

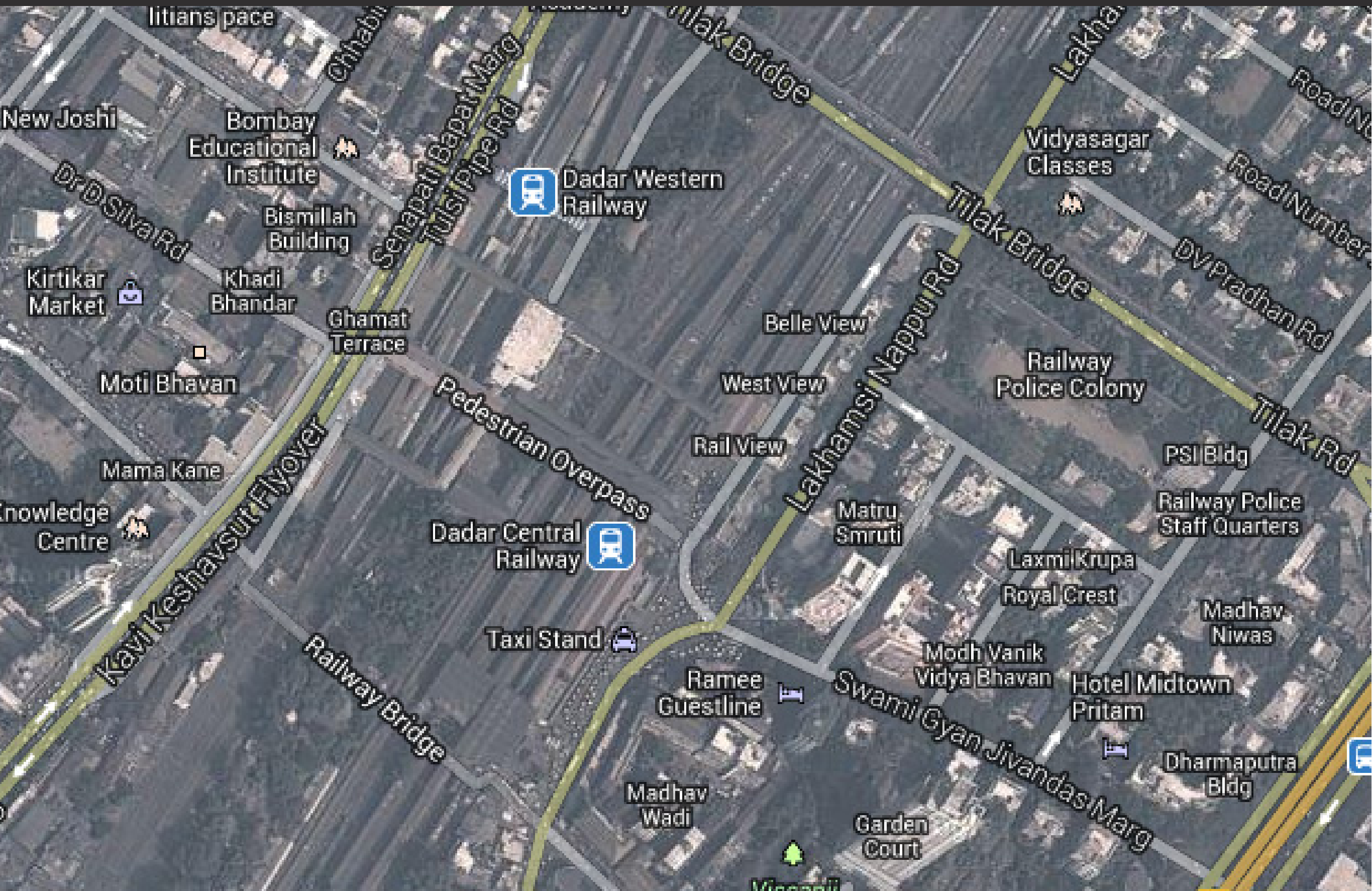


Wayfinding & Signage System for Dadar Railway Station

Mugdha Kale

Visual Communication
IDC, IIT Bombay.

Dadar Railway Station

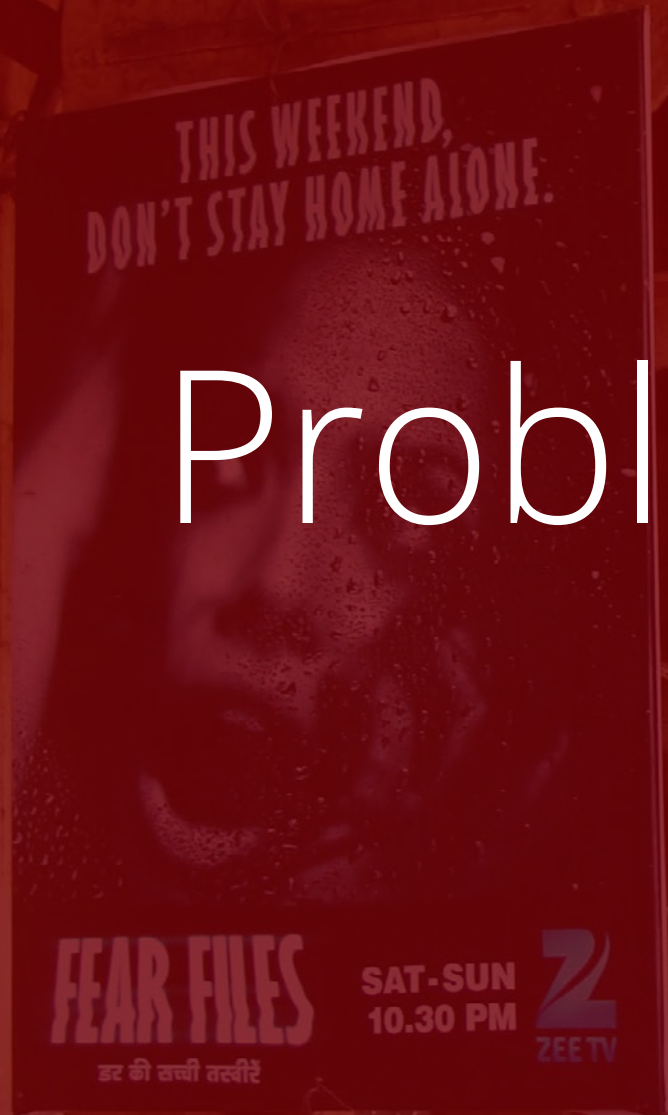


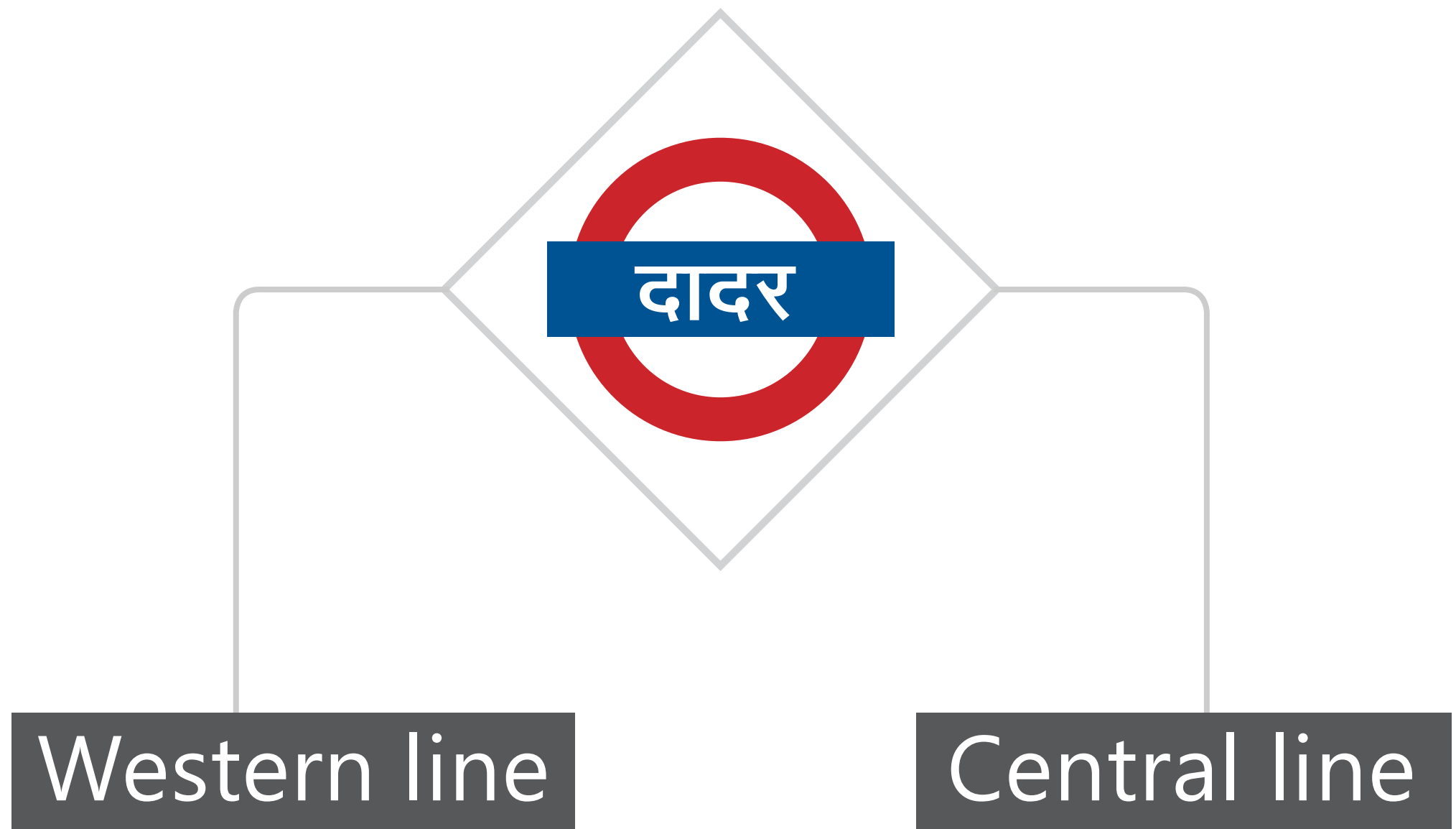
Crowd = Dadar Railway Station



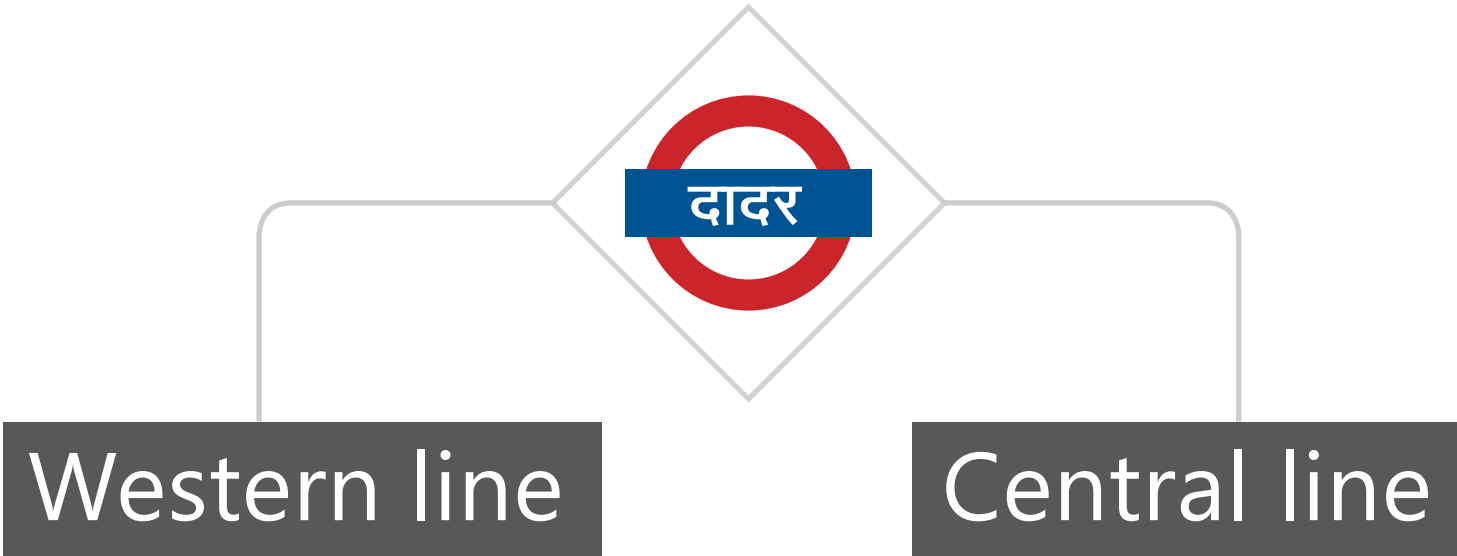


Problem Identification





Existing Railways Lines



System	Mumbai Suburban Railway	Mumbai Suburban Railway
Route	Churchgate Virar	Chatrapati Shivaji Terminus (CST) Karjat - Kasara
Terminals	Yes	Yes
Platforms	5	8

Existing Facilities





Commuters

- ◆ Daily
- ◆ Frequent
- ◆ Rare
- ◆ New



User Survey





गन्तव्य स्थान Destination	चिन्ता CAR	तेज / धीमी Fast/Slow	समय TIME	गन्तव्य स्थान Destination	चिन्ता CAR	तेज / धीमी Fast/Slow	समय TIME	गन्तव्य स्थान Destination
छत्रपति शिवाजी टर्मिनस	12	धीमी	3	टिंटवाला	12	तेज	4	

LIC
Life Insurance Corporation of India
www.lifeline.in

WALK IN, DRIVE OUT
Lowest EMI ₹1793/-
State Bank of India
HURRY! CONTACT YOUR NEAREST BRANCH

- 80% "On Road Price" Financing
- Longest Repayment - 7 years
- Anytime Repayment without Penalty
- No Advance EMI
- Interest on Daily Reducing Balance
- Free Accident Insurance





Inquiry at Police Desks



Seeking help at the information desks



Seeking help at railway stalls



Observations after User study

Finding Places

Existing signages

Lots of Advertisements, Posters, Hoardings

Crowd = Dadar

Existing Signages

Users Insights & Observations

- **Existing Signages**

- No specific colour coding for central & western line.
- No Uniformities - colour, shape
- Numbers
- Indicators
- Safety
- Railway Timetable
- Railway Route

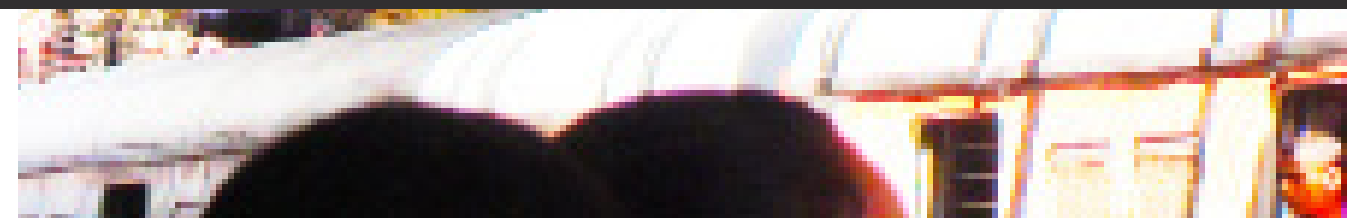
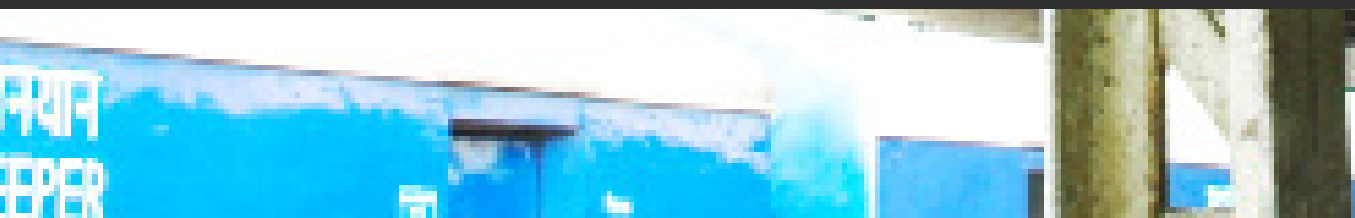
Central line - Ladies Coach



Western line - Ladies Coach

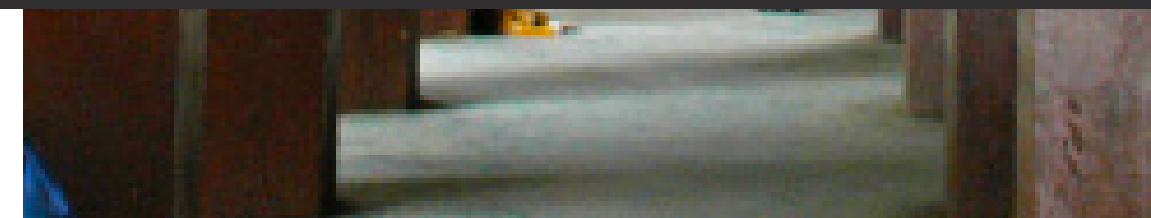
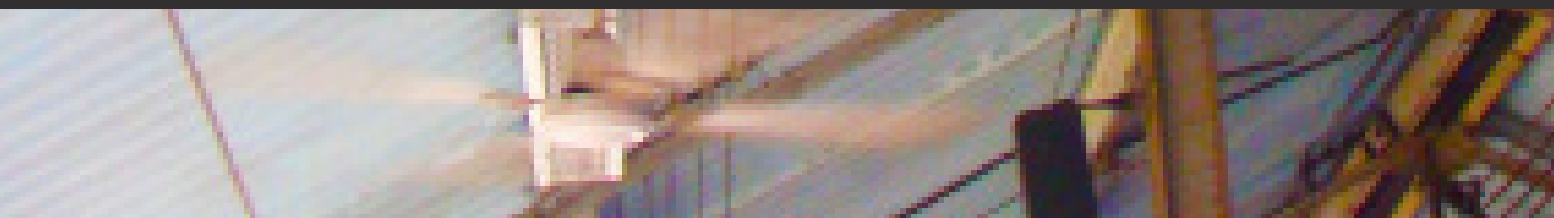


Different formats for similar information



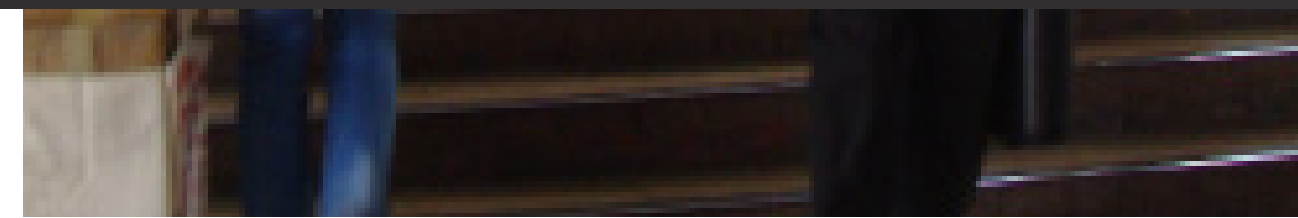
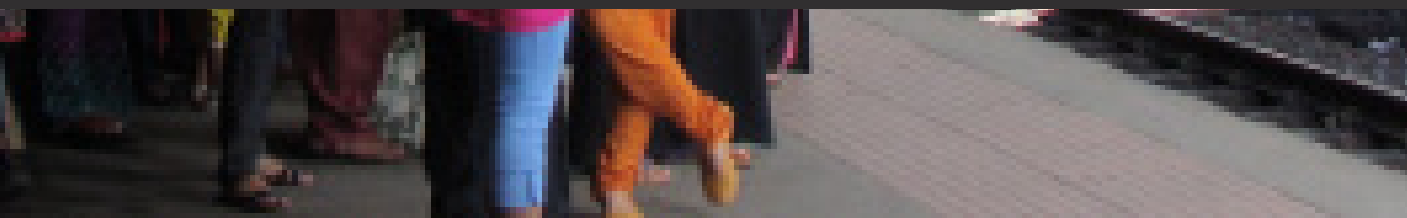


Hidden or unseen locations



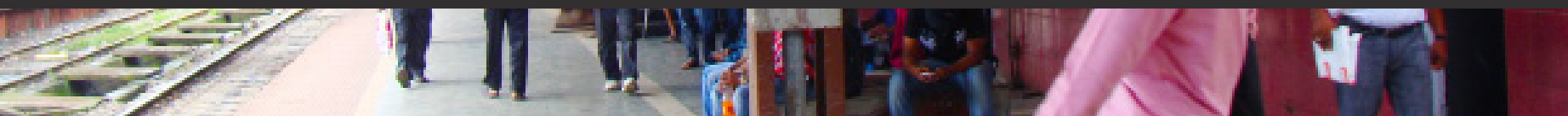


Signage overlaps and not in the visual cone





Unstructured placements of signages
Colour coding for Emergency

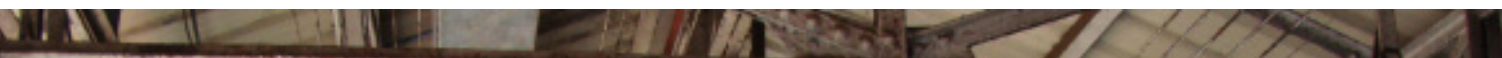




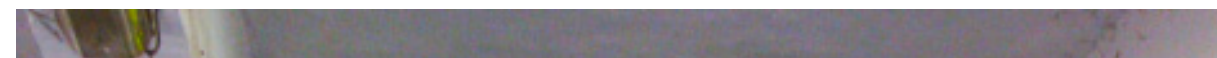
Central Line | Signages



Western Line | Signages



Central Line | Indicators



Western Line | Indicators

Existing Wayfinding

Users Insights & Observations

- **Wayfinding**

- Way for central line as well as western line
- Platform no. 1& 2, 3& 4 (central line)
- Ticket counters - Booking counter
 - Platform ticket counter, Reservation, cancellation
- Exit - East & west
- Train route, Fast train, Slow train

Wayfinding within the station



Approach to platforms 1 & 2 not indicated



Soft toy stall is the indicator that is used



Approach to platform 3 & 4 are not in commuters line of sight



Advertisements



रिफ़ इज्ज ही आपकी आपकन हक़ दिनाता है.

7 SEPT
FRI-SUN
8:30 PM

SONY
TELEVISION

CHITRA PATI

TURNING
POINT
SCHOLARSHIP
2012

Upto 50
Deserv
&

GNIT
India's First Cloud Campus

Express
Diploma
India's First Cloud Campus



Existing Wayfinding

- Way for central line as well as western line
- Platform no. 1& 2, 3& 4 (central line)
- Ticket counters - Booking counter
 - Platform ticket counter, Reservation, cancellation
- Exit - East & west
- Train route, Fast train, Slow train

Touch Points



Police help desk

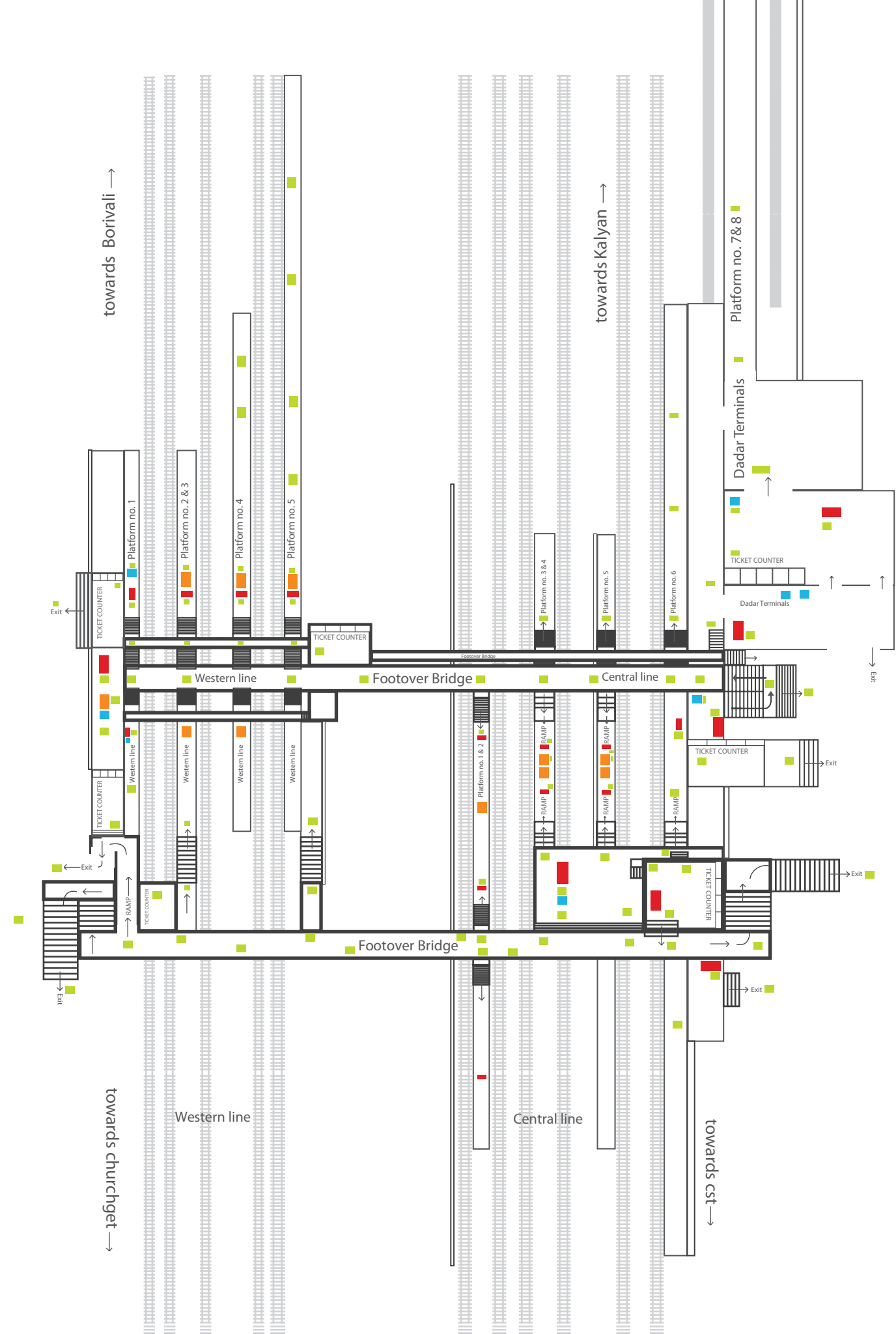


ATM, Stalls



Bootpolishwala,chanawala

Other



Aim

To create wayfinding & signage system for Dadar Railway station making the place **easier to navigate.**



Target Audience

Those who can read;

- **Marathi**
- **Hindi**
- **English**

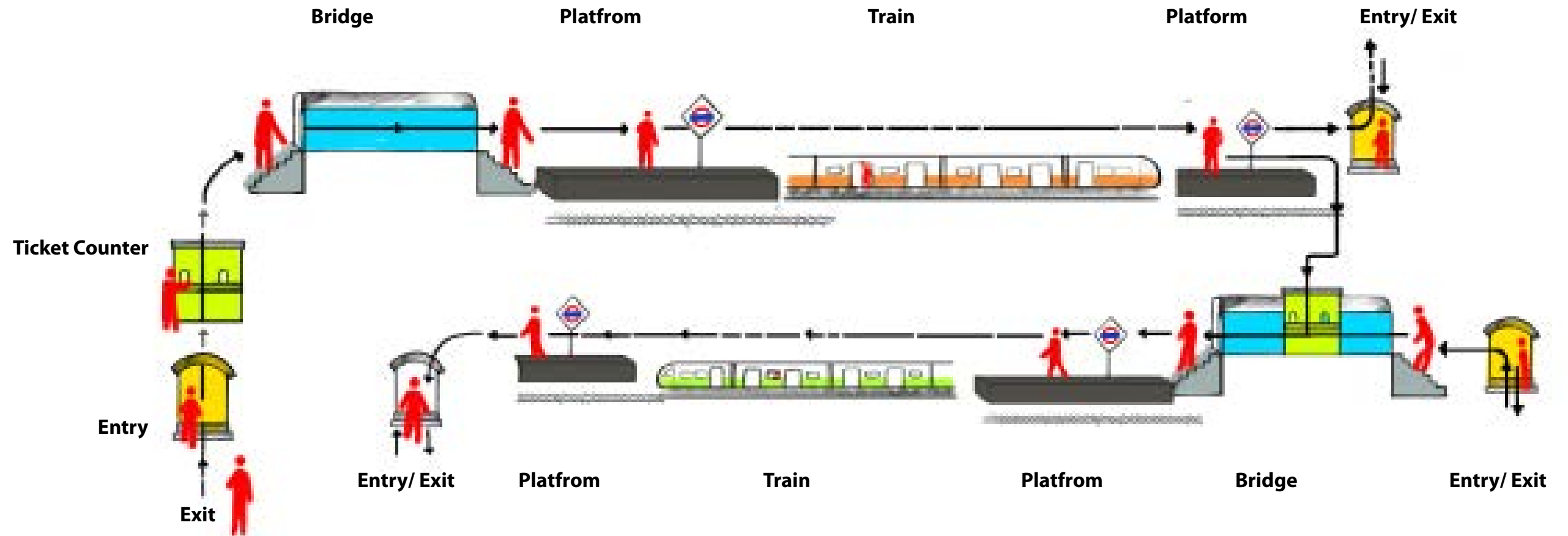
Design Process



Conceptualizing

- Mind Mapping
- Brain storming
- Initial ideas
- Concept Development

Mapping



Brain Storming

MAP DADAR STATION

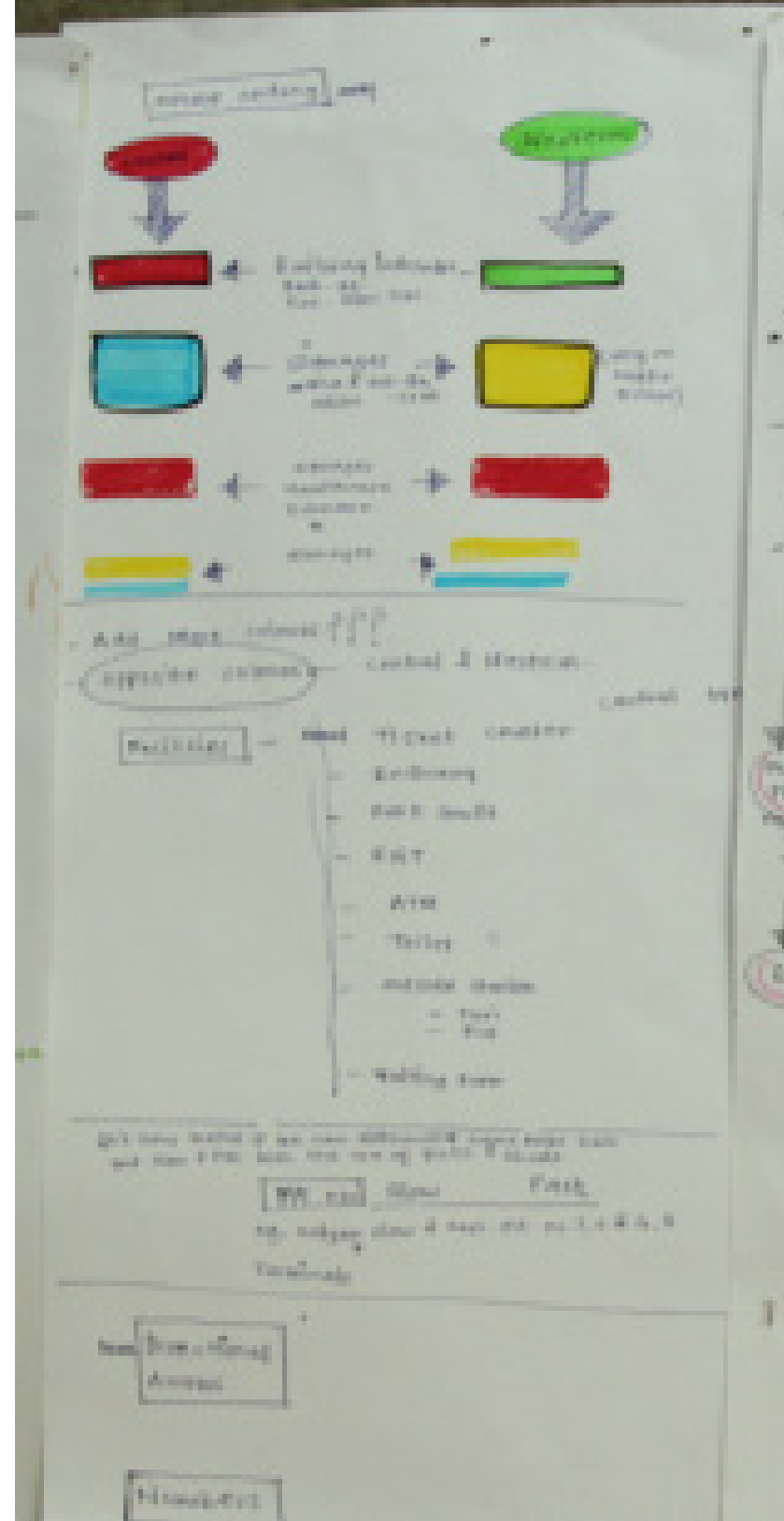
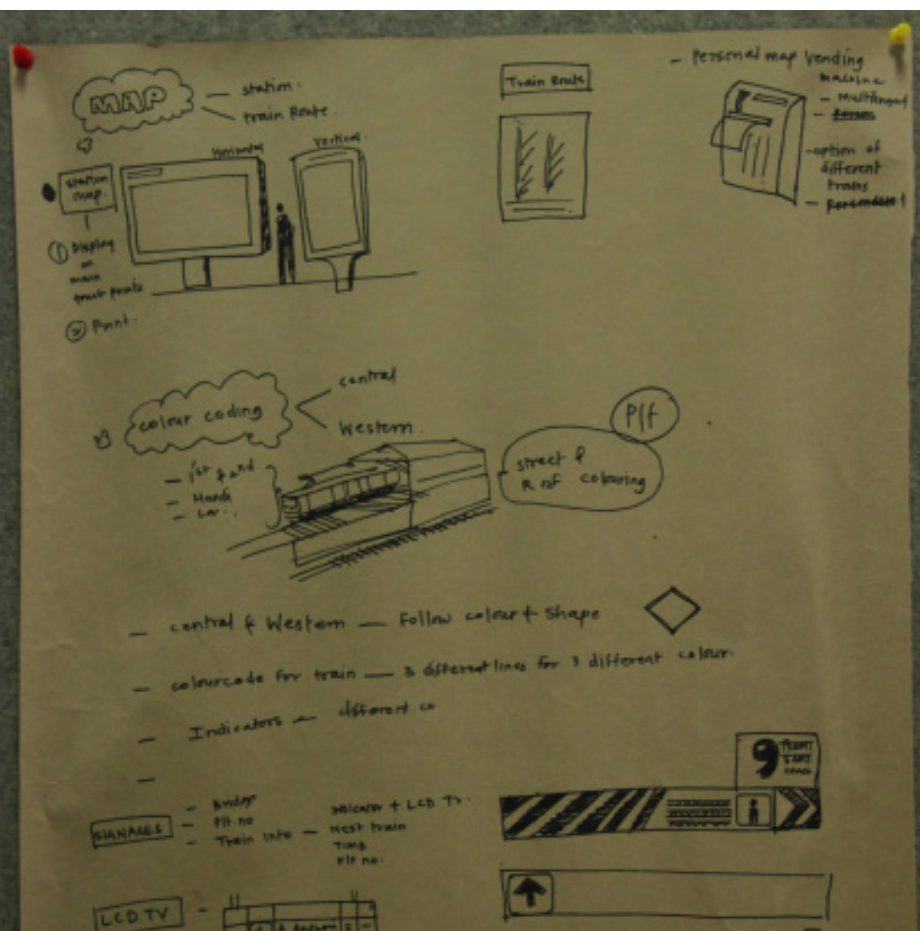
- Way - Path
- Ramp, Plat.no., Stair, Bridge.
- EXIT, East/W
- Facilities

- Ticket Counter
- Enquiry Counter
- PH. no.
- ATM
- Toilet
- outside station - EXIT Bus, Taxi
- Waiting Room

- colour coding.

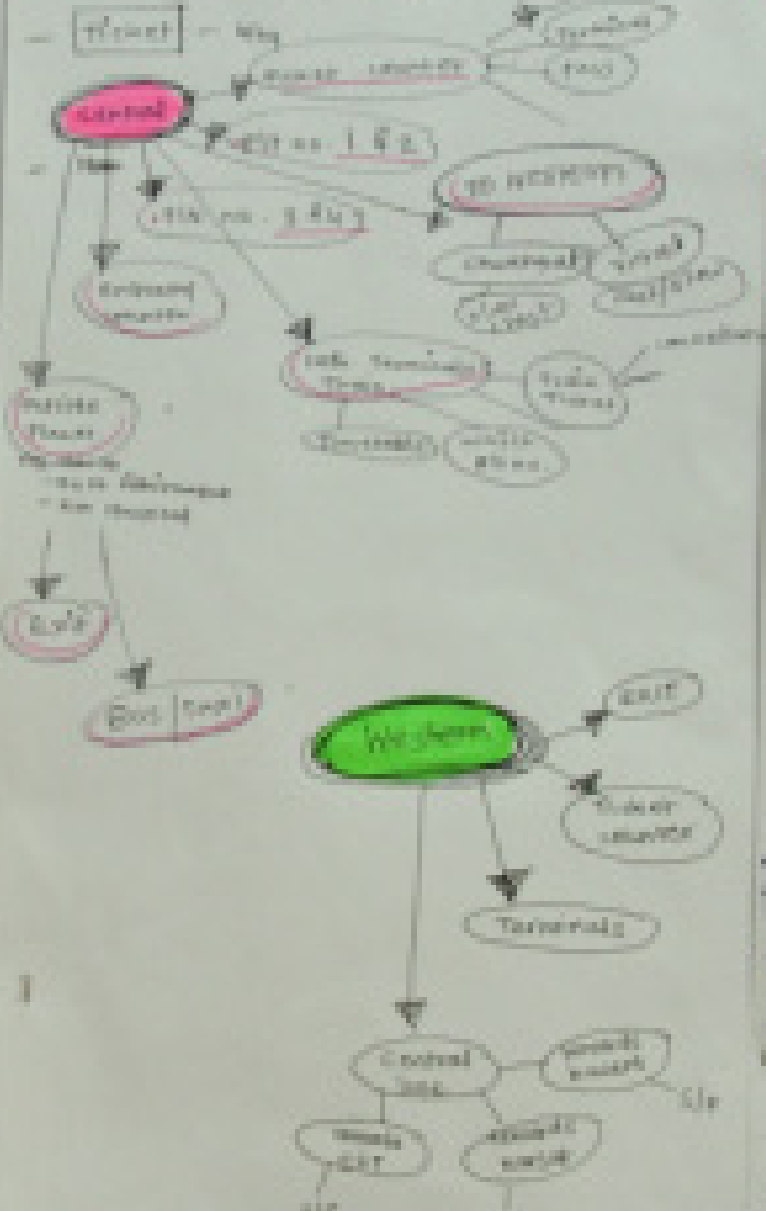
- COLOUR
- SIGN
- SHAPE
- Typographic arrangement

GRID



INSIGHTS

- simplifying the layout & structure
- distance - 100m - 200m - 300m
- Ticket Counter
- Enquiry Counter
- Toilet
- outside station - EXIT Bus, Taxi
- Waiting Room



ELECTRONIC DISPLAY SYSTEM

Text

- English
- Marathi
- Hindi

Pictogram

- Number
- Direction

INFORMATION GRAPHICS

Map

- Station
- Train
- Platform

- Ticket Counter
- Enquiry Counter
- Toilet
- outside station - EXIT Bus, Taxi
- Waiting Room

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

- Bridge
- PH no
- Train info
- Station + LCD TV
- Next train time
- Platform no.

Concept Development



File No.	Time	Train Name	S/F



Typeface for The Signages

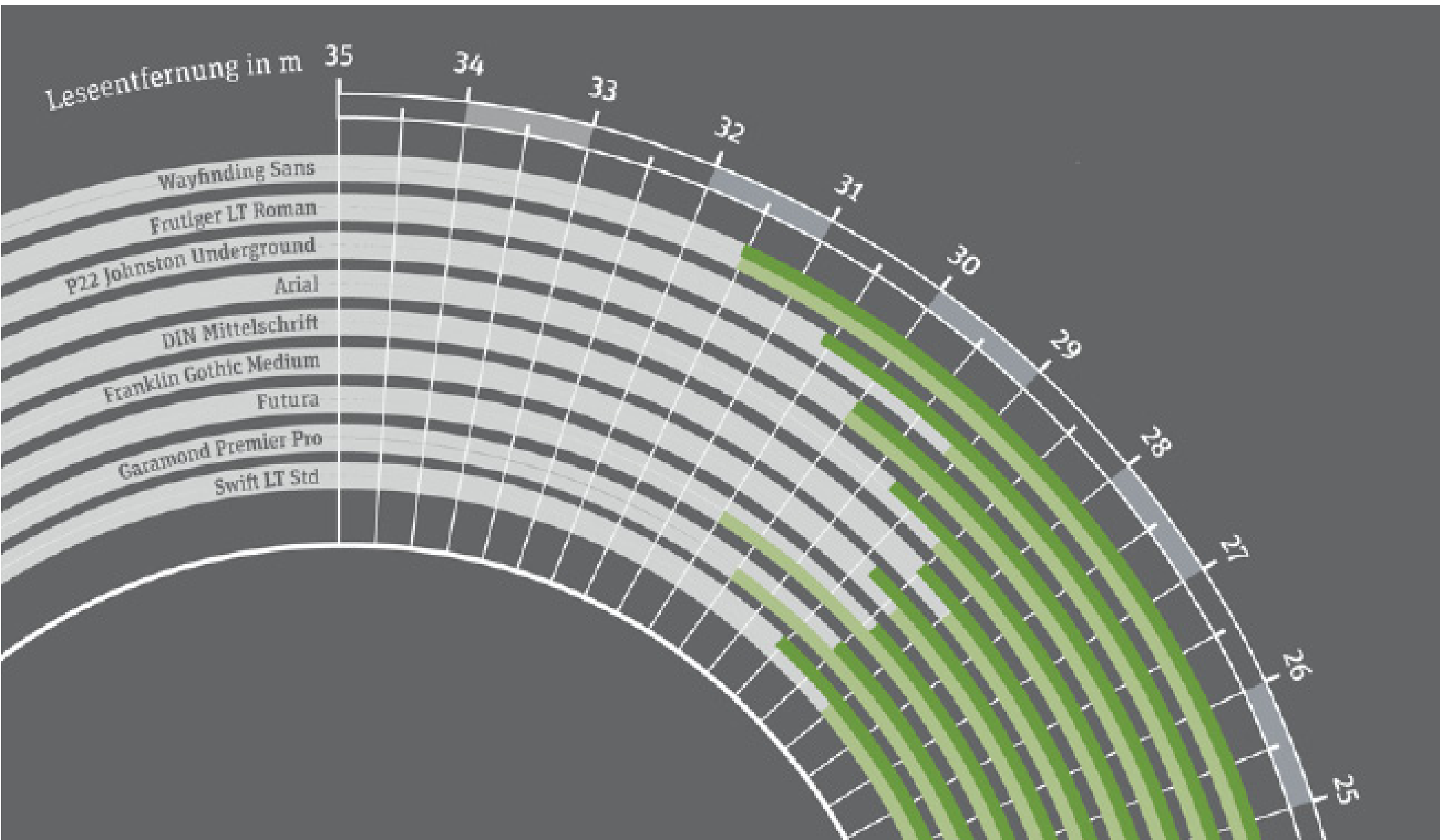
◆ Choice of typefaces

Latin Typefaces

- 1. Helvetica LT Std**
2. Wayfinding Sans
- 3. Frutiger LT Std**

Devnagari Typefaces

1. CDAC GISTY Yogesh
2. Kiran
3. KrutiDev 010



◆ Comparison between Latin typefaces and Devnagari Typeface

1st Class Ladies Coach

Frutiger LT Std

प्रथम दर्जा महिला डिब्बा

CDAC GISTY Yogesh

1st Class Ladies Coach

Helvetica LT Std

प्रथम दर्जा महिला डिब्बा

CDAC GISTY Yogesh

1st Class Ladies Coach

Wayfinding Sans

प्रथम दर्जा महिला डिब्बा

CDAC GISTY Yogesh

Colour - Mumbainess

1. Food



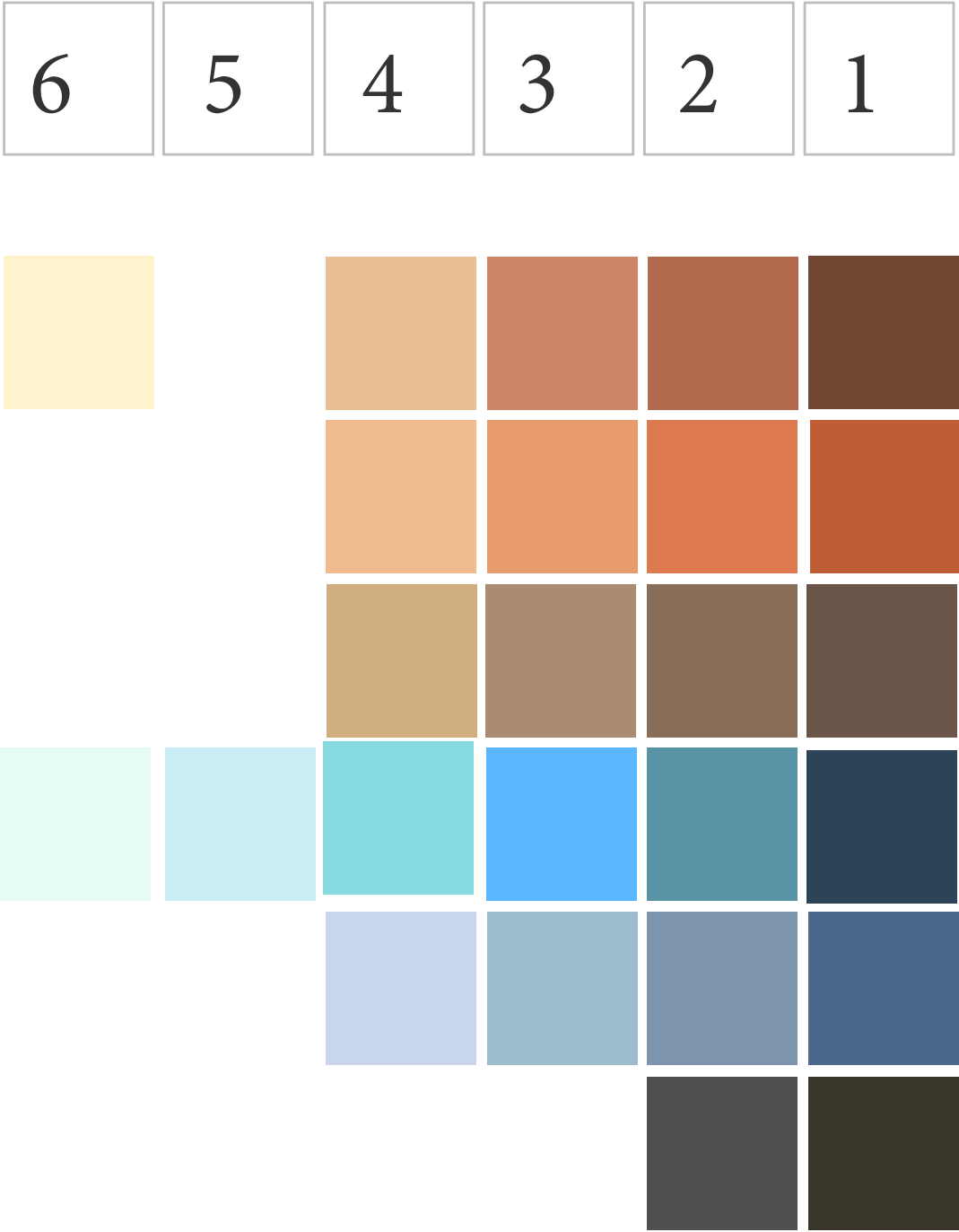
Colour palate

[illegible]

2. Architecture



Colour palate



3. Festivals



Colour palate

[illegible]



Final Concept

Final Concept

1. Colour Coding:

- Colour coding for three different lines
- Colour coding for three different lines railways
- Follow colour and shape

2. Map:

- Map for Dadar Railway Station

3. Way Navigating Panel:

- Signages on the platforms
- Signages on the Bridge
- Numbers

4. Electronic Media:

- Display monitors for Indicators

1. Colour Coding

- Colour coding for three different lines
- Colour coding for three different lines railways
- Follow colour and shape

- Colour coding for three different lines



Gray Value



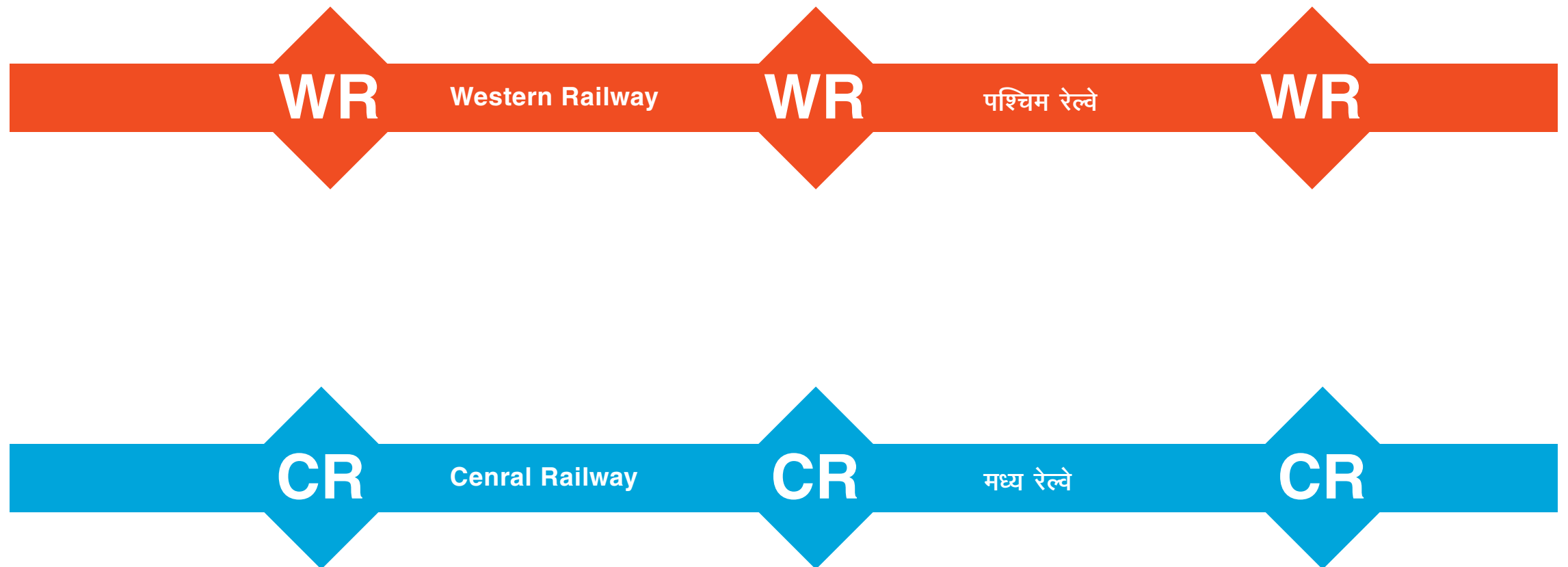
- Follow Shape & colour



- Final Shape & colour



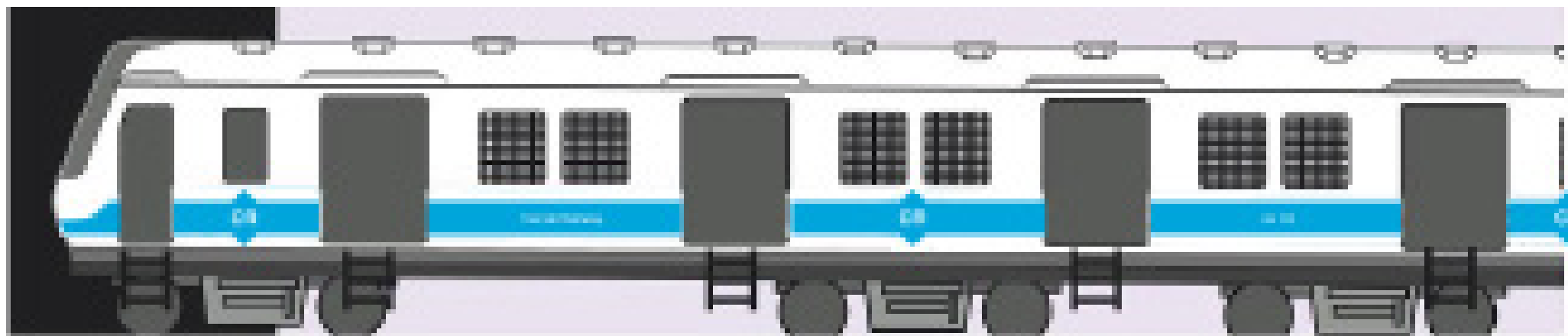
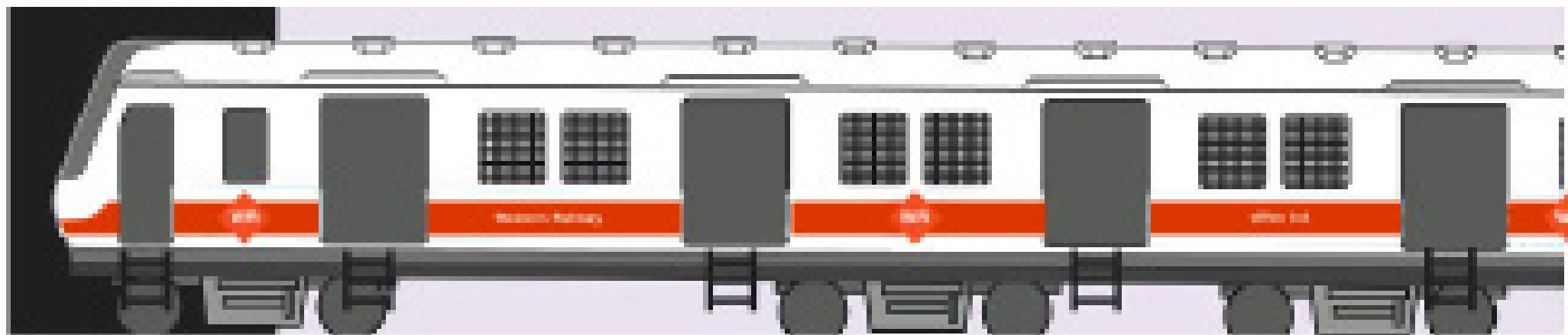
- Colour coding for three different Railway

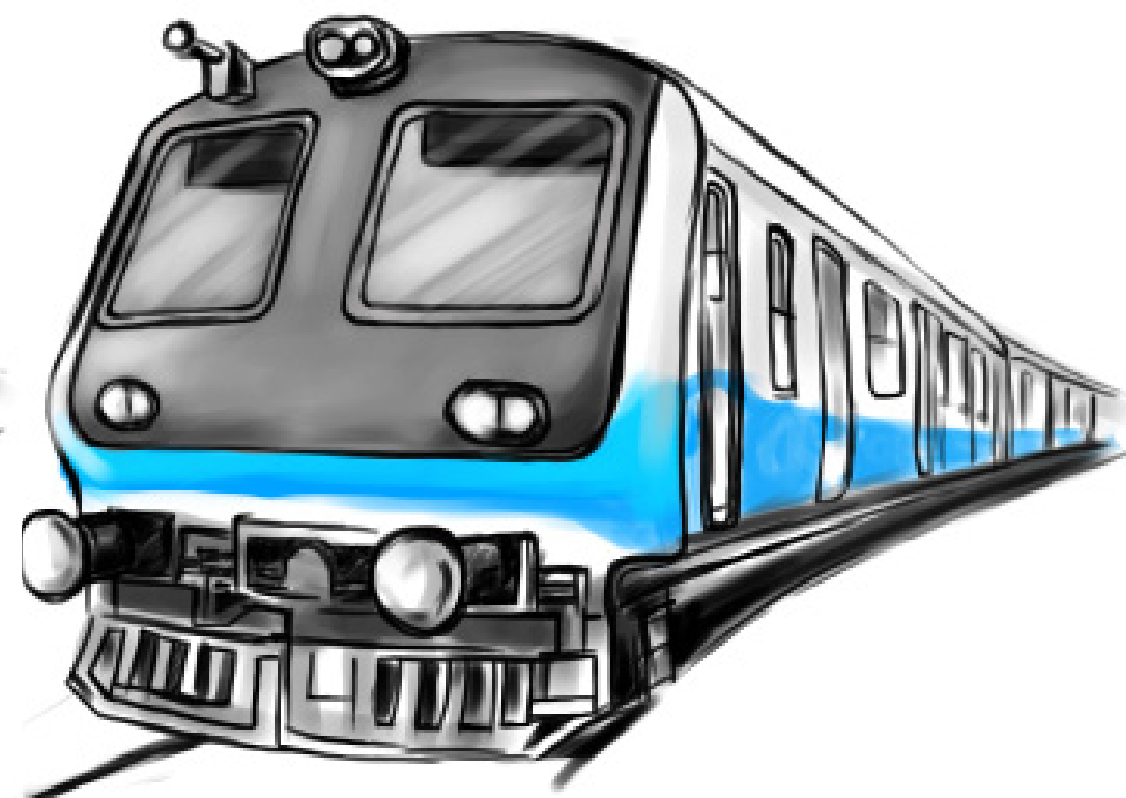


Before



After









CR

CR

CR

CR

CR

CR

1,2 →



CR
2

CR
1

CR
2

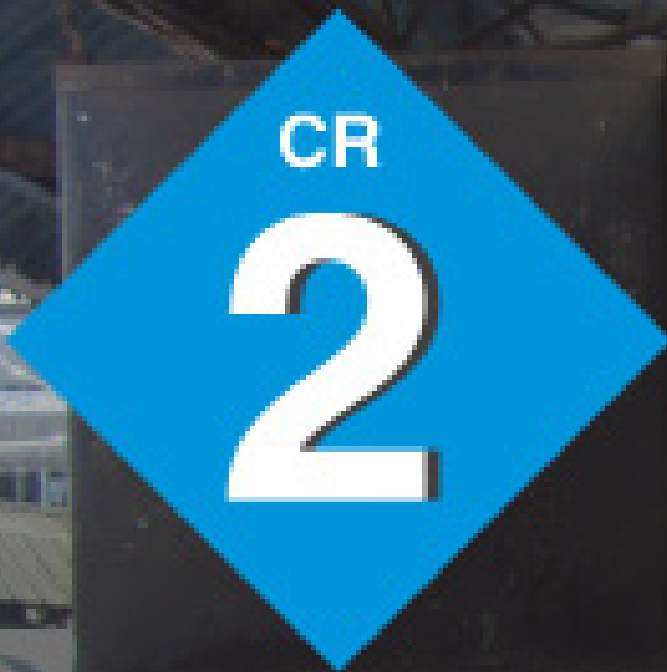
CR
1

CR
1

CR
2

કુખરા પોલીસ સ્ટેશન પર
કાચરા પેટી ભરીને કાઢાયા.
કાચરા કુલતર ૫ કમી કર વચલીય મુલતર બસો.
કા. ૫.૦૦ રૂપિયા રોકાણ કરવાની.

Train No.	Train Name	Platform	Arrival	Departure
1401	Delhi - Jaipur	1	10:10	10:15
1402	Jaipur - Delhi	2	10:20	10:25
1403	Delhi - Jaipur	1	10:30	10:35
1404	Jaipur - Delhi	2	10:40	10:45
1405	Delhi - Jaipur	1	10:50	10:55
1406	Jaipur - Delhi	2	11:00	11:05



Time	Time Remains	Destination		Pt. No.	Class/Seat	Coach
8:40	00 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Titwala	TW	CR 4	F	12
8:49	09 min	C.Shivaji Terminals	ST	CR 3	S	12
8:52	12 min	C.Shivaji Terminals	ST	CR 6	F	15
Time	Time	Destination		Pt. No.	Class/Seat	Coach





2

1



WR

WR

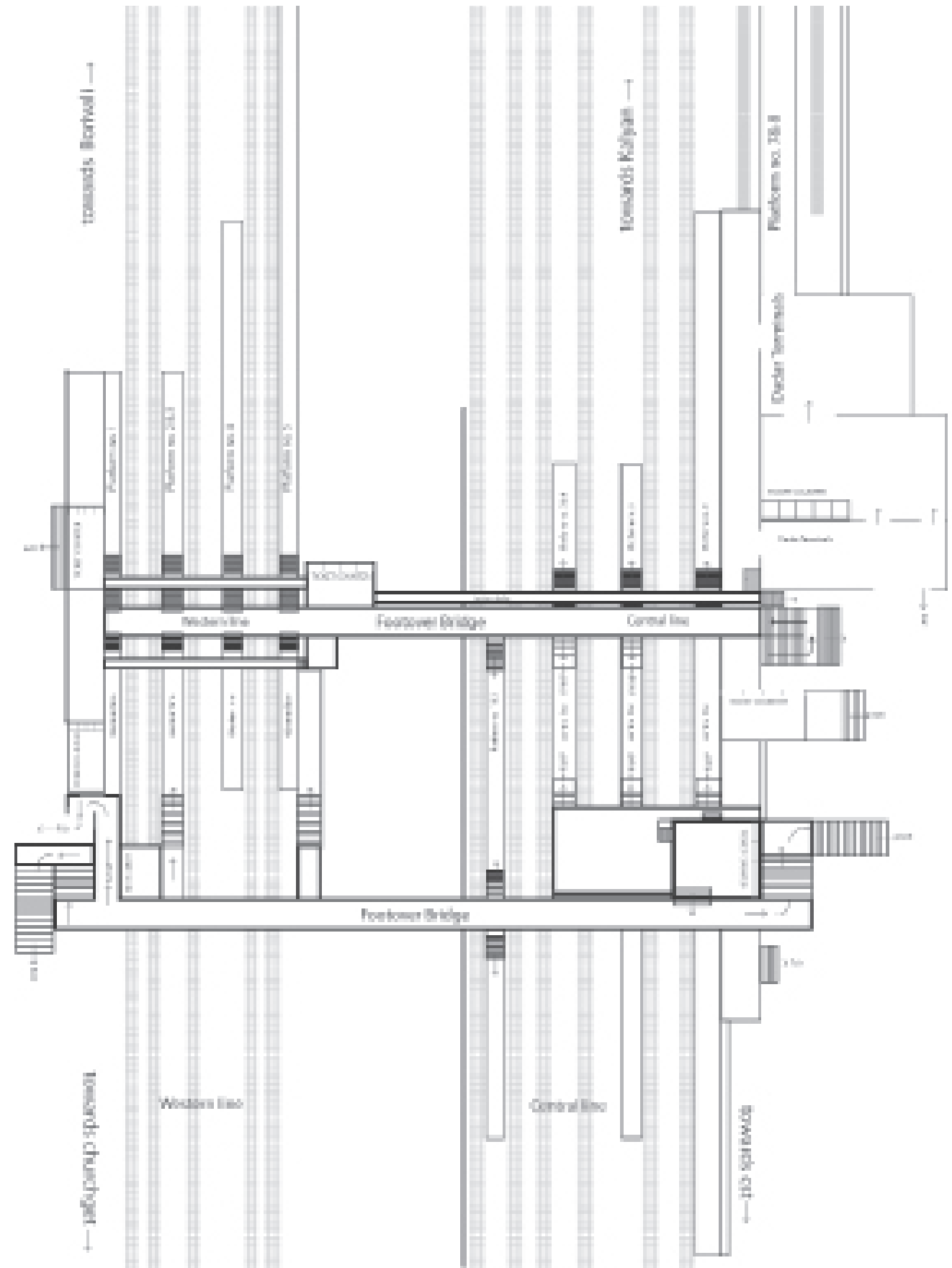
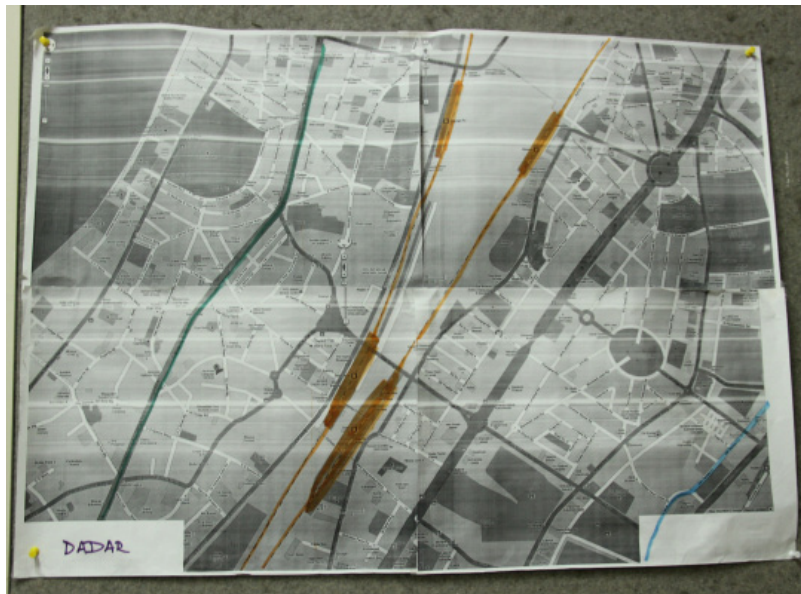
CR

CR

2. Map

- Map for Dadar Railway Station

- Map for Dadar Railway Station



Vertical Map



Horizontal Map





Dadar Railway Station Map

दादर रेल्वे स्टेशन मॅप

दादर रेल स्टेशन मॅप

पश्चिम रेल्वे

Western Railway

Central Railway

मध्य रेल्वे



◆ Dadar Railway Station Map ◆

Towards	Slow	Fast
↑ Virar, Borivali	1	3, 5
↓ Churchgate	2	4
Railway Route		
Outgoing train	5	

Central Line	Central Line
Western Line	Western Line
Ticket Window	Ticket Window
Footover Bridge, Stair Case, Ramp	Footover Bridge, Stair Case, Ramp
Platform	Platform
Central Line Background	Central Line Background
Western Line Background	Western Line Background

T	Ticket Counter	You are here
ATM	ATM Center	
Bus	Bus	
Entry/Exit	Entry/Exit	
Men & Women	Toilet for Men & Women	

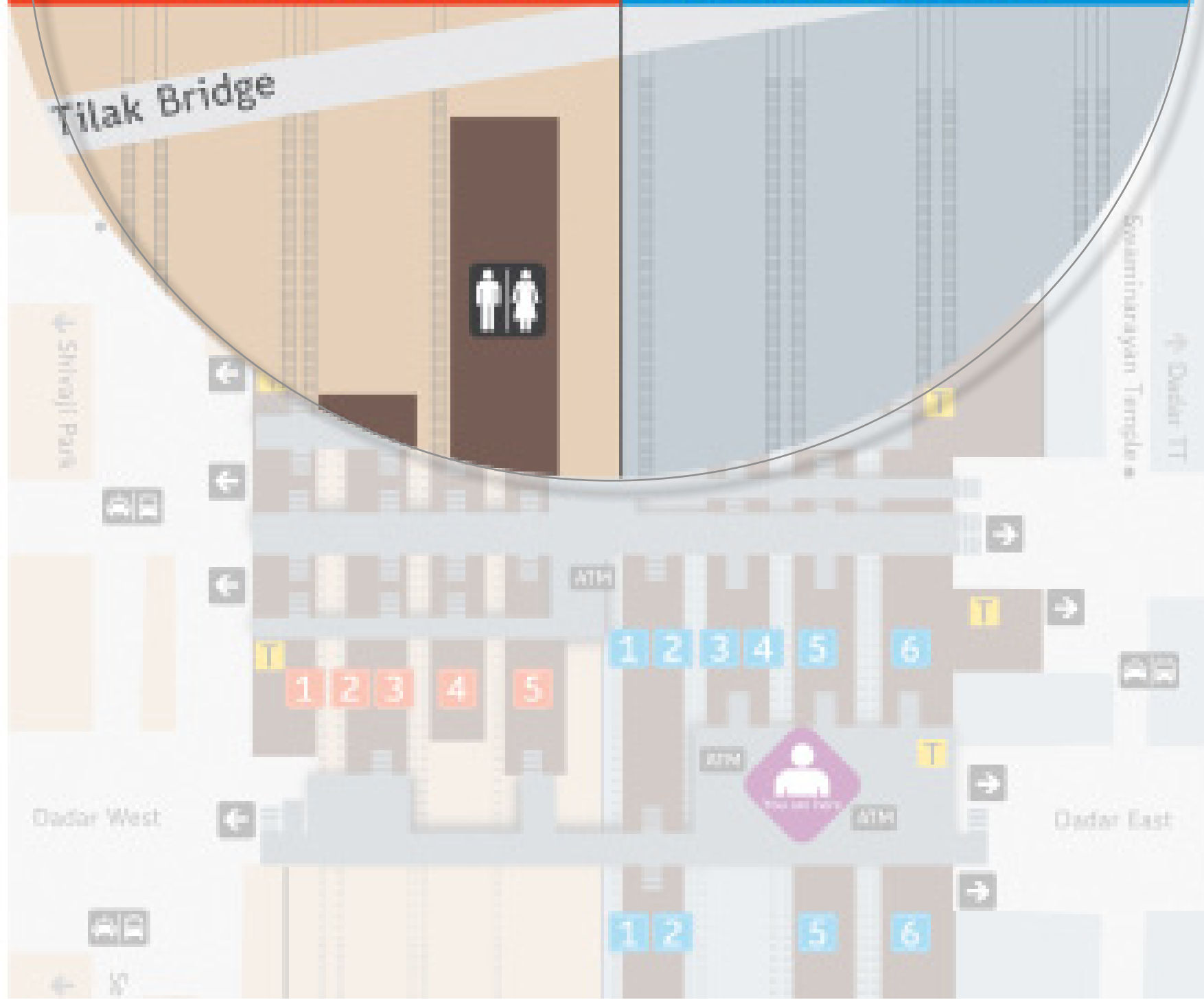
Towards	Slow	Fast
↑ Kalyan	1, 2	4, 5
↓ CST	3	6
Railway Route		
Dadar Terminus	T, 8	
Outgoing train	5, 6	

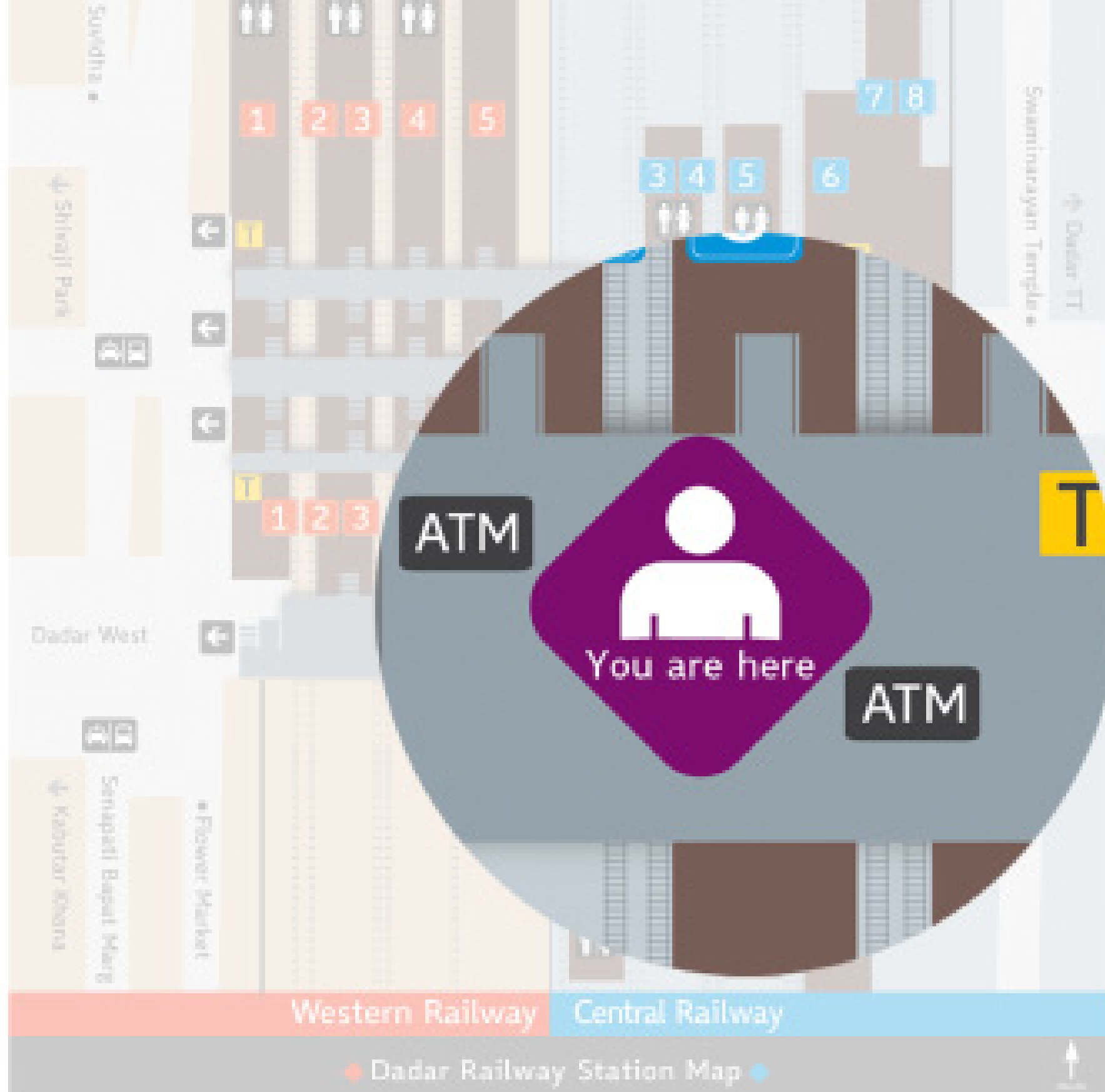
Dadar Railway Station

Western Railway

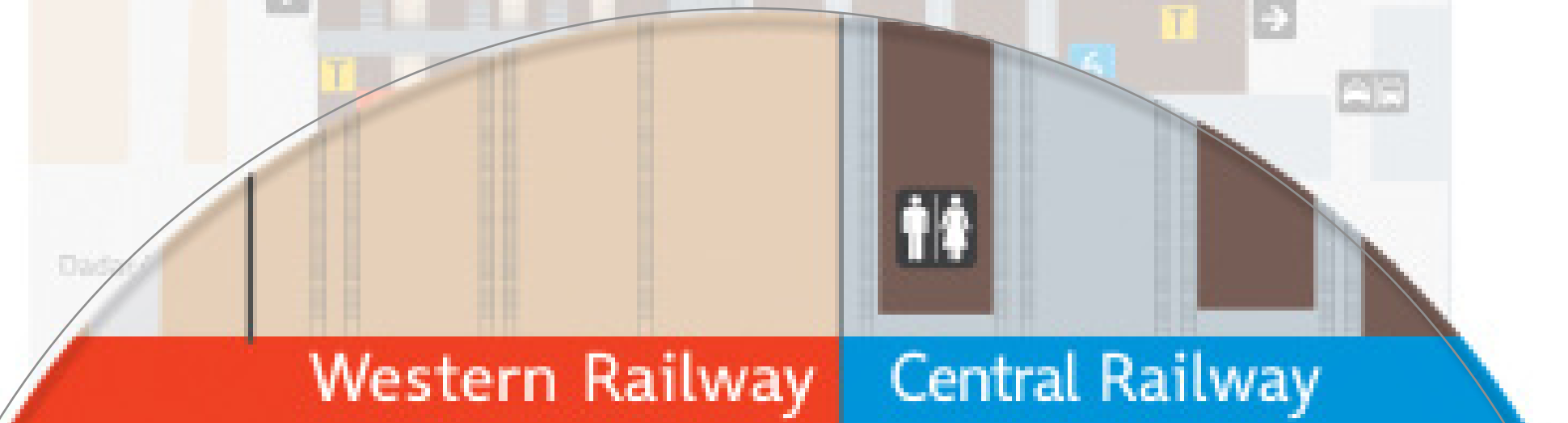
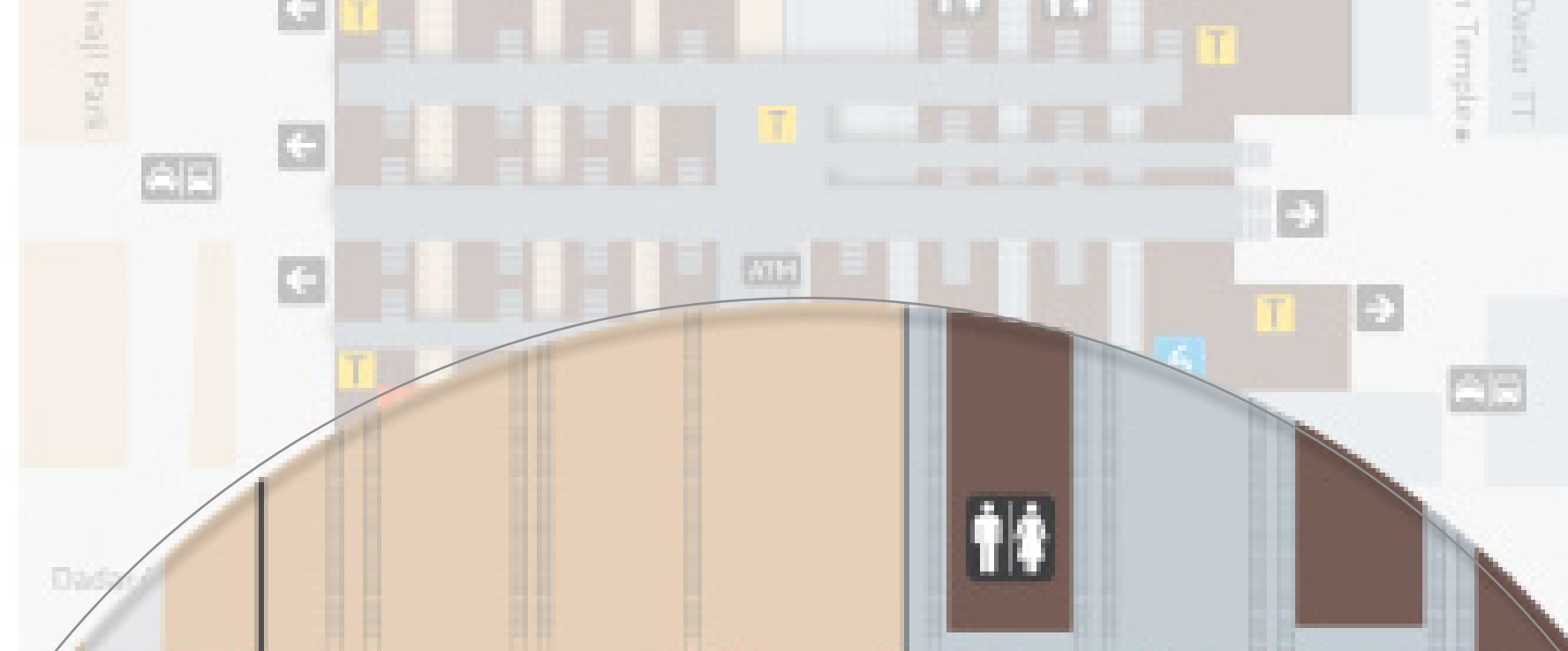
Central Railway

Tilak Bridge





Western Railway						Central Railway		
Direction	Slow	Fast	Line	Platform	Background	Direction	Slow	Fast
↑ Virar, Borivali	1	3,5	Central Line	1	Central Line Background	↑ Kalyan	1, 2	4,5
↓ Churchgate	2	4	Western Line	2	Western Line Background	↓ CST	3	6



Western Railway

Central Railway

◆ Dadar Railway Station Map ◆

Western Railway

Trains	Slow	Fast
Arar, Borivali	1	3,5
Churchgate	2	4
Railway Route	Slow Plat.no.	Fast Plat.no.

Outgoing train 5

- Central Line
- Western Line
- Ticket Window
- Footover Bridge, Stair Case, Ramp
- Platform
- Central Line Background
- Western Line Background

 You are here

 Ticket Counter

 Toilet for Men & Women

 ATM Center

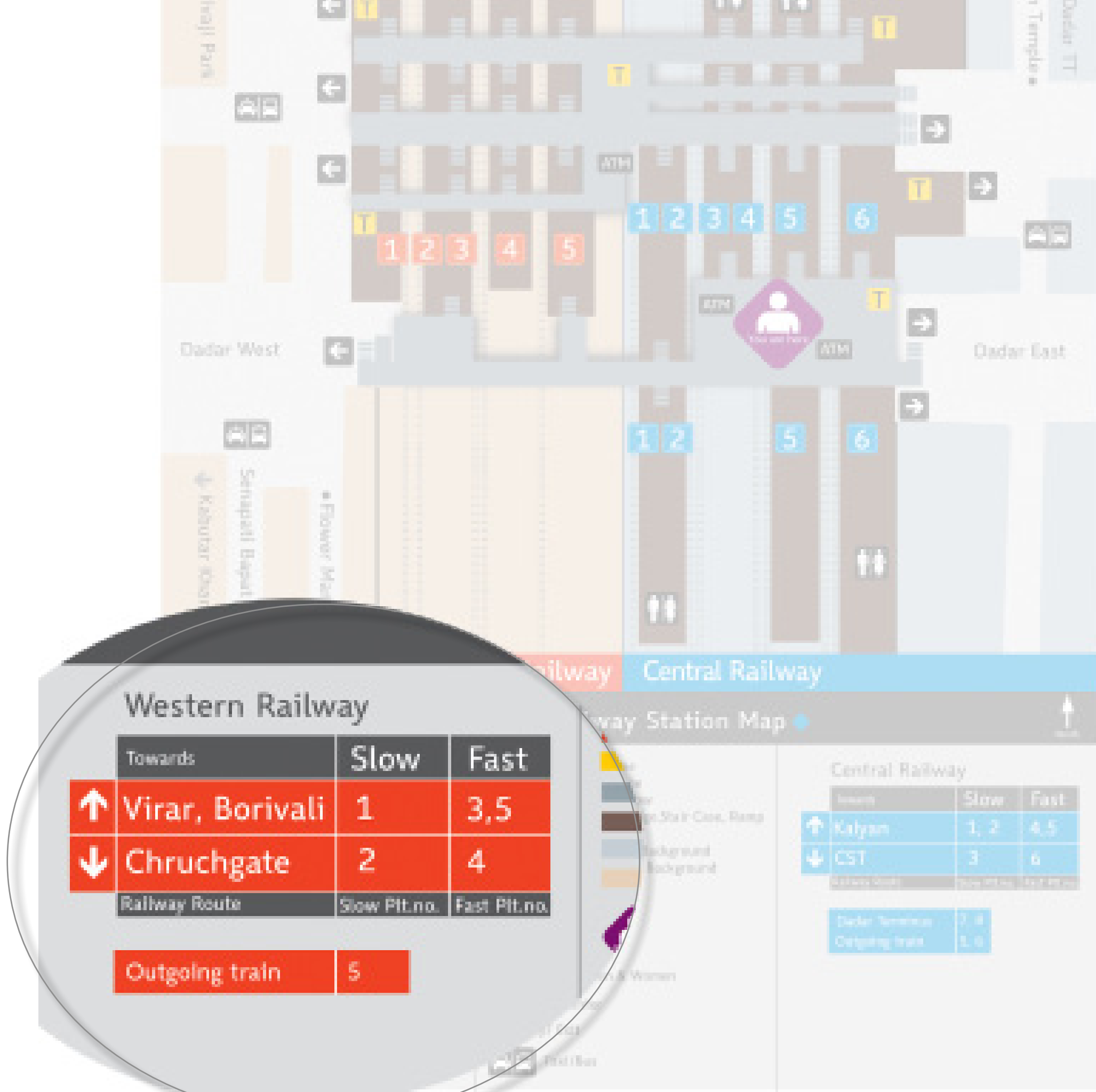
 Entry/ Exit

 Taxi/Bus

Central Railway

Towards	
↑	Kalyan
↓	CST
Railway Route	

Dadar Terminus
Outgoing train





Central Railway

	Towards	Slow	Fast
↑	Kalyan	1, 2	4,5
↓	CST	3	6
Railway Route		Slow Plat.no.	Fast Plat.no.

Dadar Terminus	7, 8
Outgoing train	5, 6

- **Location-** main touch points like near entry/ exit, ticket counter, middle bridge which connect central and western line
- **Colour-** CMYK
- **Choice of Typeface**
Latin Typeface- Wayfinding Sans





Dadar Railway Station Map





3. Way Navigating Panel

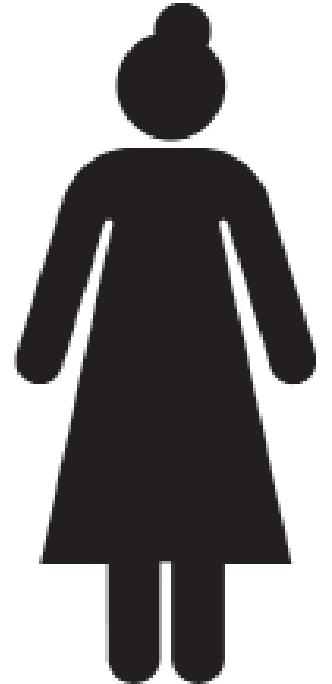
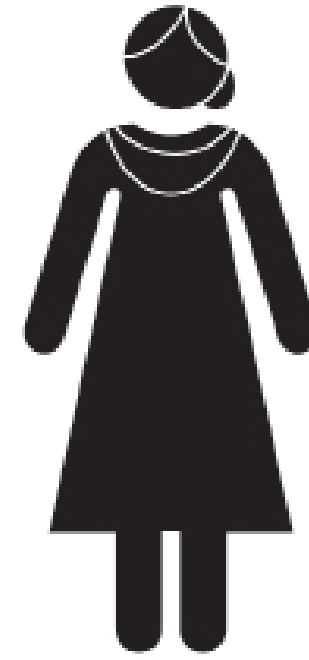
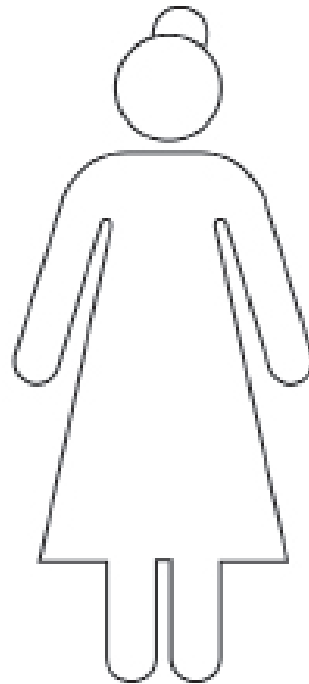
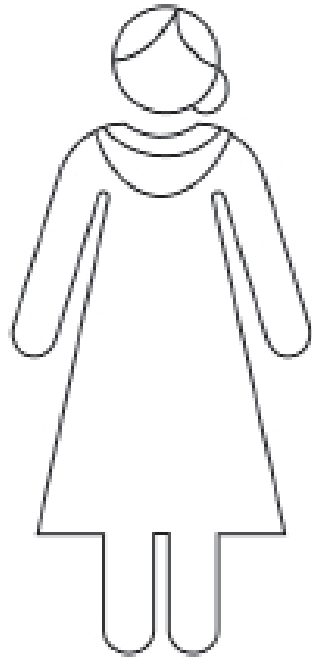
- Signages on the platforms
- Signages on the Bridge
- Numbers

- Signages on the platforms

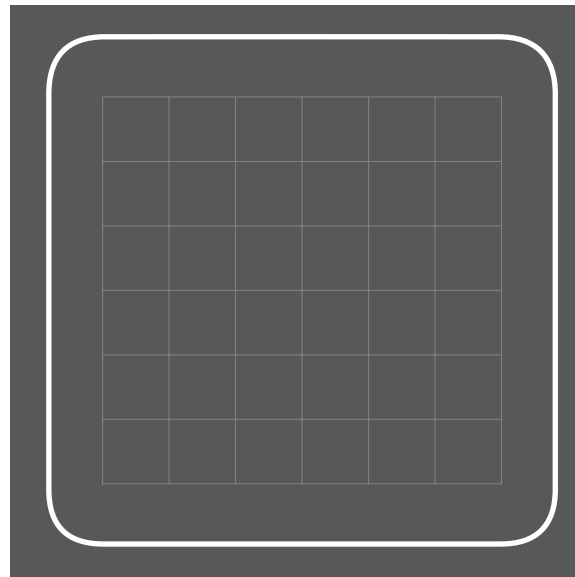
- **Ladies Pictogram**



- Ladies Pictogram



- Ladies Pictogram



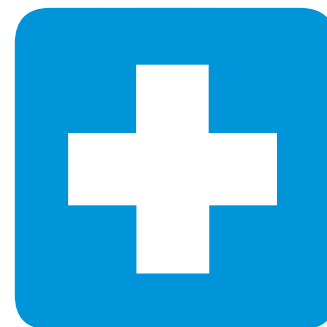


- Pictogram

Grid



Central Line



Western Line



- Railway Coach



13:41:06

111144

6

148ST12

12



Directional
Pictogram

Destination keyword
in 3 languages



1st Class Ladies Coach
प्रथम दर्जा महिला डिब्बा
प्रथम श्रेणी महिला डब्बा



1st Class Ladies Coach
प्रथम दर्जा महिला डिब्बा
प्रथम श्रेणी महिला डब्बा



Differently abled Coach

विकलांग डिब्बा

अपंग डब्बा



Differently abled Coach

विकलांग डिब्बा

अपंग डब्बा



Luggage Coach

सामान डिब्बा

सामान डब्बा



Luggage Coach

सामान डिब्बा

सामान डब्बा



1st Class Ladies Coach

पहला दर्जा महिला डिब्बा

प्रथम वर्ग महिला डब्बा



2nd Class Ladies Coach

द्वितीय दर्जा महिला डिब्बा

द्वितीय वर्ग महिला डब्बा



1st Class Coach

पहला दर्जा डिब्बा

प्रथम वर्ग डब्बा



Differently abled Coach

विकलांग डिब्बा
अपंग डब्बा



Luggage Coach

सामान डिब्बा
सामान डब्बा



1st Class Ladies Coach

पहला दर्जा महिला डिब्बा
प्रथम वर्ग महिला डब्बा



2nd Class Ladies Coach

द्वितीय दर्जा महिला डिब्बा
द्वितीय वर्ग महिला डब्बा



1st Class Coach

पहला दर्जा डिब्बा
प्रथम वर्ग डब्बा



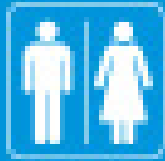
Differently abled Coach

विकलांग डिब्बा
अपंग डब्बा



Luggage Coach

सामान डिब्बा
सामान डब्बा



1st Class Coach
पहला दर्जा डिब्बा
प्रथम वर्ग डिब्बा



1st Class Ladies Coach
पहला दर्जा महिला डिब्बा
प्रथम वर्ग महिला डिब्बा

13:41:06



Differently Abled Coach
असमर्थ डिब्बा
असमर्थ डिब्बा

12



1st Class Coach
ਪਹਿਲਾ ਕਲੀ ਕੋਚ
ਭਵਨ ਕਲੀ ਕੋਚ





1st Class Ladies Coach
ਪਹਿਲਾ ਕਲਾਸੀ ਮਹਿਲਾ ਕੋਚ
ਭਵਨ ਕਲਾਸੀ ਮਹਿਲਾ ਕੋਚ





Ticket Window

तिकिट घर

तिकिट घर



Railway Canteen

रेल्वे उपहार

रेल आहार

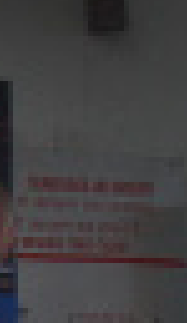
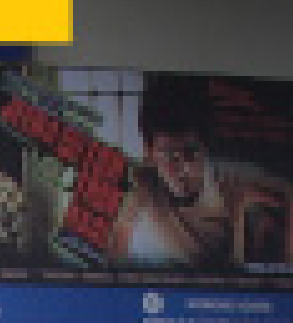
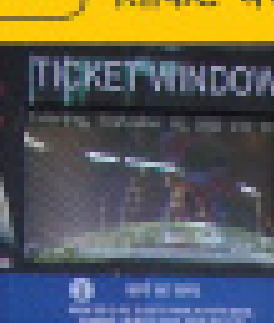
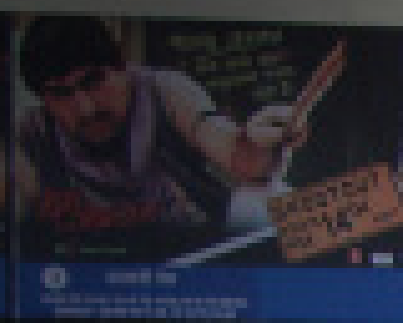
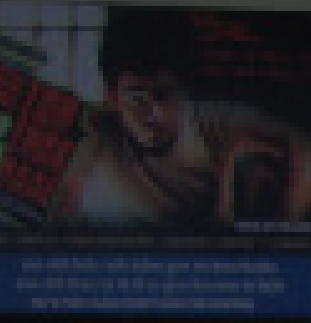
दादर , मध्य रेल



Ticket Window

टिकट घर

टिकट घर





Railway Canteen

रेल्वे उपहार

रेल आहार



- Signages on the Bridge





↑ Platform
प्लेटफॉर्म
प्लेटफॉर्म 1,2 ↑

↑ Platform
प्लेटफॉर्म
प्लेटफॉर्म 1,2 ↑

↑ Platform
प्लेटफॉर्म
प्लेटफॉर्म 1,2 ↑



CR

← Platform
← Platform
← Platform
1,2 →

← 1,2 →

CR



Platform
प्लेटफॉर्म
प्लेटफॉर्म

3,4



4. Electronic Media

- Display monitors for Indicators

Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach
8:40	00 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Titwala	TW	CR 4	F	12
8:49	09 min	C.Shivaji Terminals	ST	CR 3	S	12
8:52	12 min	C.Shivaji Terminals	ST	CR 6	F	15
Time	Time	Destination		Plt. No.	Slow/ Fast	Coach

Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach
8:40	00 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Titwala	TW	CR 4	F	12
8:49	09 min	C.Shivaji Terminals	ST	CR 3	S	12
8:52	12 min	C.Shivaji Terminals	ST	CR 6	F	15
Time	Time	Destination		Plt. No.	Slow/ Fast	Coach

Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach
8:40		Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Titwala	TW	CR 4	F	12
8:49	09 min	C.Shivaji Terminals	ST	CR 3	S	12
8:52	12 min	C.Shivaji Terminals	ST	CR 6	F	15
Time	Time	Destination		Plt. No.	Slow/ Fast	Coach

Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach
8:40	00 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Titwala	TW	CR 4	F	12
8:49	09 min	C.Shivaji Terminals	ST	CR 3	S	12
8:52	12 min	C.Shivaji Terminals	ST	CR 6	F	15
Time	Time	Destination		Plt. No.	Slow/ Fast	Coach

वेळ	अपेक्षित वेळ	स्थान		प्लेटफोर्म क्र	डब्बा
8:40	00 मिनिटे	कल्याण	K	CR 2	S 12
8:45	05 मिनिटे	ठाणे	T	CR 1	S 15
8:50	10 मिनिटे	कसारा	S	CR 4	F 12
8:54	15 मिनिटे	टिटवाळा	TW	CR 4	F 12
8:49	09 मिनिटे	छ. शिवाजी टर्मिनस ST		CR 3	S 12
8:52	12 मिनिटे	छ. शिवाजी टर्मिनस ST		CR 6	F 15
वेळ	अपेक्षित वेळ	स्थान		प्लेटफोर्म क्र	डब्बा

Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach
8:40	00 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Titwala	TW	CR 4	F	12
9:00	18 min	Badalapur	BL	CR 1	S	12
9:05	20 min	Dombivali	TW	CR 4	F	15
Time		Destination		Plt. No.	Slow/ Fast	Coach

Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach
8:40	00 min	Borivali	BO	WR 1	S	12
8:45	05 min	Borivali	BO	WR 1	S	15
8:50	10 min	Virar	V	WR 4	F	12
8:54	15 min	Virar	V	WR 5	F	12
8:49	09 min	Churchgate	C	WR 2	S	12
8:52	12 min	Churchgate	C	WR 5	F	15
Time	Time Remain	Destination		Plt. No.	Slow/ Fast	Coach



DEPARTURES

Train No.	Destination	Platform	Time
1	Chennai	1	10:00
2	Madurai	2	10:15
3	Trichy	3	10:30
4	Coimbatore	4	10:45

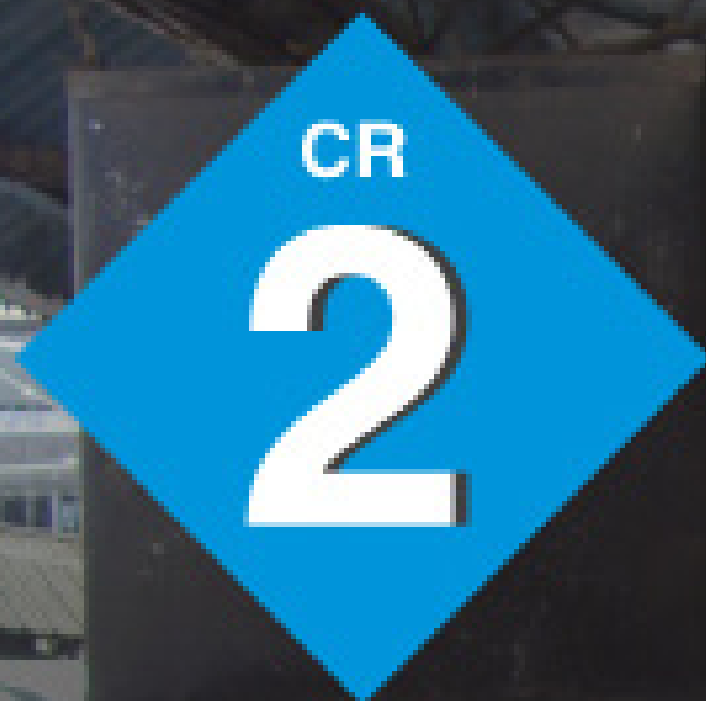
ARRIVALS

Train No.	Origin	Platform	Time
1	Chennai	1	09:45
2	Madurai	2	10:00
3	Trichy	3	10:15
4	Coimbatore	4	10:30



Time	Time Remains	Destination	Trn. No.	Coach No.	Coach Type	Coach
8:40	08 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kandivli	S	CR 4	F	12
8:54	15 min	Tirwala	TW	CR 4	F	12
9:00	18 min	Badalapur	BL	CR 1	S	12
9:05	20 min	Dombivli	TW	CR 4	F	15
Time	Destination		Trn. No.	Coach No.	Coach Type	Coach





Time	Time Remains	Destination		Plat. No.	Class/Coach	Coach
8:40	00 min	Kalyan	K	CR 2	S	12
8:45	05 min	Thane	T	CR 1	S	15
8:50	10 min	Kasara	S	CR 4	F	12
8:54	15 min	Tiltwala	TW	CR 4	F	12
8:49	09 min	C.Shivaji Terminals	ST	CR 3	S	12
8:52	12 min	C.Shivaji Terminals	ST	CR 6	F	15
Time	Time	Destination		Plat. No.	Class/Coach	Coach



Train Schedule Board (Left)

Train No.	Destination	Arrival	Departure
1	Delhi	10:00 AM	10:10 AM
2	Delhi	10:15 AM	10:25 AM
3	Delhi	10:30 AM	10:40 AM
4	Delhi	10:45 AM	10:55 AM

Train Schedule Board (Right)

Train No.	Destination	Arrival	Departure
1	Delhi	10:00 AM	10:10 AM
2	Delhi	10:15 AM	10:25 AM
3	Delhi	10:30 AM	10:40 AM
4	Delhi	10:45 AM	10:55 AM

CR

Time	Time Between	Destination		Pl. No.	Time	Time
8:40	00 min	Kalyan	R	08 2	S	12
8:45	05 min	Thane	T	08 1	S	16
8:50	10 min	Kandiv	S	08 4	F	12
8:54	15 min	Tiltwala	TW	08 4	F	12
8:49	09 min	C. Shriyaji Terminal	ST	08 3	S	12
8:52	12 min	C. Shriyaji Terminal	ST	08 6	F	15
Time	Time	Destination		Pl. No.	Time	Time

WR

Time	Time Between	Destination		Pl. No.	Time	Time
8:40	00 min	Borivli	BO	08 1	S	12
8:45	05 min	Borivli	BO	08 1	S	15
8:50	10 min	Vihar	V	08 4	F	12
8:54	15 min	Vihar	V	08 5	F	12
8:49	09 min	Chandigat	C	08 2	S	12
8:52	12 min	Chandigat	C	08 5	F	15
Time	Time Between	Destination		Pl. No.	Time	Time

CR

CR

CR

CR

CR



Time	Time Remains	Destination	PL No.	Board No.	Gate
8:40	00 min	Kalyan	K	ca 2	S 12
8:45	05 min	Thane	T	ca 1	S 15
8:50	10 min	Kasara	S	ca 4	F 12
8:54	15 min	Tikonda	TW	ca 4	F 12
8:49	09 min	C.Shivaji Terminals	ST	ca 3	S 12
8:52	12 min	C.Shivaji Terminals	ST	ca 6	F 15
Time	Time Remains	Destination	PL No.	Board No.	Gate



Time	Time Remains	Destination	PL No.	Board No.	Gate
8:40	00 min	Borivli	BO	wa 1	S 12
8:45	05 min	Borivli	BO	wa 1	S 15
8:50	10 min	Vihar	V	wa 4	F 12
8:54	15 min	Vihar	V	wa 5	F 12
8:49	09 min	Churchgate	C	wa 2	S 12
8:52	12 min	Churchgate	C	wa 5	F 15
Time	Time Remains	Destination	PL No.	Board No.	Gate

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Thank You