

RESEARCH



# URBAN TRANSPORT

## UNLOCKING THE REALTY POTENTIAL

MUMBAI METROPOLITAN REGION INFRASTRUCTURE DEVELOPMENT ANALYSIS



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## Introduction

Sustaining the country's rapid urbanisation would require corresponding infrastructure development. The need for infrastructure development, particularly urban transport, in a megapolis like Mumbai, is unquestionable. While the benefits of urban transport in terms of enhanced connectivity and an improved quality of life have been widely recognised, unlocking the realty potential in terms of better development prospects is also an interesting arena for stakeholders. In fact, the high price gradient of ₹3,000–100,000 per sq ft for residential property in the MMR makes it even more important to stay ahead of time and decipher the impact of infrastructure development on property demand and the resultant impact on prices. With this white paper, we provide an assessment of select urban transport projects that are high on the state government's priority list and also have an ambitious yet attainable completion target of 2019, which is within the term of the present government. Accordingly, an assessment of the metro corridors of Dahisar West–DN Nagar, Andheri East–Dahisar East, the Coastal Road and the Mumbai Trans Harbour Link has been presented in the report.

The report is structured in a manner that provides an understanding of the market dynamics of the residential micro-markets across the MMR, followed by the real estate drivers – employment, physical infrastructure and social infrastructure. Specifically for the purpose of this white paper, it dwells on physical infrastructure development and its impact on residential demand and prices.

## How does the MMR and Mumbai city compare with each other?

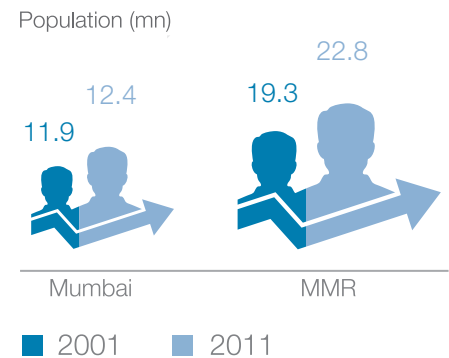
The Mumbai Metropolitan Region (MMR) is spread over an area of 4,355 sq km, which includes 458 sq km of the Mumbai City District and the rest comprising regions in the Thane, Palghar and Raigad districts.

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The Mumbai Metropolitan Region (MMR) is spread over an area of 4,355 sq km, which includes 458 sq km of the Mumbai City district and the rest comprising regions in the Thane, Palghar and Raigad districts. The population of Mumbai increased from 11.9 mn in 2001 to 12.4 mn in 2011 - a decadal growth rate of 3.9%. The MMR's growth was much higher, at 17.8%, taking its population from 19.3 mn to 22.8 mn during the same period. With the Arabian Sea to the west, the MMR consists of eight municipal corporations and nine municipal councils.

The Mumbai Metropolitan Region Development Authority (MMRDA) is the apex planning body for the MMR. There are also several municipal governing

**Chart 1: Population growth**



Source: MCGM

bodies in the MMR, among which the Municipal Corporation of Greater Mumbai (MCGM) is the most significant.

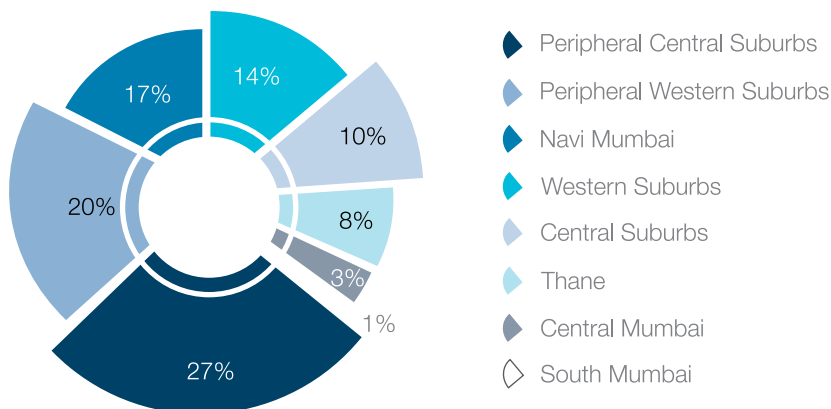
## What are the characteristics of the residential micro-markets in the MMR?

The MMR is divided into smaller micro-markets to understand each locality in terms of their respective demand drivers - i.e. their occupation profiles, connectivity with employment hubs, physical and social infrastructure development, and cost of real estate. Thus, from the residential real estate market perspective, the MMR is divided into eight micro-markets, as follows:

Micro-markets	Indicative locations
Central Mumbai	Dadar, Lower Parel, Mahalakshmi, Worli, Prabhadevi
Central Suburbs	Sion, Chembur, Wadala, Kurla, Ghatkopar, Vikhroli, Bhandup, Mulund
Navi Mumbai	Vashi, Nerul, Belapur, Kharghar, Airoli, Panvel, Ulwe, Sanpada
Peripheral Central Suburbs	Kalyan, Kalwa, Dombivli, Ambernath, Bhiwandi, Mumbra, Karjat
Peripheral Western Suburbs	Vasai, Virar, Boisar, Palghar, Bhayandar, Nalasopara
South Mumbai	Malabar Hill, Napean Sea Road, Walkeshwar, Altamount Road, Colaba
Thane	Naupada, Ghodbunder Road, Pokhran Road, Majiwada, Khopat, Panchpakhadi
Western Suburbs	Bandra, Andheri, Goregaon, Kandivali, Borivali, Santacruz, Vile Parle, Dahisar



**Chart 2: Zone-wise split of under-construction residential units**



Source: Knight Frank Research

## South Mumbai

This zone houses the city's central business district (CBD), comprising Nariman Point, Colaba, Cuffe Parade, Fort and Ballard Estate. Mumbai is the business capital of the country, and the CBD is home to a large number of corporate headquarters. The Bombay Stock Exchange (BSE)—the oldest stock exchange in Asia—and some of the biggest Indian companies, such as Reliance Industries Limited, State Bank of India and Larsen & Toubro, operate from their headquarters here. The residential pockets in this zone, such as Cuffe Parade, Napean Sea Road and Malabar Hill, are among the most expensive in the country. With the Arabian Sea on three sides and a lack of land availability, there is limited scope for horizontal expansion in this zone, and the only way for large-scale real estate development is by going vertical.

## Central Mumbai

Central Mumbai has emerged as a prominent residential market on the back of exceptional office and social infrastructure developments in the last decade. This micro-market is now a premium office market for occupiers from the Banking Financial services and Insurance (BFSI) front office segment and corporate headquarters of companies in the manufacturing, media and consulting sectors. The Mumbai Monorail will pass through this micro-market once its second phase, connecting Wadala and

Jacob Circle (11.2 km), is operational by 2016. This will increase the attractiveness of this market even further and ease the burdened traffic conditions in the densely-populated locations of Dadar, Parel and Lower Parel.

## Central Suburbs

The Central Suburbs extend from Sion to Mulund. This zone has good social and physical infrastructure, and the presence of several organised retail options on LBS Road has added to the appeal of the residential developments in the region. the Mumbai Metro becoming operational in the zone, the MRTS connectivity to the Western Suburbs has improved.

## Western Suburbs

The region from Bandra to Dahisar towards the north of the city is identified as the Western Suburbs. It houses the Bandra Kurla Complex (BKC), which is a planned commercial hub that has the country's largest stock exchange—the National Stock Exchange (NSE)—and important offices, such as the Consulate General of the United States and the British Deputy High Commission. BKC is now considered the new CBD of the MMR. The other significant office stock in this area is on the Andheri Kurla Road and along the Western Expressway up to Malad. Bandra and Juhu are the most sought-after locations for residential development and command the highest property prices here. This zone has a vibrant social infrastructure, with the

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presence of quality retail, education, entertainment and healthcare options. Property prices decline as one goes north from Bandra. While employment and social infrastructure are the drivers up to Malad, locations further north are driven by connectivity, primarily by the suburban railway network and the Western Express Highway.

### Peripheral Western Suburbs

The markets extending from Mira-Bhayandar to Boisar have been classified as the Peripheral Western Suburbs. Although localities such as Palghar and Boisar are not part of the MMR, they have been considered from an analytical perspective on account of the improving suburban train connectivity over the last decade. Other than some industrial setup in locations such as Vasai and Palghar, there is no employment driver in this zone. National Highway 8 (NH-8) provides road connectivity to Mumbai, while the Western line of the Mumbai Suburban Railway lends MRTS connectivity. However, the daily road commute to the employment hubs is not a feasible option due to the distance and time involved, and hence, the MRTS connectivity is the only driver in this zone.

### Thane

After being considered a poor cousin of Mumbai's suburbs for a long time, Thane is now earning a reputation for its quality residential developments on the back of its improving physical and social infrastructure. Ghodbunder Road has developed as an arterial road connecting the eastern and western express highways. The Thane MIDC is the oldest of over 200 industrial development corporations (IDCs) in the state. However, with manufacturing activities diminishing in the urban centres, it is no longer the biggest driver in the region. The employment hubs in Mumbai are the primary employment drivers. Further, with IT/ITeS giants evincing interest in Ghodbunder Road, Thane is witnessing an increase in office space development as well. Residential properties in localities such as Naupada, Panchpakhadi, along the Eastern Express Highway (EEH) and Pokhran Road No. 2 are sought after and command relatively higher prices than the rest of the market.

### Peripheral Central Suburbs

This zone extends to localities such as Bhiwandi, Kalyan, Kasara and Karjat. From the real estate development perspective, the most critical factor

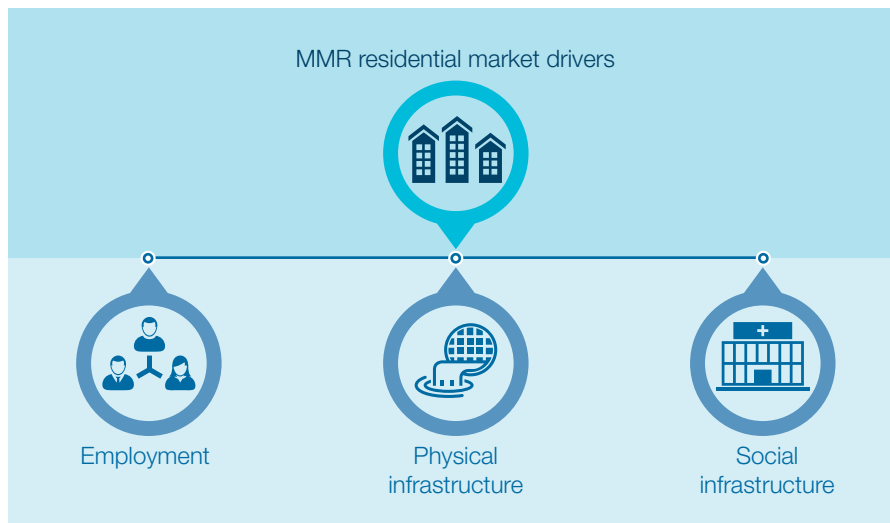
is connectivity, primarily through the suburban railway network. While these distant suburbs provide affordable housing options, they are not self-sustainable with respect to employment opportunities. With the absence of employment hubs in this zone, residents have to travel to employment hubs in Mumbai, and are thus dependent on the rail network.

### Navi Mumbai

Developed as a planned satellite city of Mumbai, this zone is emerging as a self-sustained real estate market on account of the presence of employment opportunities, primarily in the IT/ITeS sector. While CBD Belapur has been planned as an office development hub, the other significant office micro-markets are Vashi and Thane-Belapur Road (Trans Thane Creek). This zone has several options for quality education and retail, with Vashi and Palm Beach Road forming the most prominent micro-market and commanding the highest property prices in this zone. Connectivity is mainly through the suburban rail network, which also connects this zone with the island city and the Central Suburbs. Road connectivity is supported by the Thane-Belapur Road and Palm Beach Road.



## What drives the MMR residential market?



In the last decade, the population growth rate of Mumbai was 3.9%, and 40.3% for the rest of the MMR. By contrast, 80% of the 118 mn sq ft of the region's office space is in Mumbai. These dynamics make the long commute to work and back inevitable for a large section of the workforce in the MMR, and shape the real estate market as well.

A huge price variation in residential segment arises on account of multiple factors – commuting time to employment hubs and other places of importance, access to education, healthcare and entertainment avenues, location profile and gentry.

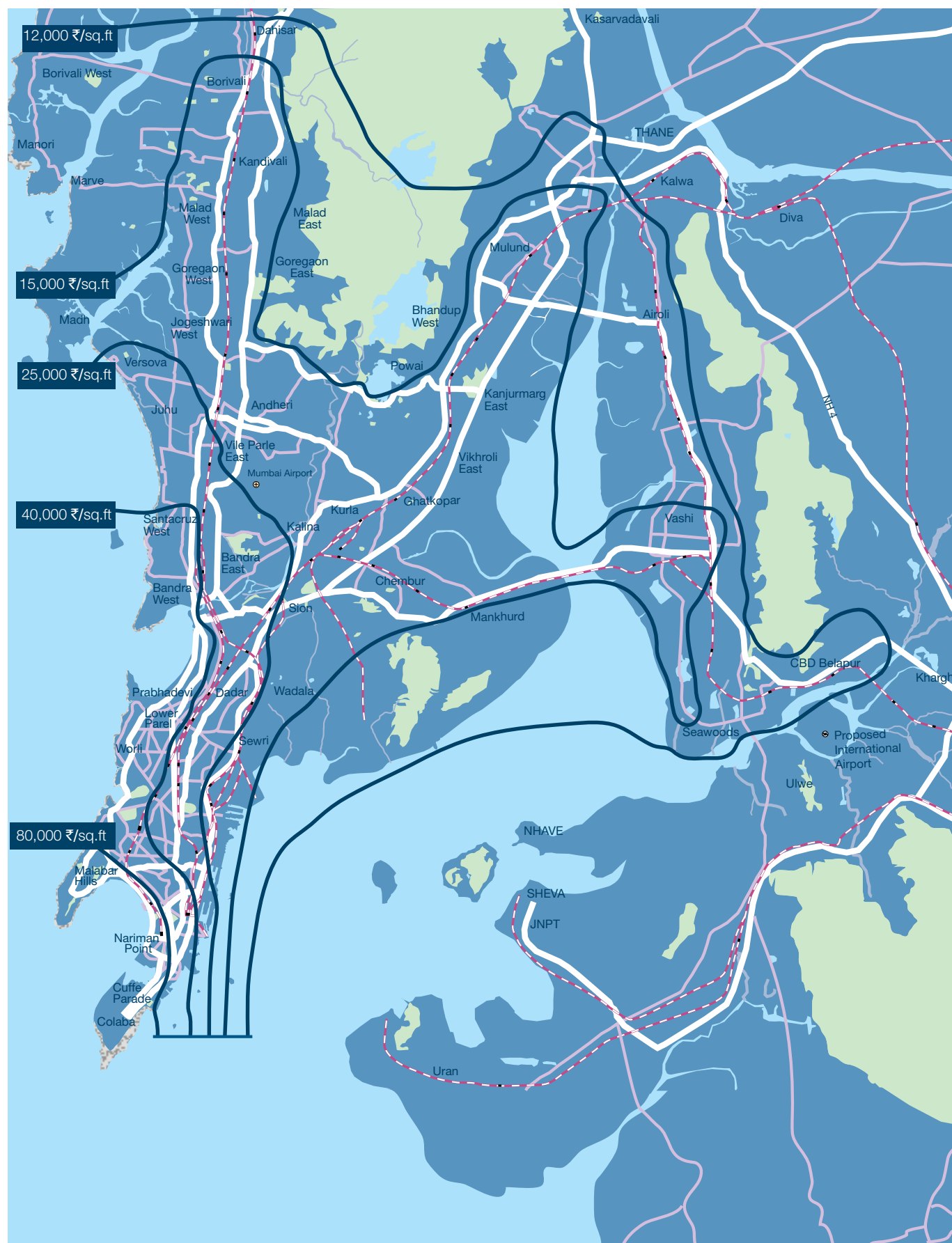
As an extension of the 458 sq km of Mumbai city, the Mumbai Metropolitan Region (MMR) is spread over 4,355 sq km. In the last decade, the population growth rate of Mumbai was 3.9%, and 40.3% for the rest of the MMR. By contrast, 80% of the 118 mn sq ft of the region's office space is in Mumbai. These dynamics make the long commute to work and back inevitable for a large section of the workforce in the MMR, and shape the real estate market as well.

This is also reflected in the high price gradient of the residential properties in the region, which varies from ₹3,000–100,000 per sq ft (refer Map 1: City map with price contours). Such a huge price variation arises on account of multiple factors – commuting time to employment hubs and other places of importance, access to education, healthcare and entertainment avenues, location profile and gentry, etc. These factors vary across localities, and so does the property price.





Map1: City map with price contours



Source: Knight Frank Research



## What are the implications of the infrastructure development in the MMR?

Considering the high price gradient of ₹3,000–100,000 per sq ft, the concentration of office space in Mumbai whereas high population growth in the rest of MMR, the role of infrastructure development, specifically urban transport projects, is significant.

However, of the host of infrastructure projects announced by the government, we believe that the following ones will have a significant impact on the way people commute, and consequently, on the city's real estate market.

- Metro rail corridor of Dahisar West – DN Nagar
- Metro rail corridor of Andheri East – Dahisar East
- Coastal Road
- Mumbai Trans Harbour Link (MTHL)

The suburban rail network has been the primary mode of commuting to work in the MMR. Spread over a 319 km route across the Central, Western and Harbour corridors, a total of 2,813 train services are operated daily. The city's suburban rail network ferries more than eight million passengers daily, which is likely the highest in any urban centre in the world. An astounding 0.60 mn passengers travel during the busiest morning rush hour from 9 to 10 a.m. Similarly, 0.59 mn passengers travel during the busiest evening peak hour from 6 to 7 p.m. Such a high traffic flow to employment centres places great importance on staying closer to the office markets. Accordingly, regions in the MMR that enjoy good

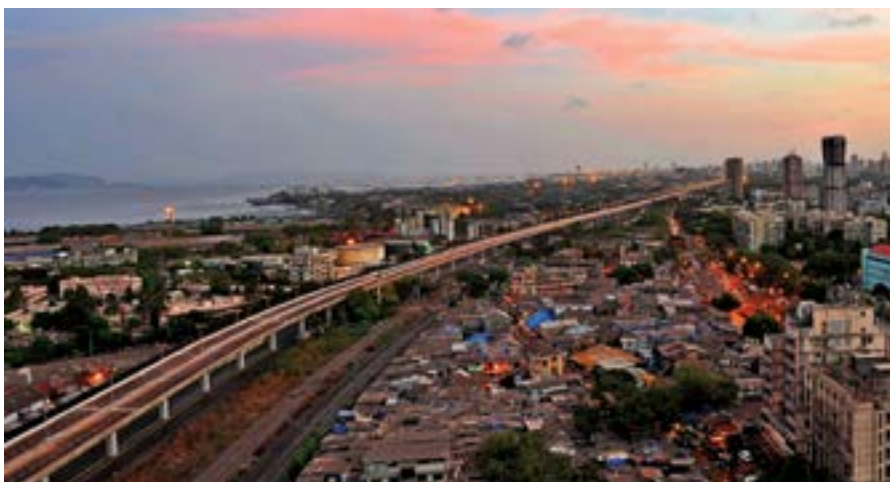
connectivity (travel time and frequency) have witnessed flourishing property development.

The Mumbai Metro, considered to be an efficient and comfortable urban transport system, has now been integrated into the development plan for the Mass Rapid Transit System (MRTS). According to the 2004 Mumbai Metro Master Plan, 146 km of metro rail network has been envisaged for the city. Another 106 km is envisaged for the Navi Mumbai region. At present, a 11.40 km metro corridor has been operational since 2014.

We analyse the impact of the operational metro route and draw expectations for the subsequent metro route that will be operational in the next five years.

The city's suburban rail network ferries more than eight million passengers daily, which is likely the highest in any urban centre in the world. An astounding 0.60 mn passengers travel during the busiest morning rush hour from 9 to 10 a.m. Similarly, 0.59 mn passengers travel during the busiest evening peak hour from 6 to 7 p.m. Such a high traffic flow to employment centres places great importance on staying closer to the office markets. places great importance on staying closer to the office markets.

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## Metro rail corridors

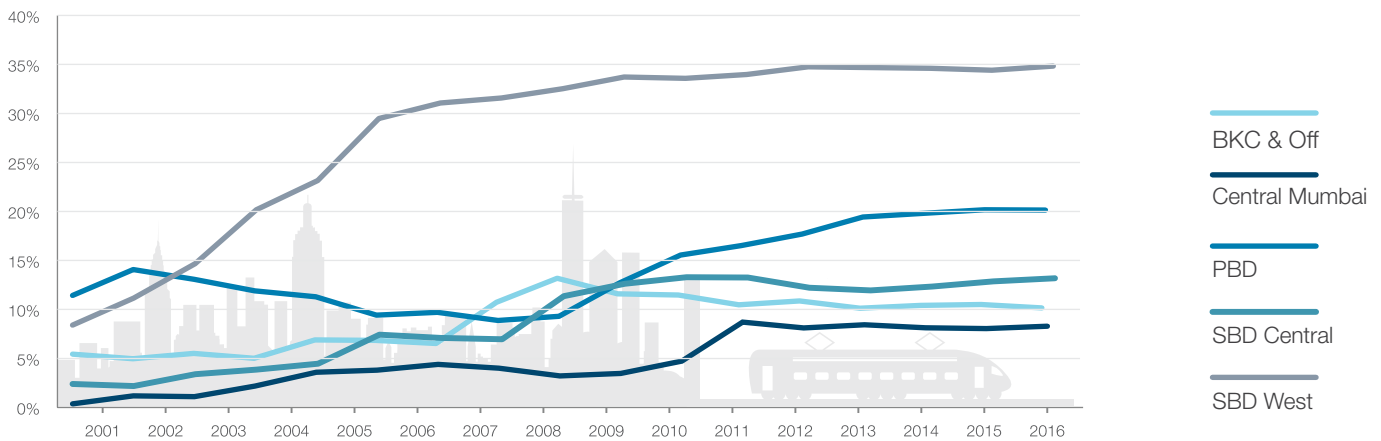
**Operational route:** Mumbai Metro Line 1  
[ Versova - Andheri - Ghatkopar (VAG) ]

### What was the need for this metro route?

Mumbai is a peninsular city, with the CBD at its southern tip and residential markets growing in the northern suburbs. The city saw its north-south connectivity develop as office markets such as Nariman Point and Fort got connected with the suburbs through the suburban rail network.

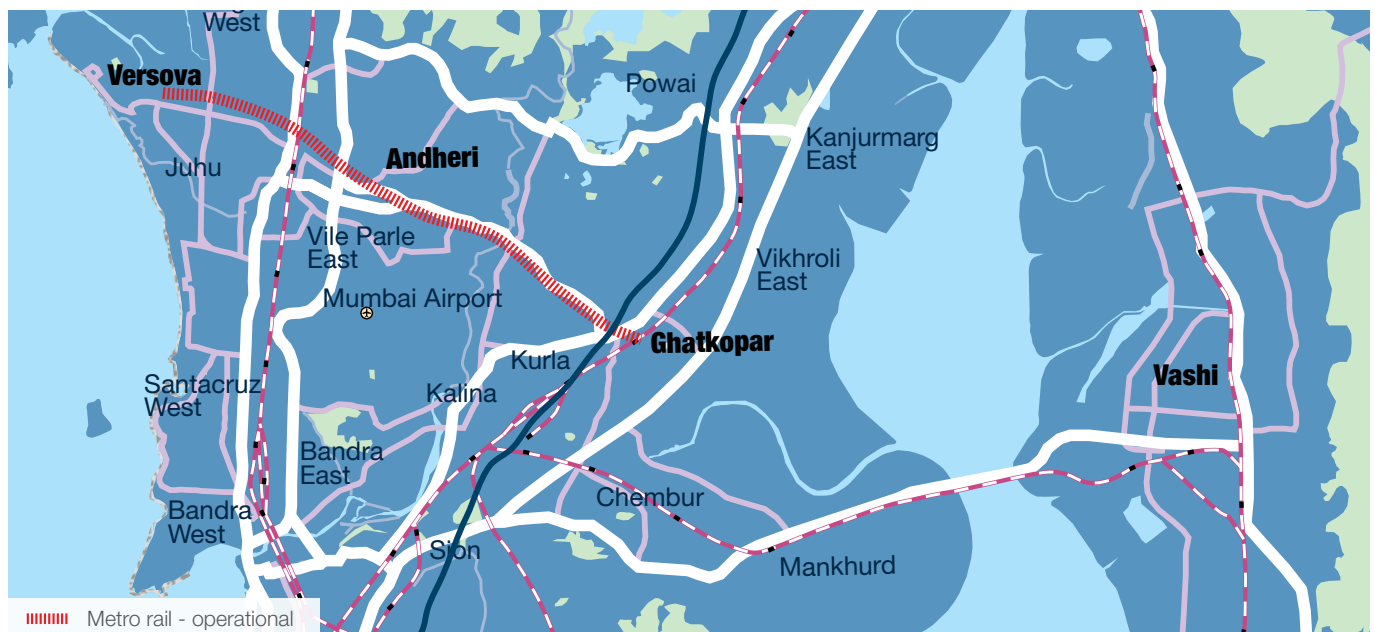
However, the east-west connectivity lagged behind, and long detours through interchanges at locations such as Dadar and CST are required. The growing population in the suburbs led to the need for enhanced east-west connectivity.

**Chart 3: Business district-wise share of MMR office stock**



Source: Knight Frank Research

**Map 2: Versova - Andheri - Ghatkopar Metro corridor**



Source: Knight Frank Research



## Timelines

Period	VAG metro milestone	MMR office stock (mn sq ft)	Share of SBD West in the MMR office stock	Andheri East residential (₹/sq ft)*
2000	Feasibility study	19	8%	2,100
2004	State government approves the plan	27	23%	2,800
2008	Construction commencement	47	33%	8,000
2014	Ready for public use	112	35%	15,500
2015		118	34%	16,500

**Note:** SBD West comprises localities such as Andheri, Goregaon and Malad

\* All prices mentioned here are average prices

## How did the project progress?

In 2000, the CBD had an office stock of 14 mn sq ft, which was almost 72% of the city's total stock. The share of the SBD West business district, which is the primary influence area of the VAG metro corridor, was just 8%. A feasibility study of the VAG corridor was undertaken that year.

In 2004, the state government approved the metro plan. With frenetic office space development in SBD West, its share in the MMR office stock increased to 23%. Construction commenced four years later, in 2008, and by that time, the share increased to 33%. The corridor was opened for public use in 2014, by which time, the share stood at 35%. In 2015, more than a year after the project was opened for public use, SBD West had an office stock of 40 mn sq ft spread across micro-markets such as Andheri, Jogeshwari, Goregaon and Malad. By contrast, the share of the CBD has shrunk to 13% at present.

## What was the project's impact on the residential market?

Andheri East is a prominent micro-market and believed to be favourably impacted by the VAG metro corridor. We take a case of a residential property in Andheri East and draw parallels between the metro project progress and prices in this micro-market. We will do this assessment in two stages, as follows:

### Stage 1: Between the state government's approval of the project plan and construction commencement

The state government approved the project plan in 2004, and after several delays, the construction commenced four years later, in 2008. Till this time nothing changed on the ground as far as the desired benefits of this project were concerned. However, during this

period, the Andheri East residential property appreciated by 185%, moving from ₹2,800 per sq ft to ₹8,000 per sq ft. A favourable property market cycle, coupled with the expectation of the benefits that would accrue to the residents, translated into a significant appreciation in the property prices in Andheri East.

### Stage 2: Between construction commencement and being ready for public use

The construction phase lasted six years, from 2008 to 2014. During this period, the ground situation remained the same as far as the project objective was concerned, and construction-related issues affected the quality of life for the

residents. However, during this six-year period, residential property in Andheri East appreciated by 94%, from ₹8,000 per sq ft to ₹15,500 per sq ft.

At present, the VAG metro corridor aligns predominantly with the office markets of Saki Naka, Marol, Chakala and the Andheri-Kurla Road. The 11.4 km metro route has enhanced the much-needed east-west connectivity through an MRTS, and reduced the journey time between Versova and Ghatkopar from 71 minutes to 21 minutes. The subject micro-market of Andheri East witnessed a price growth of 638% between 2000, when the feasibility study was undertaken, and 2014, when the VAG corridor was opened for public use.

## What are the upcoming metro routes?

### Planned routes:

#### A. Mumbai Metro (part of Line 2) Dahisar West-DN Nagar

This 18.5 km corridor is prioritised by the state government, considering the traffic congestion in the western suburbs. With a budget of ₹6,410 cr, construction is expected to begin in 2016 and be complete in 2019.

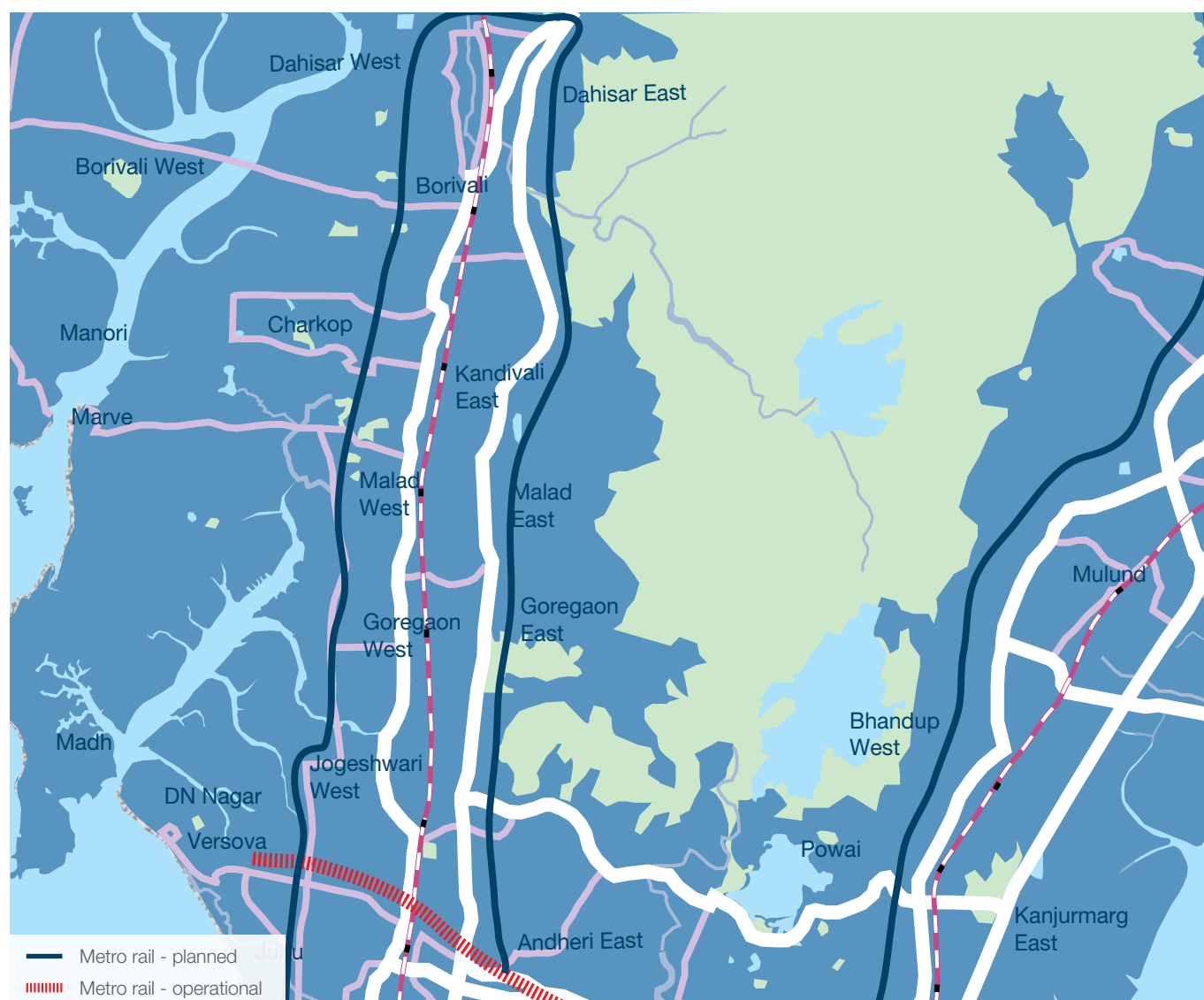
#### B. Mumbai Metro (part of Line 7) Andheri East-Dahisar East

This 16.5 km corridor is prioritised by the state government, considering the traffic congestion in the Western Suburbs. With a budget of ₹6,208 cr, construction is expected to begin in 2016 and be complete in 2019.

## What is the need for these planned metro routes?

With the traffic flow from north to south, i.e. residential markets such as Mira Road, Bhayandar, Dahisar and Borivali, towards offices in Malad, Goregaon and Andheri, the Western Express Highway and the suburban rail network witness traffic woes. The alignment of these corridors has been designed to reduce the traffic burden on the heavily-congested Western Express Highway as well as the Western Railway section of the Mumbai Suburban Railway.

Map 3: Metro route map



Source: Knight Frank Research



## What is the likely impact of the upcoming metro routes on the real estate market?

Akin to the first metro corridor of the city, i.e. VAG, we believe that the upcoming corridors will accrue similar benefits for the residential pockets in their influence zones. However, the intensity of the impact will vary across the corridors and depend on a host of factors, such as residential pricing, social and physical infrastructure, and employment opportunities.

### Price variation across markets on the Dahisar West-DN Nagar metro corridor

Micro-market	Approx. distance from Andheri West	Residential prices (₹/sq ft)*
Andheri West	0 km	18,000
Goregaon West	4 km	16,000
Charkop	9 km	13,000
Dahisar West	17 km	12,000

\* All prices mentioned here are average prices

### Markets likely to benefit from the upcoming Dahisar West-DN Nagar metro corridor

Influence zones	Current price discount from Andheri West
Charkop	28%
Dahisar West	33%

In the case of the Dahisar West-DN Nagar metro corridor, a comparison of four en route micro-markets, namely Andheri West, Goregaon West, Charkop and Dahisar West, has been presented here. The comparison indicates that residential prices are average at ₹18,000 per sq ft in Andheri West and decline as we move north. We believe that Charkop and Dahisar West will benefit immensely on account of this incremental infrastructure that will reduce the commuting time to South and Central Mumbai. In comparison to Andheri West, residential property in Charkop and Dahisar West is at a discount of 28% and 33%, respectively. While the discount is on account of several factors (discussed earlier), it will narrow down in line with the progress of the metro project. Due to this differential pricing, Charkop and Dahisar West will be the biggest beneficiaries of this metro corridor and are likely to witness a price appreciation in the residential segment.

### Price variation across markets on the Andheri East-Dahisar East metro corridor

Micro-market	Approx. distance from Andheri East	Residential prices (₹/sq ft)*
Andheri East	0 km	16,000
Goregaon East	4 km	14,000
Kandivali East	9 km	15,000
Dahisar East	17 km	11,000

\* All prices mentioned here are average prices

### Markets that are likely to benefit from the upcoming Andheri East-Dahisar East metro corridor

Influence zones	Current price discount from Andheri West
Dahisar East	31%

In the case of the Andheri East-Dahisar East metro corridor, a comparison of four en route micro-markets, namely Andheri East, Goregaon East, Kandivali East and Dahisar East, has been presented here. The comparison indicates that residential prices average at ₹16,000 per sq ft in Andheri East and decline as we move north. We believe that Dahisar East will benefit immensely on account of this incremental infrastructure that will reduce the commuting time to South and Central Mumbai. In comparison to Andheri East, residential property in Dahisar East is at a discount of 31%. While the discount is on account of several factors (discussed earlier), it will narrow down in line with the progress of the metro project. Due to this differential pricing, Dahisar East will be the biggest beneficiary of this metro corridor and is likely to witness a price appreciation in the residential segment.

## Major completed road projects

### **Santacruz Chembur Link Road (SCLR)**

Completed in 2014, the 6.5 km SCLR was among the most awaited arterial roads that enhanced the east-west road connectivity in the city. The road connects the crucial Western Express Highway to the Eastern Express Highway at Santacruz and Chembur respectively. En route is the premium office hub of Bandra Kurla Complex (BKC). Earlier, the vehicular movement between the two markets was heavily dependent on the Sion-Dharavi route, leading to traffic woes. Navigating over the Central Railway tracks near Kurla station, the SCLR has enabled seamless connectivity between Santacruz and Chembur, reducing the commute time significantly. A resultant positive impact on property prices has been witnessed in Chembur.

### **Eastern Freeway**

The 16.8 km controlled access Eastern Freeway is an elevated road project in Mumbai connecting P D'Mello Road in South Mumbai to the Eastern Express Highway at Ghatkopar. Completed in 2014, it serves as a high-speed road corridor connecting the Central and Eastern suburbs to South Mumbai. The presence of the CBD office markets of Nariman Point, Fort, Colaba and Cuffe Parade makes South Mumbai an important location in the city. The enhanced connectivity to these office markets through the Eastern Freeway benefited markets such as Chembur and Wadala in terms of better demand and pricing for residential properties. In fact, peripheral markets such as Mulund, Thane and Kalyan have also benefited from this enhanced connectivity to the CBD.

### **Jogeshwari Vikhroli Link Road (JVLR)**

The 10.6 km Jogeshwari Vikhroli Link Road has been developed as a crucial arterial road providing east-west connectivity to the city. The road widening work was completed in 2012 to serve the increased vehicular traffic needs by connecting Vikhroli on the Eastern Express Highway to Jogeshwari on the Western Express Highway. The office markets in the influence zone are those of Andheri East, Powai, Goregaon and Malad. Residential micro-markets such as Powai, Kanjurmarg, Bhandup, Mulund and Thane have benefited on account of the improved connectivity to the listed office hubs in the western zone. Powai, which lacked MRTS connectivity, has seen significant improvement in residential demand and prices on account of the JVLR during the project implementation period.

Highlighting the experience of these completed road projects, we draw expectations for the planned projects of Coastal Road and the Mumbai Trans Harbour Link.

## Coastal Road project

### **The project:**

Extending from Kandivali in the Western Suburbs to Nariman Point in South Mumbai, the proposed 35.6 km Coastal Road will ease the traffic congestion in the Western Suburbs. The ₹12,000 cr project has secured the forest and CRZ clearances. The bidding process will begin in June 2016 and the project is expected to be completed in 2019.



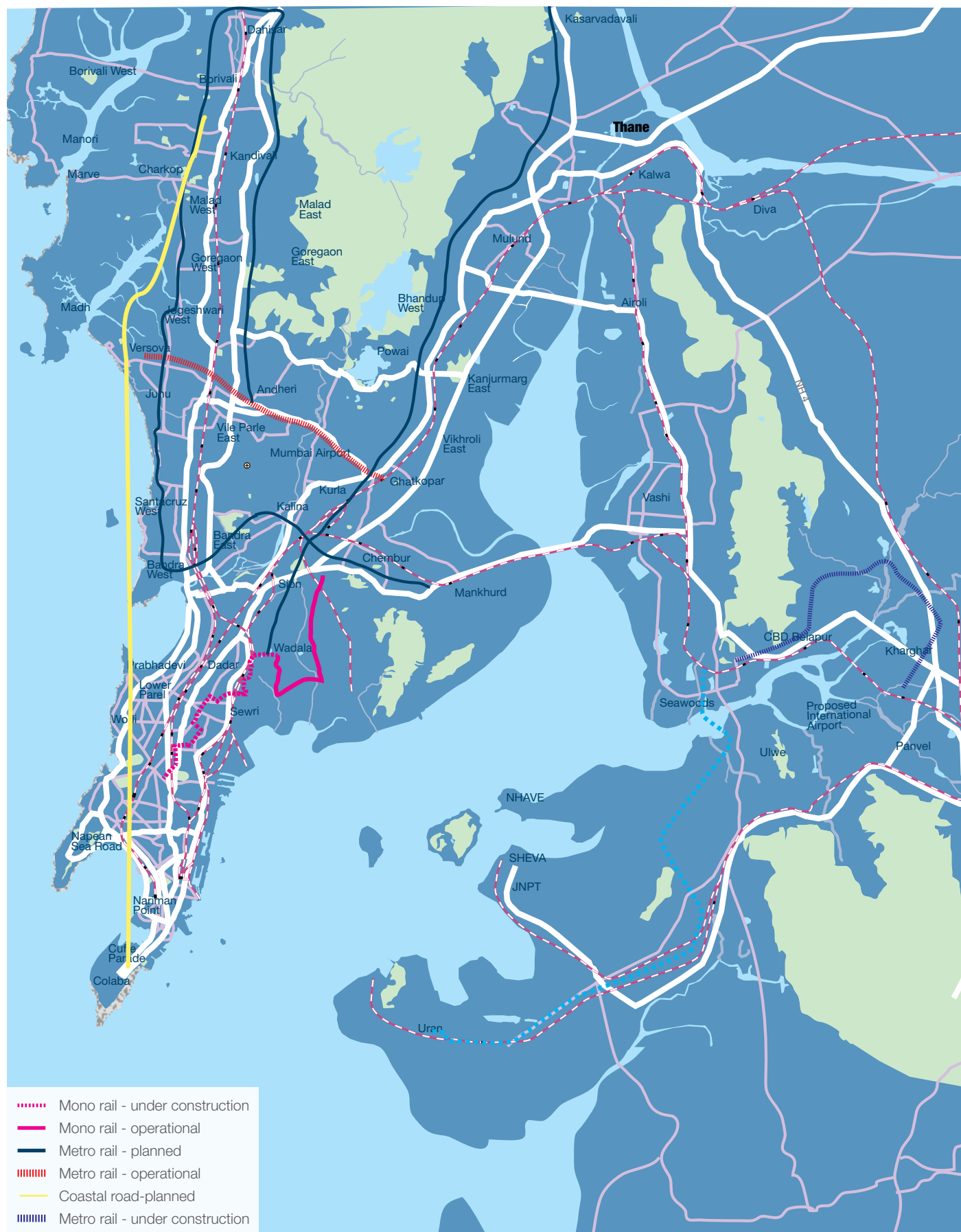
## What is the need for a coastal road?

The localities across this project's alignment along the western coastline of the city are densely populated. The road traffic emanating from residential catchments such as Borivali, Kandivali, Malad and Jogeshwari and moving southwards to the office hubs of Central and South Mumbai utilises the Western Express Highway, leading to traffic snarls.

The Coastal Road will reduce the road traffic congestion on the overly-burdened Western Express Highway. Running along the city's coastline, this road will be the first of its kind. This controlled-access highway will provide high-speed connectivity between the Western Suburbs and South Mumbai. Although not an MRTS project, the intention is similar to the upcoming metro route of Dahisar West-DN Nagar.



Map 4: Coastal Road route map



Source: Knight Frank Research

## What is the likely impact of the Coastal Road on the real estate market?

### Price variation across markets

Micro-market	Approx. distance from Colaba	Residential prices (₹/sq ft)*
Colaba	0 km	50,000
Napean Sea Road	10 km	75,000
Worli	13 km	35,000
Bandra West	24 km	45,000
Andheri West	34 km	18,000
Goregaon West	39 km	16,000
Charkop	46 km	13,000

\* All prices mentioned here are average prices

### Markets that are likely to benefit from the upcoming Coastal Road

Influence zones	Current price discount from Napean Sea Road
Goregaon West	79%
Charkop	83%

Residential prices along the alignment of the Coastal Road range between ₹13,000 per sq ft in Charkop and ₹75,000 per sq ft in Napean Sea Road. The variation in real estate drivers, such as access to the office markets, and the social and physical infrastructure of the micro-market, explains this vast difference in the prices. Among these driving factors, the Coastal Road project will change the access to the office markets significantly. It will alter the connectivity of these markets significantly, such that the travel time and distance between the listed markets and other places of importance will see a significant reduction.

While markets such as Colaba, Napean Sea Road, Worli and Bandra West also have premium characteristics, markets such as Andheri West, Goregaon West and Charkop are driven predominantly by access to the employment hubs in South and Central Mumbai. In comparison to the most expensive micro-market of Napean Sea Road on this corridor, Goregaon West and the Charkop residential markets trade at a discount of 79% and 83%, respectively. With the upcoming Coastal Road, the commute time will shrink significantly along the route and price gaps will narrow down. We foresee markets such as Charkop and Goregaon West to be the major beneficiaries of this project, and expect a price upside for these markets.

In a similar Knight Frank research titled ‘Residential Investment Advisory Report 2016’, Madh-Marve, nestled between the Arabian Sea to the west and Malad Creek to the east, was identified as a top investment destination in the MMR. At present, this destination can be reached via the Malad-Marve road or the ferry service from Versova, Andheri West. Considering the incremental infrastructure in terms of the upcoming Coastal Road and the Versova-Madh sea bridge, this destination will emerge as a preferred residential market, leading to a price appreciation from the prevailing ₹13,500 per sq ft to ₹26,200 per sq ft – an appreciation of 94% during a five-year time horizon till 2020.

Going forward, the government also plans to extend the Coastal Road up to Mira Road. However, the extension plan, its cost and route will be estimated once the construction work begins on the existing alignment.



## Mumbai Trans Harbour Link (MTHL) project

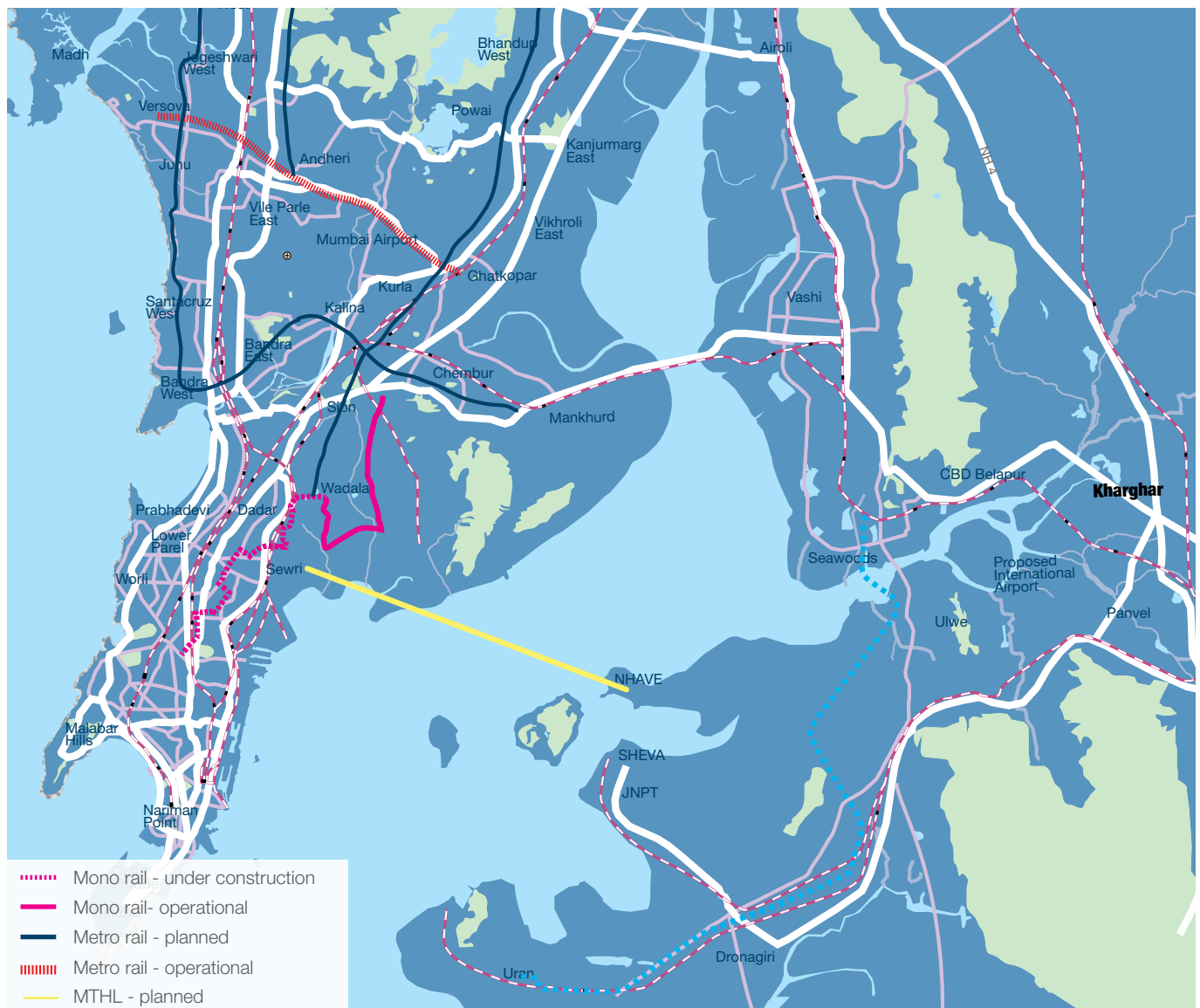
### The project:

At an estimated cost of ₹11,000 cr, this 22.5 km, six-lane proposed sea bridge will connect Sewri in Mumbai to Nhava Sheva in Navi Mumbai. The project has secured the environment clearance, and the work order will be issued by November 2016, with its completion slated for 2019.

### What is the need for the Mumbai Trans Harbour Link?

As a satellite city, Navi Mumbai was envisaged decades ago to decongest Mumbai. In the last two decades, the traffic flow between Navi Mumbai and Mumbai has increased significantly on account of the growing residential and office developments in the Navi Mumbai region. This increase in the traffic flow between these twin cities has created a need to enhance the road connectivity, which is primarily via the Sion Panvel Expressway at present. Further, the existing Mumbai airport has a capacity of 40 mn passengers, which is almost saturated. Thus, the state government is aggressively pushing the upcoming Navi Mumbai International Airport, which will handle 10 mn passengers in its first phase, going up to 60 mn passengers by 2030. Phase I of this airport is expected to be operational by 2019.

Map 5: MTHL route map



Source: Knight Frank Research

## What is the likely impact of the MTHL on the real estate market?

### Price variation across markets

Micro-market	Approx. distance from Sewri	Residential prices (₹/sq ft)*
Sewri	0 km	30,000
Nhava Sheva	50 km	No organised residential projects

\* All prices mentioned here are average prices

### Price variation across markets

Micro-market	Approx. distance from Nhava Sheva	Residential prices (₹/sq ft)*
Dronagiri	10 km	3,500

\* All prices mentioned here are average prices

### Markets that are likely to benefit from the upcoming MTHL

Influence zones	Current price discount from Sewri
Dronagiri	88%

Residential prices in Sewri and Nhava Sheva vary by a huge margin. In the Nhava Sheva region, residential project development has been few and far between, on account of its poor connectivity. A few residential projects by local developers have come up in Dronagiri—a micro-market approximately 10 km from Nhava Sheva—commanding ₹3,500 per sq ft. By contrast, the host of premium projects in Sewri offer residential apartments at an average of ₹30,000 per sq ft.

The 22.5 km MTHL will connect Sewri in Mumbai to Nhava Sheva in Navi Mumbai – an existing route of 50 km through the Sion-Panvel Highway. Going forward, the planned MTHL project will serve as a critical urban transport project to support the increased traffic requirements. It will also open up land parcels in the relatively cheaper Uran section of Navi Mumbai for new development. The prime beneficiary of this incremental infrastructure will be the Dronagiri residential market, which is at an 88% price discount compared to Sewri. As a result of the MTHL, micro-markets such as Dronagiri and other neighbouring localities in the Nhava Sheva region are likely to witness an appreciation as the price gap narrows down between the two markets.

## Conclusion

With 80% of the employment opportunities based in Mumbai and a high population growth in the rest of the MMR, a long commute to work is inevitable for a large section of the workforce living in the MMR. With a premium attached to living close to work, this situation has created a high price gradient of residential properties in the region, which varies from ₹3,000 per sq ft to ₹100,000 per sq ft. This also makes the role of urban transport projects increasingly critical. The upcoming city development plan for Mumbai is likely to place great importance on transit-oriented development, with a view to align real estate development with the infrastructure of the larger MMR. In light of such a situation, the upcoming infrastructure projects would provide a fresh lease of life to citizens, while also benefiting the residential markets, not just in terms of enhanced connectivity to places of importance but also in price appreciation in the influence zones of these upcoming projects.



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