

Neighborhood public transit services: Situational analysis of bus-based public transport supply in Delhi

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INTRODUCTION

Delhi, a rapidly growing metropolis, faces ongoing challenges in providing effective public transport solutions to meet its residents' diverse needs. The National Capital Territory (NCT) of Delhi spans an area of 1,483 km², of which 369.35 km² or 25% is rural and 1,113.65 km² or 75% is urban land; it is the largest city in India by area. Delhi's population was 16.78 million in 2011, according to the 2011 India census, and was projected to reach 33.8 million in 2024 (World Population Review, n.d.). The NCT of Delhi is administratively divided into 11 districts and approximately 74 neighborhoods. Each neighborhood has an average radius of 5 km and forms the basis for localized urban and transport planning needs.¹

The city has multiple public transport services, including an extensive bus network operated by the Delhi Transport Corporation (DTC) and Delhi Integrated Multi-Modal Transit System (DIMTS), rail-based rapid transit operated by Delhi Metro Rail Corporation (DMRC), and a growing number of last-mile connectivity options. However, while the network demonstrates significant scale and coverage, there remains considerable scope for enhancement of service accessibility in terms of efficiency and effectiveness. Many areas lack adequate connectivity to primary transit routes, creating barriers to mobility for residents. A 2019 route rationalization study (Transport Department, Governnent of the National Capital Territory of Delhi [GNCTD], n.d.-b) found that low frequency, limited coverage, competing last-mile services, dependability, congestion, and other issues have led to low consumer satisfaction and poor operational efficiency (Bhatt, 2019).

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¹ The number of neighborhoods is not officially defined but was determined here via the boundaries of Delhi's electoral wards; three to five wards make up one neighborhood.

ICCT India has collaborated with the Delhi Government to strategize and support the Transport Department in developing a framework for the efficient deployment of electric buses. As part of this effort, ICCT India conducted consultations with international experts on April 17, 2023, to conceptualize a circulator bus system aimed at enhancing neighborhood-level mobility (Jain, 2023; Sinha, 2024). Currently, ICCT India is assisting the Delhi Government by defining assessment parameters and conducting on-ground validation for the proposed Neighborhood Bus routes.

The objective of this paper is to provide a comprehensive understanding of service gaps within Delhi's public transport network, focusing on both existing transit options and last-mile connectivity. Through an analysis of public transport coverage and accessibility, the study evaluates the extent to which different neighbourhoods of the city are served by bus and rail service, and then identifies neighborhoods with limited or no access to public transport. Additionally, the study highlights key neighborhoods where improvements could be made in last-mile connectivity to public transit. The aim is to identify underserved neighborhoods, evaluate the current transit network's efficiency, and propose recommendations for operational parameters to optimize route planning and service development. Ultimately, the goal is to improve accessibility and mobility for Delhi's residents, contributing to a more integrated and efficient public transport system.

This analysis uses the extensive route-level data collected and developed under Delhi's 2019 route rationalisation study (Delhi Integrated Multi-Modal Transit System Ltd. [DIMTS], 2019), Delhi's open public transit data from Geospatial Delhi Limited (n.d.), and population data from the Economic Survey of Delhi (Planning Department, GNCTD, 2024). The data for the study is from existing or published datasets; no new primary surveys were used for this study. Route data for feeder service used to access rail transport was obtained from the 2019 report. Although some alterations to the routes have likely occurred since the report was published, the routes have not undergone significant changes.

EXISTING PUBLIC TRANSPORT INFRASTRUCTURE

The largest rail-based rapid transit system in Delhi is Delhi Metro. The road-based public transport system in Delhi includes buses, rural transport vehicles, and feeder services, in addition to various intermediate and last-mile service providers. These are described in more detail below.

RAIL

Delhi Metro started operations in 2002 and is run by the Delhi Metro Rail Corporation (DMRC). The system serves Delhi and its satellite cities with 12 rail lines spanning 393 km and 288 stations (Delhi Metro Rail Corporation, n.d.). The Delhi Metro Phase IV expansion currently underway will add 104 km of track to the system. Delhi Metro's popularity stems from its reliability, speed, and ease of transferring lines via strategically planned metro interchanges (Agarwal, 2024). Daily ridership of the metro reached about 46 lakh passengers in fiscal year 2023 (Sun, 2024). The minimum and maximum fares are ₹10 and ₹60, respectively. Feeder bus services and park-and-ride facilities are also offered by DMRC to enhance accessibility.

BUS

Bus services in the city are provided by Delhi Transport Corporation (DTC) and by various private operators under the permit of State Transport Undertaking. This includes cluster bus services managed by the DIMTS on behalf of the GNCTD Transport Department. There are a total of 606 bus routes in Delhi (Delhi Transport Corporation,

n.d.), with DTC buses operating on 259 routes and cluster buses operating on 209 routes. Both DTC and cluster buses provide services on 138 routes. In addition to regular and part-time services, DTC also offers airport service, free fares for women, special destination service, night service, university service, and routes running outside Delhi.

INTERMEDIATE TRANSPORT

Intermediate transport is typically used for short, point-to-point trips as well as for last-mile connectivity with public transit. Intermediate transport providers are primarily auto rickshaws, e-rickshaws, and taxis. The GNCTD Transport Department issues a fixed number of permits for intermediate transport providers to ply in Delhi and publishes standard meter rates for auto rickshaws and taxis, which operate on contract carriage permits. Permits are not required for e-rickshaws, and it is estimated that Delhi NCT has 1.2 lakh registered e-rickshaws and much higher number of unregistered (Rajput, 2024).

LAST-MILE CONNECTIVITY

Last-mile services enhance transit access for underserved communities. In addition, these services align with the city's overarching objectives of reducing traffic congestion, lowering transportation emissions, and fostering a modal shift toward public transport. As part of its ongoing efforts to promote sustainable urban mobility and reduce reliance on private vehicles, the GNCTD Transport Department has implemented last-mile and feeder services aimed at improving passenger access to the public transit network. These services, operating on fixed routes and fares through contract permits, play a pivotal role in connecting residents to high-capacity public transit systems such as the Delhi Metro stations and bus stops catering to longer bus routes, particularly in underserved and peripheral areas of Delhi (Ministry of Urban Development, 2016). Definitions of last-mile modes, in addition to permit types, fares, number of routes, and fleet size, are highlighted in Table 1.

Table 1
Last-mile services in the National Capital Territory of Delhi

Last-mile mode	Definition	Permit type	Number of permits	Route frequency	Fares	Number of routes	Routes approved	Fleet
Rural transport services	Introduced to improve accessibility to less dense and peripheral areas; privately operated midi-buses and minibuses	Stage carriage; Network Concession Cost (NCC) contract	799	As approved by Transport Department	₹5 across all routes	72	138	799
Maxi cab	Privately operated minibuses	Contract carriage	86	No set routes	As approved by STA	15	21	86
Gramin Sewa	Introduced to connect rural areas, unauthorized colonies, resettlement colonies, and JJ clusters of Delhi; privately operated three-wheelers	Contract carriage	3,595	Various	• 0-3 km: ₹5 • 3-7 km: ₹10 • More than 7 km: ₹15	161	166	3,595
Metro feeder service	Introduced by Delhi Metro Rail Corporation to enhance last-mile connectivity; privately operated midi-buses and minibuses	Stage carriage; NCC contract	262	As approved by Transport Department	Buses without air conditioning: free Buses with air conditioning: • 0-4 km: ₹10 • 4-8 km: ₹15 • 8-12 km: ₹20 • More than 12 km and night service: ₹25	44	104	262
Eco-friendly Sewa	Point-to-point service in urban areas using vikrams (three- wheelers) upgraded to carry more passengers	Contract carriage	238	No set routes	• 0-3 km: ₹5 • 3-7 km - ₹10 • More than 7 km - ₹15	206	206	238
Phat Phat Sewa	Point-to-point and last- mile service; privately operated four-wheeled vehicles, with seating capacity of seven to 12 excluding driver	Contract carriage	320	No set routes	• 0-3 km: ₹5 • 3-7 km: ₹10	13	13	320
Private bus shuttle service	Service caters to point-to-point demand; operated by individual or group of drivers; some services available through mobile application-based aggregators	Contract carriage	Permits not required	No set routes	Set by operator	42	-	-
Standard buses	Bus service provided by Delhi Transport Corporation and DIMTS	Stage carriage	7,135 (includes 1,970 electric buses)	Average 15 minutes frequency depending on trunk, primary, or feeder route	Buses without AC: • 0-4 km: ₹5 • 4-10 km: ₹10 • More than 10 km: ₹15 Buses with AC: • 0-4 km: ₹10 • 4-8 km: ₹15 • 8-12 km: ₹20 • More than12 km and night service: ₹25	606	606	7,135
Auto rickshaws	Three-wheelers serving as last-mile or point-to-point transport	Contract carriage	111,674	No set routes	Minimum fare of ₹35 for 2 km, 80 paise per 100 m thereafter	-	-	111,674
Taxis	Four-wheeler cabs used to carry passengers	Contract carriage	133,968	No set routes	₹25 for the first km and after that ₹14 per km for taxis without AC and ₹16 per km for taxis with AC for every additional km	-	-	133,968
E-rickshaws	Battery-operated auto rickshaws	No permit required	~4,500 1.2 lacs total registrations	No set routes	Varies	-	-	~4,500 (registrations total 1.2 lacs)

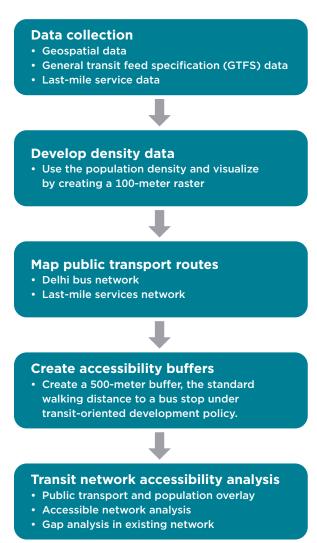
Source: Transport Department, Government of National Capital Territory of Delhi (n.d.-a) and Delhi Development Authority & National Institute of Urban Affairs (2020)

TRANSIT ACCESSIBILITY ANALYSIS

With over 600 routes and nearly 4,000 stops served by more than 7,800 buses, the bus network coverage in Delhi is extensive. To gain a deeper understanding of public transit accessibility—focusing on buses operated by DTC and DIMTS—a GIS-based overlay analysis was conducted. This analysis assessed the existing coverage of transport services across the Delhi NCT region. The analysis aimed to identify demographic concentrations and route network data along major transportation corridors and to evaluate the level of accessibility, defined as access to public buses within a 500-m radius, as defined by transit-oriented development norms (Ministry of Housing and Urban Affairs, n.d.).

The methodology outlined in Figure 1 was used to create detailed maps for identifying gaps in transport services. The location-based analysis is focused to assess the serviceability of the exiting bus network and identify gaps in coverage, verify areas served, and determine potential areas for service improvement. Each step of the analysis is described in more detail below.

Figure 1
Methodology used for analysis of transit accessibility



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Data collection: To begin, geospatial data was collected, including shapefiles for administrative boundaries, road networks, and population distribution. The general transit feed specification (GTFS) data from DTC and DIMTS was imported to map routes, stops, and schedules. Additionally, data on last-mile services such as maxi cabs and Gramin Sewa was obtained from the route-rationalization study to understand the full scope of public transport coverage (Transport Department, GNCTD, n.d.-b).

Route mapping: Using geographic information system (GIS) software, the bus stop network for DTC and DIMTS was digitized based on the GTFS data. Existing last-mile services were also mapped to offer a complete picture of public transportation network coverage across the city.

Accessibility buffers: To assess the spatial reach of public transport and to identify areas with poor accessibility, a 500-m buffer zone was created around each bus stop using GIS software to represent the average walking distance that passengers typically cover. Buffer analysis methodologies vary across countries, and are adapted to suit their unique contexts. In India, this approach is tailored to account for significant demographic variations, with a primary focus on assessing the reach and coverage of the transportation network.

Population and infrastructure mapping: Population density maps were developed by overlaying demographic data with administrative boundaries. Infrastructure density maps were also created to highlight built-up areas. These maps helped in assessing how well public transport supports high-demand zones.

Analysis of existing transport network: An overlay analysis was conducted, comparing bus stop buffers with population density maps to identify underserved areas. Similarly, infrastructure density maps were overlaid with transport coverage to evaluate how well key zones such as commercial areas, schools, and hospitals are served.

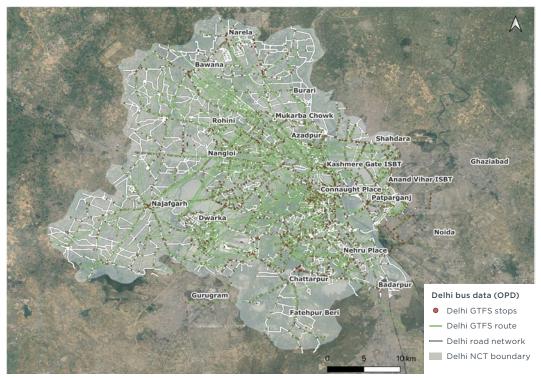
This methodology provides a systematic approach to understanding the public transport coverage in Delhi, offering critical insights for improving the city's transit system and enhancing urban mobility.

MAPPING THE DTC AND DIMTS BUS NETWORK

To evaluate the coverage of the DTC and DIMTS bus routes and stops, the network was mapped using GIS tools and publicly available GTFS data for the city. The GTFS dataset provided key inputs on bus routes and stop locations in Delhi, with bus stops represented as point data (X and Y coordinates) and routes as line data. This GTFS data for Delhi has been provided by Geospatial Delhi Limited (n.d.), which is the geo-knowledge enterprise of the GNCTD. Using the existing road network of Delhi along with GTFS-derived bus routes, a comprehensive shapefile of the city's bus route network was developed. The following maps (Figures 2–4) illustrate the bus route network across Delhi, showcasing the extent of service coverage.

Using GTFS data on bus routes and stop sequences, along with a shapefile of Delhi's arterial and sub-arterial roads (7 m or more in length), the route data was developed as a line shapefile. This enabled the accurate mapping of the city's bus network. The data was then validated in coordination with Delhi's transit agencies to ensure accuracy and alignment with existing transportation infrastructure.

Figure 2
Mapping of bus stops and routes in Delhi National Capital Territory using raw general transit feed specification (GTFS) data

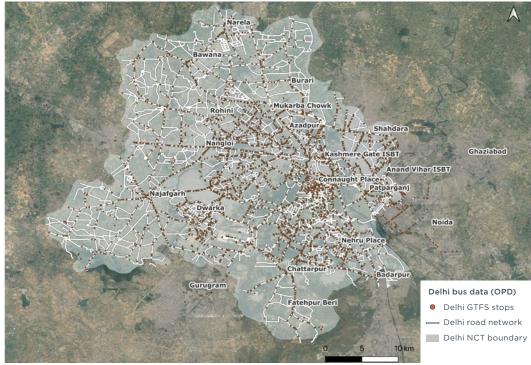


Note: Point-to-point data from the GTFS, based on location transmissions from buses in real time, does not align perfectly with the road network.

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Figure 3

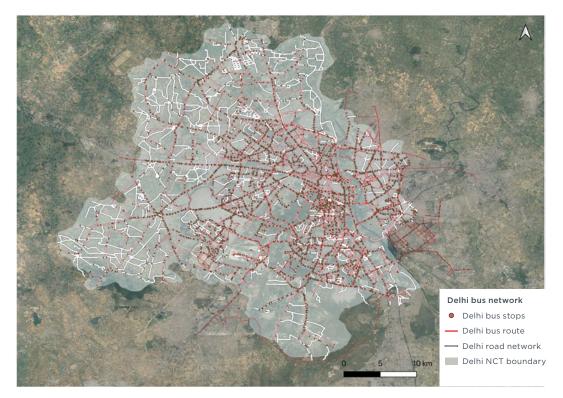
Roads in Delhi more than 7 m wide where general transit feed specification (GTFS) data has identified a bus stop



Satellite imagery: Google Earth, Landsat/Copernicus

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Figure 4
Map showing Delhi bus stops and bus routes after being aligned with the road network

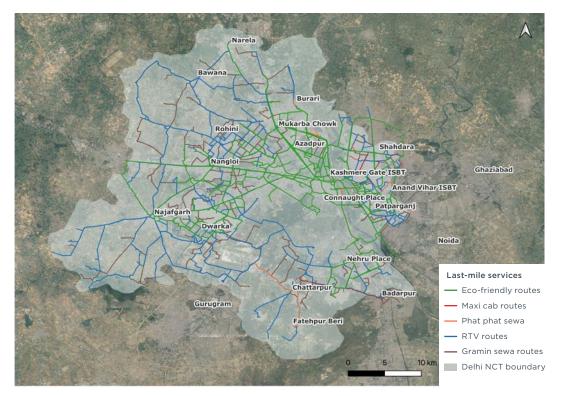


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MAPPING LAST-MILE SERVICES

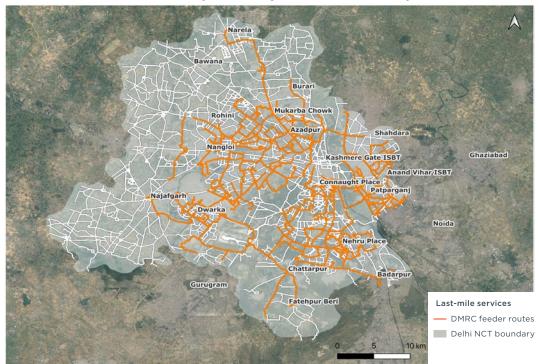
The last-mile service data was developed as part of the route-rationalization study conducted by the Government of Delhi. This data, sourced as GIS files during the study, include fixed and dedicated routes on which last-mile services operate under contract carriage permits. Additionally, the data for the DMRC feeder services was obtained from the rationalization study and further validated through coordination with the Transport Department during the process. Figure 5 shows last-mile connectivity routes, and Figure 6 maps Metro feeder routes.

Figure 5
Last-mile connectivity routes excluding Metro feeder service provided by Delhi Metro Rail Corporation



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Figure 6
Metro feeder routes for service provided by Delhi Metro Rail Corporation



 ${\bf Satellite\ imagery:\ Google\ Earth,\ Landsat/Copernicus}$

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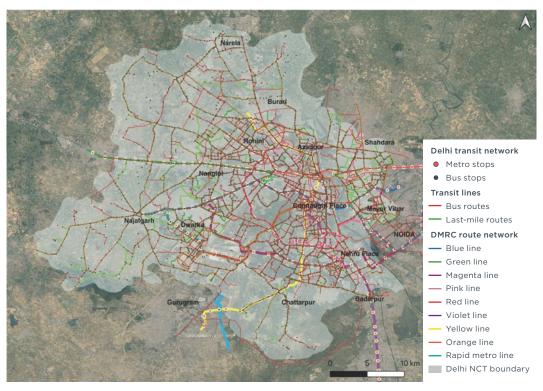
NETWORK ACCESSIBILITY ANALYSIS

To comprehensively evaluate the current accessibility of Delhi's public transit network and to identify areas where additional services may be required, a two-step methodology was employed. First, we assessed the coverage of public transit services in built-up areas of Delhi. Next, we assessed how much of the population was within a walkable distance of the transit network.

ASSESSMENT OF ACCESSIBILITY WITHIN BUILT-UP AREAS OF DELHI

The first phase of the analysis focused on understanding the coverage of public transit services within the built-up areas of Delhi. Transit route data for Delhi, including those of the DTC and DIMTS bus networks, the six last-mile services, and the Delhi Metro network, were used. GTFS data made available by DTC and DMRC provided the foundation for mapping these transit services. Figure 7 maps all transport services in the Delhi NCT.

Figure 7
Map of all transport services within Delhi NCT



Satellite imagery: Google Earth, Landsat/Copernicus

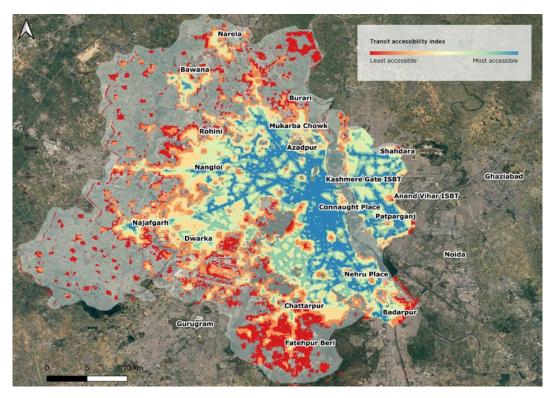
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Given the variability in land use across wards—where commercial, residential, green, and forested areas differ significantly—a detailed population distribution model was developed. Demographic data from the 2017 Economic Survey (Planning Department, GNCTD, n.d.) were combined with building footprint information to generate a population raster at 100-m grid intervals for each ward, as shown in Figure 8. This enabled a more nuanced assessment of built-up areas rather than an overall spatial view of Delhi.

Figure 8

Accessibility levels based on population density and proximity to transit across

Delhi NCT

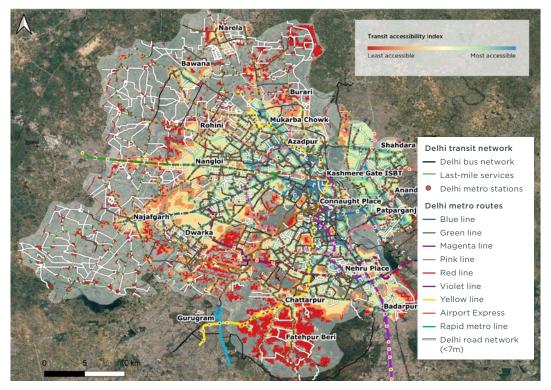


Note: Accessibility levels are determined by calculating population density and proximity to public transit including intermediate transport providers (ITPs) and last-mile services by GNCTD

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To analyse accessibility levels, the proximity of each 100-m raster block to the nearest public transport stop was calculated using a GIS-based approach. This process provided a visual representation of accessibility, revealing how the city's built-up environment and population density are distributed along the existing transport network as shown in Figure 9. Through this spatial analysis, insights into how transport infrastructure has influenced urban development patterns were derived, offering a detailed perspective on the reach of public transit across different areas of Delhi.

Figure 9
Transit services overlayed with transit-accessible areas of Delhi NCT

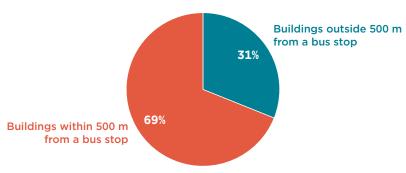


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ANALYSIS OF AREAS WITHIN A 500-M WALKABLE DISTANCE FROM TRANSIT STOPS

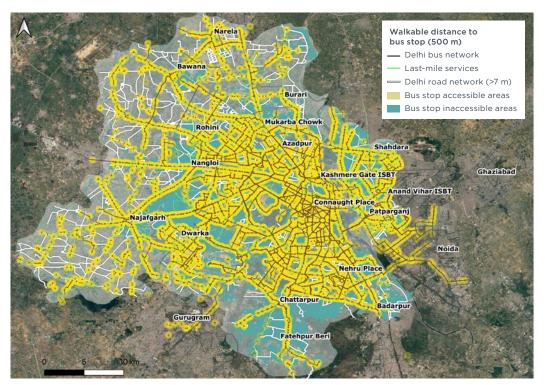
A 500-m buffer was developed around all public transport stops to evaluate the walkable distance from these stops. This buffer zone, a standard used in transit-oriented development policies, was overlaid onto the built-up areas of Delhi. This step aimed to assess how much of the habitable areas are within walking distance of public transit and how much are outside the accessible level of public transit. The results, as seen in Figure 10 and Figure 11, indicated that nearly 31% of the land in Delhi's built-up areas lie outside the 500-m walkable range of transit services, suggesting a considerable gap in coverage. These findings provided a situational overview of the city's accessibility to transit services, pinpointing areas where additional coverage might be needed.

Figure 10
Accessibility of bus stops within the built-up areas of Delhi



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Figure 11
Walkable distance buffer of 500 m from bus transit stops



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IDENTIFICATION OF SERVICE GAPS

The final stage of the analysis employed GIS tools to overlay existing bus routes, metro transit lines, and road networks wider than 7 m. By conducting an overlay analysis, areas with high population densities but limited public transit coverage were identified. Of note, this step highlighted neighborhoods that lack adequate access to DTC buses, thereby indicating potential areas for service expansion, such as the deployment of neighborhood buses, as discussed below. The findings of this analysis are critical for identifying transit service gaps and informing future planning efforts to enhance public transport accessibility in Delhi.

This methodological framework, based on spatial and demographic analysis, offers insights that are essential for understanding the current state of public transport accessibility in Delhi and highlights areas where targeted interventions could improve overall transit coverage. This provides a basis for policy recommendations aimed at enhancing transit accessibility and addressing last-mile connectivity challenges within the Delhi NCT.

AREAS IDENTIFIED FOR NEIGHBORHOOD-LEVEL SERVICE INTERVENTION

The GIS-based spatial analysis of public transportation services across Delhi provided a detailed assessment of network coverage and existing gaps. By mapping DTC and DIMTS bus routes, bus stops, and last-mile connectivity services, the analysis yielded a comprehensive visual representation of the current public transport infrastructure. This revealed areas with high service density and, more critically, those with limited or insufficient public transit options.

Key transport infrastructure components, including arterial and sub-arterial roads, were evaluated within a 500-m buffer surrounding transit corridors such as bus stops and metro stations. This approach helped delineate walkable areas and highlighted regions where transit services are either readily accessible or largely absent. The analysis identified specific neighborhoods where transit coverage is sparse, even though these areas may lie within proximity to high-capacity transit corridors. These regions were found to lack sufficient integration with public transport for short-distance travel, thus necessitating targeted interventions to enhance accessibility.

Additionally, the study incorporated a detailed analysis of Delhi's built environment to understand the accessibility of habitable areas. Using Landsat imagery from the Open Buildings dataset, a shapefile of Delhi's building footprint was generated (Sirko et al., 2021). This building footprint dataset, combined with the 500-m buffer analysis, allowed for a ward-wise assessment of buildings located outside accessible transit networks. The spatial data thus provided critical insights into the areas where public transportation services are inadequate or absent, guiding potential future interventions aimed at closing accessibility gaps in public transit across Delhi.

Table 2 provides the list of areas of Delhi which have the highest percentage of buildings that are not within the 500-m walkable distance from a transit stop, and therefore are not considered accessible. A detailed list of accessibility for each ward of Delhi is provided in Appendix A.

Table 2
Percentage of buildings within and outside a 500-m radius of a transit stop

Ward names	Percentage of buildings outside 500 m of bus stop	Percentage of buildings within 500 m of bus stop
Deoli	100	0
Hari Nagar Extension	100	0
Jaitpur	100	0
Sangam Vihar-A	100	0
Sainik Enclave	100	0
Ghonda	100	0
Mustafabad	100	0
Prem Nagar	100	0
Karawal Nagar-East	97	3
Kirari	96	4
Sangam Vihar-B	96	4
Ballimaran	92	8
Binda Pur	91	9
Sangam Vihar-C	87	13
Sant Nagar	82	18
Saboli	79	21
Nithari	79	21
Said-Ul-Ajaib	78	22
Sadh Nagar	77	23
Vikas Nagar	73	27
Aya Nagar	71	29
Harsh Vihar	70	30
Hastsal	68	32
Sarup Nagar	68	32
Mohan Garden	68	32
Sagarpur	64	36
Bazar Sita Ram	64	36
Zakir Nagar	63	37
Dayalpur	62	38
Gautam Puri	62	38
Tigri	62	38
Raj Nagar	61	39
Aman Vihar	60	40
Vasant Kunj	60	40
Baprola	60	40
Baprola	60	40

Note: Wards are from the Municipal Corporation of Delhi ward map for 2022

Several high-density urban settlements in Delhi—such as Deoli, Hari Nagar Extension, Jaitpur, Sangam Vihar-A, Sainik Enclave, Ghonda, Mustafabad, and Prem Nagar—exhibit significant gaps in bus accessibility due to narrow streets and the absence of well-integrated public transit infrastructure. Residents in these areas often need to walk distances higher than average to reach the nearest bus stop, exacerbating first- and last-mile connectivity challenges. The constraints imposed by narrow roads make it impractical for standard 12-meter Delhi buses to operate effectively within these neighborhoods.

NEED FOR NEIGHBORHOOD-LEVEL SERVICE

Vehicle registrations are projected to reach 17.23 million by 2030 and approximately 27.54 million by 2050 (Gupta & Dameniya, 2017). As of 2023, the registered vehicle population has already reached 12 million (Mathur & Rajput, 2024). Delhi ranked 44th for congestion among 387 cities in the 2023 TomTom Traffic Index; the average speed during rush hours was 24 km/h in 2023, with the average time to cover 10 km increasing to 21 minutes and 40 seconds, a slowdown of 30 seconds compared with the previous year (Chauhan, 2024). This slowdown, despite improvements in traffic signaling and public transport infrastructure, demonstrates the challenge of managing traffic in an already congested city. The projected twofold to threefold increase in vehicle population highlights the urgent need for a modal shift toward public transport along with enhanced neighborhood connectivity to address future congestion and environmental concerns.

The Report of the High Powered Committee on Decongesting Traffic in Delhi by the Ministry of Urban Development identified that Delhi's reliance on private vehicles had increased due to the lack of accessible infrastructure for public transport and nonmotorized modes (Ministry of Urban Development, 2016). Auto-centric urban planning—characterised by segregated land use, large unwalkable blocks, encroached footpaths, and the construction of flyovers and gated communities—significantly limited the mobility of public transport users. As a result, private vehicle ownership surged, leading to higher levels of pollution, congestion, and a corresponding loss in productivity and an increase in urban poverty. The report highlighted that nearly 60% of trips in Delhi were under 4 km, and 80% were below 6 km, indicating that many trips in Delhi often occur within neighborhoods or surrounding areas. This highlights the importance of neighborhood-level services where the dependency on private vehicles can be eliminated by providing well-planned connectivity to public transport.

A Centre for Science and Environment study also highlighted how even planned communities fall short of guidelines and standards for accessibility and are deficient in public transport-oriented design (Roychowdhury & Das, 2021). This promotes dependence on personal vehicles in these neighborhoods.

CASE STUDY: TRAVEL PATTERNS AND TRIP LENGTHS IN DWARKA

A comprehensive mobility plan for the neighborhood of Dwarka, developed by the School of Planning and Architecture for the Delhi Development Authority (DDA) in 2019, provides valuable insights into intrazonal travel patterns within the city. The analysis revealed that within a 5-km radius, the average trip length in Dwarka is 4.3 km, indicating a substantial demand for short-distance travel. Among the 96,393 daily Metro passengers, 18.2% use the service for intra-Dwarka trips, suggesting a significant reliance on the metro for short intrazonal commutes. Despite the presence of four Metro lines and multiple bus routes, the plan identified a persistent inadequacy in local public transport services. This shortfall in intrazonal connectivity

has led to a continued dependence on private vehicles, further contributing to congestion and environmental concerns.

A shift in travel behaviour after the COVID pandemic has been observed across India, influencing travel patterns in areas like Dwarka. The adoption of remote and hybrid work arrangements has contributed to a reduction in overall trip lengths, with individuals taking shorter, local trips instead of longer, intercity commutes. However, the lack of dedicated local public transport services has exacerbated the reliance on private vehicles for these shorter journeys. This shift underscores the need for a more robust intrazonal transit system, particularly in areas like Dwarka, where local connectivity remains insufficient.

The observed changes highlight the growing importance of addressing gaps in local public transport services, particularly in urban districts such as Dwarka, where reliance on private vehicles continues to dominate despite the availability of regional transit options. Addressing this imbalance through the introduction of reliable, short-distance, high-frequency services would significantly improve mobility and reduce congestion.

ENHANCING MOBILITY THROUGH NEIGHBORHOOD SERVICES

To better plan the deployment of neighborhood-level services and enhance the overall mobility within the NCT, it is crucial to address existing gaps in accessibility as highlighted in Figure 12.

Figure 12
Service issues affecting neighborhood-level transit



Insufficient door-to-door connectivity



Overcrowding



Service gaps



Underperforming routes



Lack of targeted

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Despite Delhi's extensive metro and bus network, significant portions of the population lack access to reliable and efficient transit options. These accessibility challenges are exacerbated by the physical scale of the city, where the radial design of public transit networks does not fully meet the demands of localized, intrazonal travel.

One of the key issues on high-demand routes within the existing system is the overcrowding of buses (Upadhyay, 2022), particularly during peak hours. Overcrowding not only results in passenger discomfort but also affects the overall efficiency of transit operations. Passengers often endure longer waiting times, reduced comfort, and a lower quality of service. This is especially true for long-distance bus routes that pass through densely populated neighbourhoods, where local commuters face significant challenges when traveling short distances within their zones. This highlights the need for transit solutions that can cater to intrazonal travel, reducing the reliance on long-distance routes for shorter commutes.

In contrast to overcrowded routes, several bus routes experience low ridership (Dixit, 2024), which indicates a misalignment between service provision and actual demand. These underperforming routes, which often run through areas with limited transit needs, suggest that the current routes do not adequately reflect the diverse transit requirements across Delhi's various neighborhoods. This calls for a more data-driven

and dynamic approach to route optimization, which can be achieved through analysis of the city's transit patterns. By understanding where demand is low and where service is being underutilized, the transport authorities can optimize resources and deploy more targeted services.

The introduction of neighborhood-level transport services is likely to provide an effective solution to these challenges. Localized, flexible transport options tailored to specific community needs could enhance door-to-door connectivity, reduce congestion on main routes, and provide more efficient services for intrazonal travel. Neighborhood-level services would also support a more equitable distribution of transit resources, ensuring that underserved areas gain access to reliable transport, while optimizing underperforming routes.

The deployment of neighborhood-level services in Delhi necessitates a detailed assessment of current service gaps, overcrowding issues, and underperforming routes. By leveraging such an analysis, transport planners can formulate data-driven solutions that enhance connectivity, improve the efficiency of the existing network, and cater to the mobility needs of all residents across Delhi's diverse neighborhoods.

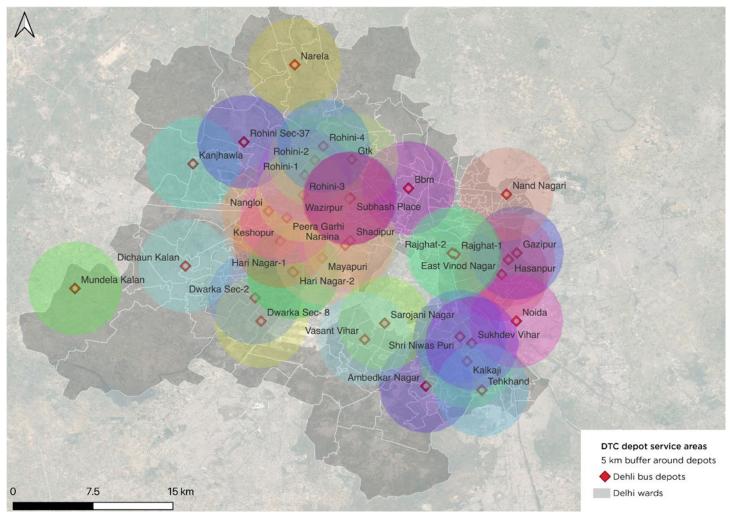
POTENTIAL OF NEIGHBORHOOD SERVICE DEPLOYMENT IN DELHI NCT

Our accessibility analysis helped to identify the proportion of areas with and without access to bus stops. Here, we identify wards that would be ideal candidates for the deployment neighborhood-level transit solutions.

Neighborhood-level transit should ideally have high frequency and much lower headways, and be strategically planned within areas where the turnaround time per trip is much less. The sizes of wards in Delhi, traffic conditions, and average travel distances are also key factors that should be considered when planning routes.

Depot availability plays a crucial role in determining the viability of such transit interventions, as it directly influences operational feasibility by reducing dead kilometers and ensures adequate opportunity-charging infrastructure for electric buses. A 5-km radius around existing depot locations provides a basis for classifying wards within this zone, allowing for a structured analysis of intrazonal and interzonal travel patterns. The wards within a 5-km radius of the depots are highlighted in Figure 13 and the list of wards is included in Appendix B.

Figure 13
Wards within 5 km of Delhi bus depots



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Based on the wards selected for each depot in Appendix B, the following ward groups have been identified based on their geographic placement and characteristics as potential areas for deploying neighborhood transit solutions. Table 3 is an indicative list of ward combinations that may be considered for neighborhood-level services.

Table 3
Recommended ward groups for potential neighborhood-level transit service deployment

Delhi Transport Corporation depots	Recommended ward groups	Reasoning
	Andrews Ganj, Hauz Khas, Safdarjung Enclave, Greater Kailash, Malviya Nagar	Central South Delhi residential cluster areas
Ambedkar Nagar Depot	Chhatarpur, Mehrauli, Lado Sarai, Tigri, Tughlakabad, Sangam Vihar, Deoli	Southern peri-urban areas with dense residential zones
	Chhatarpur, Arya Nagar, Bhati	Areas with low transit connectivity
BBM Depot	Adarsh Nagar, Ashok Vihar, Shalimar Bagh, Mukherjee Nagar, Model Town	High-density and mixed-used residential neighbourhoods
5511 5 op 60	Chandni Chowk, Sadar Bazar, Kamla Nagar, Karol Bagh	Historic commercial and market hubs, high tripattraction areas
Dichaun Kalan	Najafgarh, Dwarka A, Mohan Garden, Matiala, Uttam Nagar	West Delhi residential clusters
Depot	Mundka, Nangli Sakrawati, Roshanpura, Ranhola	Industrial and semi-urban outskirts
Dwarka Sec-8	Dwarka (A, B, C), Palam, Dabri, Sagarpur	Core Dwarka sub-city and adjacent areas
Depot	Uttam Nagar, Janakpuri West, Mahavir Enclave	High-density residential zones
Dunada Can A Danat	Dwarka (A, B, C), Vikaspuri, Hari Nagar A, Keshopur	Central Dwarka and extensions
Dwarka Sec-2 Depot	Najafgarh, Nilothi, Nangloi Jat, Mundka	Western periphery and industrial zones
East Vinod Nagar	Preet Vihar, Lakshmi Nagar, Krishna Nagar, Pandav Nagar	Core East Delhi residential areas
Depot	Mayur Vihar Ph-I/II, New Ashok Nagar, Kondli, Vinod Nagar	Yamuna floodplain neighborhoods
Gazipur Depot	Dilshad Garden, Jhilmil, Shahdara, Welcome Colony	Trans-Yamuna residential clusters
Gazipai Depot	Vivek Vihar, Preet Vihar, Mandawali, Karkardooma	Mixed residential-commercial hubs
GTK Depot	Rohini (A-H), Pitampura, Saraswati Vihar	Planned Rohini sub-city
	Jahangirpuri, Bhalswa, Haiderpur, Samaypur Badli	High-density North-West Delhi
Hari Nagar-1 Depot	Tilak Nagar, Subhash Nagar, Tagore Garden, Rajouri Garden	West Delhi's commercial and residential hubs
	Uttam Nagar, Dwarka A, Sagarpur, Janakpuri West	Connecting Dwarka and Janakpuri
Hari Nagar-2 Depot	Moti Nagar, Kirti Nagar, Ramesh Nagar	Industrial and market areas
Harritagar 2 Depot	Punjabi bagh, Paschim Vihar, Peera Garhi, Nangloi	West Delhi Residential and mixed land-use areas
Hasanpur Depot	Dilshad Garden, Seemapuri, Shahdara, Gharoli	East Delhi middle-class neighborhoods
Tradampar Depor	Anand Vihar, Kaushambi, Vaishali	NCT proximity
Kalkaji Depot	Kalkaji, Govindpuri, Chirag Delhi, Alaknanda	South Delhi urban villages and markets
Kaikaji Depot	Badarpur, Tughlakabad, Pul Pehladpur	Southern industrial and resettlement zones
Kanjhawala Depot	Kanjhawala, Narela, Mubarakpur Dabas	Rural outskirts of North-West Delhi
Keshopur Depot	Mangolpuri, Sultanpuri, Nangloi, Paschim Vihar	High-density West Delhi
Resiliepai Depot	Punjabi Bagh, Rajouri Garden, Moti Nagar	Commercial corridors
Mayapuri Depot	Naraina Industrial Area, Kirti Nagar, Moti Nagar	Industrial and wholesale hubs
Mayapan Bepot	Rajouri Garden, Tagore Garden, Tilak Nagar	Residential and retail zones
Mundela Kalan Depot	Isapur	Rural ward
Nand Nagari Depot	Seelampur, Maujpur, Karawal Nagar, Yamuna Vihar	Trans-Yamuna congested neighbourhoods
.tana itagan Depot	Bhajanpura, Gokalpur, Jagatpur	Outskirts near Ghaziabad border

Nanglol Depot Rohini, Rithols, Begumpur Rohini Sathulary, Veek Plan, Planny II, Naraina Depot Rohini, Rithols, Begumpur Rohini, Rithols, Begumpur Rohini Sathulary Rohini	Delhi Transport Corporation depots	Recommended ward groups	Reasoning
Rohini, Rithaio, Begumpur Naraina Depot Naraina, Kirti Nagar, Moti Nagar, Rajouri Garden Patel Nagar, Karol Bogh, Paharganj Central Dehit commercial zones Narela Depot Nolda Depot Nolda Depot Nolda Depot Nolda Depot Rohini, Rithaio, Paswana Rohini Mayur Vihar, New Ashok Nagar, Kalyanpuri High Residential clusters of East Delhi Santa Vihar, Badarpur, Madanpur Khadar Southeast Dehit clusters Rohini Mayur Vihar, New Ashok Nagar, Kalyanpuri High Residential clusters of East Delhi Rohini, Rithaio, Prashant Vihar Rohini Santa Vihar, Red Garhi, Mongolpuri Rohini, Rithaio, Prashant Vihar Rohini Sandara, Vivas Vihar, Peerd Vihar Rohini Sandara, Vivas Vihar, Peerd Vihar Rohini Sec-37 Depot Rohini, Chowk, Daryagani, Jama Masjid Old Delhi heritape and markets Shandara, Vivas Vihar, Preet Vihar Trans-Yamuna connectivity Rohini Chowk, Daryagani, Jama Masjid Old Delhi heritape and markets Sandini Ase-37 Depot Rohini Chowk, Daryagani, Jama Masjid Core Rohini sectors Rohini Chowk, Daryagani, Jama Masjid Rohini Chowk, Daryagani, Jama Masjid Trans-Yamuna connectivity Trans-Yamuna connec	Nanglei Denet	Nangloi, Mundka, Tikri Border	Industrial and semi-urban areas
Nareina Depot Patel Nagar, Karol Bagh, Paharganj Central Delhi commercial zones	Nangioi Depot	Rohini, Rithala, Begumpur	Connecting Rohini with outer areas
Patel Nagar, Karol Bagh, Paharganj Central Delhi commercial zones Narela Depot Narela, Alipur, Bawana Rural-industrial belt, peri-urban areas Mayur Vihar, New Ashok Nagar, Kalyanpuri High Residential clusters of East Delhi Sortice Vihar, Bedarpur, Modenpur Khodor Southeast Delhi clusters Peera Garhi Depot Rohini, Rithale, Prear Garhi, Mangolpuri West Delhi residential zones Rohini, Rithale, Prashent Vihar Rohini sub-city extensions Chandni Chowk, Daryagani, Jama Masjid Old Delhi heritage and markets Shahdara, Vivek Vihar, Preet Vihar Trans-Yamuna connectivity Civil Lines, Kashmere Gate, Timarpur Institutional areas Geeta Colony, Krishna Nagar, Karkardooma East Delhi residential Rohini Sec-37 Rohini (C.D.), Rithale, Begumpur Core Rohini sectors Rohini Sec-37 Rohini (A-D., Pitampura, Kohel Enclave Plenned Rohini sub-city Mangolpuri, Sultanpuri, Nangiol High-density clusters Jahangirpuri, Bhaliswa, Haiderpur North-West Delhi resettlement areas Rohini-2 Depot Samayour Badii, Swaroop Nagar Outskirts near Haryana border Rohini-3 Depot Mangolouri, Sultanpuri, Nihal Vihar Rohini-4 Depot Alipur, Bakhtawarpur, Holambi Khurd Dense residential clusters Rohini (A-D.), Samayour Badii Core Rohini connectivity Alipur, Bakhtawarpur, Holambi Khurd Rural-industrial outskirts Sarolini Nagar, Rx. Puran, Munirka, Vasant Vihar South Delhi rigolomatic and residential areas Shadipur Depot Sarita Vihar, Badarpur, Jajibur North Delhi residential Shat Niwas Puri Depot Sarita Vihar, Badarpur, Jajibur Oberba Sarita Vihar, Badarpur, Jajibur Suthash Place, Pitampura, Kohat Enclave Commercial and residential hubs Shadipur Depot Madangur Khadar, Badarpur, Tughlakabad South Delhi indedical and residential hubs Subhash Place Pepot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi residential Commercial and residential hubs Subhash Place Depot Wazirpur, Rani Bagh, North Delhi middle-class areas Depot Wasirpur, Ashok Vihar, Shalimar Bagh North Delhi middle-class areas Depot Wasirpur, Ashok Vihar, Parkesh Nagar, Kalkaji South Delhi indidale-class a	Naraina Donot	Naraina, Kirti Nagar, Moti Nagar, Rajouri Garden	Industrial and residential mix
Mayur Vihar, New Ashok Nagar, Kalvanpuri High Residential clusters of East Delhi	Narama Depot	Patel Nagar, Karol Bagh, Paharganj	Central Delhi commercial zones
Sarita Vihar, Badarpur, Madanpur Khadar Southeast Delhi clusters Peera Garhi Depot Rohini, Rithala, Prashant Vihar Rajghat-1 Depot Rajghat-2 Depot Rajghat-2 Depot Rajghat-2 Depot Rajghat-2 Depot Rohini Sec-37 Depot Rohini Sec-37 Depot Rohini Sec-37 Depot Rohini (A-I), Pitampura, Kohat Enclave Mangolpuri, Sultanpuri, Nanglor Jahangirpuri, Bhaiswa, Haiderpur Somaypur Badli, Sweroop Nagar Rohini-3 Depot Rohini-3 Depot Rohini-4 Depot Rohini (A-I), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini Magar Rohini (A-I), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini Magar Pepot Rohini Magar Pepot Rohini Magar Pepot Rohini Magar Pepot Rohini Magar Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Pitampura, Wazirpur North Delhi residential clusters Rohini Magar Pepot Rohini Magar Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Pitampura, Wazirpur North Delhi residential areas Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Pitampura, Wazirpur North Delhi residential Rohini Magar Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Patampura, Wazirpur North Delhi residential Suuth Delhi isediential Suuth Delhi isediential Rohini Magar Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Pitampura, Wazirpur North Delhi residential North Delhi residential Suuth Delhi residential North Delhi residential North Delhi residential North Delhi residential North Delhi residential Patel Nagar, Rajendra Nagar, Karol Bagh Contral Delhi's commercial hubs North Delhi residential North Delhi resident	Narela Depot	Narela, Alipur, Bawana	Rural-industrial belt, peri-urban areas
Peera Garhi Depot Peera Garhi Depot Peera Garhi Depot Paschim Vihar, Peera Garhi, Mangolpuri Rohini, Rithala, Prashant Vihar Rohini Sec-37 Rohini (C., D., Rithala, Begumpur Rohini Sec-37 Rohini (C., D., Rithala, Begumpur Rohini Sec-37 Rohini (C., D., Rithala, Begumpur Rohini-1 Depot Rohini-1 Depot Rohini-1 Depot Rohini-2 Depot Rohini-3 Depot Rohini-3 Depot Rohini-4 D	Noida Danot	Mayur Vihar, New Ashok Nagar, Kalyanpuri	High Residential clusters of East Delhi
Rohini, Rithala, Prashant Vihar Rohini sub-city extensions Chandni Chowk, Daryagani, Jama Masjid Old Delhi heritage and markets Shahdara, Vivek Vihar, Preet Vihar Trans-Yamuna connectivity Civil Lines, Kashmere Gate, Timarpur Institutional areas Geeta Colony, Krishna Nagar, Karkardooma East Delhi residential Rohini Sec-37 Rohini Sec-37 Rohini (A-D, Pitampura, Kohat Enclave Mangolpuri, Sultanpuri, Nangloi Rohini-1 Depot Rohini-2 Depot Rohini-3 Depot Rohini-4 Depot Rohini-4 Depot Rohini-4 Depot Rohini-4 Depot Rohini-5 Depot Rohini-6 Depot Rohini-7 Depot Rohini-7 Depot Rohini-8 Depot Rohini-8 Depot Rohini-9 Depot Rohini-1 Depot Rohini-2 Depot Rohini-3 Depot Rohini-4 Depot Rohini-5 Depot Rohini-5 Depot Rohini-6 Depot Rohini-6 Depot Rohini-7 Depot Rohini-7 Depot Rohini-8 Depot Rohini-8 Depot Rohini-8 Depot Rohini-9 Depot Rohini-9 Depot Rohini-9 Depot Rohini-1 Depot Rohini-2 Depot Rohini-2 Depot Rohini-3 Depot Rohini-4 Depot R	нога Берог	Sarita Vihar, Badarpur, Madanpur Khadar	Southeast Delhi clusters
Rohini-1 Depot Rajghat-2 Depot Rohini (C. D, Rithala, Begumpur Gesta Colony, Krishna Nagar, Karkardooma Rohini-1 Depot Rohini-1 Depot Rohini-1 Depot Rohini-1 Depot Rohini-2 Depot Rohini-3 Depot Rohini-3 Depot Rohini-4 Depot Rohini-5 Depot Rohini-5 Depot Rohini-5 Depot Rohini-6 Depot Rohini-7 Depot Rohini-8 Depot Rohini-8 Depot Rohini-9 Depot Rohini-9 Depot Rohini-9 Depot Rohini-9 Depot Rohini-9 Depot Rohini-1 Depot Rohini-2 Depot Rohini-3 Depot Rohini-3 Depot Rohini-4 Depot Rohini-4 Depot Rohini-5 Depot Rohini-4 Depot Rohini-5 Depot Rohini-6 Depot Rohini-6 Depot Rohini-7 Depot Rohini-8 Depot Rohini-8 Depot Rohini-8 Depot Rohini-9 Dep	Doors Carbi Donat	Paschim Vihar, Peera Garhi, Mangolpuri	West Delhi residential zones
Rajghat-1 Depot Shahdara, Vivek Vihar, Preet Vihar Rajghat-2 Depot Civil Lines, Kashmere Gate, Timarpur Geeta Colony, Krishna Nagar, Karkardooma East Delhi residential Rohini Sec-37 Depot Rohini Sec-37 Depot Rohini Sec-37 Depot Rohini J Depot Rohini (A-I), Pitampura, Kohat Enclave High-density clusters Jahangirpuri, Bhalswa, Haiderpur Samaypur Badli, Swaroop Nagar Rohini-3 Depot Rohini-4 Depot Rohini-4 Depot Rohini-4 Popot Rohini (A-H), Saraswati Vihar, Shalimar Bagh High residential clusters Mangolpuri, Sultanpuri, Nihal Vihar Dense residential zones Rohini-4 Depot Rohini-4 Depot Rohini (A-H), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini-4 Depot Rohini (A-H), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini-5 Depot Rohini (A-H), Saraswati Vihar Shalimar Bagh Rohini-6 Depot Rohini-7 Depot Rohini (A-H), Saraswati Vihar Shalimar Bagh Rohini-8 Depot Rohini-8 Depot Rohini (A-H), Saraswati Vihar Shalimar Bagh Rohini Ca-I), Samaypur Badli Core Rohini connectivity Rural-industrial outskirts Sarojini Nagar Sarojini Nagar Sarojini Nagar Patel Nagar, Rik. Puram, Munirka, Vasant Vihar South Delhi diplomatic and residential areas Patel Nagar, Rajendra Nagar, Mehrauli Heritage and urban villages Patel Nagar, Rajendra Nagar, Karol Bagh Contral Delhi's commercial hubs North Delhi resettlement colonies Sarita Vihar, Badarpur, Jaitpur Suhhash Place Depot Subhash Place Depot Subhash Place Depot Subhash Place Depot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi resettlement colonies Subhash Place Depot Wazirpur, Kashok Vihar, Shalimar Bagh North Delhi middle-class areas Outskirts near Faridabad Outskirts near Faridabad Outskirts near Haryana border Heritage and luxury residential reas Wazirpur Depot Wazirpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas	Peera Garni Depot	Rohini, Rithala, Prashant Vihar	Rohini sub-city extensions
Shahdara, Vivek Vihar, Preet Vihar Trans-Yamuna connectivity Civil Lines, Kashmere Gate, Timarpur Institutional areas Geeta Colony, Krishna Nagar, Karkardooma East Delhi residential Rohini Sec-37 Rohini (C, D), Rithala, Begumpur Core Rohini sectors Rohini Sec-37 Rohini (A-1), Pitampura, Kohat Enclave Planned Rohini sub-city Mangolpuri, Sultanpuri, Nangloi High-density clusters Rohini-2 Depot Samaypur Badli, Swaroop Nagar Outskirts near Haryana border Rohini-3 Depot Mangolpuri, Sultanpuri, Nihal Vihar Dense residential clusters Rohini-4 Depot Alipur, Saraswati Vihar Dense residential clusters Rohini-4 Depot Alipur, Samaypur Badli Core Rohini connectivity Rohini (A-1), Samaypur Badli Core Rohini connectivity Rohini Agar Depot Haux Khas, Malviya Nagar, Mehrauli Heritage and urban villages Sarojini Nagar Patel Nagar, Rajendra Nagar, Karol Bagh Central Delhi's commercial hubs Shadipur Depot Sarita Vihar, Rajendra Nagar, Karol Bagh Central Delhi's commercial hubs Shakhash Place Patel Nagar, Rajendra Nagar, Karol Bagh Contral Delhi's commercial hubs Subhash Place Patel Vihar, Badarpur, Jaitpur Delhi-Faridabad border areas Subhash Place Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi middle-class areas Depot Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Okhia, Tughlakabad, Pul Pehladpur Industrial and residential reas Patel Wagnar Nihar, Tigri, Deoli High-density unauthorized colonies Vasant Vihar Depot Chia, Tughlakabad, Pul Pehladpur Industrial and ressettlement zones High-density unauthorized colonies Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Daighat 1 Danet	Chandni Chowk, Daryaganj, Jama Masjid	Old Delhi heritage and markets
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Poppot Kanjhawala, Mubarakpur Dabas Rural outskirts Rohini-1 Depot Rohini (A-I), Pitampura, Kohat Enclave Planned Rohini sub-city Mangolpuri, Sultanpuri, Nangloi High-density clusters Jahangirpuri, Bhalswa, Haiderpur North-West Delhi resettlement areas Samaypur Badli, Swaroop Nagar Outskirts near Haryana border Rohini-3 Depot Rohini (A-H), Saraswati Vihar, Shalimar Bagh High residential clusters Mangolpuri, Sultanpuri, Nihal Vihar Dense residential zones Rohini (A-I), Samaypur Badli Core Rohini connectivity Alipur, Bakhtawarpur, Holambi Khurd Rural-industrial outskirts Sarojini Nagar Depot Hauz Khas, Malviya Nagar, Mehrauli Heritage and urban villages Patel Nagar, Rajendra Nagar, Karol Bagh Central Delhi's commercial hubs Ashok Vihar, Pitampura, Wazirpur North Delhi residential Shri Niwas Puri Depot Sarita Vihar, Badarpur, Jaitpur Delhi-Faridabad border areas Subhash Place Depot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi middle-class areas Depot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi middle-class areas Okhla, Tughlakabad, Pul Pehladpur Industrial and resettlement zones Sangam Vihar, Tigri, Deoli High-density unauthorized colonies Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Rajgnat-2 Depot	Geeta Colony, Krishna Nagar, Karkardooma	East Delhi residential
Rohini-1 Depot Rohini-2 Depot Rohini-2 Depot Rohini-3 Depot Rohini-3 Depot Rohini-4 Depot Rohini-4 Depot Rohini-4 Depot Rohini-4 Depot Rohini-4 Depot Rohini-5 Depot Rohini-4 Depot	Rohini Sec-37	Rohini (C, D), Rithala, Begumpur	Core Rohini sectors
Rohini-1 Depot Mangolpuri, Sultanpuri, Nangloi High-density clusters	Depot	Kanjhawala, Mubarakpur Dabas	Rural outskirts
Mangolpuri, Sultanpuri, Nangloi High-density clusters		Rohini (A-I), Pitampura, Kohat Enclave	Planned Rohini sub-city
Rohini-2 Depot Samaypur Badli, Swaroop Nagar Outskirts near Haryana border Rohini-3 Depot Rohini (A-H), Saraswati Vihar, Shalimar Bagh Mangolpuri, Sultanpuri, Nihal Vihar Dense residential clusters Rohini (A-I), Samaypur Badli Core Rohini connectivity Alipur, Bakhtawarpur, Holambi Khurd Rural-industrial outskirts Sarojini Nagar Depot Bakhtawarpur, Holambi Khurd Sarojini Nagar, R.K. Puram, Munirka, Vasant Vihar Depot Shadipur Depot Shadipur Depot Shadipur Depot Core Rohini connectivity Rural-industrial outskirts South Delhi diplomatic and residential areas Depot Heritage and urban villages Central Delhi's commercial hubs North Delhi residential South Delhi middle-class areas Outskirts near Faridabad Affluent South-West Delhi Chhatarpur, Vasant Vihar, R.K. Puram, Munirka, Mahipalpur Affluent South-West Delhi Chhatarpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur Depot	Rohini-1 Depot	Mangolpuri, Sultanpuri, Nangloi	High-density clusters
Rohini-3 Depot Rohini (A-H), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini (A-I), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini (A-I), Saraswati Vihar, Shalimar Bagh Rohini-4 Depot Rohini (A-I), Samaypur Badli Alipur, Bakhtawarpur, Holambi Khurd Rural-industrial outskirts Sarojini Nagar Depot Sarojini Nagar, R.K. Puram, Munirka, Vasant Vihar South Delhi diplomatic and residential areas Hauz Khas, Malviya Nagar, Mehrauli Heritage and urban villages Patel Nagar, Rajendra Nagar, Karol Bagh Central Delhi's commercial hubs Ashok Vihar, Pitampura, Wazirpur North Delhi residential Sarita Vihar, Badarpur, Jaitpur Delhi-Faridabad border areas Subhash Place Depot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi connectivity Sukhdev Vihar Depot Sukhdev Vihar, Harkesh Nagar, Kalkaji Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones		Jahangirpuri, Bhalswa, Haiderpur	North-West Delhi resettlement areas
Rohini-3 Depot	Ronini-2 Depot	Samaypur Badli, Swaroop Nagar	Outskirts near Haryana border
Rohini-4 Depot Rohini (A-I), Samaypur Badli Alipur, Bakhtawarpur, Holambi Khurd Rural-industrial outskirts Sarojini Nagar Depot Radipur Depot Rohini (A-I), Samaypur Badli Alipur, Bakhtawarpur, Holambi Khurd Rural-industrial outskirts Sarojini Nagar Depot Radipur Depot Patel Nagar, R.K. Puram, Munirka, Vasant Vihar Badipur Depot Shadipur Depot Shri Niwas Puri Depot Sarita Vihar, Pitampura, Wazirpur Subhash Place Depot Subhash Place, Pitampura, Kohat Enclave Depot Wazirpur, Ashok Vihar, Badarpur, Tughlakabad Sukhdev Vihar Depot Sukhdev Vihar Depot Sukhdev Vihar Depot Commercial and residential hubs North Delhi connectivity Sukhdev Vihar Depot Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Okhla, Tughlakabad, Pul Pehladpur Industrial and resettlement zones High-density unauthorized colonies Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur, Rahi Bagh, Saraswati Vihar North Delhi mixded-use zones North Delhi mixded-use zones North Delhi mixder-use zones		Rohini (A-H), Saraswati Vihar, Shalimar Bagh	High residential clusters
Rohini-4 Depot	Ronini-3 Depot	Mangolpuri, Sultanpuri, Nihal Vihar	Dense residential zones
Alipur, Bakhtawarpur, Holambi Khurd Sarojini Nagar Depot Sarojini Nagar, R.K. Puram, Munirka, Vasant Vihar South Delhi diplomatic and residential areas Hauz Khas, Malviya Nagar, Mehrauli Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Pitampura, Wazirpur Shri Niwas Puri Depot Subhash Place Depot Subhash Place Depot Sukhdev Vihar Depot Sukhdev Vihar Depot Tehkhand Depot Vasant Vihar Depot Vasant Vihar Depot Wazirpur, Ashok Vihar, Tigri, Deoli Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi diplomatic and residential areas South Delhi resettlement colonies South Delhi resettlement colonies Ochtha Pesit dement colonies South Delhi resettlement colonies Commercial and residential hubs North Delhi connectivity South Delhi middle-class areas Outskirts near Faridabad Outskirts near Faridabad Outskirts near Faridabad Affluent South-West Delhi Chhatarpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Dahini 4 Danat	Rohini (A-I), Samaypur Badli	Core Rohini connectivity
Patel Nagar, Rajendra Nagar, Karol Bagh Central Delhi's commercial hubs	Ronini-4 Depot	Alipur, Bakhtawarpur, Holambi Khurd	Rural-industrial outskirts
Patel Nagar, Rajendra Nagar, Karol Bagh Ashok Vihar, Pitampura, Wazirpur Shri Niwas Puri Depot Sarita Vihar, Badarpur, Jaitpur Subhash Place Depot Subhash Place Depot Sukhdev Vihar Depot Sukhdev Vihar Depot Tehkhand Depot Vasant Vihar Depot Wazirpur, Ashok Vihar, Tigri, Deoli Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar Wazirpur Depot Patel Nagar, Rajendra Nagar, Karol Bagh Central Delhi's commercial hubs North Delhi resettlement colonies Commercial and residential hubs North Delhi connectivity Sukhdev Vihar Depot Sukhdev Vihar, Harkesh Nagar, Kalkaji South Delhi middle-class areas Outskirts near Faridabad Undustrial and resettlement zones High-density unauthorized colonies Vasant Vihar Depot Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Sarojini Nagar	Sarojini Nagar, R.K. Puram, Munirka, Vasant Vihar	South Delhi diplomatic and residential areas
Shri Niwas Puri Depot Shri Niwas Puri Depot Sarita Vihar, Badarpur, Jaitpur Subhash Place Depot Sukhdev Vihar Depot Sukhdev Vihar Depot Tehkhand Depot Vasant Vihar Depot Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur Depot Ashok Vihar, Pitampura, Wazirpur South Delhi resettlement colonies South Delhi-Faridabad border areas Commercial and residential hubs North Delhi connectivity South Delhi middle-class areas Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Okhla, Tughlakabad, Pul Pehladpur Industrial and resettlement zones High-density unauthorized colonies Vasant Vihar Depot Wazirpur Depot Wazirpur Depot	Depot	Hauz Khas, Malviya Nagar, Mehrauli	Heritage and urban villages
Ashok Vihar, Pitampura, Wazirpur North Delhi residential Kalkaji, Govindpuri, Tughlakabad South Delhi resettlement colonies Sarita Vihar, Badarpur, Jaitpur Delhi-Faridabad border areas Subhash Place Depot Subhash Place Depot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi connectivity Sukhdev Vihar Depot Sukhdev Vihar, Harkesh Nagar, Kalkaji South Delhi middle-class areas Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Wazirpur Depot Wazirpur Depot North Delhi mixed-use zones North Delhi mixed-use zones	Chadleson Danak	Patel Nagar, Rajendra Nagar, Karol Bagh	Central Delhi's commercial hubs
Subhash Place Depot Sarita Vihar, Badarpur, Jaitpur Delhi-Faridabad border areas Subhash Place Depot Subhash Place Depot Wazirpur, Ashok Vihar, Shalimar Bagh North Delhi connectivity Sukhdev Vihar Depot Sukhdev Vihar Depot Madanpur Khadar, Badarpur, Tughlakabad Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur Depot Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar Delhi-Faridabad border areas Commercial and residential hubs North Delhi connectivity South Delhi middle-class areas Outskirts near Faridabad Industrial and resettlement zones High-density unauthorized colonies Vasant Vihar, R.K. Puram, Munirka, Mahipalpur Affluent South-West Delhi Chhatarpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Snadipur Depot	Ashok Vihar, Pitampura, Wazirpur	North Delhi residential
Subhash Place Depot Subhash Place Depot Subhash Place Depot Wazirpur, Ashok Vihar, Shalimar Bagh Sukhdev Vihar Depot Sukhdev Vihar Depot Madanpur Khadar, Badarpur, Tughlakabad Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur Depot Sukhdev Vihar Depot Sukhdev Vihar, Harkesh Nagar, Kalkaji South Delhi middle-class areas Outskirts near Faridabad Outskirts near Faridabad High-density unauthorized colonies Affluent South-West Delhi Chhatarpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Shri Niwas Puri	Kalkaji, Govindpuri, Tughlakabad	South Delhi resettlement colonies
Sukhdev Vihar Depot Sukhdev Vihar Depot Sukhdev Vihar Depot Madanpur Khadar, Badarpur, Tughlakabad Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Wazirpur, Vasant Kunj, Aeorcity Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi connectivity South Delhi middle-class areas Outskirts near Faridabad Industrial and resettlement zones High-density unauthorized colonies Affluent South-West Delhi Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Depot	Sarita Vihar, Badarpur, Jaitpur	Delhi-Faridabad border areas
Sukhdev Vihar Depot Sukhdev Vihar Depot Sukhdev Vihar Depot Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Wazirpur Depot Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi middle-class areas Outskirts near Faridabad Industrial and resettlement zones High-density unauthorized colonies Vasant Vihar South-West Delhi Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Subhash Place	Subhash Place, Pitampura, Kohat Enclave	Commercial and residential hubs
Depot Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Wazirpur Depot Madanpur Khadar, Badarpur, Tughlakabad Outskirts near Faridabad Industrial and resettlement zones High-density unauthorized colonies Vasant Vihar South-West Delhi Chhatarpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Depot	Wazirpur, Ashok Vihar, Shalimar Bagh	North Delhi connectivity
Tehkhand Depot Okhla, Tughlakabad, Pul Pehladpur Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Vasant Vihar Depot Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar Outskirts hear Faridabad Ultskirts hear Faridabad Undustrial and resettlement zones High-density unauthorized colonies Affluent South-West Delhi Heritage and luxury residential areas Wazirpur Depot Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	Sukhdev Vihar	Sukhdev Vihar, Harkesh Nagar, Kalkaji	South Delhi middle-class areas
Tehkhand Depot Sangam Vihar, Tigri, Deoli Vasant Vihar Depot Vasant Vihar Depot Vasant Vihar Depot Chhatarpur, Vasant Kunj, Aeorcity Wazirpur Depot Wazirpur Depot High-density unauthorized colonies Affluent South-West Delhi Heritage and luxury residential areas North Delhi mixed-use zones		Madanpur Khadar, Badarpur, Tughlakabad	Outskirts near Faridabad
Sangam Vihar, Tigri, Deoli Vasant Vihar Depot	Tableba 15	Okhla, Tughlakabad, Pul Pehladpur	Industrial and resettlement zones
Vasant Vihar Depot Chhatarpur, Vasant Kunj, Aeorcity Heritage and luxury residential areas Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar North Delhi mixed-use zones	renkhand Depot	Sangam Vihar, Tigri, Deoli	High-density unauthorized colonies
Chhatarpur, Vasant Kunj, Aeorcity Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar Wazirpur Depot Wazirpur Depot Wasant Kunj, Aeorcity Heritage and luxury residential areas North Delhi mixed-use zones		Vasant Vihar, R.K. Puram, Munirka, Mahipalpur	Affluent South-West Delhi
Wazirpur Depot	Vasant Vihar Depot	Chhatarpur, Vasant Kunj, Aeorcity	Heritage and luxury residential areas
		Wazirpur, Sakurpur, Rani Bagh, Saraswati Vihar	North Delhi mixed-use zones
	Wazirpur Depot	Kohat Enclave, Pitampura, Haiderpur Samaypur Badli	Connecting North and North-West

This assessment aimed to consider transit accessibility gaps along with key factors such as land-use patterns, roadway and street widths, major trip-attraction and generation points, and proximity to existing depot infrastructure. Ensuring minimal overlap with existing DTC bus services remains essential for maintaining operational efficiency.

WAY FORWARD

Our analysis enabled the identification of regions where public transport coverage is insufficient, particularly in terms of neighborhood-level connectivity. By focusing on connecting residential areas and rapid transit stops with key locations such as hospitals and schools, as well as commercial hubs and recreational areas, our findings can facilitate a comprehensive neighborhood-level transit solution. These findings will inform the development of targeted public transport services to improve last-mile connectivity and promote a modal shift from private vehicles to public transport.

Key considerations for identifying target areas were based on three primary criteria:

- 1. Regions outside the 500-m accessibility buffer of existing public transit routes;
- 2. Areas with arterial or sub-arterial roads lacking current bus services; and
- 3. Areas with high-capacity, long-distance bus corridors where neighborhood mobility interventions can ensure seamless travel and connectivity.

The Delhi government has been actively evaluating the appropriate type of public transport that would be suitable for local-level deployment. On April 17, 2023, ICCT India facilitated consultations with international experts to conceptualize the deployment of a neighborhood circulator bus system aimed at enhancing local mobility (Jain, 2023). These consultations, combined with our spatial analysis findings, led to the development of a public transit intervention within the 2023–24 Delhi budget under the Neighborhood Bus initiative. The Delhi government announced plans to deploy over 2,000 low-floor, 9-m midi-buses, designed to operate on short routes with high frequency, specifically targeting transit-deprived areas (Kunal, 2024).

The key parameters for the Neighborhood Buses are:

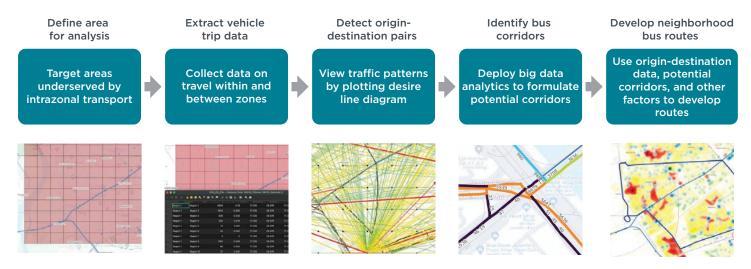
- 1. Route length: Approximately 10 km per route.
- 2. Frequency: Buses will run every 5 to 10 minutes, ensuring minimal wait times.
- 3. Distinct identification: Buses will feature special branding for easy recognition and distinction from other public transit options.
- 4. Integration with high-capacity transit: Free transfers between Neighborhood Buses and major high-capacity transit systems, such as the metro, will promote seamless travel across modes.
- 5. Quality of ride: Emphasis on cleanliness, comfort, and accessibility to ensure a high-quality transit experience for all passengers.

To enhance the planning and deployment of Neighborhood Buses, the Government of the National Capital Territory of Delhi is exploring the use of artificial intelligence and big data analytics to develop a comprehensive travel demand model ("AI, Big Data To Fix Routes," 2024). This model will leverage extensive trip data to better understand travel patterns and forecast demand more accurately.

The travel demand model will enable the identification of origin-destination pairs, allowing the government to map out key corridors of movement across the city, as

represented in Figure 14. Based on the demand generated between these origindestination pairs, bus routes for Neighborhood Buses will be strategically planned and optimized. This data-driven approach ensures that the routes will align with actual travel needs, maintaining consistent demand along the planned corridors while maximizing the accessibility and utility of the service for all residents.

Figure 14 Process for developing neighborhood bus routes using trip data



Note: Images are for presentation purposes only and do not show research data.

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ICCT India is currently supporting the Delhi Government by developing assessment parameters and conducting on-ground validation of routes identified for the Neighborhood Buses. This work can ensure the successful deployment of a neighborhood-level public transport solution that meets the city's evolving mobility needs.

CURRENT SCENARIO AND POLICY UPDATE

The Delhi Government has launched the Neighborhood Buses program to enhance last-mile connectivity in transit-deficient areas. As part of the 2023-24 budget, over 2,000 low-floor, 9-m midi-buses will operate on short, high-frequency routes within neighborhoods, improving public transit accessibility. The Delhi transport department aims to conduct trials of neighborhood buses before large-scale deployment.

The key operational parameters for the neighborhood buses include a defined route length of approximately 10 km and a frequency of service at intervals of 5 to 10 minutes. These services will be visually distinct through unique branding, allowing for easy identification by passengers. A crucial component of the program is its integration with Delhi's broader high-capacity transit system, offering free transfers to facilitate seamless multimodal transportation. This integration is expected to significantly improve access to larger transit nodes, such as metro stations, and reduce overall reliance on private vehicles for shorter intrazonal trips.

In terms of quality and passenger experience, the neighborhood buses have been designed to ensure a high standard of service. Cleanliness, comfort, and accessibility are prioritized to cater to a broad demographic, including individuals with mobility challenges, ensuring that the services are inclusive and equitable. The focus on these quality-of-service aspects is expected to increase public confidence in neighborhood-level public transport solutions.

As the deployment of Neighborhood Buses progresses, the program is positioned as a model for other Indian cities facing similar last-mile connectivity challenges. Through its scalable design, technology integration, and focus on inclusive, high-quality services, the Neighborhood Buses initiative represents a significant policy innovation in neighborhood-level public transport planning. The continued collaboration between government agencies and technical organizations, such as ICCT, will be important for ensuring the long-term success and adaptability of this program, contributing to broader national efforts in enhancing sustainable neighborhood mobility within the cities.

CONCLUSION

The identified mobility gaps within the Delhi NCT highlight the importance of targeted interventions aimed at improving accessibility to public transportation, particularly at the neighborhood level. The deployment of short-distance, high-frequency transit services is a potential solution that directly addresses these gaps. Such services would focus on enhancing intrazonal connectivity by providing frequent and reliable transportation options within smaller, more localized areas. This, along with improving access to public transit in underserved regions, would also promote more efficient movement within densely populated urban zones.

To ensure the effectiveness and reliability of these services, analyzing travel behavior and optimising deployment of public transit routes to achieve maximum serviceability is critical. Neighborhood-level transit solutions must prioritize efficiency, enabling faster and more reliable intrazonal trips. The network planning of these routes should consider the spatial distribution of population density, land-use patterns, and existing transit networks. Shorter, well-planned routes would facilitate quick and direct access to larger, high-capacity transit systems such as rail or longer-route bus services, creating a seamless and multimodal transportation network.

Accessibility is a fundamental requirement for neighborhood-level public transit services. Designing these systems to provide door-to-door mobility can ensure that all residents, including those with reduced mobility or other accessibility challenges, can easily access public transportation. The deployment of such services would reduce the reliance on private vehicles, subsequently alleviating congestion on local roads while enhancing the overall efficiency of the transportation network.

A key enabler of this system would be the integration of advanced, technology-agnostic solutions. Incorporating real-time vehicle tracking, digital payment systems, and data analytics using artificial intelligence will optimize routing, scheduling, and operational efficiency. These technological advancements will enable transit agencies to adapt services dynamically to meet fluctuating demand patterns, ensuring that public transit services are deployed where they are most needed. Furthermore, this data-driven approach can provide policymakers and transit planners with valuable insights to continuously refine and improve transit operations.

Addressing the identified mobility gaps in Delhi through the implementation of short-distance, high-frequency bus services offers a feasible solution to currently underserved areas. These services, underpinned by optimized routing, universal accessibility, and technological integration, would significantly enhance neighborhood-level public transit. Such measures can create a more cohesive, efficient, and inclusive transportation system that aligns with broader urban mobility goals and sustainable transport policies at the national level.

REFERENCES

- Agarwal, P. (2024, July 13). Interchange stns vital cogs in metro wheels. *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/importance-of-interchange-stations-in-delhimetro-network/articleshow/111700207.cms
- AI, big data to fix routes for mohalla buses. (2024, July 26). *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/ai-and-big-data-solutions-for-mohalla-bus-routes-in-delhi/articleshow/112026264.cms
- Bhatt, A. (2019, February 27). Our cities can learn from Delhi's rationalisation of bus operations. *Hindustan Times*. https://www.hindustantimes.com/gurgaon/our-cities-can-learn-from-delhi-s-rationalisation-of-bus-operations/story-pmnNjTgcuHtOxX5GR3flOM.html
- Chauhan, H. (2024, February 3). Traffic tale: Delhi 44th most congested city centre in the world, on progress path. *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/delhi-traffic-ranking-44th-most-congested-city-centre-in-the-world/articleshow/107374527.cms
- Delhi Development Authority & National Institute of Urban Affairs. (2020). *Baseline report: Transport (Enabling Strategic Plan: Master Plan for Delhi 2041).* Delhi Development Authority. https://online.dda.org.in/mpd2041dda/_layouts/MPD2041FINALSUGGESTION/Baseline_Transport_%20160721.pdf
- Delhi Integrated Multi-Modal Transit System Ltd. (2019). Route rationalisation and last mile connectivity update study.
- Delhi Metro Rail Corporation. (n.d.). *DMRC Metro Lines*. Retrieved February 25, 2025, from https://delhimetrorail.com/map
- Delhi Transport Corporation. (n.d.). *DTC Bus Services*. Retrieved February 25, 2025, from https://dtc.delhi.gov.in/dtc/services
- Dixit, K. (2024, March 3). More modern buses plying, but ridership dips in Delhi. *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/more-modern-buses-plying-but-ridership-dips-in-city-delhi-news/articleshow/108172204.cms
- Geospatial Delhi Limited Delhi. (n.d.). *Open Transit Data | Delhi*. Retrieved March 10, 2025, from https://otd.delhi.gov.in/
- Gupta, S., & Dameniya, S. (2017). Rapid assessment of travel patterns in Delhi Horizon year 2030 & 2050. School of Planning & Architecture, New Delhi. https://www.toi.no/getfile.php/1348336-1530707950/Publikasjoner/DELHI_%20Revised%20Rapid_Demand_Estimation.pdf
- Jain, P. (2023a, April 12). Global experts to give inputs to Delhi govt about "Mohalla bus" scheme. India Today. https://www.indiatoday.in/cities/delhi/story/global-experts-to-give-inputs-to-delhi-govt-about-mohalla-bus-scheme-2358796-2023-04-12
- Kunal, K. (2024, July 9). Delhi government launches "Mohalla Bus Sewa," aims for last-mile connectivity. *India Today*. https://www.indiatoday.in/cities/delhi/story/delhi-governments-mohalla-bus-sewa-small-electric-buses-last-mile-connectivity-2564096-2024-07-09
- Mathur, A., & Rajput, A. (2024, January 13). Delhi slips behind Bengaluru in number of private cars. *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/bengaluru-overtakes-delhi-in-number-of-private-cars/articleshow/106796746.cms
- Ministry of Urban Development. (2016). Report of the High Powered Committee on Decongesting Traffic in Delhi (p. 146). Ministry of Housing and Urban Affairs. https://mohua.gov.in/upload/uploadfiles/files/Decongesting_TrafficDelhi06.pdf
- Ministry of Housing and Urban Affairs (n.d.). *National transit oriented development (TOD) policy*. https://mohua.gov.in/upload/whatsnew/59a4070e85256Transit_Oriented_Development_Policy.pdf
- Planning Department, Government of the National Capital Territory of Delhi. (n.d.). *Economic Survey 2017-18: Demographic Profile*. Retrieved March 11, 2025, from https://delhiplanning.delhi.gov.in/sites/default/files/Planning/es17-18/es_2017-18_demographic_profile.pdf
- Planning Department, Government of the National Capital Territory of Delhi. (2024). *Economic Survey Of Delhi 2023-24*. https://delhiplanning.delhi.gov.in/sites/default/files/Planning/economic_survey_of_delhi_2023-24_english.pdf
- Rajput, A. (2024, August 24). Illegal E-Rickshaws: Illegal e-rickshaws in Delhi to be crushed within 7 days of being seized. *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/ illegal-e-ricks-to-be-crushed-within-7-days-of-being-seized/articleshow/112748123.cms
- Roychowdhury, A., & Das, A. (2021). *How accessible are low-income settlements: The case of Delhi*. Centre for Science and Environment. https://www.cseindia.org/how-accessible-are-low-income-settlements-h-10873
- Sirko, W., Kashubin, S., Ritter, M., Annkah, A., Bouchareb, Y.S.E., Y. Dauphin, Y., Keysers, D., Neumann, M., Cisse, M., & Quinn, J.A. (2021). *Continental-scale building detection from high resolution satellite imagery.* https://doi.org/10.48550/arXiv.2107.12283

- Sinha, S. (2024, July 4). Mohalla buses likely to begin ops by July-end in Delhi. *Hindustan Times*. https://www.hindustantimes.com/cities/delhi-news/mohalla-buses-likely-to-begin-ops-by-july-end-in-delhi-101720117147171.html
- Sun, S. (2024, September). Average daily ridership of metro in Delhi, India FY 2008-2023. Statista. https://www.statista.com/statistics/1240001/india-average-daily-ridership-of-public-transport-in-delhi/
- Transport Department, Government of the National Capital Territory of Delhi. (n.d.-a). Last mile Services of GNCTD. Retrieved February 25, 2025, from https://transport.delhi.gov.in/sites/default/files/All-PDF/agrmain2.pdf
- Transport Department, Government of the National Capital Territory of Delhi. (n.d.-b). *Public notice—Introducing new bus routes (public transport)*. Retrieved March 17, 2025, from https://transport.delhi.gov.in/sites/default/files/Transport/circulars-orders/public_notice_route_rationalization.pdf
- Upadhyay, V. (2022, November 19). Court's concern over overcrowding in public transport in Delhi. *The Times of India*. https://timesofindia.indiatimes.com/city/delhi/courts-concern-over-overcrowding-in-public-transport-in-capital/articleshow/95612483.cms
- World Population Review. (n.d.). *Delhi population*. Retrieved December 13, 2024, from https://worldpopulationreview.com/cities/india/delhi

APPENDIX A

List of Delhi National Capital Territory wards, categorized based on the accessibility of buildings within and outside a 500-m buffer from transit stops. This Accessibility Index evaluates the ease of access to public transportation in each ward, which can help prioritize areas for transit service improvements.

Table A1
Access to transit stops in Delhi National Capital Territory wards

Name of ward	Percentage of buildings outside 500 m of bus stop	Percentage of buildings within 500 m of bus stop
Deoli	100	0
Hari Nagar Extension	100	0
Jaitpur	100	0
Sangam Vihar-A	100	0
Sainik Enclave	100	0
Ghonda	100	0
Mustafabad	100	0
Prem Nagar	100	0
Karawal Nagar- East	97	3
Kirari	96	4
Sangam Vihar-B	96	4
Ballimaran	92	
		8
Binda Pur	91	9
Sangam Vihar-C	87	13
Sant Nagar	82	18
Saboli	79	21
Nithari	79	21
Said-Ul-Ajaib	78	22
Sadh Nagar	77	23
Vikas Nagar	73	27
Aya Nagar	71	29
Harsh Vihar	70	30
Hastsal	68	32
Sarup Nagar	68	32
Mohan Garden	68	32
Sagarpur	64	36
Bazar Sita Ram	64	36
Zakir Nagar	63	37
Dayalpur	62	38
Gautam Puri	62	38
Tigri	62	38
Raj Nagar	61	39
Aman Vihar	60	40
Vasant Kunj	60	40
Baprola	60	40
Baprola	60	40
Badarpur	58	42
West Patel Nagar	57	43
Nawada	56	44
Matiala	55	45
Mukundpur	55	45
Uttam Nagar	55	45
Madanpur Khadar West	54	46
Subhash Mohalla	53	47
Begumpur	53	47
Khanpur	53	47
Manglapuri	52	48
Budh Vihar	52	48
Brij Puri	52	48
Nilothi	51	49
Madhu Vihar	51	49
Tughlakabad	49	51
Bhati	49	51
	49	51
menrauli		51
Mehrauli Burari	49	
Burari	49 48	
	49 48 47	52

Name of ward	Percentage of buildings outside 500 m of bus stop	Percentage of buildings within 500 m of bus stop
New Ashok Nagar	47	53
Jharoda	47	53
Kakrola	46	54
Shahdara	46	54
Vishwas Nagar	46	54
Mubarikpur	45	55
Sultanpuri-B	44	56
Jahangir Puri	44	56
Braham Puri	44	56
Kadipur	44	56
Sonia Vihar	43	57
Nehru Vihar	43	57
Welcome Colony	42	58
Sarita Vihar	42	58
Vishnu Garden	41	59
Chhatarpur	41	59
Vijay Vihar	40	60
Nangli Sakrawati	39	61
Karawal Nagar- West	39	61
Gokal Puri	39	61
Roshan Pura	39	61
Maujpur	37	63
Joharipur	37	63
Shahbaad Dairy	37	63
Tughlakabad Extension	36	64
Mundka	35	65
Baljeet Nagar	35	65
Pandav Nagar	35	65
Laxmi Nagar	34	66
Gorakh Park	34	66
Jawalapuri	33	67
Samaypur Badli	32	68
Timarpur	32	68
Bhajanpura	32	68
Gharoli	32	68
Bawana	32	68
Inder Puri	31	69
Pooth Khurd	30	70
Tri Nagar	30	70
Adarsh Nagar	30	70
Kishan Ganj	29	71
Kishan Ganj	29	71
Sabapur	29	71
Dabri	29	71
Khyala	28	72
Chauhan Banger	28	72
Azadpur	28	72
Ram Nagar	28	72
Rani Khera	28	72
Mahipalpur	27	73
Rithala	26	74
Greater Kailash	26	74
Quraish Nagar	26	74
Holambi Kalan	26	74
Sadar Bazar	24	76
Mandawali	24	76
Vasant Vihar	24	76

continued

	Percentage of	Percentage of
Name of ward	buildings outside 500 m of bus stop	buildings within 500 m of bus stop
Kunwar Singh Nagar	24	76
Jagat Puri	24	76
Dwarka-A	24	76
Alipur Harkesh Nagar	24 23	76 77
Jhilmil	23	77
Chirag Delhi	22	78
Kanjhawala	22	78
Isapur Bijwasan	22	78 78
Dwarka-C	22	78
Shalimar Bagh-B	21	79
Kapashera	21	79
Abul Fazal Enclave	21	79
Chhawala	21	79
Kotla Mubarakpur	21	79
Rohini-B	21	79
Naraina Pitam Pura	20 20	80 80
Ram Nagar East	20	80
Nangloi	19	81
Yamuna Vihar	19	81
Nangloi Jat	19 18	81 82
Bakhtawarpur Chaukhandi Nagar	17	83
Ashok Vihar	17	83
Vikas Puri	17	83
Palam	16	84
Patpar Ganj	16 16	84
Krishna Nagar Bankner	16	84
Ashok Nagar	16	84
East Patel Nagar	15	85
Kondli	15	85
Rajouri Garden Dakshin Puri	15 14	85 86
Dichaon Kalan	14	86
Tilak Nagar	14	86
Sidhartha Nagar	14	86
Jama Masjid	14 14	86 86
Amar Colony Mahaveer Enclave	14	86
Dev Nagar	14	86
Gandhi Nagar	13	87
Lalita Park	13	87
Nangal Thakran Rani Bagh	13 13	87 87
Rohini-D	13	87
Dhirpur	12	88
Azad Nagar	12	88
Sangam Park	11	89
Sultanpuri-A Nand Nagri	11 11	89 89
Shastri Nagar	10	90
Ranjeet Nagar	10	90
Rohini-C	10	90
Preet Vihar Kamla Nagar	10 10	90
Mayur Vihar		
Phase-I	10	90
Hauz Khas	10 9	90 91
Moti Nagar Wazir Pur	9	91
Paschim Vihar	8	92
Seelampur	8	92
Narela	8	92
Karam Pura Karam Pura	8	92 92
Model Town	8	92
	-	

Name of ward	Percentage of buildings outside 500 m of bus stop	Percentage of buildings within 500 m of bus stop
Chandni Chowk	8	92
Saraswati Vihar	8	92
Hari Nagar	8	92
Anand Vihar	8	92
Delhi Gate	8	92
Pul Pehladpur	7	93
Kohat Enclave Subhash Nagar	7	93 93
Punjabi Bagh	7	93
Lado Sarai	7	93
Najafgarh	7	93
Malviya Nagar	7	93
Kalyanpuri	7	93
Madangir	7	93
Pooth Kalan	7	93
Green Park	6	94
Sri Niwas Puri	6	94
Keshav Puram	6	94
Ramesh Nagar Rohtash Nagar	6	94 94
Rajinder Nagar	6	94
Shakur Pur	6	94
I.P. Extension	6	94
Shakarpur	6	94
Guru Harkishan	6	94
Nagar		
Bhalswa	5 5	95
Nihal Vihar Sri Ram Colony	5	95 95
Lajpat Nagar	5	95
Pushp Vihar	5	95
Raghubir Nagar	4	96
Andrews Ganj	4	96
Mahavir Enclave	4	96
Dilshad Colony	4	96
Sundar Nagri	4	96
Janak Puri West	4	96
Daryaganj	3	97
Trilokpuri Rohini-F	3	97 97
Kalkaji	3	97
Kardam Puri	3	97
Mukherjee Nagar	2	98
Keshopur	2	98
Dwarka-B	2	98
Fateh Nagar	2	98
Shastri Park	1	99
Chitaranjan Park	1	99
Dilshad Garden	1	99
Chandani Mahal	1	99
Geeta Colony Kabir Nagar	1	99
Civil Lines	1	99
Madipur	1	99
Karol Bagh	1	99
Mangolpuri-A	1	99
Vinod Nagar	0	100
Rohini-A	0	100
Shalimar Bagh-A	0	100
Rohini-E	0	100
Govind Puri	0	100
Mayur Vihar Phase-II	0	100
Munirka	0	100
Pahar Ganj	0	100
R.K. Puram	0	100
Janak Puri South	0	100
Malka Ganj	0	100
Sadatpur	0	100
Mangol Puri	0	100
Mangolpuri-B	0	100

APPENDIX B

To analysis of intrazonal and interzonal travel patterns, this study identified wards within a walkable 5-km radius around existing bus depot locations. The wards within a 5-km radius of the depots are listed in Table B1.

Table B1
Wards within a 5-km radius of bus depots

Depot	Wards
Ambedkar Nagar Depot	Andrews Ganj, Chhatarpur, Chirag Delhi, Chitaranjan Park, Dakshin Puri, Deoli, Govind Puri, Greater Kailash, Hauz Khas, Kalkaji, Khanpur, Lado Sarai, Madangir, Malviya Nagar, Mehrauli, Pul Pehladpur, Pushp Vihar, Safdarjung Enclave, Said-Ul-Ajaib, Sangam Vihar-A, Sangam Vihar-B, Sangam Vihar-C, Sangam Vihar-D, Sangam Vihar-E, Tigri, Tughlakabad, Tughlakabad Extension
BBM Depot	Adarsh Nagar, Anand Parbat, Ashok Vihar, Bhajan Pura, Braham Puri, Burari, Chandni Chowk, Civil Lines, Dhirpur, G.T.B. Nagar, Gautam Puri, Jharoda, Kamalpur, Kamla Nagar, Karol Bagh, Khajoori Khas, Kishan Ganj, Malka Ganj, Model Town, Mukherjee Nagar, Mukundpur, Nimri Colony, Quraish Nagar, Sadar Bazar, Sadatpur, Sangam Park, Sant Nagar, Sarai Pipal Thala, Sawan Park, Shalimar Bagh-South, Shastri Nagar, Shastri Park, Sonia Vihar, Sri Ram Colony, Timarpur, Wazir Pur
Dichaun Kalan Depot	Bapraula, Chhawla, Dichaon Kalan, Dwarka-A, Ghuman Hera, Gopal Nagar, Isapur, Kakraula, Matiala, Mohan Garden-North, Mohan Garden-South, Mundka, Najafgarh, Nangli Sakrawati, Nawada, Ranhola, Roshanpura, Sainik Enclave, Uttam Nagar, Vikas Nagar
Dwarka Sec- 8 Depot	Bijwasan, Bindapur, Chhawla, Dabri, Dwarka-A, Dwarka-B, Dwarka-C, Hari Nagar-A, Janakpuri South, Janakpuri West, Madhu Vihar, Mahavir Enclave, Manglapuri, Matiala, Milap Nagar, Palam, Raj Nagar, Sadh Nagar, Sagarpur-East, Sagarpur-West, Sitapuri, Uttam Nagar
Dwarka Sec-2 Depot	Bijwasan, Bindapur, Chhawla, Dabri, Dwarka-A, Dwarka-B, Dwarka-C, Hari Nagar-A, Hastsal, Janakpuri South, Janakpuri West, Kakraula, Keshopur, Madhu Vihar, Mahavir Enclave, Mahavir Nagar, Manglapuri, Matiala, Milap Nagar, Mohan Garden-North, Mohan Garden-South, Nawada, Nilothi, Palam, Pratap Nagar, Raj Nagar, Sadh Nagar, Sagarpur-East, Sagarpur-West, Sainik Enclave, Sitapuri, Uttam Nagar, Vikas Nagar, Vikaspuri
East Vinod Nagar Depot	Anand Vihar, Anarkali, Dallupura, Geeta Colony, Gharoli, Ghondli, I.P. Extension, Kalyan Puri, Kishan Kunj, Kondli, Krishna Nagar, Lakshmi Nagar, Mandawali, Mayur Vihar Phase-I, Mayur Vihar Phase-II, New Ashok Nagar, Pandav Nagar, Patpar Ganj, Preet Vihar, Shahdara, Shakarpur, Sidharth Nagar, Trilokpuri-East, Trilokpuri-West, Vinod Nagar, Vishwas Nagar, Zakir Nagar
Gazipur Depot	Anand Vihar, Anarkali, Dallupura, Dilshad Colony, Dilshad Garden, Geeta Colony, Gharoli, Ghondli, I.P. Extension, Jhilmil, Kalyan Puri, Kanti Nagar, Kishan Kunj, Kondli, Krishna Nagar, Lakshmi Nagar, Mandawali, Mayur Vihar Phase-I, Mayur Vihar Phase-II, New Ashok Nagar, New Seemapuri, Pandav Nagar, Patpar Ganj, Preet Vihar, Raghubarpura, Ram Nagar, Rohtash Nagar, Shahdara, Shakarpur, Trilokpuri-East, Trilokpuri-West, Vinod Nagar, Vishwas Nagar, Vivek Vihar, Welcome Colony
GTK Depot	Adarsh Nagar, Alipur, Ashok Vihar, Bhalswa, Burari, Dhirpur, G.T.B. Nagar, Haiderpur, Holambi Khurd, Jahangir Puri, Jharoda, Kadipur, Kamalpur, Kohat Enclave, Model Town, Mukundpur, Pitampura, Pooth Khurd, Ram Pura, Rohini-A, Rohini-B, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Samaypur Badli, Sangam Park, Sant Nagar, Sarai Pipal Thala, Saraswati Vihar, Sarup Nagar, Sawan Park, Shakur Pur, Shalimar Bagh-North, Shalimar Bagh-South, Swami Sharda Nand Colony, Wazir Pur
Hari Nagar-1 Depot	Bindapur, Dabri, Dwarka-A, Dwarka-B, Hari Nagar-A, Hastsal, Inder Puri, Janakpuri South, Janakpuri West, Keshopur, Khyala, Madhu Vihar, Madipur, Mahavir Enclave, Mahavir Nagar, Manglapuri, Milap Nagar, Naraina, Nawada, Nilothi, Palam, Paschim Vihar, Peera Garhi, Pratap Nagar, Punjabi Bagh, Raghubir Nagar, Raj Nagar, Raja Garden, Rajouri Garden, Ramesh Nagar, Sadh Nagar, Sagarpur-East, Sagarpur-West, Saraswati Vihar, Sitapuri, Subhash Nagar, Tagore Garden, Tilak Nagar, Uttam Nagar, Vikaspuri, Vishnu Garden
Hari Nagar-2 Depot	Bindapur, Dabri, Dwarka-A, Dwarka-B, Hari Nagar-A, Hastsal, Inder Puri, Janakpuri South, Janakpuri West, Keshopur, Khyala, Madhu Vihar, Madipur, Mahavir Enclave, Mahavir Nagar, Manglapuri, Milap Nagar, Moti Nagar, Naraina, Nilothi, Palam, Paschim Vihar, Peera Garhi, Pratap Nagar, Punjabi Bagh, Raghubir Nagar, Raj Nagar, Raja Garden, Rajouri Garden, Ramesh Nagar, Sadh Nagar, Sagarpur-East, Sagarpur-West, Sitapuri, Subhash Nagar, Tagore Garden, Tilak Nagar, Uttam Nagar, Vikaspuri, Vishnu Garden
Hasanpur Depot	Anand Vihar, Anarkali, Dallupura, Dilshad Colony, Dilshad Garden, Geeta Colony, Gharoli, Ghondli, I.P. Extension, Jhilmil, Kalyan Puri, Kanti Nagar, Kishan Kunj, Kondli, Krishna Nagar, Lakshmi Nagar, Mandawali, Mayur Vihar Phase-I, Mayur Vihar Phase-II, New Ashok Nagar, Pandav Nagar, Patpar Ganj, Preet Vihar, Raghubarpura, Ram Nagar, Rohtash Nagar, Shahdara, Shakarpur, Sidharth Nagar, Trilokpuri-East, Trilokpuri-West, Vinod Nagar, Vishwas Nagar, Vivek Vihar, Welcome Colony
Kalkaji Depot	Abul Fazal Enclave, Andrews Ganj, Badarpur, Chirag Delhi, Chitaranjan Park, Dakshin Puri, Daryaganj, Deoli, Govind Puri, Greater Kailash, Harkesh Nagar, Kalkaji, Kasturba Nagar, Khanpur, Lajpat Nagar, Madangir, Madanpur Khadar East, Madanpur Khadar West, Patpar Ganj, Pul Pehladpur, Pushp Vihar, Sangam Vihar-C, Sangam Vihar-D, Sangam Vihar-E, Sarita Vihar, Sidharth Nagar, Sri Niwas Puri, Tigri, Tughlakabad, Tughlakabad Extension, Zakir Nagar
Kanjhawla Depot	Kanjhawala, Mubarak Pur Dabas, Mundka, Nangal Thakran, Nithari, Pooth Khurd, Rani Khera
Keshopur Depot	Bindapur, Dabri, Hari Nagar-A, Hastsal, Janakpuri South, Janakpuri West, Keshopur, Khyala, Kirari Suleman Nagar, Lakshmi Park, Madipur, Mahavir Enclave, Mahavir Nagar, Mangolpuri-A, Mangolpuri-B, Mangolpuri-C, Mangolpuri-D, Milap Nagar, Moti Nagar, Mundka, Nangloi, Nangloi Jat, Nawada, Nihal Vihar, Nilothi, Paschim Vihar, Peera Garhi, Pratap Nagar, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajouri Garden, Ramesh Nagar, Ranhola, Rani Bagh, Sainik Enclave, Saraswati Vihar, Sitapuri, Subhash Nagar, Sultanpuri-B, Sultanpuri-C, Tagore Garden, Tilak Nagar, Uttam Nagar, Vikas Nagar, Vikaspuri, Vishnu Garden
Mayapuri Depot	Baljit Nagar, Dabri, East Patel Nagar, Hari Nagar-A, Inder Puri, Janakpuri South, Janakpuri West, Karampura, Keshopur, Khyala, Madipur, Mahavir Nagar, Moti Nagar, Naraina, Paschim Vihar, Peera Garhi, Pratap Nagar, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajinder Nagar, Rajouri Garden, Ram Pura, Ramesh Nagar, Rani Bagh, Ranjit Nagar, Sagarpur-East, Sagarpur-West, Saraswati Vihar, Subhash Nagar, Tagore Garden, Tilak Nagar, Vishnu Garden, West Patel Nagar
Mundela Kalan Depot	Isapur
Nand Nagari Depot	Anand Vihar, Ashok Nagar, Babarpur, Bhajan Pura, Braham Puri, Chauhan Banger, Dilshad Colony, Dilshad Garden, Gautam Puri, Ghonda, Gokal Puri, Harsh Vihar, Janta Colony, Jhilmil, Joharipur, Kanti Nagar, Karawal Nagar-East, Karawal Nagar-West, Kardam Puri, Khajoori Khas, Krishna Nagar, Maujpur, Mustafabad, Nand Nagri, Nehru Vihar, New Seemapuri, Raghubarpura, Ram Nagar, Rohtash Nagar, Saboli, Seelampur, Shahdara, Shiv Vihar, Subhash Mohalla, Sunder Nagri, Vishwas Nagar, Vivek Vihar, Welcome Colony, Yamuna Vihar
Nangloi Depot	Aman Vihar, Begumpur, Budh Vhar, Hastsal, Keshopur, Khyala, Kirari Suleman Nagar, Lakshmi Park, Madipur, Mahavir Nagar, Mangolpuri-A, Mangolpuri-B, Mangolpuri-C, Mangolpuri-D, Mubarak Pur Dabas, Mundka, Nangloi, Nangloi Jat, Nihal Vihar, Nilothi, Nithari, Paschim Vihar, Peera Garhi, Prem Nagar, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajouri Garden, Ranhola, Rani Bagh, Rani Khera, Rithala, Rohini-B, Rohini-C, Rohini-D, Rohini-E, Rohini-H, Saraswati Vihar, Sultanpuri-A, Sultanpuri-B, Sultanpuri-C, Tagore Garden, Tilak Nagar, Vijay Vihar, Vikas Nagar, Vikaspuri, Vishnu Garden

Depot	Wards
Naraina Depot	Anand Parbat, Ashok Vihar, Baljit Nagar, Dev Nagar, East Patel Nagar, Hari Nagar-A, Inder Puri, Kamla Nagar, Karampura, Karol Bagh, Khyala, Kishan Ganj, Kohat Enclave, Madipur, Moti Nagar, Naraina, Nimri Colony, Pahar Ganj, Paschim Vihar, Pitampura, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajinder Nagar, Rajouri Garden, Ram Pura, Ramesh Nagar, Rani Bagh, Ranjit Nagar, Sawan Park, Shakur Pur, Shastri Nagar, Subhash Nagar, Tagore Garden, Tilak Nagar, Tri Nagar, Wazir Pur, West Patel Nagar
Narela Depot	Alipur, Bakhtawarpur, Bankner, Bawana, Holambi Khurd, Narela
Noida Depot	Abul Fazal Enclave, Dallupura, Gharoli, Kalyan Puri, Kondli, Madanpur Khadar East, Madanpur Khadar West, Mayur Vihar Phase-I, Mayur Vihar Phase-II, New Ashok Nagar, Patpar Ganj, Sarita Vihar, Sidharth Nagar, Sri Niwas Puri, Trilokpuri-East, Trilokpuri-West, Zakir Nagar
Peera Garhi Depot	Aman Vihar, Budh Vhar, Janakpuri West, Karampura, Keshopur, Khyala, Kirari Suleman Nagar, Kohat Enclave, Lakshmi Park, Madipur, Mahavir Nagar, Mangolpuri-A, Mangolpuri-B, Mangolpuri-C, Mangolpuri-D, Moti Nagar, Mundka, Nangloi, Nangloi Jat, Nihal Vihar, Nilothi, Paschim Vihar, Peera Garhi, Pratap Nagar, Prem Nagar, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajouri Garden, Ram Pura, Ramesh Nagar, Ranhola, Rani Bagh, Rithala, Rohini-B, Rohini-D, Rohini-E, Rohini-G, Rohini-H, Rohini-I, Saraswati Vihar, Subhash Nagar, Sultanpuri-A, Sultanpuri-B, Sultanpuri-C, Tagore Garden, Tilak Nagar, Vijay Vihar, Vikaspuri, Vishnu Garden
Rajghat-1 Depot	Ajmeri Gate, Anand Vihar, Anarkali, Ballimaran, Bazar Sita Ram, Braham Puri, Chandni Chowk, Chauhan Banger, Civil Lines, Daryaganj, Delhi Gate, Gautam Puri, Geeta Colony, Ghondli, I.P. Extension, Jama Masjid, Janta Colony, Kanti Nagar, Kishan Kunj, Krishna Nagar, Lakshmi Nagar, Mandawali, Maujpur, Mayur Vihar Phase-II, Pahar Ganj, Pandav Nagar, Patpar Ganj, Preet Vihar, Quraish Nagar, Raghubarpura, Ram Nagar, Rohtash Nagar, Sadar Bazar, Seelampur, Shahdara, Shakarpur, Shastri Park, Sidharth Nagar, Vinod Nagar, Vishwas Nagar, Welcome Colony
Rajghat-2 Depot	Ajmeri Gate, Anarkali, Ballimaran, Bazar Sita Ram, Braham Puri, Chandni Chowk, Chauhan Banger, Civil Lines, Daryaganj, Delhi Gate, Gautam Puri, Geeta Colony, Ghondli, Jama Masjid, Janta Colony, Kanti Nagar, Karol Bagh, Kishan Kunj, Krishna Nagar, Lakshmi Nagar, Mandawali, Maujpur, Mayur Vihar Phase-II, Pahar Ganj, Pandav Nagar, Patpar Ganj, Preet Vihar, Quraish Nagar, Raghubarpura, Ram Nagar, Rohtash Nagar, Sadar Bazar, Seelampur, Shahdara, Shakarpur, Shastri Park, Sidharth Nagar, Vinod Nagar, Vishwas Nagar, Welcome Colony
Rohini Sec-37 Depot	Aman Vihar, Bawana, Begumpur, Budh Vhar, Holambi Khurd, Kanjhawala, Kirari Suleman Nagar, Mubarak Pur Dabas, Nangal Thakran, Nithari, Pooth Khurd, Rani Khera, Rithala, Rohini-C, Rohini-D
Rohini-1 Depot	Aman Vihar, Begumpur, Budh Vhar, Haiderpur, Holambi Khurd, Kirari Suleman Nagar, Kohat Enclave, Madipur, Mangolpuri-A, Mangolpuri-B, Mangolpuri-C, Mangolpuri-D, Paschim Vihar, Peera Garhi, Pitampura, Pooth Khurd, Punjabi Bagh, Ram Pura, Rani Bagh, Rithala, Rohini-A, Rohini-B, Rohini-C, Rohini-D, Rohini-E, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Samaypur Badli, Sarai Pipal Thala, Saraswati Vihar, Sarup Nagar, Shakur Pur, Shalimar Bagh -North, Shalimar Bagh -South, Sultanpuri-A, Sultanpuri-B, Sultanpuri-C, Vijay Vihar
Rohini-2 Depot	Adarsh Nagar, Alipur, Begumpur, Bhalswa, Budh Vhar, Haiderpur, Holambi Khurd, Jahangir Puri, Kadipur, Kohat Enclave, Mangolpuri-A, Mangolpuri-C, Mangolpuri-D, Pitampura, Pooth Khurd, Rani Bagh, Rithala, Rohini-A, Rohini-B, Rohini-C, Rohini-D, Rohini-E, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Samaypur Badli, Sarai Pipal Thala, Saraswati Vihar, Sarup Nagar, Shakur Pur, Shalimar Bagh -North, Shalimar Bagh -South, Sultanpuri-A, Swami Sharda Nand Colony, Vijay Vihar
Rohini-3 Depot	Aman Vihar, Ashok Vihar, Budh Vhar, Haiderpur, Karampura, Keshopur, Khyala, Kirari Suleman Nagar, Kohat Enclave, Lakshmi Park, Madipur, Mangolpuri-A, Mangolpuri-B, Mangolpuri-C, Mangolpuri-D, Moti Nagar, Nangloi Jat, Nihal Vihar, Paschim Vihar, Peera Garhi, Pitampura, Pooth Khurd, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajouri Garden, Ram Pura, Rani Bagh, Rithala, Rohini-A, Rohini-B, Rohini-C, Rohini-D, Rohini-E, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Saraswati Vihar, Shakur Pur, Shalimar Bagh -North, Shalimar Bagh -South, Sultanpuri-A, Sultanpuri-C, Vijay Vihar, Vishnu Garden
Rohini-4 Depot	Adarsh Nagar, Alipur, Bakhtawarpur, Bhalswa, Haiderpur, Holambi Khurd, Jahangir Puri, Kadipur, Kohat Enclave, Mukundpur, Pitampura, Pooth Khurd, Rithala, Rohini-A, Rohini-B, Rohini-C, Rohini-D, Rohini-E, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Samaypur Badli, Sant Nagar, Sarai Pipal Thala, Saraswati Vihar, Sarup Nagar, Shalimar Bagh -North, Shalimar Bagh -South, Swami Sharda Nand Colony, Vijay Vihar
Sarojani Nagar Depot	Andrews Ganj, Chirag Delhi, Greater Kailash, Hauz Khas, Inder Puri, Kasturba Nagar, Kotla Mubarakpur, Lado Sarai, Malviya Nagar, Mehrauli, Munirka, R.K. Puram, Safdarjung Enclave, Vasant Vihar
Shadipur Depot	Anand Parbat, Ashok Vihar, Baljit Nagar, Dev Nagar, East Patel Nagar, Hari Nagar-A, Inder Puri, Kamla Nagar, Karampura, Karol Bagh, Kishan Ganj, Kohat Enclave, Madipur, Moti Nagar, Naraina, Nimri Colony, Pahar Ganj, Paschim Vihar, Pitampura, Punjabi Bagh, Raghubir Nagar, Raja Garden, Rajinder Nagar, Rajouri Garden, Ram Pura, Ramesh Nagar, Rani Bagh, Ranjit Nagar, Sadar Bazar, Sangam Park, Sawan Park, Shakur Pur, Shastri Nagar, Subhash Nagar, Tri Nagar, Wazir Pur, West Patel Nagar
Shri Niwas Puri Depot	Abul Fazal Enclave, Andrews Ganj, Chirag Delhi, Chitaranjan Park, Dakshin Puri, Daryaganj, Govind Puri, Greater Kailash, Harkesh Nagar, Hauz Khas, Kalkaji, Kasturba Nagar, Kotla Mubarakpur, Lajpat Nagar, Madangir, Madanpur Khadar East, Pandav Nagar, Patpar Ganj, Pul Pehladpur, Sarita Vihar, Sidharth Nagar, Sri Niwas Puri, Tughlakabad, Tughlakabad Extension, Zakir Nagar
Subhash Place Depot	Adarsh Nagar, Anand Parbat, Ashok Vihar, Baljit Nagar, Bhalswa, Dev Nagar, Dhirpur, East Patel Nagar, G.T.B. Nagar, Haiderpur, Jahangir Puri, Kamla Nagar, Karampura, Karol Bagh, Kishan Ganj, Kohat Enclave, Madipur, Model Town, Moti Nagar, Mukundpur, Naraina, Nimri Colony, Pitampura, Punjabi Bagh, Raja Garden, Rajinder Nagar, Ram Pura, Rani Bagh, Ranjit Nagar, Rohini-B, Rohini-E, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Samaypur Badli, Sangam Park, Sarai Pipal Thala, Saraswati Vihar, Sawan Park, Shakur Pur, Shalimar Bagh -North, Shalimar Bagh -South, Shastri Nagar, Swami Sharda Nand Colony, Tri Nagar, Wazir Pur, West Patel Nagar
Sukhdev Vihar Depot	Abul Fazal Enclave, Andrews Ganj, Chirag Delhi, Chitaranjan Park, Dakshin Puri, Daryaganj, Govind Puri, Greater Kailash, Harkesh Nagar, Kalkaji, Kasturba Nagar, Lajpat Nagar, Madanpur Khadar East, Madanpur Khadar West, New Ashok Nagar, Patpar Ganj, Pul Pehladpur, Sarita Vihar, Sidharth Nagar, Sri Niwas Puri, Tughlakabad, Tughlakabad Extension, Zakir Nagar
Tehkhand Depot	Abul Fazal Enclave, Badarpur, Chitaranjan Park, Dakshin Puri, Deoli, Govind Puri, Hari Nagar-B, Harkesh Nagar, Jaitpur, Kalkaji, Khanpur, Madangir, Madanpur Khadar East, Madanpur Khadar West, Molarband, Om Vihar, Pul Pehladpur, Pushp Vihar, Sangam Vihar-A, Sangam Vihar-C, Sangam Vihar-D, Sangam Vihar-E, Sarita Vihar, Sri Niwas Puri, Tigri, Tughlakabad, Tughlakabad Extension
Vasant Vihar Depot	Andrews Ganj, Chirag Delhi, Greater Kailash, Hauz Khas, Inder Puri, Kotla Mubarakpur, Lado Sarai, Mahipalpur, Malviya Nagar, Mehrauli, Munirka, R.K. Puram, Safdarjung Enclave, Vasant Kunj, Vasant Vihar
Wazirpur Depot	Adarsh Nagar, Anand Parbat, Ashok Vihar, Baljit Nagar, Bhalswa, Dhirpur, East Patel Nagar, G.T.B. Nagar, Haiderpur, Jahangir Puri, Kamla Nagar, Karampura, Karol Bagh, Kishan Ganj, Kohat Enclave, Madipur, Model Town, Moti Nagar, Mukundpur, Naraina, Nimri Colony, Paschim Vihar, Pitampura, Punjabi Bagh, Raja Garden, Rajinder Nagar, Ram Pura, Rani Bagh, Ranjit Nagar, Rohini-B, Rohini-E, Rohini-F, Rohini-G, Rohini-H, Rohini-I, Samaypur Badli, Sangam Park, Sarai Pipal Thala, Saraswati Vihar, Sawan Park, Shakur Pur, Shalimar Bagh-North, Shalimar Bagh-South, Shastri Nagar, Swami Sharda Nand Colony, Tri Nagar, Wazir Pur, West Patel Nagar



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