

Design of

Passenger Information Display System

for Mumbai Local for a
Futuristic Scenario



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Kalagouda Patil | 156250010 | Communication Design

The Problem

Lack of Information
system between public
transportation service and
the passengers

Dependent

Due to the lack of clarity of information, people might prefer to ask someone.

Right decisions are
the results of clarity
of information

What **C** stands for?

| Destination | Arrival Time | Coach | Fast/Slow | Platform |
|-------------|--------------|-------|-----------|----------|
| C | 22:07 | 12 | S | 1 |

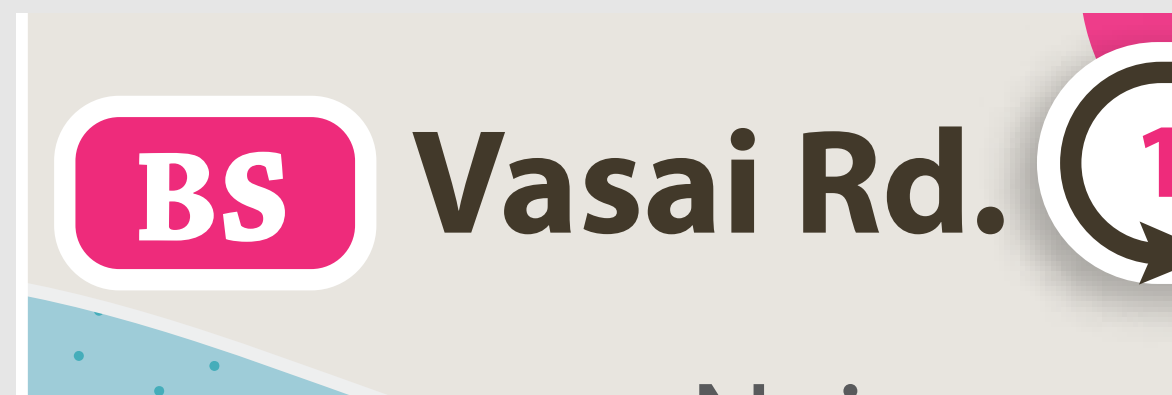
| Destination | Arrival Time | Coach | Fast/Slow | Platform |
|-------------|--------------|-------|-----------|----------|
| C | 22:07 | 12 | S | 1 |



What **BS** stands for?

| Destination | Arrival Time | Coach | Fast/Slow | Platform |
|-------------|--------------|-------|-----------|----------|
| BS | 18:06 | 12 | S | 4 |

| Destination | Arrival Time | Coach | Fast/Slow | Platform |
|-------------|--------------|-------|-----------|----------|
| BS | 18:06 | 12 | S | 4 |



गंतव्य स्थान
मुम्बई
दिब्बा
प्ले क्र. 47

गंतव्य स्थान
मुम्बई
दिब्बा
प्ले क्र. 47

समय
7:16

प्ले क्र. 3

समय
7:14

प्ले क्र. 8

गंतव्य स्थान
करजत
तेज

गंतव्य स्थान
करजत शिवाजी टर्मिनस जलत

1060B

1060A

11

Tel: 022-



गंतव्य स्थान
गंतव्य स्थान
डिब्बा
डिब्बा

समय
समय
गंतव्य स्थान
गंतव्य स्थान

प्ले क्र.
३
प्ले क्र.
४

1060B

1060A

Tel: 022-

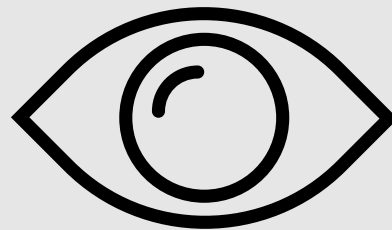
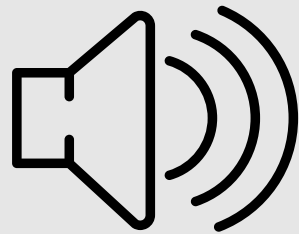
Passenger Information Display System (PIDS)

Passenger Information

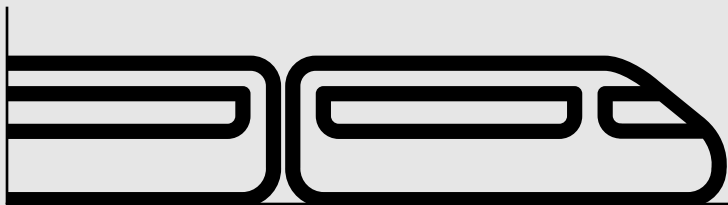
Display
System (PIDS)

Passenger Information

nature and state of public transport service



Passengers



Passenger Information

Passenger Information

```
graph TD; A[Passenger Information] --> B[Static Information]; A --> C[Real Time Information]
```

**Static
Information**

**Real Time
Information**

Passenger Information

```
graph TD; A[Passenger Information] --> B[Static Information]; A --> C[Real Time Information]
```

Static Information

Journey
planning prior
to departure

Stations, Stops,
Routes, service
nos., etc.

Route network
maps, timetable,
booklets,
signages, etc.

Real Time Information

Passenger Information

```
graph TD; A[Passenger Information] --> B[Static Information]; A --> C[Real Time Information]; B --> B1[Journey planning prior to departure]; B --> B2[Stations, Stops, Routes, service nos., etc.]; B --> B3[Route network maps, timetable, booklets, signages, etc.]; C --> C1[During the course of journey]; C --> C2[On time, delayed, expected arrival time, platform.]; C --> C3[Passenger Information System];
```

Static Information

Journey planning prior to departure

Stations, Stops, Routes, service nos., etc.

Route network maps, timetable, booklets, signages, etc.

Real Time Information

During the course of journey

On time, delayed, expected arrival time, platform.

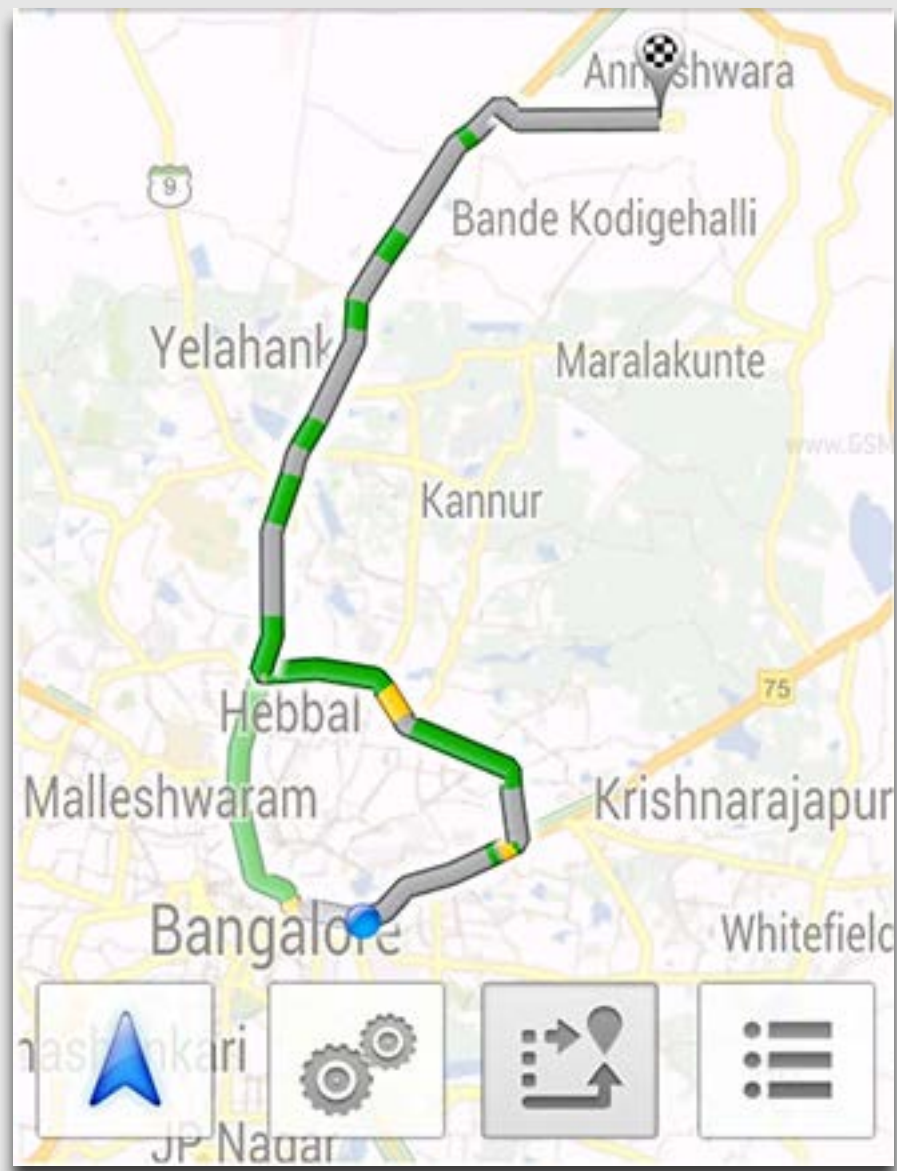
Passenger Information System

Example

**Static
Information**

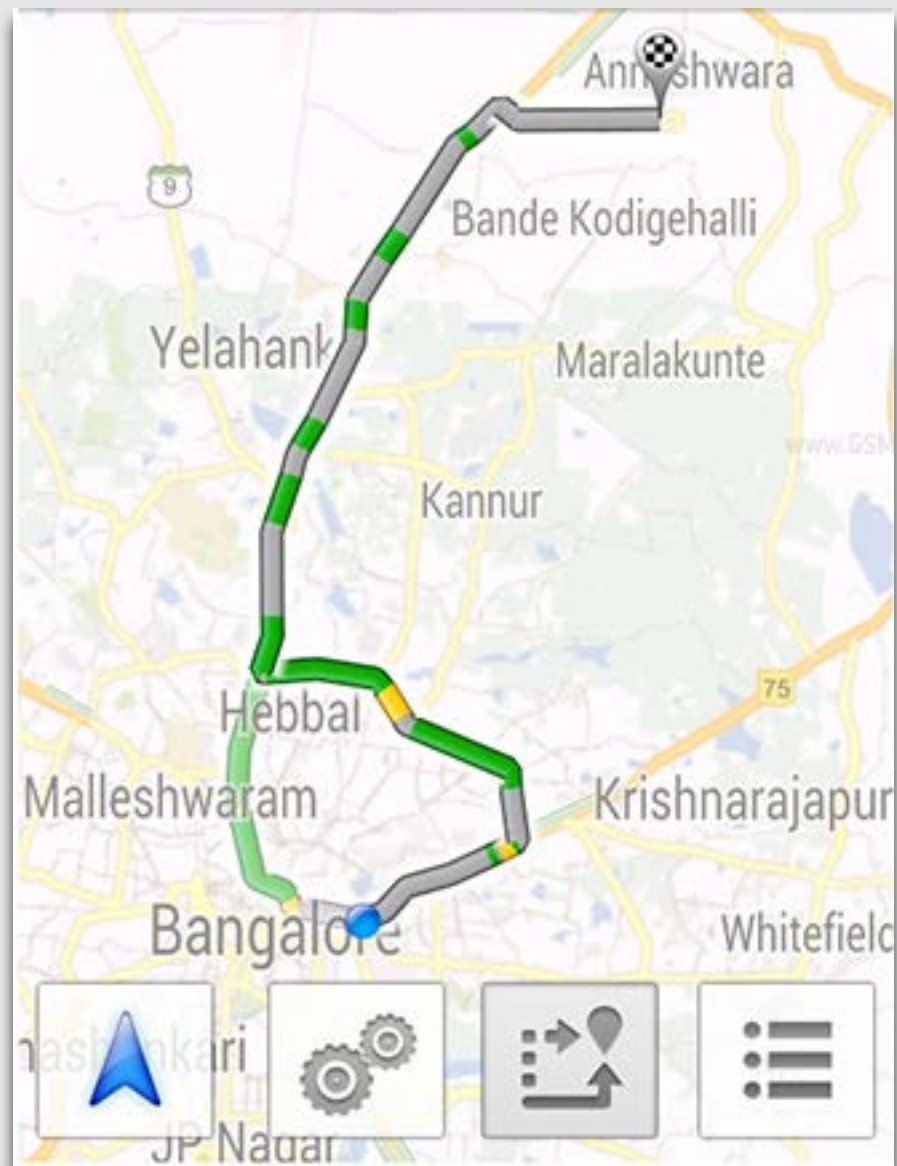
**Real Time
Information**

Static Information

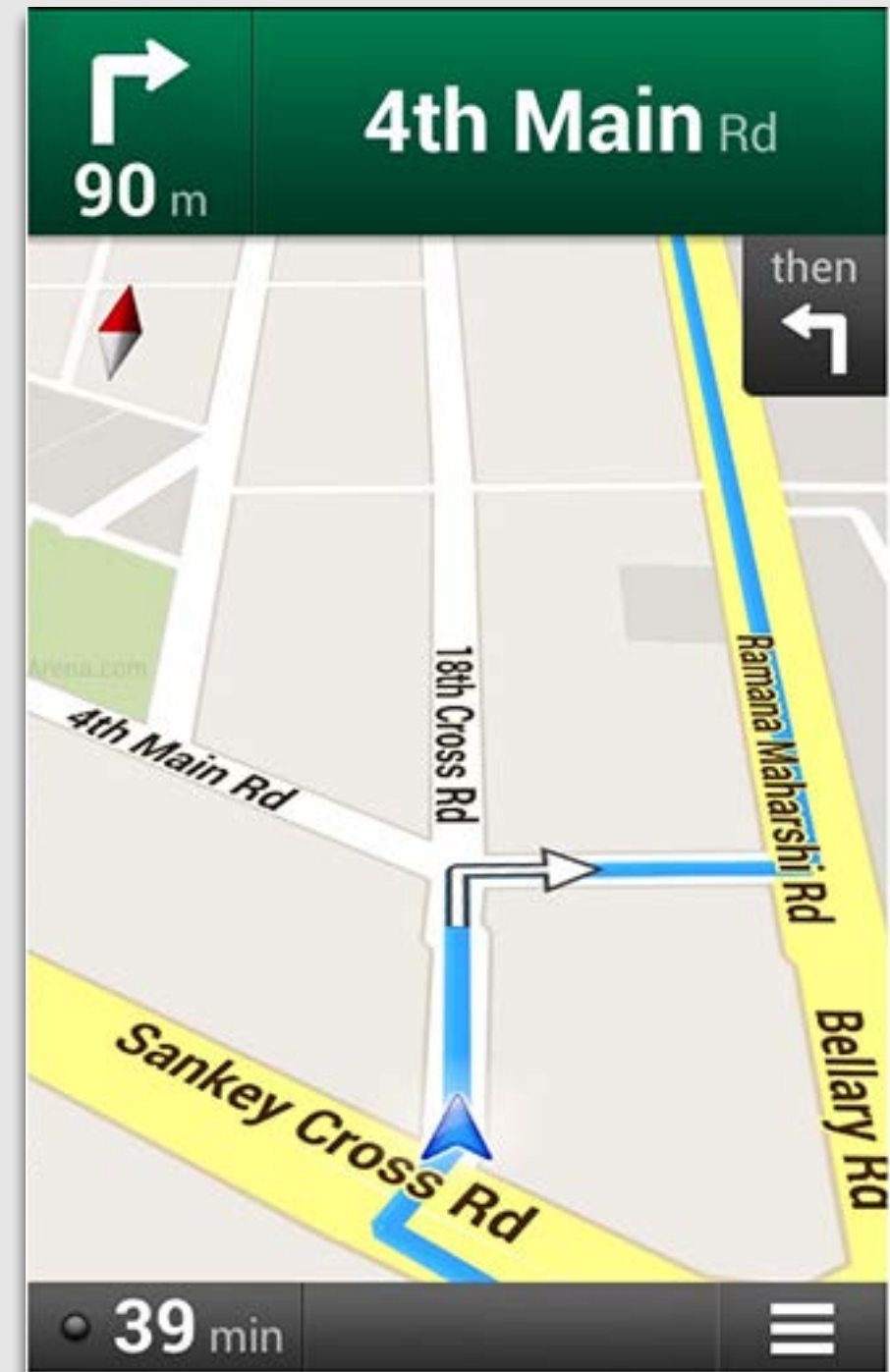


Real Time Information

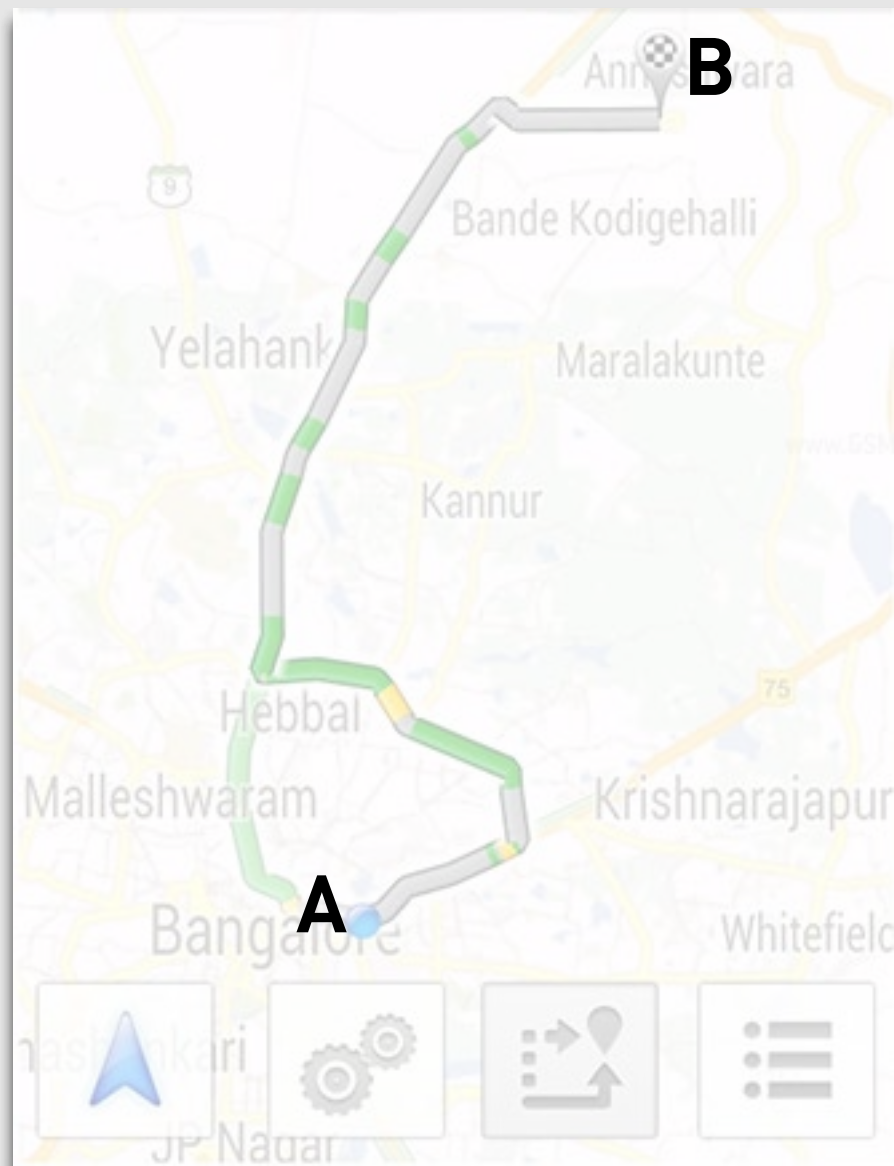
Static Information



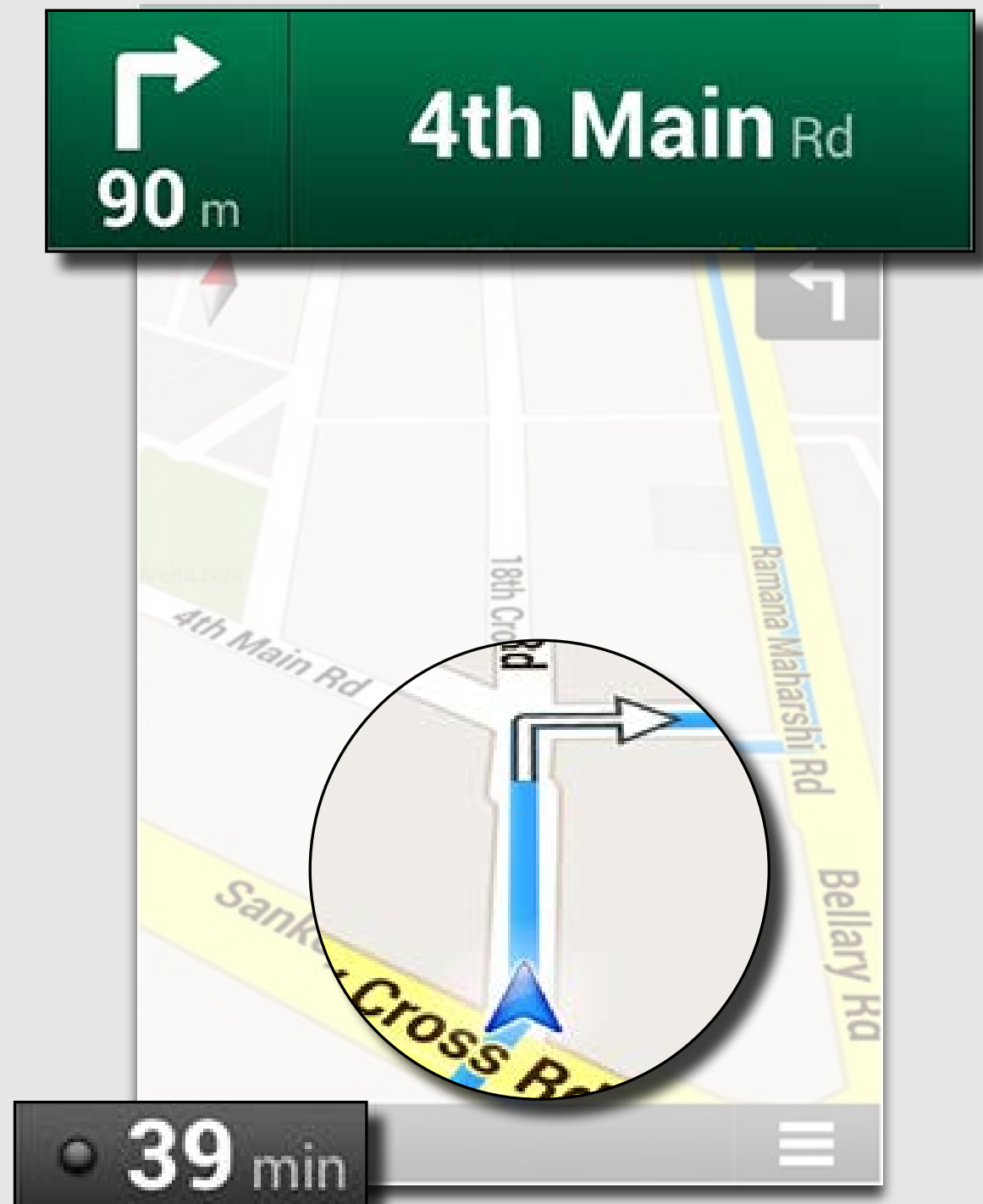
Real Time Information



Static Information



Real Time Information



PIDS?

- + Electronic information system which provides real-time information
- + Nature or arrival of train
- + Changes if any

examples



Changes if any

| Amtrak TRAIN INFORMATION | | | | | | | |
|---|--------|----------------------|---------------|--------------|---------------|----------|---|
| Time | Number | Train | TO | From | Status | Stairway | |
| 7:00 | 196 | REGIONAL | NEW YORK | WASHINGTON | 10mins LATE | 3 | ● |
| 7:07 | 80 | CAROLINIAN | PHILADELPHIA | CHARLOTTE | ARRIVED | 4 | ● |
| 7:07 | 2119 | ACELA EXPRESS | WASHINGTON | NEW YORK | BOARDING | 5 | ● |
| 7:14 | 4639 | N.J. TRANSIT | ATLANTIC CITY | PHILADELPHIA | BOARDING | 2 | ● |
| 7:00 | 0000 | 00000000000000000000 | BOSTON | MTAMT | 1 hr 15m LATE | 13 | ● |
| 7:00 | 0000 | 00000000000000000000 | NEW YORK | PITTSBURGH | 25mins LATE | | ● |
| 7:40 | 656 | KEYSTONE | NEW YORK | PHILADELPHIA | ON TIME | | ● |
| UNATTENDED BAGS WILL BE CONFISCATED BY AMTRAK | | | | | | | |
| POLICE.. THANKS FOR YOUR COOPERATION.. | | | | | | | |
| solarisc. uclm, italy systems america | | | | | | | |
| ClubAcela Behind Stairway One | | | | | | | |

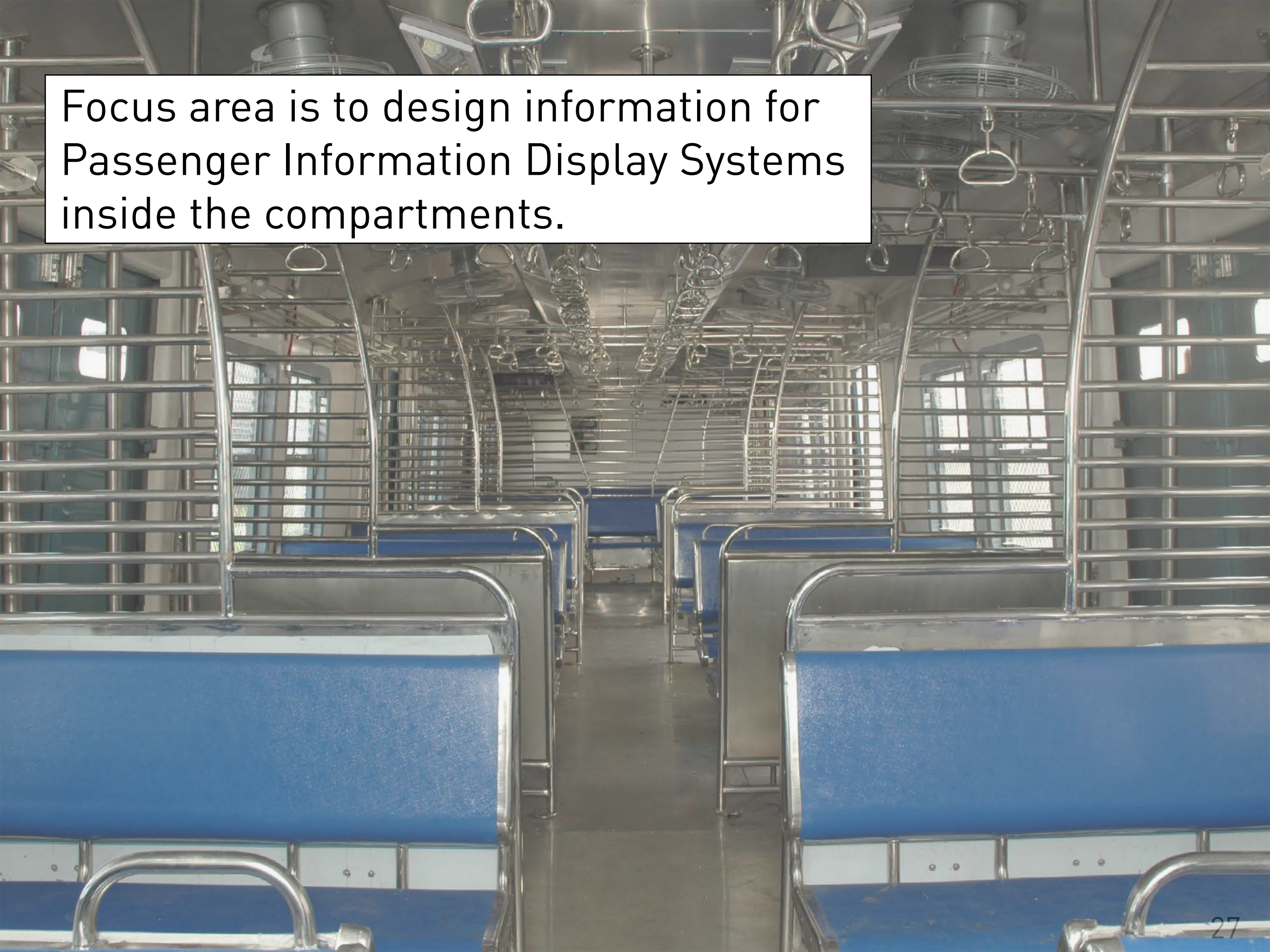
Changes if any

| Amtrak TRAIN INFORMATION | | | | |
|--|--------|---------------|---------------|--------------|
| Time | Number | Train | TO | From |
| 7:00 | 196 | REGIONAL | NEW YORK | WASHINGTON |
| 7:07 | 80 | CAROLINIAN | PHILADELPHIA | CHARLOTTE |
| 7:07 | 2119 | ACELA EXPRESS | WASHINGTON | NEW YORK |
| 7:14 | 4639 | N. J. TRANSIT | ATLANTIC CITY | PHILADELPHIA |
| 7:00 | 0000 | 7080A, M7282B | BOSTON | MTAMPT |
| 7:00 | 0000 | N08XN085, B | NEW YORK | PITTSBURGH |
| 7:40 | 656 | KEYSTONE | NEW YORK | PHILADELPHIA |
| UNATTENDED BAGS WILL BE CONFISCATED BY A | | | | |
| POLICE.. THANKS FOR YOUR COOPERATION.. | | | | |
| ClubAcela Behind Stairw | | | | |

| Status | St |
|--------------|----|
| 10mins LATE | |
| ARRIVED | |
| BOARDING | |
| BOARDING | |
| 1hr 15m LATE | |
| 25mins LATE | |
| ON TIME | |
| A K | |

**focus area
of design**

Focus area is to design information for
Passenger Information Display Systems
inside the compartments.





Example



Example



Example



Example

Lets look closer...





Seoul Metro

336 狎鷗亭

선사 337 Shincheon 新川

335 옥수 (Kau) 玉水

Volgende halte

Inariststraat

Pilatus

Matterhorn

Bestemming
Osdorp De Aker

Lijn 1





Hong Kong Metro

Doors opening
this side



Singapore Metro



Toronto Metro



Washington D. C. Metro



1

Château de Vincennes

10:45

Saint-Paul

Le Marais



Paris Metro

To
Sungei Bedok
勿洛至河

Next
下一站



TE14 NS22

Orchard

乌节



Hong Kong Metro

JANGAN BERDIRI DEKAT PINTU



Wuhan Metro (China)



for Branch Avenue

Next stop **College Park**

Transfer Information

Bus Information

P Parking
Daily: \$4.50 all day
Daily: None
Reserved: Reserved rate: \$65
Availability: Yes

Bikes
There are 81 bike racks and 40 lockers at this station.

Carsharing
Available at this station.



e Washington, DC area. The system is the second l

Washington D. C. Metro

Car No. **5**

for Ikebukuro

Next

**M
17**

Tokyo



Tokyo Metro



Hong Kong Metro

But...

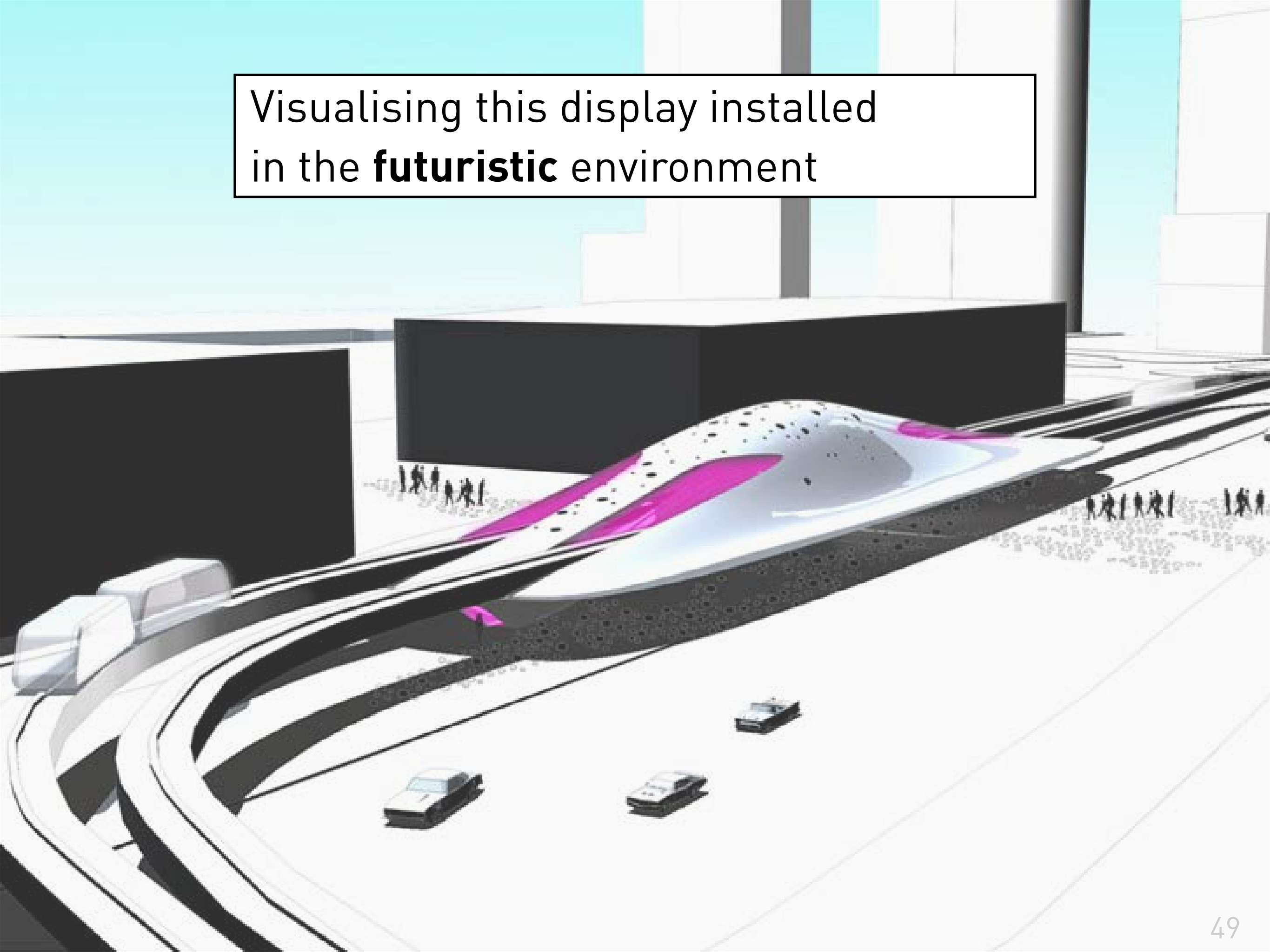


But current local compartments are not at all suitable to accommodate such display...



...along with such crowd.

Visualising this display installed
in the **futuristic** environment



Process

Process

+ **what** primary information to be delivered?

+ **when** & **how** the information to be delivered?

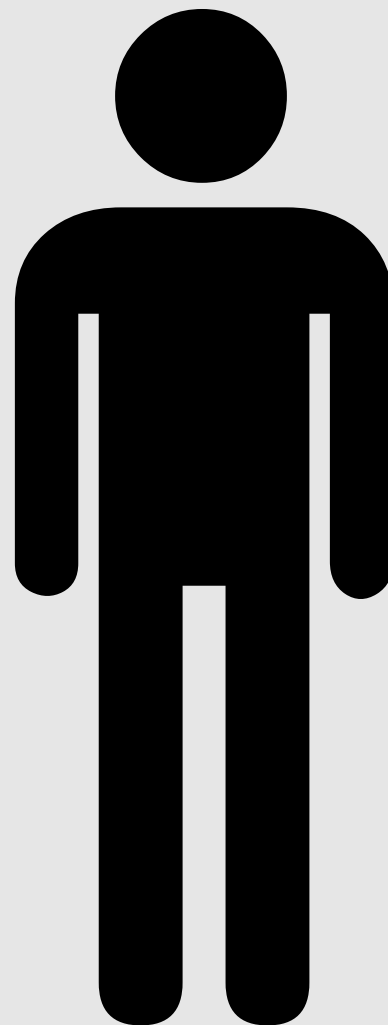
What are Primary Information?

What are Primary Information?

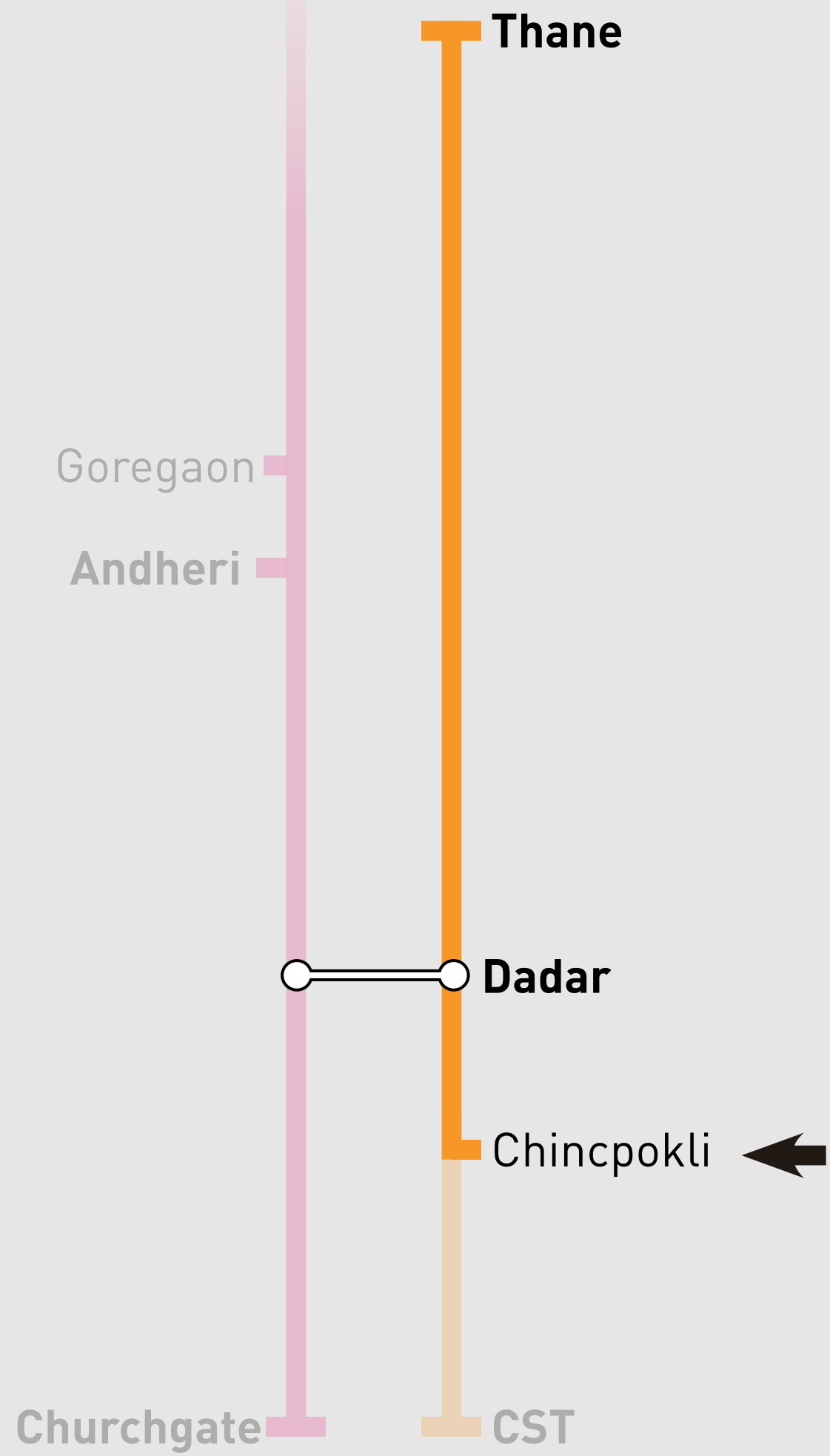
Information required by a
passenger during travel.

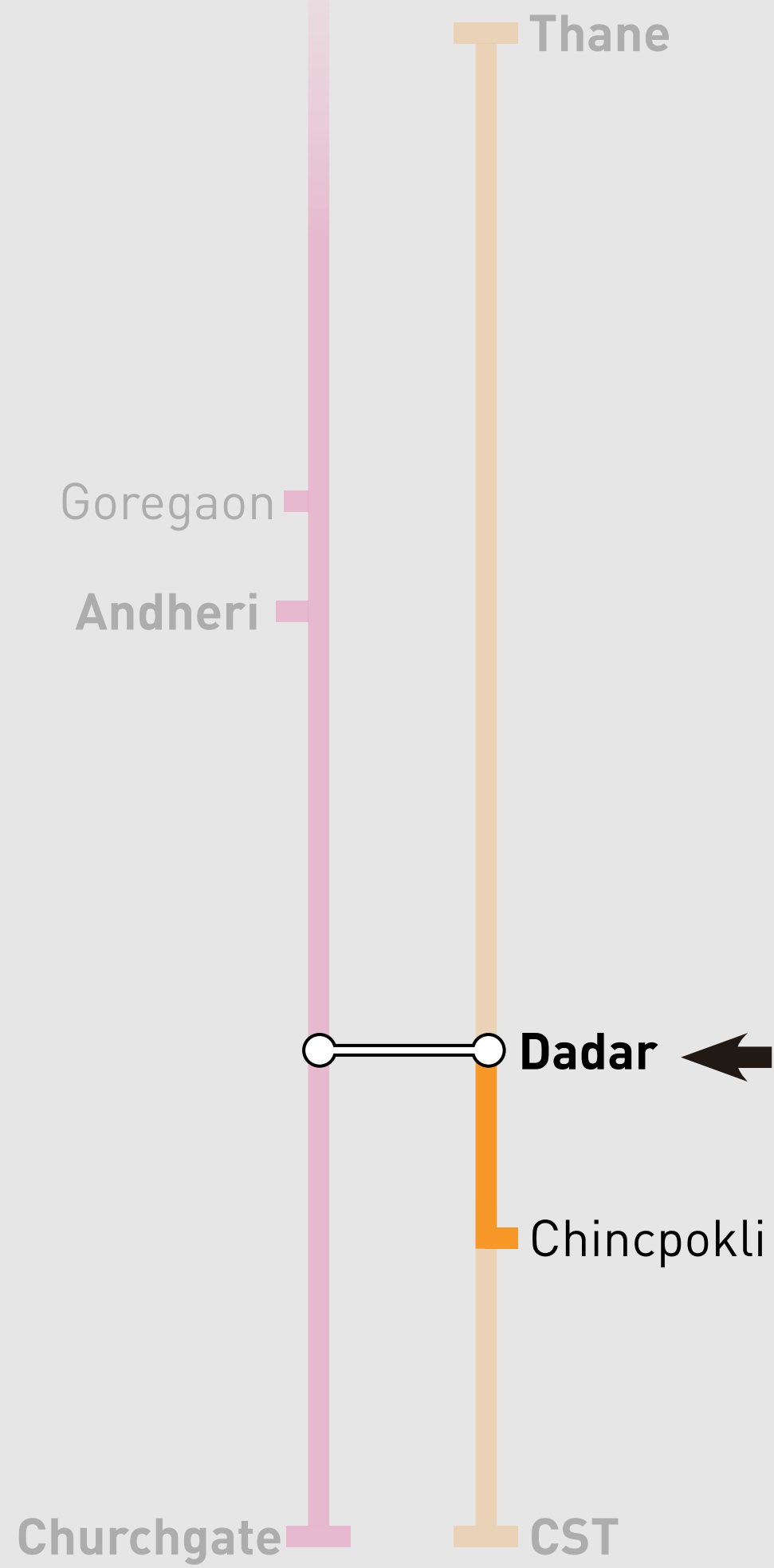
Lets collect this information
with the help of a friend.

A novice passenger who is at **Chinchpokli** Station wants to meet his friend at **Goregaon** .



His friend who is resident of
Mumbai guides him over phone to
reach Goregaon by Mumbai Local





towards
Borivali/Virar

Thane

Goregaon

Andheri



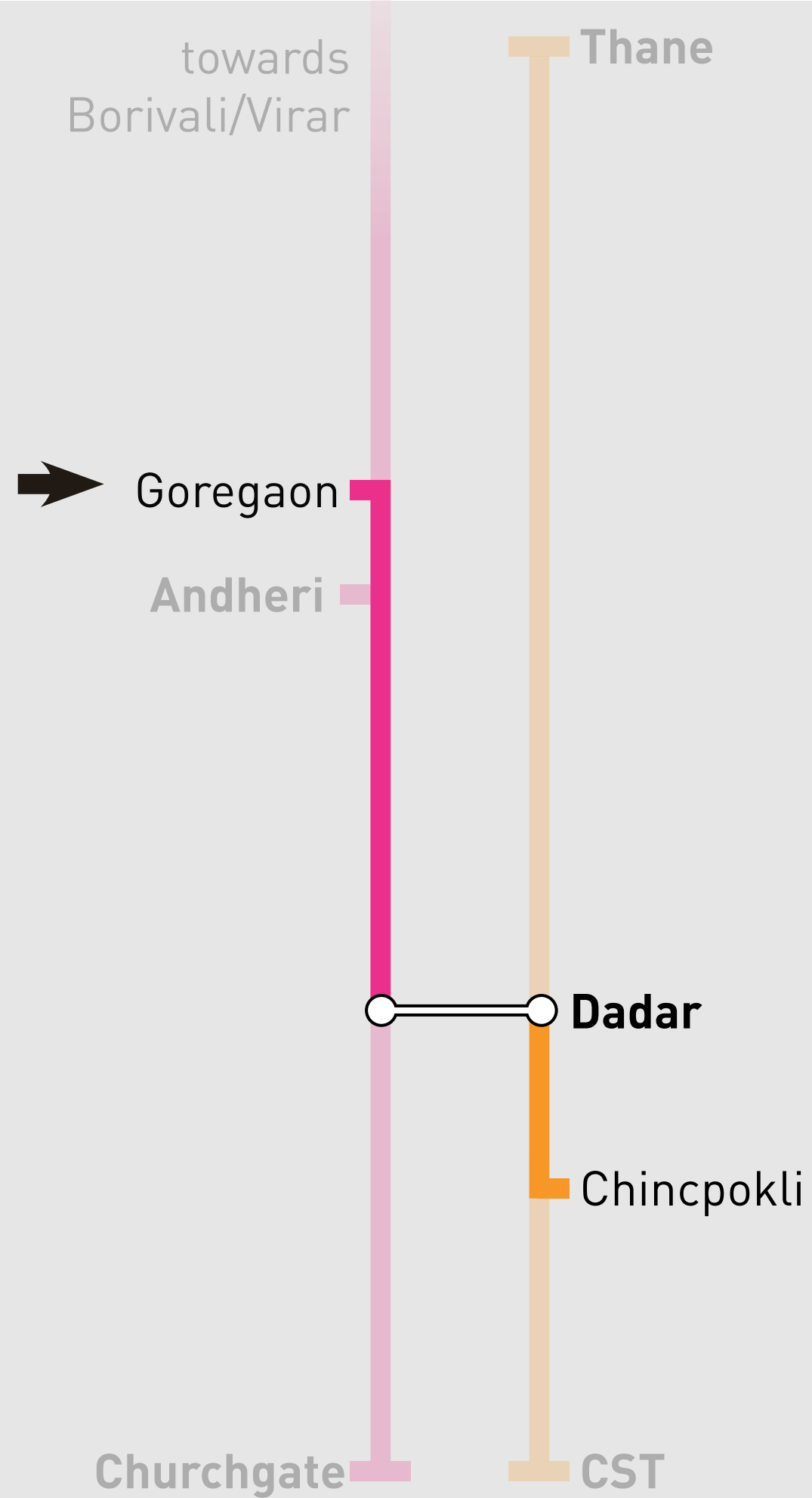
Dadar



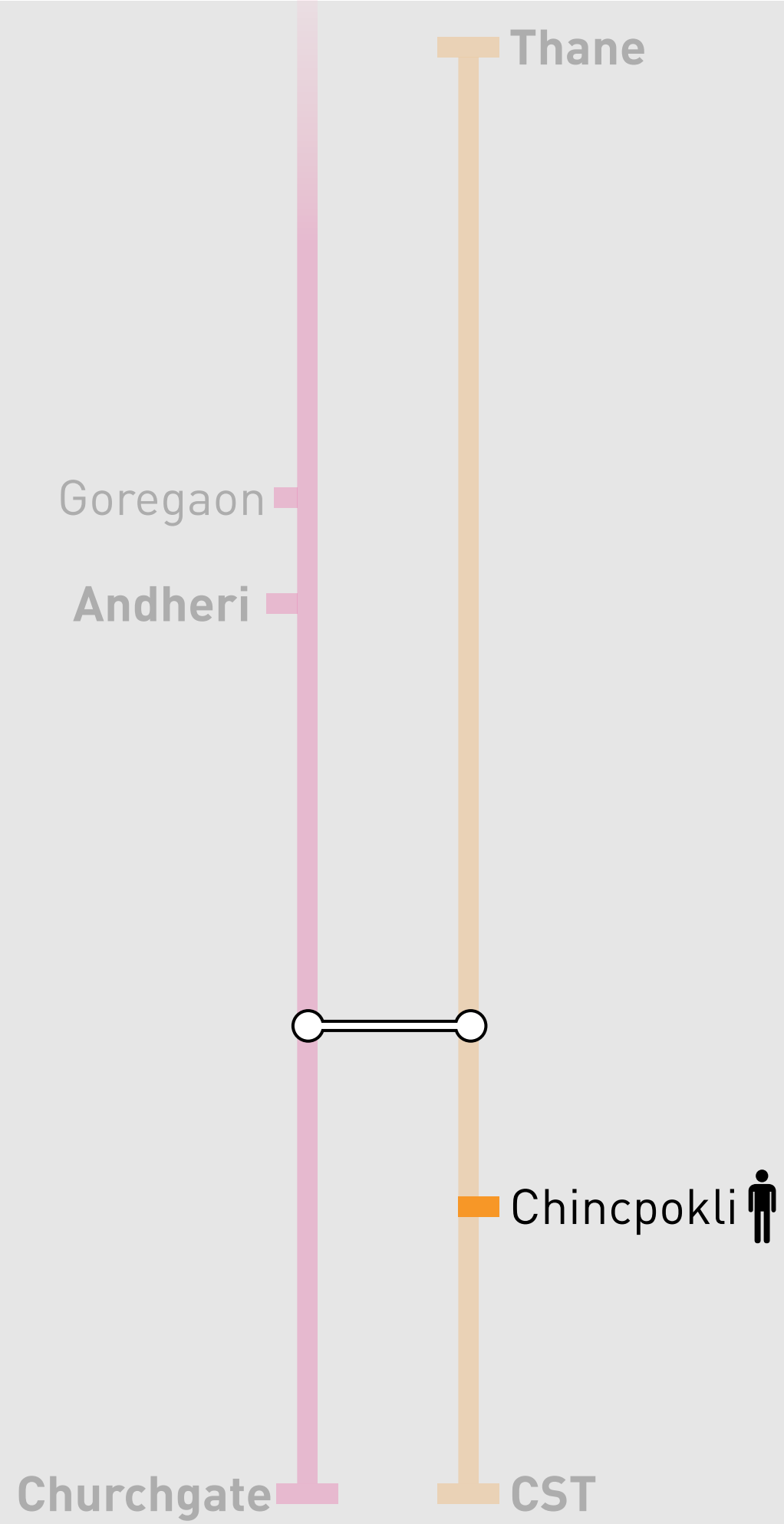
Chincpokli

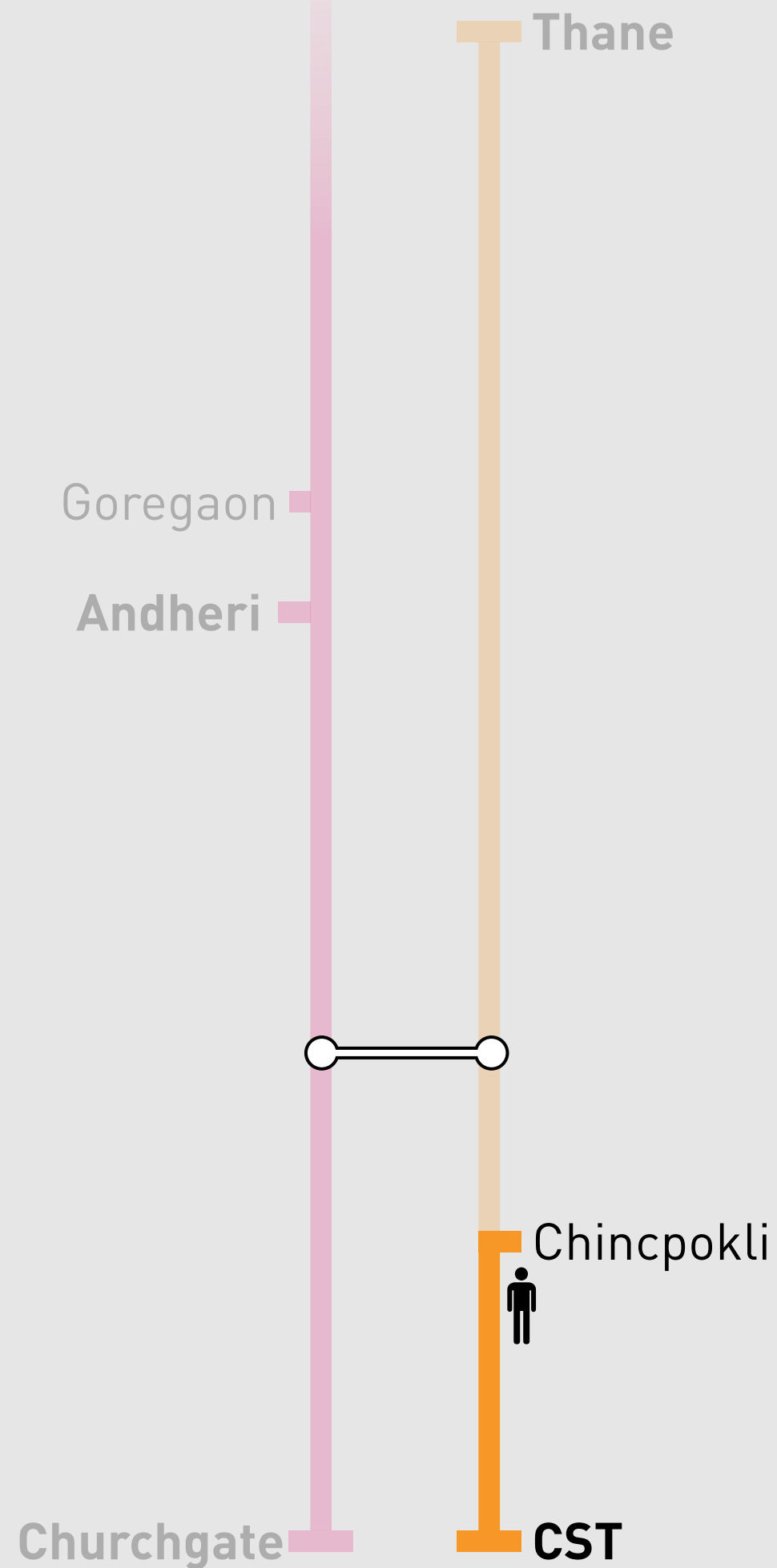
Churchgate

CST



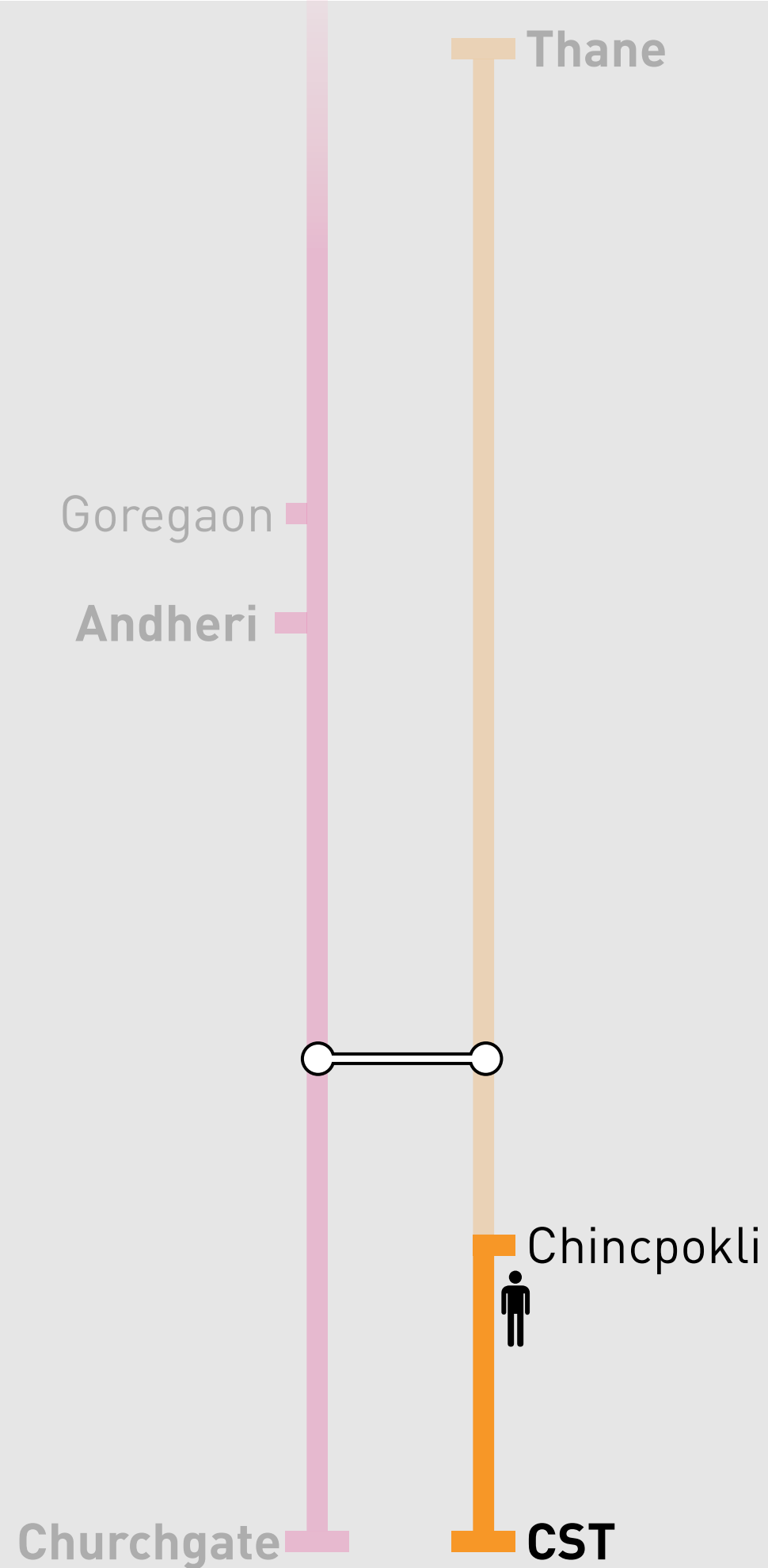
Lets see what **necessary information**
he might require during travel.





Passenger:

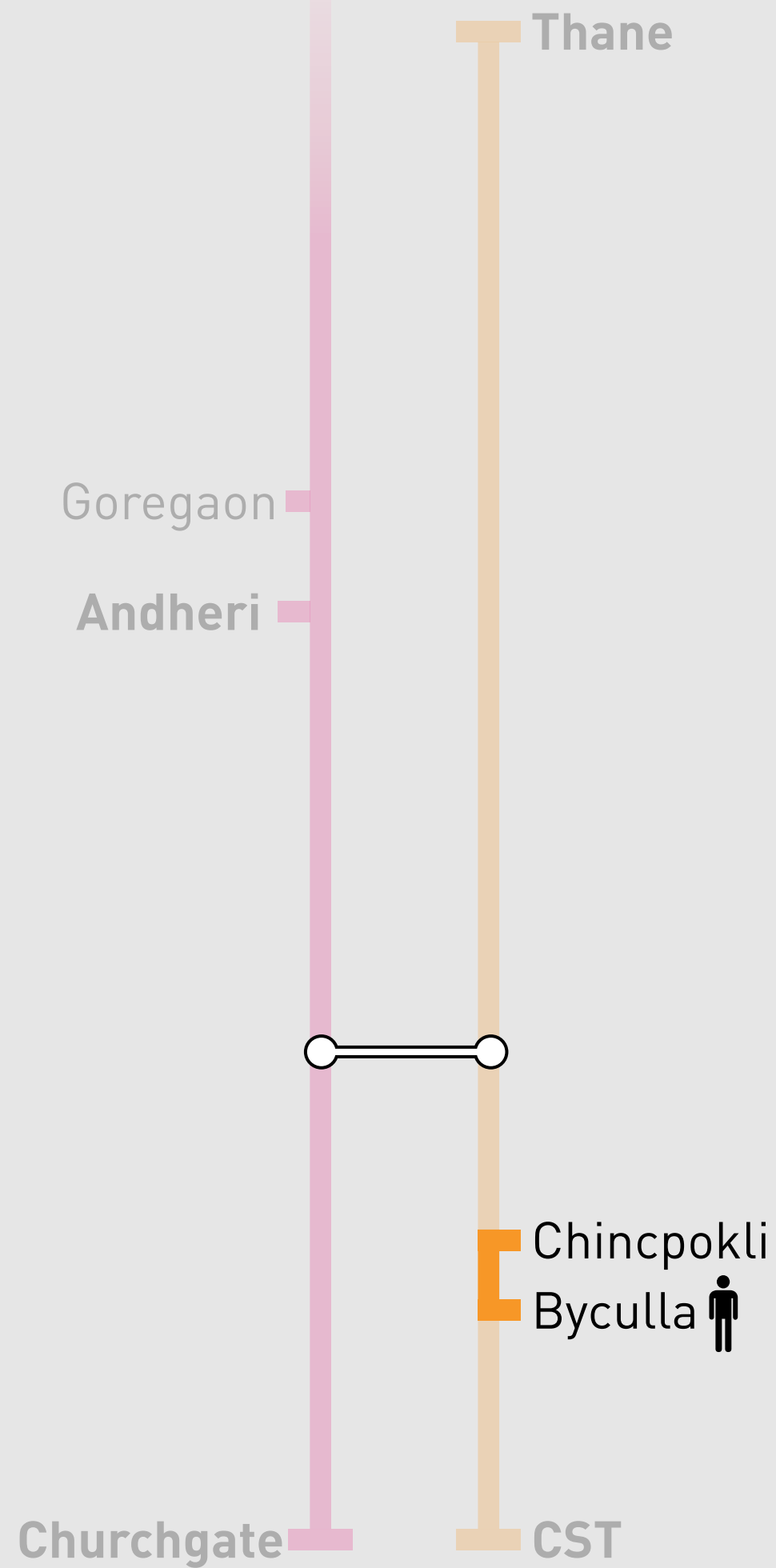
***oops....
wrong
direction!***



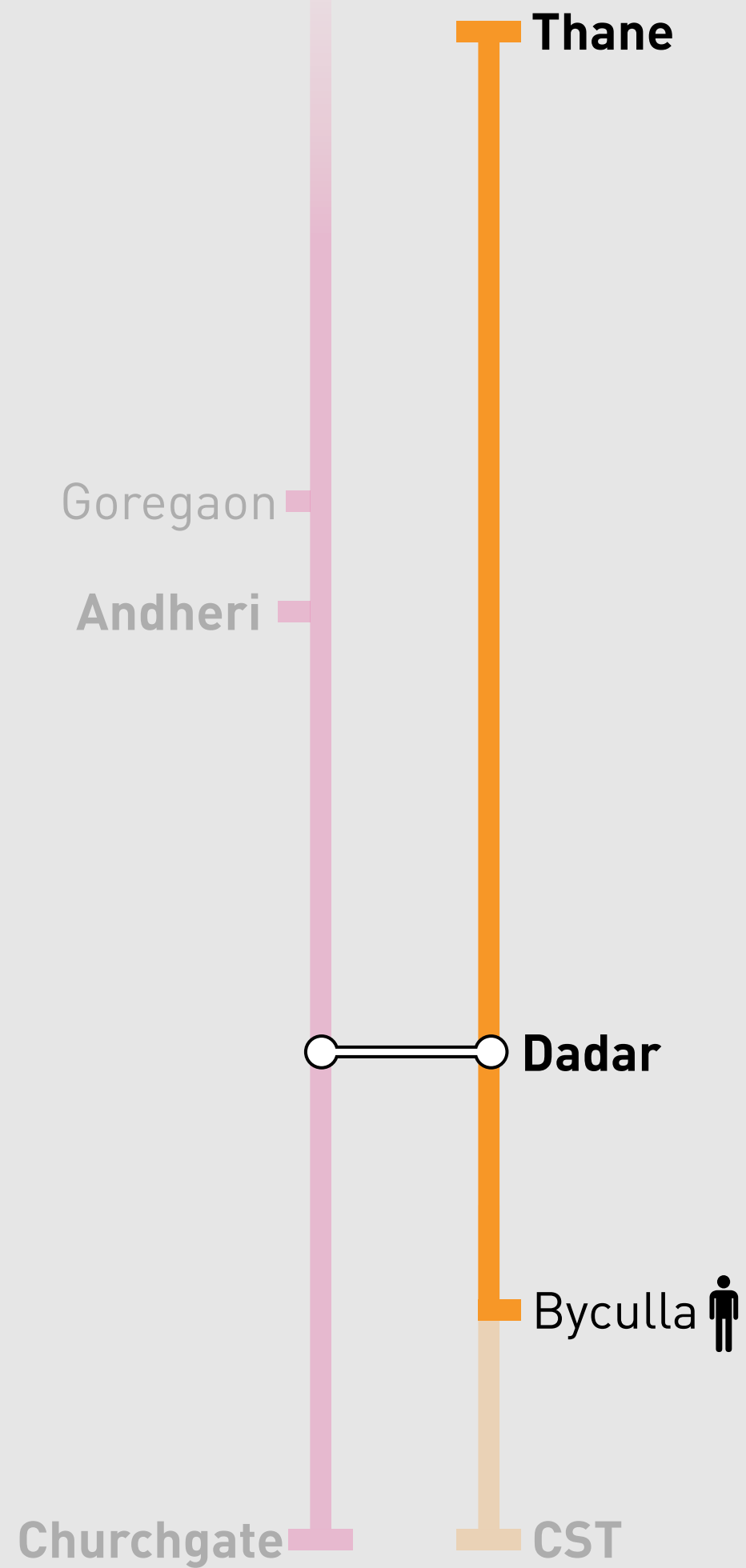
Passenger:

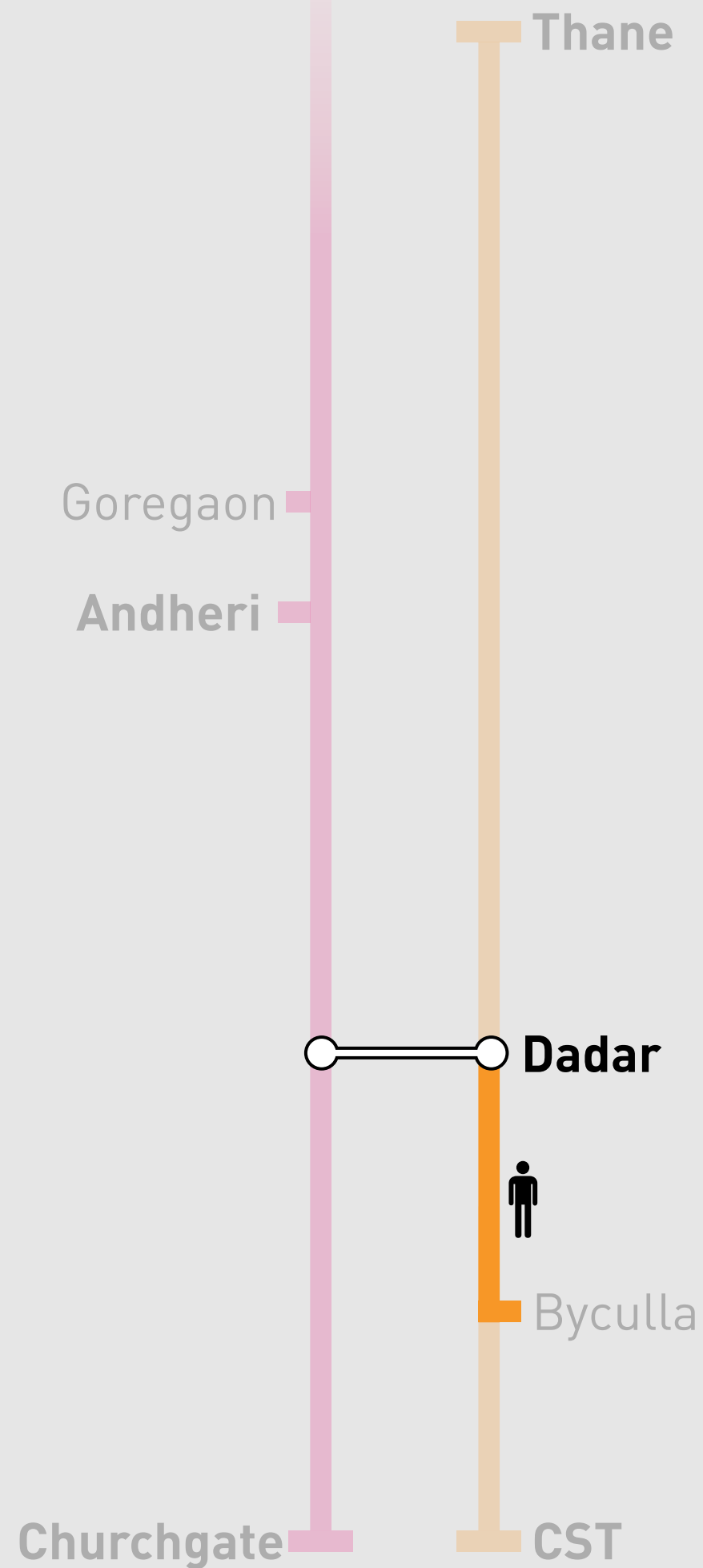
***oops....
wrong
direction!***

End Station



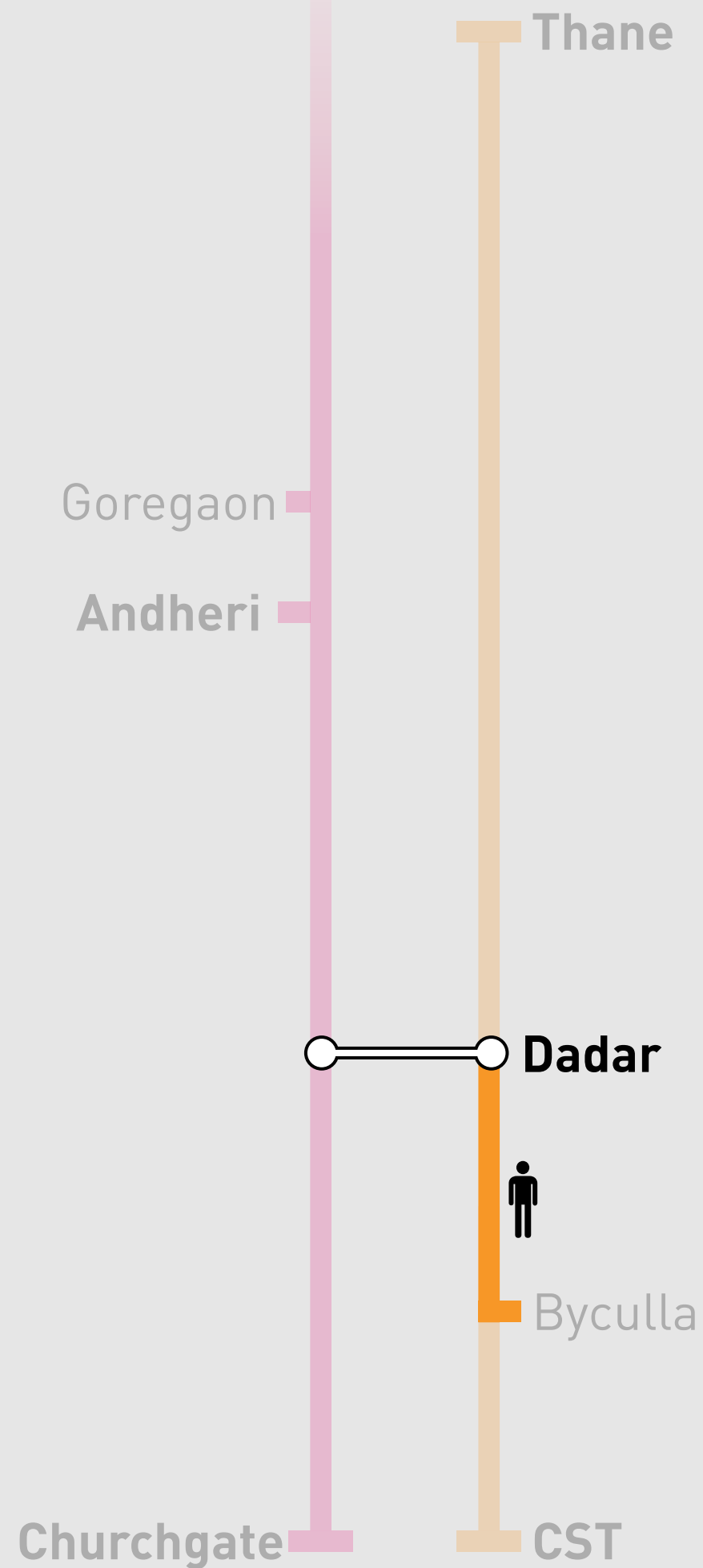
Byculla to Goregaon





Passenger:

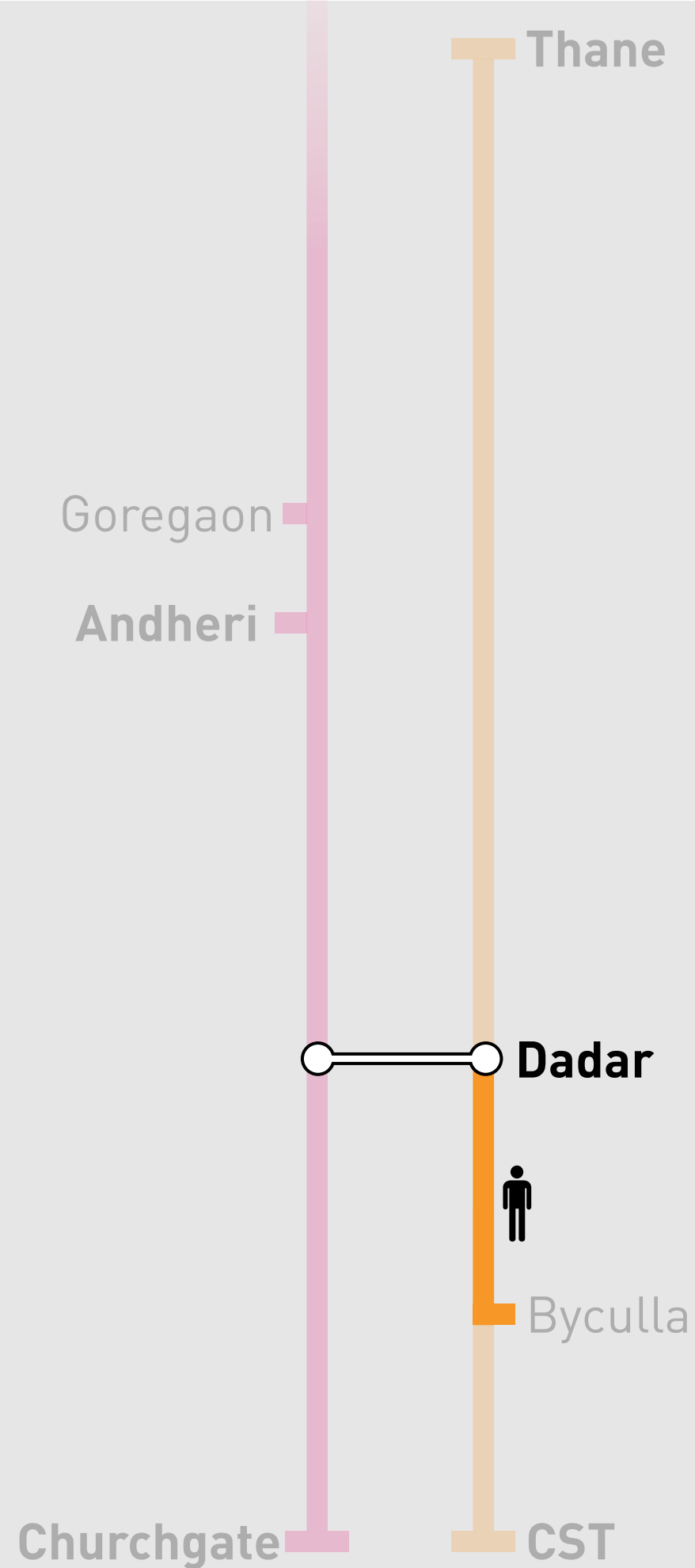
*How do I
know which
is Dadar
Stn.?*



Passenger:

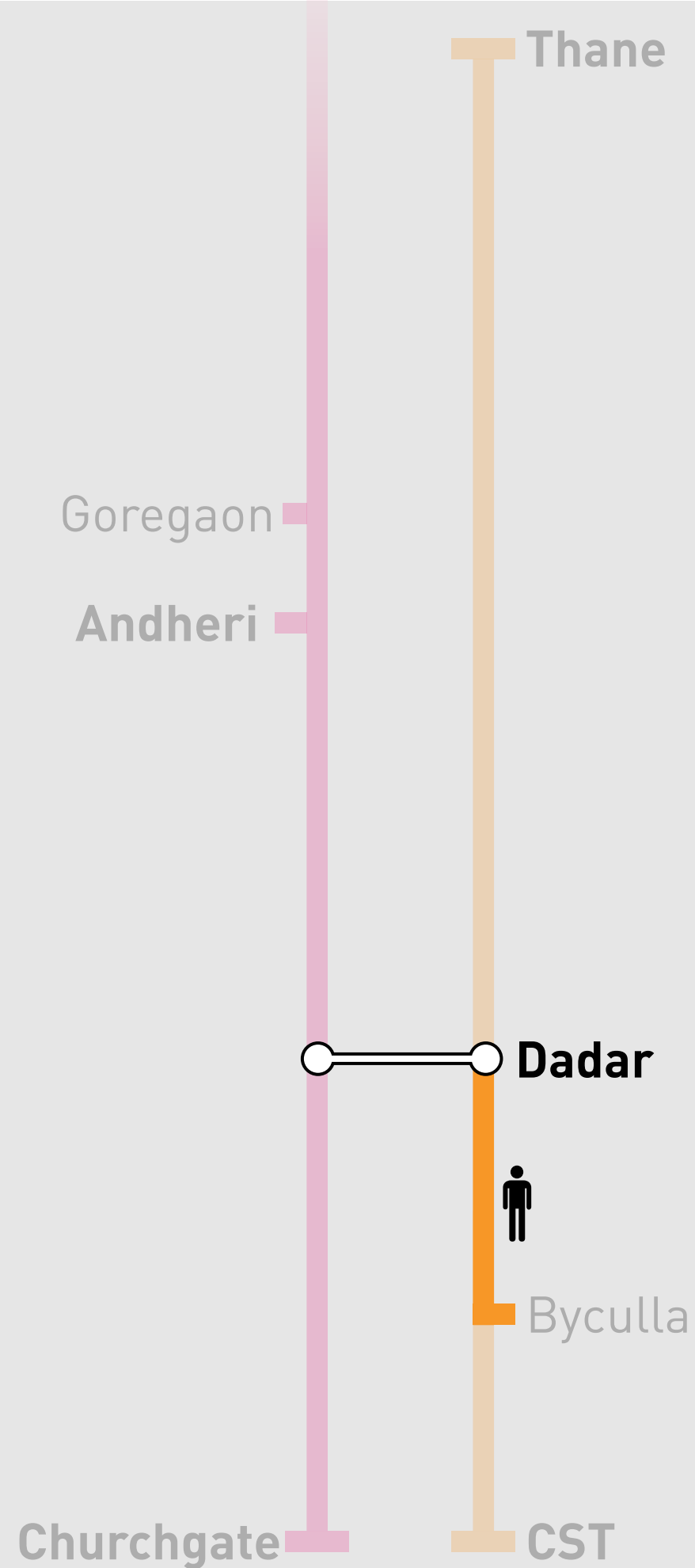
*How do I
know which
is Dadar
Stn.?*

Next Station



Passenger:

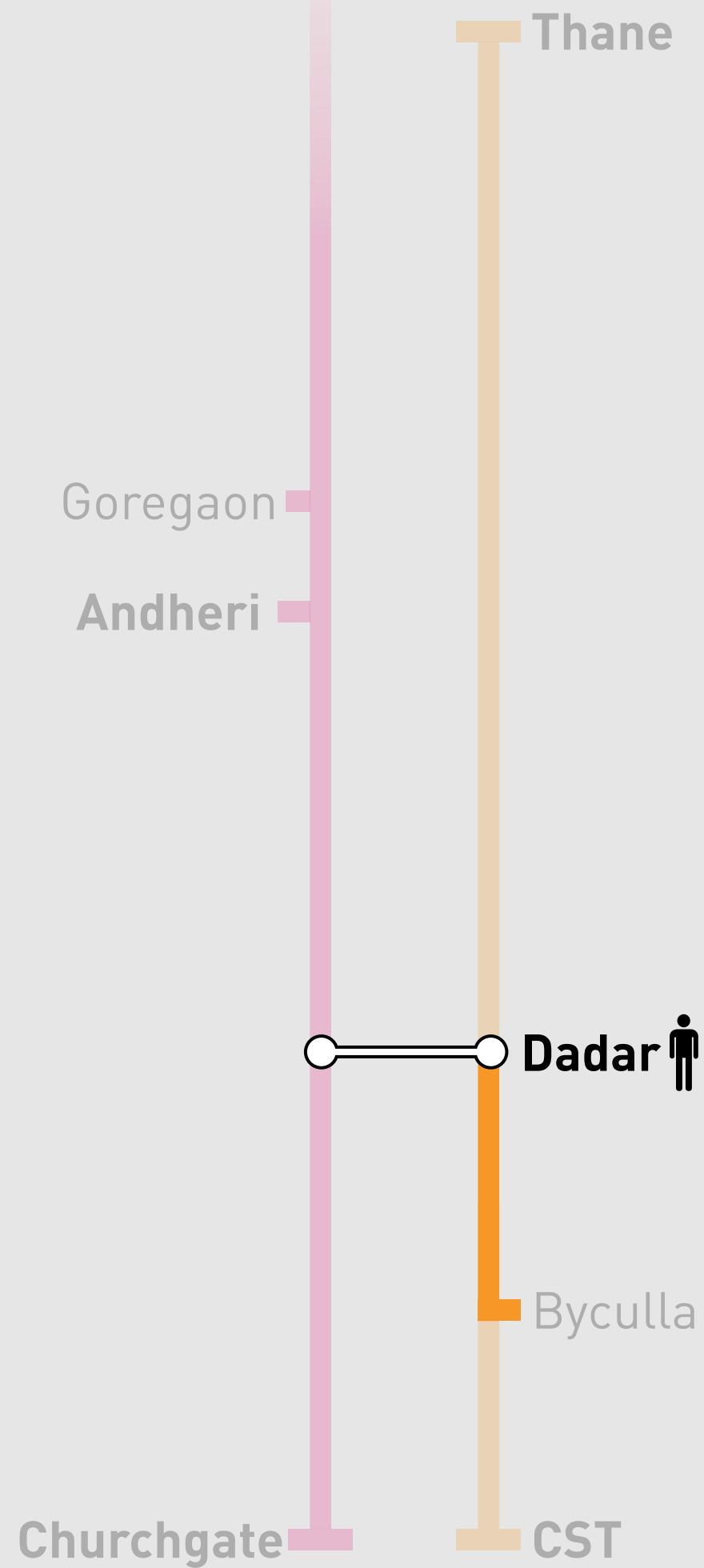
***What
are the
available
trains at
Dadar?***



Passenger:

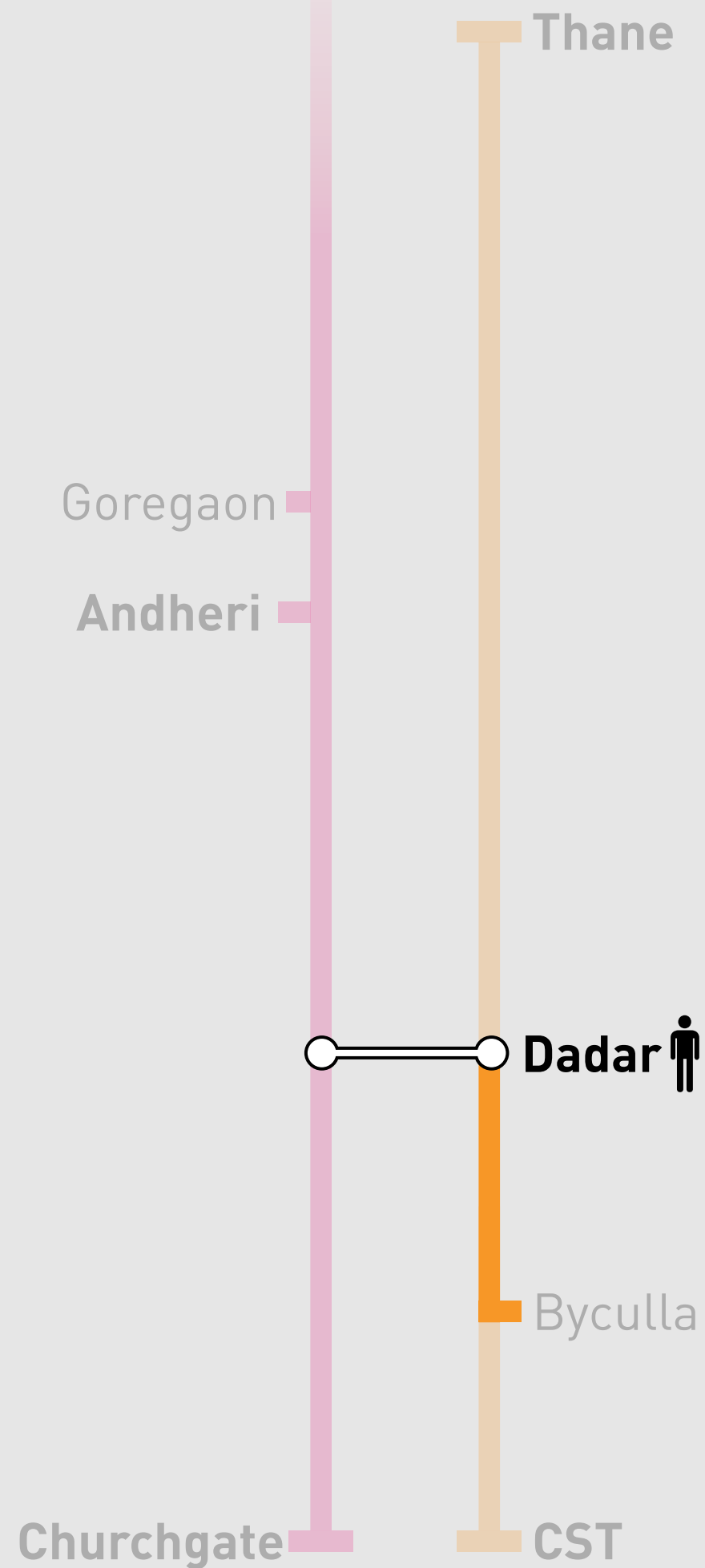
***What
are the
available
trains at
Dadar?***

Availability



Passenger:

*From which
side I have
to get
down?*



Passenger:

*From which
side I have
to get
down?*

Orientation

towards
Borivali/Virar

Thane

Goregaon

Andheri



Dadar

Byculla

Churchgate

CST

towards
Borivali/Virar

Thane

Goregaon

Andheri

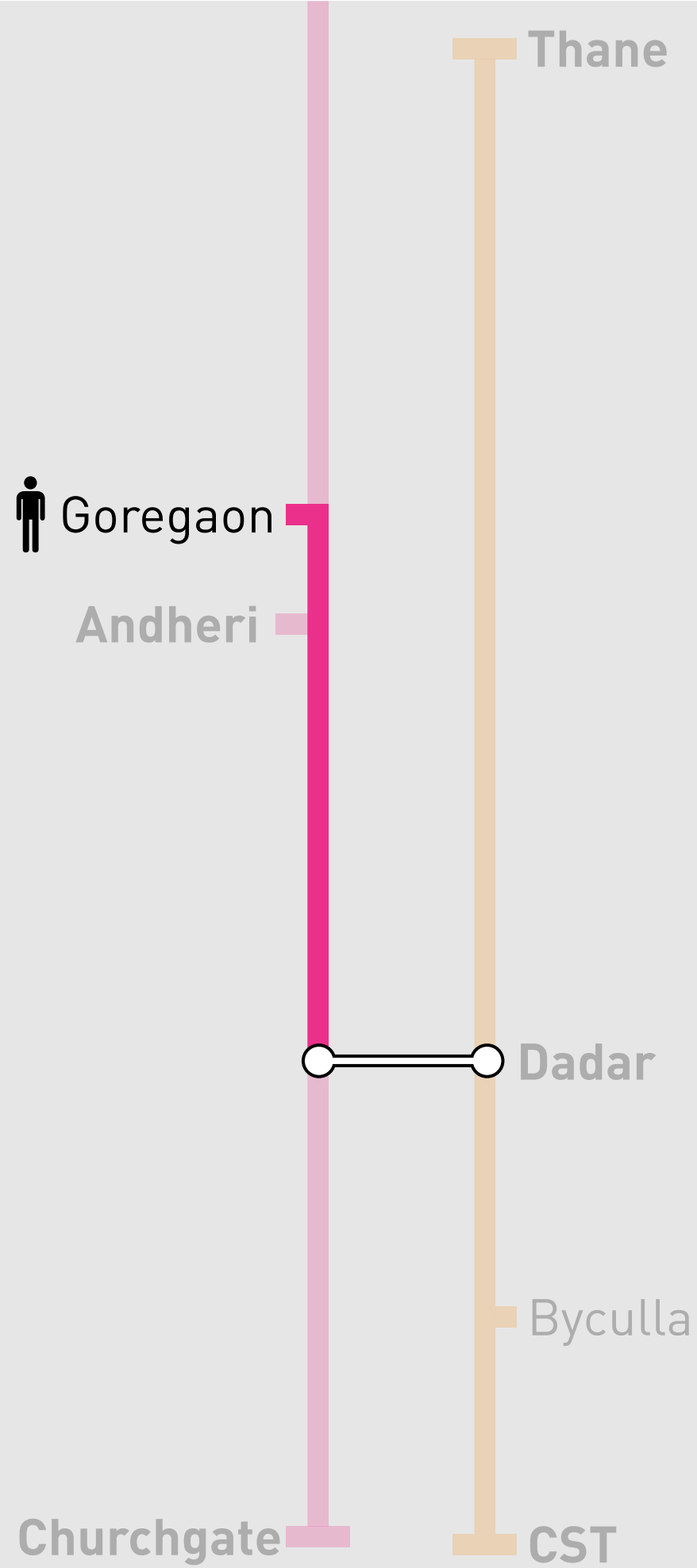


Dadar

Byculla

Churchgate

CST



**necessary
info**

1. End Station
2. Next Station
3. Availability of trains at interchange
4. Orientation of Platform

Since the information is real time, it
can be categorized into tenses of info

**Past
Info**

**Present
Info**

**Future
Info**

**Past
Info**

**Present
Info**

**Future
Info**

Past Info

Previous Station

Start Station

Present Info

Future Info

Past Info

Previous Station

Start Station

Present Info

Current Station

Orientation of
Platform

Future Info

Past Info

Previous Station

Start Station

Current Station

Orientation of
Platform

Future Info

Next Station

End Station

Available trains
at interchange

design & decisions

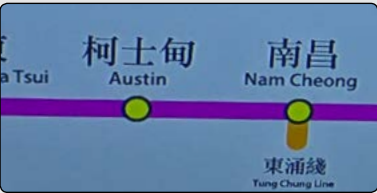
design & decisions

how to be displayed?

visual language

Line Symbols

Singapore Metro



Tokyo Metro



Hong Kong Metro



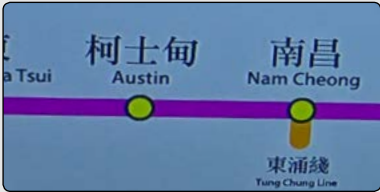




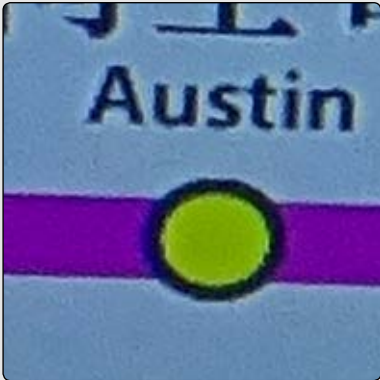



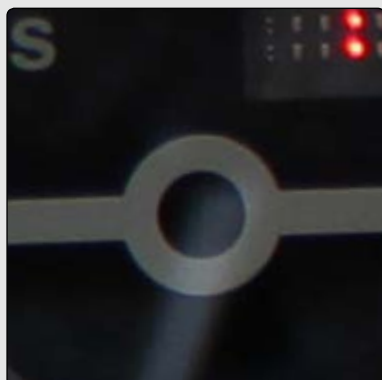
Washington D. C. Metro



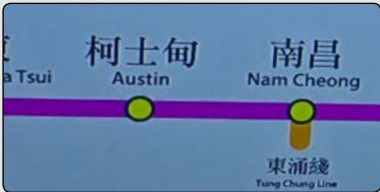




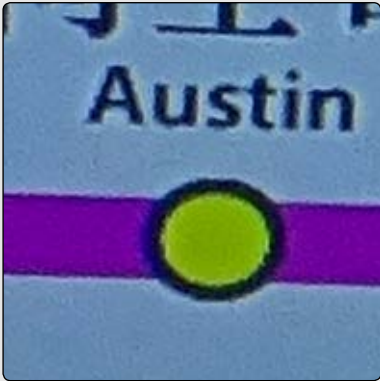



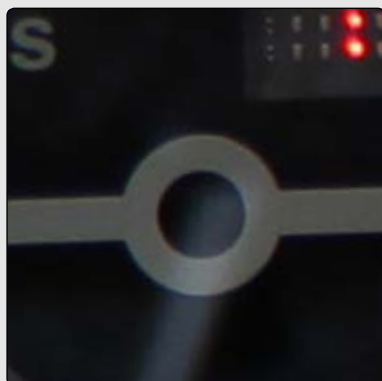


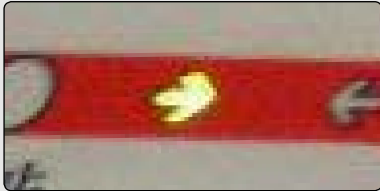
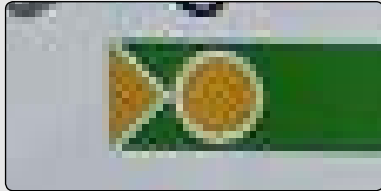
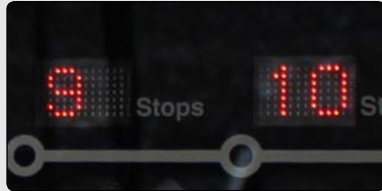
Washington D. C. Metro



visual language

| | Singapore Metro | Tokyo Metro | Hong Kong Metro | Washington D. C. Metro | Washington D. C. Metro |
|--------------------------------|---|--|---|---|---|
| Line Symbols |  |  |  |  |  |
| Point symbols/ Station markers |  |  |  |  |  |

visual language

| | Singapore Metro | Tokyo Metro | Hong Kong Metro | Washington D. C. Metro | Washington D. C. Metro |
|-----------------------------------|---|--|---|---|---|
| Line Symbols |  |  |  |  |  |
| Point symbols/ Station markers |  |  |  |  |  |
| Direction/Status of Travel |  |  |  |  |  |

typography



Kanjur Marg

Myriad Pro

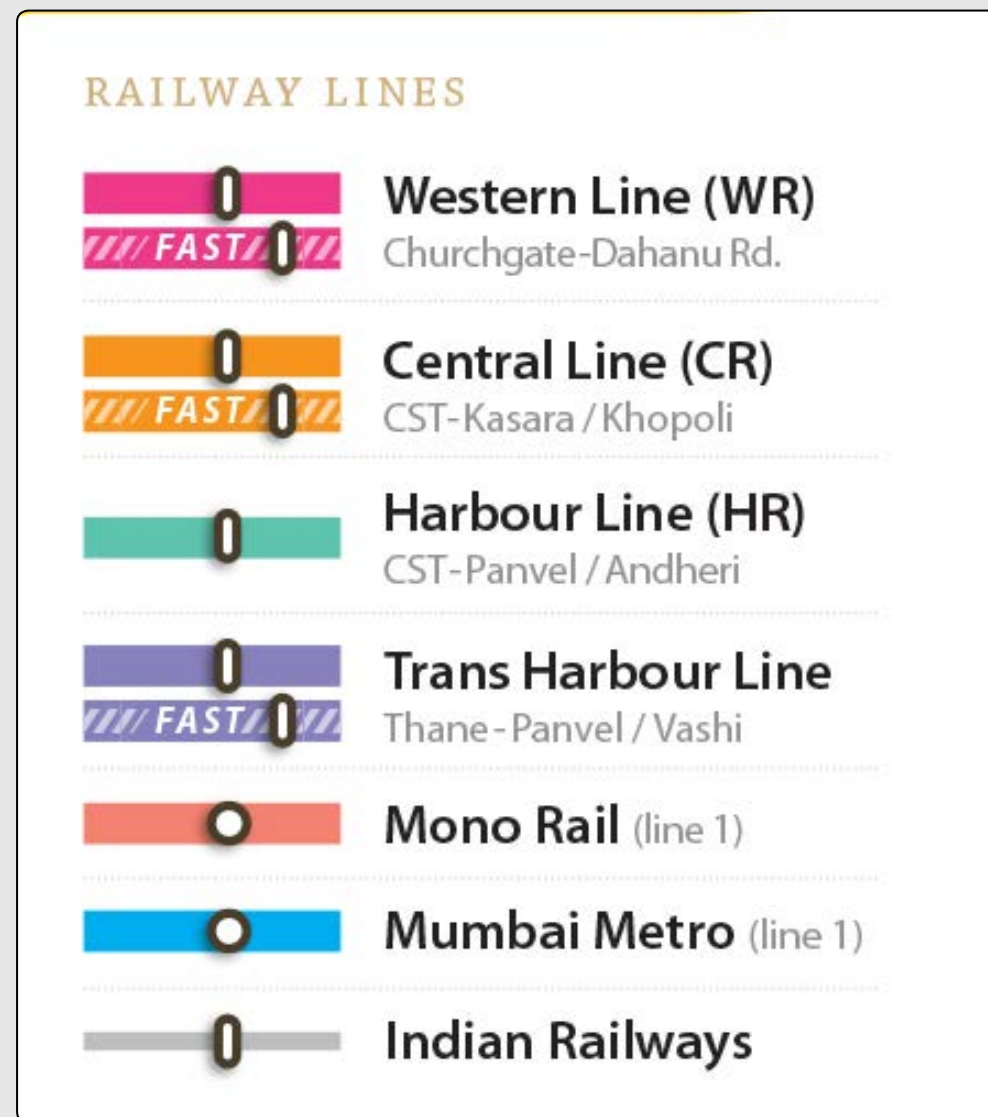


कांजुर मार्ग

Kohinoor
Devanagari

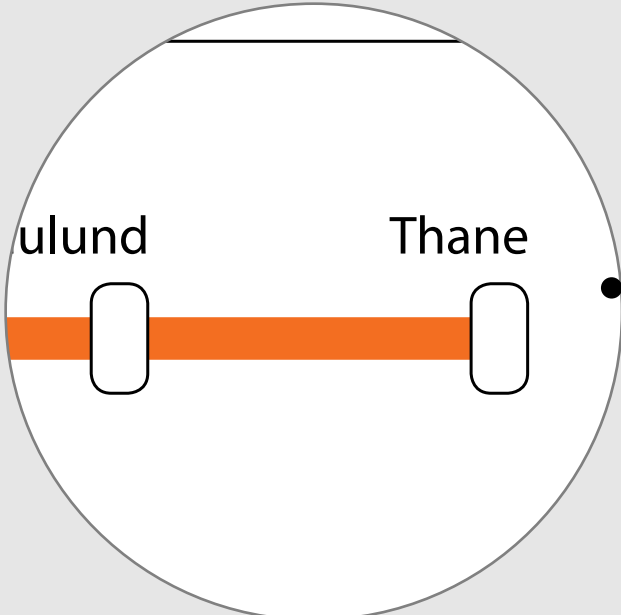
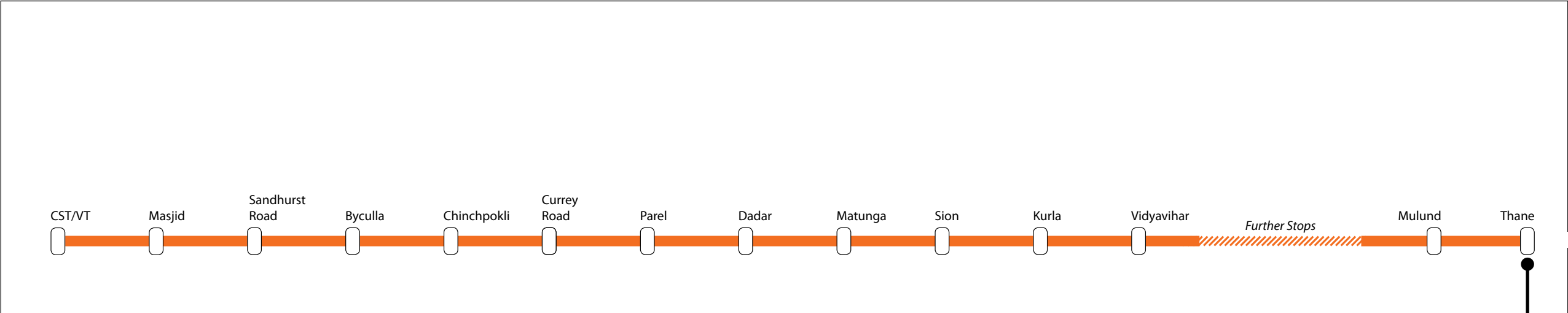
Large x-height; open counters

colour

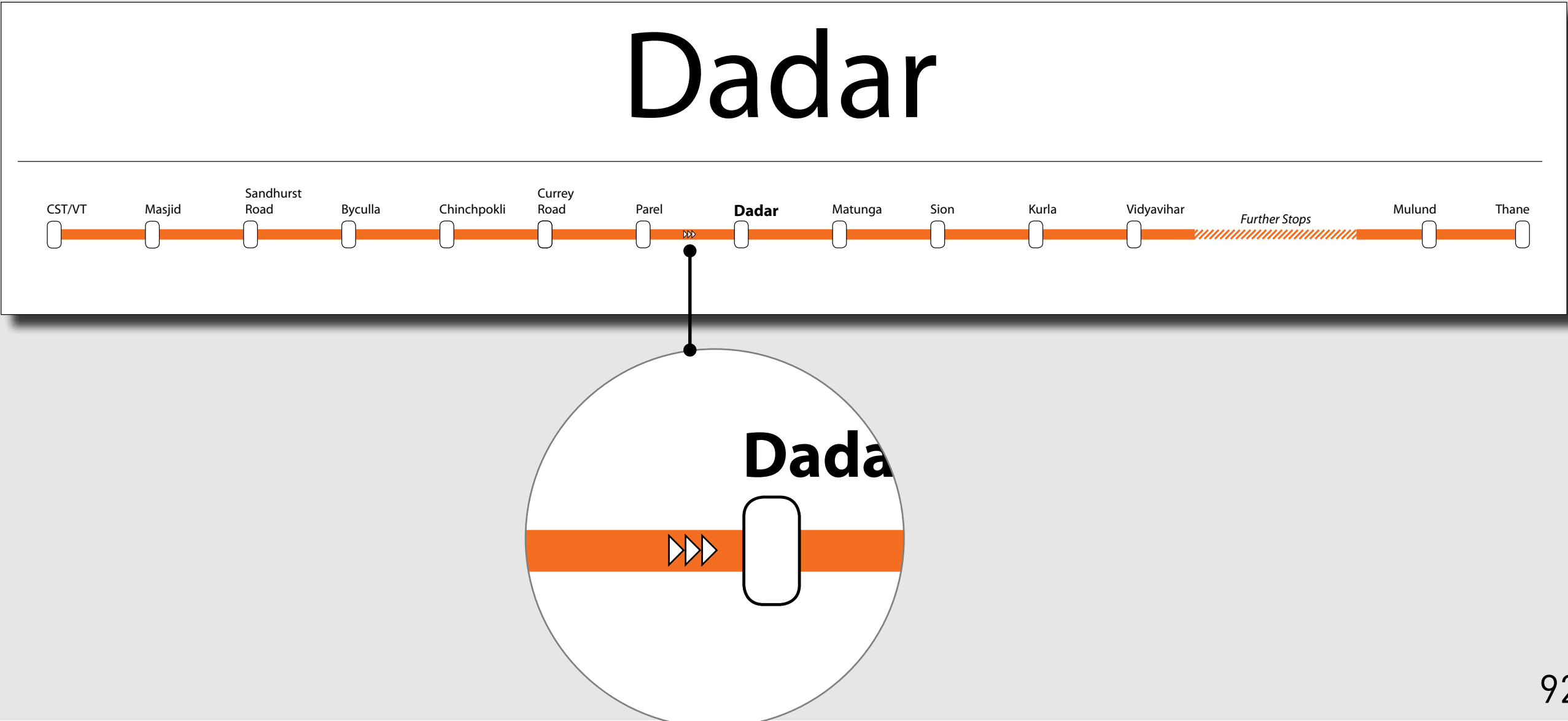


iterations

1
end station

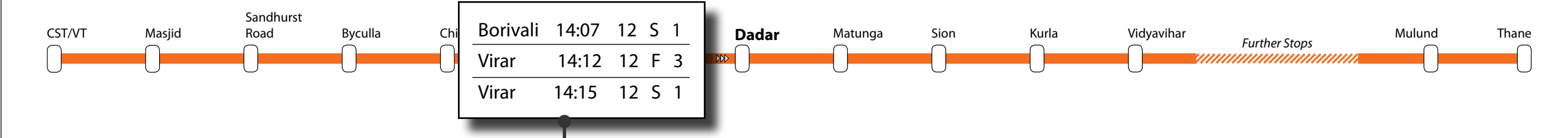


2
next station



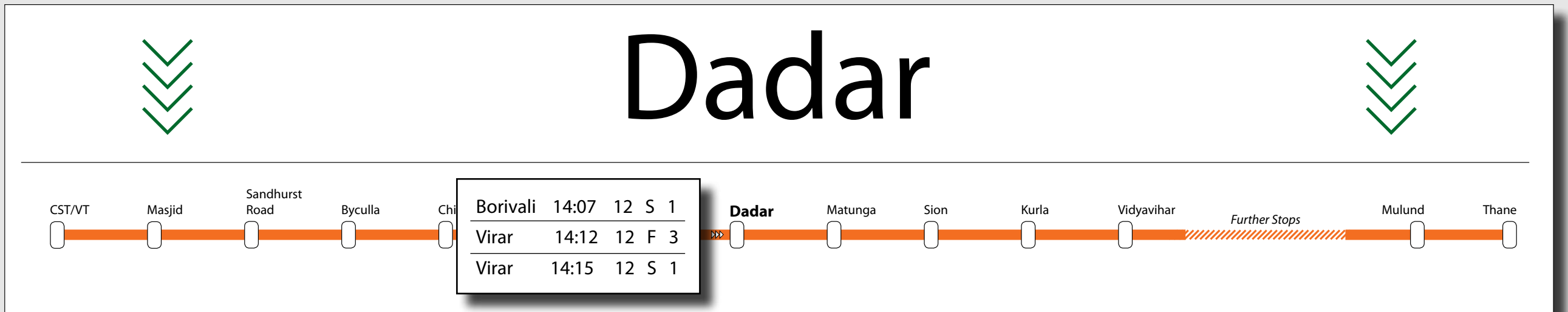
3
available
trains at
interchange

Dadar

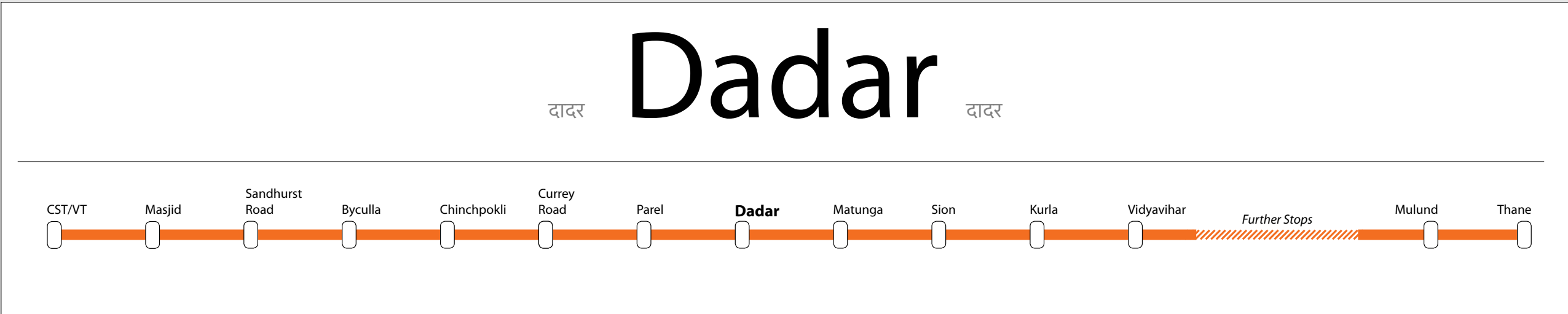


| | | | | | |
|--------------------------------------|----------|-------|----|---|---|
| Chhatrapati Shivaji Maharaj Terminus | Borivali | 14:07 | 12 | S | 1 |
| | Virar | 14:12 | 12 | F | 3 |
| | Virar | 14:15 | 12 | S | 1 |

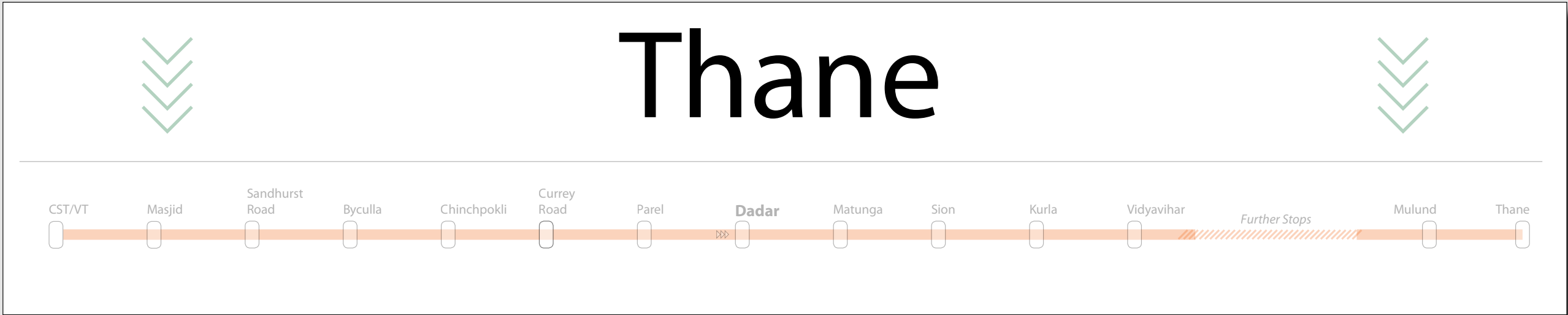
4. orientation of platform



motion
design



next
station
text



The priority of the information Next Station is high and hence it is big and bold so that this is the first visible thing.

Thane

थाने

ਗਾਯੇ

next
station
text

| | | |
|-------------------------------------|------------------------------------|------------------------------------|
| Thane थाने ठाणे | थाने ठाणे Thane | ठाणे Thane थाने |
| Thane <u>Thane</u> थाने ठाणे | थाने Thane <u>थाने</u> ठाणे | ठाणे Thane थाने <u>ठाणे</u> |
| Thane ठाणे थाने | थाने Thane ठाणे | ठाणे थाने Thane |
| थाने Thane ठाणे | ठाणे थाने Thane | Thane ठाणे थाने |

थाने

Thane

ठाने

ઠાણે

થાને

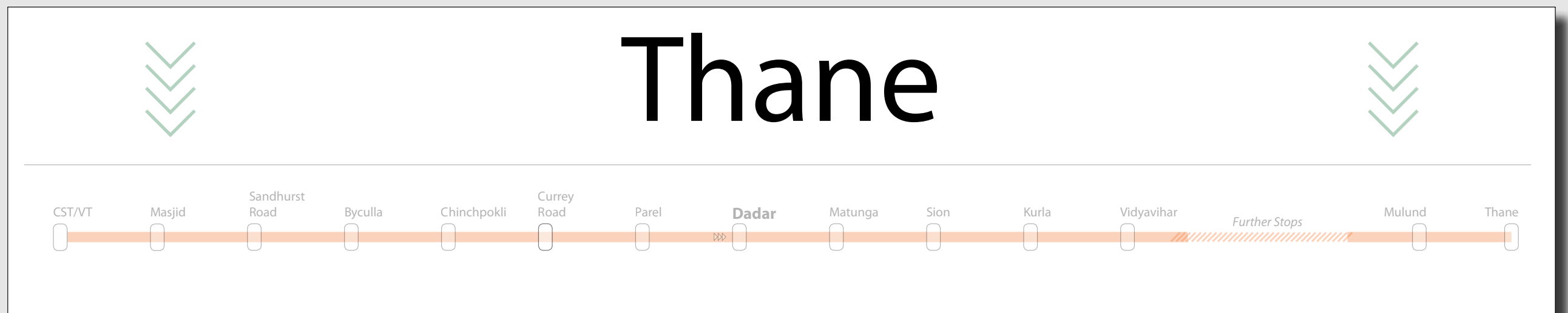
Thane

Thane

ठाणे

थाने

indication of interchange



An interchange station or a transfer station is a train station for more than one railway route.

थाने

Thane

ठाने

Line 1 with colour 1

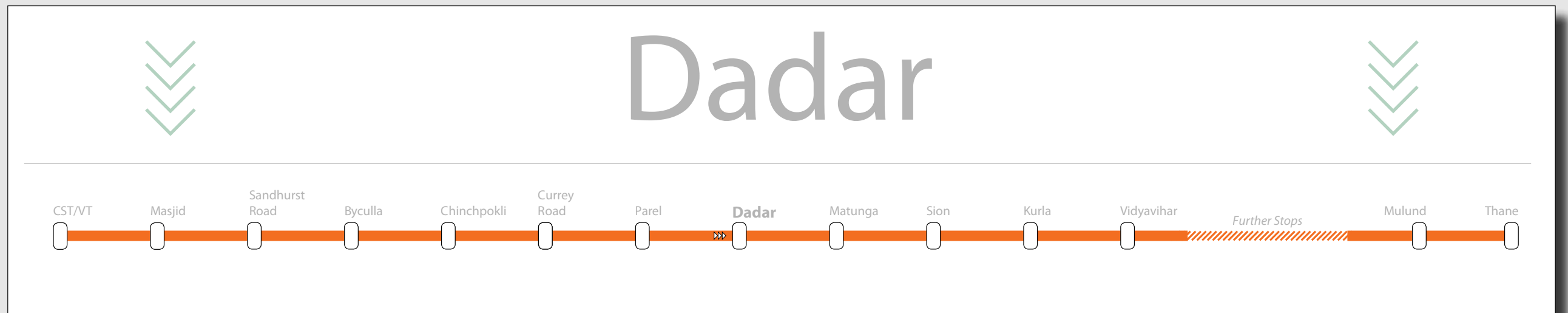
थाने

Thane

ठाणे

Line 2 with colour 2

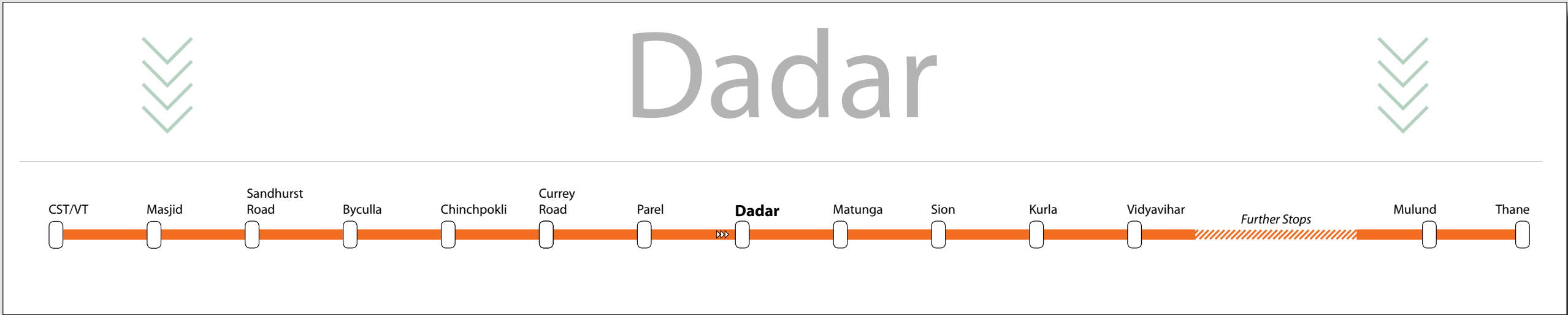
line map

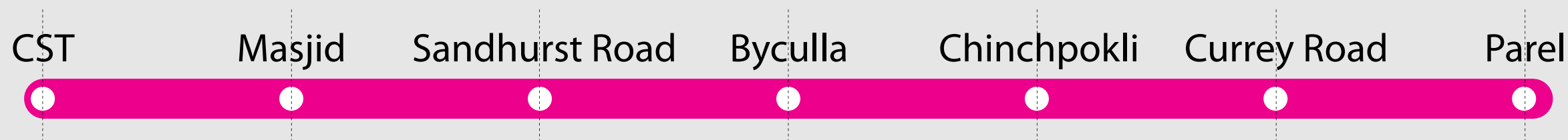
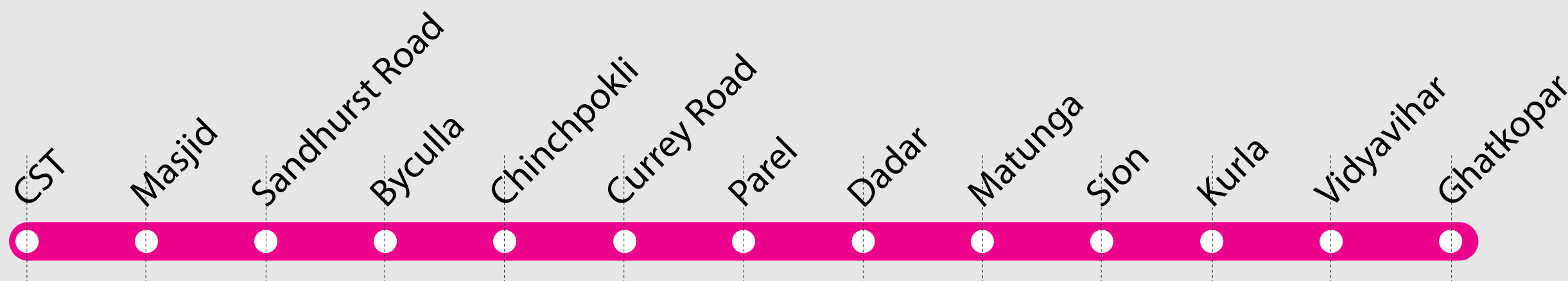
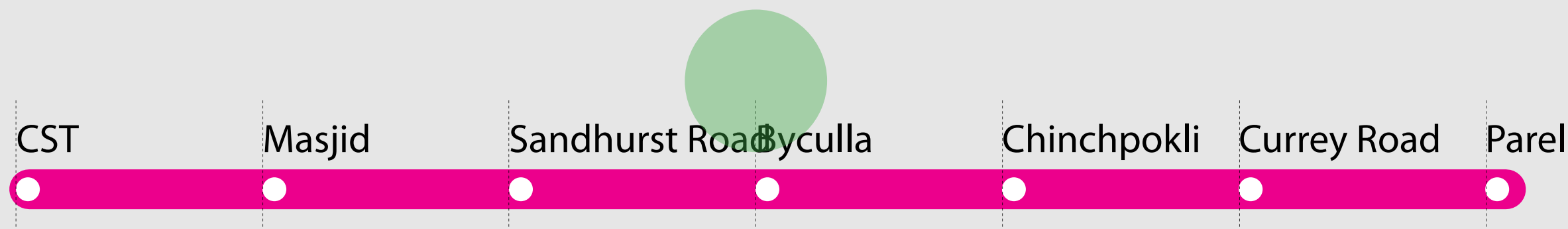


Rail network consists of finite number of stations represented by a dot/markers and these stations are connected by tracks represented by a line.



station text
on line map





परळ
परेल
Parel

दादर
दादर
Dadar

माटुंगा
माटुंगा
Matunga



over crowded

परळ
परेल
Parel

दादर
दादर
Dadar

माटुंगा
माटुंगा
Matunga



eliminating repetition

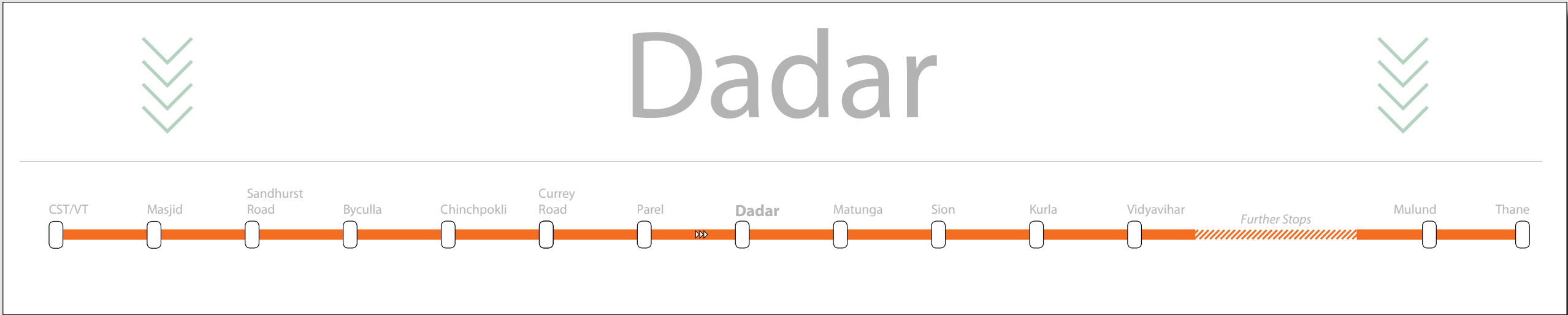
परळ

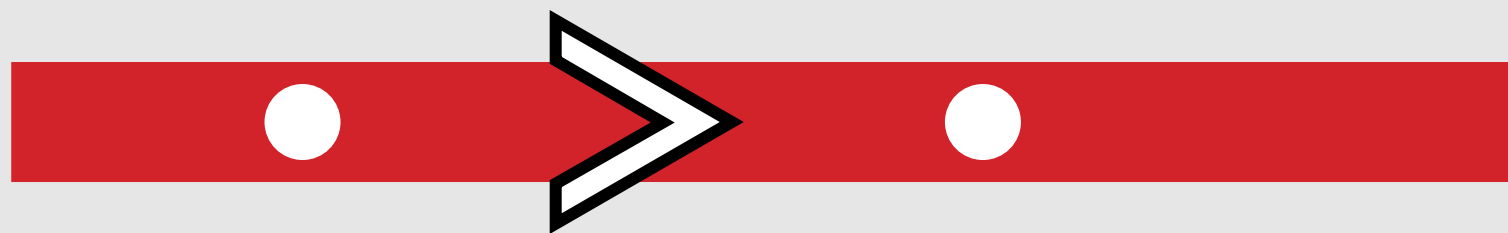
दादर

माटुंगा

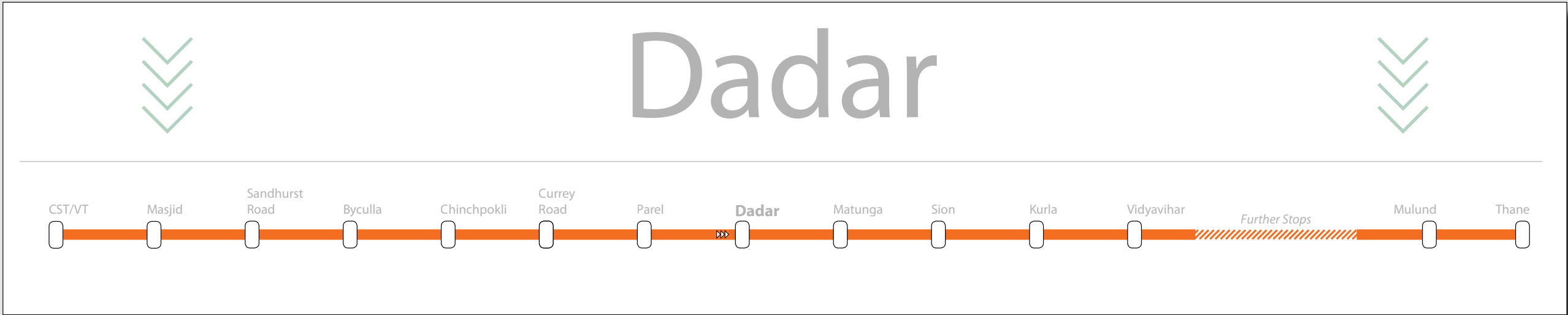


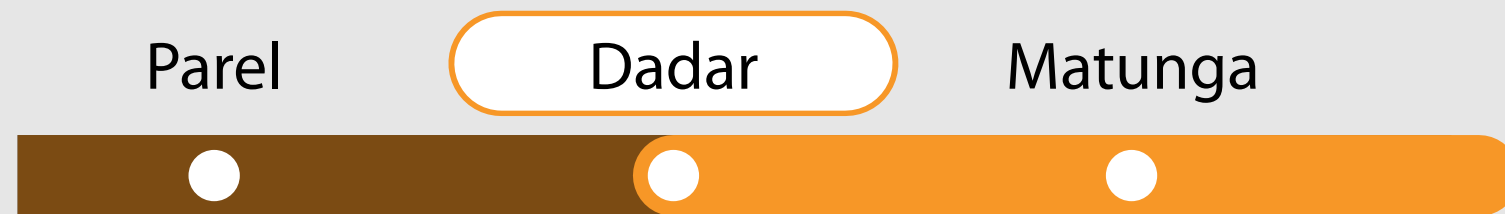
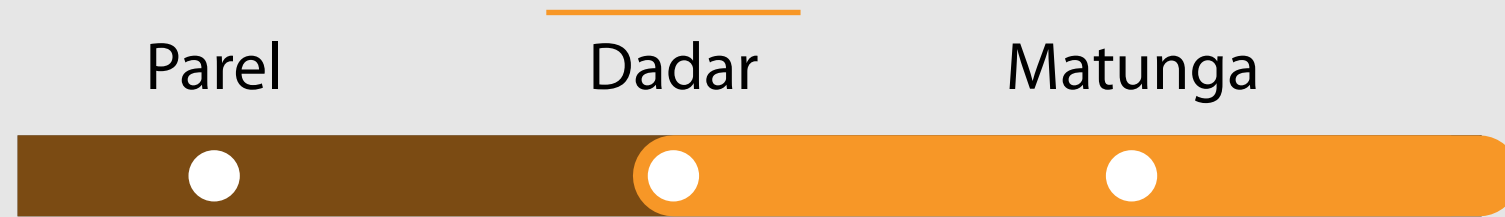
travelling



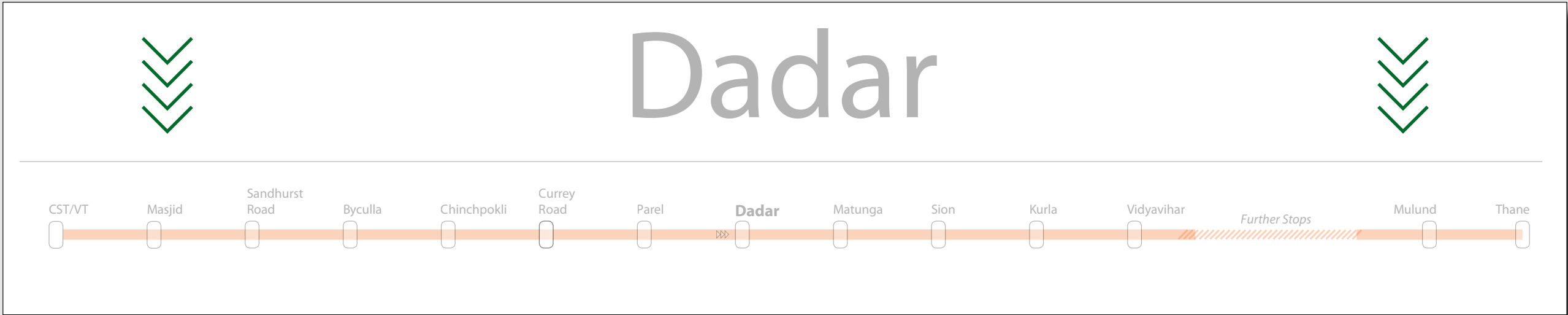


next station
highlighter
on line map



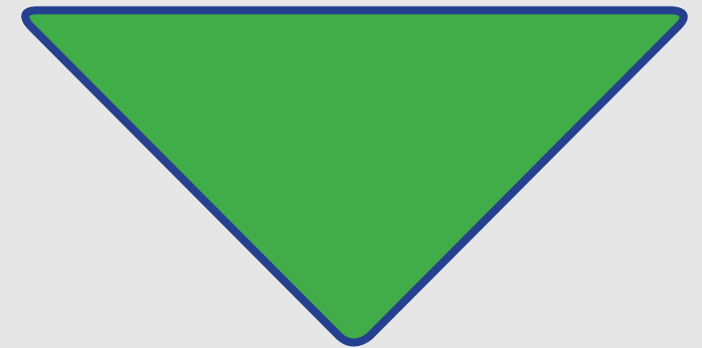


orientation
of exit

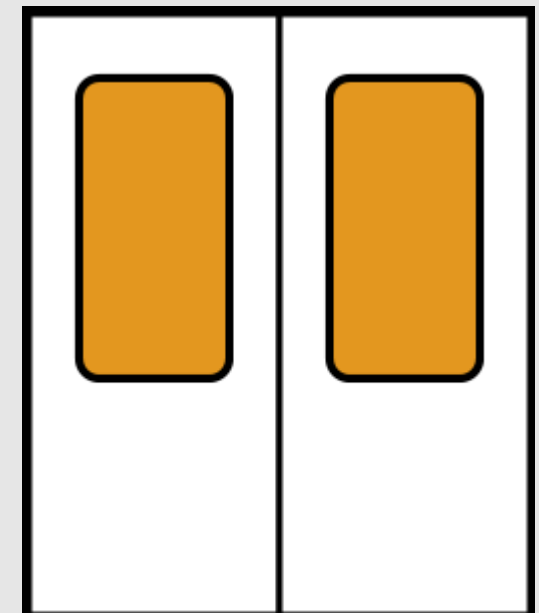
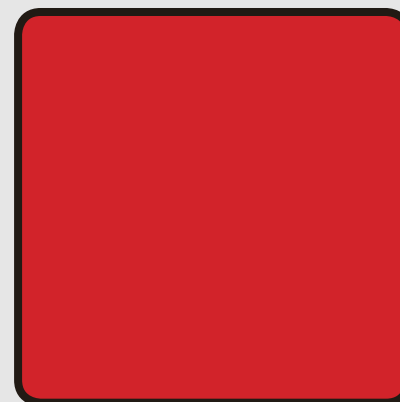


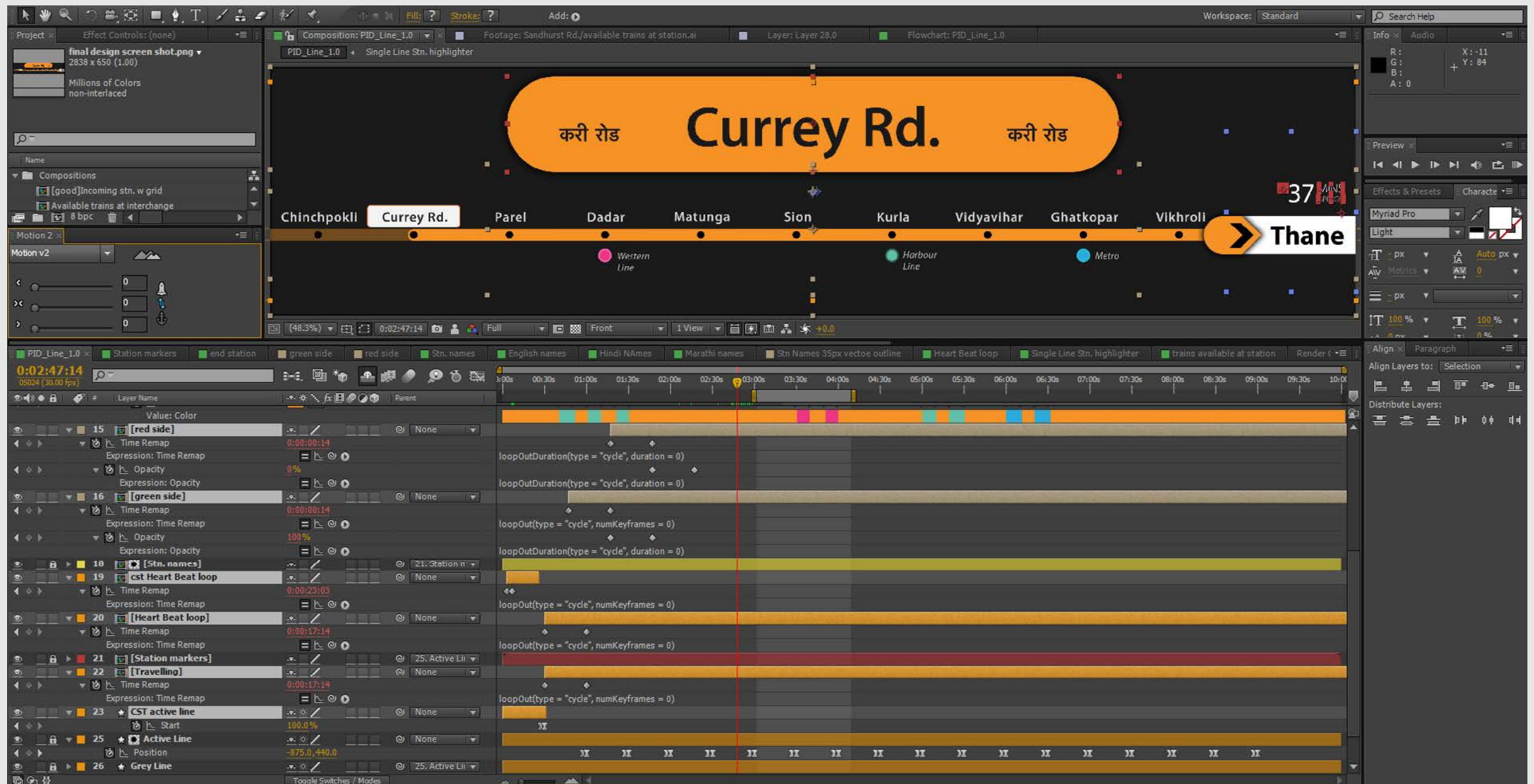


**Door opens
on this side**



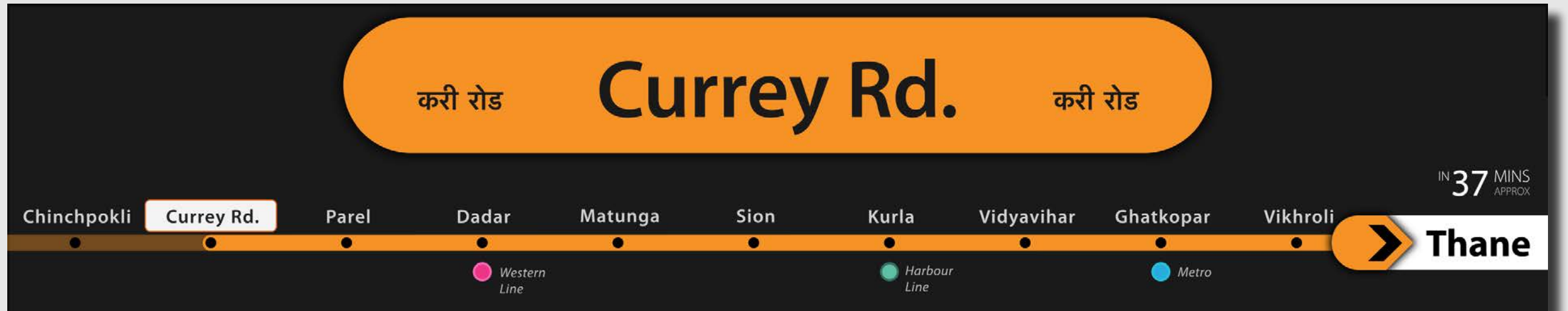
**Door opens on
the other side**





after effects workspace

final design screenshot



End



Thank You for travelling with us.

Good Day.