.